

Welcome to

# NewSpace Index

Concise original overview of commercial satellite constellations, small satellite rocket launchers and NewSpace funding options.

Sister websites [www.nanosats.eu](https://www.nanosats.eu) (<https://www.nanosats.eu>) and [www.factoriesinspace.com](https://www.factoriesinspace.com) (<https://www.factoriesinspace.com>)



[CONSTELLATIONS \(INDEX.HTML\)](#)



[SMALL LAUNCHERS \(LAUNCHERS.HTML\)](#)



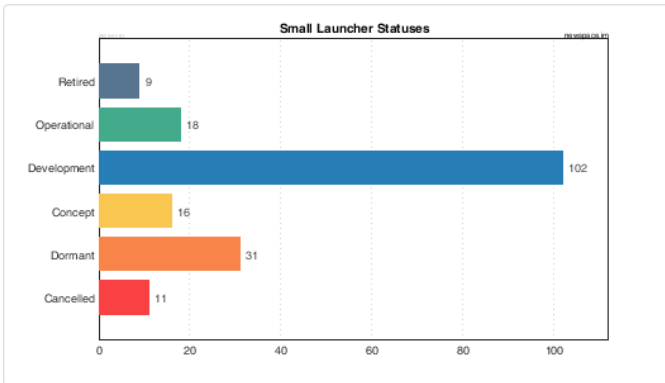
[SPACE FUNDING \(FUNDING.HTML\)](#)

## Small Satellite Launchers

Aiming to gather all small launchers (microlaunchers) with up to 1500 kg performance to SSO. Active, planned and cancelled initiatives included.

Erik Kulu. "Small Launchers: 2021 Industry Survey and Market Analysis." 72nd International Astronautical Congress (IAC 2021). Oct 29, 2021. ([/assets/Small-Launchers-2021\\_Erik-Kulu\\_IAC2021.pdf](#))

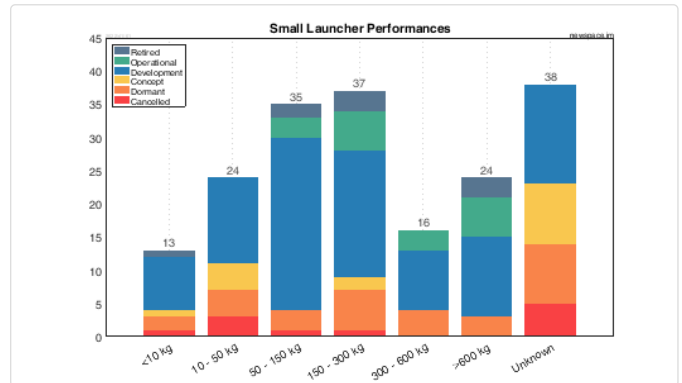
Erik Kulu. "Satellite Constellations - 2021 Industry Survey and Trends." 35th Annual Small Satellite Conference. Aug 10, 2021. (<https://digitalcommons.usu.edu/smallsat/2021/all2021/218/>)



([assets/fig/Newspace\\_launchers\\_statuses\\_2022-01-01\\_large.png](#))

Statuses

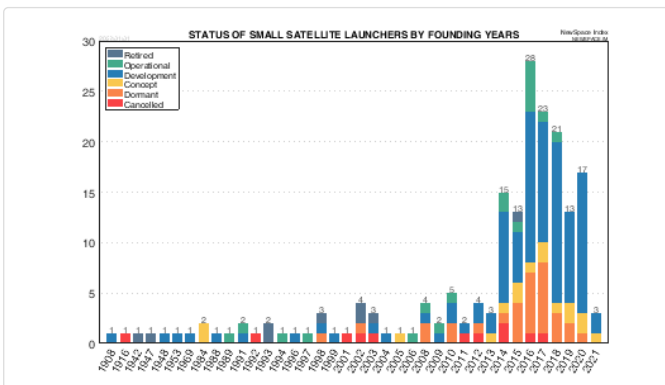
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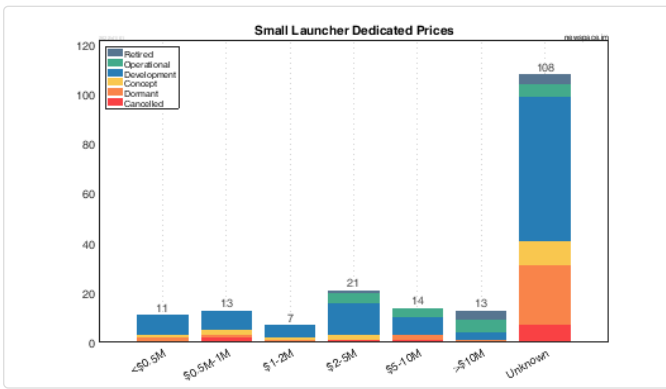


([assets/fig/Newspace\\_launchers\\_performances\\_2022-01-01\\_large.png](#))

Performances

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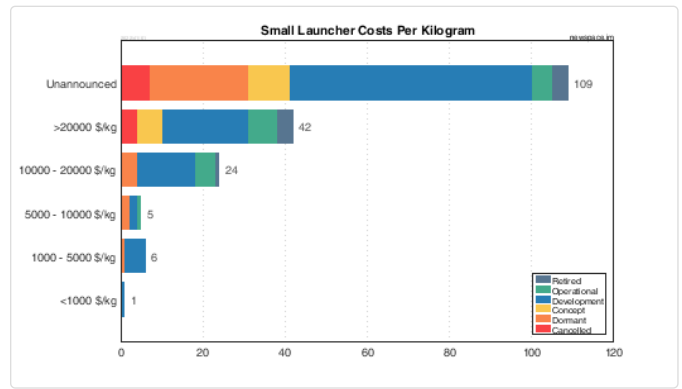




(assets/fig/Newspace\_launchers\_costs\_2022-01-01\_large.png)

### Prices

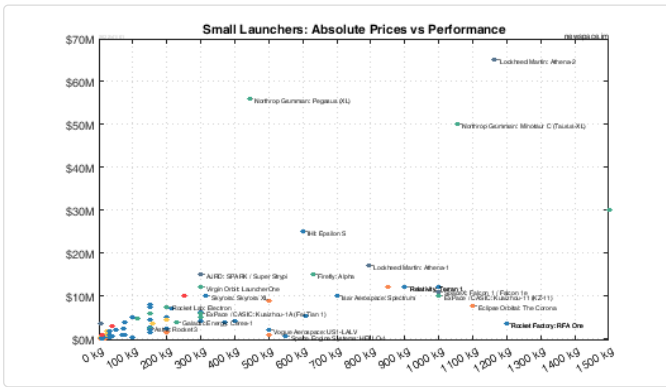
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 (assets/fig/Newspace\_launchers\_costs\_2022-01-01.svg)



(assets/fig/Newspace\_launchers\_costsperkg\_2022-01-01\_large.png)

### Prices per Kg

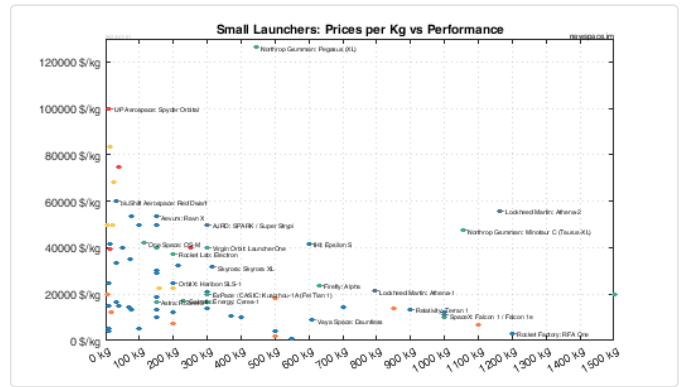
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### Prices vs Performances

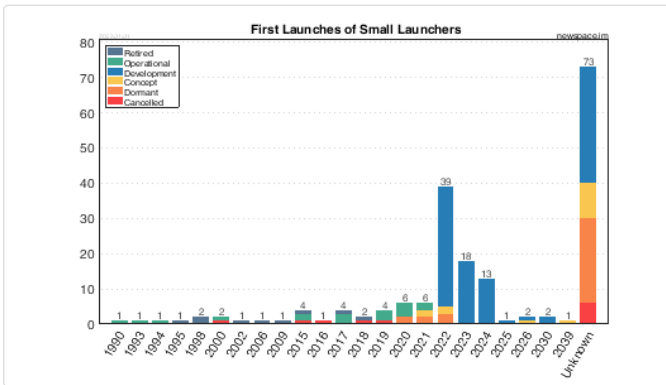
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### Prices per Kg vs Perf

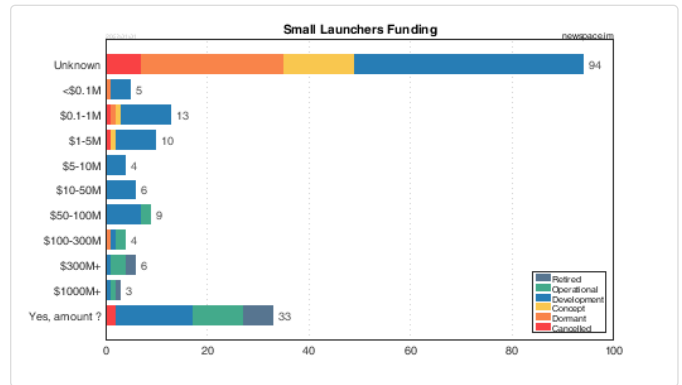
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### First Launches

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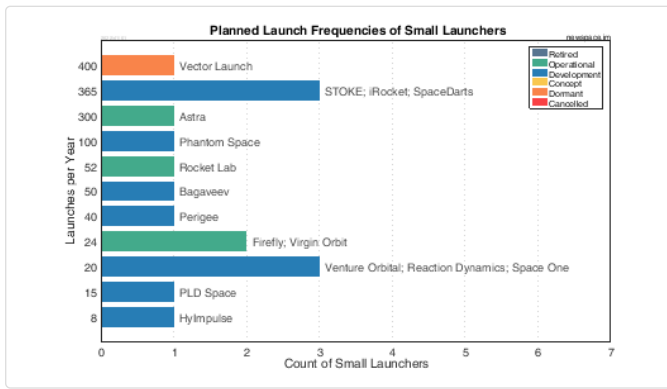


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### Funding

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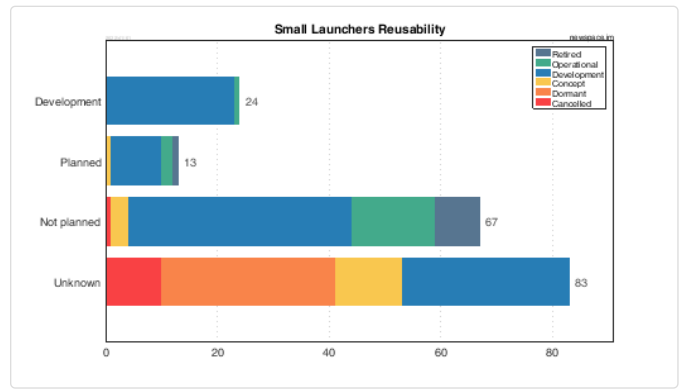




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Launch Frequencies

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 (assets/fig/Newspace\_launchers\_launchfreqs\_2022-01-01.svg)



(assets/fig/Newspace\_launchers\_reusability\_2022-01-01\_large.png)

Reusability

large (assets/fig/Newspace\_launchers\_reusability\_2022-01-01\_3.png) pdf  
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 (assets/fig/Newspace\_launchers\_reusability\_2022-01-01.svg)

187 launchers in this table.

Organization	Launcher	Status	Year
Northrop Grumman (launchers/northrop-grumman.html)	Pegasus (XL) (launchers/northrop-grumman.html)	Operational (https://spaceflightnow.com/2021/03/17/northrop-grummans-pegasus-rocket-selected-for-responsive-launch-demo/)	1990 (https://spaceflightnow.com/2021-03-17/northrop-grummans-pegasus-rocket-selected-for-responsive-launch-demo/)
MITT (launchers/mitt.html)	Start-1 (launchers/mitt.html)	Operational (https://iz.ru/news/632083)	1993 (https://iz.ru/news/632083)
Northrop Grumman (launchers/northrop-grumman.html)	Minotaur C (Taurus-XL) (launchers/northrop-grumman.html)	Operational	
Lockheed Martin (launchers/lockheed-martin.html)	Athena-1 (launchers/lockheed-martin.html)	Retired (https://en.wikipedia.org/wiki/Athena_(rocket_family))	1995 (https://en.wikipedia.org/wiki/Athena_(rocket_family))
Makeyev OKB (launchers/makayev-okb.html)	Shtil (launchers/makayev-okb.html)	Retired	
Lockheed Martin (launchers/lockheed-martin.html)	Athena-2 (launchers/lockheed-martin.html)	Retired	
Northrop Grumman (launchers/northrop-grumman.html)	Minotaur I (launchers/northrop-grumman.html)	Operational	
CASC (launchers/casc.html)	Kaituoazhe-1 (KT-1) (launchers/casc.html)	Retired	
SpaceX (launchers/spacex.html)	Falcon 1 / Falcon 1e (launchers/spacex.html)	Retired	
KARI (launchers/kari.html)	Naro (KSLV-1) (launchers/kari.html)	Retired	
AJRD (launchers/aerojet-rocketdyne.html)	SPARK / Super Strypi (launchers/aerojet-rocketdyne.html)	Retired	
CALT (launchers/calt.html)	Long March 11 (CZ-11, SD-2) (launchers/calt.html)	Operational	
CASC (launchers/casc.html)	Long March 6 (launchers/casc.html)	Operational	
JAXA (launchers/jaxa.html)	SS-520-4 (launchers/jaxa.html)	Retired?	
ExPace / CASIC (launchers/casic-expace.html)	Kuaizhou-1A (Fei Tian 1) (launchers/casic-expace.html)	Operational (https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=5031&context=smallsat)	2017 (https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=5031&context=smallsat)
CASC (launchers/casic.html)	Kaituoazhe-2 (KT-2) (launchers/casic.html)	Operational	
Rocket Lab (launchers/rocket-lab.html)	Electron (launchers/rocket-lab.html)	Operational (https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=5031&context=smallsat)	2017 (https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=5031&context=smallsat)
LandSpace (launchers/landspace.html)	ZQ-1 (Zhuque-1) (launchers/landspace.html)	Retired?	
One Space (launchers/one-space.html)	OS-M (launchers/one-space.html)	Operational (https://spacenews.com/chinese-private-firm-onespace-fails-with-first-orbital-launch-attempt/)	2019 (https://spacenews.com/chinese-private-firm-onespace-fails-with-first-orbital-launch-attempt/)
iSpace (launchers/i-space.html)	Hyperbola-1 (Shian Quxian) (launchers/i-space.html)	Operational (https://spacenews.com/chinese-ispac-achieves-orbit-with-historic-private-sector-launch/)	2019 (https://spacenews.com/chinese-ispac-achieves-orbit-with-historic-private-sector-launch/)
China Rocket (launchers/chinarocket.html)	Smart Dragon-1 SD-1, (Jielong-1) (launchers/chinarocket.html)	Operational (https://spacenews.com/chinese-light-launch-blitz-continues-with-kuaizhou-1a-mission/)	2019 (https://spacenews.com/chinese-light-launch-blitz-continues-with-kuaizhou-1a-mission/)
ExPace / CASIC (launchers/casic-expace.html)	Kuaizhou-11 (KZ-11) (launchers/casic-expace.html)	Operational (https://spacenews.com/first-launch-of-chinese-kuaizhou-11-rocket-ends-in-failure/)	2020 (https://spacenews.com/first-launch-of-chinese-kuaizhou-11-rocket-ends-in-failure/)



<b>LEO Launcher &amp; Logistics</b> (launchers/leo-launcher-logistics.html)	? (launchers/leo-launcher-logistics.html)	Development ( <a href="https://leolauncherlogistics.com/">https://leolauncherlogistics.com/</a> )	2022 ( <a href="https://lec">https://lec</a> )
<b>CAS Space</b> (launchers/cas-space.html)	ZK-1A (Zhongke-1) (launchers/cas-space.html)	Development ( <a href="https://space.skyrocket.de/doc_lau/zhongke-1.htm">https://space.skyrocket.de/doc_lau/zhongke-1.htm</a> )	2022 ( <a href="https://space.skyrc">https://space.skyrc</a> )
<b>China Rocket</b> (launchers/china-rocket.html)	Jielong-3 (Smart Dragon-3) (launchers/china-rocket.html)	Development	
<b>C6 Launch Systems</b> (launchers/c6-launch-systems.html)	? (launchers/c6-launch-systems.html)	Development ( <a href="https://spacewatch.global/2020/05/c6-launch-systems-successfully-completes-canadian-space-agency-funded-communications-project/">https://spacewatch.global/2020/05/c6-launch-systems-successfully-completes-canadian-space-agency-funded-communications-project/</a> )	2022 ( <a href="https://spacewatch.global/2020/canadian-space-agency-ft">https://spacewatch.global/2020/canadian-space-agency-ft</a> )
<b>INNOSPACE</b> (launchers/innospace.html)	Hanbit-Nano (launchers/innospace.html)	Development ( <a href="https://www.kedglobal.com/newsView/ked202101110003">https://www.kedglobal.com/newsView/ked202101110003</a> )	2022 ( <a href="https://www.kedglobal">https://www.kedglobal</a> )
<b>Skyrora</b> (launchers/skyrora.html)	Skyrora XL (launchers/skyrora.html)	Development ( <a href="https://www.spacebandits.io/interviews/skyrora">https://www.spacebandits.io/interviews/skyrora</a> )	2022 ( <a href="https://www.spac">https://www.spac</a> )
<b>Roketsan</b> (launchers/roketan.html)	MUFS (UFS) (launchers/roketan.html)	Development ( <a href="https://www.globalsecurity.org/space/world/turkey/launch.htm">https://www.globalsecurity.org/space/world/turkey/launch.htm</a> )	2023 ( <a href="https://www.globalsecuri">https://www.globalsecuri</a> )
<b>Smallspark</b> (launchers/smallspark-space-systems.html)	Frost 1 (launchers/smallspark-space-systems.html)	Development ( <a href="https://www.linkedin.com/feed/update/urn:li:activity:6529399319764832256/">https://www.linkedin.com/feed/update/urn:li:activity:6529399319764832256/</a> )	2023 ( <a href="https://www.linkedin.com/feed/t">https://www.linkedin.com/feed/t</a> )
<b>Interstellar Technologies</b> (launchers/interstellar-technologies.html)	Zero (launchers/interstellar-technologies.html)	Development ( <a href="http://www.istellartech.com/archives/3559">http://www.istellartech.com/archives/3559</a> )	2023 ( <a href="http://www.iste">http://www.iste</a> )
<b>Wagner Star Industries</b> (launchers/wagner-industries.html)	Quetzalcóatl (launchers/wagner-industries.html)	Development ( <a href="https://spacenews.com/ten-companies-bid-for-nasa-small-launch-vehicle-contract/">https://spacenews.com/ten-companies-bid-for-nasa-small-launch-vehicle-contract/</a> )	2023 ( <a href="https://spacenews.com/ten-comp">https://spacenews.com/ten-comp</a> )
<b>Space Mission Architects</b> (launchers/space-mission-architects.html)	SMA-2 (launchers/space-mission-architects.html)	Development ( <a href="https://spacemissionarchitects.com/">https://spacemissionarchitects.com/</a> )	2023 ( <a href="https://spac">https://spac</a> )
<b>Vaya Space</b> (launchers/vaya-space.html)	Dauntless (launchers/vaya-space.html)	Development ( <a href="https://www.vayaspace.com/post/vaya-space-and-athens-state-university-sign-cubesat-launch-contract">https://www.vayaspace.com/post/vaya-space-and-athens-state-university-sign-cubesat-launch-contract</a> )	2023 ( <a href="https://www.vayaspace.com/po">https://www.vayaspace.com/po</a> ) cubesat
<b>IHI</b> (launchers/ihi-aerospace.html)	Epsilon S (launchers/ihi-aerospace.html)	Development ( <a href="https://spacenews.com/ihi-aerospace-to-offer-epsilon-rocket-commercially/">https://spacenews.com/ihi-aerospace-to-offer-epsilon-rocket-commercially/</a> )	2023 ( <a href="https://spacenews.com/ihi-aer">https://spacenews.com/ihi-aer</a> )
<b>HyImpulse</b> (launchers/hyimpulse.html)	SL1 (launchers/hyimpulse.html)	Development ( <a href="https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=5035&amp;context=smallsat">https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=5035&amp;context=smallsat</a> )	2023 ( <a href="https://digitalcomm">https://digitalcomm</a> ) article=5035
<b>Phantom Space</b> (launchers/phantom-space.html)	Daytona-E (launchers/phantom-space.html)	Development ( <a href="https://www.prnewswire.com/news-releases/phantom-space-corporation-raises-5m-in-seed-funding-to-revolutionize-space-transportation-301268399.html">https://www.prnewswire.com/news-releases/phantom-space-corporation-raises-5m-in-seed-funding-to-revolutionize-space-transportation-301268399.html</a> )	2023 ( <a href="https://www.prnewswire.com/new">https://www.prnewswire.com/new</a> ) in-seed-funding-to-revolutionize
<b>Space Engine Systems</b> (launchers/space-engine-systems.html)	HELLO-1 (launchers/space-engine-systems.html)	Development ( <a href="https://spaceq.ca/space-engine-systems-pushing-for-a-single-stage-to-orbit-flight-test-in-2023/">https://spaceq.ca/space-engine-systems-pushing-for-a-single-stage-to-orbit-flight-test-in-2023/</a> )	2023 ( <a href="https://spaceq.ca/space-engine-s">https://spaceq.ca/space-engine-s</a> ) tes
<b>Black Arrow</b> (launchers/black-arrow.html)	Black Arrow 2 (launchers/black-arrow.html)	Development ( <a href="https://blackarrow-space.uk/launch-services-from-port-talbot/">https://blackarrow-space.uk/launch-services-from-port-talbot/</a> )	2023 ( <a href="https://blackarrow-spac">https://blackarrow-spac</a> )
<b>CTA</b> (launchers/cta.html)	VLM (launchers/cta.html)	Development ( <a href="https://en.wikipedia.org/wiki/VLM_(rocket)">https://en.wikipedia.org/wiki/VLM_(rocket)</a> )	2023 ( <a href="https://en.wiki">https://en.wiki</a> )
<b>OrbitX</b> (launchers/orbitx.html)	Haribon SLS-1 (launchers/orbitx.html)	Development ( <a href="https://orbitx.ph/the-orbitx-plan/">https://orbitx.ph/the-orbitx-plan/</a> )	2023 ( <a href="https://or">https://or</a> )
<b>Jarmyn Enterprise Space</b> (launchers/jarmyn-space.html)	HAWK Junior (launchers/jarmyn-space.html)	Development ( <a href="https://www.linkedin.com/posts/jarmyn-enterprise-space_spaceindustry-jarmynenterprisespace-southaustralia-activity-6761130252761747456-2RJJ/">https://www.linkedin.com/posts/jarmyn-enterprise-space_spaceindustry-jarmynenterprisespace-southaustralia-activity-6761130252761747456-2RJJ/</a> )	2023 ( <a href="https://www.linkedin.com/po">https://www.linkedin.com/po</a> ) jarmynenterprisespace-southaustr
<b>iRocket</b> (launchers/irocket.html)	Shockwave (launchers/irocket.html)	Development	
<b>CONAE</b> (launchers/conae.html)	VLE (Tronador-III) (launchers/conae.html)	Development ( <a href="https://www.youtube.com/watch?v=eNSGyTCP1K0&amp;feature=youtu.be&amp;ab_channel=MinisteriodeCienciayTecnolog%C3%ADa">https://www.youtube.com/watch?v=eNSGyTCP1K0&amp;feature=youtu.be&amp;ab_channel=MinisteriodeCienciayTecnolog%C3%ADa</a> )	2023 ( <a href="https://ww">https://ww</a> ) v=eNSGyTCP1K0&feature=youtu.be&ab_c
<b>Astraius</b> (launchers/astrius.html)	? (launchers/astrius.html)	Development	
<b>Bellatrix Aerospace</b> (launchers/bellatrix-aerospace.html)	Chetak (launchers/bellatrix-aerospace.html)	Development ( <a href="https://spacenews.com/indian-startup-bellatrix-aerospace-raises-3-million/">https://spacenews.com/indian-startup-bellatrix-aerospace-raises-3-million/</a> )	2024 ( <a href="https://spacenews.com/indiar">https://spacenews.com/indiar</a> )
<b>PLD Space</b> (launchers/pld-space.html)	MIURA 5 (Arion 2) (launchers/pld-space.html)	Development ( <a href="https://digitalcommons.usu.edu/smallsat/2021/all2021/85/">https://digitalcommons.usu.edu/smallsat/2021/all2021/85/</a> )	2024 ( <a href="https://digitalcommons">https://digitalcommons</a> )
<b>Reaction Dynamics</b> (launchers/reaction-dynamics.html)	? (launchers/reaction-dynamics.html)	Development ( <a href="https://www.polymtl.ca/carrefour-actualite/blogue/la-naissance-dun-lanceur-made-quebec">https://www.polymtl.ca/carrefour-actualite/blogue/la-naissance-dun-lanceur-made-quebec</a> )	2024 ( <a href="https://www.polymtl.ca/carrefour">https://www.polymtl.ca/carrefour</a> )
<b>SpaceHorizon</b> (launchers/spacehorizon.html)	Launch Vehicle 1 (launchers/spacehorizon.html)	Development	
<b>Orbit Boy</b> (launchers/orbit-boy.html)	? (launchers/orbit-boy.html)	Development ( <a href="https://www.spaceconnectonline.com.au/operations/5021-australian-startup-orbit-industries-develops-uber-like-launch-services">https://www.spaceconnectonline.com.au/operations/5021-australian-startup-orbit-industries-develops-uber-like-launch-services</a> )	2024 ( <a href="https://www.spaceconnectonline.c">https://www.spaceconnectonline.c</a> ) industries-develop:
<b>Success Rockets</b> (launchers/success-rockets.html)	STALKER (launchers/success-rockets.html)	Development ( <a href="https://twitter.com/katlinegrey/status/1471724330178555905">https://twitter.com/katlinegrey/status/1471724330178555905</a> )	2024 ( <a href="https://twitter.com/katlin">https://twitter.com/katlin</a> )
<b>Laros</b> (launchers/laros.html)	PH2 (launchers/laros.html)	Development ( <a href="https://laros.ru/about/press/487/osnovatel-konstruktorskogo-byuro-laros-oleg-larionov/">https://laros.ru/about/press/487/osnovatel-konstruktorskogo-byuro-laros-oleg-larionov/</a> )	2024 ( <a href="https://laros.ru/about/press/487">https://laros.ru/about/press/487</a> ) lk
<b>Black Sky Aerospace</b> (launchers/black-sky-aerospace.html)	? (launchers/black-sky-aerospace.html)	Development	

<b>STAR Orbitals</b> (launchers/star-orbitals.html)	Phoenix (launchers/star-orbitals.html)	Development ( <a href="https://www.facebook.com/StarOrbitals/photos/117110756793204">https://www.facebook.com/StarOrbitals/photos/117110756793204</a> )	2024 ( <a href="https://www.facebook.com">https://www.facebook.com</a> ,
<b>Venture Orbital</b> (launchers/venture-orbital-systems.html)	Zephyr (launchers/venture-orbital-systems.html)	Development ( <a href="https://www.ui-investissement.com/ui-investissement-met-vos-sur-orbite/">https://www.ui-investissement.com/ui-investissement-met-vos-sur-orbite/</a> )	2024 ( <a href="https://www.ui-investissement">https://www.ui-investissement</a>
<b>Promin</b> (launchers/promin-aerospace.html)	Zaarbird (launchers/promin-aerospace.html)	Development ( <a href="https://uk.wikipedia.org/wiki/Promin_Aerospace">https://uk.wikipedia.org/wiki/Promin_Aerospace</a> )	2024 ( <a href="https://uk.wikiped">https://uk.wikiped</a>
<b>LAUNCHER</b> (launchers/launcher-space.html)	Light (Rocket-1) (launchers/launcher-space.html)	Development ( <a href="https://spacenews.com/launcher-takes-long-term-view-of-small-launcher-market/">https://spacenews.com/launcher-takes-long-term-view-of-small-launcher-market/</a> )	2024 ( <a href="https://spacenews.com/launche">https://spacenews.com/launche</a>
<b>Lin Industrial</b> (launchers/lin-industrial.html)	Taymyr-1A (launchers/lin-industrial.html)	Development	
<b>LIA Aerospace</b> (launchers/lia-aerospace.html)	Procyon (launchers/lia-aerospace.html)	Development	
<b>Exodus Space</b> (launchers/exodus-space.html)	AstroClipper (launchers/exodus-space.html)	Development ( <a href="https://www.space.com/astroclipper-space-plane-concept-cargo-passenger-flights.html">https://www.space.com/astroclipper-space-plane-concept-cargo-passenger-flights.html</a> )	2030 ( <a href="https://www.space.com/astroc">https://www.space.com/astroc</a> fli
<b>Honda</b> (launchers/honda.html)	? (launchers/honda.html)	Development ( <a href="https://spacenews.com/japanese-carmaker-honda-developing-reusable-rocket-for-leo-satellites/">https://spacenews.com/japanese-carmaker-honda-developing-reusable-rocket-for-leo-satellites/</a> )	2030 ( <a href="https://spacenews.com/japanese">https://spacenews.com/japanese</a> leo
<b>Zero 2 Infinity</b> (launchers/zero2infinity.html)	Bloostar (launchers/zero2infinity.html)	Development	
<b>Ospace</b> (launchers/dongfang-space-ospace.html)	Gravity (launchers/dongfang-space-ospace.html)	Development ( <a href="https://mp.weixin.qq.com/s/qc-Q708gfTly1WK57clz4A">https://mp.weixin.qq.com/s/qc-Q708gfTly1WK57clz4A</a> )	? ( <a href="https://mp.weixin.qq.c">https://mp.weixin.qq.c</a>
<b>Dawn Aerospace</b> (launchers/dawn-aerospace.html)	MK-3 (Mk-II) (launchers/dawn-aerospace.html)	Development	
<b>Avio</b> (launchers/avio.html)	Vega C Light (launchers/avio.html)	Development ( <a href="https://spacenews.com/vega-c-a-new-generation-launcher/">https://spacenews.com/vega-c-a-new-generation-launcher/</a> )	? ( <a href="https://spacenews.com/">https://spacenews.com/</a>
<b>Strato</b> (launchers/strato-space-system.html)	SIRIUS (launchers/strato-space-system.html)	Development	
<b>X-Bow Launch Systems</b> (launchers/x-bow-launch-systems.html)	? (launchers/x-bow-launch-systems.html)	Development	
<b>Beyond Earth</b> (launchers/beyond-earth.html)	? (launchers/beyond-earth.html)	Development	
<b>B2Space</b> (launchers/b2space.html)	Colibri (launchers/b2space.html)	Development	
<b>Kepler Aerospace</b> (launchers/kepler-aerospace-us.html)	? (launchers/kepler-aerospace-us.html)	Development ( <a href="https://www.newswest9.com/video/tech/science/aerospace/kepler-aerospace-private-sector/513-08bc3346-73eb-48b4-b71c-08ed2052c64f">https://www.newswest9.com/video/tech/science/aerospace/kepler-aerospace-private-sector/513-08bc3346-73eb-48b4-b71c-08ed2052c64f</a> )	? ( <a href="https://www.newswest9.com/video/t">https://www.newswest9.com/video/t</a> sector/513-08bc3346-7
<b>Bagaveev</b> (launchers/bagaveev-corporation.html)	Bagaveev (launchers/bagaveev-corporation.html)	Development ( <a href="https://twitter.com/baspace/status/1297859418214678528">https://twitter.com/baspace/status/1297859418214678528</a> )	? ( <a href="https://twitter.com/baspa">https://twitter.com/baspa</a>
<b>Hypersonix Launch Systems</b> (launchers/hypersonix.html)	Delta-Velos Orbiter (launchers/hypersonix.html)	Development ( <a href="https://www.innovationaus.com/hypersonix-to-develop-reusable-space-vehicle/">https://www.innovationaus.com/hypersonix-to-develop-reusable-space-vehicle/</a> )	? ( <a href="https://www.innovationaus.com/h">https://www.innovationaus.com/h</a>
<b>S-Motor</b> (launchers/s-motor.html)	SCL-2 (launchers/s-motor.html)	Development	
<b>Exos Aerospace</b> (launchers/exos-aerospace.html)	Jaguar (launchers/exos-aerospace.html)	Development ( <a href="https://www.aerospacetestinginternational.com/news/space/exos-set-to-launch-reusable-rocket-for-first-time.html?utm_source=mailing&amp;utm_medium=email">https://www.aerospacetestinginternational.com/news/space/exos-set-to-launch-reusable-rocket-for-first-time.html?utm_source=mailing&amp;utm_medium=email</a> )	? ( <a href="https://www.aerospacetestinginterr">https://www.aerospacetestinginterr</a> reusable-rocket-for-first-time.html?
<b>Pipeline2Space</b> (launchers/pipeline2space.html)	? (launchers/pipeline2space.html)	Development	
<b>POLARIS</b> (launchers/polaris.html)	? (launchers/polaris.html)	Development	
<b>Tachyon Aerospace</b> (launchers/tachyon-aerospace.html)	TAV-1 (launchers/tachyon-aerospace.html)	Development	
<b>Fenix Space</b> (launchers/fenix-space.html)	? (launchers/fenix-space.html)	Development	
<b>Stratobooster</b> (launchers/stratobooster.html)	? (launchers/stratobooster.html)	Development	
<b>New Ascent</b> (launchers/new-ascent.html)	? (launchers/new-ascent.html)	Development	
<b>Hybrid Propulsion</b> (launchers/hybrid-propulsion.html)	OB-1 / Mk1 (launchers/hybrid-propulsion.html)	Development	
<b>STOKE</b> (launchers/stoke-space.html)	? (launchers/stoke-space.html)	Development	
<b>VSAT</b> (launchers/vsat.html)	? (launchers/vsat.html)	Development	
<b>Advanced Rockets Corp</b> (launchers/advanced-rockets-corporation.html)	ACE (launchers/advanced-rockets-corporation.html)	Development	
<b>Pangea Aerospace</b> (launchers/pangea-aerospace.html)	Meso (launchers/pangea-aerospace.html)	Development	

<b>UP Aerospace</b> (launchers/up-aerospace.html)	Spyder Orbital (launchers/up-aerospace.html)	Development ( <a href="https://spacenews.com/up-aerospace-targets-government-customers-with-1-million-dedicated-smallsat-launches/">https://spacenews.com/up-aerospace-targets-government-customers-with-1-million-dedicated-smallsat-launches/</a> )	? ( <a href="https://spacenews.com/up-aerospace-targets-government-customers-with-1-million-dedicated-smallsat-launches/">https://spacenews.com/up-aerospace-targets-government-customers-with-1-million-dedicated-smallsat-launches/</a> )
<b>Vogue Aerospace</b> (launchers/vogue-aerospace.html)	US1-LALV (launchers/vogue-aerospace.html)	Development	
<b>SpaceDarts</b> (launchers/spacedarts.html)	S / One (launchers/spacedarts.html)	Development	
<b>Green Launch</b> (launchers/green-launch.html)	? (launchers/green-launch.html)	Development ( <a href="https://greenlaunch.space/">https://greenlaunch.space/</a> )	? ( <a href="https://greenlaunch.space/">https://greenlaunch.space/</a> )
<b>Aphelion</b> (launchers/aphelion-aerospace.html)	Helios (launchers/aphelion-aerospace.html)	Development	
<b>OmSpace</b> (launchers/omspace.html)	Infinity One (launchers/omspace.html)	Development	
<b>Timewarp</b> (launchers/timewarp.html)	Stardust (launchers/timewarp.html)	Development	
<b>Wave Motion Launch</b> (launchers/wave-motion-launch.html)	? (launchers/wave-motion-launch.html)	Development	
<b>Sidereus Space Dynamics</b> (launchers/sidereus.html)	EOS Small Launcher (launchers/sidereus.html)	Development	
<b>Gloyer-Taylor (GTL)</b> (launchers/gtl.html)	ACE (launchers/gtl.html)	Development	
<b>Vellon Space</b> (launchers/vellon-space.html)	Rudra 1 (launchers/vellon-space.html)	Development	
<b>VALT Enterprises</b> (launchers/valt-enterprises.html)	VALT (launchers/valt-enterprises.html)	Concept	
<b>Cubecab</b> (launchers/cubecab.html)	Cab-3A (launchers/cubecab.html)	Concept	
<b>Masterra Space</b> (launchers/masterra-space.html)	MINSAT-2000 (launchers/masterra-space.html)	Concept	
<b>CloudIX</b> (launchers/cloudix.html)	? (launchers/cloudix.html)	Concept	
<b>HelioSpace</b> (launchers/heliospace.html)	? (launchers/heliospace.html)	Concept	
<b>EPIC Aerospace</b> (launchers/epic-aerospace.html)	? (launchers/epic-aerospace.html)	Concept ( <a href="https://techcrunch.com/2019/08/19/all-84-startups-from-y-combinators-s19-demo-day-1/">https://techcrunch.com/2019/08/19/all-84-startups-from-y-combinators-s19-demo-day-1/</a> )	2022 ( <a href="https://techcrunch.com/2019/08/19/all-84-startups-from-y-combinators-s19-demo-day-1/">https://techcrunch.com/2019/08/19/all-84-startups-from-y-combinators-s19-demo-day-1/</a> )
<b>AvalonSpace</b> (launchers/avalonspace.html)	? (launchers/avalonspace.html)	Concept	
<b>STAR</b> (launchers/star.html)	Phoenix (launchers/star.html)	Concept	
<b>Independence-X</b> (launchers/independence-x.html)	DNLV (launchers/independence-x.html)	Concept ( <a href="https://www.linkedin.com/feed/update/urn:li:activity:6550042241715539968/">https://www.linkedin.com/feed/update/urn:li:activity:6550042241715539968/</a> )	2021 ( <a href="https://www.linkedin.com/feed/update/urn:li:activity:6550042241715539968/">https://www.linkedin.com/feed/update/urn:li:activity:6550042241715539968/</a> )
<b>Spark Orbital</b> (launchers/spark-orbital.html)	? (launchers/spark-orbital.html)	Concept	
<b>Crest Astra</b> (launchers/crest-astra.html)	? (launchers/crest-astra.html)	Concept	
<b>Scorpius Space Launch</b> (launchers/scorpius-space-launch.html)	Demi-Sprite (launchers/scorpius-space-launch.html)	Concept	
<b>MT Aerospace</b> (launchers/mt-aerospace.html)	MTA, WARR, Daneo (launchers/mt-aerospace.html)	Concept	
<b>Firehawk Aerospace</b> (launchers/firehawk-aerospace.html)	Firehawk-1 (launchers/firehawk-aerospace.html)	Concept ( <a href="https://www.linkedin.com/company/firehawk-aerospace-llc/about/">https://www.linkedin.com/company/firehawk-aerospace-llc/about/</a> )	? ( <a href="https://www.linkedin.com/company/firehawk-aerospace-llc/about/">https://www.linkedin.com/company/firehawk-aerospace-llc/about/</a> )
<b>Eldorado</b> (launchers/eldorado-space.html)	? (launchers/eldorado-space.html)	Concept	
<b>Advanced Rockets Corporation</b> (launchers/advanced-rockets-corporation.html)	ACE (launchers/advanced-rockets-corporation.html)	Concept	
<b>Deywoss One</b> (launchers/deywoss-one.html)	? (launchers/deywoss-one.html)	Dormant?	
<b>Vector Launch</b> (launchers/vector-space-systems.html)	Vector-R (launchers/vector-space-systems.html)	Dormant? ( <a href="https://spacenews.com/vector-restarting-operations-under-new-ownership/">https://spacenews.com/vector-restarting-operations-under-new-ownership/</a> )	2022 ( <a href="https://spacenews.com/vector-restarting-operations-under-new-ownership/">https://spacenews.com/vector-restarting-operations-under-new-ownership/</a> )
<b>Thor Launch Systems</b> (launchers/thor-launch-systems.html)	? (launchers/thor-launch-systems.html)	Dormant?	
<b>RocketStar</b> (launchers/rocketstar.html)	StarLord (launchers/rocketstar.html)	Dormant?	



<b>Frontier Astronautics</b> (launchers/frontier-astronautics.html)	? (launchers/frontier-astronautics.html)	Dormant?	
<b>Aakashganga Space</b> (launchers/aakashganga-space.html)	Indra (launchers/aakashganga-space.html)	Dormant?	
<b>Eclipse Orbital</b> (launchers/eclipse-orbital.html)	The Corona (launchers/eclipse-orbital.html)	Dormant? ( <a href="https://twitter.com/EclipseOrbital">https://twitter.com/EclipseOrbital</a> )	? ( <a href="https://twitt">https://twitt</a> )
<b>Opus Aerospace</b> (launchers/opus-aerospace.html)	? (launchers/opus-aerospace.html)	Dormant? ( <a href="https://www.linkedin.com/in/opus-aerospace-2a5b74188/">https://www.linkedin.com/in/opus-aerospace-2a5b74188/</a> )	? ( <a href="https://www.linkedin.cor">https://www.linkedin.cor</a> )
<b>MARCOM</b> (launchers/marcom.html)	CHEETAH-1 (launchers/marcom.html)	Dormant? ( <a href="https://www.marcom-as.com/cheetah-1-cslv">https://www.marcom-as.com/cheetah-1-cslv</a> )	? ( <a href="https://www.marc">https://www.marc</a> )
<b>Celestia Aerospace</b> (launchers/celestia-aerospace.html)	Space Arrow CM (launchers/celestia-aerospace.html)	Dormant?	
<b>Space Ops</b> (launchers/spaceops.html)	Rocky 1 (launchers/spaceops.html)	Dormant?	
<b>Orbital Access</b> (launchers/orbital-access.html)	Orbital 500 (launchers/orbital-access.html)	Dormant ( <a href="https://twitter.com/OrbitalAccess/status/1031880691833888769">https://twitter.com/OrbitalAccess/status/1031880691833888769</a> )	2022 ( <a href="https://twitter.com/Orbital">https://twitter.com/Orbital</a> )
<b>Odyne Space</b> (launchers/odyne-space.html)	? (launchers/odyne-space.html)	Dormant	
<b>Stofiel Aerospace</b> (launchers/stofiel-aerospace.html)	BOREAS (launchers/stofiel-aerospace.html)	Dormant	
<b>Orbital Cargo Drone</b> (launchers/orbital-cargo-drone.html)	? (launchers/orbital-cargo-drone.html)	Dormant	
<b>The Rocket and Satellite Company</b> (launchers/the-rocket-and-satellite-company.html)	? (launchers/the-rocket-and-satellite-company.html)	Dormant ( <a href="https://spacewatch.global/2020/08/the-rocket-and-satellite-company-announced-first-space-launch/?no_cache=1597403363">https://spacewatch.global/2020/08/the-rocket-and-satellite-company-announced-first-space-launch/?no_cache=1597403363</a> )	? ( <a href="https://spacewatch.global/2020/08/tl-space-launch/?r">https://spacewatch.global/2020/08/tl-space-launch/?r</a> )
<b>bspace</b> (launchers/bspace.html)	Volant (launchers/bspace.html)	Dormant	
<b>Fore Dynamics</b> (launchers/fore-dynamics.html)	NFR-1 (launchers/fore-dynamics.html)	Dormant	
<b>United Frontiers</b> (launchers/united-frontiers.html)	Discovery 2 (launchers/united-frontiers.html)	Dormant	
<b>Heliaq</b> (launchers/heliaq.html)	ALV-2 (launchers/heliaq.html)	Dormant	
<b>Earth to Sky</b> (launchers/earth-to-sky.html)	? (launchers/earth-to-sky.html)	Dormant	
<b>New Rocket Technologies</b> (launchers/new-rocket-technologies.html)	? (launchers/new-rocket-technologies.html)	Dormant	
<b>Space Orca</b> (launchers/space-orca.html)	? (launchers/space-orca.html)	Dormant	
<b>Terra Space Technologies</b> (launchers/terra-space.html)	Gyrfalcon (launchers/terra-space.html)	Dormant	
<b>Rose Galactic</b> (launchers/rose-galactic.html)	Anthium Orbital Cannon (launchers/rose-galactic.html)	Dormant	
<b>SpaceLS</b> (launchers/spacels.html)	Prometheus-1 (launchers/spacels.html)	Dormant	
<b>LEO Aerospace</b> (launchers/leo-aerospace.html)	Orbital Rocket (launchers/leo-aerospace.html)	Dormant ( <a href="https://spacenews.com/small-launch-startup-leo-aerospace-suspends-operations/">https://spacenews.com/small-launch-startup-leo-aerospace-suspends-operations/</a> )	? ( <a href="https://spacenews.com/small-launc">https://spacenews.com/small-launc</a> )
<b>Tranquility Aerospace</b> (launchers/tranquility-aerospace.html)	Devon Two (launchers/tranquility-aerospace.html)	Dormant	
<b>MISHAAL Aerospace</b> (launchers/mishaal-aerospace.html)	M-OV (launchers/mishaal-aerospace.html)	Dormant	
<b>proximitE</b> (launchers/proximitE.html)	? (launchers/proximitE.html)	Dormant	
<b>Nammo</b> (launchers/nammo.html)	North Star (launchers/nammo.html)	Dormant	
<b>Leaf Space</b> (launchers/leaf-space.html)	Primo (launchers/leaf-space.html)	Cancelled	
<b>Swiss Space Systems</b> (launchers/swiss-space-systems.html)	SOAR (launchers/swiss-space-systems.html)	Cancelled ( <a href="http://www.thelocal.ch/20161216/swiss-space-firm-declared-bankrupt">http://www.thelocal.ch/20161216/swiss-space-firm-declared-bankrupt</a> )	2018 ( <a href="http://www.thelocal.ch/2016">http://www.thelocal.ch/2016</a> )
<b>Aphelion Orbitals</b> (launchers/aphelion-orbitals.html)	Helios / Feynman (launchers/aphelion-orbitals.html)	Cancelled	
<b>Lex Aerospace</b> (launchers/lex-aerospace.html)	? (launchers/lex-aerospace.html)	Cancelled	

<b>Boeing</b> (launchers/boeing.html)	ALASA (launchers/boeing.html)	Cancelled	
<b>Open Space Orbital</b> (launchers/open-space-orbital.html)	Neutrino I (launchers/open-space-orbital.html)	Cancelled	
<b>Generation Orbit</b> (launchers/generation-orbit.html)	GoLauncher 2 (launchers/generation-orbit.html)	Cancelled ( <a href="https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=3036&amp;context=smallsat">https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=3036&amp;context=smallsat</a> )	2016 ( <a href="https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=3036&amp;context=smallsat">https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=3036&amp;context=smallsat</a> )
<b>GALEX</b> (launchers/galex.html)	GX (launchers/galex.html)	Cancelled	
<b>AirLaunch</b> (launchers/airlaunch.html)	? (launchers/airlaunch.html)	Cancelled	
<b>Space Transport Corporation</b> (launchers/space-transport-corporation.html)	N-SOLV (launchers/space-transport-corporation.html)	Cancelled	
<b>INTA</b> (launchers/inta.html)	Capricornio (launchers/inta.html)	Cancelled ( <a href="https://www.esa.int/esapub/hsr/HSR_26.pdf">https://www.esa.int/esapub/hsr/HSR_26.pdf</a> )	2000 ( <a href="https://www.esa.int/esapub/hsr/HSR_26.pdf">https://www.esa.int/esapub/hsr/HSR_26.pdf</a> )

Last update: 2022-01-01 | Changelog

## Launcher Selection Approach

Including orbital class small launchers.  
Commercial and civilian rockets preferred.  
Maximum 1500 kg to SSO orbit. Payload to low altitude and inclination can be more.  
Performance values are not directly comparable as the stated orbits are often different.  
Preference is to list payload capabilities to higher SSO orbits, but not available in many cases.  
Most of the content should be linked to the source on this page unless it is the official website.

## Launcher Status Description

Status above is an estimation based on a mix of the following criteria and can be debatable.

**Retired** - Launchers that were operational, but have since been discontinued or no further launches announced or many years have passed.

**Operational** - Launches to orbit have been performed (successfully or not) and next launches will have payloads and high likelihood of achieving orbital velocity.

**Development** - Company active, intention publicly announced, relevant updates on social media and website, team size increasing, private funding announced or governmental projects awarded.

**Concept** - Idea or Unknown. Study stage not yet approved for hardware development, lack of proof about sustained technical development, active development unlikely based on funding level and type of updates, team very small and not increasing based on LinkedIn.

**Dormant** - First step on the way to Cancelled. Website offline, lack of recent (1+ year) posts on social media channels or only non-related topics, very small team (or a single person) according to LinkedIn, no announced fundraising or none recently. For example, Astra developed in stealth, but they still had 50+ persons on LinkedIn and active signs and rumours in the industry.

**Cancelled** - Website offline for years or no indication of the launcher any more or company bankrupt.

## What is NewSpace?

NewSpace is a global industry of private companies and entrepreneurs who primarily target commercial customers, are backed by risk capital seeking a return, and seek to profit from innovative products or services developed in or for space.

– NewSpace Global, [newspaceglobal.com](https://newspaceglobal.com/) (<https://newspaceglobal.com/>)

Alt.space, NewSpace, entrepreneurial space, and other labels have been used to describe approaches to space development that differ significantly from that taken by NASA and the mainstream aerospace industry.

– Hobby Space, [hobbyspace.com](http://hobbyspace.com/NewSpace/index.html) (<http://hobbyspace.com/NewSpace/index.html>)

People, businesses and organizations working to open the space frontier to human settlement through economic development.

– Space Frontier Foundation, [spacefrontier.org](https://spacefrontier.org/) (<https://spacefrontier.org/>)

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