

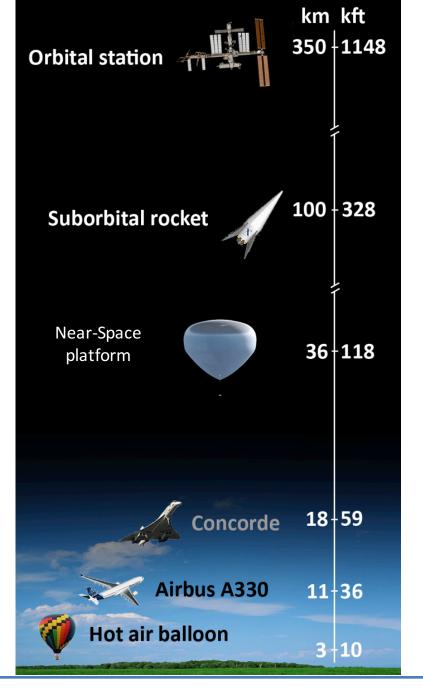
The view from Near Space

José Mariano López-Urdiales, CEO



What is Near Space?









Main global digital actors are running space ballooning programs

CADE METZ BUSINESS 02.24.16 7:00 AM

GOOGLE LASER-BEAMS THE FILM REAL GENIUS 60 MILES BETWEEN BALLOONS





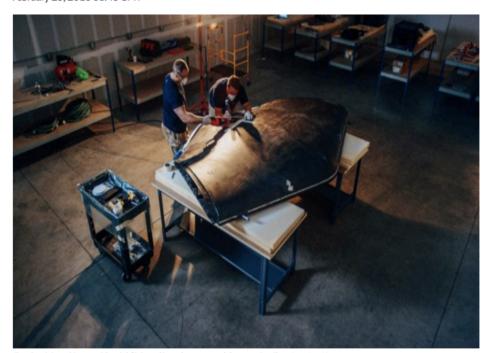
Facebook's solar-powered drone getting ready for flight

By Akanksha Prasad February 25, 2016 08:43 GMT





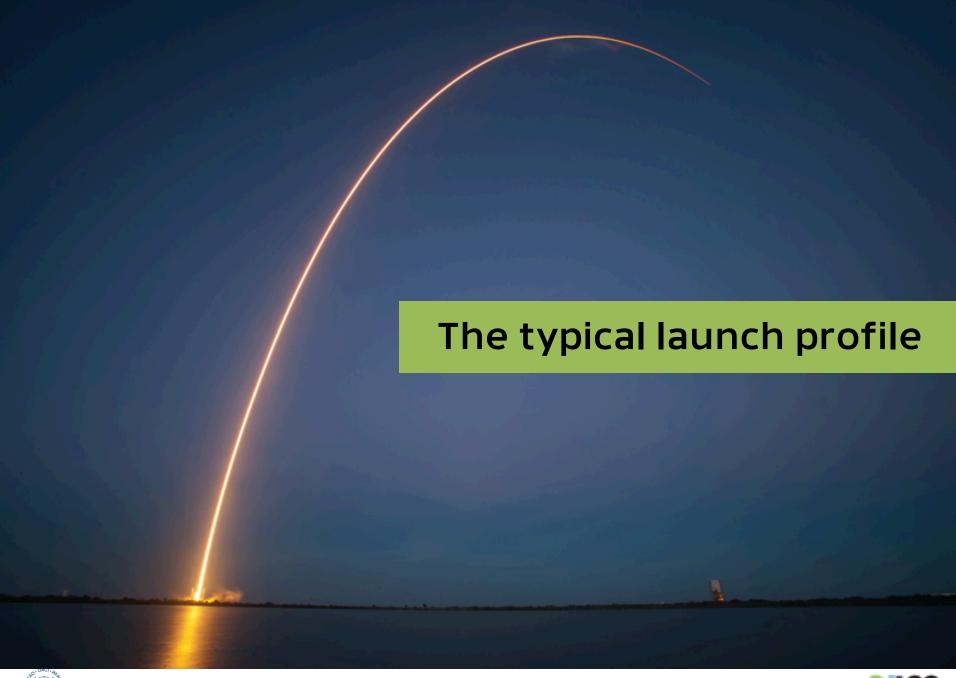




Facebook is making weekly trial flights of its solar-powered drone - Aquila (Facebook)

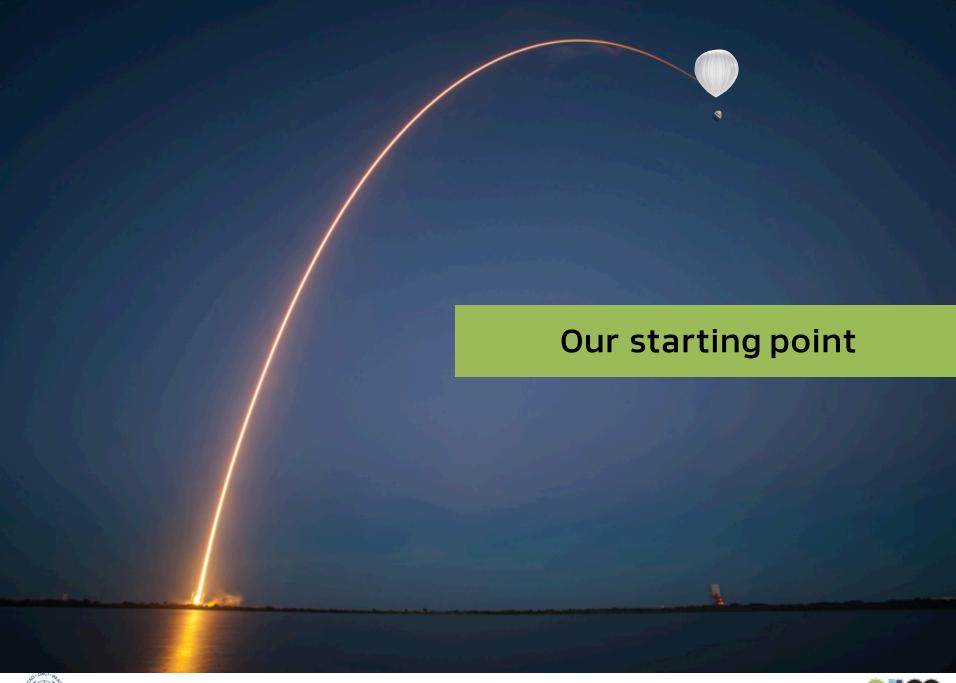
















Problems that Small Satellite Operators Face



NO TIME & DATE FREEDOM



NO ORBIT SELECTION



LACK OF RESPONSIVENESS



LACK OF CONSTELLATIONS



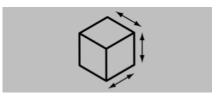
HIGH RISK



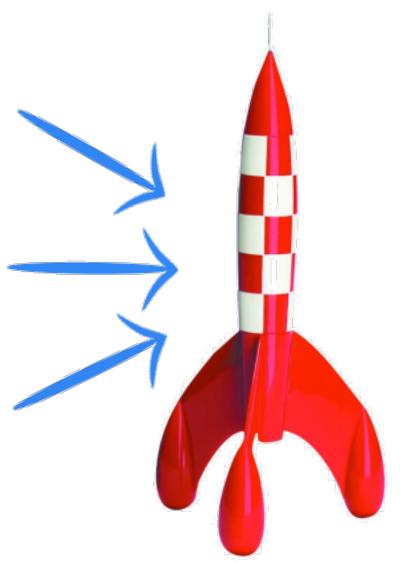
HIGH COMPLEXITY



HIGH PRICE



VOLUME RESTRICTIONS





This is "bloostar", a new type of launcher for a new market



NASA/TP-2015-216648/REV1



Small Spacecraft Technology State of the Art

Mission Design Dissision Ames Research Center, Moffett Field, California

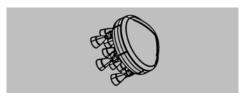
Table 10.4: Launchers on the Horizon

Product	Manufacturer	LEO Capacity	Planned First Flight	Launch Method	Status
Austral Launch Vehicle	Heliaq	80-550 kg to low SSO	2019	Land / Air	TRL 2-3
Aurora S	Conspire Technology	$225 \mathrm{kg} 500 \mathrm{km}$ SSO	2025	Land	TRL 2-3
Bloostar	zero2infinity	75 kg to 600 km SSO	2018	Baloon	TRL 5
CubeCab	CubeCab	5 kg to 400 km	2018	Air (F-104 Fighter Jet)	TRL 4
Dedicated		100 kg to	2019	Land	TRL 2
Nano Launch Vehicle (DNLV)	Independence- X Aerospace	$500\mathrm{km}$			





Smarter Cheaper Cleaner



HIGHER ENGINE EFFICIENCY



LESS CAPITAL INTENSIVE



INCREASED SAFETY



COST REDUCTION



ORBIT SELECTION



DESIGNED FOR REUSABILITY



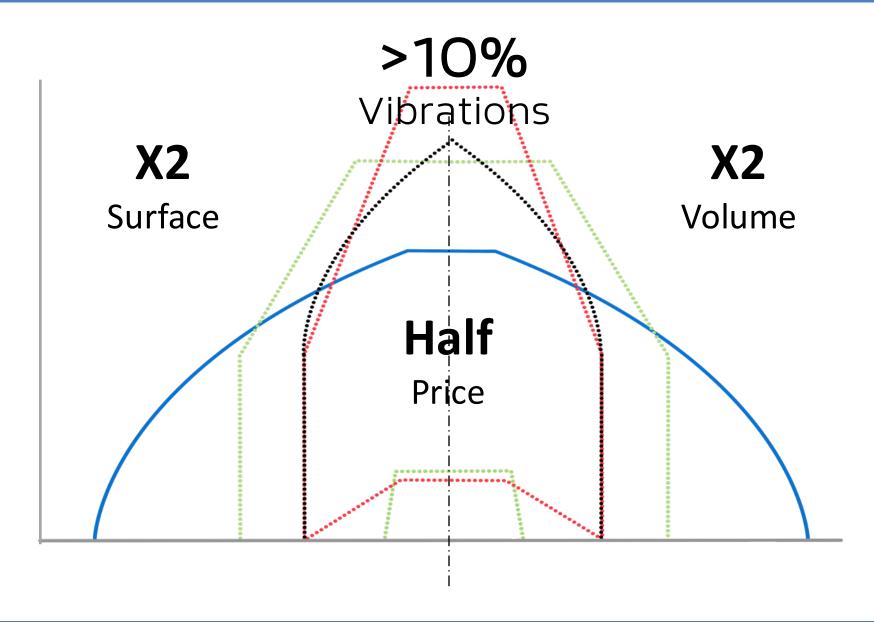
ALL WEATHER



ENVIRONMENTALLY RESPONSIBLE

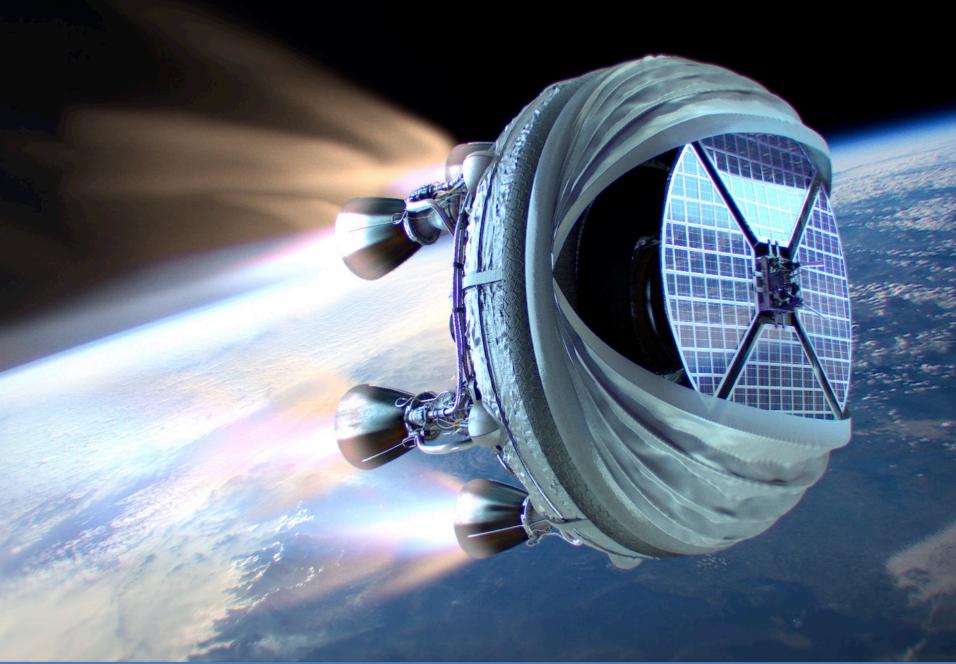
























Final Thought:



From the October 9th, 1903 edition of:

The New York Times

"[A] flying machine which will really fly might be evolved by the combined and continuous efforts of mathematicians and mechanicians in from one million to ten million years."



From Orville Wright's diary October 9th, 1903:

"We started assembly today."



