

#INSPIRATION

TURNING PAIN TO PURPOSE

Arushi Lohiya was riding high on ambition and achievement. But destiny had a different script. Diagnosed with Fibromyalgia at 22, her life transformed into an unceasing battle against chronic pain. Undeterred, she turned her pain into purpose, founding an NGO to foster dialogue and support for others facing similar challenges. Arushi's journey encapsulates resilience, advocacy, and the power of redefining one's identity in the face of adversity.



Meet Arushi Lohiya. A trailblazer since her early days, Arushi's journey was nothing short of extraordinary. From excelling in academics to being a national-level sports player, she danced effortlessly between her two passions - marketing and sports. Her dream job in sports marketing, working with renowned brands like ESPN, Coca Cola and Kingfisher and mingling with Bollywood and sports celebrities, was like living the life she had always dreamed of.

But life has a way of taking unexpected turns, and in 2012, Arushi's world came crashing down. Diagnosed at a tender age of 22 with Fibromyalgia, a debilitating chronic pain condition, her existence took an unexpected trajectory. Suddenly, pain became her constant companion, infiltrating every fiber of her being. The excruciating agony left her unable to sit or stand for more than a few minutes, forcing her to spend her days confined to her bed, bound by crepe bandages supporting her weak muscles.

For someone who had been workaholic from her college days, the transition from a thriving career to a life bound by physical limitations was nothing short of heart-wrenching. The life of parties and social events gave way to the solitude of four walls, and the emotional turmoil was akin to grieving the loss of a loved one. Denial, anger, and eventual acceptance became the stepping stones on her path to rebuilding her identity from scratch.

While the world around her continued to function as before, Arushi had to craft her life afresh. "I have somehow made peace with current situation through remotely working from home as a freelance marketing, branding and social media strategist for the past 8 years", tells Arushi. Before the advent of COV arrangements were scarce in India. Arushi persevered, determined not to let her active mind stagnate despite the physical constraints. However, she encountered resistance and discrimination from people who struggled to understand the juxtaposition of her physical limitations and mental agility. "Due to excruciating pain, I cannot sit or stand for more than 15 minutes and I am forced to spend my days lying down prone confined to my bed. I do virtu-



Though Indian astronomers have been interested in charting the stars for millennia, the country's attempts to actually reach them actually began in 1963, with the launch of a sounding rocket carried to the pad by a bullock cart. Since then, the Indian Space Research Organisation (ISRO) has developed full launch capabilities, deployed extra-terrestrial missions, and flung fleet after fleet of home-grown satellites into orbit. Despite all these successes, however, India's private space industry has – until very recently – struggled to get off the ground.

The Stars have finally Aligned for India's Satellite Launch Industry



In mid-July, Australian Police warned curious locals to steer clear of the mysterious copper-hued cylinder that had washed up on a sandy beach north of Perth. A chemical analysis by the local fire department soon concluded that the ominous object didn't pose a risk to the local community, but it took another week and a half of fevered speculation before its true origins became known.

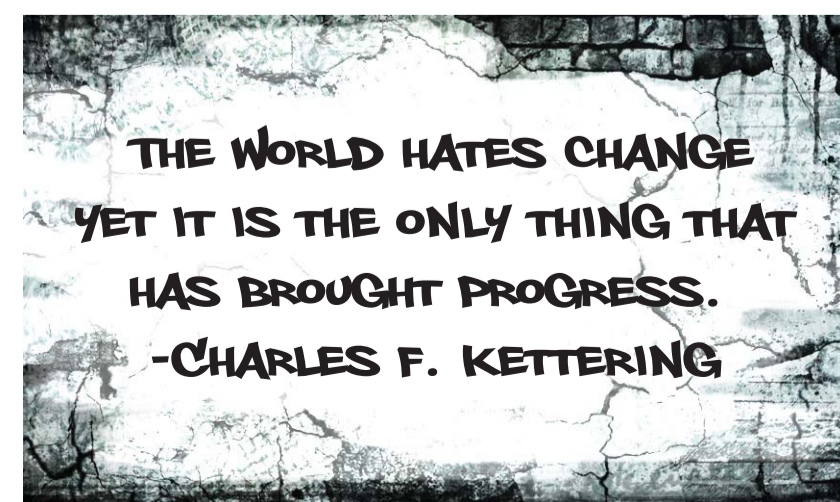
It came from outer space, the Australian Space Agency definitely did not intone in the voice of a 1950s B-movie narrator – specifically, from a spent Indian rocket that had failed to blaze brightly into a million petty fragments on its journey back to Earth.

What the world has not appreciated is that the rocket in question is the pride of India's satellite industry. Launched 58 times from the country's Satish Dhawan Space Centre with a success rate of 94%, the Polar Satellite Launch Vehicle (PSLV) is (usually) one of the world's most reliable heavy-load rockets and the workhorse of an Indian space sector that has grown in stature and capability in recent years.

That status has been hard won. Though Indian astronomers have been interested in charting the stars for millennia, the country's attempts to actually reach them actually began in 1963, with the launch of a sounding rocket carried to the pad by a bullock cart. Since then, the Indian Space Research Organisation (ISRO) has developed full launch capabilities, deployed extra-terrestrial missions, and flung fleet after fleet of home-grown satellites into orbit. Despite all these successes, however, India's private space industry has – until very recently – struggled



THE WALL



Dhruva Space CEO Sanjay Nekkanti

The stars started to align for India's private space sector in October 2020, when the country's Department of Space released a draft of its New Spacecom Policy. This policy – which was finally fully unleashed, after some additional modifications, earlier this year – aimed to open India's satellite-launch sector to private businesses. "It got everybody excited," says Krati Hashwani, a specialist telecommunications lawyer at the law firm Trilegal in Bangalore.

Even before the official enactment of the draft policy, Trilegal's international clients already started working towards building businesses in India, while domestic clients in the field accelerated their bids to cut the hefty costs of satellite launches.

The new policy replaced the Satcom Policy of 1997, a restrictive set of regulations that limited private and foreign participation in the sector and didn't envisage the immense rate of technological development, explains Hashwani. The dawn of LEO (low-earth orbit) satellites, which are much

smaller and cheaper than traditional geostationary satellites, has been an industry game changer, opening the doors for the rise of satellite broadband – a market that India's particularly keen to capitalise on. In June 2022, amid the widespread overhaul of India's space ecosystem, Dhruva Space and Digantara Aerospace were announced as the first two private companies to receive authorisation from regulatory authority IN-

SPACE to conduct space-related activities. In the case of Dhruva Space, this allowed the firm to test its homemade satellite deployers on ISRO's PSLV in June 2022 and to launch its first CubeSats into low-earth orbit (LEO) in November 2022. Timing has also been crucial to the unprecedented growth of India's space ecosystem, explains Dhruva's founder and CEO, Sanjay Nekkanti. Demand for telecommunications satellites is expected to balloon in the coming years – a fact everyone explicitly identified in his push to open up India's space ecosystem. "The global supply chain needs to be robust and strong," says Nekkanti.

"Dhruva Space works actively in the ecosystem with 400-odd companies that have been building small yet important components for the Indian Space Programme for many decades now. By working with these vendors, Dhruva Space can deliver missions and send up missions faster, economically without impacting reliability." With this in mind, Nekkanti continues, "India's space industry is primed for a stellar trajectory."

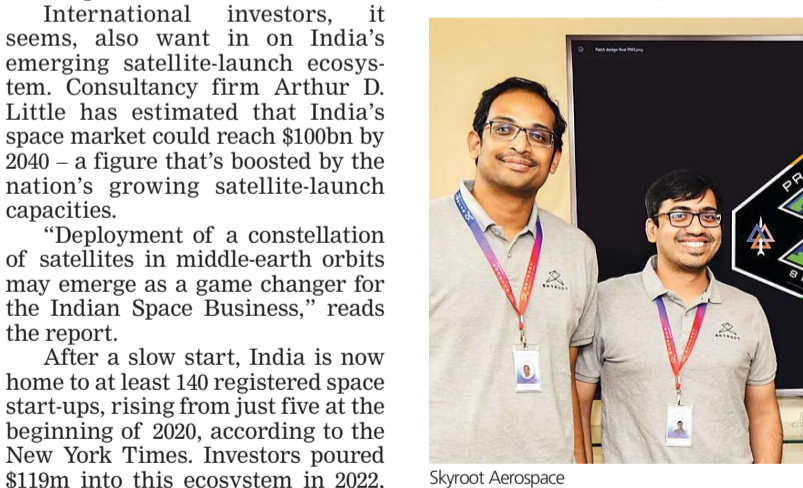
#MADE-IN-INDIA



First Images Of Moon As Captured By Chandrayaan-3 Spacecraft

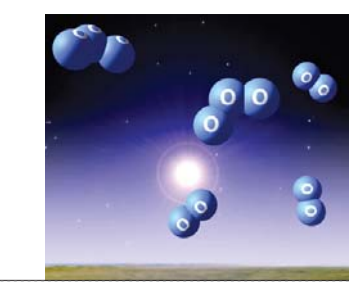
according to Reuters. Geopolitical tensions might also be working in India's favour. With Russia and China off the table for many Western firms, India looks set to emerge as the world's new favourite cut-price destination for satellite launches. British satellite broadband company One Web, for example, launched 36 LEO satellites from India in March after the outbreak of Russia's brutal war in Ukraine put a stop to its scheduled launches on-board Moscow's famed Soyuz Rocket.

International investors, it seems, also want in on India's emerging satellite-launch ecosystem. Consultancy firm Arthur D. Little has estimated that India's space market could reach \$100bn by 2040 – a figure that's boosted by the nation's growing satellite-launch capacities. "Deployment of a constellation of satellites in middle-earth orbits may emerge as a game changer for the Indian Space Business," reads the report. After a slow start, India is now home to at least 140 registered space start-ups, rising from just five at the beginning of 2020, according to the New York Times. Investors poured \$119m into this ecosystem in 2022,



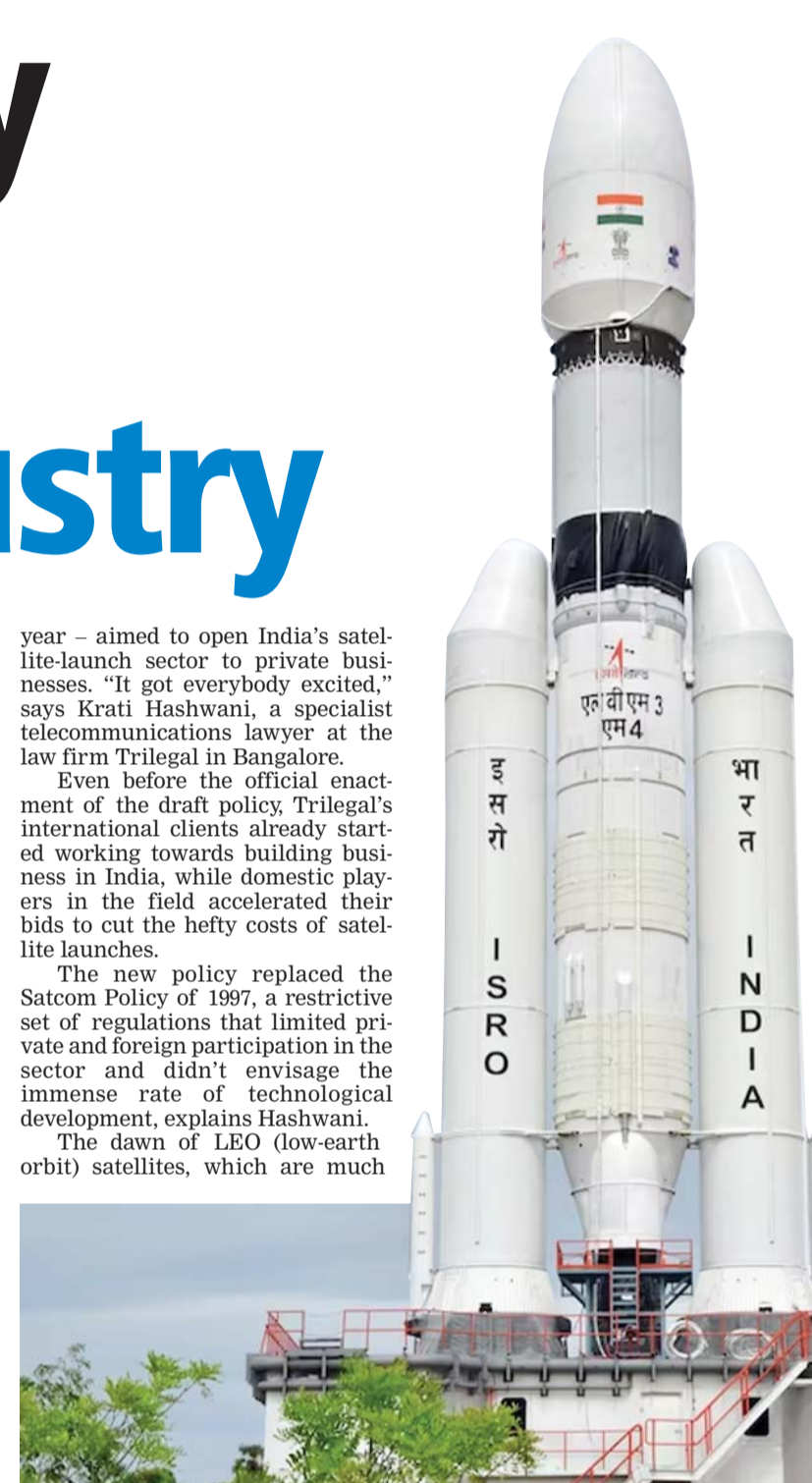
Skyroot Aerospace

BABY BLUES



"Good Up High, Bad Nearby"

Ozone is a molecule made up of three oxygen atoms, often referenced as O3. Ozone is formed when heat and sunlight cause chemical reactions between oxides of nitrogen (NOx) and Volatile Organic Compounds (VOC), which are also known as hydrocarbons. Stratospheric ozone is good ozone. It forms about 10-30 miles above Earth's surface and forms a protective layer, called the ozone layer that shields us from too much of the sun's harmful ultraviolet radiation (UV). Ozone harms human health and the environment when it forms close to the ground.



Rocket launch from Satish Dhawan Space Station

The Indian Space Research Organisation on August 6th took to microblogging site 'X', formerly known as Twitter to share the FIRST images of Moon as captured by Chandrayaan-3. India's third unmanned Moon mission Chandrayaan-3 on August 5th successfully entered the lunar orbit, 22 days after it was launched for a far more complicated 41-day voyage to reach the lunar south pole where no other nation has gone before. On August 5th, Chandrayaan-3 had sent a message to ISRO saying 'I feel the lunar gravity' after it had entered the lunar orbit. "I am feeling lunar gravity," was Chandrayaan-3's message to the ISRO after the required manoeuvre that brought it closer to the moon was carried out without any glitch from the space facility in Bengaluru. The injection into the lunar orbit marked a major milestone in the space agency's ambitious 600 crore mission. The Moon mission has been smooth so far and the ISRO expects the Vikram lander to make a soft landing on the lunar surface later this month on August 23.

Satellite Status Vikram-S, India's first privately-built rocket, lifted off from Satish Dhawan Space Centre on 18 November 2022. It was developed by Skyroot Aerospace, a start-up founded in 2018 by former engineers and scientists from ISRO. The company, which is based in Hyderabad, has raised a total of \$68.1m, according to Crunchbase.

There might be lots of near-term opportunities, but any unforeseen delays can, given the rapid rate of technical developments, be immensely costly – causing India's emerging launch providers to lose out to nimbler competitors.

By Rick Kirkman & Jerry Scott

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ZITS



By Jerry Scott & Jim Borgman

#SKIN-CARE

Tips For Skin Protection!

Sunny days brings hot weather and outdoor fun—but also potential damage to our skin.



The scorching heat, harmful UV rays, and increased humidity can lead to various skin issues if we don't take proper care. But no need to fear—Mara Weinstein Velez, a dermatologist with University of Rochester Medicine, is an expert in keeping skin healthy, radiant, and protected. Here are her top five summer skincare tips:

STAY HYDRATED

Hydration is key not only for overall health but also for maintaining beautiful skin. Dehydrated skin may cause your skin to appear dry, dull, and scaly. You'll even begin to notice the presence of fine lines and wrinkles. In summer, our bodies lose more water through sweating, making it essential to stay hydrated throughout the day. Drinking an adequate amount of water helps to flush out toxins, keeps your skin plump, and prevents it from becoming dry and flaky. Don't forget to carry a water bottle with you. And if plain water gets boring, add in slices of cucumber, lemon, or mint leaves for a refreshing twist. It's just as important to hydrate your skin topically with skincare products containing ingredients like hyaluronic acid.

EMBRACE ANTIOXIDANTS

Antioxidants are superheroes for your skin, especially during summer. The sun can cause unstable molecules, called free radicals, to damage cells in your skin. But antioxidant-rich foods such as berries, citrus fruits, leafy greens, and green tea can stabilize those free radicals, so they don't damage your skin cells. Antioxidants also promote collagen production, keeping your skin youthful and glowing.

POST-SUN CARE

Pamper your skin with post-sun care after a day of fun in the sun. Take a cool shower to soothe your skin and remove any sweat or sunscreen residue. Follow up with a hydrating and soothing moisturizer to replenish lost moisture. If you get sunburned, apply aloe vera gel to soothe the affected areas.

ALWAYS RE-APPLY SUNSCREEN

Remember to reapply every two hours, especially if you're swimming or sweating. You



can even try a powder or compact SPF 30+ if you don't want to keep applying a liquid formula. You should use sunscreen even on cloudy days. Although clouds can cover the sun's rays, they cannot stop UV rays. And while UVB can't penetrate glass, UVA can. UVA exposure leads to collagen degradation and can accelerate signs of aging. Therefore, protection is still necessary even indoors or when sitting in a car to maintain youthful, smooth, and healthy skin.

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