ARTICLES

Tracking China's Space Activities: 20th - 26th September, 2026

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EXECUTIVE BRIEF & KEY FINDINGS

Dear Reader ,China's space ambitions gathered pace this week, with a succession of launches and new efforts to make satellites more capable. Among the highlights were the Diting-01 satellites, marking China's entry into commercial space-based radio-frequency monitoring - a field with growing relevance for maritime awareness and security. On the ground, Wuxi-based firm Zhisan Starry Sky presented its AS-1 intelligent computing prototype, designed to help satellites process observations in orbit and send useful results back to Earth sooner. Together, these developments point to an ambition that extends beyond launching more satellites to making better use of the information they collect.Here's how the week unfolded.

Launch of PIESAT Satellites

A ST Daily article announced the **launch of four PIESAT-2 satellites** (13 to 16) by a Long March-2D rocket from Taiyuan Satellite Launch Centre on 19 Sep 2026. According to the Chief Designer the satellites are equipped with high resolution SAR payloads with inorbit data analysis and mission planning and facilitate end-to-end workflow. The satellites were developed by Galaxy Space (Beijing) Technology Group Co., Ltd. 银河航天（北京）科技集团股份有限公司(ST Daily. 20 Sep 2026. Page 2. Long March-2D successfully launches four

Satellites in Single Mission(长征二号丁"一箭四星"发射成功))

Nine Satellites successfully launched

A Lijian-1 Y18 carrier rocket launched from Dongfeng Commercial Aerospace Innovation Test Zone on 20 Sep 2026, **successfully inserted nine satellites** including the "Supercomputing -1" satellite into their predetermined orbits. (ST Daily. 21 Sep 2026. Page 2,(力箭一号"一箭9星"发射成功))

*Supercomputing (Chaozhisuan)-1"(*超智算一号) *is a high-resolution remote sensing satellite custom-developed under the leadership of Chaozhisuan (Beijing) Technology Co., Ltd. Equipped with a 4-meter resolution visible-light camera and an AI computing unit, the satellite possesses capabilities such as optical remote sensing imaging, on-orbit data processing, and target recognition. Its data applications primarily serve sectors including smart cities, natural resource surveys and monitoring, precision agriculture, ecological and environmental protection, and emergency disaster relief.*

Launch of initial batch of 3 Diting-1 satellites in China's first commercial signals intelligence constellation

Out of 9 satellites launched from Dongfeng Commercial Aerospace Innovation Test Zone**,** three of them were **"Diting-01"** (谛听) (named after a divine mythical creature and the steed of Bodhisattva K?itigarbha in Chinese Buddhism who can identify everything in the world by listening) Group A, B, and C satellites are commercial electromagnetic spectrum monitoring satellites developed under the overall management of Tianjin Xingkan Jiuzhou Technology Co., Ltd. These satellites operate like sharp ears in space, constantly "listening" to radio signals rising from the Earth's surface.

They can pick up everything from warship radars and military communication networks to electronic jammers, and instantly locate where each signal is coming from. They are primarily used to verify space-based electromagnetic spectrum monitoring technologies. The "Diting" constellation represents China's first use of a three-satellite formation for commercial space-based RF data acquisition; it enables wide-area electromagnetic spectrum situational awareness and the rapid, precise localization of radio emission sources, providing "remote sensing data" and analysis services at the electromagnetic spectrum level. (SCMP 23 Sep 2026. China launches its first commercial radio-tracking satellites in electronic warfare leap.)

With the Diting-01 launch, China has entered a small group of countries with commercial space-based radio-frequency (RF) geolocation capability - a field so far led by the US's HawkEye 360 and France's Unseenlabs, both of which already operate multi-satellite constellations that detect and geolocate radio emissions from orbit. China's initial launch has 3 satellites which is aimed for a 60 satellite network. China is in a process of building the same real-time signal-geolocation capacity that has made HawkEye 360 and Unseenlabs valuable to militaries and maritime-security agencies alike, tracking hidden emitters like warship radars, jammers, and unregistered vessels that go dark on AIS.

The "Pengcheng-Nanke-1"(鹏城南科) was another satellite launched by Lijian-1 Y18 rocket. It's a technology verification satellite integrating communication, computing, and remote sensing capabilities, jointly developed by GalaxySpace, Pengcheng Laboratory, and the Southern University of Science and Technology (SUSTech). It carries payloads including a 3GPP-standard 5G NTN (Non-Terrestrial Network) communication system, a "digital retina" on-orbit computing unit, and a space-to-ground laser communication system. Its primary mission involves the on-orbit, time-shared verification of 5G NTN space-ground communication, space-borne AI computing power, and 100Gbps high-speed space-ground laser communication. Also launched on this mission were the Yunxiao Pathfinder satellite (developed by the Institute of Mechanics, Chinese Academy of Sciences), the Qinling-01 and Qinling-02 satellites

(developed by Northwestern Polytechnical University), and the Pujiang-4 satellite (developed by the Shanghai Institute of Satellite Engineering).

CAS Space is the commercial aerospace company in China's private sector with the highest number of satellite launches and the greatest total payload mass launched. This mission marked the 16th flight of the Lijian-1 launch vehicle and the 17th launch for the Lijian series. To date, the Lijian series has successfully delivered one spacecraft and 121 satellites into space, with a total orbital payload mass exceeding 21 tonnes. (ST Daily. 21 Sep 2026. Page 2. Lijian-1 Successfully launches Nine Satellites in Single Mission(力箭一号"一箭9星"发射成功))

Development of Spacesuits

A ST Daily article shares **developments in China's Spacesuits**. The article highlights that development of *wangyu* lunar landing suit is progressing smoothly while the *feitian* space suit enabled Chinese astronauts to set a world record of nine hours in a single extra-vehicular activity(EVA) and 20 EVA in four years. To achieve this, Astronaut Centre of China has developed several important technologies such as long life and high reliability life support systems, complex space environment information transmission and high reliability real-time information architecture and integrated ground-space health assessment. (ST Daily. 20 Sep 2026. Page 2. China's Extravehicular Spacesuit Technology ranks among the World's Best (我国舱外航天服整体技术国际先进))

Three generations, one mission: China marks 34 years of human space flight

On 21 September, exactly 34 years after China first approved its human spaceflight programme, the country's space agency brought together astronauts and engineers from three different generations to talk about what comes next: a crewed landing on the Moon.

Deputy chief designer Yang Liwei (a Major General and formar military pilot) who was China's first taikonaut back in 2003, explained how the mission will actually work. Two rockets will launch separately one will carry the astronauts' spacecraft while the other carry a lunar lander. The two will meet and dock while circling the Moon, after which the astronauts will climb into the lander, descend to the surface, carry out their work, then launch back up to rejoin the spacecraft for the journey home. He also talked about the difficulty of rescue at such a great distance from Earth. He said, there's little room for backup plans if something goes wrong at a distance of 380,000 kilometres from Earth.

Rocket designer Long Lehao shared a more personal story — one from 1996, when a Long March 3B rocket he had helped build crashed and exploded just seconds after liftoff. It took his team 551 days of around-the-clock work to figure out what went wrong and fly successfully again. He still remembers it, he said, as the period that turned his hair grey overnight. That same rocket model has since flown well over a hundred missions and is now one of the most reliable in China's fleet — though independent counts put its success rate slightly lower than the figure cited at the briefing, at roughly 96–97%, still a strong record by any measure.

The event closed on a quieter note. Yang Liwei revealed that he and the rest of the original 14 taikonauts have now stepped back from active duty, passing the baton to younger colleagues. "I am delighted to see many young people joining our team," he said, noting the second generation now forms the programme's backbone, the third is gaining experience, and the fourth is beginning to shine. It was a fitting note ahead of China's next great challenge of putting a person on the Moon.

(ST Daily. 21 Sep 2026. "一心一意一辈子，一生只做一件事"——三代航天人共话"走好新时代太空探索新长征")



Image Source : ST Daily 25 Sep 2026

Zhisan Starry Sky develops AS-1 star-mounted intelligent calculation unit

Science & Technology Daily published an interview of Lin Ziyang, CEO of Zhisan Starry Sky (a Wuxi, Jiangsu based company established in Jan 2026) . Zhisan Starry Sky or *Zhisuan Xingkong* （智算星空）is developing the AS-1 computing unit to carry out some of that work directly aboard satellites. The device would use AI to identify objects, detect changes and send back relevant findings, reducing the need to transmit large volumes of raw imagery. During a wildfire, for example, this could help emergency teams receive an alert much sooner. The prototype weighs under 2 kilograms, consumes around 90 watts and, according to the company, can perform 248 trillion operations per second. It remains under ground testing, with radiation protection, heat removal and recovery from technical faults among the challenges to overcome. The project forms part of China’s broader space-computing push, which includes plans for a 2,800-satellite network. Its practical promise is faster information for disaster response, maritime monitoring and defence, although reliable operation in space and affordable deployment remain essential.

China’s push into space computing has clear dual-use potential: processing data aboard satellites could speed up disaster alerts while supporting military surveillance.
With suitable sensors and AI models, it could help detect ship movements and changes at military installations, delivering useful information faster. This could strengthen China’s position in the global space technology race, although AS-1 remains under ground testing and its operational capabilities are yet to be demonstrated.

(ST Daily 25 Sep 2026 (从“传数据”到“出答案”-AI上天让卫星在太空“先算一步))

Veterans mark seventy years of China's space industry

At a 22 September symposium celebrating seventy years of China's aerospace sector, veteran designer Qi Faren credited the Communist Party's leadership for the programme's steady progress. He recalled how satellite development

was delayed in 1958 to prioritize the atomic bomb and missiles, and how a 1970s crewed-spaceflight effort was shelved in favour of practical satellite applications, before China finally approved its own paced, three-step crewed space programme in 1992. Five other veteran figures and a younger generation of aerospace workers also spoke at the event.

It's an official retrospective rather than an independent account, but it offers a clear window into how China frames its own history — as one of patience and sequencing rather than urgency or rivalry. (Science and Technology Daily, 22 September.(庆祝中国航天事业创建70周年座谈会举行))

As we wrap up, this week showed China's space programme moving forward on two fronts. In orbit, the Diting launch and the new AS-1 computing prototype point to the same goal: making satellites smarter, not just launching more of them. On the ground, the human spaceflight anniversary told a different but related story i.e., of discipline and generations working toward China's most ambitious mission : a crewed Moon landing.

More to come next week , thanks for reading, and do send your thoughts along.

Happy reading !
