12 injured in Taiwan gas explosion

Twelve people were injured in a gas explosion at a food processing factory in Taiwan's New Taipei City Wednesday morning, according to the local fire department.

The explosion ripped through the factory at around 11:27 a.m., with five men and seven women hospitalized.

More than 140 firefighters and 53 emergency vehicles arrived at the scene.

Preliminary investigation showed the explosion was caused by a gas leak.

Further investigation is underway.

9.4 mln students sit China's college entrance exam

A total of 9.4 million Chinese students Wednesday began the annual national college entrance examination, known as the Gaokao, which will have a large impact on their futures.

According to the 2017 enrollment plan issued by the Ministry of Education, some 3.72 million of these students are expected to enroll in undergraduate degrees following the examination, nearly 10,000 more than in 2016. However, competition is fierce to get into top institutions.

Local authorities have taken extra measures to eliminate cheating, which, since last year, can be treated as a criminal offence. Increasingly sophisticated cheating methods have impaired the integrity of examination, which is intended to be a level playing field.

In east China's fiercely competitive Shandong Province, the local education department has ordered college students not to ask for leave during the examination period, except in special circumstances, to prevent them acting as substitute exam takers.

"The whereabouts of absentees who do not have sufficient reasons must be investigated. Stricter procedures must be followed in approval of leave requests," according to a directive issued by the department.

Zhang Zhiyong, deputy director of the department, said, the move "aimed to eliminate problems that may enable cheating."

Police in central China's Henan Province, which has the most exam takers at

more than 860,000, have arrested 16 people suspected of operating businesses related to exam cheating. They have confiscated equipment including signal emitters, cell phones and laptops.

In Beijing, which has more than 60,000 exam takers, local authorities have stepped up management of examination papers. The papers were delivered to the city's 92 examination sites under police escort. The deliveries were monitored by GPS positioning and video surveillance systems.

"My family was poor and couldn't afford to send me to the college, so I started working as a teenager," said Du Wanjun, father of a Beijing exam taker. "But now, all children can compete for university places and many can succeed. I'm really happy for them."

He said he does not hold expectations for high exam results. "I hope my daughter can relax and try her best. The Gaokao is just an experience," said Du, who unlike many parents left the campus without looking back.

Some parents are not as calm as Du. In the city of Changchun in northeast China's Jilin Province, a mother told Xinhua that she got up at 4 a.m. to cook a breakfast of carp for her child.

There is an ancient Chinese legend about a carp that jumped over a high gate and became a dragon, which is often used as a metaphor for academic and career success. "I chose carp to wish my child a 'leap' in the exam," said the woman as she waited anxiously outside the exam site.

This year marks the 40th anniversary of resumption of the Gaokao after it was disrupted by the Cultural Revolution (1966-76).

In recent years, many high school graduates have chosen to attend overseas universities. However, the overwhelming majority of Chinese students and parents regard the Gaokao as a fair way for Chinese universities to select students for enrollment and a competition they cannot afford to lose.

A report released by China Education Online showed that the number of students taking the exam has declined from its peak of 10.5 million in 2008, and has remained stable at around 9.4 million since 2014.

China discloses Chang'e 5 lunar probe landing site

China's Chang'e 5 lunar probe is expected to land in the Mons Rumker region, and to take moon samples back to earth at the end of the year, according to a Chinese space official.

Liu Jizhong, director of China Lunar Exploration and Space Engineering Center of China National Space Administration (CNSA), for the first time disclosed the probe landing site, an isolated volcanic formation located in the northwest part of the Moon's near side.

Liu also mentioned China's Chang'e 4 lunar probe. Delivering a report at the Global Space Exploration Conference, which opened in Beijing Tuesday, he said China's Chang'e 4 lunar probe, which is expected to be the first human carrying probe landing on the far side of the moon, would be launched in 2018, carrying 11 scientific payloads, including four developed by other countries.

He said lunar exploration had many international cooperation opportunities and that constructing the international moon village or international research station, proposed by European Space Agency (ESA), was also a long-term goal for China.

"China is planning and designing its future lunar exploration program. We will focus on the south pole region of the moon. The research on water and the permanent shadow area of the lunar south pole region will bring greater scientific discoveries," Liu said.

He said that China would push forward international cooperation in exploring the south pole of the moon, constructing lunar scientific research station and establishing long-term energy supply and autonomous infrastructures.

Liu proposed jointly exploring the lunar polar region and constructing the scientific research station as a guide for the international moon village or station, following international law.

He also proposed creating an open platform for cooperation in accordance with the principle of "sharing the risks and achievements," and to set up the International Union of Planetary Scientists and the International Union of Planetary Science College Students.

He said scientists from different countries might jointly formulate scientific objectives, develop scientific payloads and carry out scientific data research.

"Partners may develop probes and facilities independently, which will complement each other. Enterprises are also encouraged to actively participate in lunar exploration," Liu said. "Intergovernmental cooperation should be strengthened, and governments should co-ordinate existing deep space exploration infrastructures to share the resources and enhance investment efficiency."

At the conference, Wu Yanhua, vice administrator of CNSA, honored the international partners of China's Chang'e 4 mission, which will carry payloads from the Netherlands, Germany, Sweden and Saudi Arabia.

Since China proposed international cooperation on the Chang'e 4 mission last year, China has received more than 20 schemes from other countries.

"We support more international cooperation in China's future lunar and Mars missions, as well as exploration to the Jupiter system and asteroids that are still under discussion," Wu said.

"It is exactly what I was looking forward to," said Jan Woerner, director general of the ESA. "It will fit perfectly to the moon village, ESA's vision for international cooperation on the moon."

China's space station to help maintain co-orbital telescope

China will develop and launch a two-meter-caliber space telescope, which will share the same orbit with the country's future space station, said Yang Liwei, deputy director of China Manned Space Agency.

The telescope will dock with the co-orbital space station for refueling as well as maintenance and exchange, Yang revealed at the ongoing Global Space Exploration Conference (GLEX 2017) which began Tuesday in Beijing.

Used for large-scale, multi-color imaging and seamless spectroscope surveying, the space telescope is expected to provide observation data for astronomical and physical studies, said Yang, who is also China's first astronaut.

China will launch the core module of the country's manned space station in 2019 as the first step in completing the country's first space outpost.

The station, expected to begin operation by 2022 and orbit for at least 10 years, will be composed of three modules: core module, experiment module I and experiment module II. Each module will weigh more than 20 tonnes and together the three will be structured in a T shape, with the core module in the middle and an experiment module on each side.

The three modules will be equipped with advanced multipurpose facilities for scientific experiments in many fields, including space life science and biotechnology, microgravity fluid physics and combustion, and material science in space, Yang said.

With the International Space Station set to retire in 2024, the Chinese space station will offer a promising alternative, and China will be the only country with a permanent space station.

The station, orbiting 340 to 450 kilometers above the Earth's surface, will usually accommodate three crew members, with a maximum crew capacity up to six during rotations, Yang said.

The crew will be transported to the station by Shenzhou spaceships, and airtight cargo, large extravehicular payloads and experiment platform will be delivered by cargo ships, he said.

China sent its first cargo spacecraft Tianzhou-1 into space in April. Cargo ships will be sent to help maintain a space station.

<u>China emphasizes peaceful space</u> <u>exploration</u>

China wants to improve space infrastructure and develop space sciences under the principle of creating peaceful cooperation in outer space, said an industry leader.

Wu Yansheng, president of China Aerospace Science and Technology Corporation (CASC), made the remarks at the ongoing Global Space Exploration Conference (GLEX 2017) which began Tuesday in Beijing.

He said that China will continue to provide services for other countries, including international commercial launches and sending satellites into orbit.

According to Wu, China plans to set up a space station around 2022, and launch Chang'e-5 lunar probe in late 2017 to collect samples from the moon.

China plans to send a probe to Mars around 2020 and launch the Chang'e-4 lunar probe for a soft landing on the far side of the moon in 2018, he said.

China is also working on a concept for a manned lunar landing.

The mission will consist of a manned spaceship, a propulsion vehicle and a lunar lander. The manned spaceship and the lunar lander will be sent separately into lunar orbit, according to Wu.

The conference, which ends Thursday, was jointly held by the International Astronautical Federation (IAF) and the Chinese Society of Astronautics and follows the GLEX 2012 conference held in Washington D.C.

International space engineers and delegates from leading aerospace companies including Boeing, Lockheed Martin and Airbus attended the conference.