Photo: Theerasak Sakskritawee

FORMOSAT-5 LAUNCHES SUCCESSFULLY, MAKES CONTACT WITH GROUND STATION

Taiwan's first indigenously produced ultra-high resolution Earth observation satellite Formosat-5 was launched at 2:51 a.m. Aug. 25 Pacific Daylight Time from Vandenberg Air Force Base in California, representing a milestone in the nation's space technology industry.

Operated by National Space Organization in northern Taiwan's Hsinchu City, the satellite was carried into a low Earth orbit by Space X's Falcon 9 rocket and established contact 82 minutes later with Svalbard ground station in Norway. It will be put through one month of testing before taking up a sun synchronous orbit at an altitude of 720 kilometers with a 98.28 degree inclination angle.

President Tsai Ing-wen congratulated NSPO on the accomplishment via her official Facebook and Twitter accounts. She said Formosat-5 is the culmination of many years hard work and something the people of Taiwan can truly be proud of. According to NSPO, which is administered by the National Applied Research Laboratories under the Ministry of Science and Technology, the successful launch and deployment of Formosat-5 is a credit to the more than 50 academic and industrial groups that worked together for six years to take Taiwan to the stars.

Capable of capturing 2-meter resolution panchromatic and 4-meter resolution multispectral images, the satellite's

primary functions include academic research, assisting in disaster relief operations and observing climate and environmental change attributed to global warming. It will take over from Formosat-2, which was decommissioned in August 2016 after 12 years spent recording a steady stream of images over Taiwan, as well as other parts of the Earth. Another component of the Formosat-5 mission is the Advanced Ionospheric Probe. Developed by Taoyuan City-based National Central University with the support of the Ministry of Education, the world's smallest all-in-one space plasma sensor will document space weather and seismic precursors associated with strong earthquakes.

Source: Taiwan Today, Photo: Courtesy of Executive Yuan

Established in 1991, NSPO is dedicated to becoming a center of innovation for space technology, working to establish indigenous space technology and conducting domestic and international space programs.

MAZU EXHIBITION SHOWCASES TAIWAN'S CULTURAL TRADITIONS

An exhibition on one of Taiwan's most revered deities – Mazu, goddess of the sea – now is in Taipei City as part of government efforts promoting greater awareness of local cultural and religious traditions linking ethnic Chinese communities throughout Southeast Asia.

Organized by Taipei-based General Association of Chinese Culture, the event runs until Oct. 10 at GACC headquarters. It comprises five sections: tales of the sea goddess, origin and development of the religion, different customs across Asia, rituals related to Taiwan's Mazu beliefs and the country's annual pilgrimages. GACC Vice President Chiang Chun-nan said the Mazu belief and customs can be tracked to Chinese migration to countries such as Malaysia, Singapore and Vietnam. The exhibition seeks to shed light on this movement and the resultant deep cultural links between Taiwan and these communities, he said.

Chang Tieh-chih, deputy secretary-general of the GACC, echoed these remarks, adding that the association is presenting Mazu at the exhibition using the latest high-tech approaches so

Source: Taiwan Today, Photo: Courtesy of Taichung City Government

as to better appeal to the younger generations. Some of these include animations, graphics, interactive displays and projections. "Culture has no borders," Chang said. The Mazu ritual originates among fishermen in the coastal provinces of mainland China and took root in Taiwan in the 1730s. The deity is enshrined at 510 temples around the island, and in 2009 the Mazu belief and customs were included on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity.

GACC, which is headed by President Tsai Ing-wen, has worked since its establishment in 1967 to support the deepening of Taiwan culture, foster cultural exchanges with other countries and territories, and facilitate the development of local cultural and creative industries.

TAIWAN HEADQUARTERS OF **TESLA** INAUGURATED IN TAIPEI

The Taiwan headquarters of electric carmaker Tesla Inc. were inaugurated August in Taipei City, representing a vote of confidence in the potential of the local market by the U.S.-based outfit.

Situated in Neihu District, the combined administration, education, experience, service and showroom facility is the first of its kind launched by Tesla worldwide. It is expected to play a key role in further fostering the development of Taiwan's electric vehicle industry.

Shen Jong-chin, deputy minister of economic affairs, said at the inauguration ceremony that EVs are part of the government's green energy policy. They reduce dependency on petroleum imports and through zero emissions, contribute to slashing the coun-

try's greenhouse gas production, he added.

According to Shen, the ministry is working with Intelligent EV Promotion Office and state-backed Automotive Research and Testing Center to create an environment friendly to electric vehicles in Taiwan. It is anticipated this will help establish a complete supply chain and spur quality job creation, he said.

Taipei City Government's Department of Economic Development welcomed the official opening of Tesla's headquarters, describing it as another step forward in municipal efforts to transform Neihu into a demonstration zone for new energy innovation.

Robin Ren, vice president of Tesla Asia-Pacific, said the local government's enthusiasm for innovative industries is appreciated and augurs well for the EV industry in Taiwan.

Tesla will repay this support by assisting homegrown firms cultivate an EV ecosystem, maintaining investment in supercharger infrastructure and working with the nation's tertiary education institutions on related talent cultivation, he added.

Source: Taiwan Today, Photo: Courtesy of Ministry of transportation and communications

MOST unveils US$132 million Taiwan AI semiconductor project

Science Communication
Ministry of Science and Technology
科 技 部

An NT$4 billion (US$132 million), four-year project assisting Taiwan's semiconductor industry develop cutting-edge process technologies and foster talents specializing in artificial intelligence was announced Aug by the Ministry of Science and Technology.

Expected to commence next year, the initiative encompasses cognitive computing and AI processor chips; next-generation memory designs; process technologies and materials for key components of sensing devices; unmanned vehicles and augmented and virtual reality applications; and Internet of Things systems and security.

It also involves promoting academic-private sector collaboration in producing more talents versed in semiconductor process technologies, material development and integrated circuit design. MOST Minister Chen Liang-gee said Project Moonshot draws on Taiwan's world-leading technological prowess and will slingshot it to the head of the

international pack in the race to develop the latest AI applications. The timing is also opportune as local firms must be ready for fresh challenges in 2022 when global high-tech heavyweights are likely to launch commercial production of chips made with the advanced 3-nanometer technology node, he added. According to the ministry, the initiative has the backing of local powerhouses such as Advanced Semiconductor Engineering Inc., MediaTek Inc., Phison Electronics Corp. and Taiwan Semiconductor Manufacturing Co. Ltd. The project is one of many AI-related initiatives recently launched by the MOST. Last month, it unveiled an NT$5 billion, five-year plan for recruiting local and foreign talents, as well as setting up three to four AI innovation research centers nationwide. A total of NT$2 billion is earmarked for investment in AI research and cloud platforms by the ministry before year-end 2018. This commitment falls under the government's Forward-looking Infrastructure Program—an NT$420 billion, four-year initiative aimed at stimulating growth and driving industrial transformation in Taiwan.

Source: Taiwan Today, Photo: Courtesy of the MOST

Taipei's convenient double-decker sight-seeing bus service

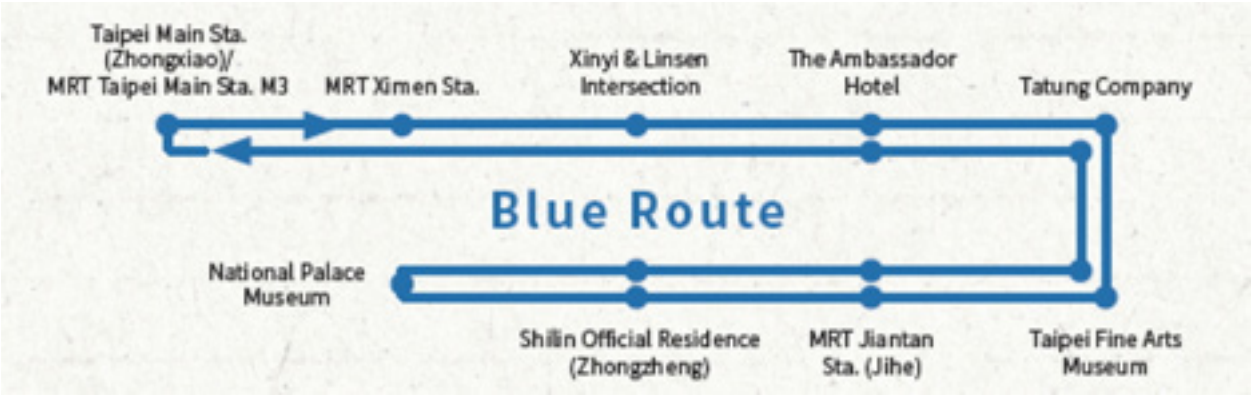
There are red and blue routes in this bus service. The Red Route takes in Taipei 101, Huashan 1914 Creative Park, etc. The Blue Route takes in the Shilin Official Residence, National Palace Museum, etc. There is on-board Chinese, English, Japanese, and Korean audio-guide information. First, let us see the Red Route.

Xinyi & Linsen Intersection (National Chiang Kai-shek Memorial Hall)
The memorial hall is well known for its blue and white exterior. It hosts regular cultural-arts exhibits and a popular hourly changing-of-the-guard ceremony. On its two sides are the National Theater and National Concert Hall.

Songlian & Songzhi Intersection
Taipei 101
This skyscraper is Taiwan's most iconic landmark. In the mall at its base are global-brand boutiques and premium restaurants. The entire city can be taken in at a glance from the 89th floor Observatory.

MRT Sun Yat-sen Memorial Hall Station
Dr. Sun Yat-sen Memorial Hall
A dazzling work of Tang Dynasty palace-style architecture, this multifunctional complex has a national-caliber performing-arts auditorium, art gallery, exhibition rooms, and lecture halls. The hall has a rich program of shows and exhibitions.

Now the Blue Route.



Taipei City Government

National Palace Museum
The NPM has approximately 690,000 cultural treasures in its collection, most from the Song, Yuan, Ming, and Qing dynasties, including paintings, sculptures, books, and other precious artifacts. This is a must-visit spot when in Taipei.

Shilin Official Residence
Featuring exquisite Chinese garden-style landscaping, with Western-style flower gardens blended in, there is a wonderful spring rose bloom here each year, plus chrysanthemum, orchid, and other exhibitions when in season.

For more information, please visit taipeisightseeing.com.tw

Riding the Rails

Taiwan Review
by Oscar Chung

Taiwan's extensive railroad network comprises conventional lines, the high-speed rail, International Airport Mass Rapid Transit System and urban metro systems.

Trains run along the Jiji Line in central Taiwan's Nantou County. (Photo courtesy of Yen Tsan-cheng, Taiwan Railways Administration)

International Airport Mass Rapid Transit System

The Taiwan Taoyuan International Airport Mass Rapid Transit System shuttles travelers from the nation's largest airport to Taipei Main Station in the heart of the capital city in about 35 minutes. From there, passengers can transit to the Taiwan High Speed Rail (THSR), Taipei metro or conventional trains operated by the Taiwan Railways Administration (TRA).

Those entering the country through Kaohsiung International Airport and Taipei Songshan Airport, Taiwan's second and third busiest air transport hubs, respectively, have been able to seamlessly transfer to various rail services for years. The former is connected to the subway system serving the southern Taiwan city. The latter has a station on the Taipei met-

ro's Wenhu Line, more commonly known as the brown line.

The Kaohsiung metro's Formosa Boulevard Station is famous for its glass dome. (Courtesy of Kaoshiung City Government)

THSR

Running along Taiwan's west coast and linking Taipei and Kaohsiung, as well as major cities in between, the 348.5-kilometer THSR began operations in 2007. Its trains are state-of-the-art and run at speeds of up to 300 kph.

TRA

While the THSR enables speedy travel over great distances, it is the much older TRA system operating at slower speeds – at most 130 kph – that provides the more pleasurable travel experience. Launched in 1887 during the Qing dynasty, the conventional rail system circumnavigates Taiwan proper, measuring a total of 1,064.5 km. It connects many of the nation's cities and counties, taking passengers to a total of 228 stations.

The TRA plays a significant role in encouraging local and foreign tourists to explore the splendors of Taiwan, including the administration's own historic assets. A notable effort in this regard was the 2011 project Discover Taiwan by Railway, which rewarded visitors to 100 selected stations with unique stamps designed for each location as well as travel-related coupons. The list of stations acted as a kind of guidebook for rail travel enthusiasts, with highlights including Hsinchu Station, a national historic site in northern Taiwan, and Jiuqutang Station in southern Taiwan, just a short walk from the now-defunct Kaoping Iron Railway Bridge, also a national historic site.

In addition, the TRA's three branch lines are historically significant. The Pingxi Line in the northeast, Neiwan Line in the north and Jiji Line in central Taiwan were all originally built to carry natural resources or construction materials. Since then, they have been converted to serve commuters as well as tourists keen on exploring the small towns found along their routes. Passengers can also learn about the nation's history by visiting places like the Taiwan Coal Mine Museum near the Pingxi Line's Shifen Station. According to Chen Yu-mou, chief of the Commercial Section in the TRA's Transportation Department, the northeastern branch line is the TRA's most popular with domestic as well as international tourists, many of whom stop at Pingxi Station to admire and take part in the releasing of sky lanterns, a popular local activity.

While the branch lines are the nation's best-known rail attractions, some of the main TRA lines offer equally spectacular sights and experiences, according to rail travel expert Su Jhao-syu Su is particularly captivated by the South Link Line connecting Pingtung County in southern Taiwan to the southeastern county of Taitung.

"The southern line runs past one mountain and two seas," he said, referring to its route through part of the Central Mountain Range and along both sides of Taiwan's

southernmost tip between the Taiwan Strait to the west and Pacific Ocean to the east. The unusually high number of tunnels – 35 in total – on this section makes the train ride even more worthwhile for Su. "Travelers find themselves again and again entering darkness and anticipating the next moment when the bright blue ocean will appear."

Su said an equally worthy rail journey is the one between Hualien and Taitung stations in eastern Taiwan. Running about 150 km along the East Rift Valley, this stretch of line takes passengers through a region endowed with rustic beauty and simple charm. "You can savor Taiwan's most beautiful pastoral symphony on this ride," he said. Wu recommends the East

Daan Park Station on the Taipei metro Tamsui-Xinyi Line is centrally located and known for its unique architecture(Courtesy of Taipei City Government)

Rift Valley, flanked by the Central and Coastal mountain ranges, as the perfect place to explore the increasingly popular trend of combining rail and bicycle excursions.

"Compared with rail systems in the vast majority of Asian countries today,

A trip down the east coast of Taiwan from Hualien County to Taitung County in the southeast is considered one of the best rail travel experiences in the nation. (Photo courtesy of Chou Po-cheng, Tourism Bureau)

Taiwan's stands out for its convenience and punctuality," said Su, who has traveled much of the world by train. "Rail travel is definitely a good option for international tourists wishing to explore Taiwan."

Traveling around Cities with Ease

The nation's two largest urban rail networks are the Taipei and Kaohsiung mass rapid transit (MRT) systems operating in northern and southern Taiwan, respectively. The third, smaller Taoyuan metro in the northern cities of Taoyuan, Taipei and New Taipei opened its first line in February.

Each metro system can be accessed with an EasyCard or iPass, smart cards originally designed for use in Taipei and Kaohsiung, respectively. The cards, which facilitate payments at many businesses around Taiwan, can also be used at all conventional rail stations as of July 2016.

Should you have any question, please contact us at taiwaninfo.hungary@gmail.com
TAIPEI REPRESENTATIVE OFFICE, HUNGARY
1088 Budapest, Rákóczi Rd. 1-3./II.
tro.hu, **roc-taiwan.org/hu_hu**