



Science Technology and Education News from China

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Introduction

April 17, 2008, marked the day of the arrival of Louis Palmer's Solartaxi in China. During its 39-day journey through China, the Solartaxi provides for an excellent opportunity to promote Switzerland as a highly innovative, unconventional and environmentally friendly country. A few days later, various Ministries and international Organizations hosted an international high-level Forum on Climate Change and S&T in Beijing. China is catching up in terms of human Resources in Sci-Tech – this is the message of a new report, compiled by the China Association for Science and Technology. Please also find the latest news on recent projects related to atmospheric surveys and data relay satellites, on official Governmental statements on shutting down coal-fired power plants and the future of bioenergy in China as well as on the visit of various important S&T delegations to China.

Contents

1. Solartaxi Enters China	2
2. Forum on Climate Change and Science & Technology Innovation	2
3. China's Sci-Tech Human Resources Top 42 Million.....	3
4. Atmospheric Survey Starts In East China	3
5. China Launches Data Relay Satellite	3
6. No Hunger For Bioenergy	3
7. China Shuts 83 Small Coal-Fired Power Plants.....	3
8. Virus Killing Babies Is Very Different From Sars	4
9. Traditional Chinese Medicine Has More Advantages in Glaucoma Treatment.....	4
10. Beijing International Education Expo 2008.....	5
11. EPFL Delegation China Visit	5
12. Swiss Science Journalists Journey Through China.....	5

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1. Solartaxi Enters China

(Embassy, 2008-05-05)



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On 3 July 2007, Swiss adventurer and travel writer Louis Palmer set off from Lucerne on a world tour in his Solartaxi, promoting ideas of environmental protection as well as exploring the solutions to combating Climate Change and Global Warming. The Solartaxi entered the Chinese borders on 17 April 2008. The Kunming Municipal Government of Yunnan Province gave Mr Palmer and his team a warm welcome on their arrival on Saturday, 20 April 2008. Terence Billeter, Counsellor and Head of the Culture and Media Section at the Swiss Embassy in Beijing, made a speech during the press conference, stressing that Switzerland was at the forefront of environmental sciences in the world. He said, "We hope that wherever the Solar Taxi goes, it will provoke thinking, debate and action in the field of environmental protection. We also hope that the Solar Taxi will bring people together and that lasting friendships and cooperation will remain long after the Solar Taxi has returned to its home in the green valleys of the Swiss Alps."



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On 21 April 2008, the Solartaxi team visited Yunnan Normal University and Kunmin University of Science and Technology. Over one hundred students listened to Mr Palmer's informative and entertaining speech, following which the students were allowed to get a close look at the Solartaxi and to ask questions. Some were invited to sit next to Mr Palmer for a ride around the campus and enjoyed it greatly. Solartaxi's Kunming trip attracted wide media attention with more than 100 Chinese newspapers and websites reporting on it, reaching a nation-wide readership. Mr Palmer and his team has now continued their China leg onto Guangxi, Guangdong, Jiangxi, Zhejiang, and Jiangsu provinces. They plan to reach Shanghai and Beijing in May 2008. The 39-day journey through China is to cover 6,419 km.

2. Forum on Climate Change and Science & Technology Innovation

(MOST.gov.cn, 2008-04-30)

The Forum on Climate Change and Science & Technology Innovation was jointly hosted by the Ministry of Science and Technology (MOST), the Ministry of Foreign Affairs (MFA), the National Development and Reform Commission (NDRC), the Ministry of Environmental Protection (MEP), the China Meteorological Administration (CMA), Chinese Academy of Sciences (CAS), the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), and World Meteorological Organization (WMO) on April 24-25, 2008, in Beijing. The theme of the Forum was to address climate change through science and technology innovation.

More than 600 participants from about 30 countries and 10 international organizations attended the Forum, including senior state officials, prestigious experts, and representatives of enterprises and non-governmental organizations. Extensive discussions were held in sessions on science of climate change, strategy and policies of mitigating



climate change, impacts of and adaptation to climate change, key technologies and international scientific and technological cooperation, as well as finance and market mechanism.

Details on http://www.most.gov.cn/eng/pressroom/200804/t20080430_61057.htm

3. China's Sci-Tech Human Resources Top 42 Million

(Xinhua, 2008-04-29)

China has a human resources reservoir of 42 million in science and technology, said a report issued on April 29, 2008. The report, compiled by the China Association for Science and Technology, said 65.7 percent of the sci-tech human resources were below 40 years old, and the ratio of male to female was 2:1. The sci-tech human resources formed an important foundation for a nation's renovation capacity, and after half a century's efforts, China now stood at the forefront of the world in terms of the quantity of sci-tech human resources.

Details on http://news.xinhuanet.com/english/2008-04/29/content_8075594.htm

4. Atmospheric Survey Starts In East China

(CAS.cn, 2008-04-28)

With support from the Ministry of Science and Technology, scientists from the CAS Hefei Institutes of Physical Science (HIPS) have kicked off a research project to obtain a high-resolution vertical profile of key atmospheric parameters in east China, a region known for its developed industry, a dense population and heavy particle pollution.

Details on <http://english.cas.cn/eng2003/news/detailnewsb.asp?InfoNo=27113>

5. China Launches Data Relay Satellite

(Spacetoday.net, 2008-04-26)

A Long March rocket launched a data relay satellite that will be used to support China's human spaceflight program. The Long March 3C lifted off from the Xichang Satellite Launch Center in southwestern China at 11:35 am EDT on Friday 25 April 2008 (1535 GMT, 11:35 pm Beijing time) and placed into a geosynchronous transfer orbit the Tianlian 1 satellite. The spacecraft is billed as China's first data relay satellite, designed to transfer data from other Chinese satellites to ground stations. The major application of the satellite will be to enhance communications for China's Shenzhou manned spacecraft, which previously have only been able to communicate when in range of a ground station or tracking ship. The launch was the first for China in 2008.

Details on <http://www.spacetoday.net/Summary/4174>

6. No Hunger For Bioenergy

(China Daily, 2008-04-25)

China will strictly control bioenergy development at the cost of grain and oil crop shortage, declared Agriculture Minister Sun Zhengcai, on April 21 in a talk with the Danish Minister for Food, Agriculture and Fisheries Eva Kjer Hansen, in China on a visit.

Details on http://www.china.org.cn/business/news/2008-04/25/content_15013032.htm

Related news on <http://biopact.com/2007/04/greater-mekong-subregion-endorses-agro.html>

7. China Shuts 83 Small Coal-Fired Power Plants

(Xinhua, 2008-04-25)

China closed 83 small coal-fired generators with an aggregate capacity of 4.7 million kilowatts during the first three and half months of this year, the National Development and Reform Commission (NDRC) said on Friday.



Zhao Yinong, an official with the State Energy Administration under the NDRC, said the closed capacity accounted for 36 percent of the 13 million kw target set this year to save energy and reduce greenhouse gas emissions. The closures would help China save 7.1 million tons of coal and reduce carbon dioxide emissions by 14.2 million tons annually, since the closed capacity would be replaced by larger, more efficient plants.

Details on http://www.china.org.cn/government/central_government/2008-04/25/content_15015267.htm

8. Virus Killing Babies Is Very Different From Sars

(SCMP, 2008-05-05)

The World Health Organisation in a briefing on May 4, 2008 said the intestinal virus that has killed 24 children on the mainland amid fears of a regional health crisis should not be compared to the outbreak of Sars in 2003. Hans Troedsson, the WHO representative in China, also said the infectious enterovirus 71, or EV71, posed little threat to the Beijing Olympics in August. The virus, which is common in many parts of the world and causes hand, foot and mouth disease, has infected 4,552 children in central Anhui province since early March, with 22 dead in Fuyang city, the WHO said. Two infants in Foshan, Guangdong province, became the latest victims, Xinhua reported. Jiangxi also reported 10 cases of EV71 infection. Dr Troedsson said the outbreak, which also occurred in many other provinces amid growing fears of a regional crisis, was a completely different disease from Sars. "Sars was a new disease, which had a much higher case fatality rate and mainly affected adults," he said at a briefing. But EV71 was a well-known virus and "not uncommon" in other parts of the world, and there had been more outbreaks in the Asia-Pacific region, such as in Singapore, Vietnam and Australia. "You can't compare the two," he said. The Sars outbreak claimed more than 340 lives on the mainland and infected 5,300 people in 2003. Although it took local authorities more than 20 days to diagnose EV71 as the cause of the deaths, and much longer to alert the public, Dr Troedsson believed there was no deliberate government cover-up. The reason for local authorities' much-criticised delay in reporting the outbreak to Beijing was that they had not known the cause, he said. He said the first severe cases in Fuyang, in which the children died from lung diseases, did not show typical symptoms of the virus. "The WHO was informed immediately after they detected the virus and reported it to the China Centre for Diseases Control and Prevention," Dr Troedsson said. But the disease surveillance system and the provincial governments' mechanism for reporting to the national level should be improved. The Ministry of Health and WHO have issued warnings predicting the outbreaks would probably continue for the next few months because the virus tends to thrive in hot weather. But Dr Troedsson said it would not affect the Olympics. "I don't see it at all as a threat for the Olympics or any upcoming events ... This is a disease which mainly affects young children," he said. "The major peak of the disease usually comes in June and July and this outbreak was a bit early. We don't know if it is an early outbreak or there will be a peak later on." There was no sign that outbreaks in Guangdong, Hubei, Henan, Zhejiang, Jiangxi and Shandong were connected to the one in Anhui. "We don't know yet if they are different outbreaks or it has spread from one source. I think they're from different sources," Dr Troedsson said.

9. Traditional Chinese Medicine Has More Advantages in Glaucoma Treatment

(NSFC.org.cn, 2008-04-21)

Currently in China, surgery is still dominant in the treatment of glaucoma and most patients receive the filtering cure. Although surgery proves effective in controlling intraocular pressure, but may cause a series of surgical complications, and much more influence on the visual function and quality of patients' life. This is a challenge to glaucoma treatment -- it is necessary to control intraocular pressure, but also to protect their eyesight. And then, how to protect the optic nerve is the key to glaucoma treatment. It is undeniable that an ideal control of intraocular pressure is an important means for the protection of the optic nerve, but the prevention of non-intraocular pressure caused optic nerve damage can not be ignored. Therefore, the protection of optic nerve is still the important issue in glaucoma treatment.

Recently, funded by NSFC, Zhang Yi from Chengdu University of Traditional Chinese Medicine applied the national pharmic method in which the fleabane (also known as breviscinni) serves as the test object, measured the transmembrane influx of ^{45}Ca isotopes and experimented on the optic nerve cell culture in vitro. His group found that fleabane has good protection of the optic nerve. Using the effective components fingerprints of HPLC-DAD (High Performance Liquid Chromatography System) and plant chemical separation methods, they also discovered the active ingredients in fleabane, which takes on the protection of the optic nerve. The study provides an important



experimental basis for pharmacodynamics about the prevention and treatment of glaucoma optic nerve injury, as well as the mechanism about the optic nerve protection in the innovative study of traditional Chinese medicine.

10. Beijing International Education Expo 2008

(People.com, 2008-04-23)

BIEE 2008 will start on May 8 at the China International Exhibition Center in Beijing. It will feature in education display, cooperation discussion, and cultural events. The display area will occupy 13,500 square meters. The characteristics of BIEE 2008 include diversity of exhibitors. More than 200 universities and schools from 18 countries such the US, Britain, France, and Canada have registered. Local institutions include famous Chinese universities such as Tsinghua University, University of Hong Kong, Renmin University, as well as high caliber colleges and schools. At the same time, some International schools for expatriate children will also participate. Hi-tech companies such as Microsoft and Cisco will also attend this year to show case their training capabilities.

At the Press Conference for “Beijing International Education Expo 2008” (BIEE 2008), which was held inside the Beijing Municipal Education Commission on 23 April, it was highlighted that apart from new exhibiting countries such as Austria, Sweden, and Belgium, the No. 1 University in Switzerland, ETH Zurich would participate in the exhibition. The President of this world leading university would visit China for the opening ceremony of BIEE 2008. Under the influence, several other Swiss universities would participate this year.

11. EPFL Delegation China Visit

(Embassy, 2008-04-23)

A science delegation from EPFL, with the Deans from Basic Sciences, Engineering, Life Sciences, Environmental Engineering/Civil Engineering/Architecture, Information and Communication Technology departments, as well as 25 professors, led by Martin Vetterli, the Vice President for International Relations, visited China between 25 to 29 March 2008. They visited key science and technology related ministries and institutions in Beijing and Shanghai.

12. Swiss Science Journalists Journey Through China

(Thomas Müller, SASJ, 2008-05-03)

The journey of the Swiss Association of Science Journalism through China was a success. 18 of 20 envisaged visits could be realised. Already the kick-off meeting at the Ministry of Science and Technology was a pleasant surprise: Vice-Minister Liu Yanhua received the delegation.

The visits of the institutes and institutions thereafter worked more or less as intended. Almost all of the presentations were on a high level, and the researchers answered most of their questions in an open and direct way, even at institutions like the CAS-Institute of Plasma Physics in Hefei, where one could expect that «sensitive» matters might hinder an open discussion. Highlights of the tour have been the visits at Chengdu Research Base of Giant Panda Breeding, Beida University's School of Environmental Sciences, Shanghai Institute of Ceramics, and Fudan University's School of Social Development and Public Policy.