



### NEWS ITEM 27/09/13

### IAF GLOBAL NETWORKING FORUM AT IAC 2013

#### IAC 2013: A dynamic week of events at the IAF Global Networking Forum (GNF).

The variety of events taking place during the week at the highly popular and well attended Global Networking Forum (GNF) – introduced for the first time last year – started with the **'Heads of Agencies Press Conference'** on the first day of IAC 2013.

Launch capability would be the main challenge for China, according to Dr Ma Xingrui, Administrator of China National Space Administration (CNSA), who said his country would be working on increasing current launch capability of 10 tons to 25 tons with a baseline design of a new heavy lift launcher.

On China's manned lunar plans, Dr Ma stated that China's planned heavy lift rocket would have a liquid oxygen/kerosene powered core stage and use the same combination for the boosters, with a payload of at least 100 metric tons to orbit.

He said that, to date, China has developed three Long March launch vehicle series with 10 different versions capable of launching LEO, GEO and SSO spacecraft. It has conducted more than 160 launches and the safety, reliability and success rate of the Long March launch vehicle have reached world-class levels.

Dr Ma added that China's basic space infrastructure has played an important role in various fields such as the economy, science, culture, education and national defence, with "remarkable social and economic benefits".

He reiterated that while China was in favour of international cooperation in space, it had not actually been invited to take part in the Global Exploration Roadmap.

Charles Bolden, NASA Administrator, though limited by the US Government's official position, appeared to be in favour of China becoming an international partner - though he did not give a bottom line on whether the country should be part of Global Exploration Roadmap discussions.

Prof. Jean-Jacques Dordain, Director General of ESA, admitted that international projects have room for improvement, and cited the ExoMars experience in which funding reductions were problematic as a project that could have been improved.

Prof. Naoki Okumura, of Japan's JAXA agency, described his enthusiasm for international cooperation and noted his agency's plans to design a new launch vehicle to replace the H2 rocket series.

On the first day of the IAC the GNF then moved on to **'The Needs of the Asian market in terms of satellite operators and launchers'**, in the form of a round-table discussion with Donald Osborne, President of Satellite Systems MDA, Jean Max Puech, of Ariespace, Barry Matsumori, of SpaceX, Victor Nicolae, Starsem, and Gao Ruofei, of China Great Wall Industry Corporation, looking at the importance of developing the Asian market and the kind of challenges that lay ahead.

Tuesday GNF events kicked off with a lively event on **'Working with Chinese Space Partners'**



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designed to give those attending a better idea of how to do business with China.

Chinese space activities - covering commercial satellite applications, science and human spaceflight - have expanded rapidly in recent years, and this event was packed with delegates eager to learn more about how to make the most of working with Chinese space partners.

Dr Ruan Zongze, Vice-President of the China Institute of International Studies, introduced key speakers who addressed issues from their own perspectives between China and its foreign partners, as well as taking an overview of future opportunities.

Dr Gerd Gruppe, head of DLR space administration in Germany, said Chinese-German cooperation could be part of the future, and described the Chinese as having an inspirational "spirit of optimism" when it came to space.

The first GNF event on Wednesday was also hugely popular as it covered the subject of **'Space Medicine and Human Health'**.

The speakers – Jeffrey Sutton, Director of the Centre for Space Medicine at Baylor College of Medicine, Oleg Orlov, Deputy Director of the Institute of Biomedical Problems, Rupert Gerzer, Director of the Institute of Aerospace Medicine for DLR, and Li Yinghui, from the Space Medicine Unit at China's Astronaut Research and Training Centre – addressed a number of topics that included discussing the prospects for future development of space life science and medical research.

The development of space medicine is leading to new ways of approaching human health issues and study of the human anatomy, effectively producing a new set of guidelines and facts that will influence the way medical problems are treated.

Delegates heard that the unique laboratory of space has been able to contribute to our understanding of the body and in the future will prove profound in a number of ways.

Dr Sutton gave a brief perspective on what might be expected in 2020-30. "By 2020 we will have had two decades of continuous experience of the International Space Station (ISS)," he said.

Dr Sutton added that space biomedical research was complex, difficult and expensive but the potential rewards were enormous and he urged those present to "make a case for it".

Thursday 26 at the GNF began with A series of dynamic and thought-provoking presentations on the topic of Near Earth Objects (NEOs) and their potential threat to life on Earth.

Introducing the session, Alex Karl, Operations Engineer at Space Applications Services, described 'planetary defence' as the protection of Earth from asteroids or comets coming within 45 million km of earth.

Professor Scott Hubbard of Stanford University introduced the Sentinel spacecraft, a space observatory currently being developed by Ball Aerospace for the private non-profit philanthropic B612 Foundation.

The foundation is dedicated to the protection of Earth from asteroid strikes and Sentinel is B612's first spacecraft to begin to tangibly address that mission.



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On Thursday afternoon, The IAF Space Society Committee (SSC), together with World Space Week, organised an event within the GNF entitled "How the public fell back in love with space".

A lively debate upon the value of social media, tweetups, outreach and space education was joined by Jan Woerner from DLR, Andrea Jaime of the SGAC, Remco Timmermans from WSW and on video by Chris Hadfield, former astronaut. It was moderated by Scott Hatton, chair of the SSC.

The session featured innovative ideas on how to motivate and engage public interest in space, and an video address, as well as answers to questions from former ISS astronaut Chris Hadfield.

Other GNF sessions during the week included the **'Application and International Cooperation on Remote Sensing Satellites'**, which saw the participation of both Chinese and overseas remote sensing agencies to discuss the future application and international cooperation aspects of remote sensing satellite systems.

A number of astronauts were also present at various GNF sessions, including former NASA and ISS Astronaut Sandra Magnus, for a special audience Q&A, and the **'Astronauts Outreach Event'**. This session included ESA's Christer Fuglesang, JAXA's Chiaki Mukai and Dorin Prunariu, a former Intercosmos astronaut.

The final GNF session of the week was a workshop entitled **'Space Policy and Law in the Asia Pacific Region'**, an event created to promote cooperation among academic researchers through the exchange of information and opinions concerning space policies of the region.

Speakers included Tanja Masson-Zwaan, President of the International Institute of Space Law, KR Sridhara Murthi, of Jain University, Motokko Uchitomo, of the University of Tokyo and Olga Volynskaya from Roscomos.

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