Seminar on Civil Aviation Cooperation for Developing Countries

Program name	Seminar on Civil Aviation Cooperation for Developing Countries					
Organized by	Internation	International Exchange Center of Yangling Agriculture Hi-tech Industries Demonstration				
Time	2025-	10-14 2025		Language used	English	
Countries invited	Developing Countries					
Planned number of participants	25					
Requirements for the Participants	Age	Under 45 for officials at or under director's level; Under 50 for officials at director general's level.				
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	Language competence	Capable of listening, speaking, reading and writing in English during the training				
	others	Family members or friends shall not follow				
Venue	Xi'an City Provi		Weather condition	s 15°C~25°C		
Cities to be visited	Shanghai City		Weather condition	Shanghai City:18%	Shanghai City:18°C~27°C	
Remarks	1. Please prepare the discussion materials related to the theme of the program; 2. Please wear formal or traditional ethnic clothing or working uniform to formal activities; 3. Please carry a small amount of common medications; 4. The Chinese side will not provide computers, please bring your own if necessary; 5. It is generally prohibited to alter international flight tickets personally. If necessary, please consult the Economic and Commercial Office of the Chinese embassy in your country to handle the process of flight ticket change; 6. If unexpected circumstances prevent your timely departure, or if your connecting flight is delayed, please contact the Economic and Commercial Office or the contact person of the organizer in a timely manner and inform them of the latest flight information for pick - up arrangements; 7. When transferring flights, please confirm whether you need to recheck your luggage; 8. After collecting your luggage upon landing, please wait patiently at the international arrival exit or domestic arrival exit. Our staff will pick you up with a sign bearing the name of the organizer. If the wait exceeds 15 minutes, you can contact with the contact person of the organizer by phone; 9. It is recommended to download and register WECHAT in advance.					
Contact information of	Contact person for the program Ms.Zhou Yanling					

the organizer	Office phone	0086-29-87036061(Ms.Zhou)	
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The project will be jointly organized by the Yangling Agricultural High-Tech Industry Demonstration Zone and Northwestern Polytechnical University, leveraging the academic strengths of Northwestern Polytechnical University and the rich experience of the Yangling Demonstration Zone in international cooperation to create a high-level talent cultivation platform. The Yangling Demonstration Zone was established in 1997 as China first national-level agricultural high-tech industry demonstration zone. Since its inception, it has been dedicated to advancing agricultural high-tech fields. In 2011, the Ministry of Commerce set up the "China Dryland Agriculture Technology Training Base" here, marking the beginning of training programs for developing countries. Since 2005, when it began participating in international aid training projects, the Yangling Demonstration Zone has successfully organized over 180 such training sessions, attracting more than 5,000 participants from over 130 countries. Through long-term international cooperation and training practices, the Yangling Demonstration Zone has accumulated rich experience and developed a comprehensive training system that covers course design, teaching management, and participant services. Its abundant resources and mature operational model in international cooperation can help the seminar achieve significant results in international exchange and cooperation.

About the Organizer

Northwestern Polytechnical University (NPU), as a "Double First-Class" university focusing on talent cultivation and scientific research exploration, is affiliated to the Ministry of Industry and Information Technology. In 1960, the university was designated as a national key university by the Central Committee of the Communist Party of China. During the Seventh and Eighth Five-Year Plans, it was included in the list of key construction universities by the State Council. It was one of the first universities to enter into the 211 Project in 1995 and the 985 Project in 2001. In 2017, it successfully became a university under the "First-Class University" construction program (Class A), and is also a member of the "Excellence University Alliance" and an initiator of "the Belt and Road Aerospace Innovation Alliance".

The university has established close cooperative relationships with over 300 overseas universities, enterprises, and research institutes, including 72 universities ranked among the world's top 200. The university entered the global TOP133 in the Academic Ranking of World Universities. It boasts 14 national-level international cooperation platforms, initiating multilateral international exchange and cooperation platforms such as the Belt and Road Cultural Heritage Alliance and the International Alliance for Smart Internet of Things Cooperation on the Belt and Road; it has partnered with the Federation of Engineering Institutions of Asia and the Pacific to establish the Belt and Road Engineering Education and Training Center, set up an internship and practice mechanism with the International Institute of Software Technology at the United Nations University, and led the establishment of the International Green Aviation Association as an international academic organization.

Northwestern Polytechnical University (NPU) is widely recognized for its strong capabilities and distinguished achievements in civil aviation, making it an ideal destination for professionals from developing countries seeking advanced training and academic exchange. With a solid disciplinary foundation, NPU's Aerospace Science and Technology program

ranks first nationwide and enjoys a strong reputation both domestically and internationally. The university hosts several national key disciplines, including Aircraft Design, Aero Engines, and Human-Machine and Environmental Engineering. It has led the development of major national projects such as the C919 large passenger jet and the ARJ21 regional aircraft, playing a key role in advancing China's civil aviation industry. NPU has also made significant research breakthroughs in unmanned aerial vehicles (UAVs), general aviation, and advanced aviation materials—many of which have reached internationally leading standards. Backed by robust national support, NPU offers comprehensive teaching and research platforms, including national-level experimental and virtual simulation centers. Its faculty includes top scholars such as academicians of the Chinese Academy of Sciences and the Chinese Academy of Engineering, Changjiang Scholars, and recipients of the National Science Fund for Distinguished Young Scholars. The university maintains close partnerships with leading aviation enterprises such as COMAC and AECC and actively contributes to international civil aviation through engagement with organizations like the International Civil Aviation Organization (ICAO). Through these strengths, NPU is well-positioned to deliver impactful training and foster global cooperation in the civil aviation sector.

I. Main Contents

- 1. Introduction to China's National Conditions: systematically sort out Chinese political system, economic development process, social and cultural characteristics and regional development differences, focus on analyzing the main social contradictions in the new era (such as the goal of common prosperity), scientific and technological innovation capacity, ecological civilization construction and other contents, to help participants understand the foundation and challenges of China development.
- 2. Chinese Modernization and Development Strategy: Chinese modernization is the socialist modernization led by the Communist Party of China, sharing common characteristics with the modernization in other countries while also featuring distinct features based on Chinese national conditions. This course, guided by Marxism, systematically elucidates the historical logic, theoretical connotations, and practical paths of Chinese modernization, and provides an in-depth analysis of the top-level design and policy evolution of the development strategy of Socialism with Chinese Characteristics.
- 3. History of Global and Chinese Civil Aviation: Focuses on the development history of civil aviation worldwide and in China, covering the evolution from early aviation exploration to the rise of modern civil aviation. Analyzes key technological breakthroughs, major events, and industry transformations, aiming to reveal development patterns and future trends in the sector. 4. Introduction to Civil Aviation: This foundational course outlines the evolution of the civil aviation industry, its core components (airlines, airports, air traffic management), regulatory frameworks, and the role of international organizations such as the International Civil Aviation Organization (ICAO). It equips participants with a systematic understanding of the sector's structure and global operational norms.

5.Basic Knowledge of Civil Aviation This module covers essential topics such as how aircraft fly, flight environments, air traffic control, airport operations, and air transport systems. It also introduces basic aviation safety concepts. Through comprehensive learning, participants will gain a clearer understanding of how civil aviation works and enhance their safety awareness and industry literacy.

- 6.Aviation Markets and Airline Marketing: Introduces strategies for market segmentation, target selection, and positioning in the aviation industry. It explores the business models and revenue strategies of full-service carriers, low-cost airlines, and cargo operators. It also examines how airlines can leverage big data and digital marketing to enhance their competitiveness.
- 7. Aviation Safety Management: Introduces international civil aviation safety standards (such as ICAO annexes and documents), the structure and implementation of safety management systems (SMS), methods of risk assessment and management, the basic procedures and principles of accident investigation, and the importance of building a safety culture.

 8. Application of Emerging Technologies in Aviation: Introduces cutting-edge technologies currently applied in the aviation sector, such as artificial intelligence, big data, the Internet of Things, and new energy sources. Presents use cases and development trends related to aviation operations, maintenance, and safety.
- 9. Aviation Economy and Regional Development: Analyzes how the aviation industry drives regional economic development by promoting trade, tourism, and investment. Introduces the

Training content

planning, construction, and development models of airport economic zones, and explains how the growth of the aviation industry supports regional economic transformation and upgrading. 10. Aviation Talent Cultivation and Development: Explores trends in talent demand and training models within the aviation field. Covers the qualifications and skill development pathways required for various roles such as pilots, maintenance engineers, air traffic controllers, and management staff. Introduces domestic and international experiences in aviation talent training and discusses ways to strengthen international cooperation and exchange.

- 11. Current Cooperation Between China and Developing Countries: Highlights cooperation in areas such as aviation infrastructure construction, expansion of air transport services, talent training, aircraft manufacturing, and airworthiness certification between China and developing countries.
- 12. Case Analysis and Exchange in Civil Aviation Practice: Selects typical cases in the civil aviation sector both domestically and internationally—including successful enterprise development, major safety incidents, and innovative management models—for in-depth analysis. Organizes group discussions and peer exchange to encourage participants to share their own experiences and insights.
- II. Introduction of visit and investigation(Note: The visit to the city may be adjusted according to the actual situation)
- 1. It is planned to arrange for participants to visit the Western Airport Group in Xi'an to observe the modern operational management of a major hub airport in western China, including smart facilities such as self-service check-in and automated baggage handling systems, as well as practices in green airport construction. The visit offers a direct view of China's advanced experience in civil aviation infrastructure. The Group's expertise in operating high-altitude airports and developing multimodal transport systems (e.g., air—rail integration) provides valuable references for developing countries addressing regional aviation challenges. Interactive exchanges during the visit may also lead to future cooperation in areas such as airport planning consultation and personnel training, helping enhance air transport capacity and promote inclusive development in the global aviation sector.
- 2. It is planned to arrange for participants to visit the Commercial Aircraft Corporation of China (COMAC) in Shanghai to observe the research and production lines of the C919 large passenger aircraft and the ARJ21 regional jet. This visit offers a detailed understanding of China's progress in aircraft design, airworthiness certification, and industrialization in the civil aviation manufacturing sector. COMAC's experience in independent innovation, international collaboration, and supply chain management offers valuable insights for developing countries aiming to establish or strengthen their domestic aviation industries. This visit will not only promote technical exchange and capacity building, but also has the potential to foster future cooperation in joint research and development, aircraft procurement, and maintenance training. It aims to support developing countries in strengthening their independent aviation capabilities and to contribute to the multipolar development of the global civil aviation industry.
- 3. It is planned to arrange for participants to visit China Eastern Airlines in Shanghai, where they will tour the operations command center, cabin crew training base, and aircraft maintenance center. This visit will allow participants to gain a deeper understanding of advanced airline practices in intelligent flight scheduling, standardized passenger service, and digitalized aircraft maintenance. As one of the world's top ten airlines, China Eastern has developed innovative approaches in hub network building, mixed fleet operations, and green aviation—including the application of sustainable aviation fuels. These practices offer replicable models for developing countries' civil aviation sectors. The visit also opens up potential cooperation opportunities in staff training, code-sharing agreements, and joint route development, helping improve service quality and operational efficiency in developing countries' airlines.

III Introduction of Main Lecturers

- 1. Han Rong: Associate Professor at the School of Foreign Languages, Northwestern Polytechnical University. Main research areas include national image, soft power, and public diplomacy.
- 2. Zhao Haixia: Professor at the School of Marxism, Northwestern Polytechnical University.

Main research areas include modern and contemporary Chinese history and consciousness of the Chinese nation community.

- 3. Li Huaxing: Associate Professor at the School of Aeronautics, Northwestern Polytechnical University. Main research areas include aerodynamics and related fluid mechanics, aircraft design, unmanned aerial vehicle (UAV) technologies, air traffic management, project management in national defense construction, and higher education administration.
- 4. Zhao Huan: Associate Professor at the School of Aeronautics, Northwestern Polytechnical University. Main research areas include generative models and methods for aerodynamic shaping of aircraft, integrated design of novel aircraft configurations, and flight dynamics modeling.
- 5. Zhang Keshi: Associate Professor at the School of Aeronautics, Northwestern Polytechnical University. Main research areas include intelligent multidisciplinary optimization methods for aircraft (e.g., machine learning, surrogate-based optimization), and integrated design of large civil aircraft, including supersonic and laminar wing configurations.
- 6. Yang Xiaojun: Associate Professor at the School of Aeronautics, Northwestern Polytechnical University. Main research areas include multidisciplinary design theory and methods for micro bionic UAVs, electric propulsion systems for UAVs, and intelligent control systems for unmanned aircraft.
- 7. Chen Jie: Professor at the Civil Aviation College, Northwestern Polytechnical University. Main research areas include avionics fault diagnosis and health management, airworthiness, testability, maintainability and supportability, and modern flight control theory.
- 8. Wu Chenyang: Associate Professor at the School of Aeronautics, Northwestern Polytechnical University. Main research areas include carbon emission accounting and carbon trading mechanisms in integrated transportation systems, and the design, optimization, and operation of integrated transportation systems.
- 9. Liu Yan: Associate Professor at the School of Aeronautics, Northwestern Polytechnical University. Main research areas include flight dynamics and flight control.
- 10. Jing Zhao: Associate Professor at the School of Aeronautics, Northwestern Polytechnical University. Main research areas include structural design and lightweight optimization of aircraft, analytical methods and numerical techniques for plate and shell structures.
- 11. Xu Jiakuan: Professor at the School of Aeronautics, Northwestern Polytechnical University. Main research areas include aerodynamic optimization design, flow stability, computational aeroacoustics, and flow control.
- 12. Wang Wenzhi: Associate Professor at the School of Aeronautics, Northwestern Polytechnical University. Main research areas include structural design of aircraft, joint structure design, and protective structure design.

IV.Others

To facilitate exchanges with Chinese experts, please prepare materials related to the training theme from your country, including: 1. An overview of the current development and key challenges in your country's civil aviation sector; 2. The foundation for and needs regarding cooperation with Chinese civil aviation institutions and enterprises.