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AGENDA ITEM 4: AIR NAVIGATION

UNDERTAKING ICAO TECHNICAL ASSISTANCE PROJECT BY CHINA TO SUPPORT THE AVIATION SAFETY IN THE APAC REGION

(Presented by the People's Republic of China, and Co-sponsored by Lao PDR)

INFORMATION PAPER

SUMMARY

This paper presents the successful completion of the implementation support project in Lao PDR - ATM Infrastructure Operations Capability Building which is conducted by CAAC ATMB team from October 2022 to May 2023. This project is funded as a SIP, and it helps to enhance the capabilities in maintaining the CNS/ATM infrastructure and the safety of air navigation in the APAC region.

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1. INTRODUCTION

1.1 Due to the CNS/ATM infrastructure maintenance and fault disposal of Lao Air Navigation Services (LANS) were dominated by a third-party company, and the continuous increase in flight volume between China and Laos before the COVID-19, LANS had already faced challenges in the CNS/ATM infrastructure operation and maintenance. Since the service of the third-party company in Lao PDR was terminated in February 2022, LANS faced challenges in the lack of technical documentation, comprehensive operation management mechanisms, and enough qualified technicians. Because of the recovery of flight volume will lead to the increased pressure of CNS/ATM infrastructure operation and maintenance, Lao PDR has always maintained high concerns for addressing the sustainable operation of the CNS/ATM infrastructure.

1.2 The proposal of Lao PDR is funded as a SIP, and the objectives of this project are to:

1) Enhance the capabilities of LANS in maintaining the CNS/ATM infrastructure; and

2) Enhance the capabilities of ATMB of CAAC in providing support to APAC Member States in the CNS/ATM infrastructure implementation and operation.

1.3 On 18 October 2022, ICAO APAC Regional Office sent the State Letters to CAAC, and confirming that ATMB of CAAC is responsible for organizing and implementing this technical assistance project in Lao PDR. The main tasks of this project are as follows:

1) To provide on-site support and in-class training by 4 Subject Matter Experts (SMEs) in THALES Radar/ADS-B, SCHMID VCCS ICS200/60, Automation (TOPSKY)/TOPSKY-AIS/AMHS/Network Switch for 2 packages, 25 days per package.

2) To produce an evaluation report to identify the current gap and proposals for future actions based on the on-site activities of SMEs.

ATMB of CAAC attached great importance to this project and entrusted Southwest Regional ATMB to undertake this task with high-quality implementation requirements. With the support of ICAO APAC Regional Office, CAAC ATMB team conducted this project successfully in 7 months.

2. DISCUSSION

2.1 ATMB of CAAC carefully selected 4 experienced and qualified SMEs to conduct on-site support in Laos, forming a project core team composed of 8 members. Based on this core team, with the guidance of ATMB of CAAC, Southwest Regional ATMB established a working group of 27 members to fully implement this project. This working group was based on the core team, including 2 core project managers, 2 focal points, 4 SMEs, and 19 second level support team members. All the members of second level support team were selected from expert database of Southwest Regional ATMB, and experienced in THALES Radar/ADS-B, SCHMID VCCS ICS200/60, or Automation (TOPSKY) /TOPSKY-AIS/AMHS/Network Switch. It is worthy to mention that senior engineers account for 65%, and young technicians under the age of 35 account for 53% among the CAAC ATMB team.

2.2 During the implementation of this project, 4 SMEs provided on-site technical support, in-class training and technical evaluation, 23 engineers constitute the second-tier support team coordinated the work of the ATMB experts, provided remote second level support to on-site activities of SMEs, and prepared questionnaires, training handouts, checklists, training in hybrid mode, and final report.

2.3 Except for the 13 online coordination meetings held by ICAO APAC Regional Office, CAAC ATMB team had established a regular meeting system, which was organized twice a week using a combination of weekly midweek-short-meetings (1 hour) and weekend-long-meetings (3 hours) by online meetings. CAAC ATMB team followed up on the progress of project implementation in a timely manner, and clarified work ideas, key work, coordination matters, task arrangement, and other matters in the form of memoranda by regular meetings. During the entire implementation of this project, CAAC ATMB team organized 19 regular meetings, with a total of 321 attendances. 53 documents including meeting minutes, work plans, training questionnaires, etc.

2.4 The on-site support activities covered 11 CNS systems on 7 sites and 55 technicians of LANS, helped to set up Voice Communication Control System (VCCS) and ATC automation simulation platforms, delivered 416 class hours for 708 attendances, 70 handouts, 80 daily/weekly reports, 15 examinations, 53 Standard Operating Procedures (SOPs), and 4 recorded demonstration videos on operating equipment.

2.5 After the completion of the 2 package on-site activities in Laos, CAAC prepared and finalized the technical evaluation report from March 2023 to May 2023. The formal report contains over 32000 words, covering 4 chapters and 23 sections. It is worth to mention that through systematic analysis and in-depth discussions between ICAO, LANS, and CAAC ATMB, 31 recommendations are given in this report to improve the ATM Infrastructure Operations Capability in Lao PDR, including 6 for management, one for human resources, one for environmental control, and 23 for equipment operation.

CONCLUSION

2.6 After the completion of this project, Department of Civil Aviation Lao (DCAL) and LANS relied on ATMB of CAAC to establish a bridge and engage in a series of cooperation with Chinese industry. In May 2023, DCAL, Institute of Electrical Engineering Chinese Academy of Sciences (IEECAS) and ATMB of CAAC signed a memorandum of understanding on cooperation in the construction of lightning detection and early warning system, aviation meteorological services, etc.

2.7 Throughout the entire project life cycle, CAAC ATMB team made down-to-earth efforts and valuable contributions in their areas of specialty, solved practical technical problems, conducted technical evaluations, and provided practical on-site support and in-class training for LANS. After the completion of on-site activities, CAAC ATMB team continues to provide remote technical support for LANS. Through the implementation of the international technical assistance project, CAAC lays the ground work and prepare for the gradual recovery of international flights in the future, and collaborates with neighbouring countries to carry out more efficient flight flow management.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to note the information contained in this Paper.

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