



ICAO BANGKOK

UNITING AVIATION

# 国际民航组织亚太办与空管有关工作介绍

Introductions to ATM Related Works of ICAO APAC Regional Office

《ICAO 在中国》研讨会/ICAO Webinar for China

Beijing, 26-28 January 2021

周 莹

Zhou Ying

*Former Seconded Officer ATM/AIM,*

*Current Staff of North West Air Traffic Management Bureau.*



# 主要内容

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1.

## ICAO 亚太办及ATM部门情况简介

Brief introductions to ICAO APAC & ATM Section





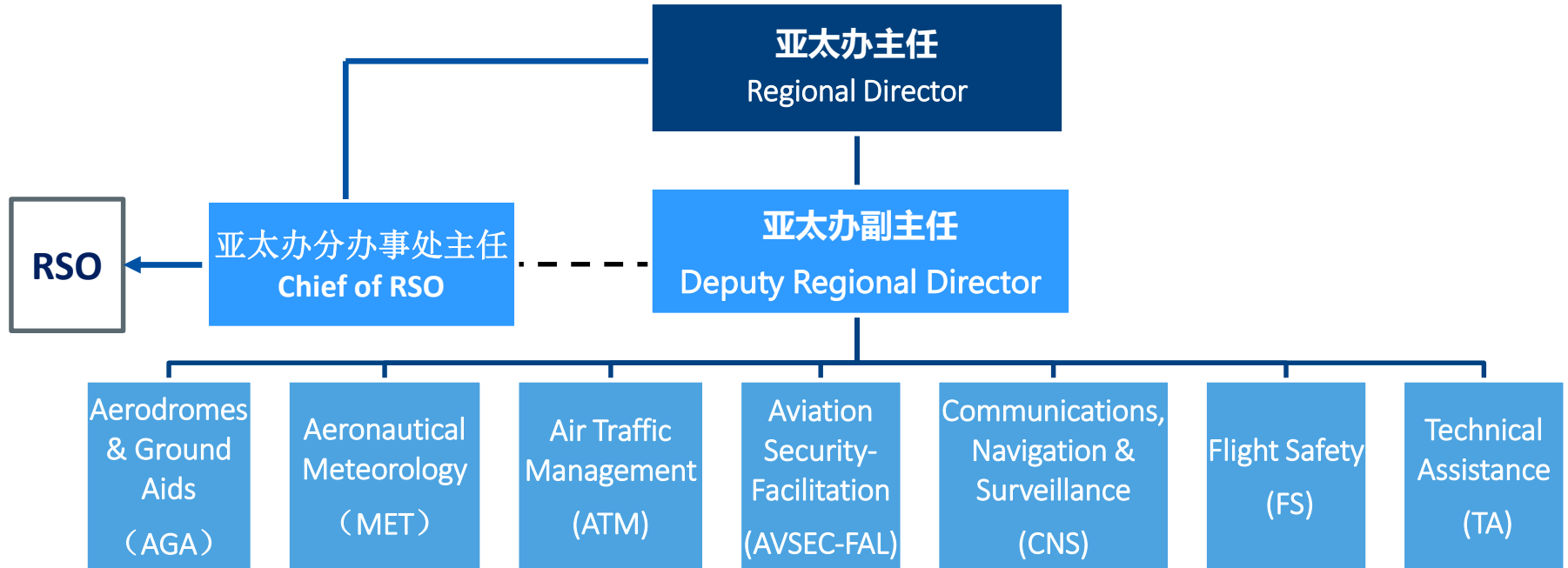
## 亚太地区情况简介 Brief introduction to ICAO APAC

- ✦ 39个国家+2+2, 49个飞行情报区 ( FIR ) , 47个搜寻援救区 ( SRR ) 。
- ✦ 全球市场份额 ( 2019 ) :
  - 旅客 : 33% ;
  - 货运 : 39%。
- ✦ 安全审计结果(USOAP CMA , 2019) :
  - 全球平均水平: 68.98% ;
  - 亚太地区平均水平: 64.18%。





## 亚太办组织机构 Organizational Structure of ICAO APAC





## 亚太办空管部岗位设置 ATM Posts in ICAO APAC RO

RO ATM I

RO ATM II

Seconded Officer ATM/SAR

Seconded Officer ATM/AIM

ATM Program Analysis Associate





## 亚太办与空管有关工作介绍

Introductions to ATM Related Works

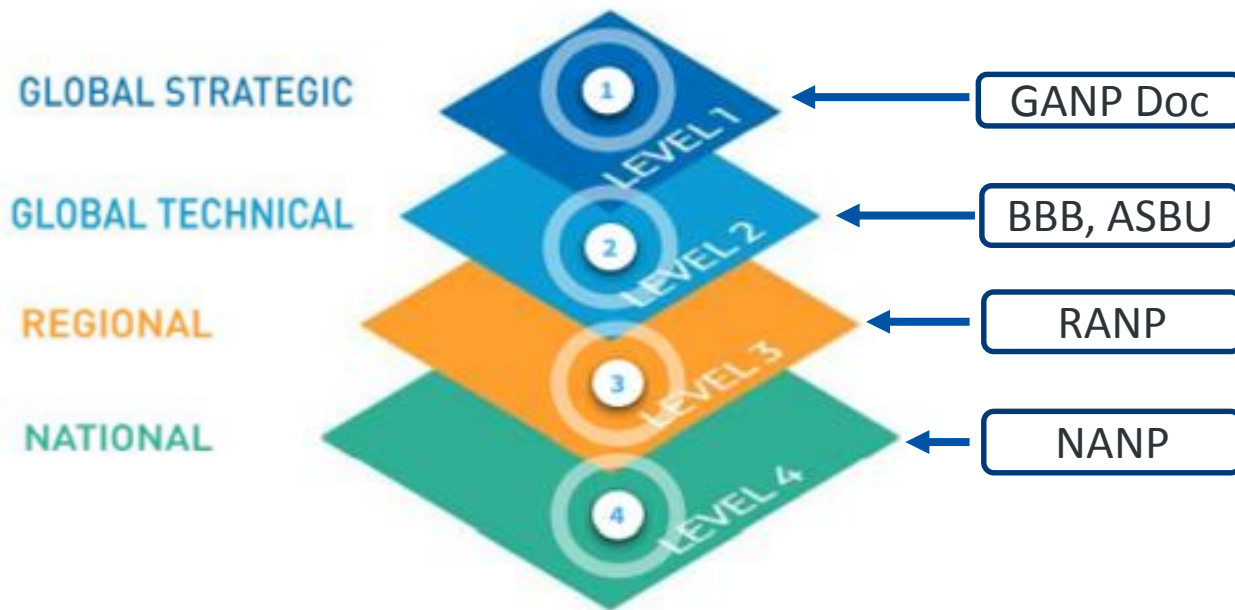


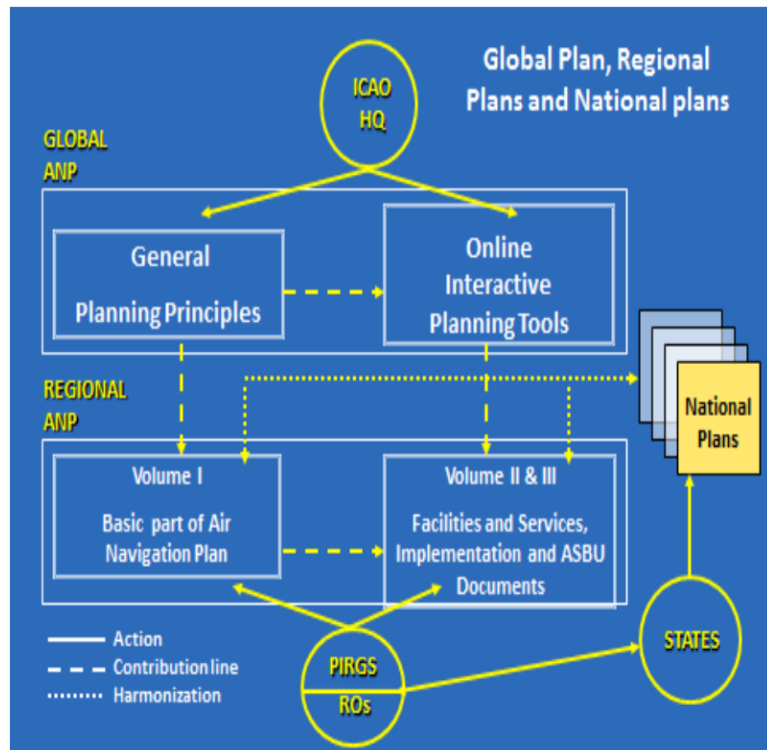
**Fourth Meeting of the Air Traffic Management Sub-Group (ATM/SG/4) of APANPIRG**  
**ICAO Regional Office, Bangkok, Thailand, 04-08 July 2016**



## 全球空中航行计划多层架构

### Multilayer Structure of the Global Air National Plan (GANP)





- ✦ **GANP:**  
<https://www.icao.int/airnavigation/Pages/GANP-Resources.aspx>
- ✦ **ASBU:**  
<https://www4.icao.int/ganportal/ASBU>
- ✦ **eANP (Volume I & II):**  
<http://www.icao.int/APAC/Pages/APAC-eANP.aspx>
- ✦ **NANP模板** ( A template for the development of an NANP ) :  
<https://www.icao.int/APAC/Documents/edocs/National%20Air%20Navigation%20Template%20V6.0.docx>



## 亚太办空管部主要工作 Related Works of ATM Section, APAC

会议

Meetings

地区航行计划/地区补充  
程序修订提案的处理  
eANP/SUPPs Proposal for  
Amendments (PfA)

亚太无缝航行计划  
Asia/Pacific Seamless ANS Plan  
(Version 3.0)

空管部  
ATM  
Section

国际航路点代码和  
航路代号数据库

ICARD

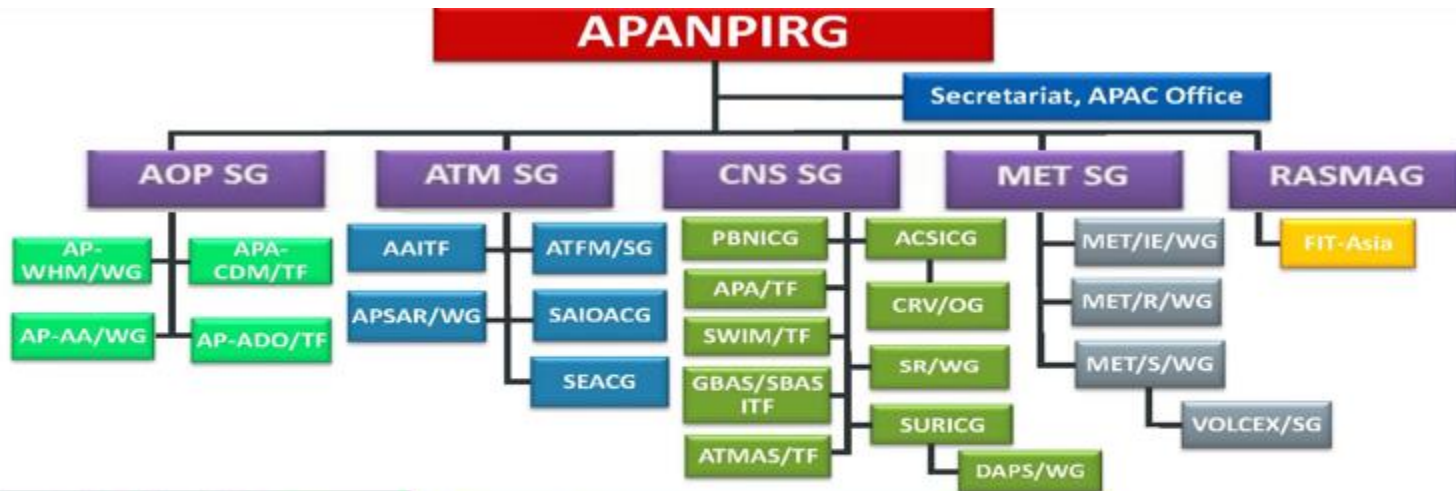
国际民航组织安全审计/  
联合行动小组

USOAP CMA/CAT Activities

RSO的参与  
Involvement and Input  
from RSO



## 亚太航行规划和实施地区小组 APANPIRG



AOP/SG	- Aerodrome Operations and Planning Sub Group
APA-COM/TF	- APAC Airport Collaborative Decision Making Task Force
AP-ADO/TF	- APAC Aerodrome Design and Operations Task Force
AP-WHM/WG	- APAC Wildlife Hazard Management Working Group
AP-AA/WG	- APAC Aerodrome Assistance Working Group
ATM/SG	- ATM Sub Group
AAITF	- AIS - A/M Implementation Task Force
APSAR/WG	- APAC Search and Rescue Working Group
ATFM/SG	- ATM Steering Group
SAIOACG	- South Asia - Indian Ocean ATM Coordination Group
SEACG	- South East Asia ATS Coordination Group

CNS/SG	- CNS Sub Group
PBN/CG	- PBN Implementation Coordination Group
APA/TF	- ATS Inter-facility Data Communication Implementation Task Force
SWIM/TF	- System-Wide Information Management Task Force
ACSICG	- Aeronautical Communication Services Implementation Coordination Group
+ QRV/DO	- Common Regional Virtual Private Network (VPN) Operations Group
SURICG	- Surveillance Implementation Coordination Group
+ DAPS/WG	- Mode S Downlinked Aircraft Parameters Working Group
GBAS/SBAS ITF	- GBAS/SBAS Implementation Task Force
ATMAS/TF	- ATM Automation System Task Force
SR/WG	- Spectrum Review Working Group

MET/SG	- Meteorology Sub Group
MET/IE/WG	- Meteorological Information Exchange Working Group
MET/R/WG	- Meteorological Requirements Working Group
MET/S/WG	- Meteorological Services Working Group
+ VOLCEX/SG	- (APAC) Volcanic Ash Exercises Steering Group
RASMAG	- Regional Airspace Safety Monitoring Advisory Group
+ FIT-ASIA	- FANS Implementation Team - Asia



## 空管部年度会议计划

### Annual Meeting Schedule of ATM Section

序号 (Serial Number)	与 ATM 部门有关的会议名称 (ATM Section Related Meetings)	预计开会时间 (Expected Times)
1	SAIOACG and SEACG: South Asia - Indian Ocean ATM Coordination Group & South East Asia ATS Coordination Group 南亚-印度洋空中交通管理协调小组&东南亚空中交通服务协调小组	二 / 三月 (连续开两周) February/March
2	APUAS/TF: Asia/Pacific Unmanned Aircraft Systems Task Force 亚太地区无人机特别工作小组	四月 April
3	AAITF: Aeronautical Information Services - Aeronautical Information Management Implementation Task Force AIS-AIM 实施特别工作小组	五/六月 May or June
4	FIT-Asia & RASMAG : Future Air Navigation Services Interoperability Team - Asia & Regional Airspace Safety Monitoring Advisory Group 亚洲 FANS 协同工作小组&地区空域安全监督咨询小组	五/六月 May or June
5	ATFM/SG : Air Traffic Flow Management Steering - Group 空中交通流量管理指导小组	六月 June
6	APSAR/WG : Asia Pacific Search and Rescue Working Group 亚太地区搜寻与援救工作小组	六/七月 June or July
7	ATM/SG : Air Traffic Management Sub-Group of APANPIRG APANPIRG ATM 分组	七/八月 July/August
8	ATMAS TF: Air Traffic Management Automation System Task Force 空中交通管理自动化系统工作小组	十月 October
9	APANPIRG: Asia/Pacific Air Navigation Planning and Implementation Regional Group 亚太航行计划与实施地区组	九月 September

## 2019年空管方面遇到的主要挑战 Key ATM Challenges in 2019

- 1 • 军民航合作有待加强 CIVMIL cooperation
- 2 • 空域应急运行能力有待提高 Airspace Contingency Operations
- 3 • 亚太国家对FIR数据的反馈不积极  
• Continuing overall inadequate response from States regarding FIR data
- 4 • ASBU Block 0及无缝航行计划第一阶段要素实施进展缓慢  
• Slow implementation of GANP Block 0/Seamless ATM Plan Phase 1 elements



## 2020年与空管有关重点工作 Main Priorities of ATM Related Activities in 2020

福江走廊 AKARA-FUKUE Corridor

FIR边界描述 FIR Description

无缝航行计划的报告及监督 Seamless ANS Reporting Monitoring (iSTARS)

无缝航行计划的实施 Implementation of Seamless ANS Plan



## 普遍安全监督审计计划持续监督作法介绍

### Brief introductions to ICAO USOAP CMA



- 1998 USOAP
- 2010 USOAP CMA



International Civil Aviation Organization    Organisation de l'Aviation civile internationale    Organización de Aviación Civil Internacional    Международная организация гражданской авиации    منظمة الطيران المدني الدولي    国际民用航空组织

Ref: SS 1/3.4 Confidential – OAS81326

13 December 2019

Ms. Zhou Ying  
OSG – APAC

Dear Ms. Zhou,

I am pleased to inform you that you have successfully completed on-the-job training (OJT) for the conduct of audits within the Universal Safety Oversight Programme Continuous Monitoring Approach (USOAP CMA). You are now qualified to participate as a team member in the area of Air Navigation Services (ANS) in an upcoming USOAP CMA audit.

Please note that, in order for you to maintain your currency as an audit team member, you may be periodically requested to participate in USOAP CMA activities and/or additional refresher training. We will request your release from your regular duties when your expertise is required for such an activity.

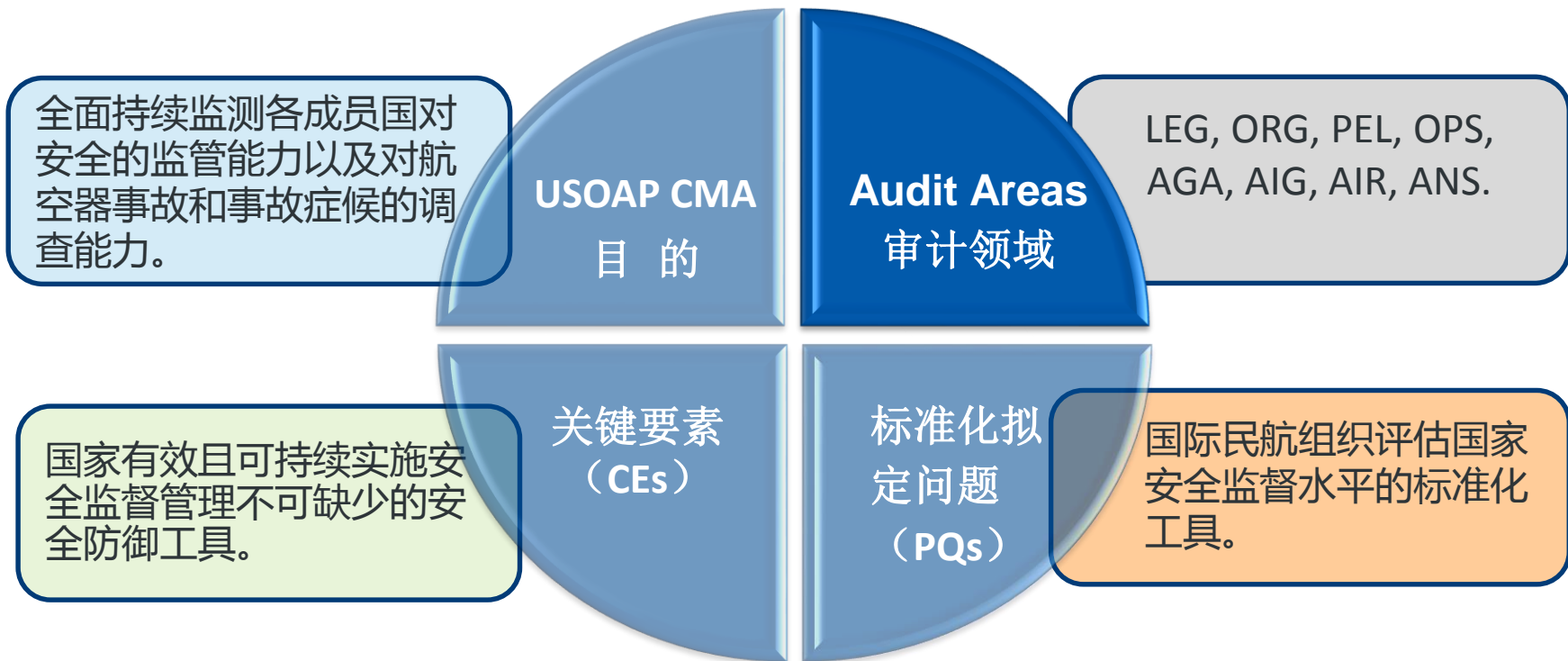
Your ongoing support of the Universal Safety Oversight Audit Programme is greatly appreciated.

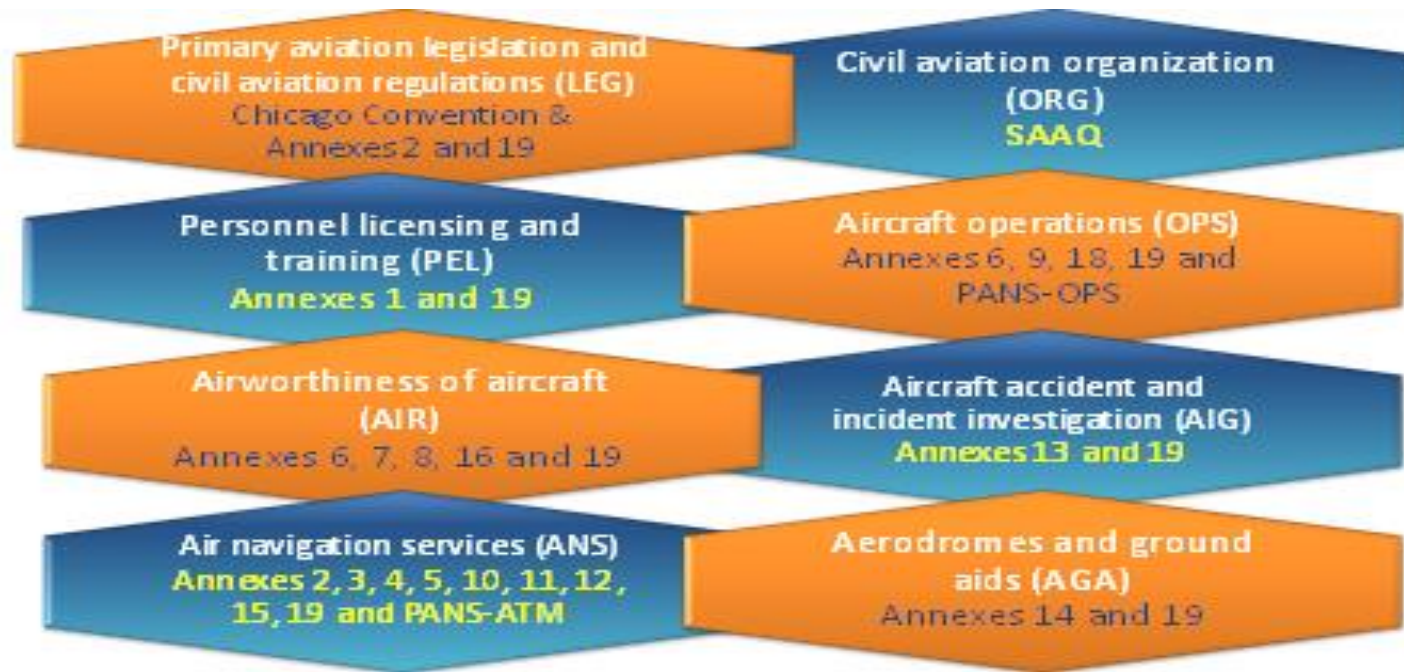
Yours sincerely,

Nicolas Rallo  
Chief, Safety and Air Navigation  
Oversight Audit Section  
Air Navigation Bureau

cc: ICAO Regional Director, Bangkok

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1. PQ 编号

4. 证据（国家提供，  
审计员审核）

3. 适用的关键要素

PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	CE
7.101	Does the State ensure that a system has been established and implemented for the recording and retention of the air traffic service (ATS) data?	1) Review State mechanism to ensure compliance. 2) Review documented evidence of the system used for the recording and retention of ATS data. 3) Review evidence to confirm effective implementation.	STD A11 6.1.1.3 & 6.1.1.4 PANS Doc 4444 (ATM) 4.13.4	CE-6

2. PQ（由审计员提问）

5. 国际民航组织参考文件



	审计领域 Audit Area	2017版拟定问题数量 Number of 2017 PQs
1	基本航空立法和民航规章 LEG	23
2	民用航空组织 ORG	14
3	人员执照的颁发和培训 PEL	99
4	航空器运行 OPS	146
5	航空器的适航性 AIR	210
6	航空器事故和事故征候调查 AIG	104
7	<b>空中航行服务 ANS</b>	<b>179</b>
8	机场和地面助航设备 AGA	168
<b>TOTAL NUMBER</b>		<b>943</b>

4.

注意事项及建议

Notes and Suggestions





## 对ICAO会议准备和文件的要求 Key Requirements for ICAO Meetings

### WP与IP

- 会议前2周提交WP/IP，会议前1周WP/IP上传到ICAO APAC会议网页。
- Working Paper 必须在会上介绍并讨论。Information Paper 可不在会上介绍并讨论。

### “亚太地区” 正确写法

- ‘Asia/Pacific Region’，不是‘Asia Pacific Region’，‘APAC Region’，或‘the Region’。

### 对PPT的 要求

- 简明扼要；（Key words in bullet-style format to convey message/idea； no long narrative text.）
- 发言不要照读；（Presenters should not read presentation verbatim, but communicate ideas in an interesting manner.）
- 每页不超过3-4个关键点；（No more than three to four points per slide.）
- 编页码。（Slides are numbered.）



## 亚太地区航行计划及其修改提案

The Asia/Pacific Regional Electronic Air Navigation Plan (eANP) and Its PfA

eANP共三卷 eANP published in 3 volumes  
<https://www.icao.int/APAC/Pages/APAC-eANP.aspx>

PfA处理原则 Principles of PfA Process



## 参与ICAO活动的几点建议 Suggestions on Participation in ICAO Activities

英语的重要性

- The Importance of English

沟通与交流的必要性

- The Need for Communication

良好的身体条件、心理素质和  
适应能力

- Good Physical Condition and Adaptability



## 结束语 Final Remarks



感谢 Gratefulness



协调配合 深化合作 Cooperation & Collaboration



ICAO BANGKOK

UNITING AVIATION



ICAO

North American  
Central American  
and Caribbean  
(NACC) Office  
Mexico City

South American  
(SAM) Office  
Lima

ICAO  
Headquarters  
Montréal

Western and  
Central African  
(WACAF) Office  
Dakar

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Middle East  
(MID) Office  
Cairo

Eastern and  
Southern African  
(ESAF) Office  
Nairobi

Asia and Pacific  
(APAC) Sub-office  
Beijing

Asia and Pacific  
(APAC) Office  
Bangkok



THANK YOU