



ICAO BANGKOK

UNITING AVIATION

空中交通管理合作与协调 ATM-Collaboration and Coordination

《ICAO 在中国》研讨会/ICAO Webinar for China

Beijing, 26-28 January 2021

刘松，民航局空管局空域管理中心
Mr. LIU Song ,ASMC of ATMB,CAAC





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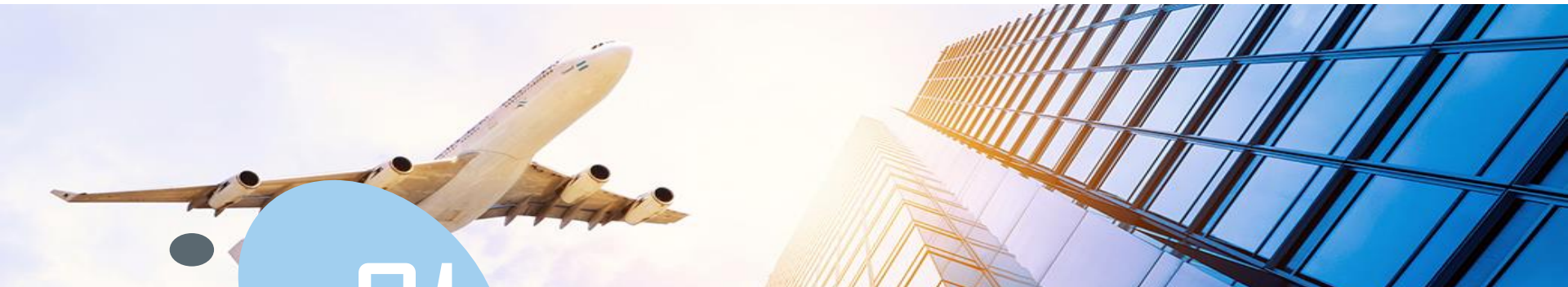
亚太分办工作的观察和体会

Observation



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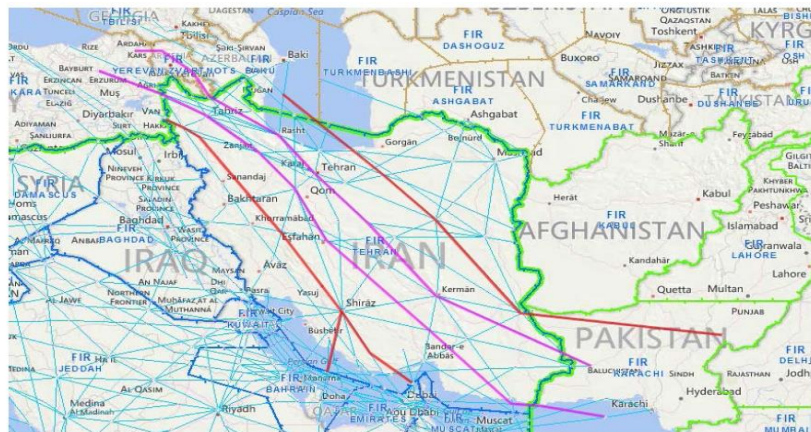
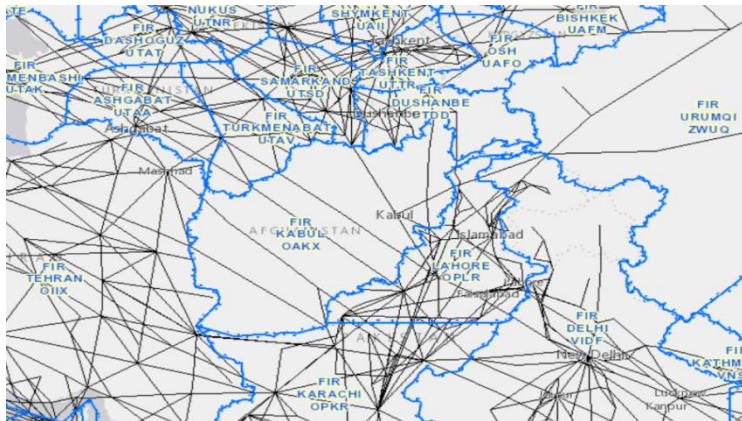
01

The Core Value of ICAO in Air Navigation

ICAO在航行领域的价值



ICAO在航行领域的核心贡献? What's the Core Value of ICAO in Air Navigation





Path of crashed plane

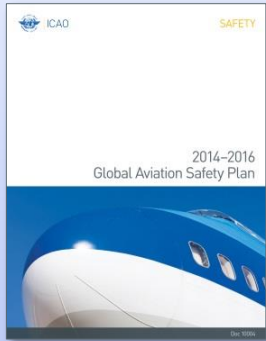
Malaysian Boeing 777 en route from Amsterdam to Kuala Lumpur.



Post Affecting Afghanistan Reported by United Kingdom:

Reporting State:	United Kingdom
Information Source Type:	NOTAM
State Affected:	Afghanistan
Information Source Reference:	V0054-15
Information Title:	Hazardous situation in Afghanistan
Content:	Hazardous situation in Afghanistan, Potential risk to aviation overflying Kabul FIR at less than 25,000ft above ground level (AGL) from dedicated anti-aviation weaponry. Operators are advised to take this information into account in their own risk assessments and routing decisions.
Area Affected:	Kabul FIR
Link to information:	
Valid From:	2016-01-04
Valid To:	2017-01-04
Status:	Accepted

[Close](#)



Near-term

2017

- All States establish **effective safety oversight systems**
- States with effective safety oversight (over 60% EI) **fully implement SSP**
- States / Stakeholders support RASGs with the **sharing of safety information**

Mid-term

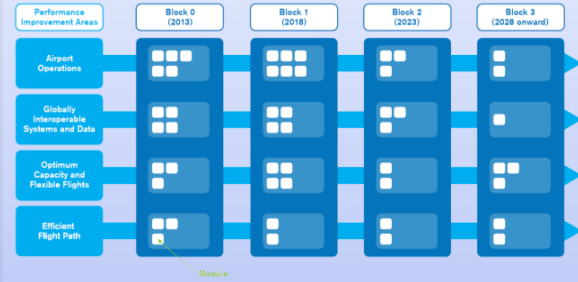
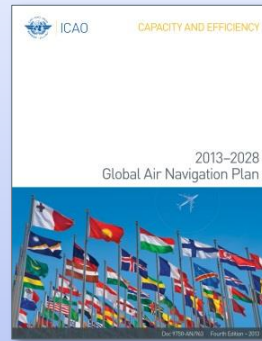
2022

- All Member States **fully implement the ICAO SSP Framework**
- RASGs incorporate **regional monitoring and safety management programmes**

Long-term

2027

- Member States implement **safety capabilities** as necessary to support future Air Navigation Systems



PRIORITIES

RUNWAY SAFETY

CONTROLLED FLIGHT INTO TERRAIN (CFIT)

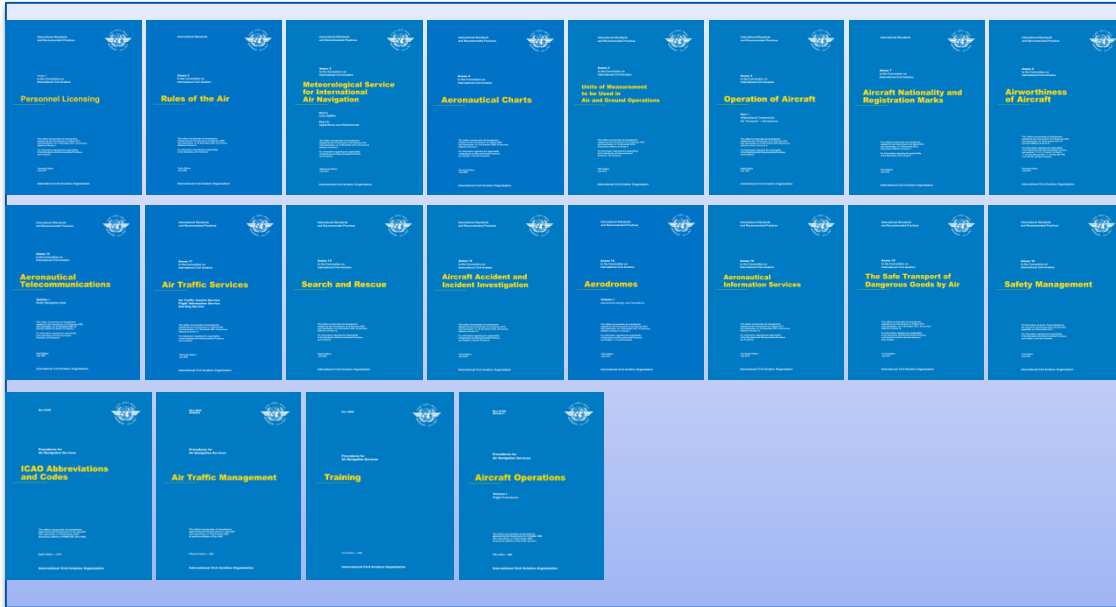
LOSS OF CONTROL IN-FLIGHT (LOC-I)

PRIORITIES

PERFORMANCE BASED NAVIGATION (PBN)

CONTINUOUS DESCENT AND CLIMB OPERATIONS (CDO/CCO)

COLLABORATIVE DECISION-MAKING (CDM & A-CDM) & ATFM



19 Annexes
(available through Mobile Annexes)

4 Procedures for
Air Navigation
Services

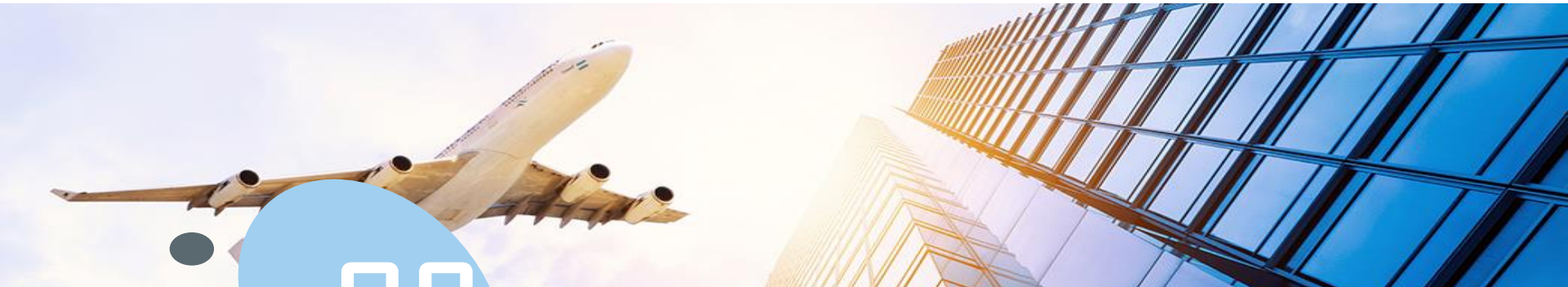
110+ Manuals

37+ Circulars



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02

The key elements of regional issue

国际民航组织事务的地区特点



ICAO地区事务特点

The key elements of regional issue

- 主要任务-实施

Primary Mission-Implementation

- 主要方式-技术项目和工作组

By technical cooperation project and working groups

Implementation Planning



Guidance material



Seminars,
workshops and
Symposia



Computer-Based
Training



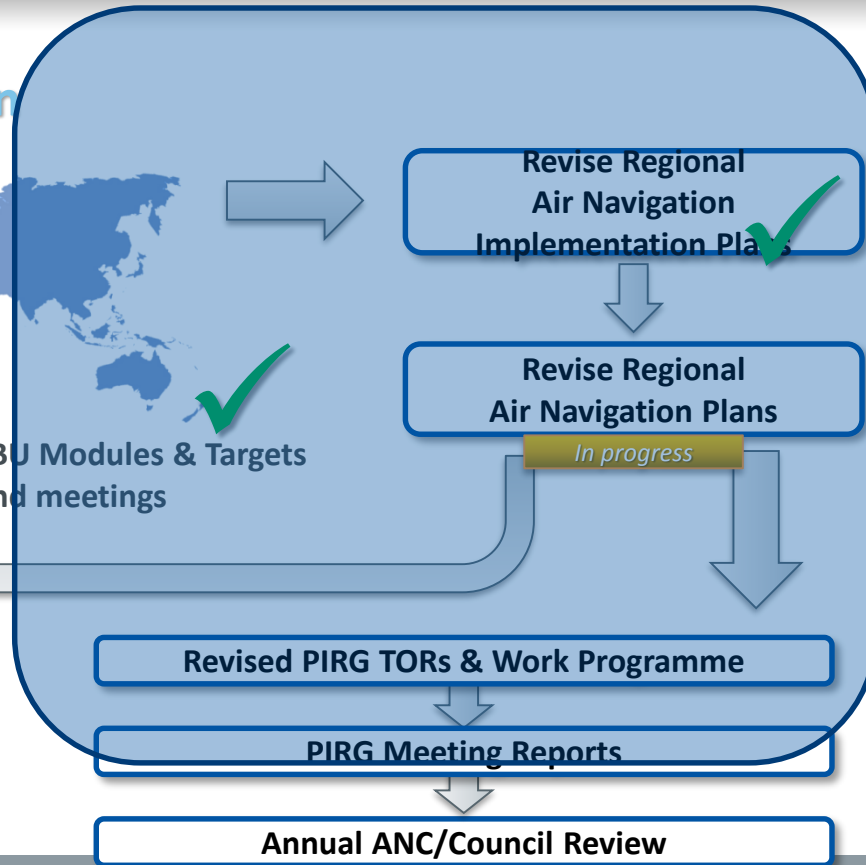
ICAO 航行规划实施程序 The process of implementation-Air Navigation



**Next GANP
2016**



Establish Regional Priorities, ASBU Modules & Targets
Regional workshops and meetings



**Annual Global
Air Navigation
Report**

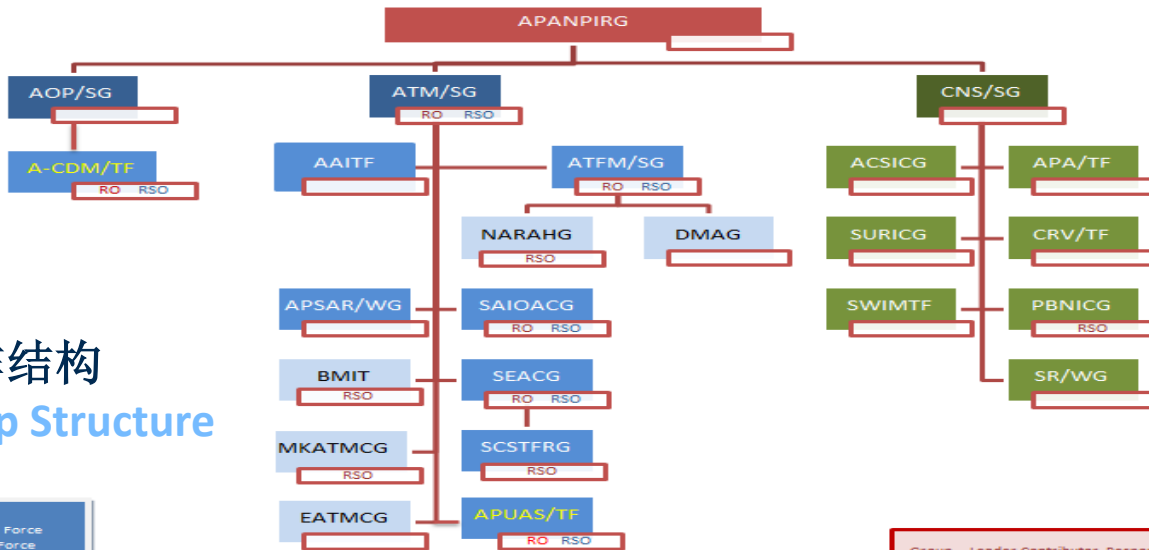


**Regional
Performance
Indicators**





Working Group Structure



亚太地区工作结构 Working Group Structure

ATM/SG	-ATM Sub Group
AAITF	-AIS-ATM Implementation Task Force
APSR/TF	-APAC Search and Rescue Task Force
AOP/SG	-Aerodrome Operations and Planning Sub Group
A-CDM/TF	-Aerodrome Collaborative Decision Making Task Force
ATFM/SG	-ATFM Steering Group
SAIOACG	-South Asia Indian Ocean ATM Coordination Group
SEACG	-South East Asia ATS Coordination Group
SCSTFRG	-South China Sea Traffic Flows Review Group
APUAS/TF	-Asia Pacific Unmanned Aircraft System Task Force

CNS/SG	-CNS Sub Group
SURICG	-Surveillance Implementation Coordination Group
ACSICG	-Aeronautical Communication Services
APA/TF	-AIDC Implementation Task Force
CRV/TF	-Common Regional Virtual Private Network (VPN) Task Force
SWIMTF	-System Wide Information Management Task Force
PBNICG	-Performance Based Navigation
SR/WG	-Spectrum Review Working Group

NON ICAO	
BMIT	-Bangladesh Myanmar, India, Thailand ATM Coordination Group
MKATMCG	-Mekong ATC Coordination Group
EATMCG	-East Asia ATM Coordination Group
DMAG	-Distributed Multimodal ATM Group
NARAHG	-Northeast Asia Regional ATFM Harmonization Group

Group	Leader	Contributor	Responsible person	Date of Next meeting
ATM/SG/5	RO	RSO	Liu Song, Nathan	7-11 August 2017
ATFM/SG/7	RO	RSO	Jakata, Melisa, Liu Song	June 2017
NARAHG	RSO		Jakata, Melisa, Liu Song	Dec.2016
SAIOACG/24	RO	RSO	Liu Song, Nathan	14-17 Feb 2017
BMIT	RSO		Huhu, Nathan, Liu Song	TBD
SEACG/7	RO	RSO	Liu Song, Nathan	20-23 Feb 2017
MKATMCG	RSO		Liu Song, Nathan	TBD
SCSTFRG/4	RSO		Huhu	25-28 Oct 2016
PBNICG/4	RSO		Huhu	March 2017
A-CDM/TF/SEMINAR				May/June 2017
APUAS/TF/1	RO	RSO		May 2017



ICAO亚太分办

ICAO APAC Regional Sub-Office

- 2013年6月27日在北京成立
The RSO was inaugurated in Beijing, China on 27 June 2013.
- 支持亚太地区各国推动实施空域组织与管理、流量管理、灵活使用空域以及基于性能导航以提高改地区的空中交通管理性能
- Entrusted by ICAO Council to support States for **implementation** of AOM、ATFM、FUA、PBN aimed at improving the performance of ATM.





ICAO亚太办和分办 ICAO RO and RSO



RO as Supporting Player
RSO as Main Player

蓝色为分办事处
实施，办事处协
调的内容

RO as Main Player
RSO as Supporting Player

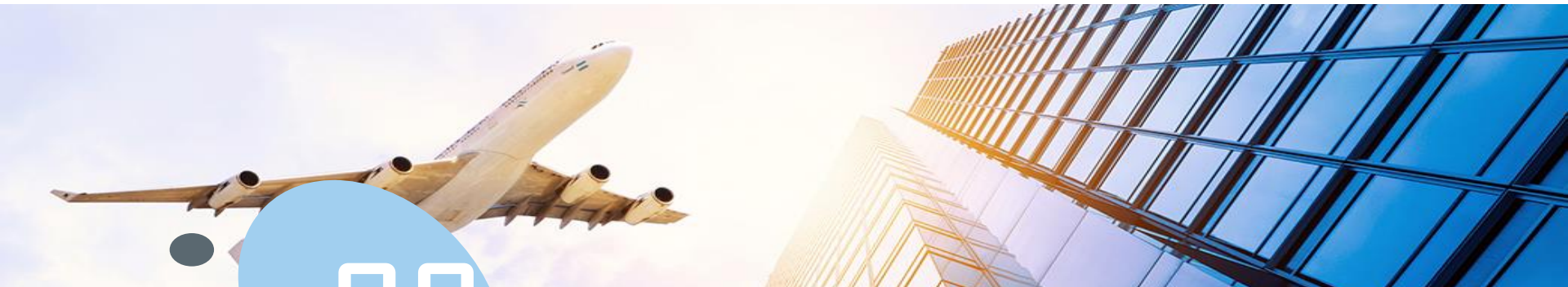
绿色为办事处主
责，分办事处协
助的内容

Note: Performance Monitoring and Reporting will be under the responsibility of the RO.



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03

Cooperation and coordination in ATM

空管事务的合作与协调



一、技术合作项目

Technical Cooperation Programme (or Project)

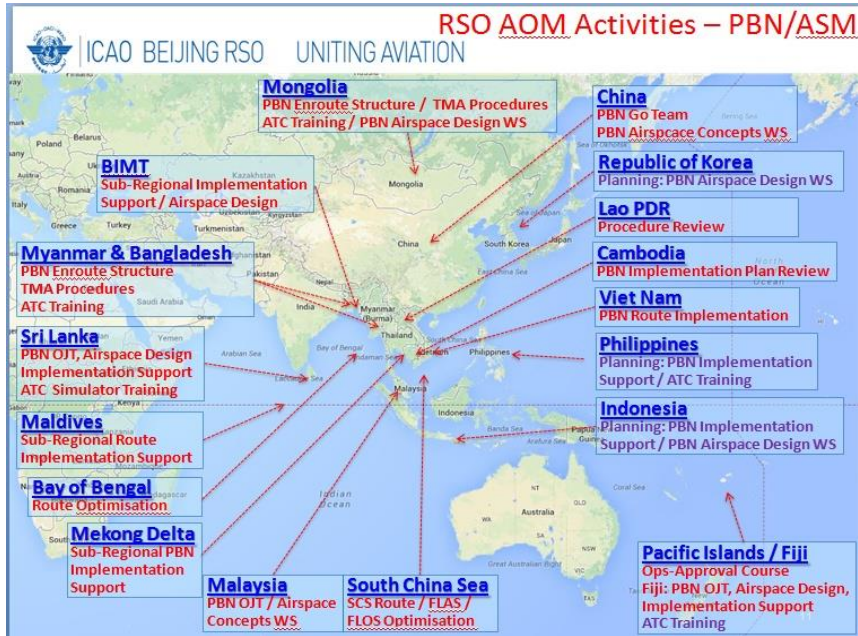
- 事项 Cooperation Items
 - 人员培训、空域/飞行程序设计、技术咨询、运行程序、实施指导
Training, Airspace/FP Design, Consulting, Operation procedure, Implementation
- 发起 Sponsor
 - 国家
States
 - ICAO发起，邀请国家加入
ICAO , invite States to join in



建立合作项目的程序（以FPP为例）

The process of building a new Programme （For example: FPP）





ICAO

Flight Procedure Programme

"Center of Excellence in Flight Procedure Design"

Check these issues inside :

FPP Entering into Phase 3
List of the Training Courses

Ver.
2018-2021

二、工作组

Working Group

- 通常由实施/规划小组或分组根据优先任务需要建立

Approved by APANPIRG or its subgroup when necessary







三、日常的联系与协调

- 航路代号申请

Route Designator

- 五字代码指配

5-LNC

- 航行规划修改

PfA

- 规章差异通知

Difference Notification

-





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04

Observation in ICAO RSO

亚太分办工作的观察和体会



- 国际民航组织规划实施重心下移，工作方式正在发生深刻变化。
- RO and RSO is playing more and more important role in terms of planning and implementation.
- 亚太地区空管一体化推进相对缓慢，子区域内多边合作日益活跃。
- The progress of harmonization in ATM of APAC region appears slow and inefficient, while multilateral cooperation becomes more and more positive and efficient.



- 亚太地区着眼未来，高度重视航空数据收集\分析\仿真。
- Looking into the future, APAC region pay more and more attention on data analysis and simulation.
- 国际民航组织地区办事处和分办事处层面人才的培养和竞争。
- The requirements of ICAO staff



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