



INTERNATIONAL CIVIL AVIATION ORGANIZATION

A United Nations Specialized Agency

PBN Airspace Design Workshop

INTRODUCTION

**Asia and Pacific Regional Sub-Office
Beijing, China**



Who are we?

ICAO Asia and Pacific Regional Sub-Office Beijing, China

- ❖ **AOM**
- ❖ **ATFM-CDM + APAC FPP**
- **AOM : Assist States in the implementation of PBN/CMAC/FUA**
- **Current Work : Bangladesh, Fiji, Myanmar, Mongolia, Sri Lanka**
- **Ha Huho, Regional Officer (ATM/PBN), Korea**
- **Nathan, Regional Officer (ATM/AOM-ASM), Malaysia**



Introduction

- **Only an overview of Airspace Design**
- **Based on ICAO/IATA PBN Go Team & European PBN Airspace Concept Workshop**
- **Two practical exercise scenarios**
- **Only high level**
- **Document / Present your work**
- **Compare results**
- **What issues were faced**

Learning Objectives

- ❖ **By the end of this workshop, you will understand:**
 - **What is Area Navigation**
 - **Introduction to PBN**
 - **PBN NavSpecs**
 - **Procedure Design Considerations**
 - **Airspace Design Concepts**
 - **Introduction to CMAAC/FUA/ATFM**
 - **Practical Application Through Exercises**



Introduction

- **Round table**
 - **Who are you**
 - **Background / Experience**
 - **What you expect to get out of this workshop**

Case Study



- **Setting the scene – Two Scenarios**
 - **Generic**
 - **Makassar Airport**
 - **South China Sea Area**
- **Basic data**
- **Think outside the box**
- **Need to investigate**
- **PCs / Maps / LCD Projectors**
- **Ask questions**
- **There are no silly questions**

Teams



- **Identify roles and responsibilities**
- **Choose a leader**
- **Choose a documenter**
- **Facilitators will be available for consultations**

Programme



Tentative Schedule

Time Date	0830-1000	1000 1020	1020-1250	1250 1400	1400-1530	1530 1545	1545-1700	Remarks
Day 1	Registration* Opening Introduction to Workshop Group Photo	Break	Document Review What is Area Navigation Huho	Lunch	What is Area Navigation Huho Airspace Concept Nathan	Break	Introduction to PBN Huho	
Day 2	Overview of PBN Nav Specs Huho		Implementation Guidance PBN PD Considerations Huho		Airspace Design Activities Nathan		CDO/CCO (Huho)	
Day 3	Good Design Practices Nathan		Sectorisation Nathan		Airspace Design Group Activity (Case Study 1) Nathan		Airspace Design Group Activity	Extended Hours Group Activity (If required)
Day 4	Airspace Design Group Presentation		Airspace Design Group Activity (Case Study 2) Nathan		Airspace Design Group Activity		Airspace Design Group Activity (Case Study 3)	Extended Hours Group Activity (If required)
Day 5	Airspace Design Group Presentation		Airspace Design Group Presentation		NUBIA Preliminary Design Discussion		Summary Cert Presentation Workshop Closing	



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

South American
(SAM) Office
Lima

ICAO
Headquarters
Montreal

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) Office
Bangkok

Asia and Pacific
Regional Sub-Office
Beijing (APAC RSO)

Questions?



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Thank You