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中国民用航空局
空中交通管理局
Air Traffic Management Bureau.CAAC

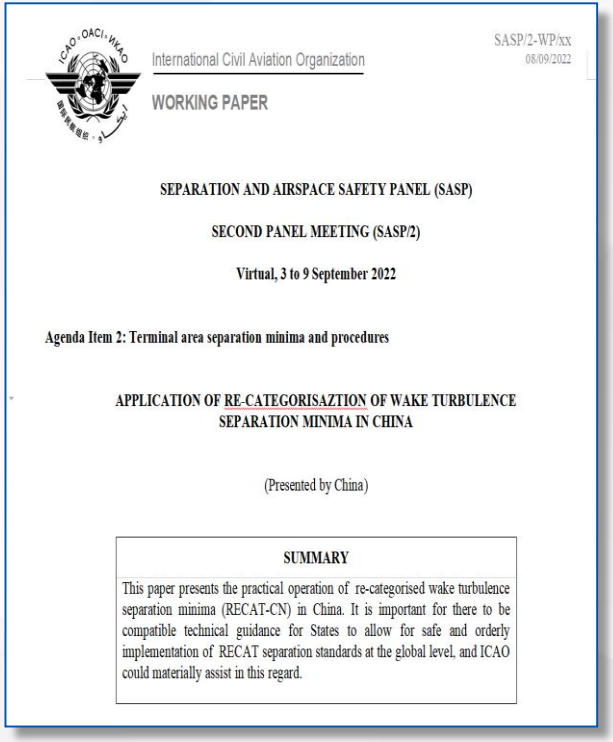
Application of Re-categorisaztion of Wake Turbulence Separation Minima in China

Presented by China

2022.09.08

SUMMARY

This paper presents the practical operation of re-categorised wake turbulence separation minima (RECAT-CN) in China.



International Civil Aviation Organization

SASP/2-WP/xx
08/09/2022

WORKING PAPER

SEPARATION AND AIRSPACE SAFETY PANEL (SASP)

SECOND PANEL MEETING (SASP/2)

Virtual, 3 to 9 September 2022

Agenda Item 2: Terminal area separation minima and procedures

APPLICATION OF RE-CATEGORISAZTION OF WAKE TURBULENCE SEPARATION MINIMA IN CHINA

(Presented by China)

SUMMARY

This paper presents the practical operation of re-categorised wake turbulence separation minima (RECAT-CN) in China. It is important for there to be compatible technical guidance for States to allow for safe and orderly implementation of RECAT separation standards at the global level, and ICAO could materially assist in this regard.

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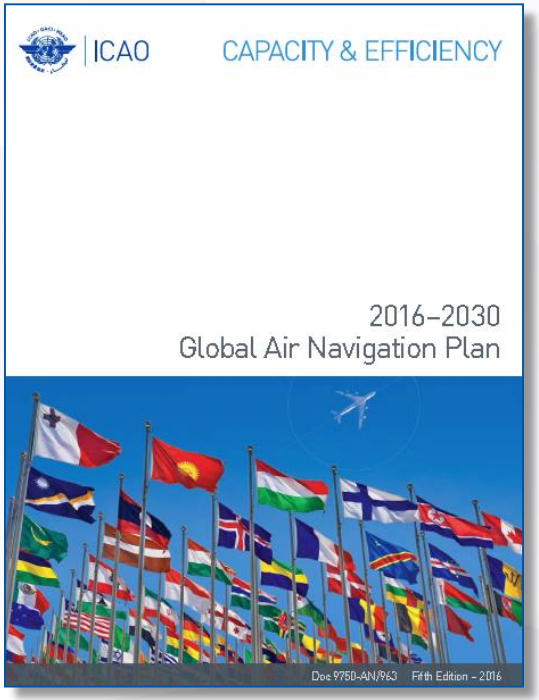
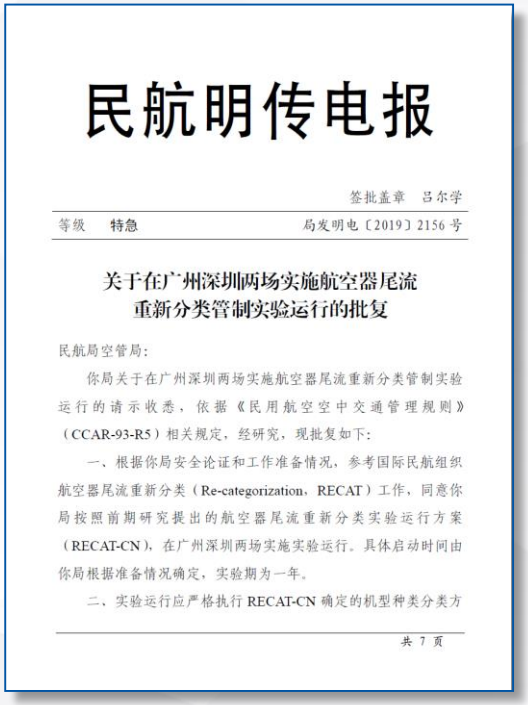
Background





民航明传电报

签批盖章 吕尔学

等级 特急 局发明电〔2019〕2156号

关于在广州深圳两场实施航空器尾流重新分类管制实验运行的批复

民航局空管局：

你局关于在广州深圳两场实施航空器尾流重新分类管制实验运行的请示收悉，依据《民用航空空中交通管理规则》（CCAR-93-R5）相关规定，经研究，现批复如下：

一、根据你局安全论证和工作准备情况，参考国际民航组织航空器尾流重新分类（Re-categorization，RECAT）工作，同意你局按照前期研究提出的航空器尾流重新分类实验运行方案（RECAT-CN），在广州深圳两场实施实验运行。具体启动时间由你局根据准备情况确定，实验期为一年。

二、实验运行应严格执行 RECAT-CN 确定的机型种类分类方

共 7 页

FAA

In 2012, FAA first implemented RECAT at Memphis Airport

EU

In 2016, Charles de Gaulle Airport in France was the first airport in Europe to use RECAT-EU.

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In 2019, ATC trial operation of RECAT-CN carried out at Guangzhou and Shenzhen airport .

Advantages


Runway capacity
0perational efficiency
ATC flexibility
Rapid recovery
ATFM

RECAT-CN

CAT	MTOW (kg)	WS (m)
J	≥136000	≥75
B	≥36000	54-75
C	≥136000	<54
M	7000~136000	
L	≤7000	

		Follow				
		J	B	C	M	L
Leader	J		9.3	11.1	13.0	14.8
	B		5.6	7.4	9.3	13.0
	C				6.5	11.1
	M					9.3
	L					

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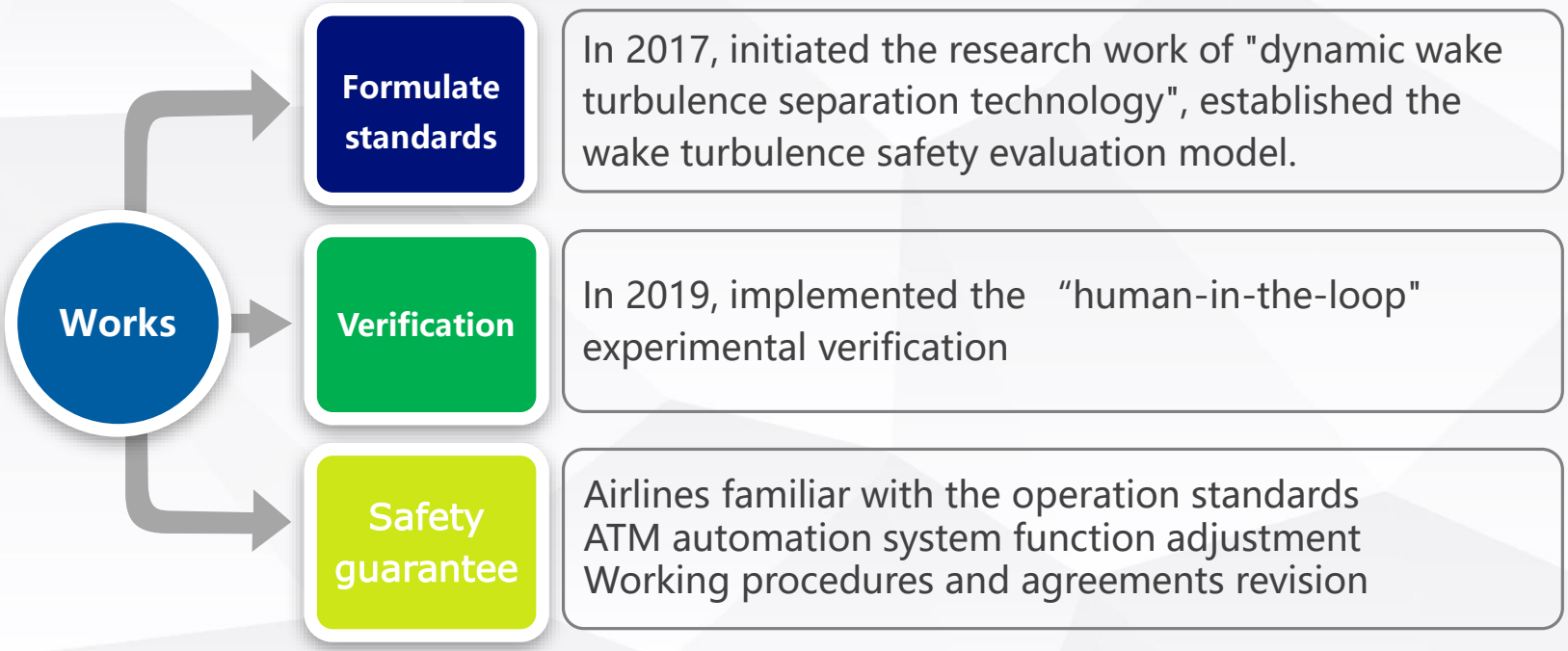
Preparations



Implementation

First Step - Guangzhou/Baiyun & Shenzhen/Baoan

2019, Guangzhou Baiyun Airport and Shenzhen Baoan Airport started the one-year trail operation. Participating airlines include China Southern Airlines, Hainan Airlines, Shenzhen Airines, Fedex and UPS.

Promotion – Another 12 Airports

On December 31, 2020, CAAC began to promote and implement the trail operation of RECAT-CN at 12 airports of 10 million-passenger turnover, including Beijing/Capital, Beijing/Daxing, Shanghai/Hongqiao, Shanghai/Pudong etc.

Benefits

runway capacity

runway throughput has been increased at least by 5% during peak periods.

separation minima

aircraft pairwise separation minima on final have been averagely reduced by 21%

low cost

The cost of RECAT-CN application is low, limited to local flight data processing system changes associated with the new wake turbulence categories, and controller training.

future evolution

The gain in capacity by RECAT-CN could even increase further by the evolution of traffic mix and traffic volume.

Conclusion

1. Implementation of RECAT-CN has achieved satisfactory results

2. Different regions can establish their own RECAT methods and formulate separation standards

The meeting is invited to

01 **Take note of the RECAT-CN and its application in China**

02 **Consider RECAT-CN as a five group categorisation scheme**

Thank you

CAAC