



CHALLENGES AND COUNTERMEASURES FOR THE ADJUSTMENT OF AERODROME PAVEMENT STRENGTH REPORT FORMAT

CAAC

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Indroduction

The related work

- Establishing the PCR calculation methods of individual country
- Calculating PCR
- Revising and reporting the data of aerodrome pavement bearing strength in AIP

How to

Challenges

- establish the domestic PCR evaluation method
- determine the relevant parameters
- implement the calculation of PCR
- ensure the accuracy of the PCR calculation results
- complete all aeronautical information data revision and release it in a timely manner



Discussion-Large number of airports,Complex pavement structure

Commercial
transport airports

260

Ultra-large
airports with
passenger
throughput of
more than 10
million

39

China has *formed a team of airport experts to make a work plan for handling*, for ensuring that the PCR calculation of runways, taxiways and aprons of all airports are able to complete on time



Discussion-The work plan includes three stages

1

The preparation stage

- The formulation of calculation methods
- The formulation of calculation software
- The organization of typical airports to carry out calculation and verification

2

The actual calculation

- The actual calculation, mainly for all the airports

3

The data reporting

- Aeronautical information report
- Airport manual information modification
- Training for the air carriers

Discussion-The preparation stage



CAAC-PCR



Form a professional scientific *research team* to *study the international theoretical and technical documents* on airport PCR

Study and elaborate the *PCR evaluation method of China airports' pavement*, and develop the calculation software

Organize 25 airports with different runway and surface structures to test, *calculate and verify the software*



Discussion-The actual calculation



机场道面分类等级（PCR）测算信息收集表			
指标名称	指标信息	备注	
道面功能分类		道面功能分类是指跑道、滑行道、	
道面 PCN		需一并填写相应编号。	
其他信息			
未处治细粒土道基顶面反应模量、道基顶面反应模量或基层顶面反应模量		地基参数可通过又不同于以下途	
道基材料实测回弹模量		1. 竣工资料中完整的地质勘察资	
道基材料 CBR		2. 提交地基处理设计文件。	
不利季节地下水水位情况或道基湿度状态		3. 土石方工程竣工验收资料（竣	
		告）。	
		4. 近年所做的道面评价报告。	
		5. 如果以上资料缺失，应开展以	
		选一）；	
		（1）在道面周边土面区开展现场	



Explain the PCR calculation method to all airports, including the calculation principle, *calculation parameters* and *the use of the software*

Develop the *template* of PCR calculation information collection , *the purpose is to give unified guidance to all the airports*

Establish work contact group, facilitate the question presenting at any time, and the professional research team is able to give timely suggestions

Require each airport to *report the PCR calculation progress*



Discussion-The actual calculation

Note: The airport operators may likely face situations like the parameters do not match with the actuality, or the software is not appropriately used.

➤ Organize a professional research team to review the PCR calculation results of all airports

➤ The airport is required to evaluate and confirm the PCR calculation result through the airports' safety council

序号	地区管理局	机场名称	复核意见
1		北京/首都	
2		北京/大兴	
3		天津/滨海	
4		石家庄/正定	
5		太原/武宿	1. 软件计算时合理选择跑道基层 络道交通量参数输入是否有区分
6		呼和浩特/白塔	✓
7		鄂尔多斯/伊金霍洛	✓
8		呼伦贝尔/海拉尔	✓
9		满洲里/西郊	
10		唐山/三女河	✓
11		承德/普宁	需复核评价期
12		秦皇岛/北戴河	✓
13		邯郸	





Discussion-The data reporting

All of the *260 airports* in China *have completed the calculation* of the *PCR* value.



Aeronautical information report

Airport manual modification

Training for air carriers



Discussion-The data reporting

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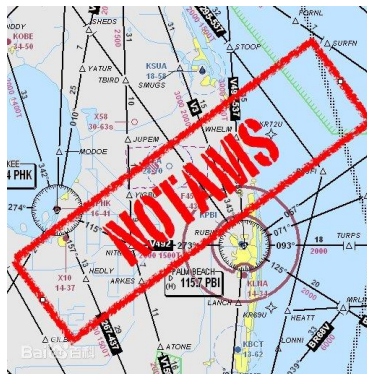
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关于推进机场道面强度报告格式调整航空情
报相关工作的通知

- The AIS should deploy in advance, arrange the working time from August to October especially for the review of PCR data, and other less important information data modification should be avoided this period

- If some airports are not able to complete the calculation on time or make subsequent adjustments, the airport PCR data can be temporarily reported through NOTAM, and AIP revision can be applied later.





Discussion-Other concerns



The ACR data is the basis of airport PCR calculation, but so far there are a few aircraft manufacturers have not provided ACR data



PCR Technical evaluation



PCR Experience evaluation

It is suggested to all Member States/Administrations to use the technical evaluation method priority



Conclusion

- It is suggested that all Member States/Administrations pay attentions to it and carry out the work as soon as possible
- It is suggested that ICAO shall promote the relevant manufacturers to release positively the model parameters soon
- It is suggested that Member States/Administrations give priority to the technical evaluation method



- Note the information contained in this paper.
- Encourage other Member States/Administrations to share their experience during the adjustment of airport pavement strength bearing report format, in this way we jointly promote the successful implementation of this work.



感谢聆听
Thanks for your attention!