



INTRODUCTION TO THE IMPLEMENTATION OF THE NEW **SNOWTAM** OF **CAAC**

CUI SHUNJIA, AISC
ATMB OF CAAC

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BACKGROUND OF NEW SNOWTAM IN CHINA



As a founder, contracting party and member state of the International Civil Aviation Organization (ICAO), China has always adhered to the aims and objectives of the Chicago Convention and actively and responsibly supported the technical standards and the application of new technologies which are promoted by ICAO.

In order to implement ICAO's requirement of using "GRF" to report runway surface conditions, carry out assessment and notification of runway surface conditions at airports in China, and ensure timely, accurate and complete release of the new format of SNOWTAM (new SNOWTAM) in accordance with the unified implementation time determined by ICAO, CAAC (Civil Aviation Administration of China) has started to research and prepare for the new SNOWTAM since 2019.

BACKGROUND OF NEW SNOWTAM IN CHINA



PREPARATION

ANNEX 3、6、8、14、15
PANS 10066、9981、4444

2020-11-5

2021-11-4

2015

2018

2020

2021

The image shows a stack of ICAO documents. The top document is 'Doc 10066' titled '航空情报管理' (Aeronautical Information Management), first edition, 2018. Below it is 'Doc 9981' titled '空中航行程序' (Air Traffic Procedures), first edition, 2018. The bottom document is 'Doc 4444' titled '空中交通管理' (Air Traffic Management), sixth edition, 2016. All documents feature the ICAO logo and an image of an airplane flying over a control tower.

The image shows a document page with the ICAO logo at the top. Below the logo, there is a header in Chinese: '国际民用航空组织' (International Civil Aviation Organization). The main body of the document contains Chinese text, which appears to be a notice or report regarding the new SNOWTAM system. The text includes details about the implementation of the system and the dates of the relevant meetings.

BACKGROUND OF NEW SNOWTAM IN CHINA



This task is undertaken by ATMB (Air traffic management bureau) of CAAC. Although by reason of outbreak of the COVID-19 , the implement time delayed to November 4, 2021 from November 5, 2020, but also provides us with sufficient time to prepare. In the end, during two years of preparation, ATMB of CAAC has issued new SNOWTAM to the world according to the scheduled implementation time. This work has contributed China's wisdom and strength which is aimed for the scientific assessment and timely notification of the runway surface condition information, and fulfilling China's responsibilities for ensuring the safe takeoff and landing of aircraft at Chinese airports.

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PREPARATION AND IMPLEMENTATION



In order to ensure the implementation of the new SNOWTAM, CAAC has carefully studied the relevant standards and recommended measures of ICAO runway surface conditions. ATMB of CAAC is studying and promulgating the Rules for Assessment and Notification of Runway Surface Condition at Transport Airports as the standard for measurement and assessment of runway surface condition. Meanwhile, ATMB of CAAC has carried out the research and preparation of reporting the runway surface condition with the new SNOWTAM. During this process, some works have mainly been completed:

THREE MAIN WORKS

PREPARATION AND IMPLEMENTATION



First, we have completed the compilation and promulgation of the specification for new SNOWTAM. In 2019, ATMB of CAAC started the preparation work for the implementation of the new SNOWTAM, and conducted in-depth interpretation and comparison of Doc 10066 (PAN-AIM, Doc 10066) and Doc 9981 (PAN-AD, Doc 9981). The research and implementation group of the new SNOWTAM has been set up and a detailed practical work plan has been developed. In the process of compiling the STANDARD, more than 10 discussions were organized to solicit opinions and suggestions from various aspects, so that each clause of the standard was highly consistent with ICAO standards and the actual operation of CIVIL aviation airports in China. Finally, the new version of "Specifications of SNOWTAM for Civil Aviation of CHINA" was issued on October 12, 2021.



2021-10-12

NEW VERSION

Specifications of SNOWTAM for
Civil Aviation of CHINA



咨 询 通 告

中国民用航空局空管行业管理办公室
中国民用航空局空中交通管理局

编 号：AC-175-TM-2021-01

下发日期：2021 年 10 月 12 日

雪情通告编发规范

PREPARATION AND IMPLEMENTATION



Second, we complete the upgrade, testing and deployment of the CNMS (China NTM management system). The reconstruction of the new functions and the normal operation of the CNMS are the key to the smooth implementation of the new SNOWTAM. ATMB of CAAC has organized research and designed the functions and interface of the new SNOWTAM module. Various verification rules have been formulated and tested against the standards in the new version of the "Specifications of SNOWTAM for Civil Aviation of CHINA", and several rounds of system tests have been organized and carried out, which fully verified that the newly upgraded system can fully meet the functional requirements of the new format of SNOWTAM issuance, processing, storage, query and PIB extraction. Finally, we successfully completed the upgrade and deployment of CNMS in each transport airport in China, which provided a solid technical support for the issuance of the new SNOWTAM.

PREPARATION AND IMPLEMENTATION



Third, the extensive development of new SNOWTAM and automation system training. In view of the particularity and importance of the new SNOWTAM, in order to enable all relevant professional and technical personnel, such as the original information providers (initiators), AIS personnel, controllers, airport and airline end-users, to familiarize themselves with the standards and requirements of the new SNOWTAM as soon as possible, ATMB of CAAC has organized and carried out training on the new Specifications of SNOWTAM and upgraded CNMS for many times, and has publicized the new "Specifications of SNOWTAM for Civil Aviation of CHINA" to the personnel in various professional fields of civil aviation of China. At the same time, various professional and technical platforms were used to publicize the new SNOWTAM to civil aviation employees, so that everyone knew the new SNOWTAM before it was issued and implemented; When it's released and implemented, everyone could use it.

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OPERATION OF THE NEW SNOWTAM



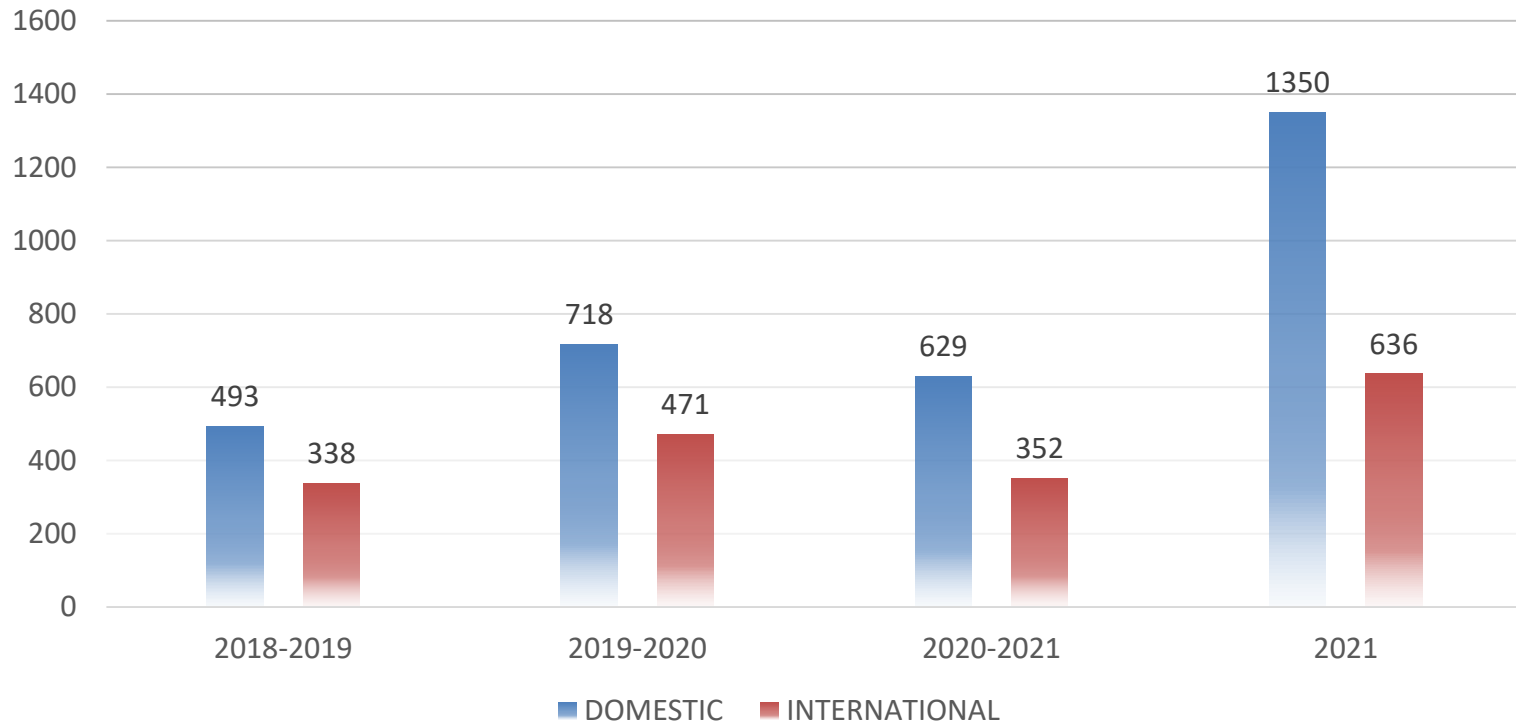
Since the official implementation of the new SNOWTAM on November 4, 2021, China's civil aviation transport airports are all capable of issuing the new SNOWTAM. By September 2022, ATMB of CAAC had issued more than 3,000 new SNOWTAM to the international community, about 10 times of the annual volume before the implementation of the new SNOWTAM.

The reasons for the significant increase in the number of new SNOWTAM in China are mainly as follows: first, the observation cycle is unified. All airports are required to adjust the measurement and evaluation of the runways to be carried out at least every **8** hours, and the shortening of the observation interval has led to an increase in the number of SNOWTAM.

OPERATION OF THE NEW SNOWTAM



QUANTITY OF SNOWTAM IN OLD FORMAT



OPERATION OF THE NEW SNOWTAM



Second, airports in southern China began to issue SNOWTAM. Due to the wider scope of the new SNOWTAM, runway surface conditions that were not previously subject to the issue of SNOWTAM are now included in the issue. For example, standing water has become one of the types of pollutants, and the situation of slippery runways is now subject to the issue of SNOWTAM. The new SNOWTAM are not limited to airports in northern China in winter when snow falls. Most airports in southern China have also started issuing SNOWTAM when standing water affects runways, contributing to the surge in numbers.

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THE CHARACTERISTIC OF NEW SNOWTAM IN CHINA



Chinese civil aviation have foreseen that the implementation of the new SNOWTAM may be regional differences exist in the whole world when carrying out in the run-up to the GRF, so the CNMS upgrade when two versions compatible with the old and new SNOWTAM format, the system can issue a SNOWTAM in new format, but also can deal with the old format of SNOWTAM, and ensure that the old and new format does not conflict.

Although this has cost us a lot of manpower and time resources, but it has proved to be very forward-looking, to avoid a series of problems after the implementation of the new SNOWTAM. Here, we also request ICAO to further promote the implementation of GRF and the issuance of the new SNOWTAM globally.

THE CHARACTERISTIC OF NEW SNOWTAM IN CHINA



生成、发送报文

NOTAM NEW SNOWTAM GENERAL REQUEST SNOWTAM 发报后打印

基本信息
电报类型 SNOWTAM 地名代码 ZUUU

等级AFTN DD SITA
观测时间

详细信息
机场 A项 ZUUU
B) 观测时
C) 跑道代
I) 跑道
变短至
N) 滑
滑行道编号
说明 T)
备注
清空 请注意

生成、发送报文

NOTAM NEW SNOWTAM GENERAL REQUEST SNOWTAM 发报后打印

基本信息
电报类型 SNOWTAM 地名代码 ZUUU

等级AFTN DD SITA QU
观测时间 09181103

详细信息
机场 A项 ZUUU
B) 观测时
09181100
C) 跑道代
01L
I) 跑道
变短至
N) 滑
滑行道编号
说明 T) 说明
备注
清空 请注意

生成、发送报文

NOTAM NEW SNOWTAM GENERAL REQUEST SNOWTAM 发报后打印

基本信息
电报类型 SNOWTAM 地名代码 ZUUU

等级AFTN DD SITA QU
观测时间 09181103

区域代码 ZU 编号 0039
发报地址 ZUUUOFXX 任选项

详细信息
机场 A项 ZUUU 顺序号 0039

飞行性能计算
09181100 01L 3/3/3 25/25/25 10/11/12 DRY SNOW ON TOP OF COMPACTED SNOW/DRY SNOW ON TOP OF COMPACTED SNOW/DRY SNOW ON TOP OF COMPACTED SNOW
30
09181103 02L 2/2/2 25/25/25 05/05/05 DRY SNOW/DRY SNOW/DRY SNOW 25

情景意识
RWY 01L LDA REDUCED TO 1200. RWY 02L LDA REDUCED TO 1000. DRIFTING SNOW. DRIFTING SNOW. RWY 01L LOOSE SAND. RWY 02L LOOSE SAND. RWY 01L CHEMICALLY TREATED. RWY 02L CHEMICALLY TREATED. RWY 01L SNOWBANK R10 FM CL. RWY 02L SNOWBANK R20 FM CL. TWY A1 A2 SNOWBANK. RWY 02L ADJ SNOWBANK. ALL TWY POOR. ALL APRON POOR. 1.25. 1.25.

说明 T) 说明
备注
清空 请注意: 雪情通告在发出8小时后, 会自动失效! 发送

THE CHARACTERISTIC OF NEW SNOWTAM IN CHINA



On the whole, the preparation and implementation of the new SNOWTAM by CAAC are targeted, well-prepared, safe, reliable, high-quality and effective. The updated SNOWTAM provides timely, accurate and complete information on the surface condition of the runway to users around the world, providing a reliable basis for pilots to determine landing or takeoff operation plans. It effectively guarantees the safety, normality and efficiency of all civil transport activities within the FIR in China.

As always, China's civil aviation will fulfill its responsibilities and obligations as a member state of the ICAO and make its own contributions to the development of global civil aviation.



THANK YOU