

**55<sup>th</sup> CONFERENCE OF  
DIRECTORS GENERAL OF CIVIL AVIATION  
ASIA AND PACIFIC REGION**

*Denarau Island, Nadi, Fiji  
22 — 26 October 2018*

**AGENDA ITEM 4: AIR NAVIGATION**

**OPERATION OF ASIAN AVIATION METEOROLOGICAL  
CENTER**

Presented by the People's Republic of China

**INFORMATION PAPER**

**SUMMARY**

This paper presents the latest development of the Asian Aviation Meteorological Center (AAMC) established by China, the progress of the Asian Hazardous Weather Guidance Product issuance and its transition to operation among China.

## OPERATION OF ASIAN AVIATION METEOROLOGICAL CENTER

### 1. INTRODUCTION

1.1 ICAO Meteorology Divisional Meeting in 2014 (MET14) formulated a recommendation (Recommendation 2/9) to call for a phenomenon-based regional advisory system to select en-route hazardous meteorological conditions consistent with the Global Air Navigation Plan (Doc. 9750) to be developed expeditiously. The recommendation is to address the long-standing deficiencies in reporting and forecasting en-route hazardous meteorological conditions which have persisted for many years in some regions. In addition, the aviation industry has identified a need for a phenomenon-based system to provide advice on hazardous weather. ICAO APANPIRG/26 meeting (2015) noted the importance of cross-FIR-boundary coordination and alignment of the MET information provided by States for adjacent FIRs to support Air Traffic Management (ATM).

1.2 Many efforts have been made by China and Hong Kong China to address the above-mentioned issues for Asian en-route hazardous meteorological conditions. One is a phenomenon-based regional guidance system being put online on January 1<sup>st</sup> 2018, which was jointly developed by the Civil Aviation Administration of China (CAAC), China Meteorological Administration (CMA) and Hong Kong Observatory (HKO) at the end of 2017, named as Asian Aviation Meteorological Centre (AAMC) Hazardous Weather Guidance Platform. Accompanied with the platform operation, AAMC also started the formal trial operation from January 1<sup>st</sup>, with CAAC serving as the main center, HKO as the backup center and CMA as the technical support center. The operations at the main center are undertaken by Aviation Meteorological Center (AMC). On July 11<sup>th</sup> 2018, the operation of AAMC was launched.

### 2. DISCUSSION

2.1 Under the collaboration of CAAC, CMA and HKO, AAMC has been preliminarily established at the end of 2017. It is preliminarily capable of monitoring and forecasting the hazardous weather in Asia; and it's also capable of issuing/updating/coordinating guidance products, and assessing the weather forecast. On January 1st 2018, the Asian Hazardous Weather Guidance Platform began the trial operation, and AAMC jointly started the trial operation. On July 11th 2018, a ceremony was held to launch the operation of AAMC and the guidance platform.

2.2 As the main center of AAMC, AMC sets up two work seats: the Asian hazardous weather forecasting seat and the Asian hazardous weather collaborating seat, which both operate uninterruptedly. The forecasting seat is in charge of monitoring the hazardous weather, generating and updating the guidance products. The collaborating seat is in charge of coordination of the hazardous weather in Asia, the SIGMET coordination, the issuance of the Guidance, and consultation services for users.

2.3 AAMC sets up and carries out the collaboratively operation program. The main center holds the weather consultation video conference with the backup center every day at 9:00am, to discuss the development of in-depth the future 24-hour weather pattern and hazardous weather in Asia. AAMC then issues the weather briefing report.

2.4 AAMC sets the standard of the guidance products. Currently they routinely generate and issue guidance products for Asia 5 times a day, and the starting time of the products are: 0000, 0300, 0600, 0900, 1200 UTC and the valid time is 6 hours. The issuing time should be prior to the starting time but no earlier than 30 minutes.

2.5 AMC generates the preliminary Asian Hazardous Weather Guidance products based on observations and forecasts, and collaboratively consult with 9 domestic MWOs to modify the preliminary products. After the modifications, AMC will consult with HKO and issue the guidance with approvals from both sides.

2.6 Referring to the guidance, regional MWOs can use the Hazardous Weather Guidance Platform to create automatic SIGMET, to help them to issue their final SIGMET more quickly. This can improve the efficiency of SIGMET issuance and also assure the consistency of the cross-FIR-boundary SIGMET, provide seamless meteorological service to the ATMs and pilots in Asia.

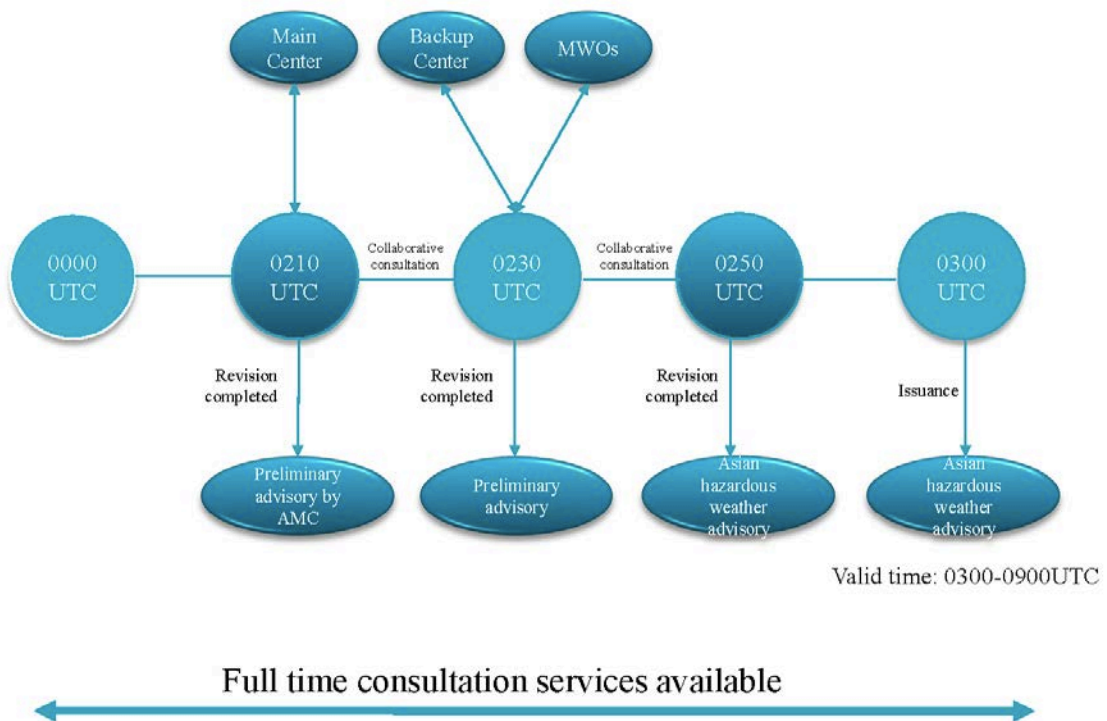
2.7 Currently, 9 domestic MWOs, HKO and AMC have joined the Asian Hazardous Weather Guidance network. They can collaboratively consult the hazardous weather in their watching area any time and issue a consistent SIGMET.

2.8 Currently, there are several airlines that have joined the Asian Hazardous Weather Guidance network, such as Shandong Airlines, Hainan Airlines, Capital Airlines, etc. These airlines can obtain abundant meteorological monitoring materials and hazardous weather forecasting products from the network.

### 3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to note the information contained in this Paper.

— END —



**Figure 1. The generation, collaboration and issuance of the routine guidance products, and the consultation services (0000-0300UTC) (Same for the other time periods)**

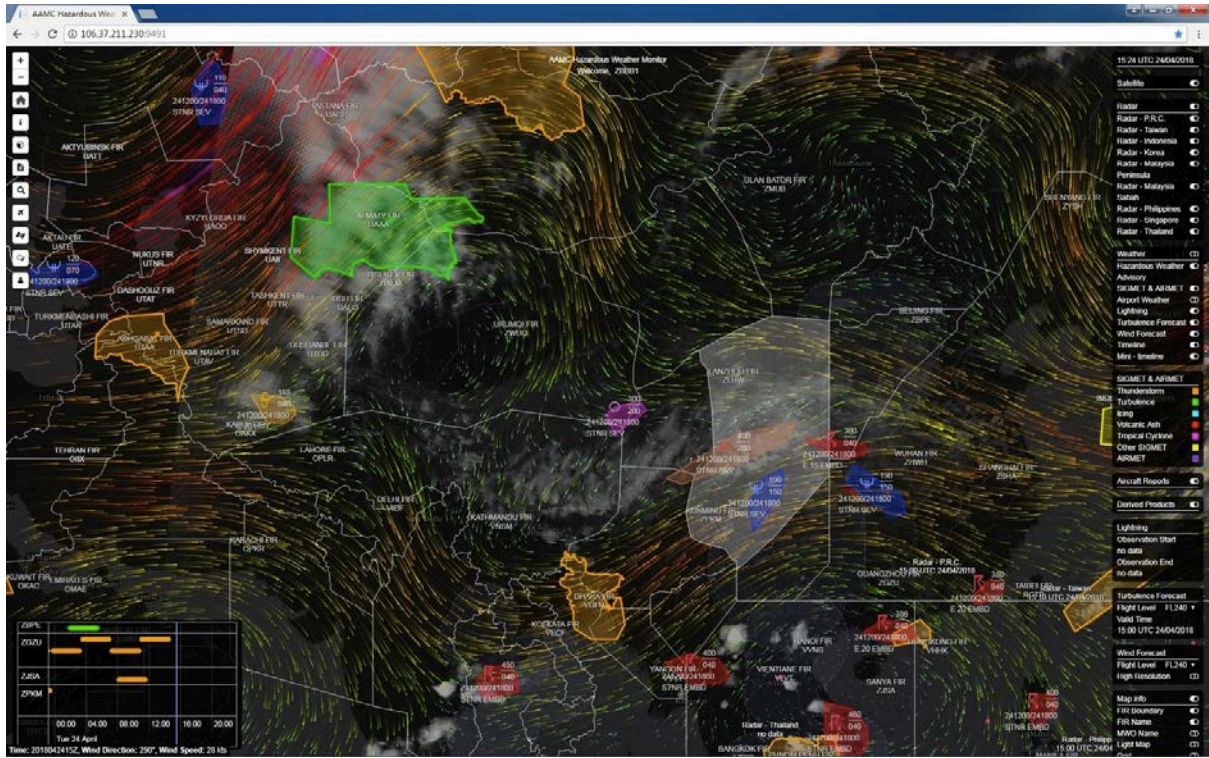


Figure 2. The homepage of the Asian Hazardous Weather Guidance Platform

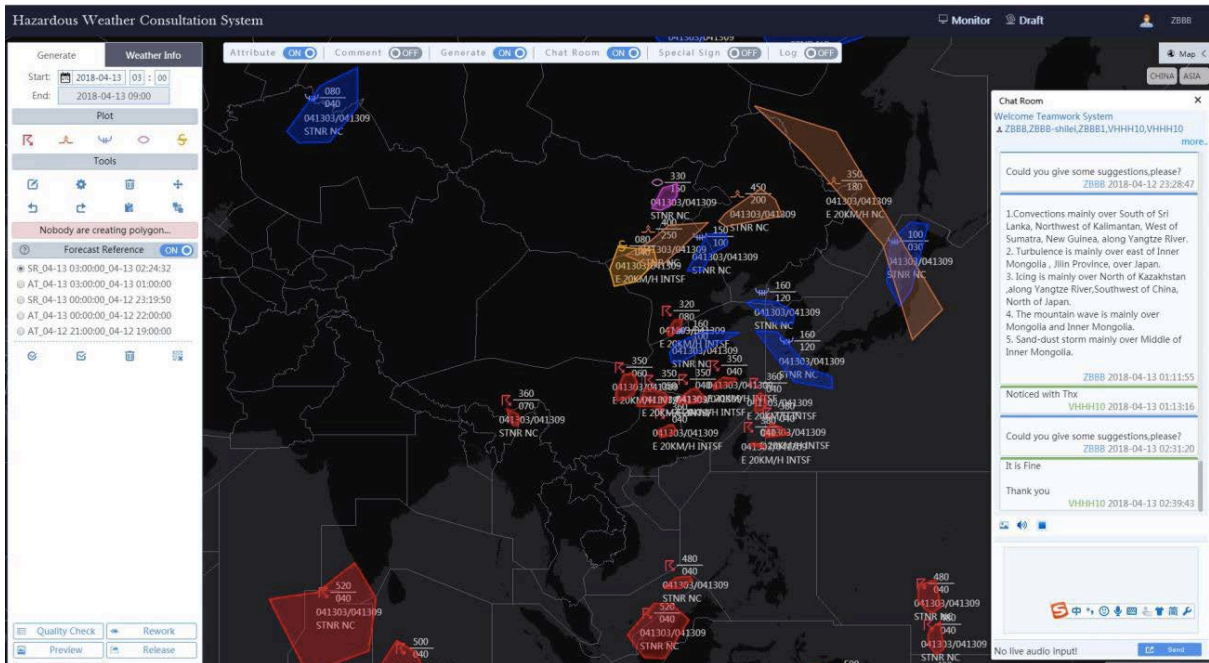
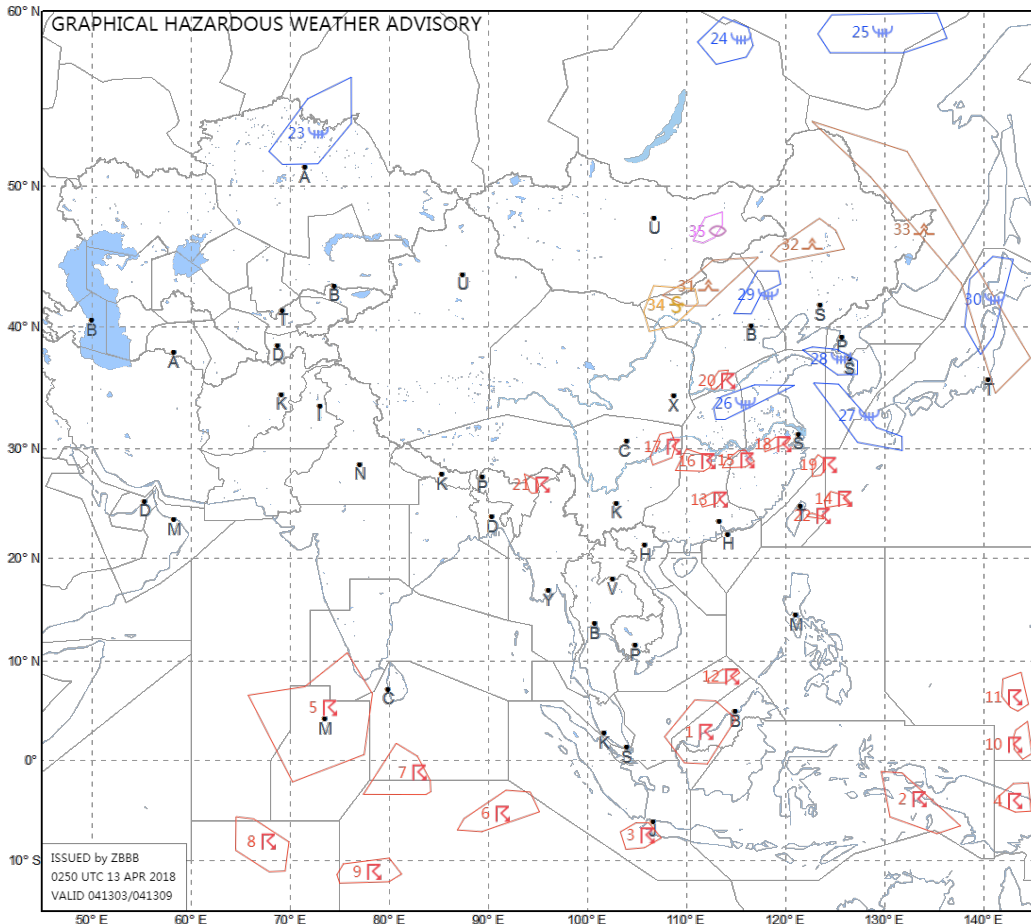


Figure 3. The collaboration page of the Asian Hazardous Weather Guidance Platform



NO	PHENOMENON	VALID	MOV	LEVEL	INTENSITY	OBS
1	EMBD TS	130300/130900	STNR	FL040/520	NC	
2	EMBD TS	130300/130900	STNR	FL040/500	NC	
3	EMBD TS	130300/130900	STNR	FL040/490	NC	
4	EMBD TS	130300/130900	STNR	FL040/490	NC	
5	EMBD TS	130300/130900	STNR	FL040/520	NC	
6	EMBD TS	130300/130900	STNR	FL040/490	NC	
7	EMBD TS	130300/130900	STNR	FL040/500	NC	
8	EMBD TS	130300/130900	STNR	FL040/500	NC	
9	EMBD TS	130300/130900	STNR	FL040/490	NC	
10	EMBD TS	130300/130900	STNR	FL040/480	NC	
11	EMBD TS	130300/130900	STNR	FL040/480	NC	
12	EMBD TS	130300/130900	STNR	FL040/480	NC	
13	EMBD TS	130300/130900	E 20KMH	FL040/360	INTSF	
14	EMBD TS	130300/130900	E 20KMH	FL040/380	INTSF	
15	EMBD TS	130300/130900	E 20KMH	FL040/350	INTSF	
16	EMBD TS	130300/130900	E 20KMH	FL050/350	INTSF	
17	EMBD TS	130300/130900	E 20KMH	FL060/350	INTSF	
18	EMBD TS	130300/130900	E 20KMH	FL040/350	INTSF	
19	EMBD TS	130300/130900	E 20KMH	FL040/360	INTSF	
20	EMBD TS	130300/130900	E 20KMH	FL080/320	INTSF	
21	EMBD TS	130300/130900	STNR	FL070/360	NC	
22	EMBD TS	130300/130900	E 20KMH	FL040/380	INTSF	
23	SEV ICE	130300/130900	STNR	FL040/080	NC	
24	SEV ICE	130300/130900	STNR	FL040/090	NC	
25	SEV ICE	130300/130900	STNR	FL040/090	NC	
26	SEV ICE	130300/130900	STNR	FL100/160	NC	
27	SEV ICE	130300/130900	STNR	FL120/160	NC	
28	SEV ICE	130300/130900	STNR	FL120/160	NC	
29	SEV ICE	130300/130900	STNR	FL100/150	NC	
30	SEV ICE	130300/130900	STNR	FL030/100	NC	
31	SEV TURB	130300/130900	STNR	FL250/400	NC	
32	SEV TURB	130300/130900	STNR	FL200/450	NC	
33	SEV TURB	130300/130900	E 20KMH	FL180/350	NC	
34	HVY SS DS	130300/130900	E 20KMH	FL040/080	INTSF	
35	SEV MTW	130300/130900	STNR	FL150/330	NC	

Figure 4. An example of the Asian Hazardous Weather Guidance products