International Civil Aviation Organization

INFORMATION PAPER

Asia and Pacific (APAC)
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Online, 31 May to 03 June 2022

Agenda Item 4: Collaboration between MET services and ATM stakeholders

RE-ORGANIZATION OF THE STATE AERONAUTICAL METEOROLOGICAL SERVICE AND ARRANGEMENT OF WEATHER SERVICE FOR AVIATION IN CENTRAL OF VIETNAM

(Presented by Vietnam)

SUMMARY

The Paper presents the recent reorganization of the system for provision of aeronautical meteorological service (MET) in Vietnam. It also gives specific information on collaborative arrangement between MET and ATM services in Central region of Vietnam to help highlight benefits and challenges of the pattern of MET service from the perspective of safety and effectiveness of flight operation.

1. INTRODUCTION

1.1 In Vietnam since 01/1/2017 most meteorological services for aeronautical purposes have been provided by Vietnam Air Traffic Management Corporation (VATM) - the biggest air navigation service provider in the country. In 2020 VATM commenced a project to reorganize its MET service system, establishing a new Aeronautical Meteorological Centre (AMC) under the VATM Board of Director in order to move all the MET units that recently sparsely belonged to 04 regional ATS/ATFM companies into AMC, then make a body of MET service as a whole.

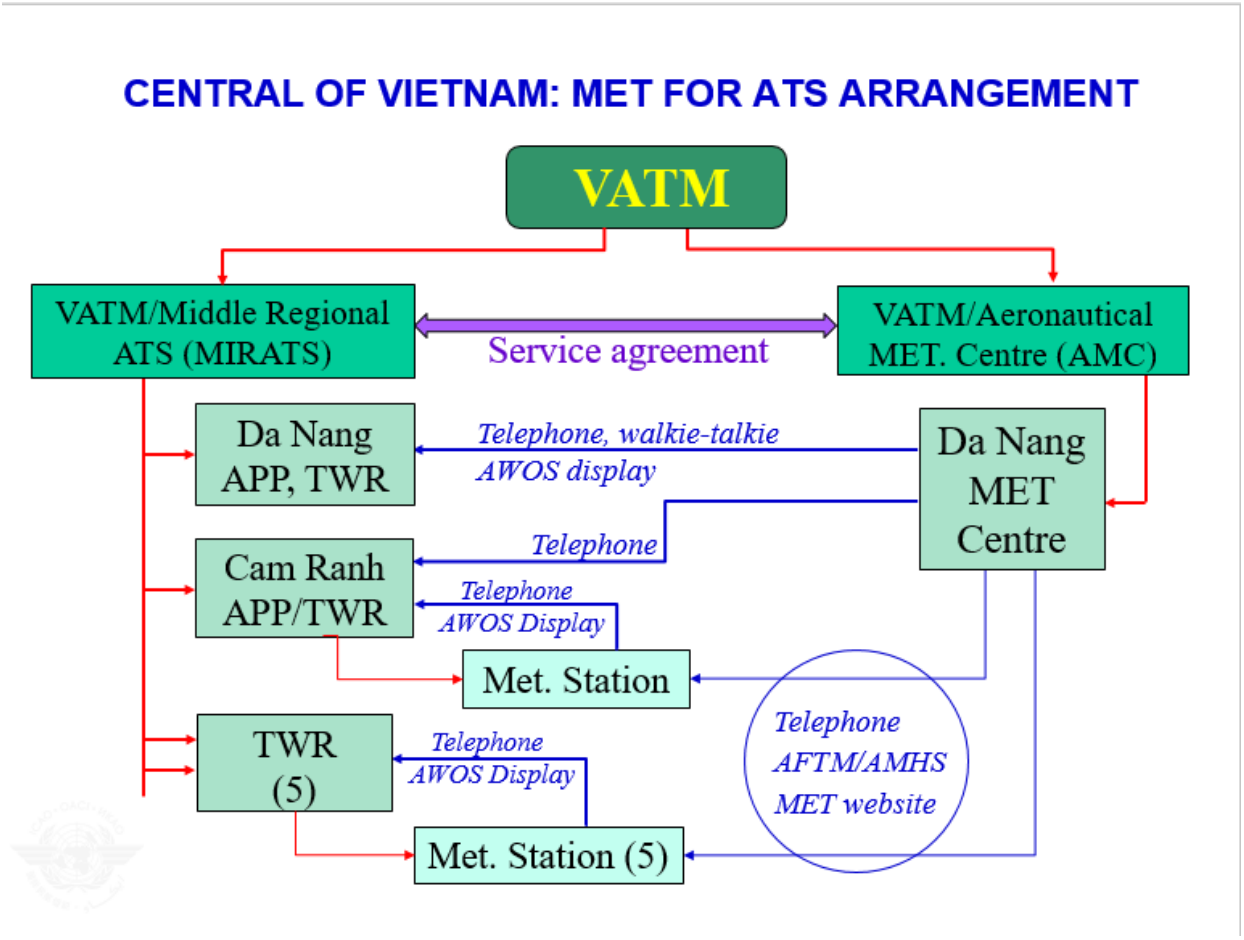
1.2 By now, VATM has fulfilled the phase 01 (2020 – 2022) of the project. The AMC was established on 01/1/2021, comprising of Met Watch office (MWO) and three Regional Aeronautical MET Centres that are located in the North, Central and South of Vietnam. MWO has responsibility of providing MET watch service over two FIRs of Vietnam (Hanoi & Ho Chi Minh FIRs), including SIGMET, en-route weather monitoring and consultation for two ACCs controlling the two FIRs. The three regional aerodrome MET centres, each comprises of an Aerodrome MET Office and an Aerodrome MET Station; provide forecast, warning services and flight documentation for aerodromes within their area of responsibility, also make and provide aerodrome weather observation service at the airport where each is located.

1.3 In 19 airports other than Noi Bai, Da Nang, Tan Son Nhat International Airports, VATM runs 19 aerodrome MET stations. These stations until now belong to the airports' APP/TWR or TWRs. Duty of the MET Stations is making aerodrome observations and reports and supplying flight documentation for air crew when needed. In the phase 02 of the MET re-organization project (2023 –

2024) all these MET stations will be moved into the AMC to smoothen aviation MET service throughout in the country.

1.4 Central of Vietnam is a long coastal region with very complicated weather round the year. High frequency of extreme weather phenomena such as thunderstorm, strong wind, wind shear, low visibility (heavy rain, fog) significantly affects flight operation. This is also the region that has been affected seriously every year by tropical storms. For example, in 2020 there were 13 tropical storms in the East Sea to Vietnam, 6 among them landed in Vietnam's Central, caused hug rains and floods, set off a series of landslides that buried villages and towns, killed almost a hundred of people, cut power to millions of people and damaged thousands of houses. Hundreds of flights were canceled, delayed, changed route or diverted during the time of the storms' activity. That extreme weather condition calls for strengthen MET service as well as coordination between MET and ATM/ATS in order to to ensure safety for flight operations in the region.

1.5 Parallel to the re-arrangement MET service organization, close agreement between AMC and coordinating regional ATS company has regularly been reviewed by VATM and CAAV (all these MET and ATS parties are under the Board of VATM). Specific collaboration between MET and ATS in the Central region of Vietnam can be seen in the scheme bellow:



1.6 Central regional aeronautical meteorological centre (Da Nang MET Centre) has been equipped adequately to carry out all of the functions of an aerodrome meteorological offices recommended by ICAO as described in Annex 3. It serves aerodrome weather forecast, warning and flight documentation to meet the needs of flight operations not only for Da Nang international airport but also for other six aerodromes located in the Central of Vietnam. To help forecasters continuously monitor the local weather in each aerodrome within the area of responsibility and issue timely, high-quality TREND forecast, AD WRNG for those, a computer network system was installed in 2019 sharing all the AWOS Displays from the remote aerodromes to Da Nang MET Centre. Thank to that

the Centre has obviously improved forecasts and warnings to support safety and regularity flight operation, despite extreme weather repeatedly impacts the area.

2. DISCUSSION

2.1 The pattern of Vietnam/VATM's arrangement for aeronautical MET services would benefit civil aviation industry in many ways, at the same time it would makes certain challenges. The benefits would be strengthening collaboration between MET and ATS services; utilizing/optimizing the usage of meteorological information to support ATM to improve safety and effectiveness of flight operation; making convenience for updating new ICAO or Government regulation on MET in ATM, including training MET for ATS personnel and vice versa; facilitating Civil Aviation Authority in monitoring ICAO SARPs implementation in the whole system of MET service for aviation in the country. The drawback of this pattern may be found in financial exercise (to determine the cost of aeronautical MET service), or the cost-benefit obstacle of MET service provider due to the fact that a hug budget would be continuously required for MET equipment to meet up with aviation growth and rapid technological change on Earth.

3. ACTION BY THE MEETING

3.1 Note the information contained in this paper.

3.2 Discuss different patterns of collaborative arrangement between MET services and ATM stakeholders in the States, for the sake of effective usage of meteorological information to support flight safety in APAC region.

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