



ICAO

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North American, Central American and Caribbean Office

WORKING PAPER

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Second Meeting of the Aeronautical Meteorology (MET) Task Group (TF) of the North American, Central American and Caribbean Working Group (NACC/WG) (MET/TF/02)
Mexico City, Mexico, February 27 to March 1, 2024

Agenda Item 4: Quality Management Systems

**REGIONAL PROJECT PROPOSAL FOR THE VERIFICATION OF
TAF AERODROME FORECASTS IN THE CAR REGION**

(Presented by Cuba)

EXECUTIVE SUMMARY

The Republic of Cuba has successfully developed and implemented the Automated System for the Evaluation of TAF Aerodrome Forecasts (SAETAF). The Working paper proposes a stages-based project, to progress in the evaluation of TAF in the CAR region through International Collaboration.

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| Action: | Suggested actions are presented under Item 3 of this working paper. |
| <i>Goals Strategic:</i> | <ul style="list-style-type: none">• Safety• Air navigation capacity and efficiency• Environmental Protection |
| <i>References:</i> | <ul style="list-style-type: none">• GREPECAS MET Project Meeting; Lima Peru; September 18-22, 2017.• Project Meeting of the MET Program of the CAR/SAM Regional Planning and Execution Group (GREPECAS) (GREPECAS/MET); Mexico City, Mexico; February 28 to March 2, 2018.• Third Meeting of MET Projects; Lima Peru; June 17-20, 2019.• WMO Aviation Workshop; San Jose Costa Rica; November 27 to December 1, 2023. |

1. Introduction

1.1 In September 2017, during the GREPECAS MET Projects Meeting held in Lima, Peru, Cuba presented WP/16 NEED TO STRENGTHEN THE GREPECAS AERONAUTICAL METEOROLOGY PROGRAM IN THE CAR REGION. In its Appendix C, the CAR/SAM Project IMPLEMENTATION OF THE AUTOMATED SYSTEM FOR THE EVALUATION OF AERODROME FORECASTS (SAETAF) IN AERODROME METEOROLOGICAL / METEOROLOGICAL SURVEILLANCE OFFICES was proposed, where Cuba offered its TAF forecast verification software for the use of the CAR and SAM regions, through international collaboration within the framework of ICAO.

In the analysis developed at the Meeting, it was agreed to incorporate this proposal from Cuba, within the already existing H3 projects IMPLEMENTATION OF THE MET INFORMATION QUALITY MANAGEMENT SYSTEM (QMS/MET) of the CAR and SAM regions.

1.2 In May 2018, the first collaboration mission was successfully carried out within the framework of ICAO, for the implementation of the SAETAF in the General Directorate of Civil Aviation of Ecuador. Over the course of these years, the intention of other states in the SAM Region to have said TAF forecast verification software has been received through the MET Regional Officer of the SAM Office. Intentions have not yet been materialized.

1.3 In November-December 2023, the WMO, through its Aviation Workshop, held in San José, Costa Rica, resumed the need to carry out, within the framework of the States' Quality Management Systems, the verification of their TAFs.

2. Development

2.1 In January 2024, the request from the MET Regional Officer of the CAR Region was received for Cuba to analyze the feasibility of conducting pilot tests of the TAFs issued by the CAR States, at the facilities of the Cuban Air Navigation Company ECNA SA.

Once the necessary consultations of our Aeronautical Authority with the systems specialists of ECNA SA were made, they expressed the possibility of conducting the tests, if the information to be processed corresponds to the SAETAF input protocols.

2.2 Cuba does not own the intellectual property rights over SAETAF, because it is owned by a former employee, who currently resides outside the country. We are taking steps to obtain his approval for the use of SAETAF within the framework of the proposed Project.

2.3 Once the approval described above has been achieved, we propose the implementation of the Project, which can be developed in two versions.

Version A: Based on the initial proposal of the MET Regional Officer.

First stage: Obtaining by the ICAO NACC Regional Office the property rights, for shared use of the software with the SAETAF developer in the CAR Region, through Contract.

Second stage: Completion of a Service Contract with the Cuban Air Navigation Company ECNA SA, for conducting the TAF tests for the CAR Region, on a server enabled for this purpose.

Third stage: Regular publication by ECNA SA of the evaluations' results and implementation of the continuous improvement measures by the states, within the framework of their Quality Management Systems to address the worst predicted meteorological variables.

Fourth stage: Sustainable compliance by CAR Region states with the quality indices for TAF forecasts, in accordance with the ICAO Annex 3.

Version B: As it has been developed (Ecuador case study).

First stage: by the Aeronautical Authority or other competent State Authority to obtain the intellectual property rights, for shared use of the software with the SAETAF developer in the State, through Contract.

Second stage: Carrying out an ICAO collaboration mission to the requesting State, where the SAETAF developer installs the software on the servers agreed upon (15 days) and instructors from Cuba to train the personnel without additional costs to the tickets and per diem for the trip (7 days) to the State in question.

Third stage: Regular publication by the State of the evaluations and taking measures for continuous improvements within the framework of its Quality Management Systems, to address the worst predicted meteorological variables.

Fourth stage: Sustainable compliance by CAR Region states with the quality indices of TAF forecasts, in accordance with the ICAO Annex 3.

2.4 At the Seventh Meeting of the Evaluation Commission of Project RLA09801 (MCAAP/PEC/7) to be held in April 2024, Cuba will be presenting a working paper including details for the implementation of the Project, in accordance with the resulting discussions during this Meeting.

3. Suggested actions

3.1 The Meeting is invited to take the following actions:

- a) Analyze the proposals suggested in 2.3,
- b) Any other relevant action.