RA VI Members Perspective: (Syria)

Practical examples of current needs, (offers – as applicable) and platform expectations

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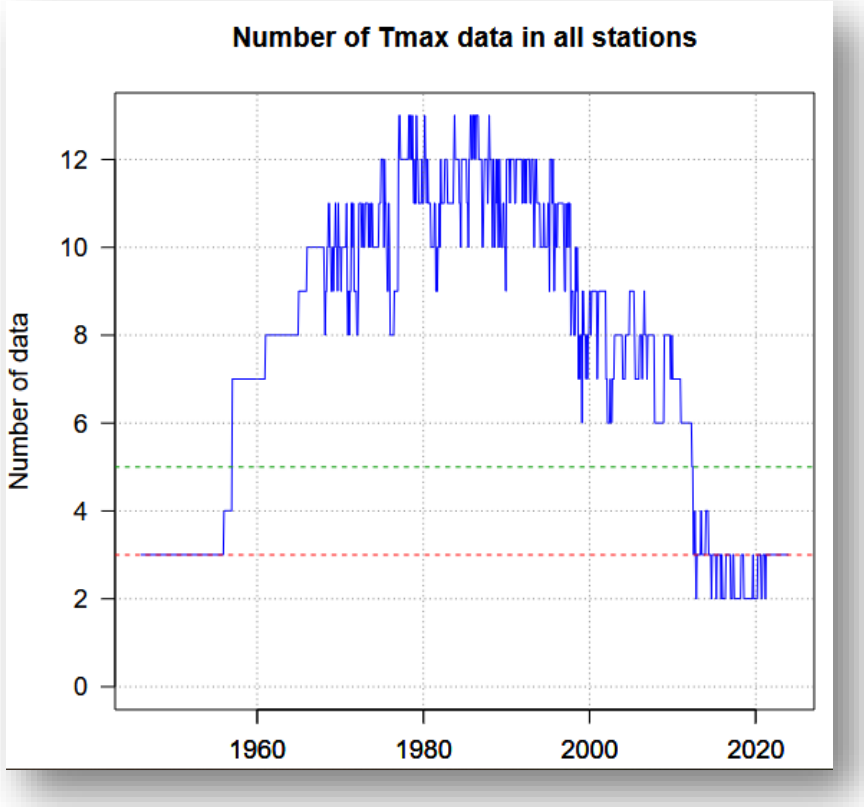
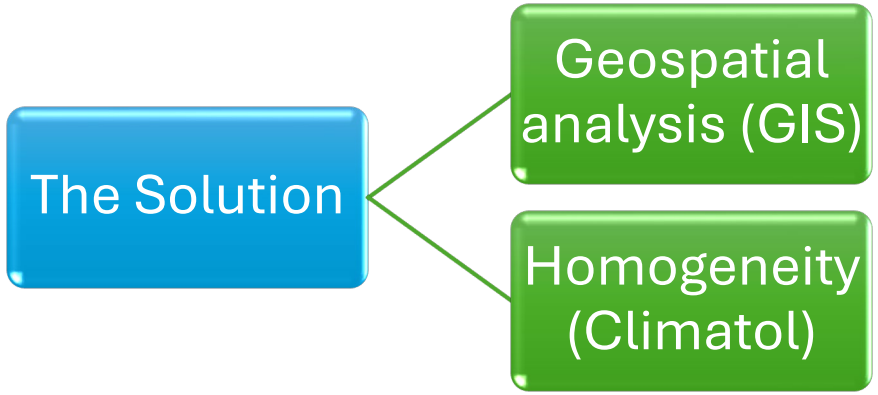
WORLD METEOROLOGICAL ORGANIZATION

Introduction and Context

- ***Most weather monitoring stations went out of service due to 14 years of war.***
- ***Variation in the operational conditions of the working stations.***
- ***Lack of periodic calibration of the equipment.***





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Request / Data Homogenization: 1

Title: Data Homogenization Support for War-Affected Stations

Description: Request for consultations, collaboration, and training to homogenize heterogeneous climate data due to 14 years of war, varying operational conditions, and lack of calibration.

Category: Technical Assistance / Collaboration / Training

Why needed: Fragmented, non-uniform data from few operational stations — cannot be used for climate analysis without homogenization.

Required by: Preferably within 6–9 months

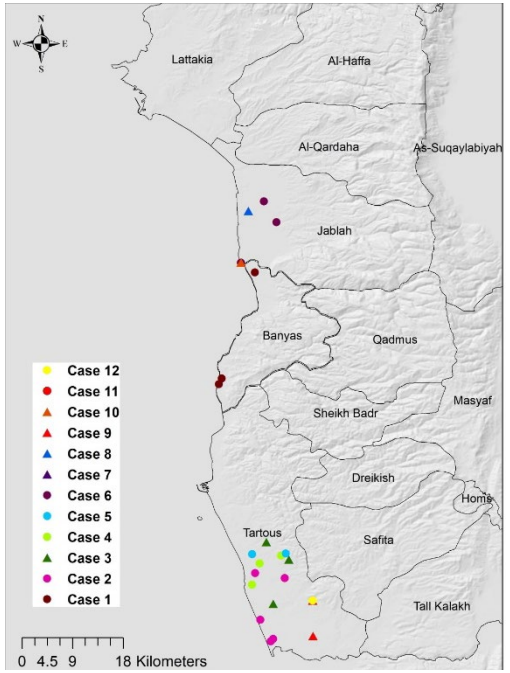
Request / Water Spout Forecasting: 2

Introduction and Context

- ***Small spatial and temporal dimensions lead to difficulty in monitoring and forecast verification.***

- ***Significant damage to protected agriculture (greenhouses) in the coastal plains, with the possibility of damage mitigation in the event of early warning.***

- ***Possibility of forecasting using the Eta model (effective at the NCM) through modelling of the SWI index, for example.***



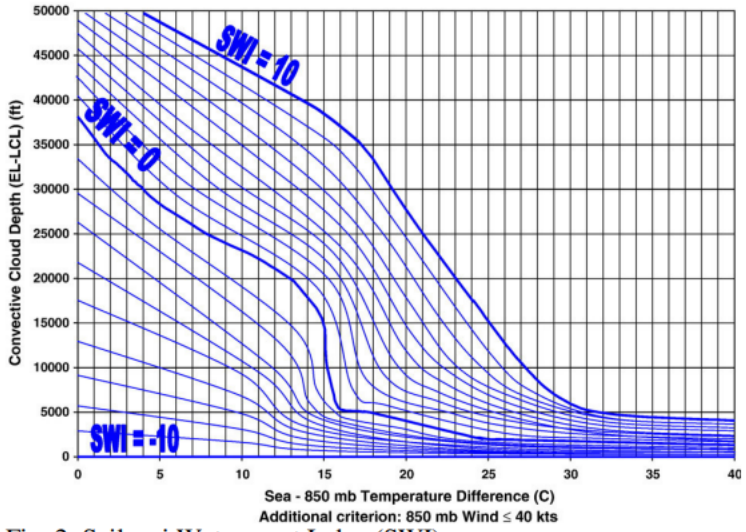


Fig. 2: Szilagyi Waterspout Index (SWI)

WMO OMM

Request / Water Spout Forecasting : 2

Title: Joint Research for Water Spout Forecasting – Monitoring & Verification System

Description: Request for collaborative research to develop an efficient monitoring and forecast verification system for water spouts. The phenomenon has very small spatial and temporal scales, making it difficult to observe and verify predictions. Water spouts cause significant damage to protected agriculture (greenhouses) in coastal plains, but early warning can mitigate losses. NCM has the capability to forecast using the Eta model and the SWI index as an example.

Category: Collaboration / Technical Assistance

Why needed: Small spatiotemporal scale of water spouts leads to major gaps in monitoring and verification. Without a reliable early warning system, greenhouse agriculture in coastal plains remains highly vulnerable. Joint research can bridge this gap by building on our existing modelling capacity (Eta model + SWI) and developing an efficient verification framework.

Required by: Preferably within 12 months

Request / Meteorological Services for Aviation Safety: 3

Introduction and Context

Indicator	May 2025	May 2026
Total Flights	Few flights(less than 50)	**1532** flights
Operating Airlines	3 airlines	**14 airlines**

"According to Syrian Civil Aviation"

Priority: Improving quality control and forecast accuracy to ensure aviation safety

The Challenge: The growing number of flights (**expected 35% increase in flight traffic 2027**)

lack of tools and equipment at airport meteorological offices(**last update 20 years ago**).

Opportunities: Knowledge sharing, and capacity building through the RA VI Support Exchange Platform.

WMO OMM

Aviation MET support
Gap analysis + standards-based training to reduce critical errors

Description:

1. Gap analysis: Expert assessment by WMO to identify root causes of error (45% error rate in TAF/METAR reports based on analysis of 3,000 reports over 6 months).
2. Training: Standards-based training for aviation MET personnel focusing on visibility & wind shear (15% of errors directly impacting safety).
3. Equipment: Technical support to establish SADIS (Secure Aviation Data Information System) at Damascus and Aleppo airport meteorological offices

Category: Technical Assistance & Training & Equipment

Why is this support needed?

Combining gap analysis with follow-up training ensures practical safety risk reduction.
Current SADIS is not working, limiting access to critical aviation forecast products needed for ICAO-compliant TAF preparation.

Required by

Gap analysis: Q4 2026
Training: Q1 2027 (immediately following gap analysis)
SADIS: Q2 2027

WMO OMM

Platform Expectations

Value for our Service & RA VI

- Our Service: Access to missing expertise (homogenization, water spout forecasting)
- RA VI: Strengthening a war-affected Member + replicable methods for others

Pilot phase goals

- Launch 2 collaborations: (1) Data homogenization, (2) Water spout research
- Provide initial training/consultation

Success after 1 year

- Homogenized climate dataset operational
- Water spout monitoring & early warning prototype for greenhouses
- Trained local staff (calibration + improve water spout forecasting)

WMO OMM

Thank you for your attention!

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