Assessment of Reanalysis Datasets Against Radiosonde Observation over Eastern Mediterranean Region

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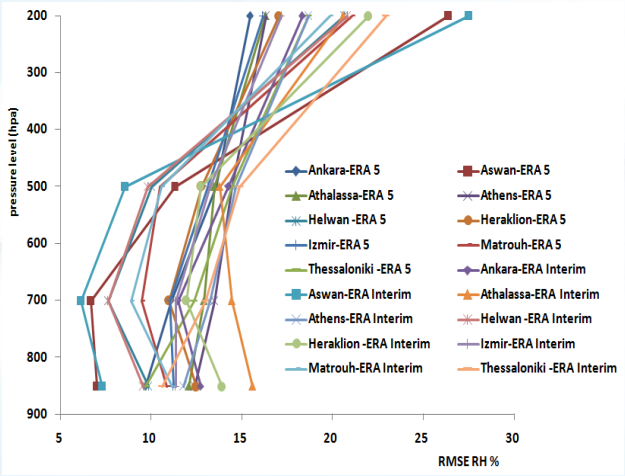
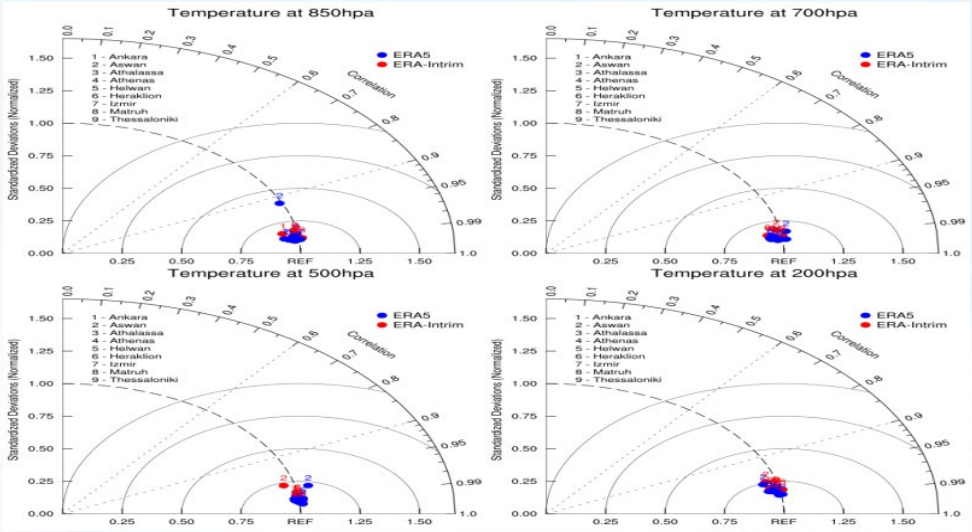
Aim

- ERA-5 and ERA-Interim vs. radiosonde observations.
- Z, T, Td and RH for (850, 700, 500, and 200 hpa) at the period 2000-2017.
- 9 Stations from 4 Countries with different climatology.

  (Ankara, Aswan, Athalassa, Athens, Helwan, Heraklion, Izmir, Matruh ,and Thessaloniki).
- Relationship between upper air temperature and NAOI.





Method

- ❑ Pearson correlation, Mean bias, Root mean square error, and Taylor diagram.
- ❑ Spearman correlation between Temperature and NAOI.

Results

- ➢ Both reanalysis data show a strong correlation, except Td and RH at upper troposphere.
- ➢ Z, and T from ERA-5 and ERA-Interim are generally consistent with the radiosonde values.
- ➢ A negative relationship founded between NAOI and temperature at levels (850, 700, 500 hpa) and a positive relationship at 200 hpa.