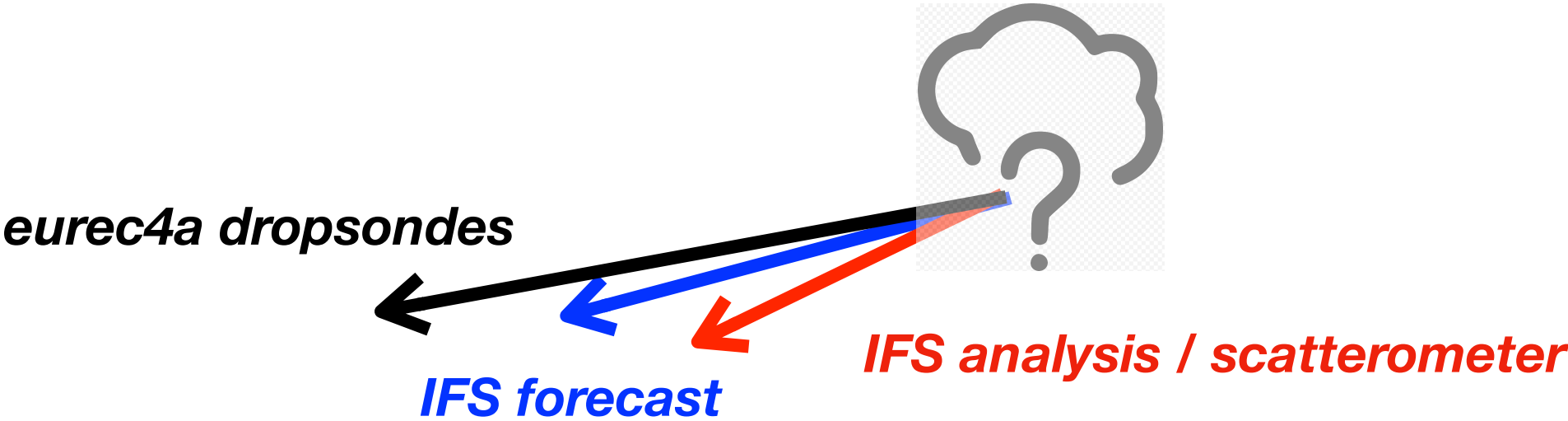


A TRADE-WIND SURPRISE



Verifying the ECMWF IFS forecasted wind profiles against EUREC4A dropsondes, we find just how important observations are:

- Before EUREC4A, our working idea was that the IFS produces *too strong* easterly winds in the trades. This was based on comparisons of the model **forecast** to **scatterometer data** and of the model **forecast** to the model's initial state (**analysis**).
- The EUREC4A dropsondes (1) tell us something different: (surface) easterlies in the **forecast**, the **analysis** and in **ERA5** are *too weak* compared to the dropsondes (2). We are carrying out tests to check the influence of EUREC4A dropsonde assimilation into the IFS.
- The mean zonal wind error made by the IFS forecast during EUREC4A (3) is most pronounced (1 - 2 m/s) in the cloud layer (1-4 km). The Jan 24 flight is a nice exemplification of the mean zonal wind error.

