

**C3S-CDS marine in-situ data**  
**Release r092019-000000**

Annex to User Manual

*International Maritime Meteorological (IMM) Data*

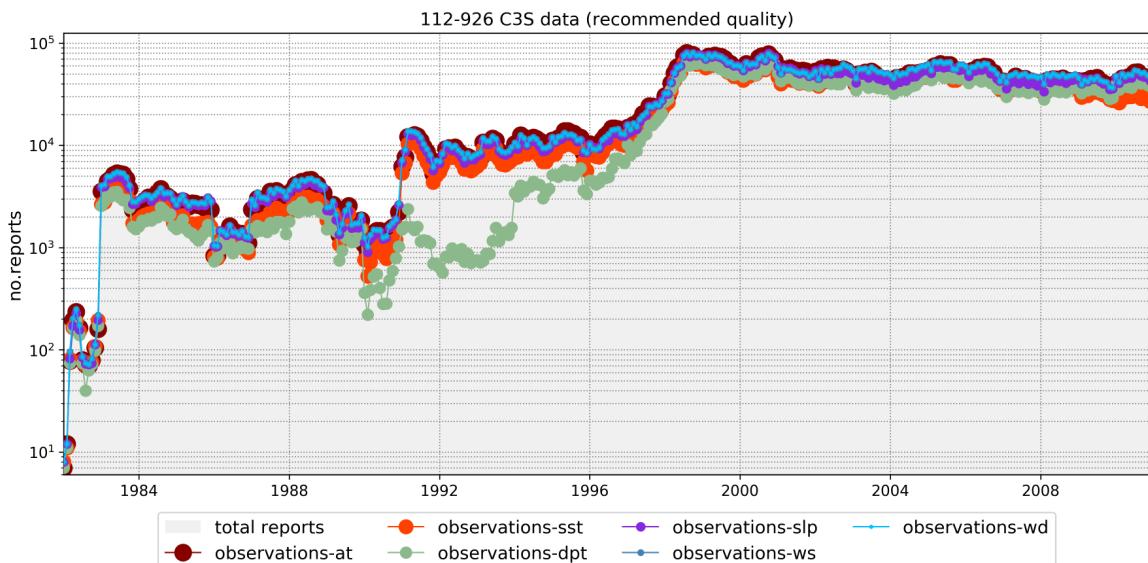
*IMM Tape Archive from WMO GCC (IMMT-2 or IMMT-3 format)*

1982 to 2010 summary

**112-926**

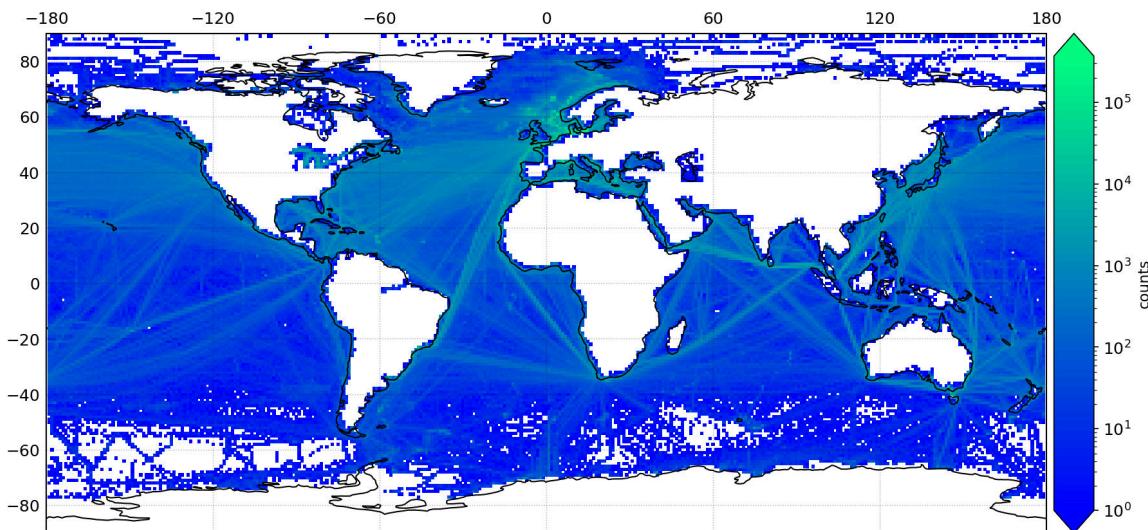
**Data source summary**  
**Optimal data quality subset**

## Temporal extent of reports



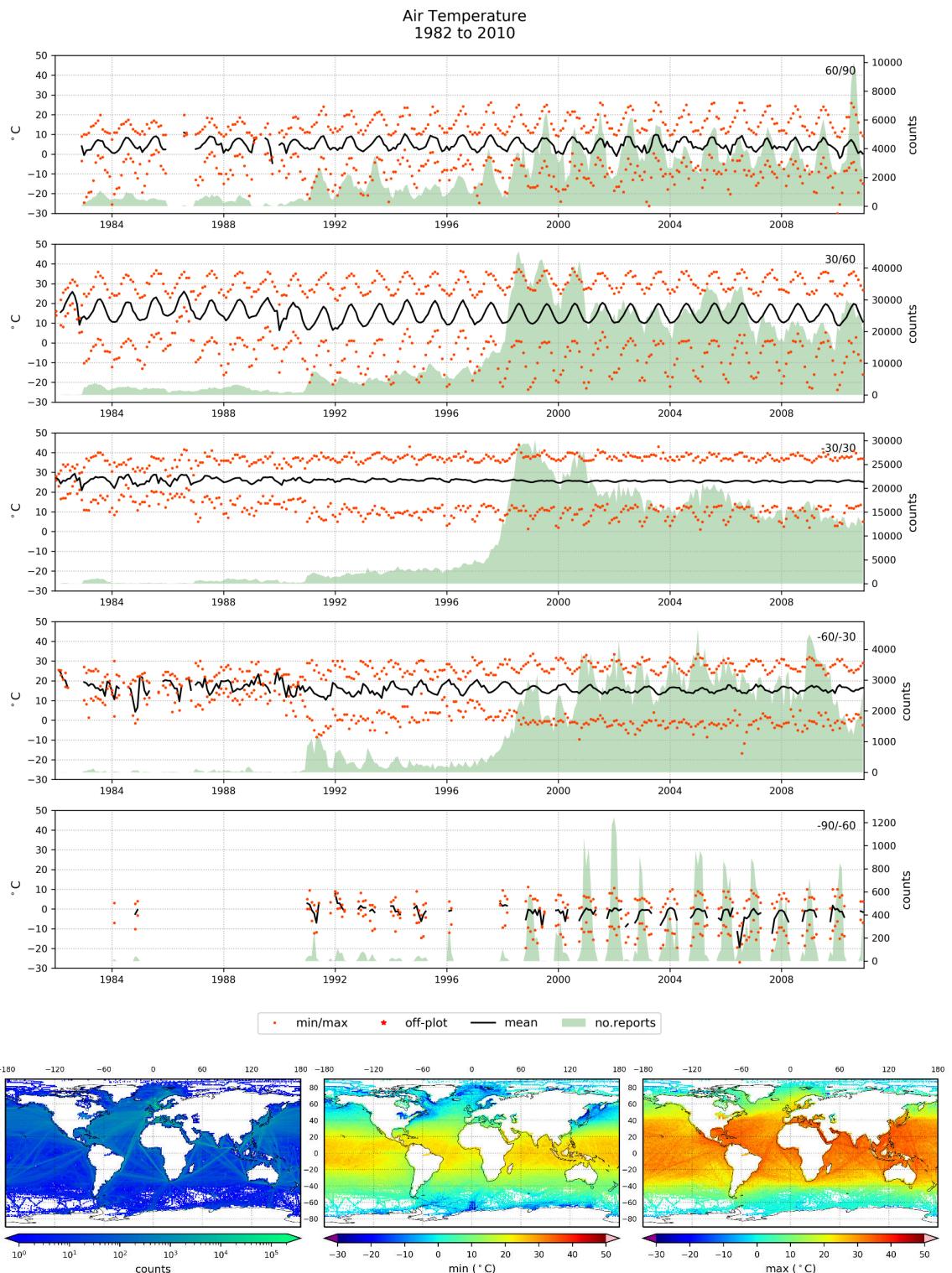
Shaded area: number of reports with passed report\_quality flag. Series: number observed parameter reports with passed quality\_flag flag.

## Spatial distribution of reports



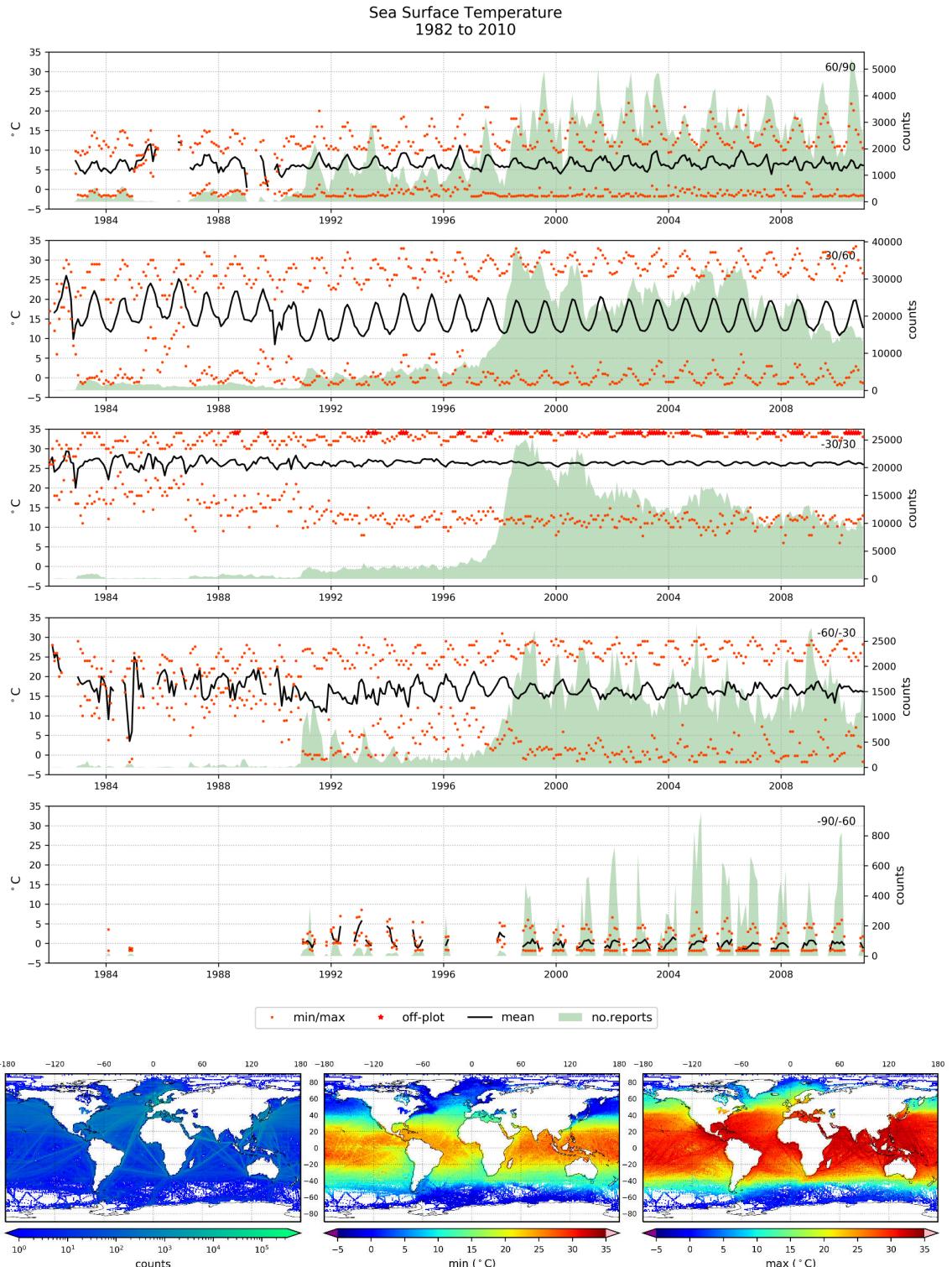
Spatial distribution of reports. Reports included are those with passed report\_quality flag.

# Air Temperature



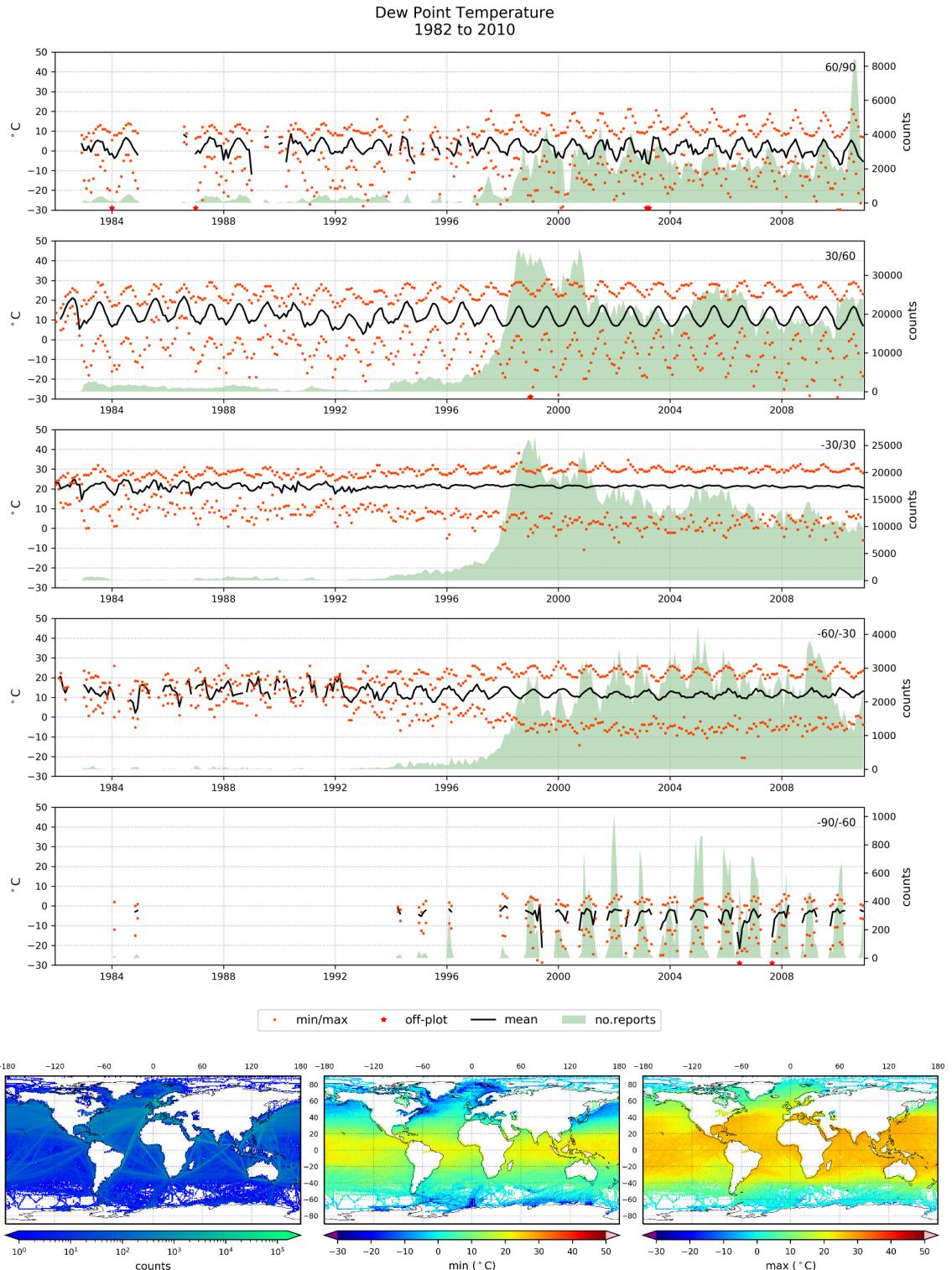
**TOP.** Series, left axis: latitudinal band aggregations of air temperature: minimum and maximum value (min/max) and mean (mean). The asterisks indicate where values fall outside of the plotting area; Shaded area, right axis: number of reports. **BOTTOM.** Spatial distribution on a 1x1 grid of number of reports (left), minimum value (center) and maximum value (right). Data values and counts extracted from the best data quality data subset only (report\_quality and parameter\_quality\_flag passed).

# Sea Surface Temperature



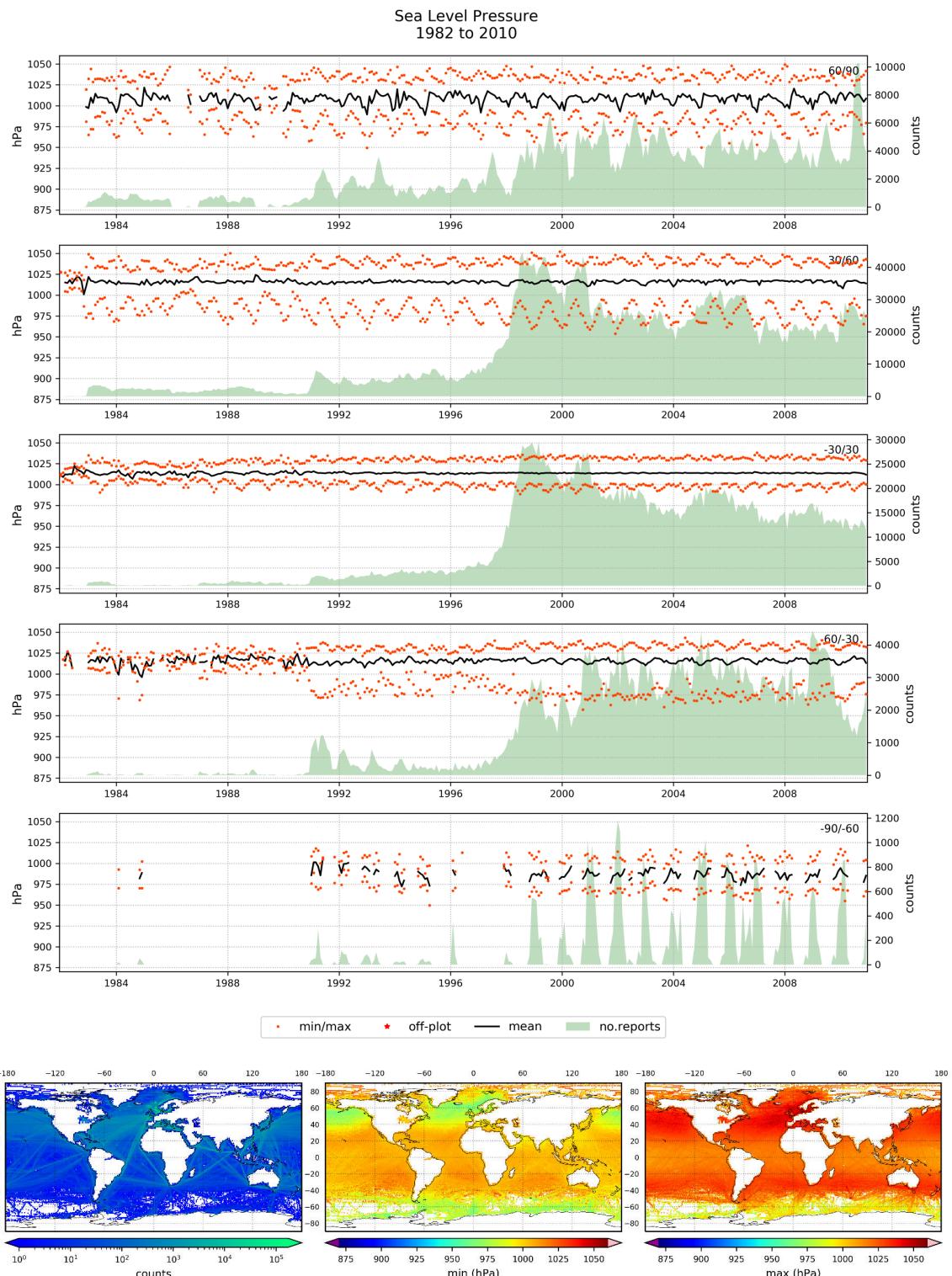
**TOP.** Series, left axis: latitudinal band aggregations of sea surface temperature: minimum and maximum value (min/max) and mean (mean). The asterisks indicate where values fall outside of the plotting area; Shaded area, right axis: number of reports. **BOTTOM.** Spatial distribution on a 1x1 grid of number of reports (left), minimum value (center) and maximum value (right). Data values and counts extracted from the best data quality data subset only (report\_quality and parameter\_quality\_flag passed).

# Dew Point Temperature



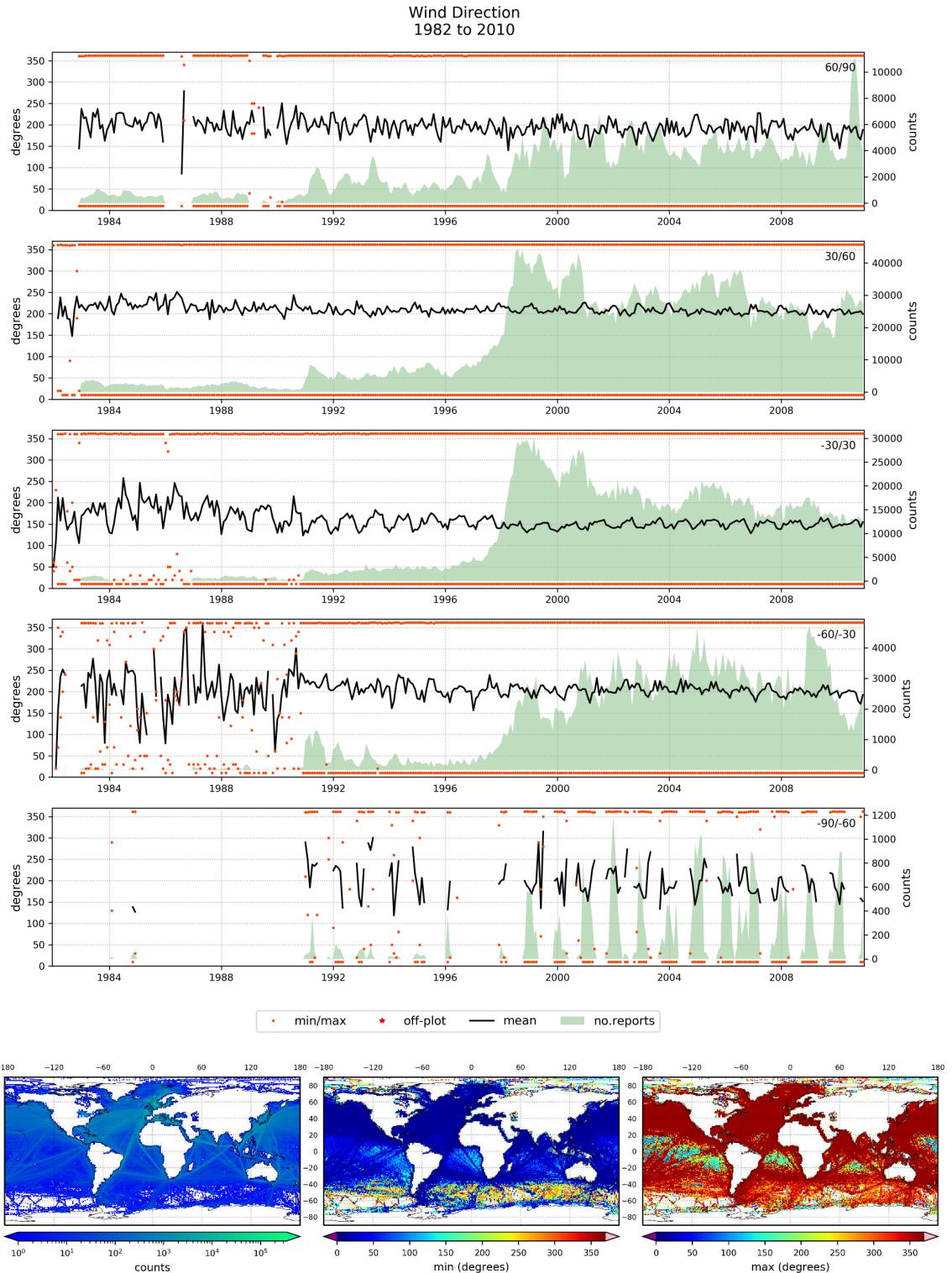
TOP: Series, left axis: latitudinal band aggregations of dew point temperature: minimum and maximum value (min/max) and mean (mean). The asterisks indicate where values fall outside of the plotting area; Shaded area, right axis: number of reports. BOTTOM: Spatial distribution on a 1x1 grid of number of reports (left), minimum value (center) and maximum value (right). Data values and counts extracted from the best data quality data subset only (report\_quality and parameter\_quality\_flag passed).

# Sea Level Pressure



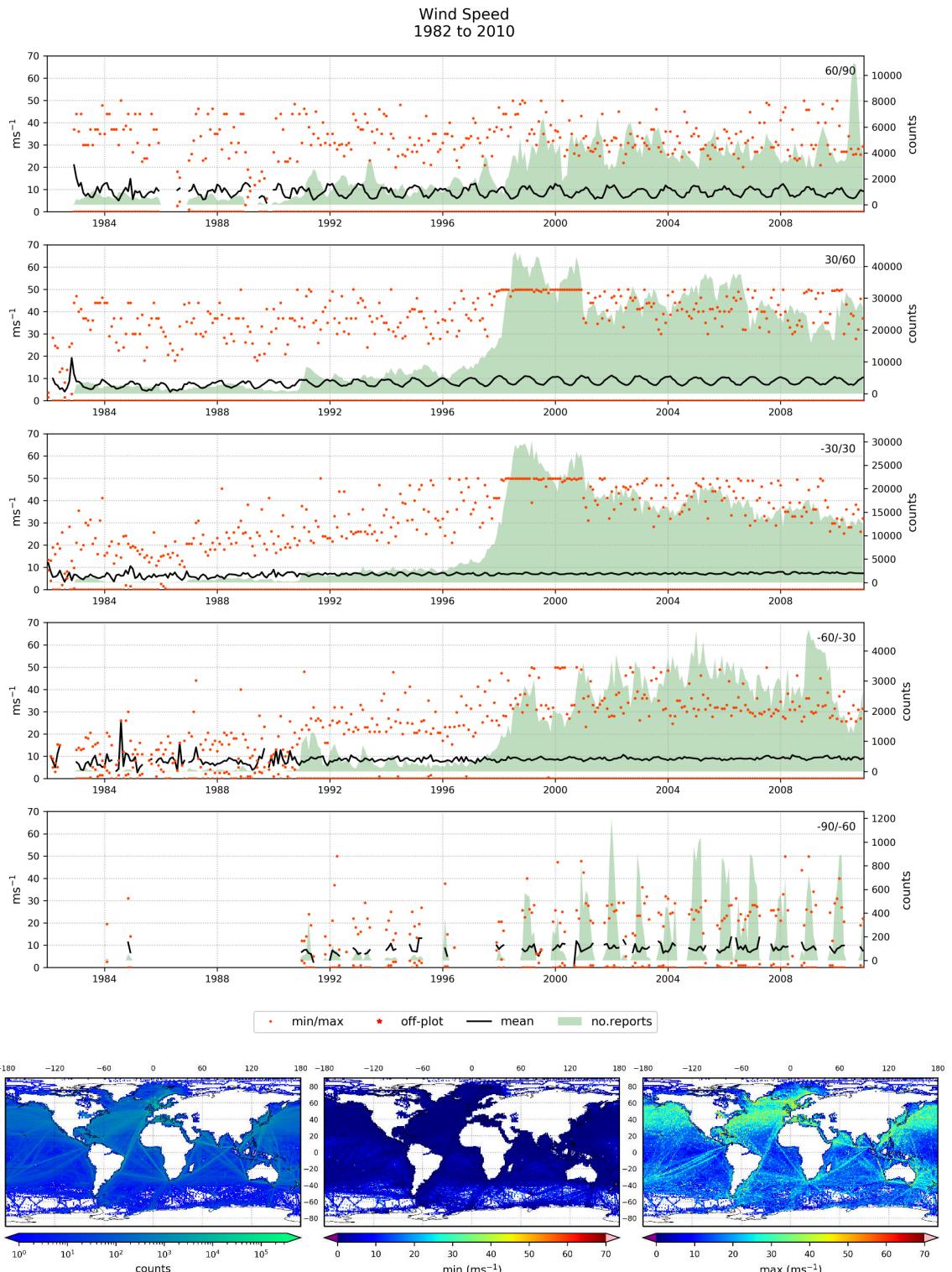
*TOP.* Series, left axis: latitudinal band aggregations of sea level pressure: minimum and maximum value (min/max) and mean (mean). The asterisks indicate where values fall outside of the plotting area; Shaded area, right axis: number of reports. *BOTTOM.* Spatial distribution on a 1x1 grid of number of reports (left), minimum value (center) and maximum value (right). Data values and counts extracted from the best data quality data subset only (report\_quality and parameter\_quality\_flag passed).

# Wind Direction



**TOP.** Series, left axis: latitudinal band aggregations of wind direction: minimum and maximum value (min/max) and mean (mean). The asterisks indicate where values fall outside of the plotting area; Shaded area, right axis: number of reports. **BOTTOM.** Spatial distribution on a 1x1 grid of number of reports (left), minimum value (center) and maximum value (right). Data values and counts extracted from the best data quality data subset only (report\_quality and parameter quality\_flag passed).

## Wind Speed

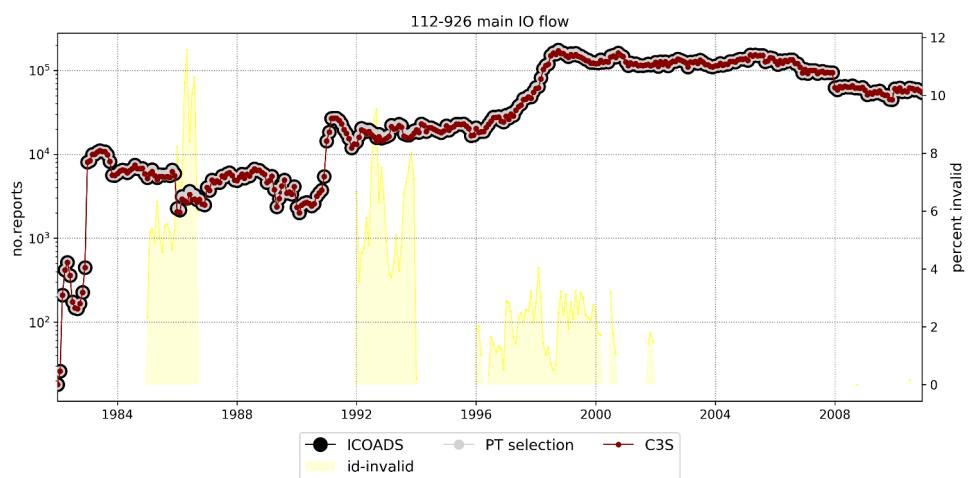


*TOP. Series, left axis: latitudinal band aggregations of wind speed: minimum and maximum value (min/max) and mean (mean). The asterisks indicate where values fall outside of the plotting area; Shaded area, right axis: number of reports. BOTTOM. Spatial distribution on a 1x1 grid of number of reports (left), minimum value (center) and maximum value (right). Data values and counts extracted from the best data quality data subset only (report\_quality and parameter\_quality\_flag passed).*

## **Data source summary**

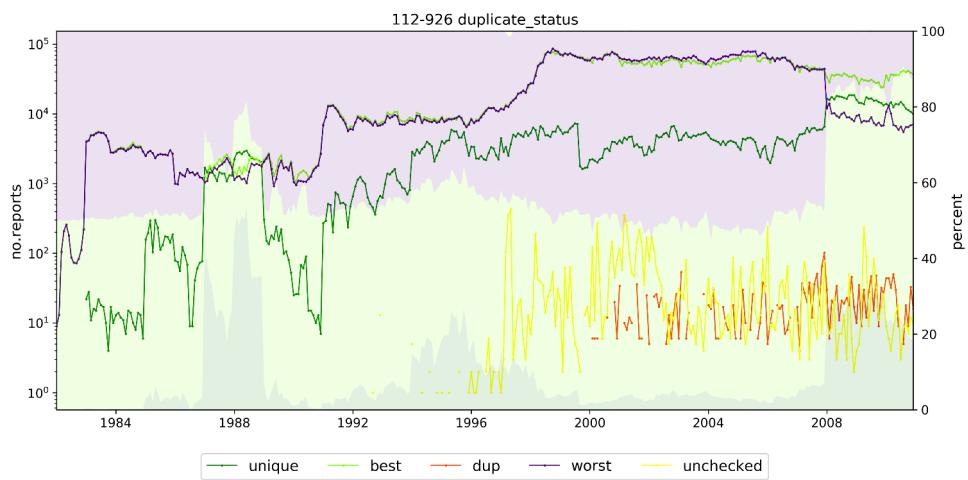
### **All available data**

# IO flow from ICOADS to C3S



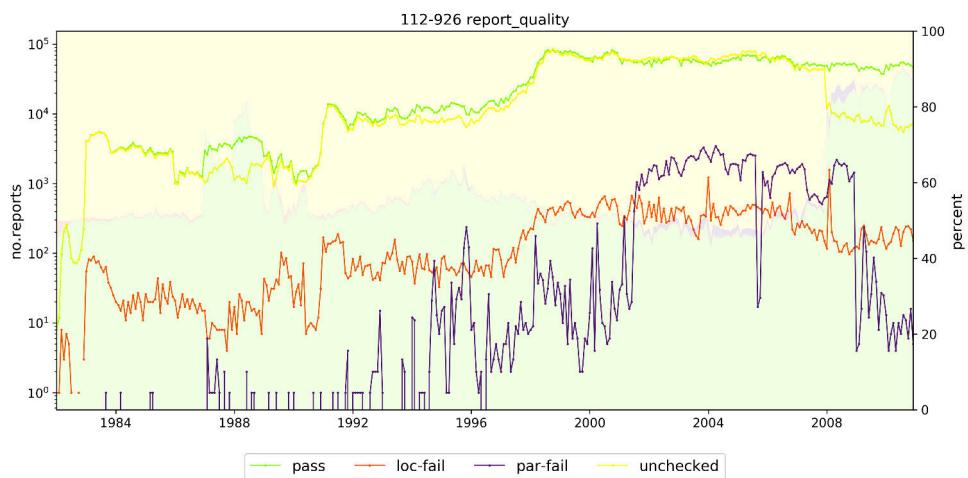
Series, left axis: input/output main flow of reports from source data (ICOADS) to dataset included in release. Shaded areas, right axis: percent of invalid data with respect to the initially selected reports (PT selection). Invalid status are: invalid data model (md-invalid), invalid datetime (dt-invalid) and invalid station ID (id-invalid)

## Duplicate status of reports



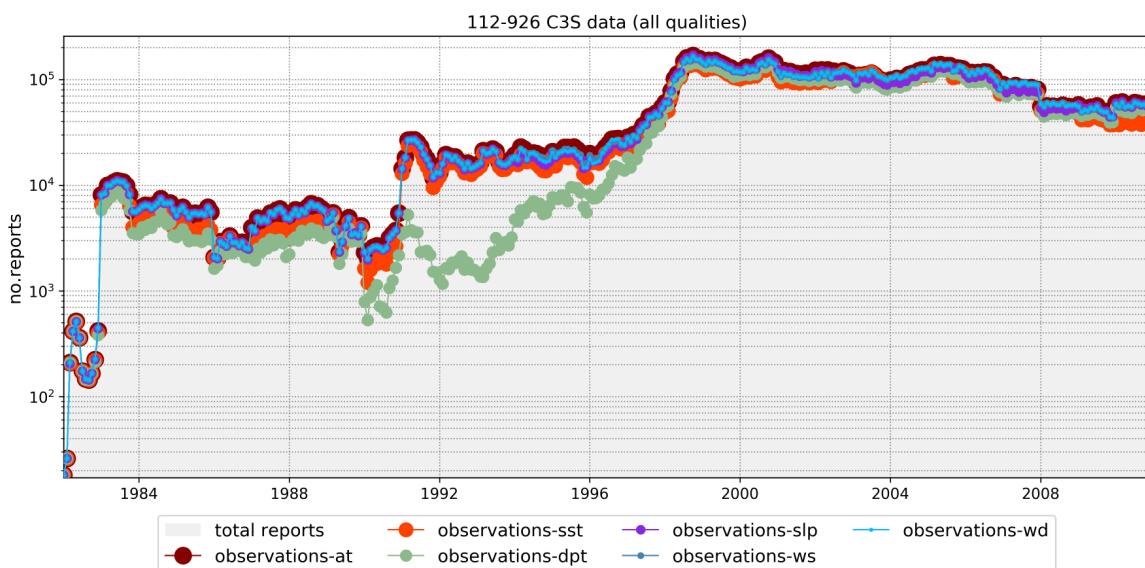
Duplicate status of reports included in release. Series, left axis: number of reports; shaded areas, right axis: stacked percent. Duplicate status are: best duplicate (best), unique report (unique), duplicate (dup), worst duplicate (worst), duplicate status not checked (unchecked)

## Report quality status



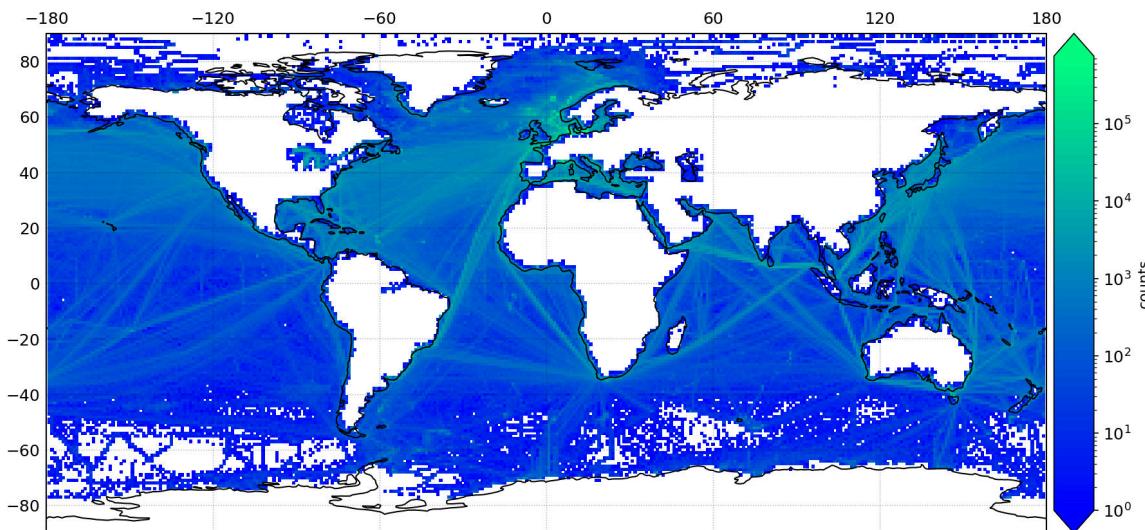
Report quality status for reports included in release. Series, left axis: number of reports; shaded areas, right axis: stacked percent. Quality status are: passed (pass), location check failed (loc-fail), quality control of all measured parameters failed while location check passed (param-failed), quality not checked (unchecked)

## Temporal extent of reports



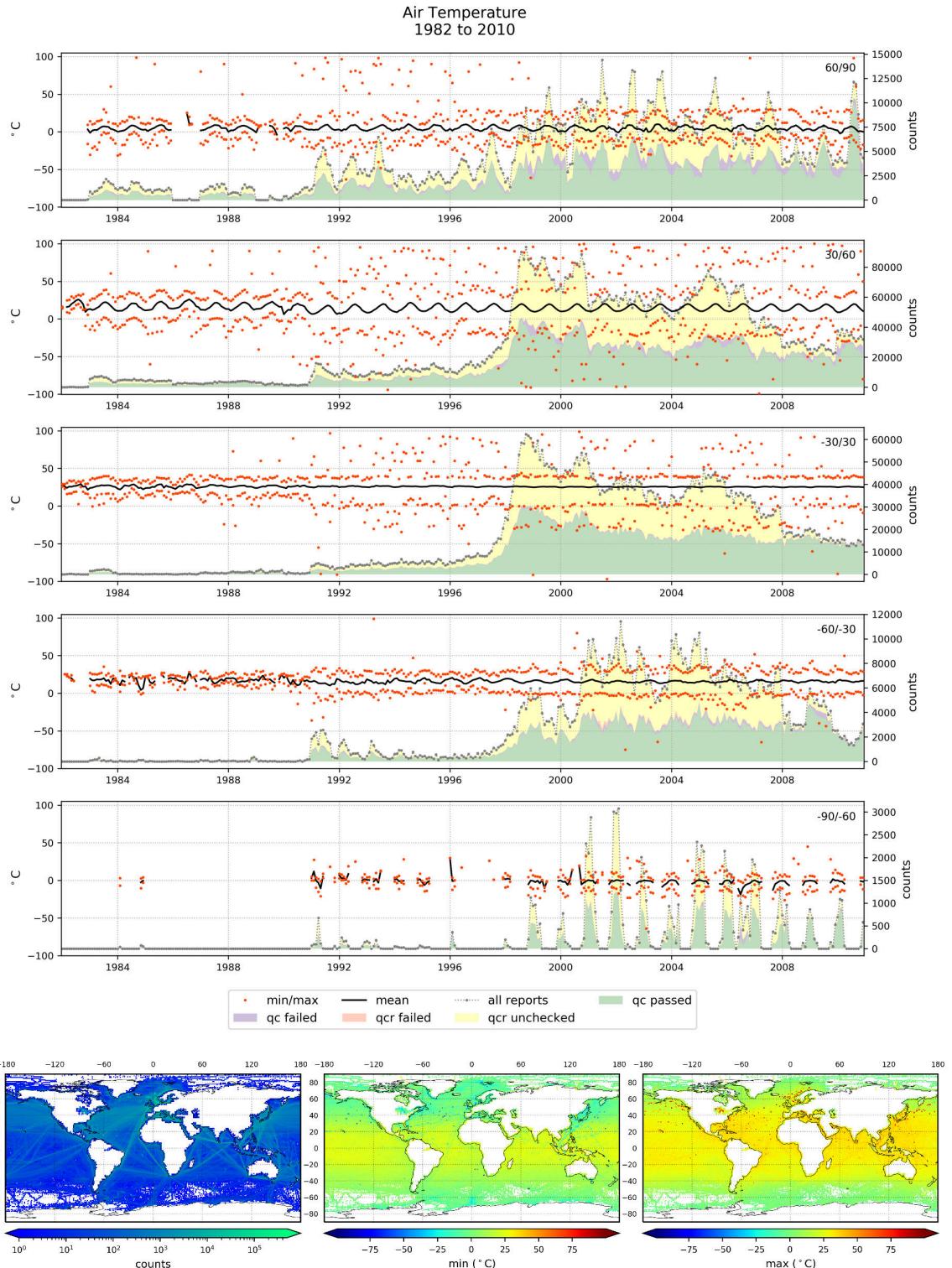
*Shaded area: total number of reports included in release (all report\_quality flags). Series: number reports from the observed parameter (all quality\_flag flags).*

## Spatial distribution of reports



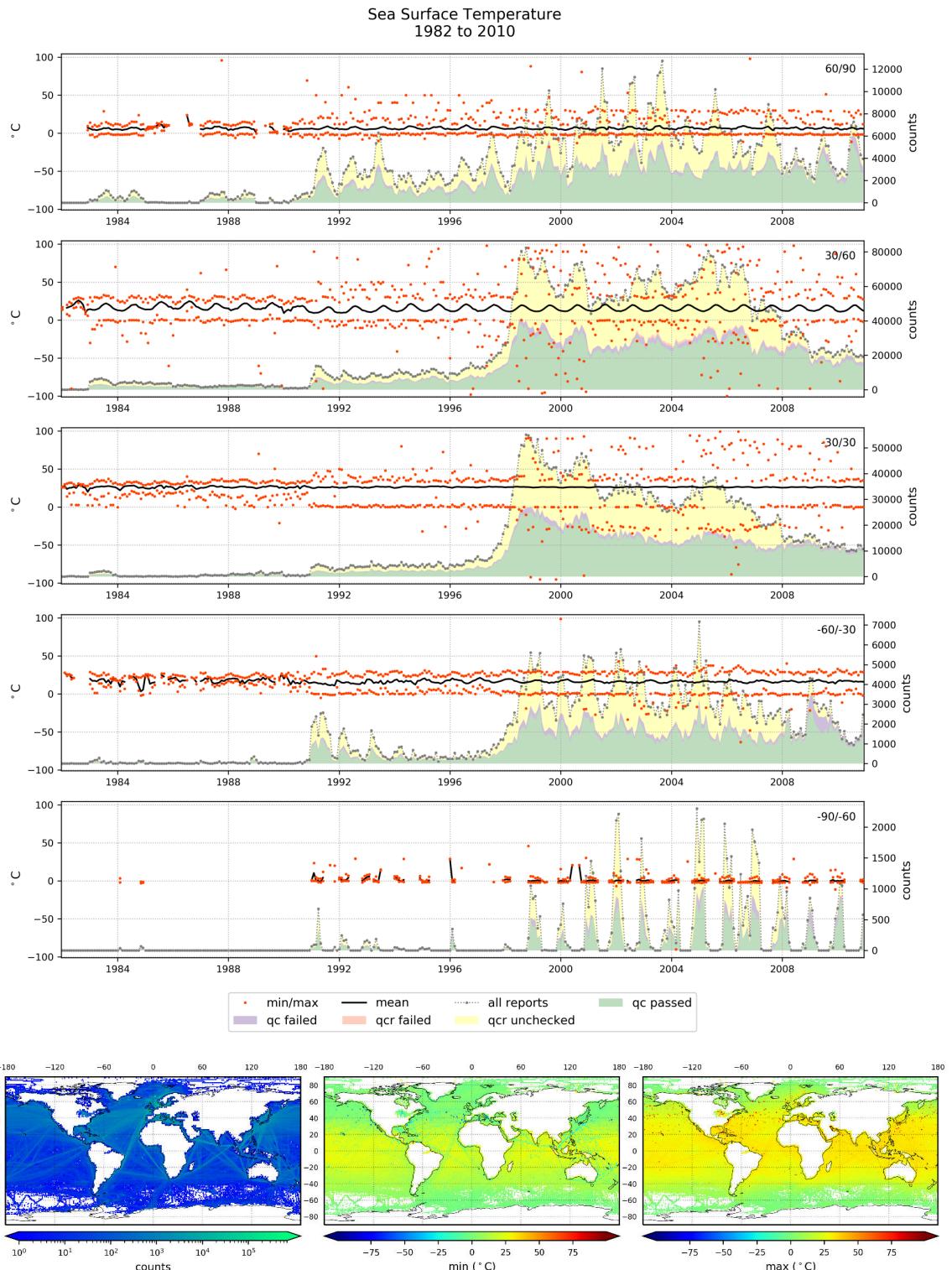
*Spatial distribution of reports. Reports of all qualities are included.*

# Air Temperature



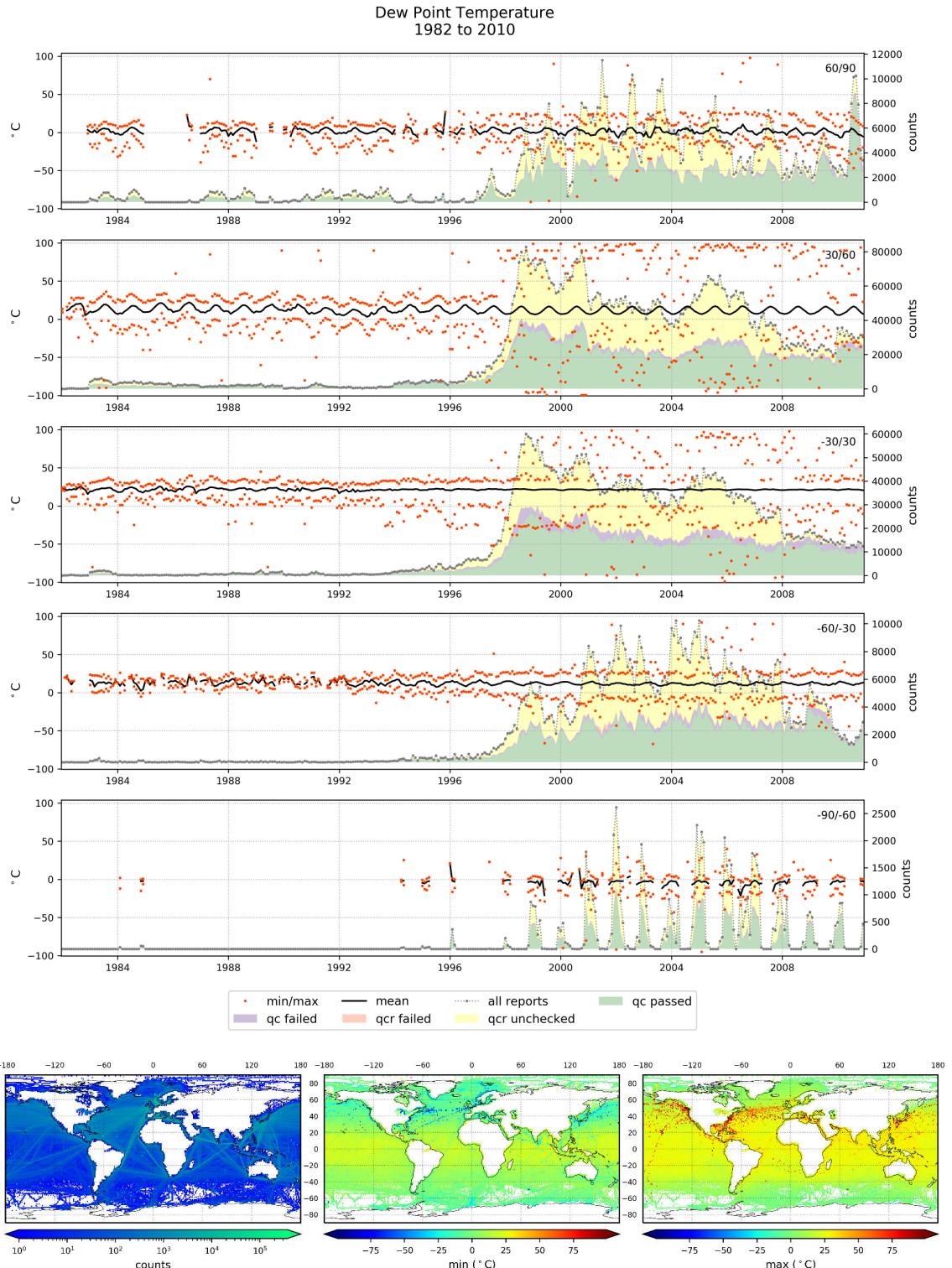
**TOP:** Series, left axis: latitudinal band aggregations of air temperature: minimum and maximum value (min/max) and mean (mean); Shaded areas, right axis: stacked number of reports with different parameter quality status. Quality status are: report and parameter passed (qc passed), parameter qc failed (qc failed), location check failed (qcr failed), quality not checked (qcr unchecked). **BOTTOM:** Spatial distribution on a 1x1 grid of number of reports (left), minimum value (center) and maximum value (right). Data values and counts extracted from all the available data from the source. Axis represent the full extent of the data available.

# Sea Surface Temperature



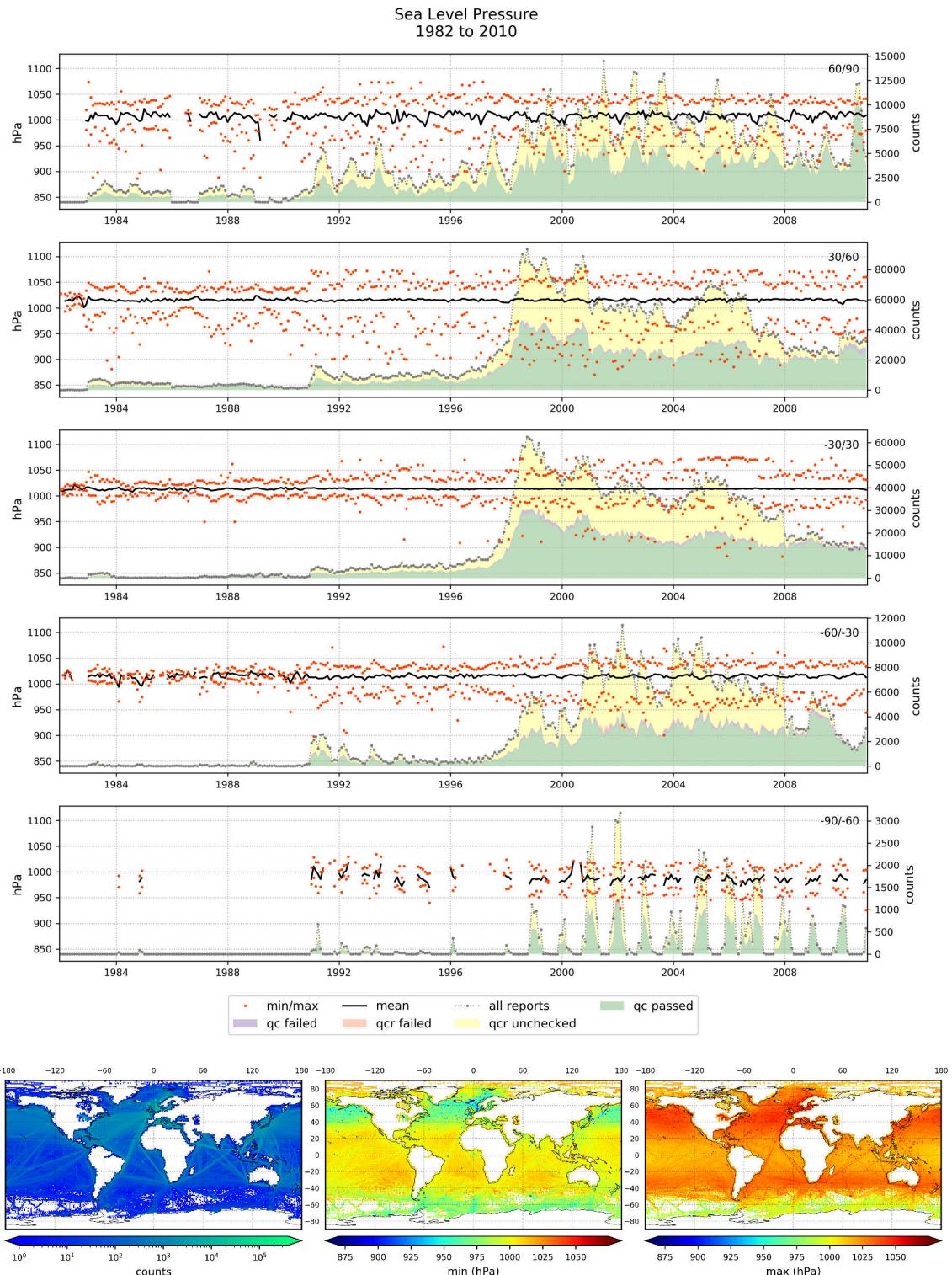
**TOP:** Series, left axis: latitudinal band aggregations of sea surface temperature: minimum and maximum value (min/max) and mean (mean); Shaded areas, right axis: stacked number of reports with different parameter quality status. Quality status are: report and parameter passed (qc passed), parameter qc failed (qc failed), location check failed (qcr failed), quality not checked (qcr unchecked). **BOTTOM:** Spatial distribution on a 1x1 grid of number of reports (left), minimum value (center) and maximum value (right). Data values and counts extracted from all the available data from the source. Axis represent the full extent of the data available.

# Dew Point Temperature



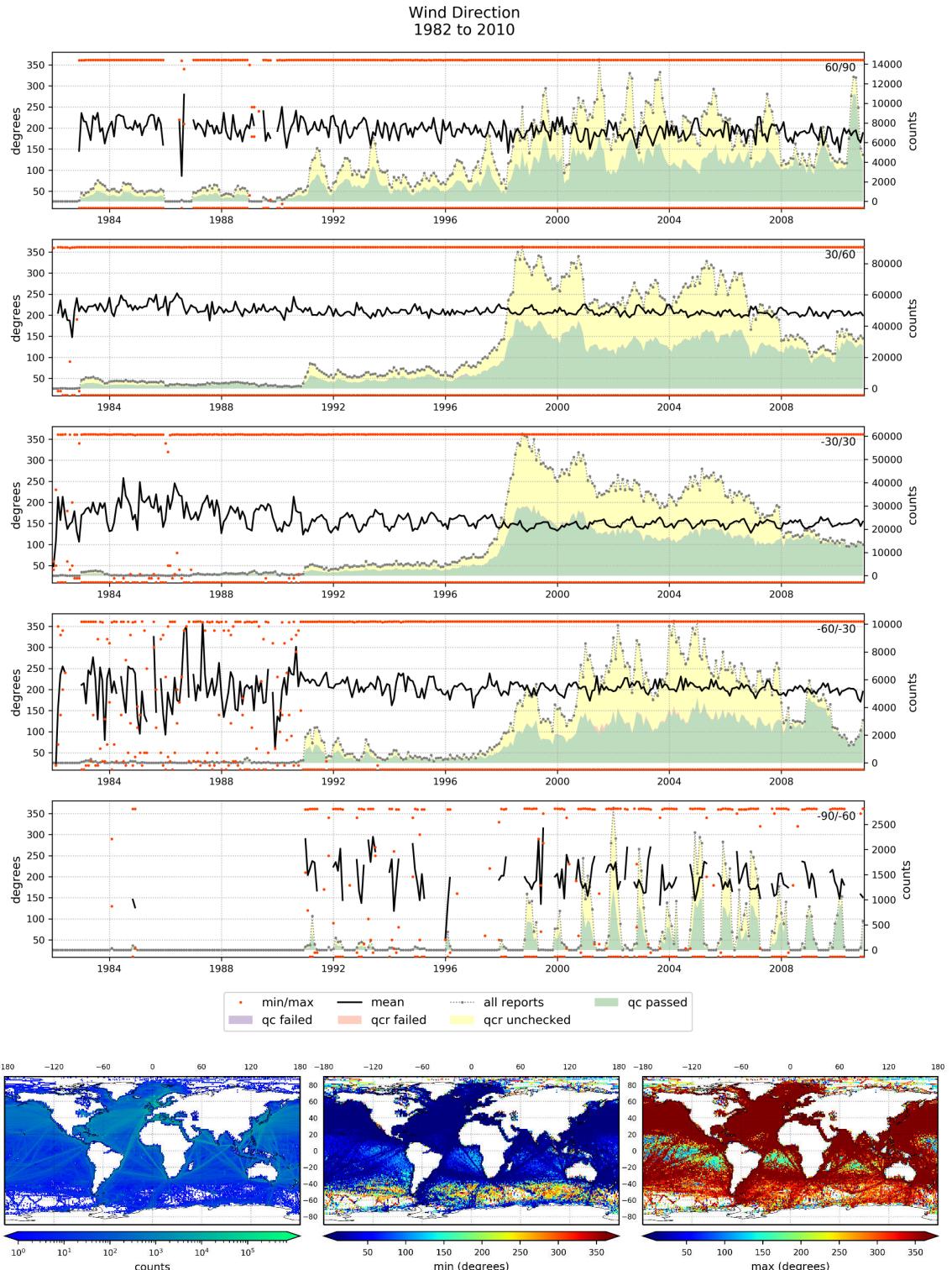
TOP: Series, left axis: latitudinal band aggregations of dew point temperature: minimum and maximum value (min/max) and mean (mean); Shaded areas, right axis: stacked number of reports with different parameter quality status. Quality status are: report and parameter passed (qc passed), parameter qc failed (qc failed), location check failed (qcr failed), quality not checked (qcr unchecked). BOTTOM: Spatial distribution on a 1x1 grid of number of reports (left), minimum value (center) and maximum value (right). Data values and counts extracted from all the available data from the source. Axis represent the full extent of the data available.

# Sea Level Pressure



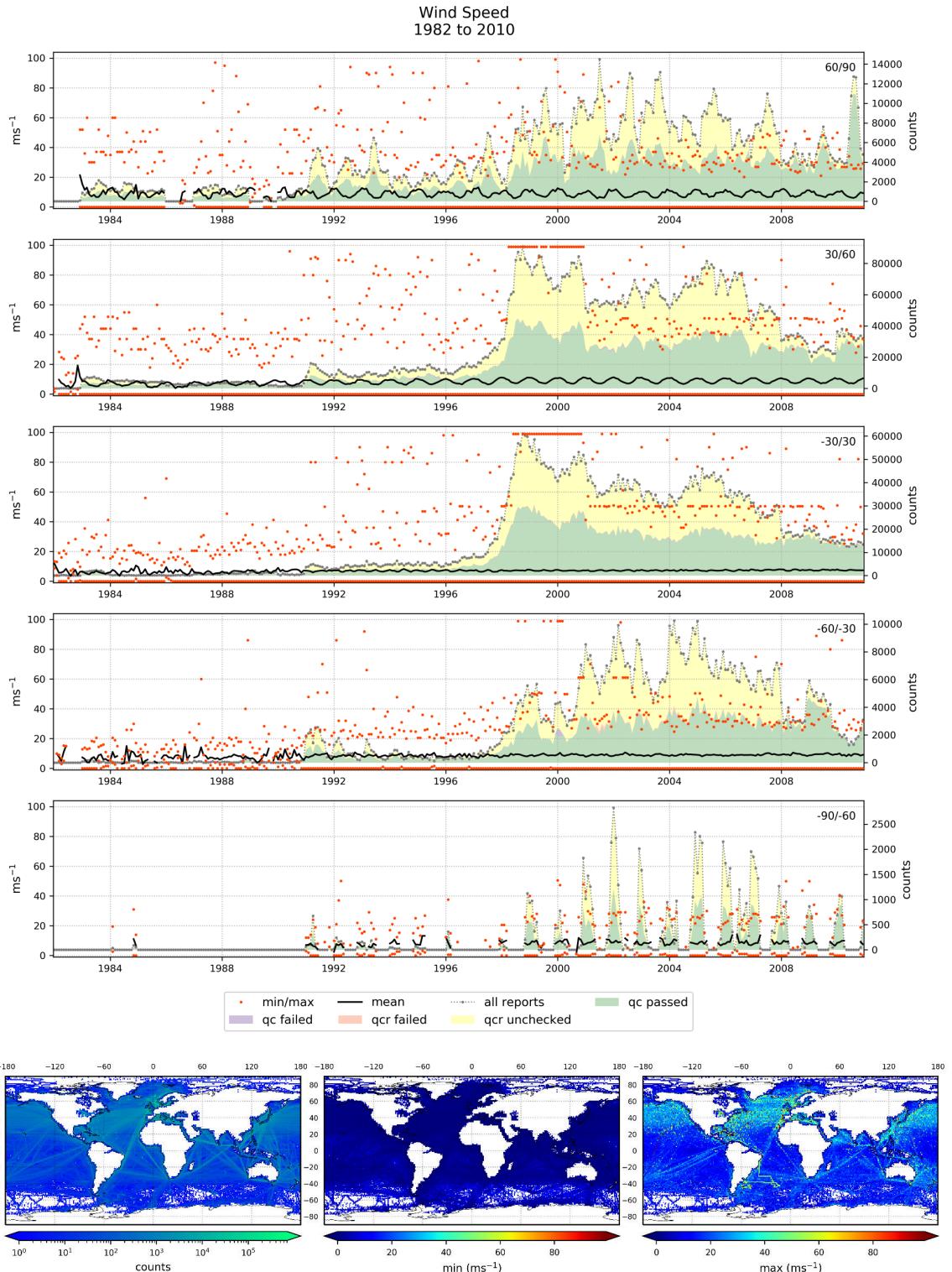
**TOP:** Series, left axis: latitudinal band aggregations of sea level pressure: minimum and maximum value (min/max) and mean (mean); Shaded areas, right axis: stacked number of reports with different parameter quality status. Quality status are: report and parameter passed (qc passed), parameter qc failed (qc failed), location check failed (qcr failed), quality not checked (qcr unchecked) . **BOTTOM:** Spatial distribution on a 1x1 grid of number of reports (left), minimum value (center) and maximum value (right). Data values and counts extracted from all the available data from the source. Axis represent the full extent of the data available.

# Wind Direction



**TOP:** Series, left axis: latitudinal band aggregations of wind direction: minimum and maximum value (min/max) and mean (mean); Shaded areas, right axis: stacked number of reports with different parameter quality status. Quality status are: report and parameter passed (qc passed), parameter qc failed (qc failed), location check failed (qcr failed), quality not checked (qcr uncheck) . **BOTTOM:** Spatial distribution on a 1x1 grid of number of reports (left), minimum value (center) and maximum value (right). Data values and counts extracted from all the available data from the source. Axis represent the full extent of the data available.

# Wind Speed



**TOP:** Series, left axis: latitudinal band aggregations of wind speed: minimum and maximum value (min/max) and mean (mean); Shaded areas, right axis: stacked number of reports with different parameter quality status. Quality status are: report and parameter passed (qc passed), parameter qc failed (qc failed), location check failed (qcr failed), quality not checked (qcr unchecked) . **BOTTOM:** Spatial distribution on a 1x1 grid of number of reports (left), minimum value (center) and maximum value (right). Data values and counts extracted from all the available data from the source. Axis represent the full extent of the data available.