Quality of POLENET GPS time series

The quality of time series are based on three criteria: number of outliers, data gaps, and recent trend. Based on these criteria, sites are sorted into three groups.

Number of outlier, and data gap are the main criteria. Both of them are quantifiable. If total number of outliers and data gaps are less than 100 days, it is a first level site(green); if total number of outliers and data gaps are less than 500 days, it is a second level site(yellow); if total number of outlier and data gap are more than 500 days, it is a third level site(red).

In additional, the third criterion ‘recent trend’ provides ‘bonus’ for previous judgment. If the site looks bad earlier, but has less outliers and gaps at 2013 and 2014, this site will get promoted. For example, iggy get promoted from second level site to first level site.

POLENETANET\_Timeseries\_Quality.jpg is the map display three categories with colors described above.

The shape file ANETonly\_sites\_25Sep2014\_TimeSeriesQC\_toArcGIS.shp provide sites sorted into 3 categories, if you want to use ArcGIS to open it.

See ANETonly\_sites\_25Sep2014\_TimeSeriesQC\_toArcGIS.xlsx file about detail of outliers and gaps.