



EUREF IE/UK 2009 EUREF Densification Campaign - Update

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Overview

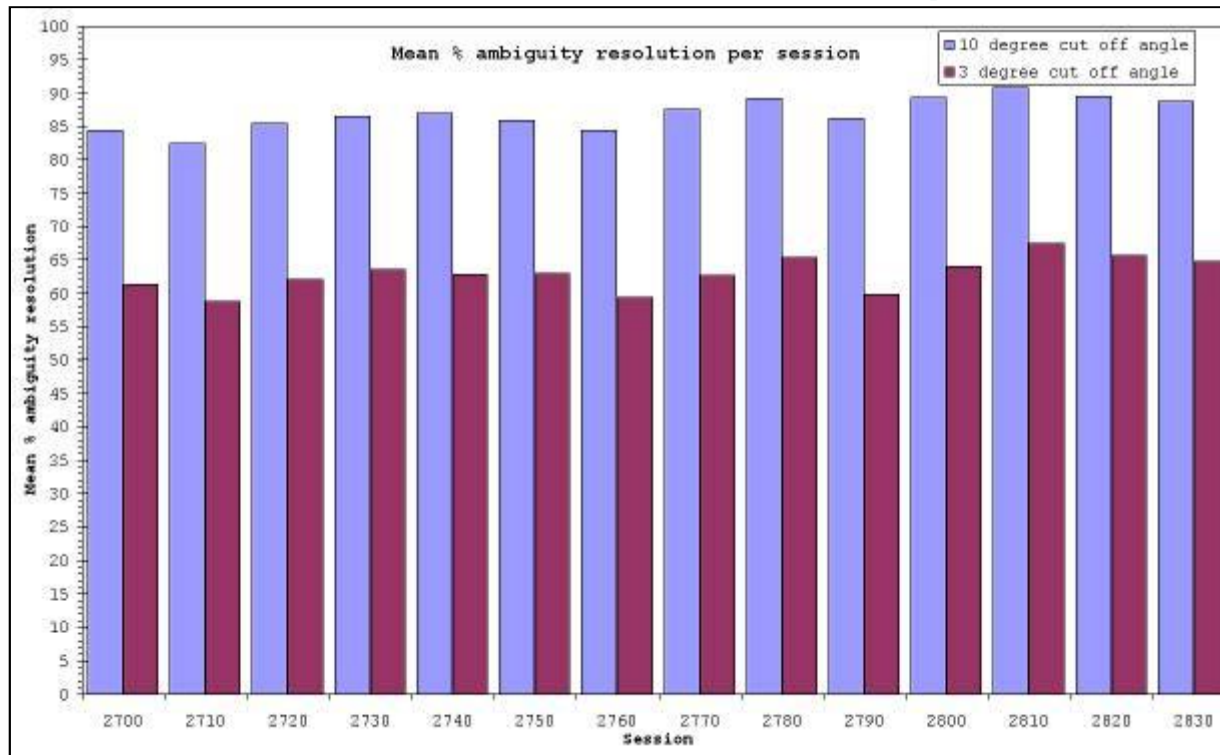
EUREF IE/UK campaign accepted in principle at Vienna TWG.

Small changes requested:

- Compare 3° and 10° elevation cut off in QIF
- Compare min constraint conditions – translation & translation + scale
- Weekly EPN SINEX and increase fiducials



Elevation cut off in QIF comparison



Lower angle = lower % resolved

NUMBER of ambiguities resolved very similar

NEU RMS coordinate difference =0.3mm so 3° used throughout

Constraint conditions comparison

Coordinate differences between translation and translation + scale constraint:

- NEU RMS (mm) = 0.2, 0.3, 2.4
- NEU mean values (mm) = 0.0, -0.1, -2.2

NEU RMS (mm) fiducial station coordinate recovery:

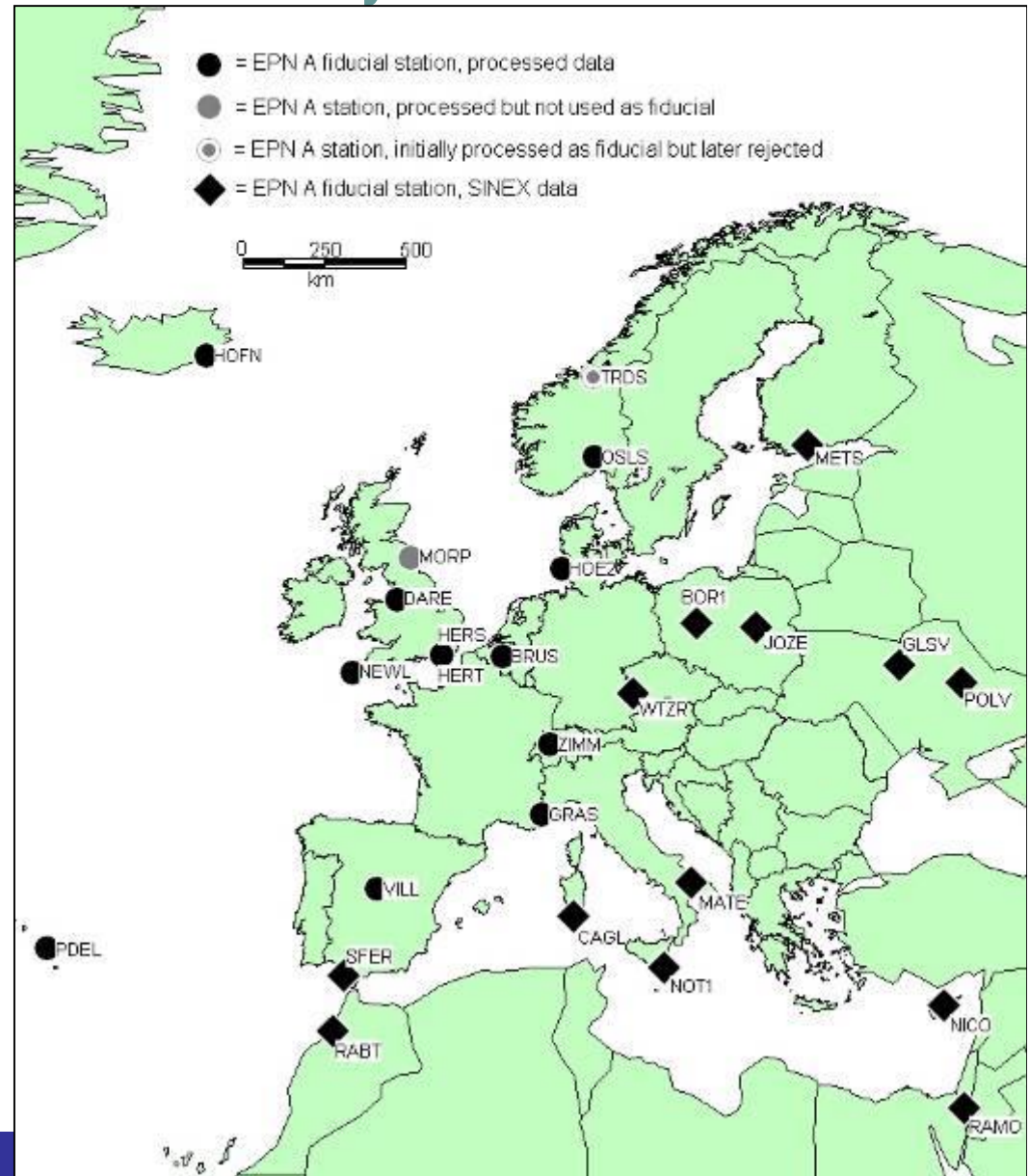
- Translation = 1.9, 1.7, 6.3
- Translation + scale = 1.8, 1.8, 7.3

Small improvement with translation only so this constraint used



Fiducials increased with weekly EPN SINEX

New fiducial stations
selected from list of EPN
solution fiducials



Final results

NE daily coordinate repeatabilities at 2mm level.

U daily coordinate repeatability at 3-5mm level.

Fiducial coordinate recoveries show ITRF2005 realised to around 2 mm in NE and around 6 mm in U. Some outer stations at 10mm level in U with (HOFN) at 17mm.

