

1 Table S1. The dates with outliers (i.e., the values beyond $[\mu-3\sigma, \mu+3\sigma]$) of GPS simple-point
 2 displacement in E-W, N-S and U-D components, from multiple stations.

| Station | E-W component | N-S component | U-D component |
|---------|---|---|--|
| DNVK | 2010-10-18, 2010-12-22, 2010-12-23, 2010-12-27, 2011-5-16 | 2010-10-18, 2010-12-22 2010-12-29 | 2011-1-18, 2011-1-19 |
| MAST | 2010-9-6, 2010-12-21, 2010-12-24, 2010-12-27, 2010-12-28, 2011-5-16 | 2010-12-27, 2011-1-7 | 2010-12-23, 2011-2-5, 2011-2-6 |
| HOKI | 2010-12-21, 2010-12-22, 2010-12-23, 2010-12-28, 2011-1-24 | 2010-9-4, 2010-12-21, 2010-12-28 | 2010-12-21, 2010-12-22, 2010-12-23 |
| HAAS | 2010-8-7, 2010-9-5, 2010-9-19, 2011-1-3, 2011-4-26 | 2010-8-1, 2010-8-7, 2010-8-8, 2011-1-18 | 2010-9-7, 2010-12-7 |
| NETT | 2010-12-19, 2010-12-21, 2011-2-5, 2011-2-6, 2011-2-8, 2011-2-20 | 2011-1-16, 2011-1-26, 2011-2-1, 2011-2-2, 2011-2-4, 2011-2-5, 2011-2-7 | 2010-9-7, 2010-11-14, 2010-12-28 |
| KAIK | 2010-12-28, 2011-3-2, 2011-4-7, 2011-5-14 | 2010-8-1, 2010-9-30, 2011-3-1, 2011-3-2, 2011-3-4, 2011-3-5, 2011-4-23, 2011-6-5 | 2011-1-18 |
| LEXA | 2010-12-23, 2011-4-6, 2011-5-18, 2011-1-16, 2010-10-20, 2010-12-24, | 2011-5-18, 2011-5-17, 2011-1-1, 2011-4-18, 2010-8-1 | 2010-10-18, 2010-12-26, 2011-2-21, 2011-4-7 |

| | | | |
|------|---------------------------------|---|-----------------------------------|
| | 2011-1-15 | | |
| MQZG | 2010-9-4 | 2011-6-13, 2010-9-4 | 2011-1-27, 2011-1-28, 2011-2-1 |
| METH | 2011-1-2, 2011-2-5, 2011-2-6 | 2010-12-28, 2010-12-22, 2011-5-12, 2011-1-16, 2011-1-15, 2011-5-11, 2010-12-27, 2010-12-21 | 2011-6-4 |
