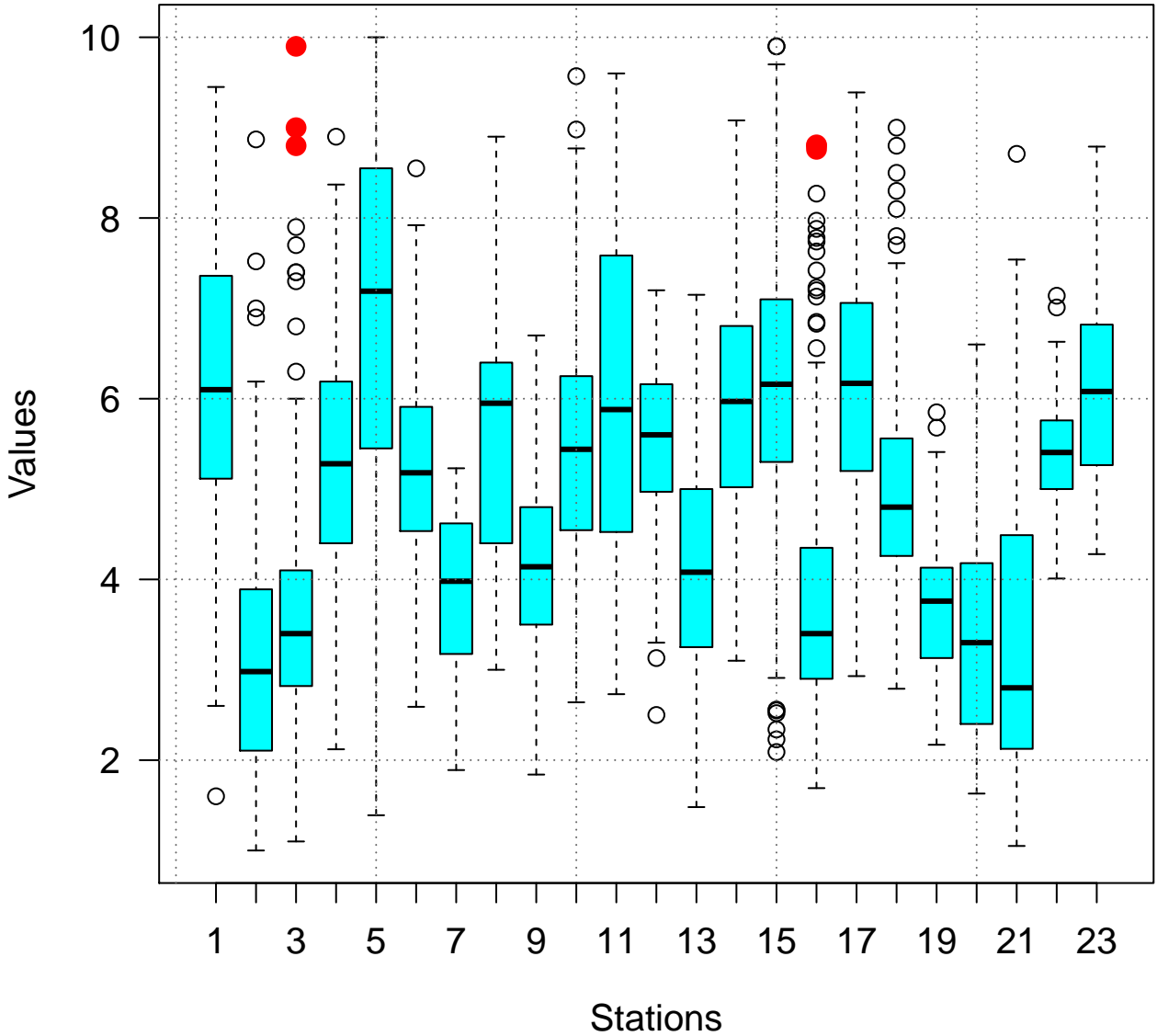


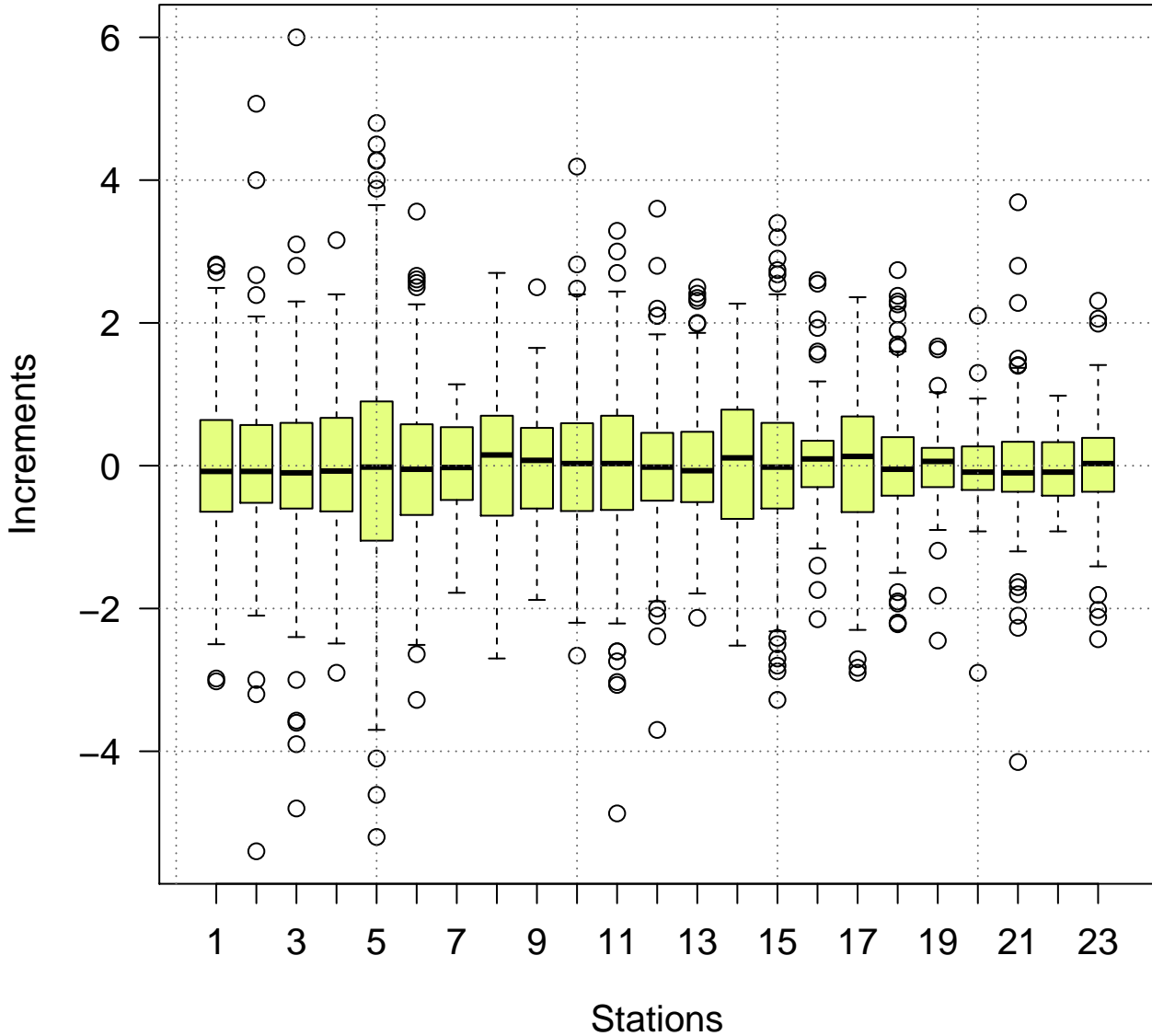
CLIMATOL 4.0.0

Homogenization
graphic output of
O₃
1863–1905

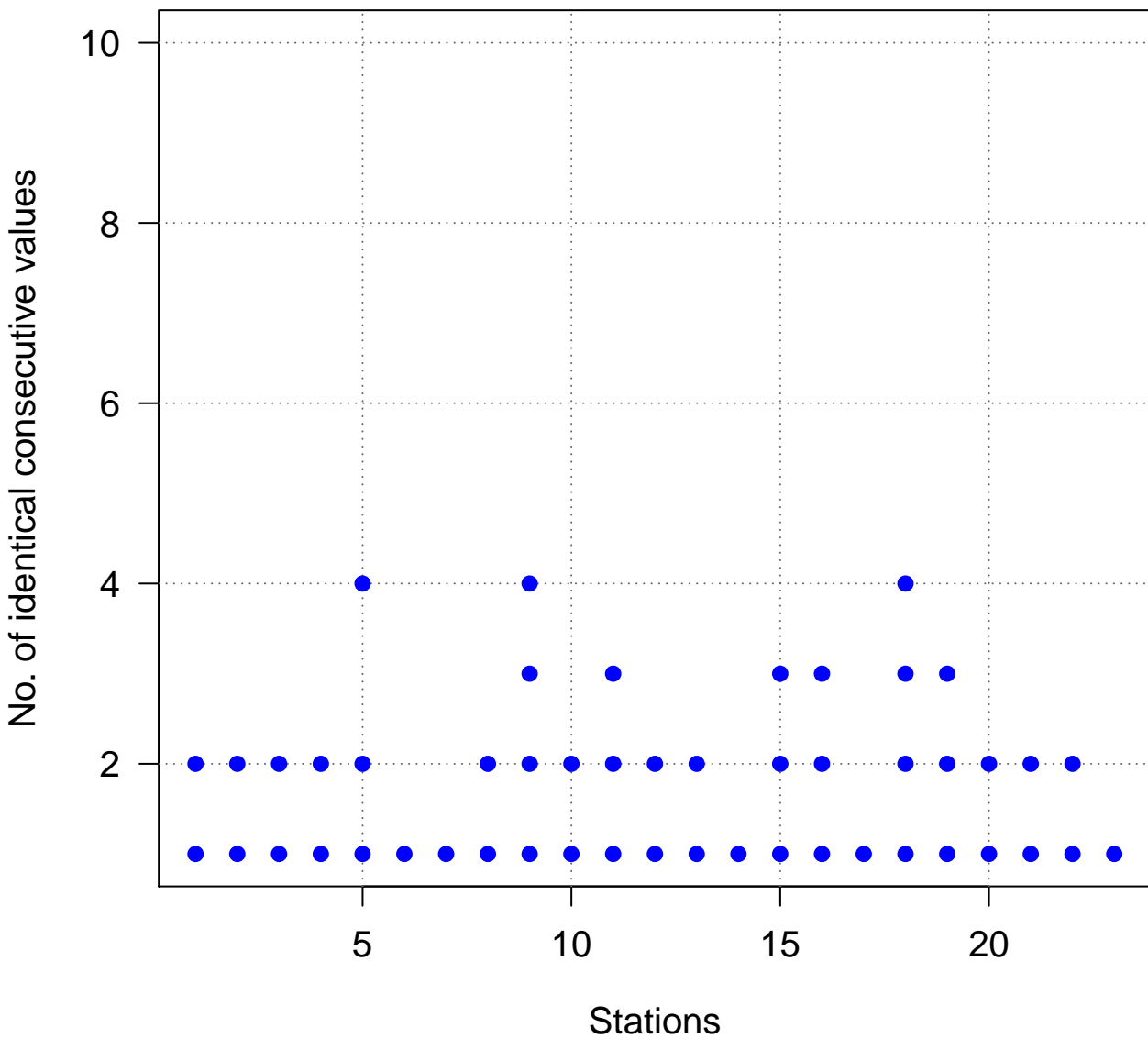
O3 data



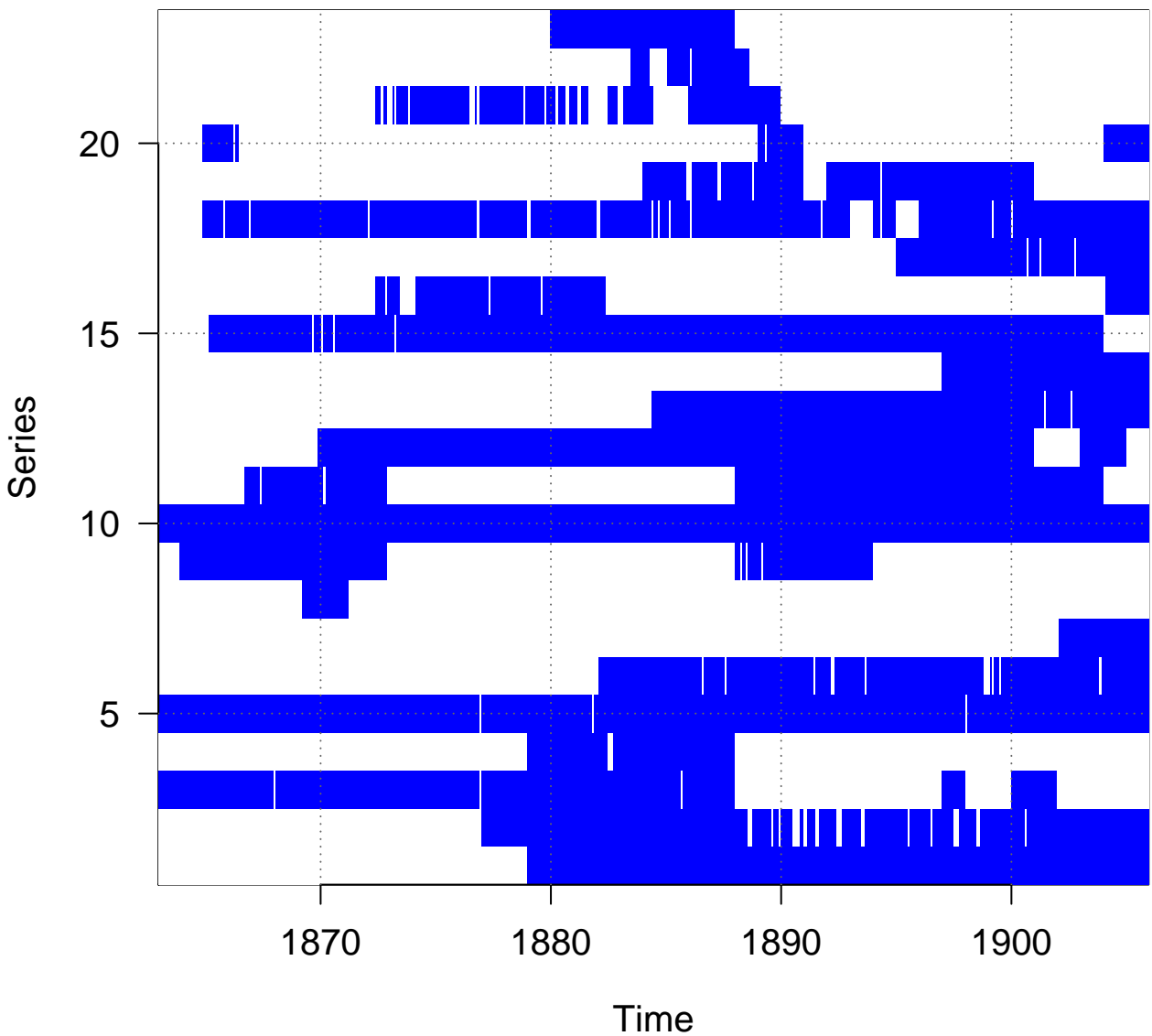
O3 data increments



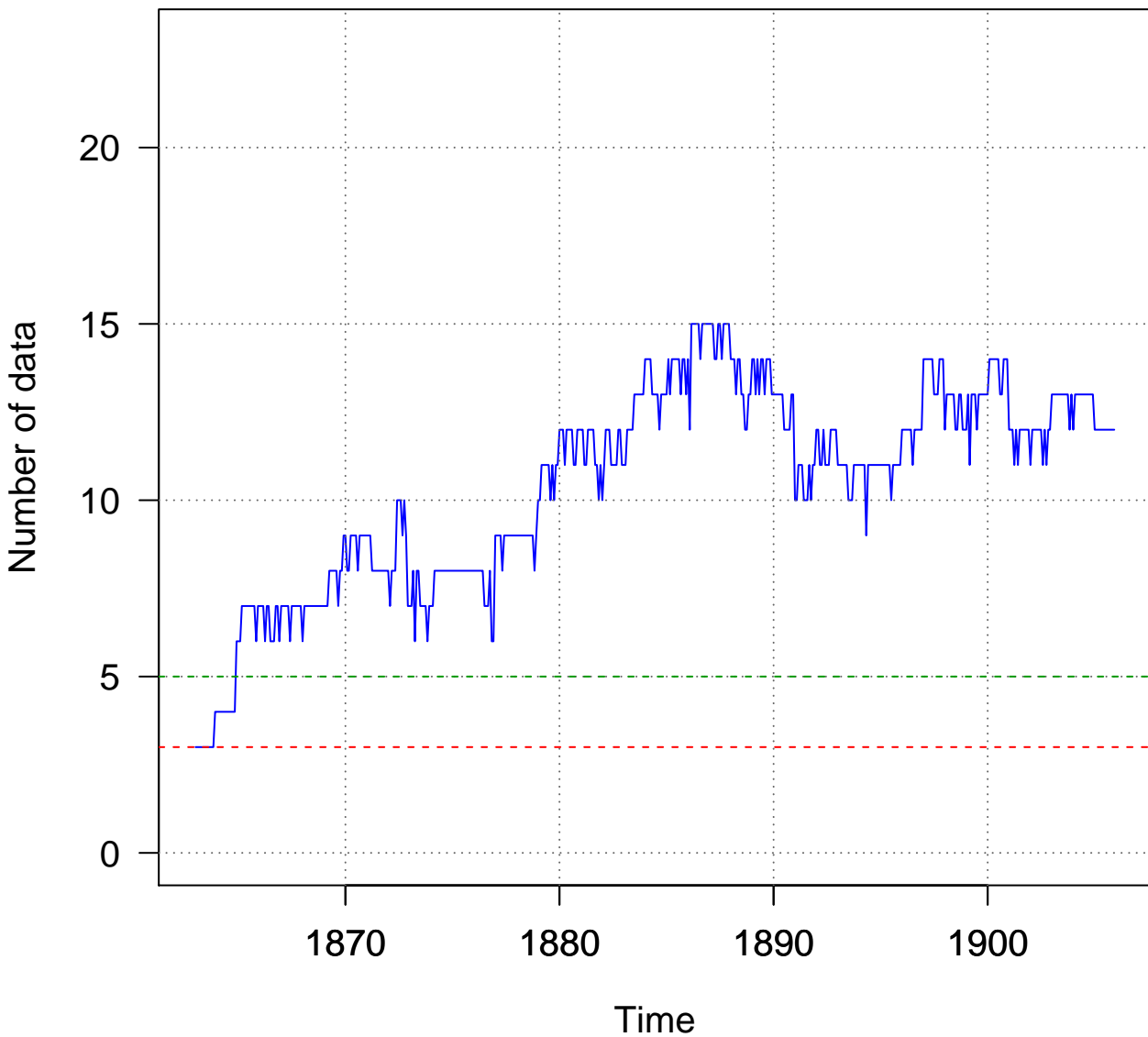
O3 run lengths



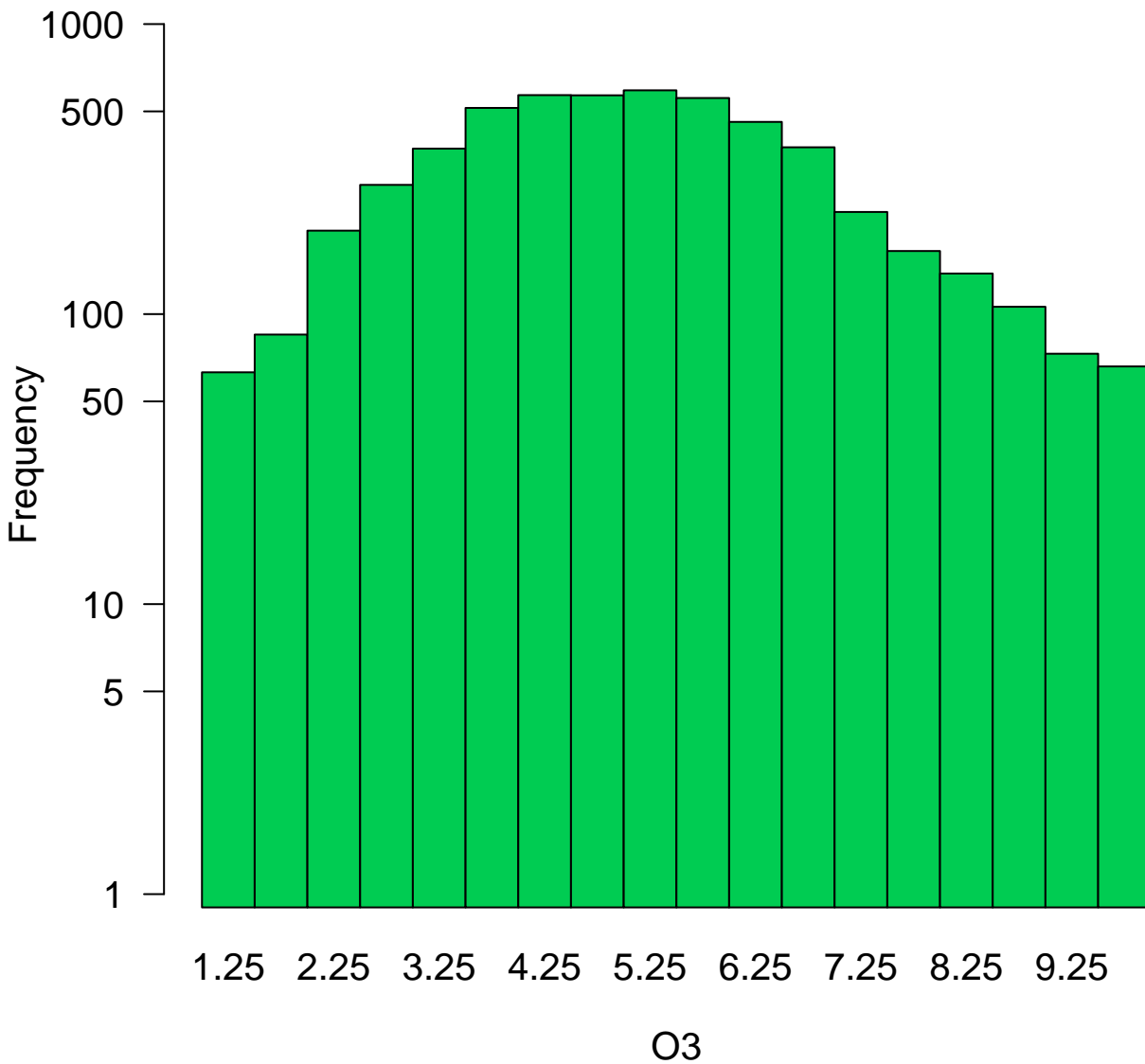
O3 data availability



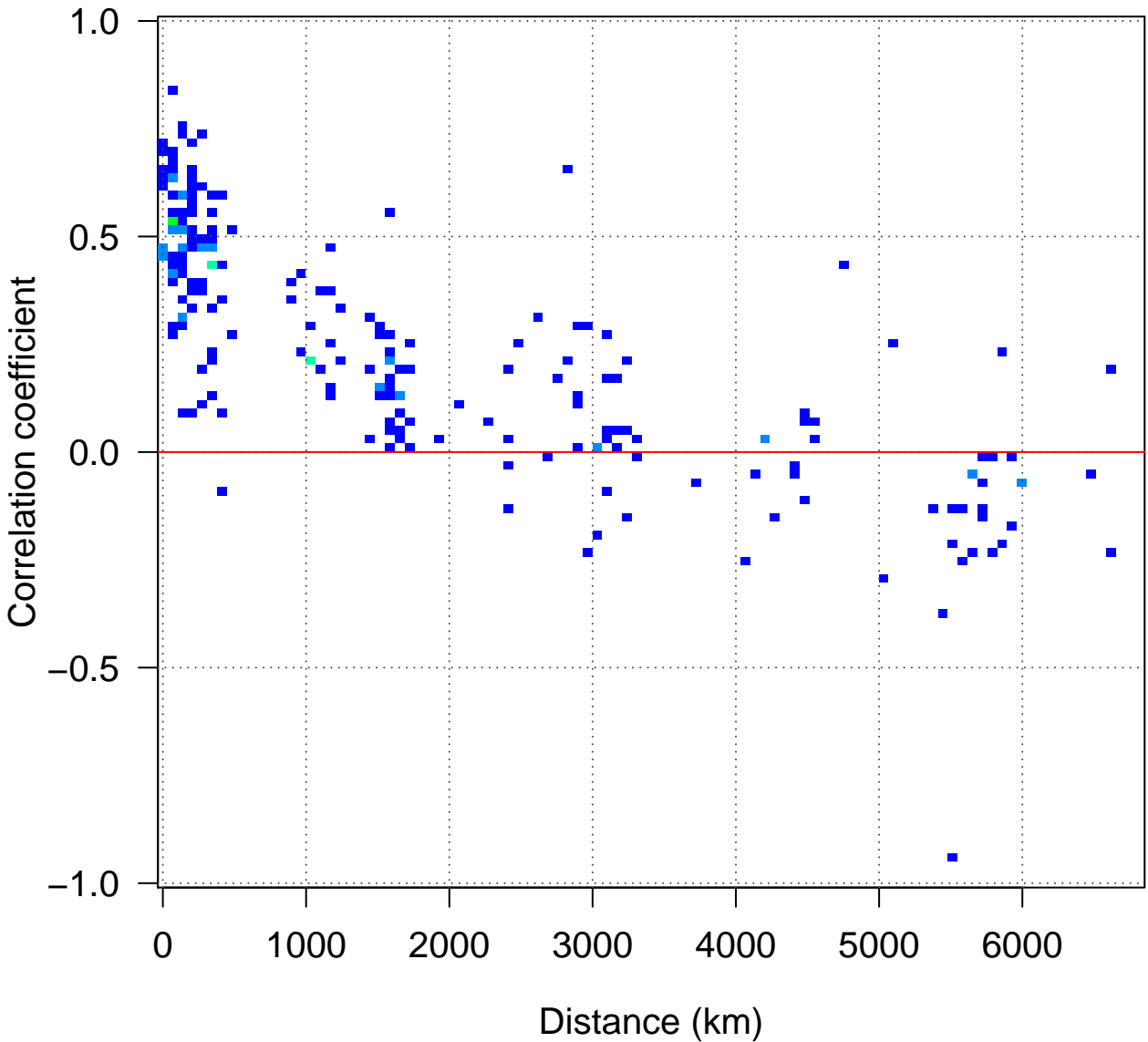
Number of O3 data in all stations



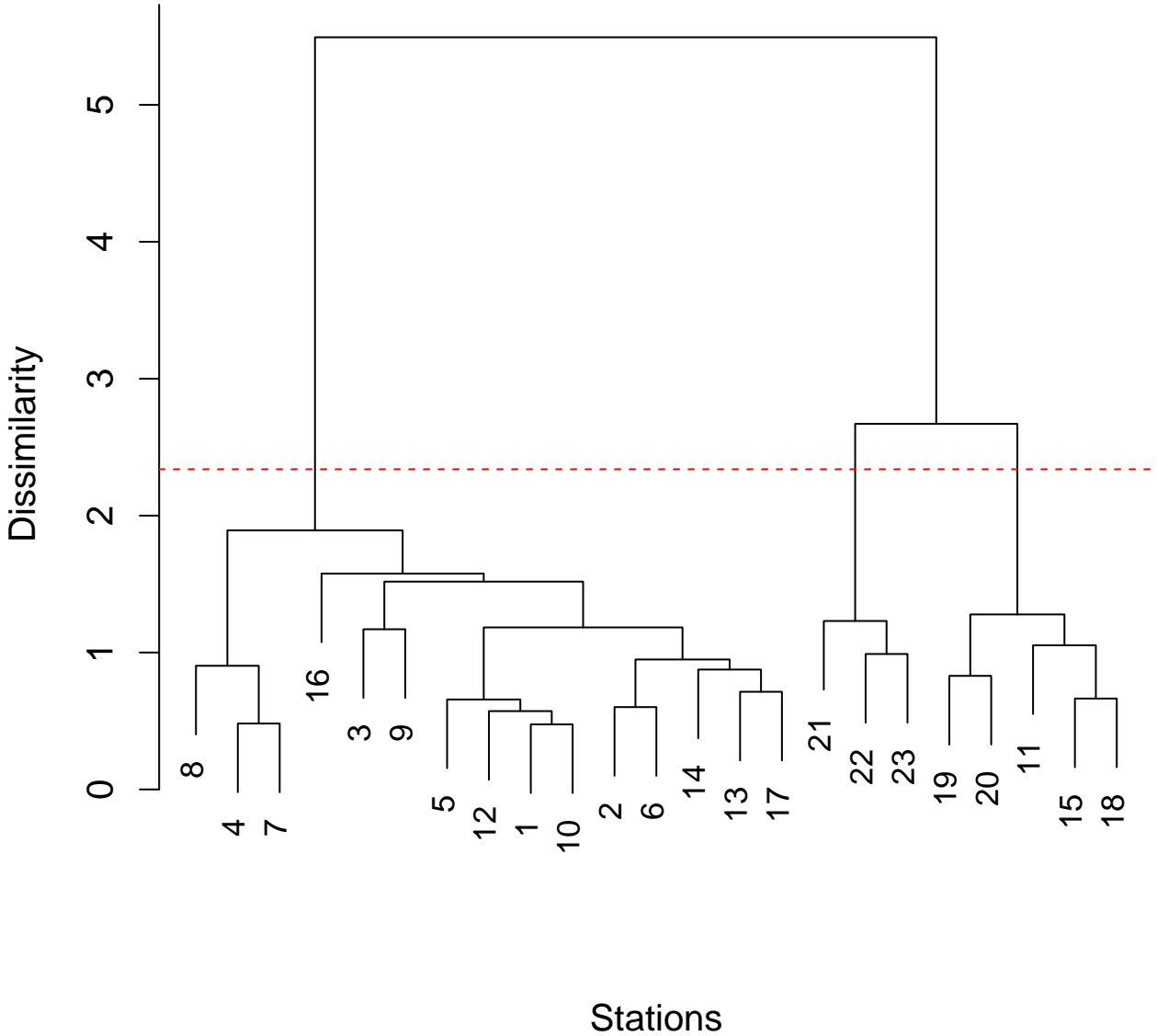
Histogram of all data



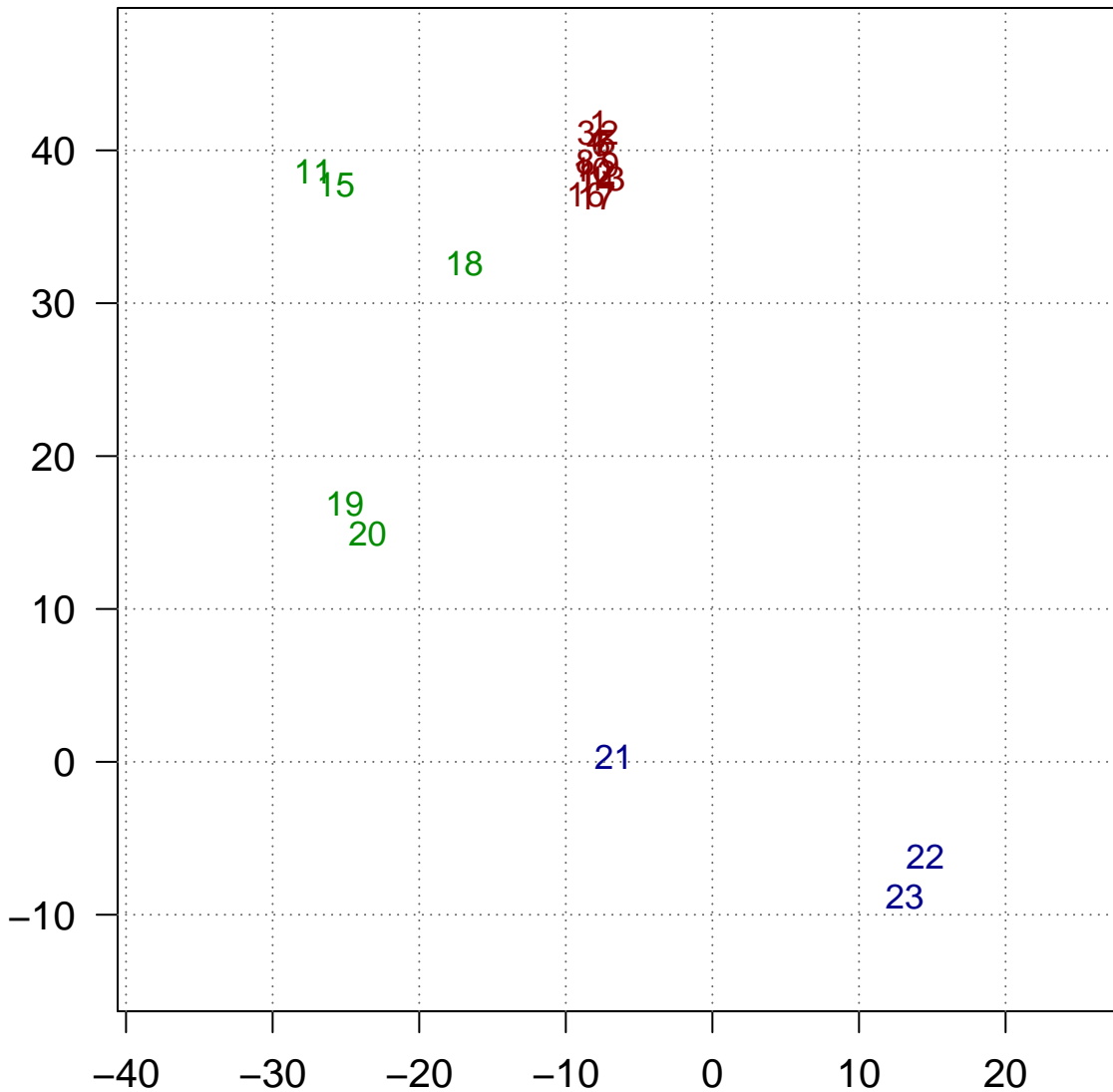
Correlogram of first difference O3 series



Dendrogram of station clusters



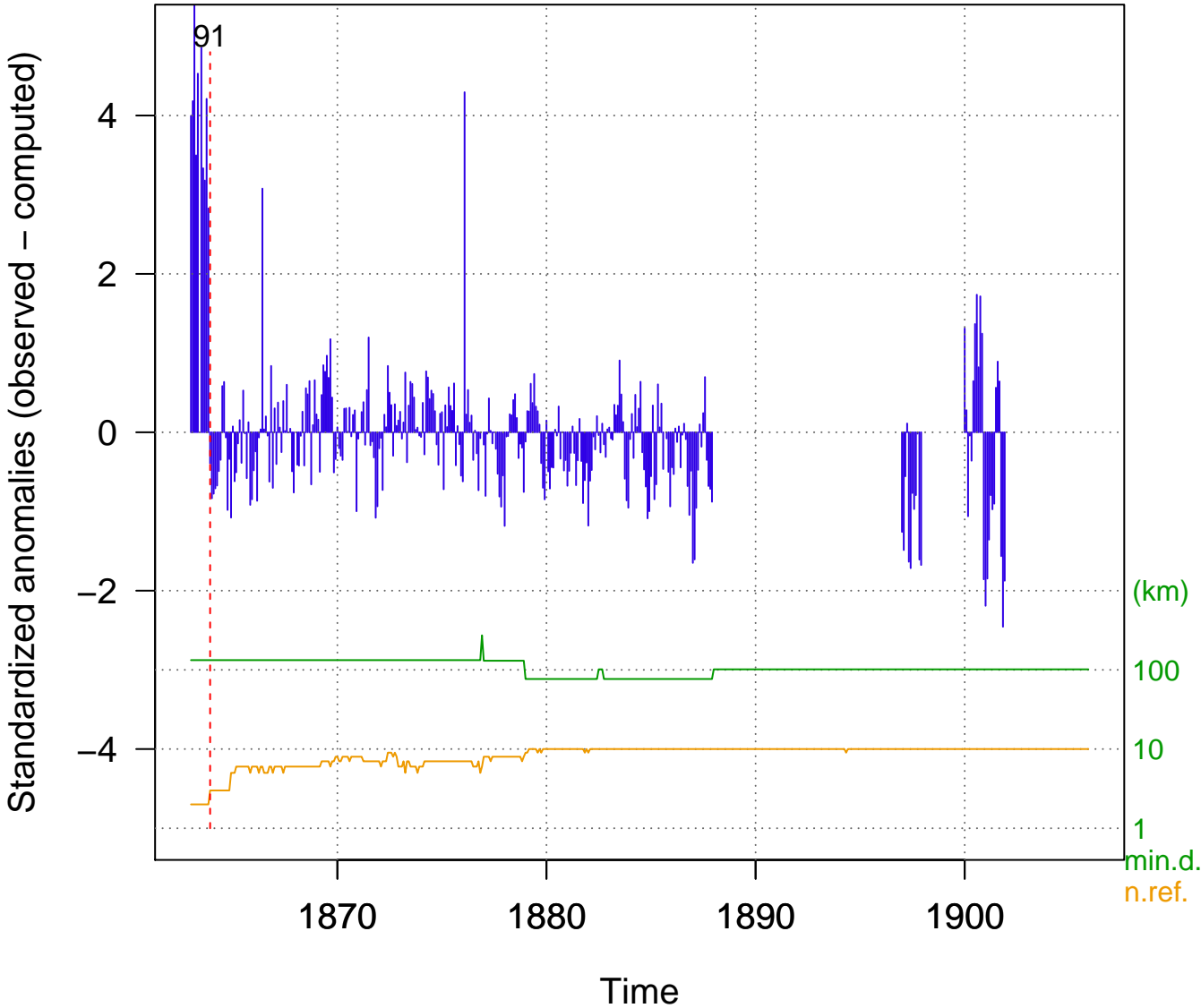
O3 station locations (3 clusters)



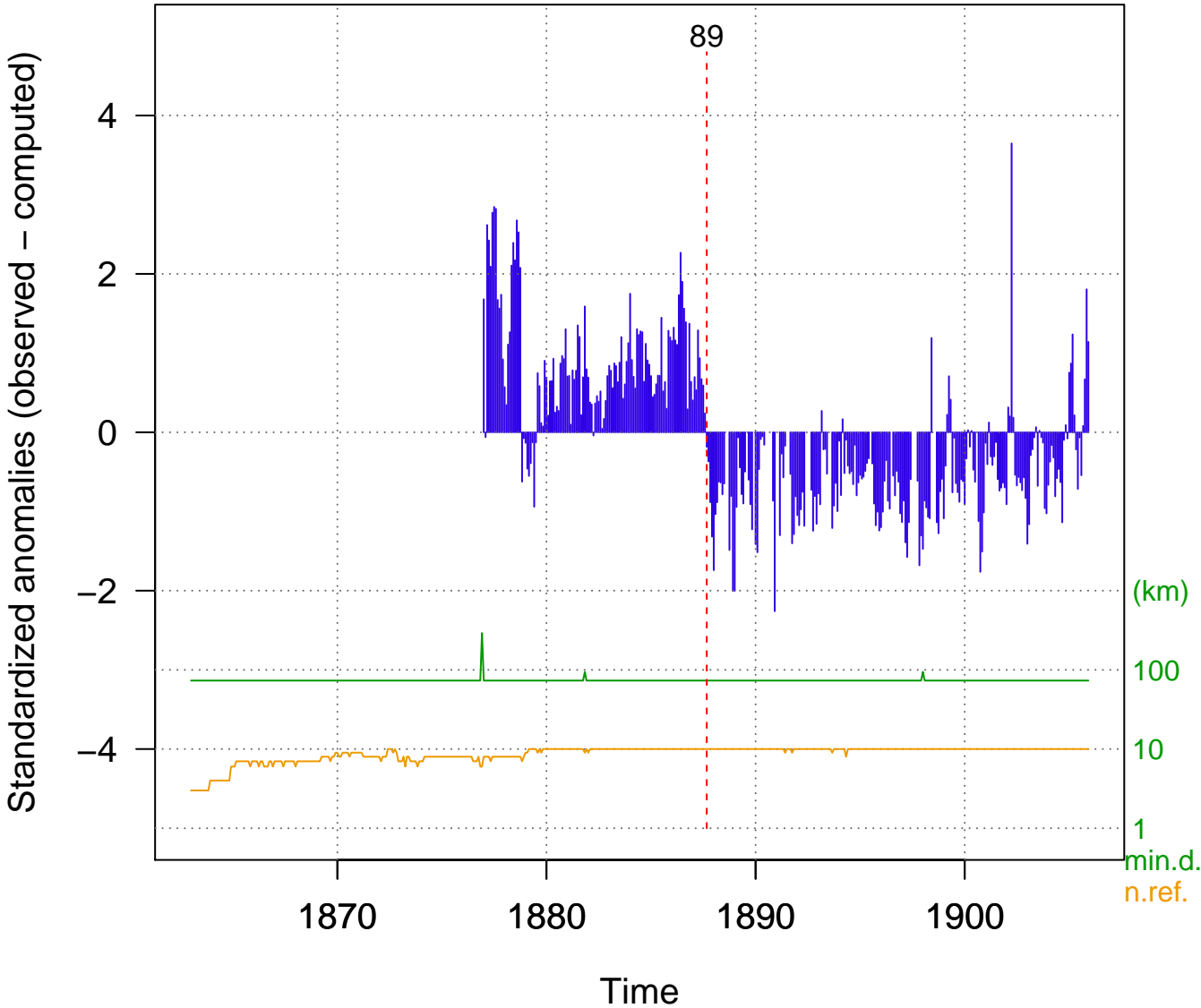
Stage 1

Binary splits on 60 term
stepped windows with
std=3, SNHT>25
and wd=1000 km

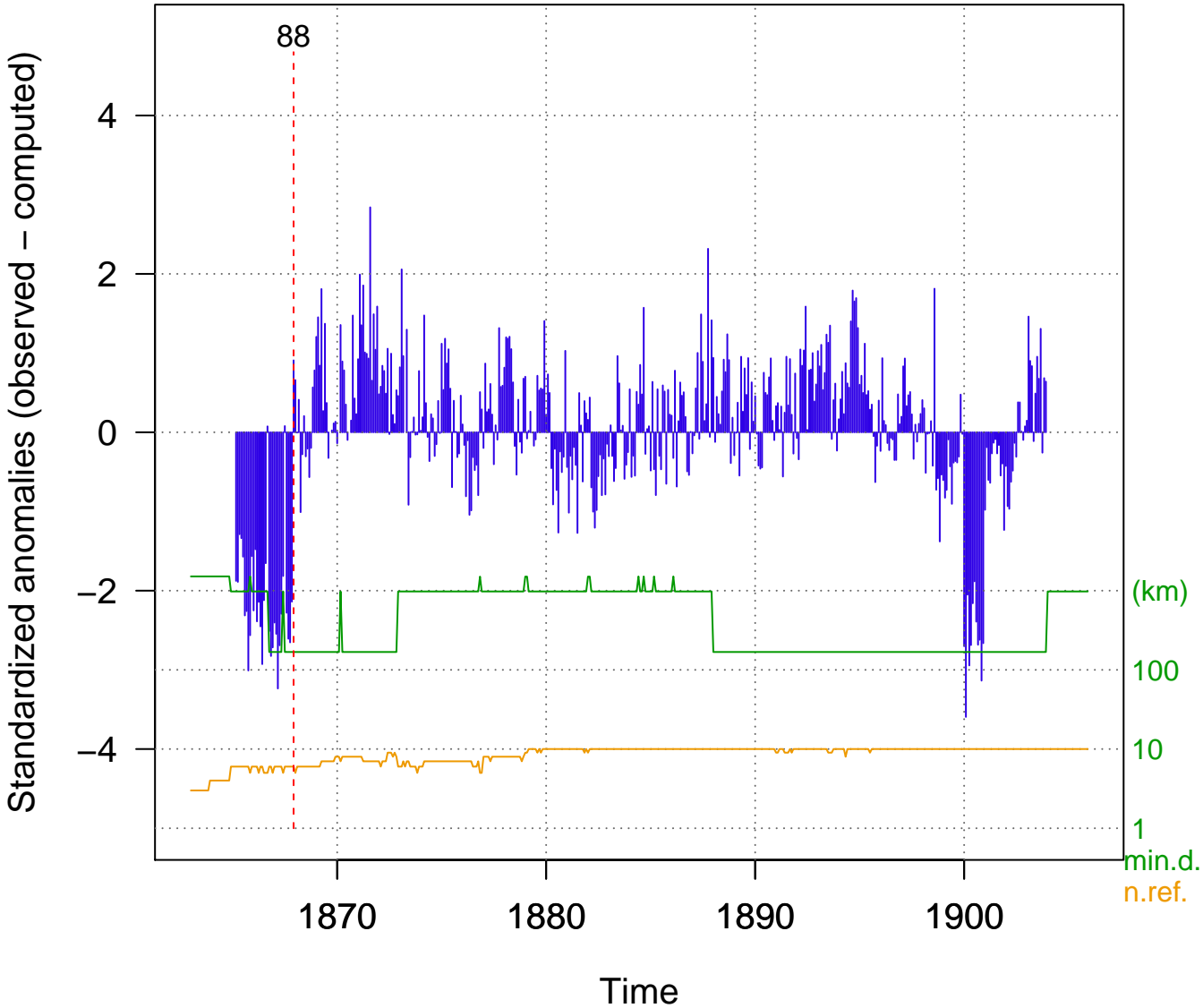
O3 3 (Porto) Porto



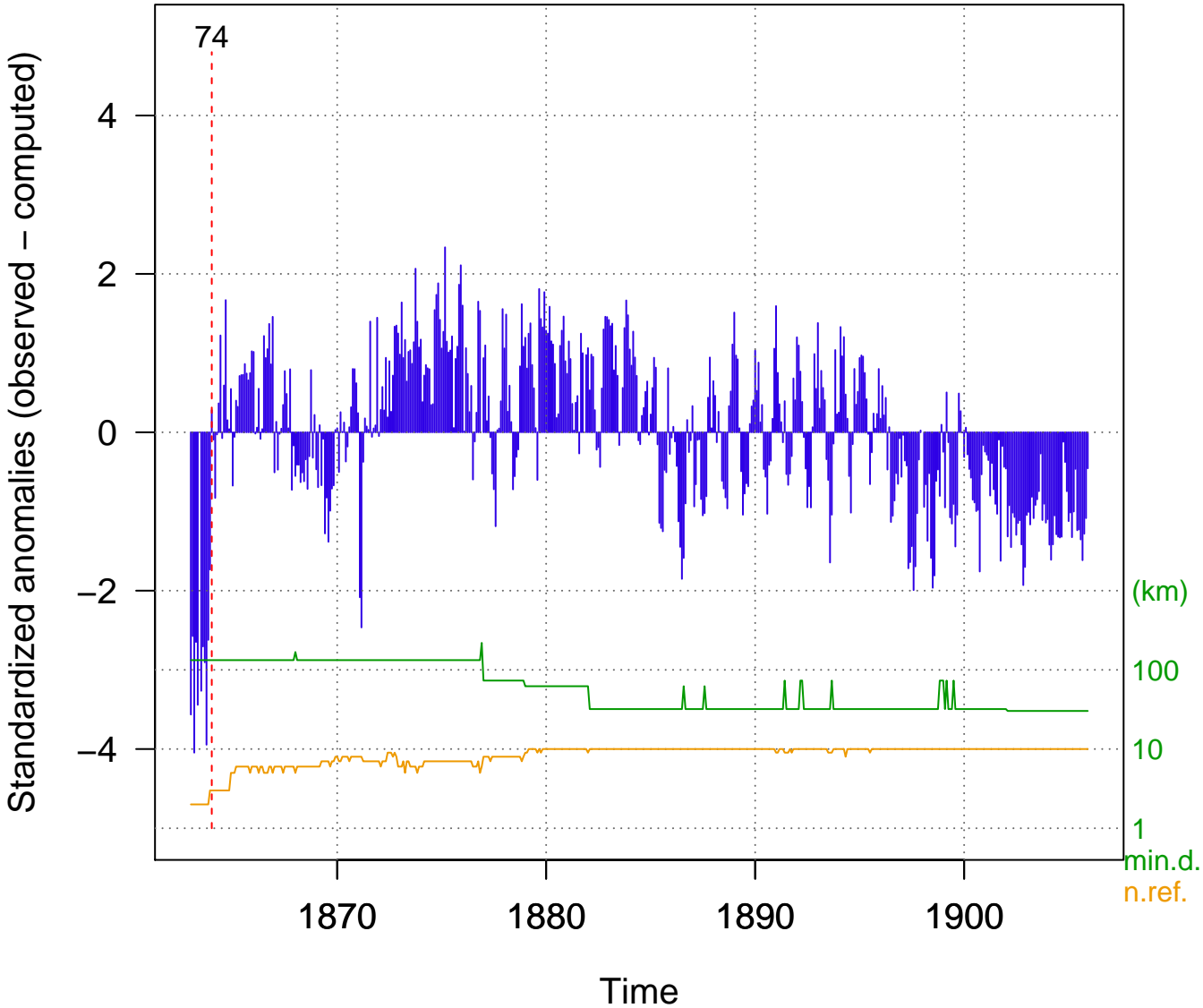
O3 2 (Moncorvo) Moncorvo



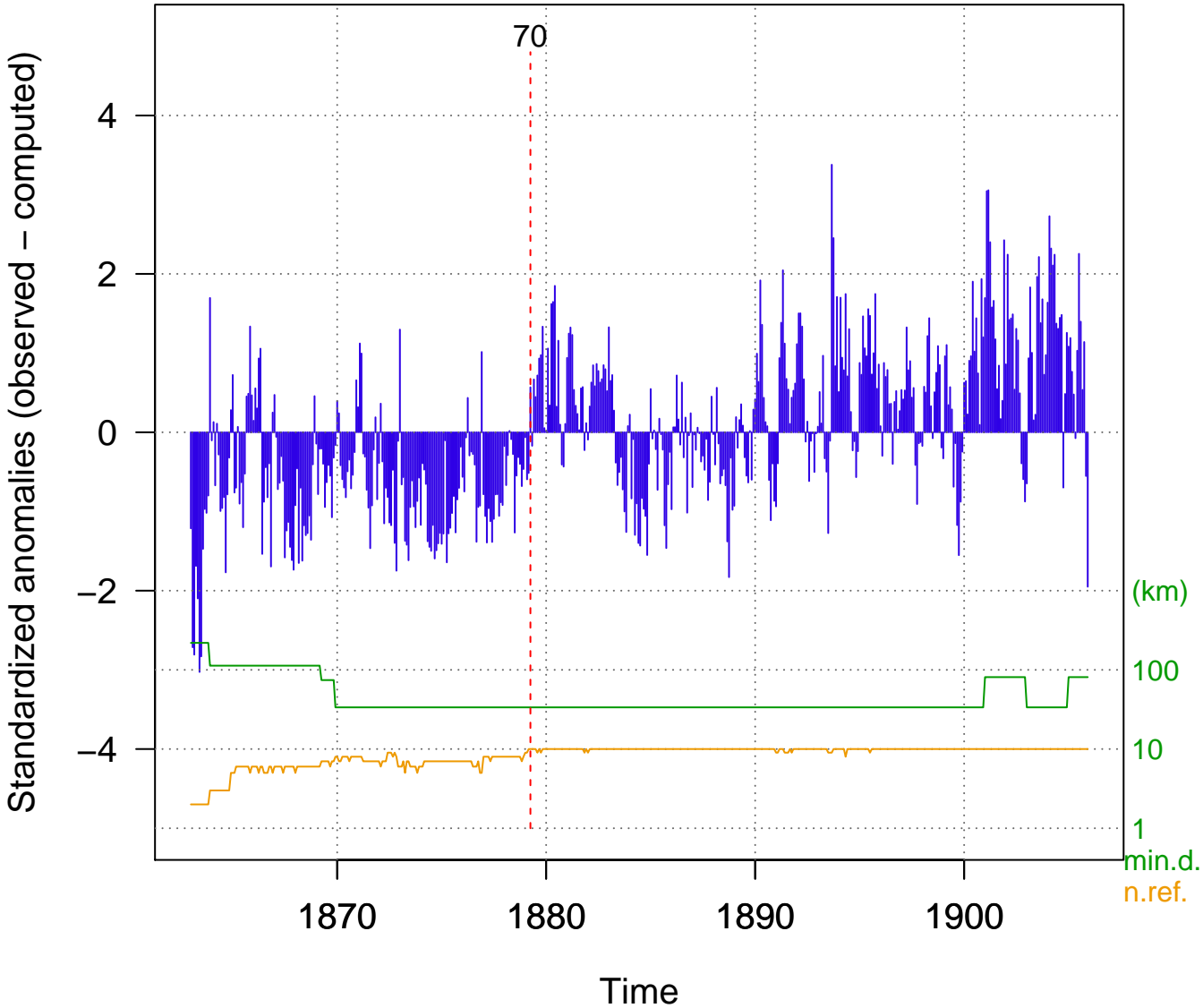
O3 15 (Ponta_Delgada) Ponta Delgada



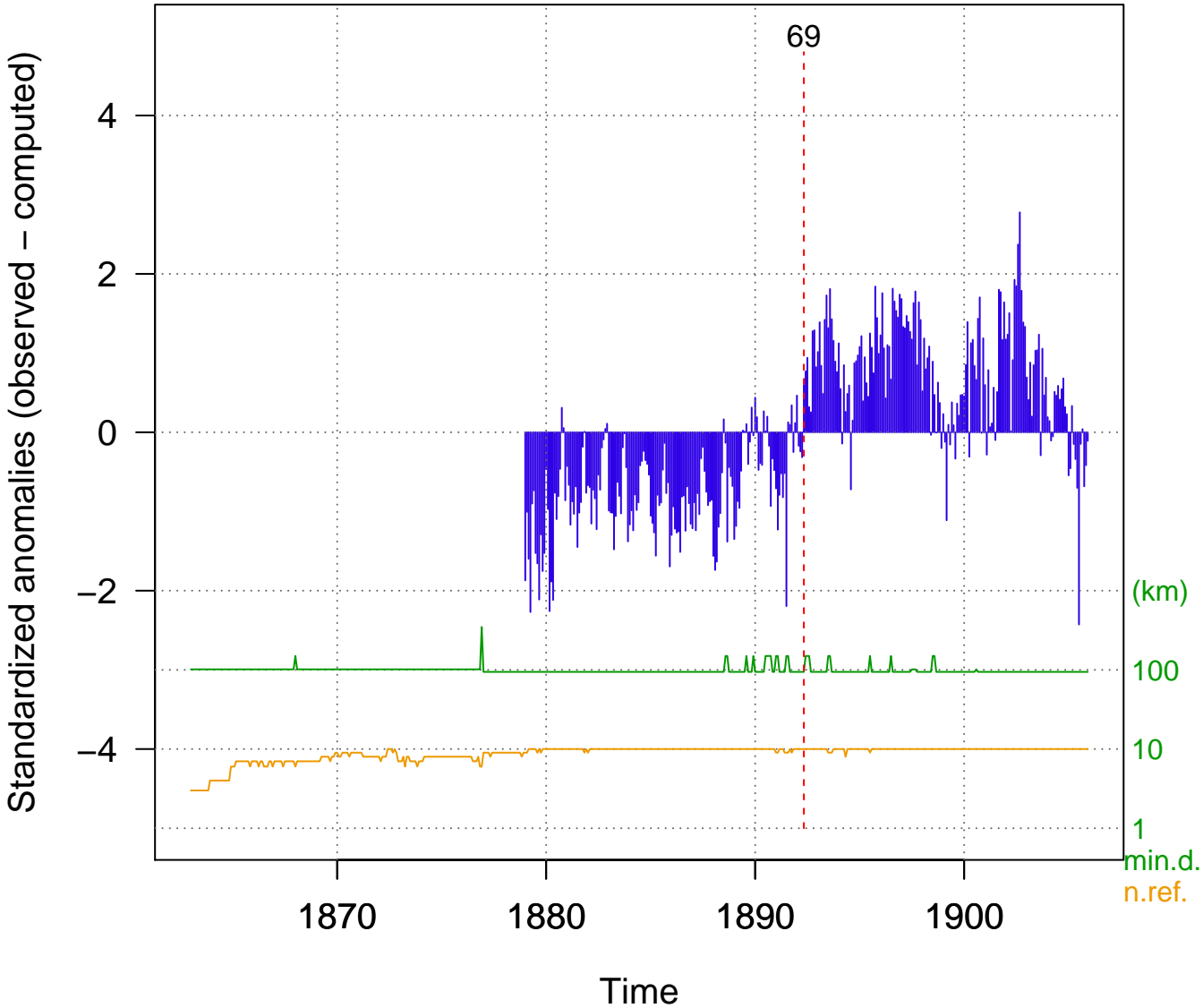
O3 5 (Guarda) Guarda



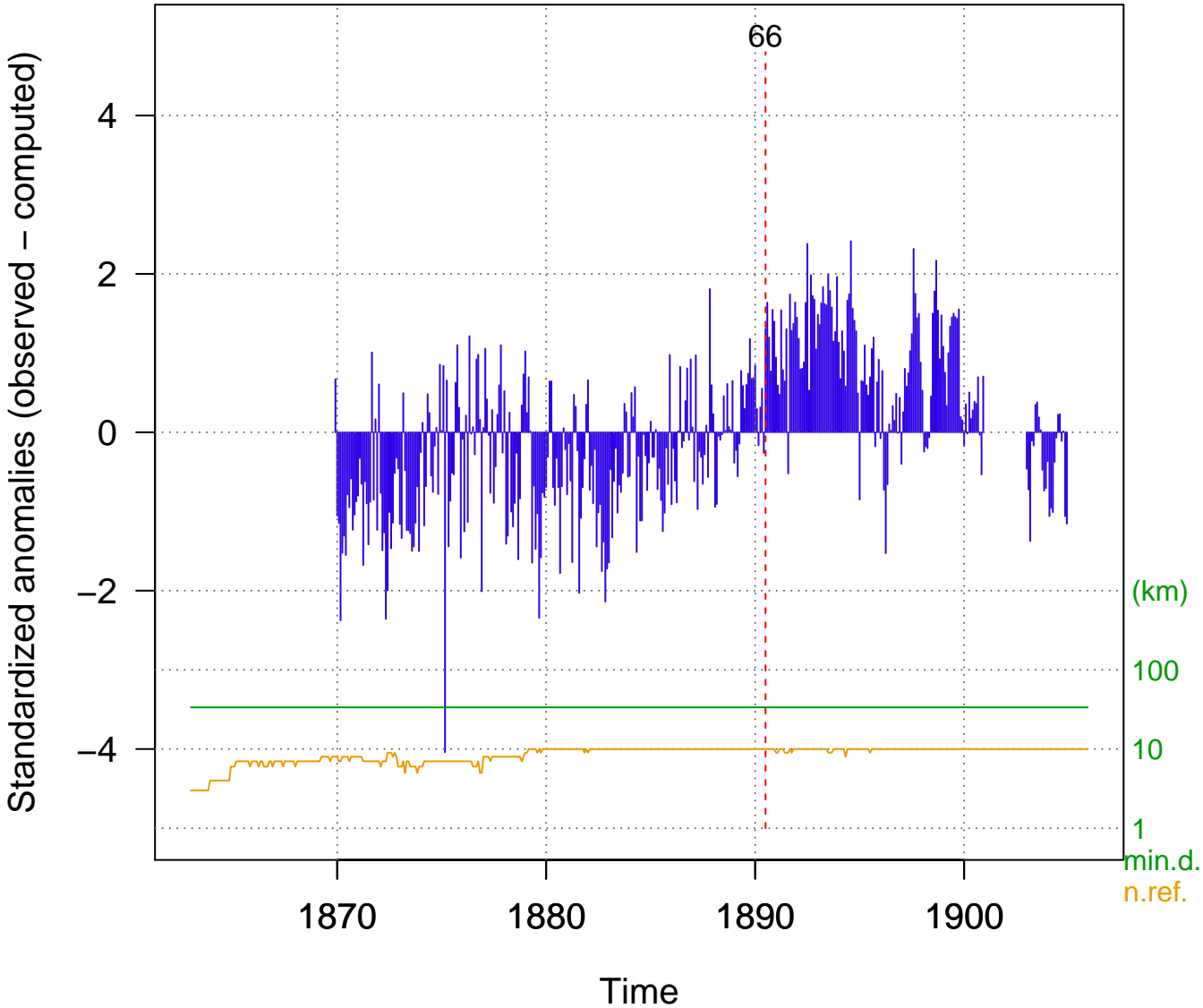
O3 10 (Infante_D_Luiz)
Lisbon Infante D. Luiz



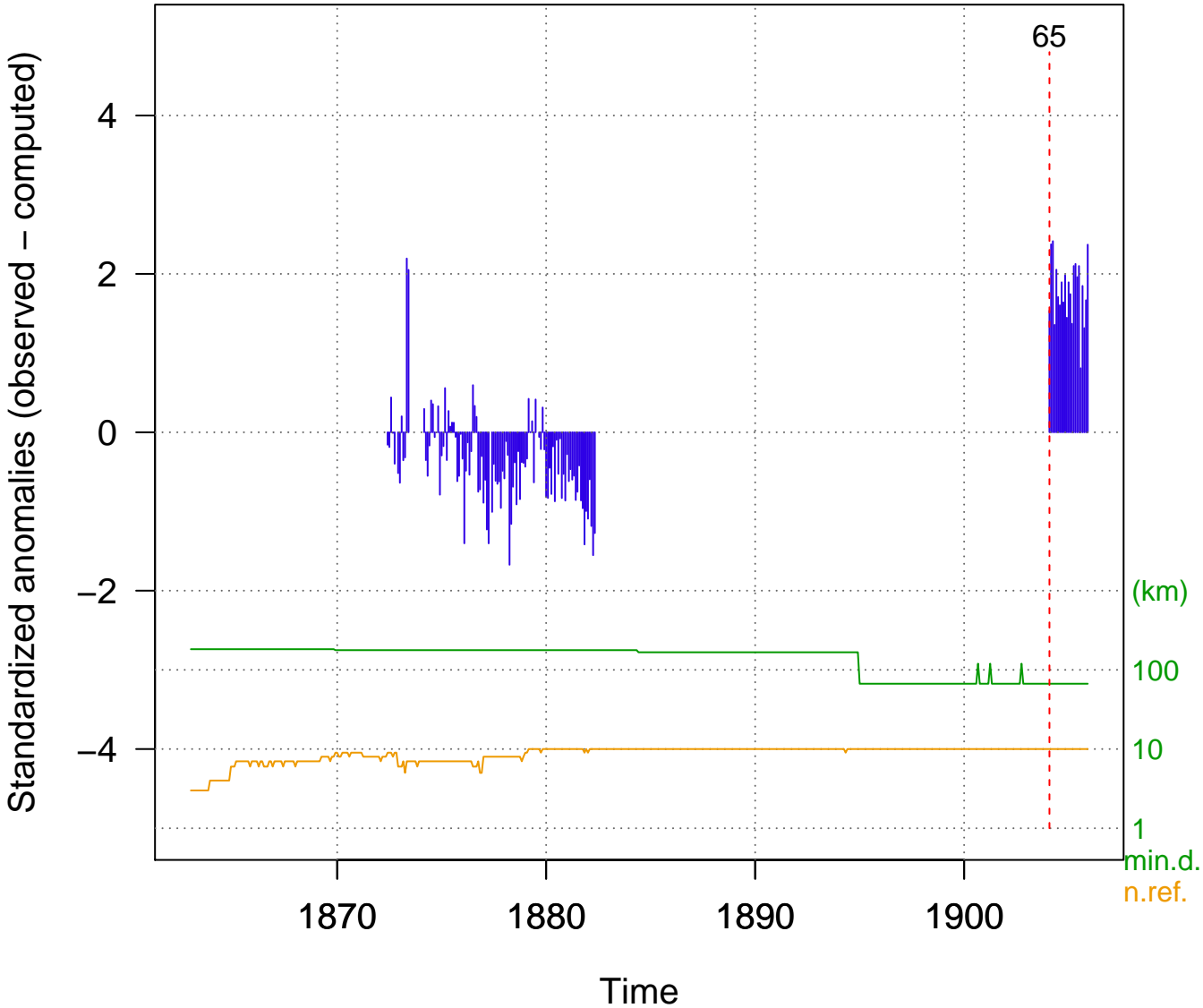
O3 1 (Montalegre) Montalegre



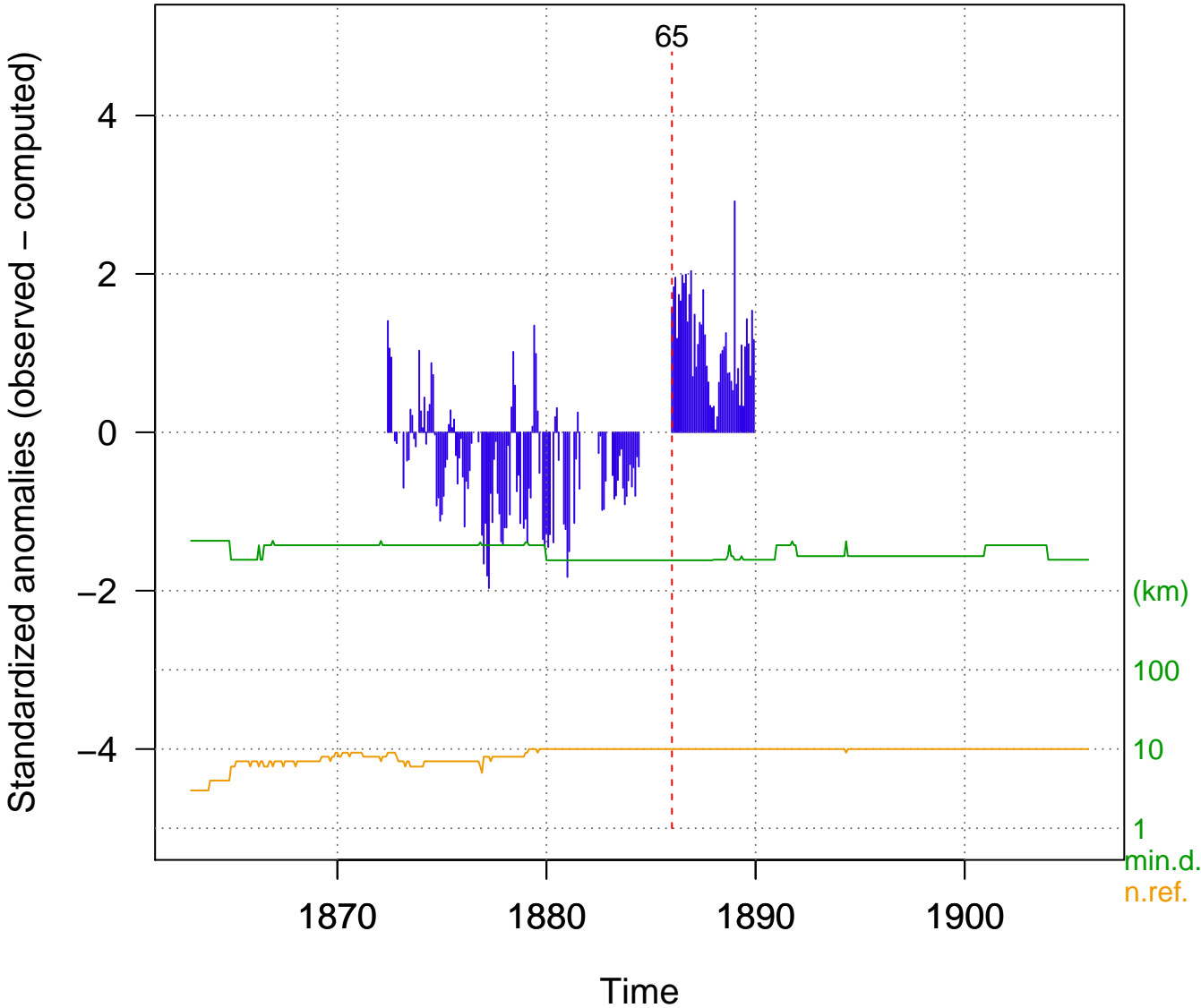
O3 12 (Evora) Evora



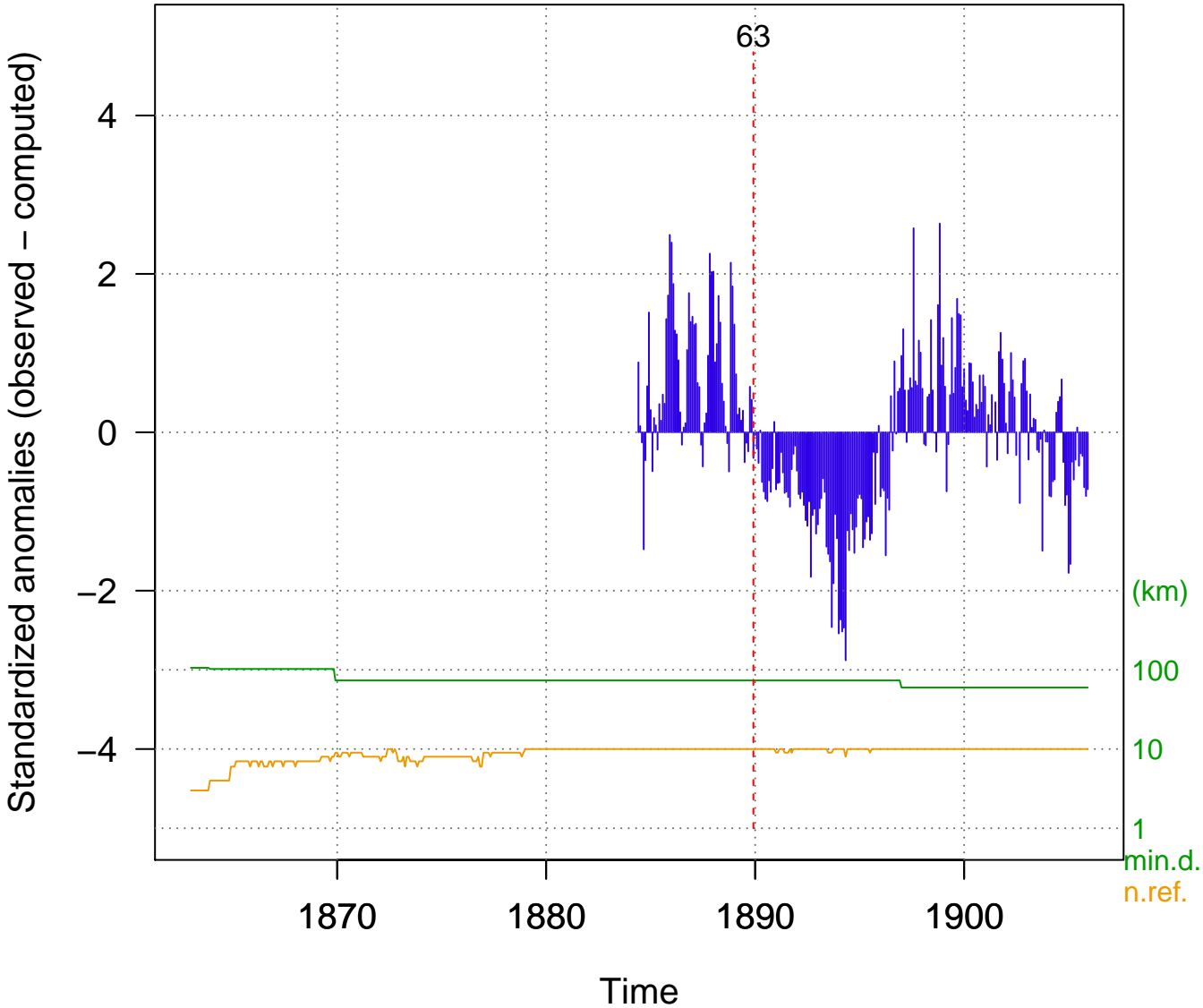
O3 16 (Lagos) Lagos



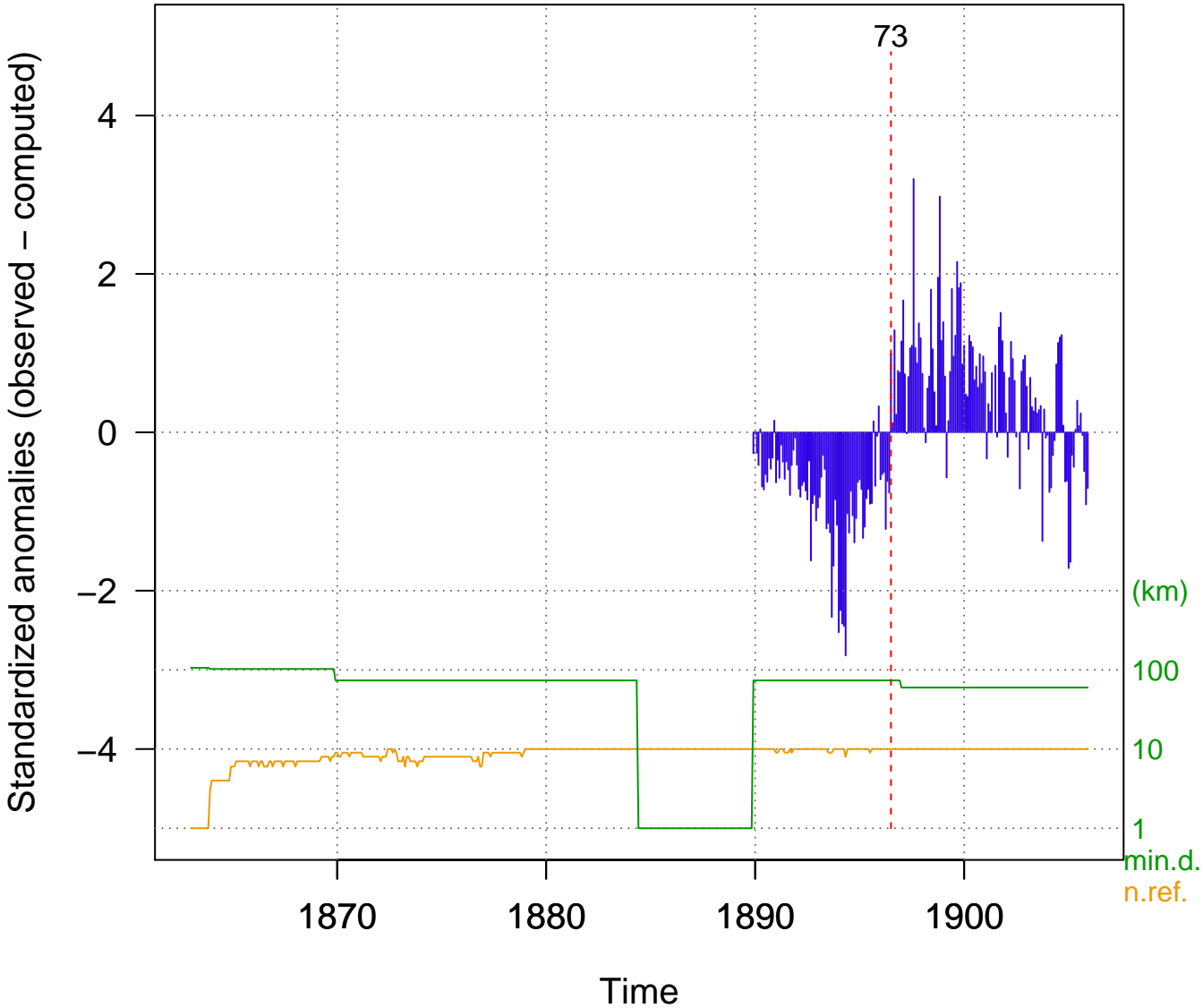
O3 21 (S._Thome)
S. Thome



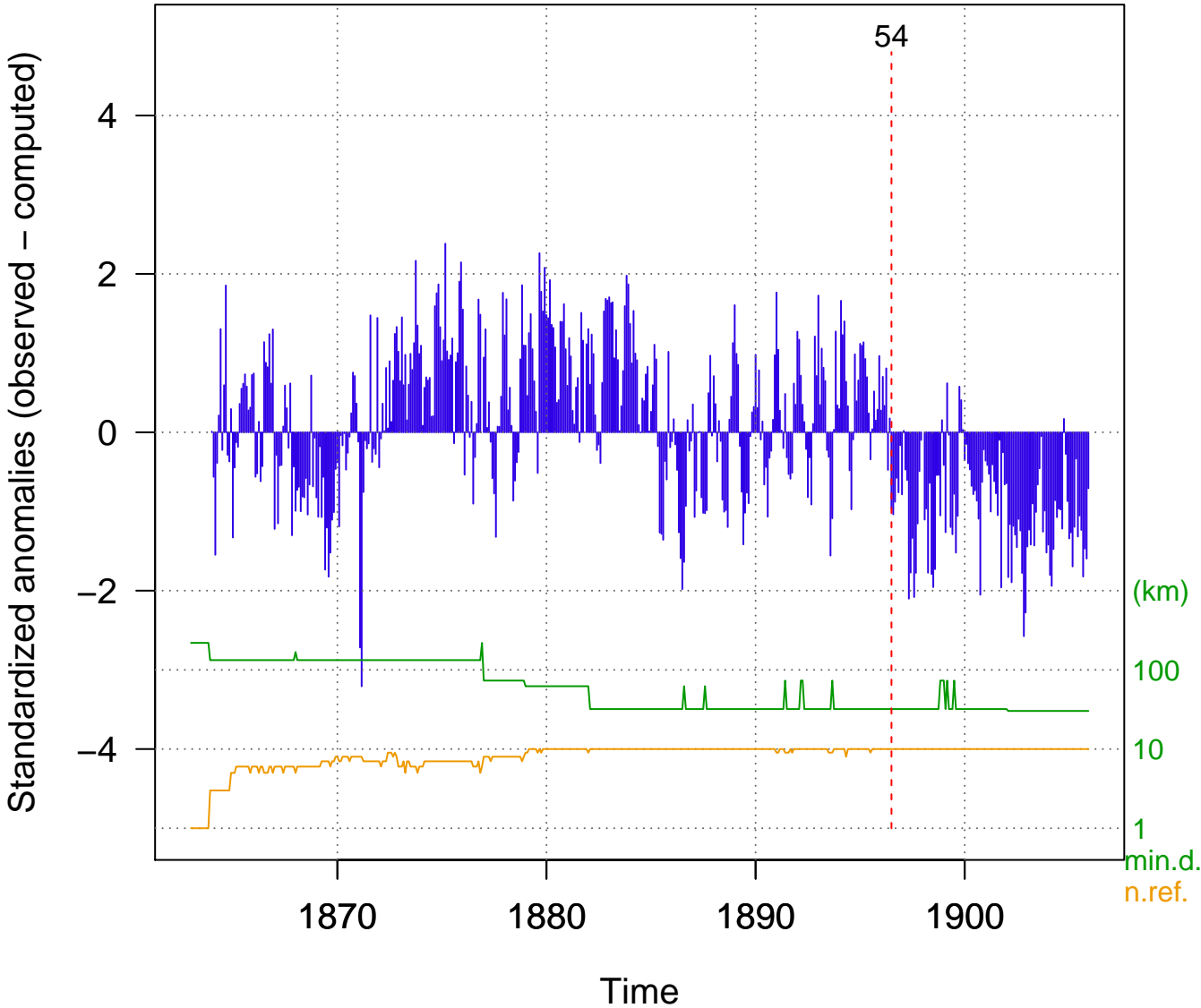
O3 13 (Villa_Fernando) Villa Fernando



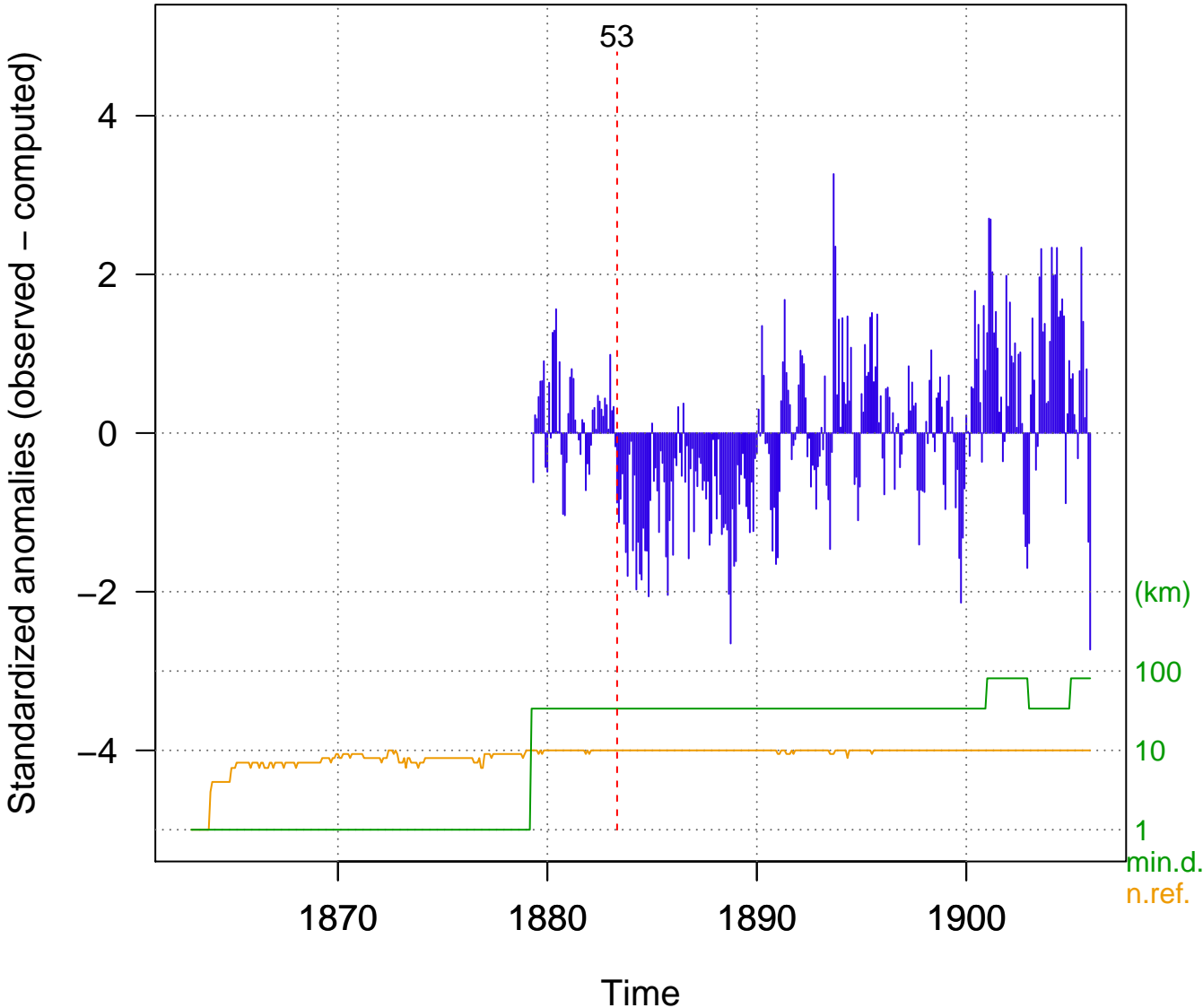
O3 13 (Villa_Fernando) Villa Fernando



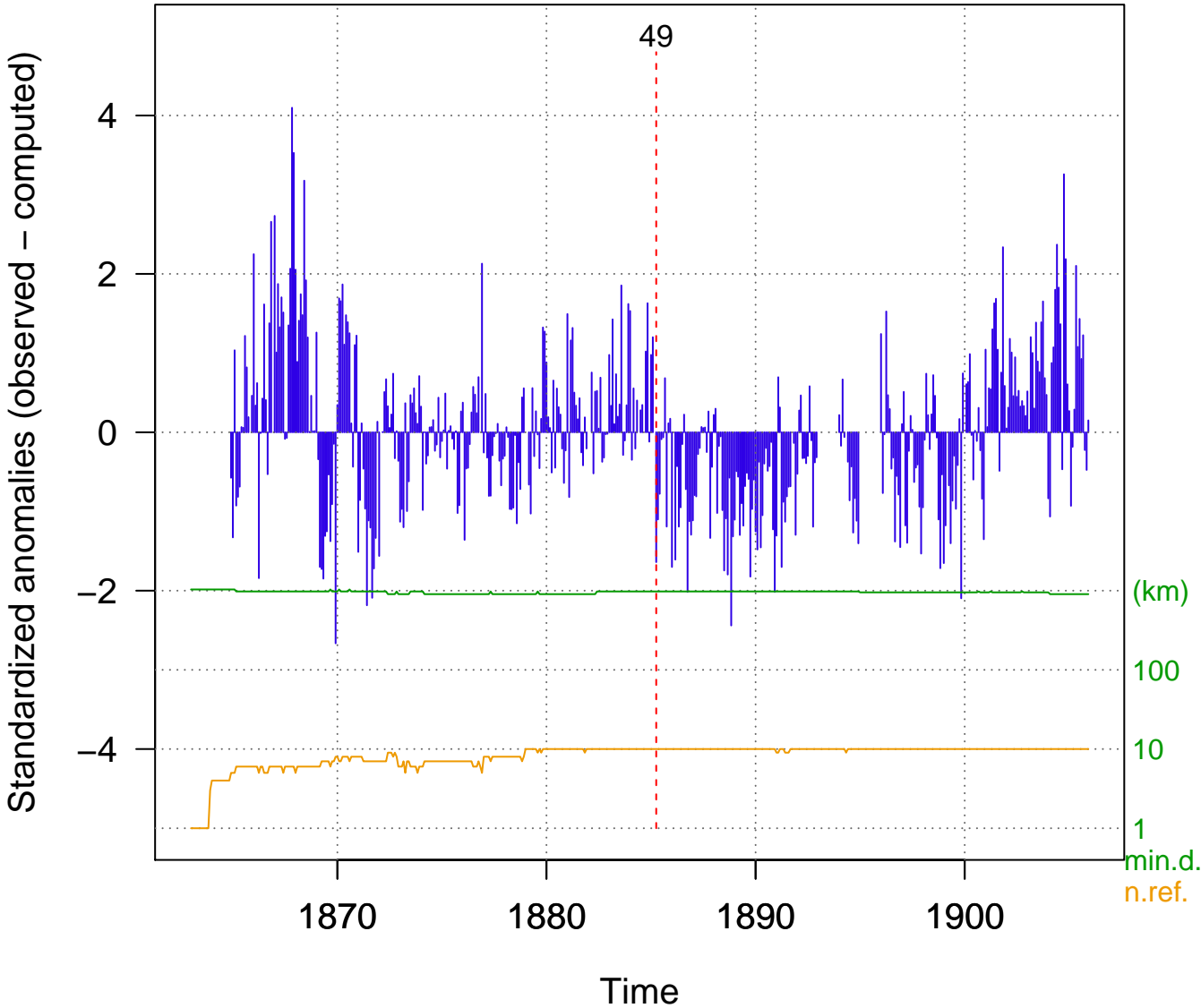
O3 5 (Guarda) Guarda



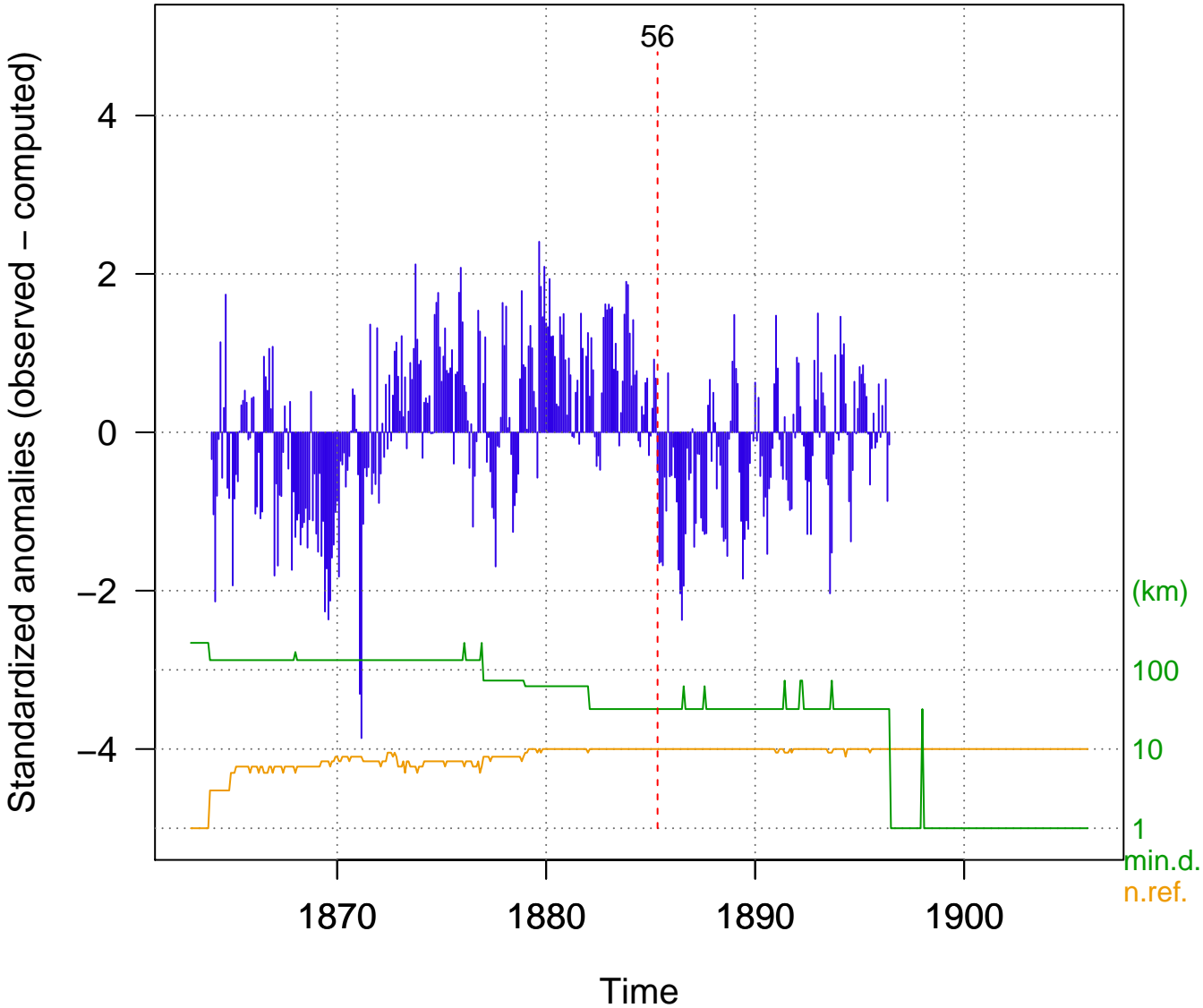
O3 10 (Infante_D_Luiz)
Lisbon Infante D. Luiz



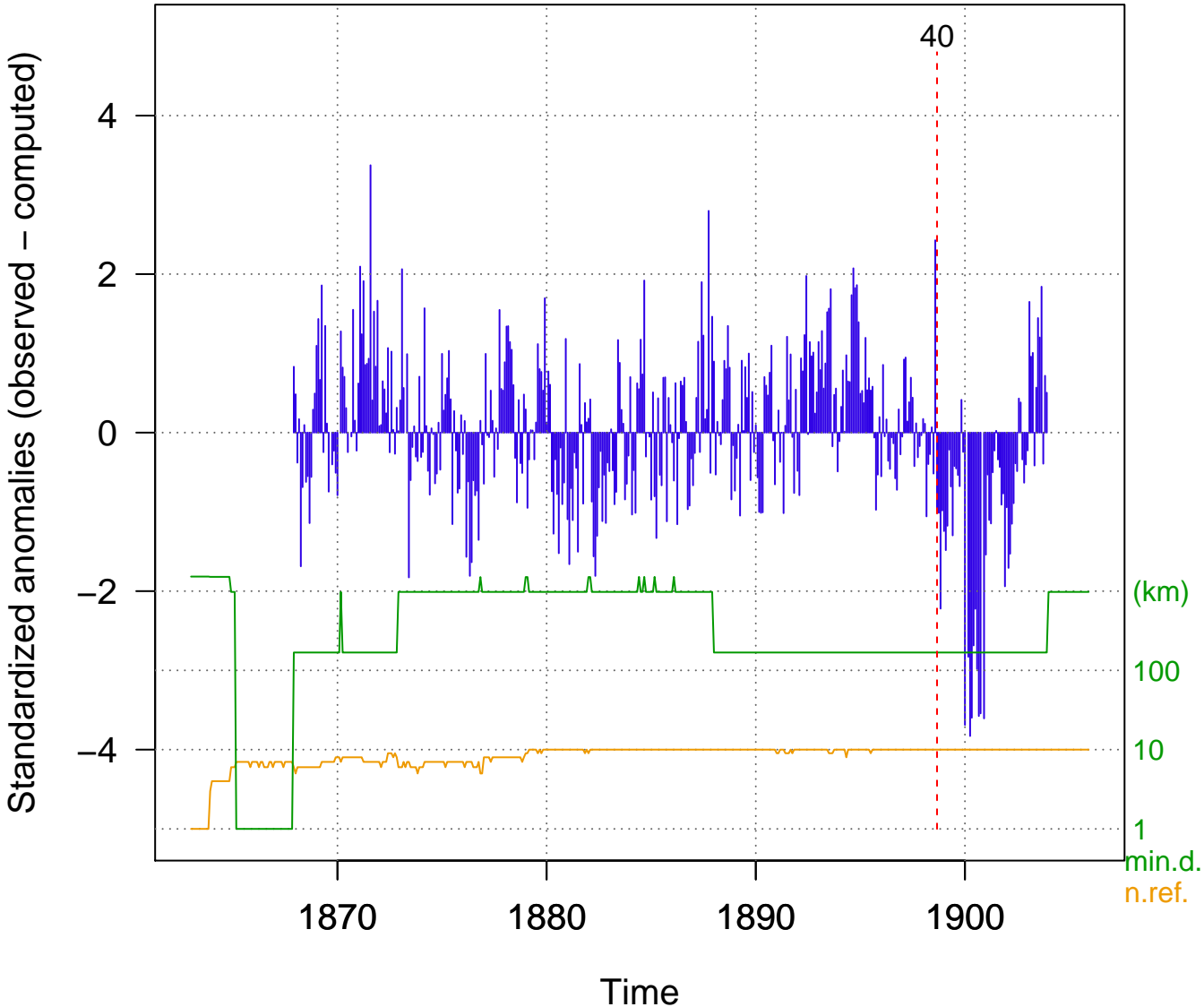
O3 18 (Funchal) Funchal



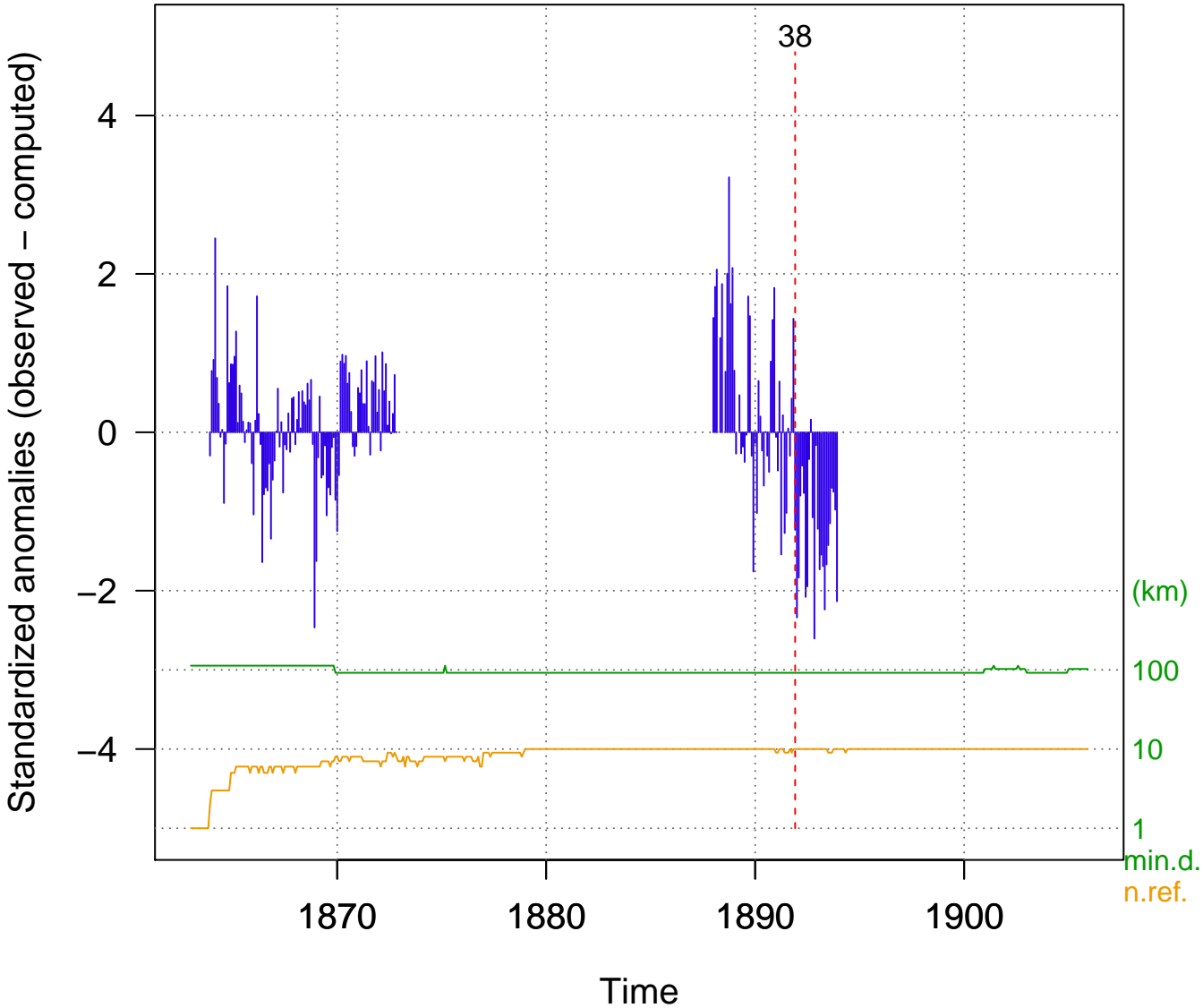
O3 33 (Guarda-2) Guarda-2



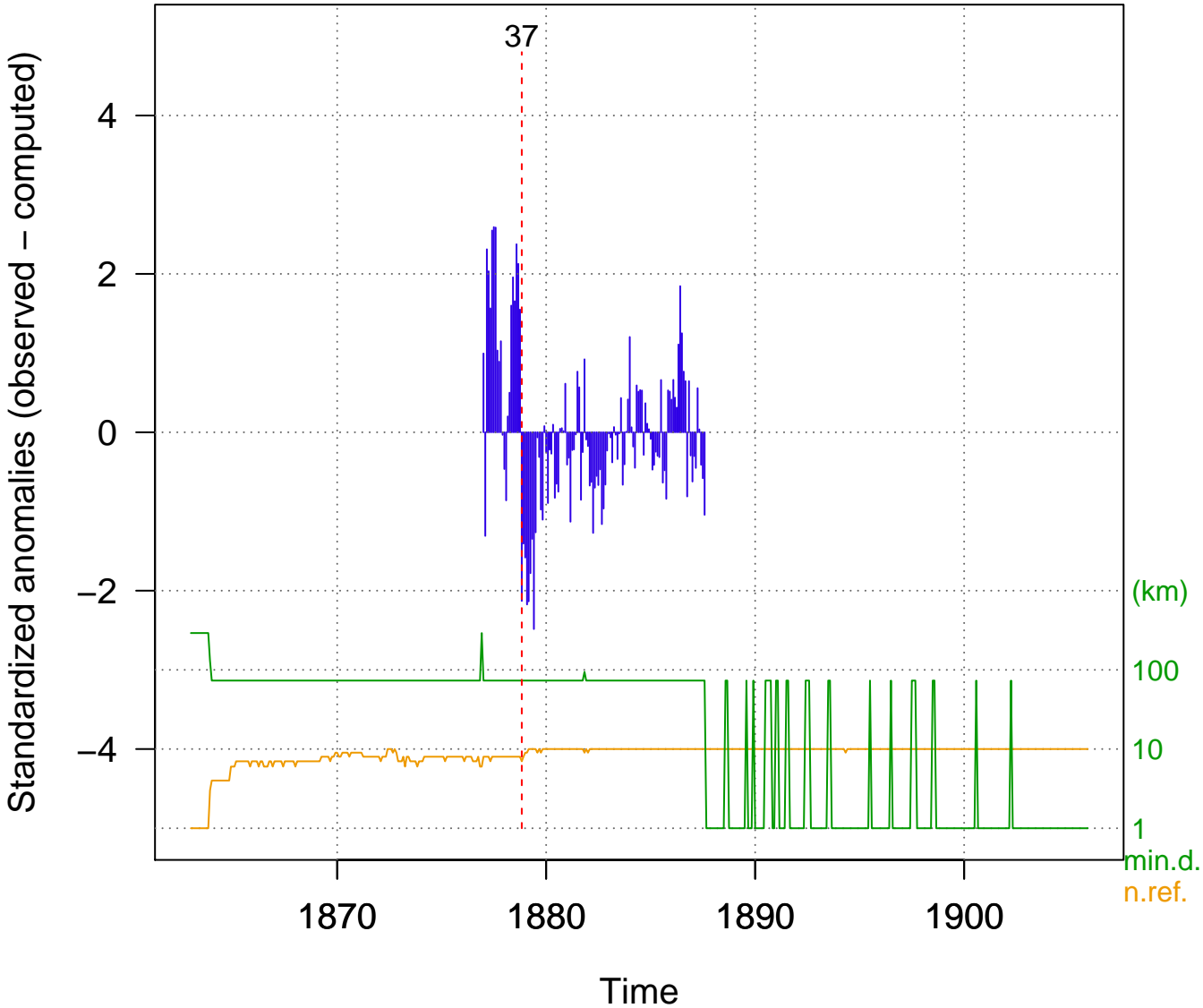
O3 15 (Ponta_Delgada) Ponta Delgada



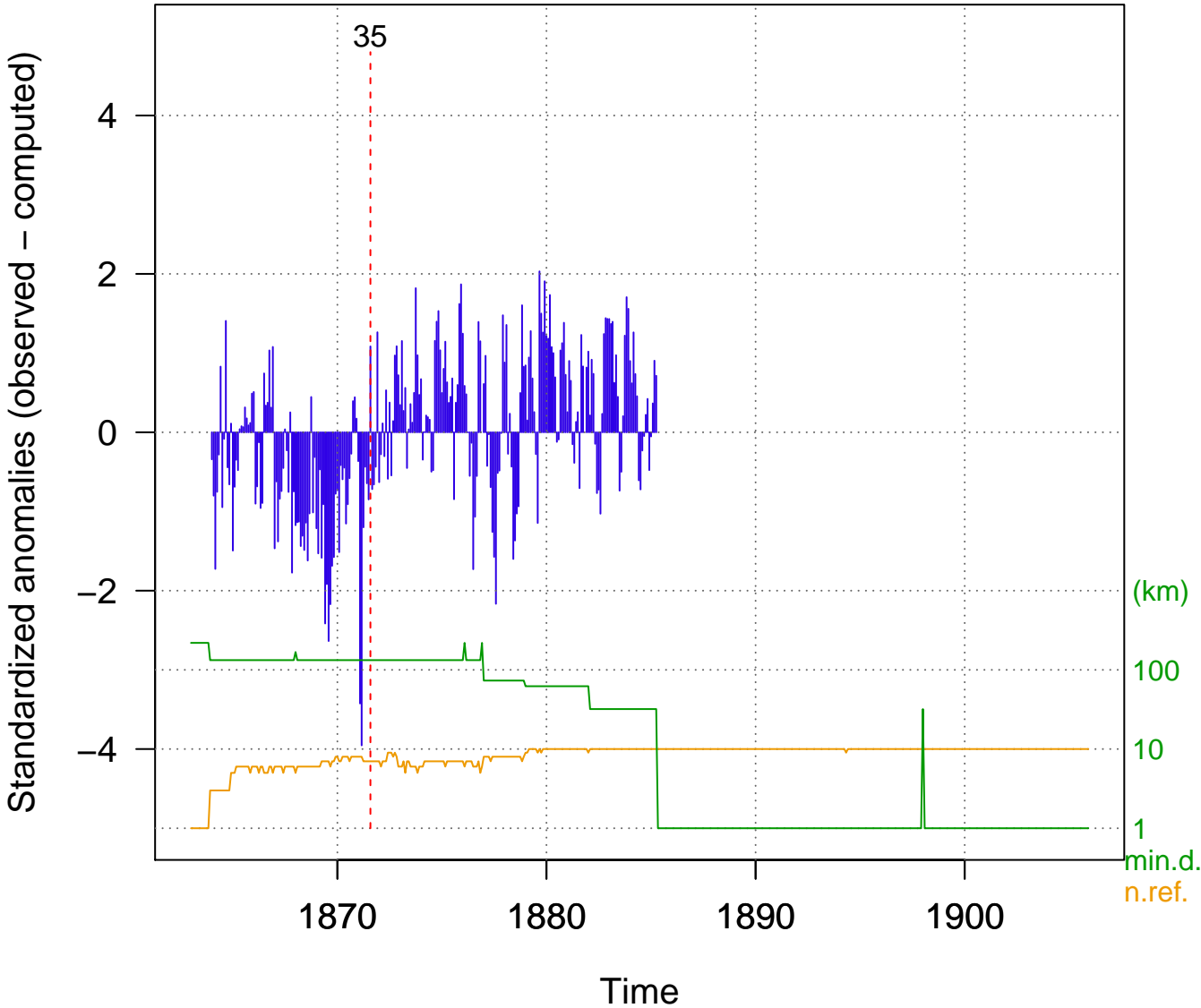
O3 9 (Campo_Maior) Campo Maior



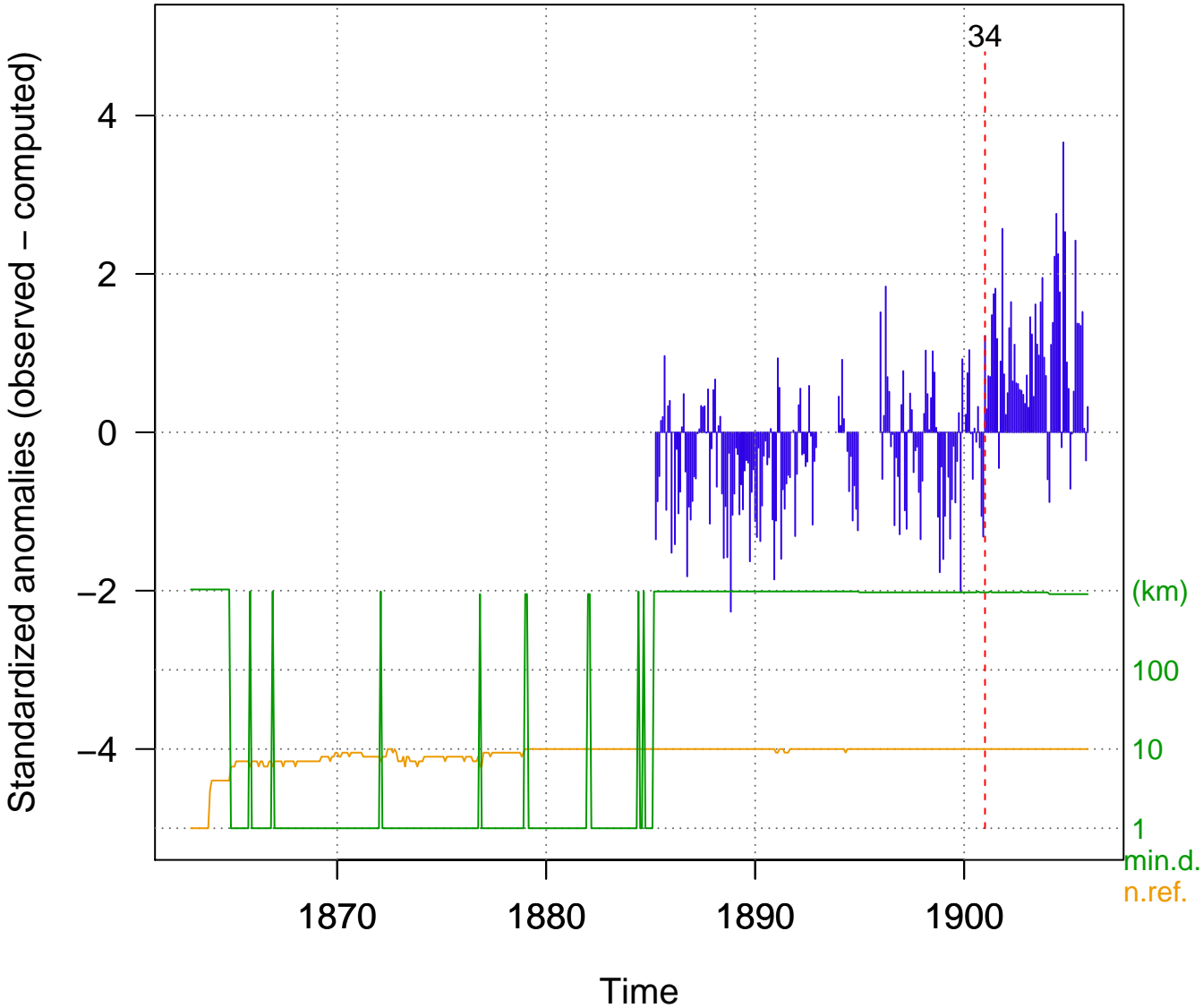
O3 24 (Moncorvo-2) Moncorvo-2



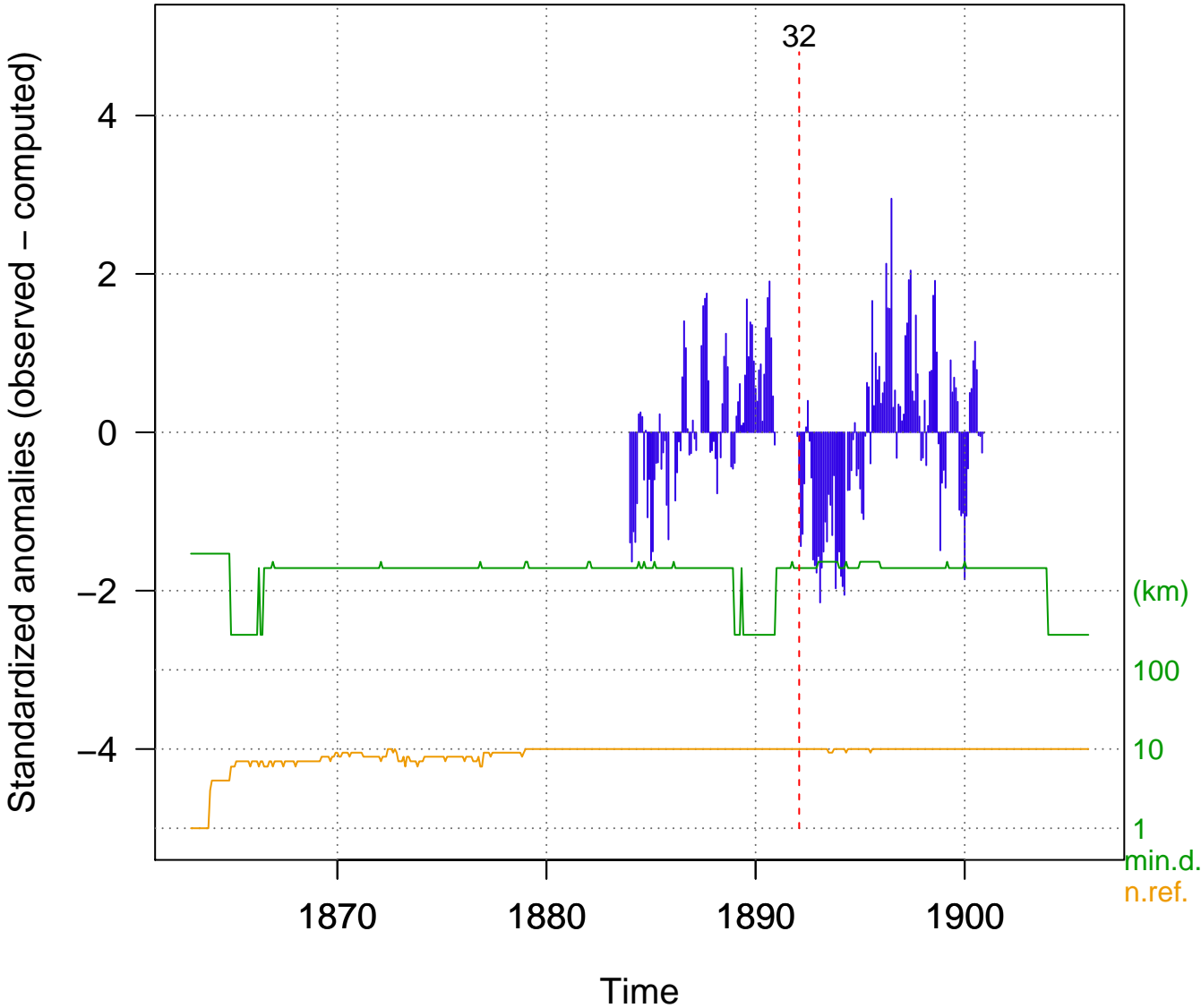
O3 36 (Guarda-3) Guarda-3



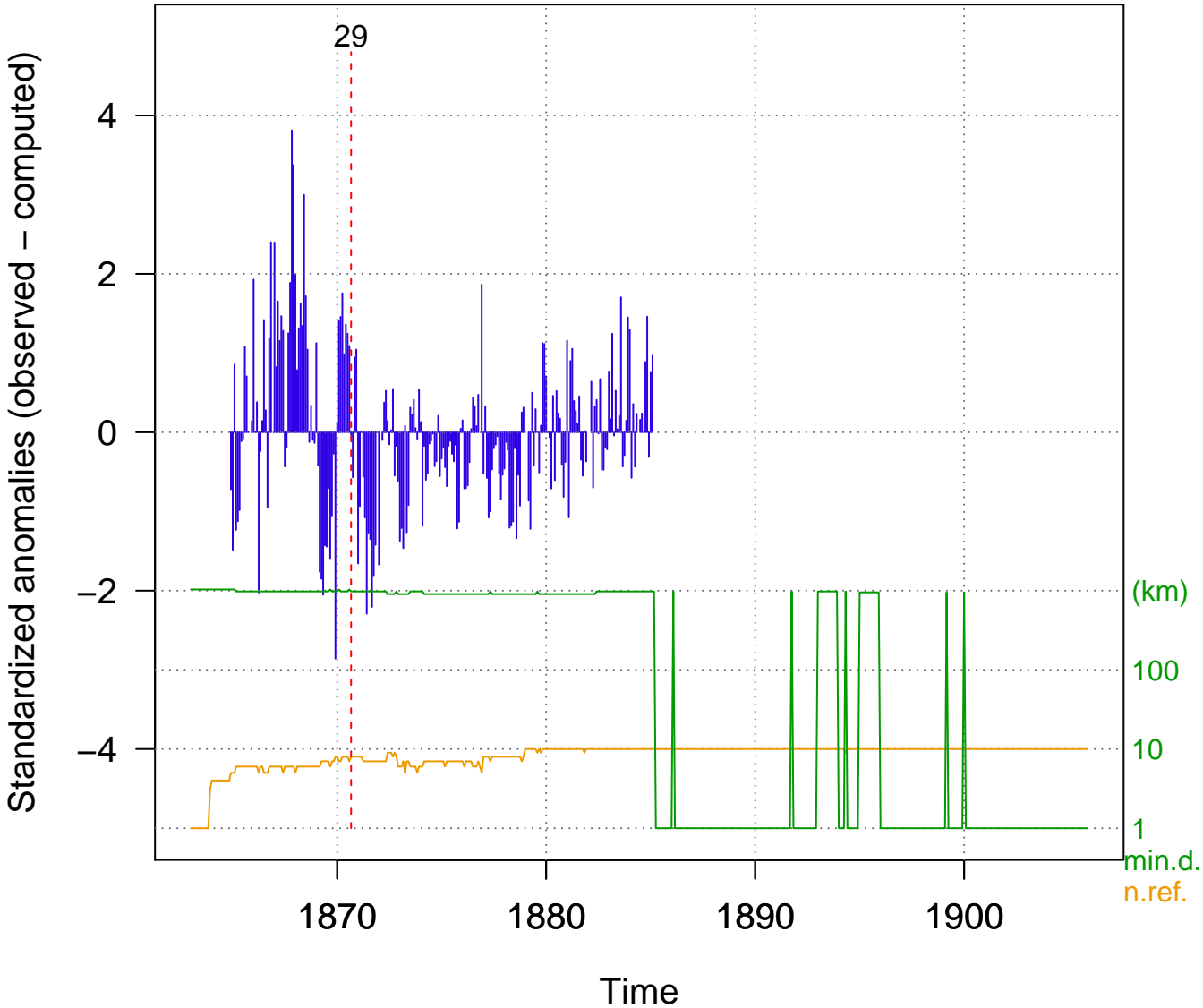
O3 18 (Funchal) Funchal



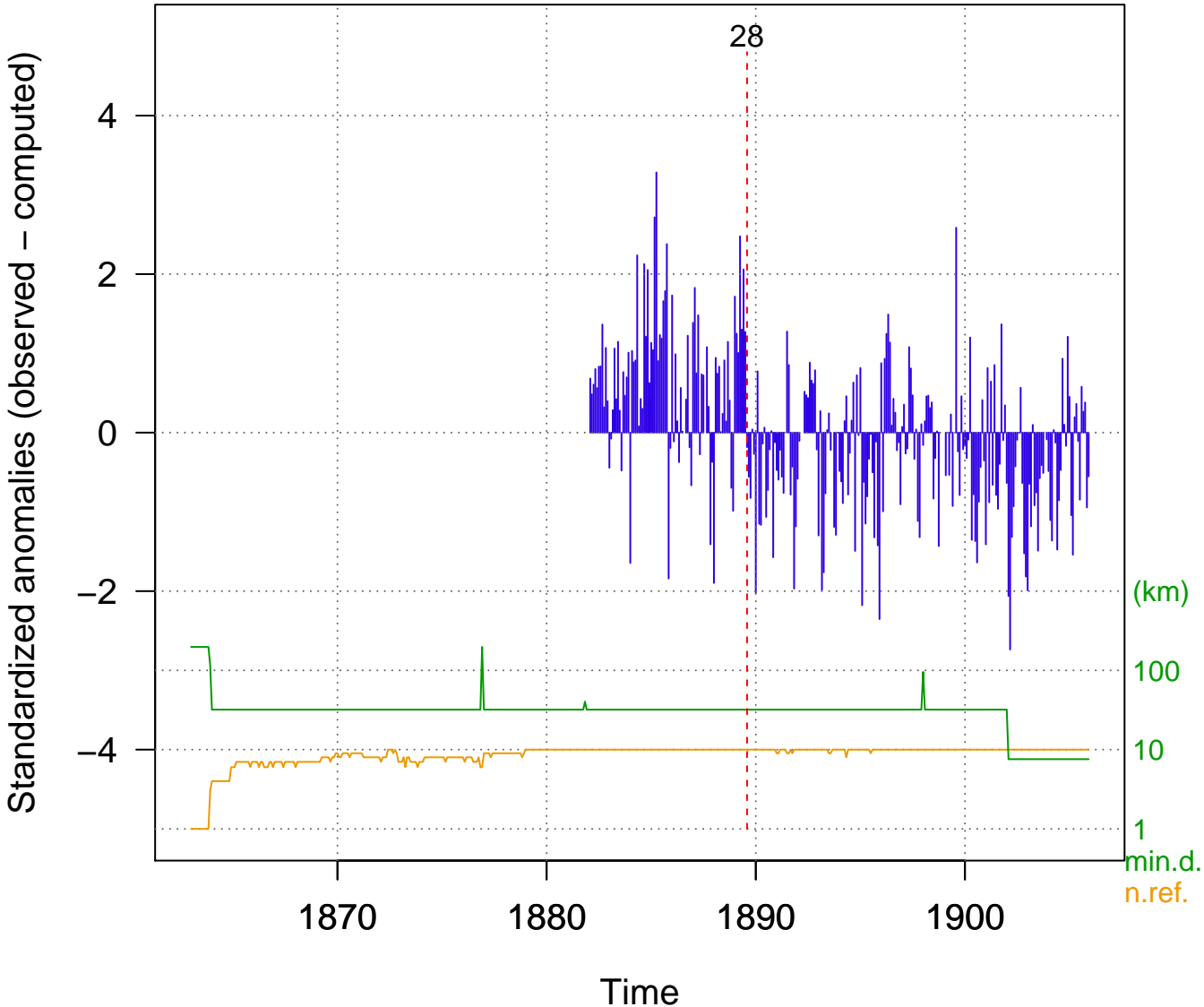
O3 19 (S._Vicente) S. Vicente



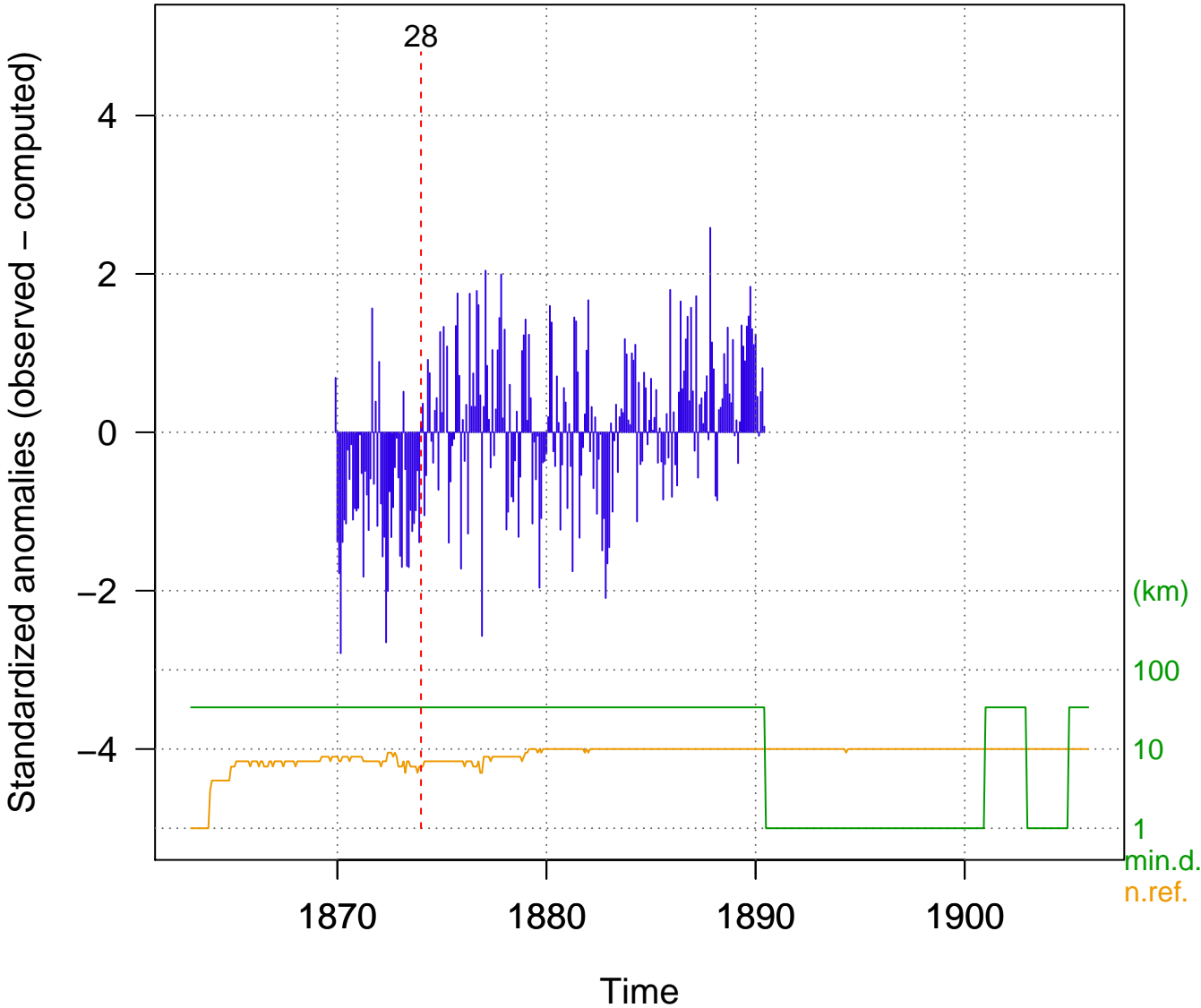
O3 35 (Funchal-2) Funchal-2



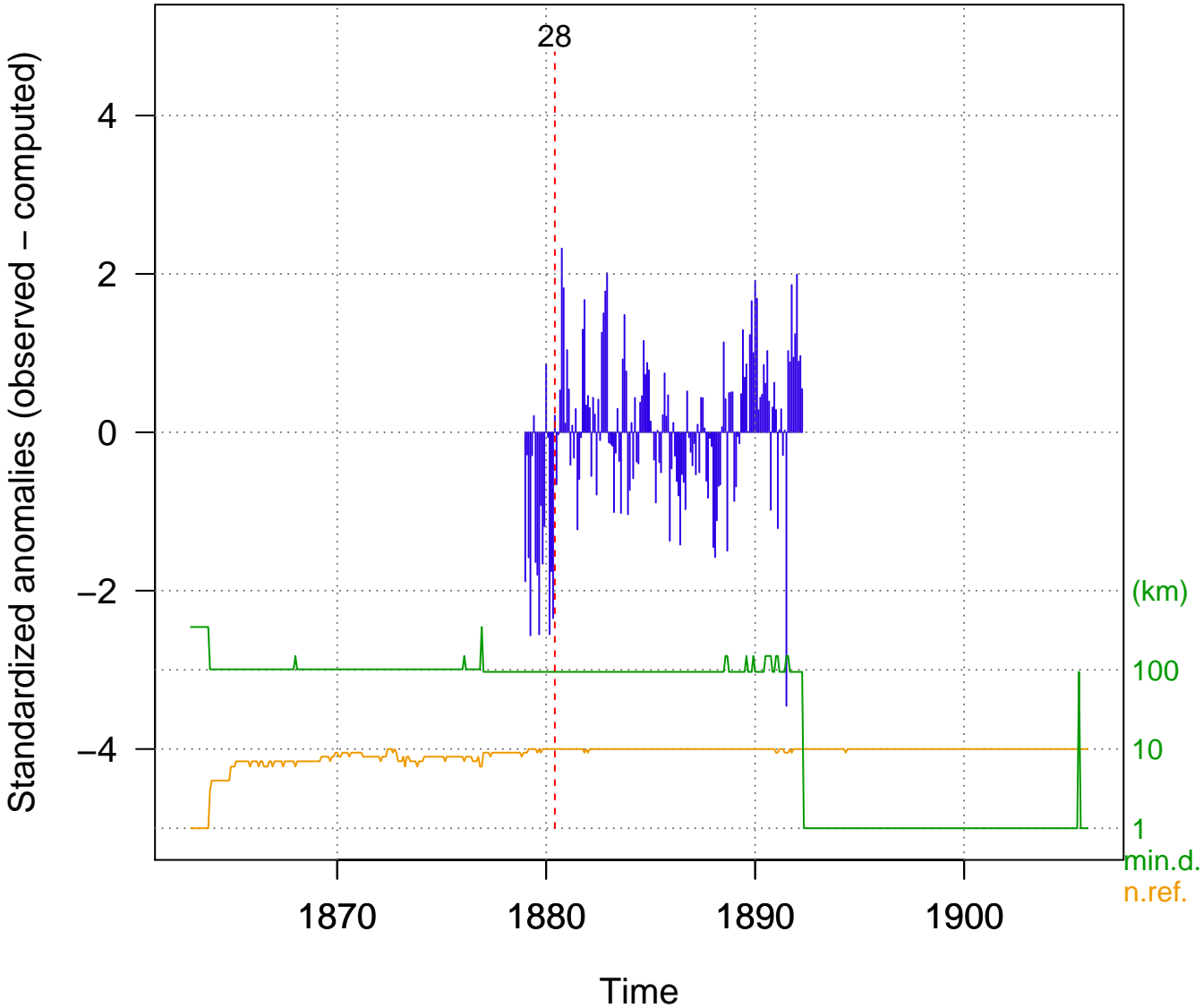
O3 6 (Serra_da_Estrella) Serra da Estrella



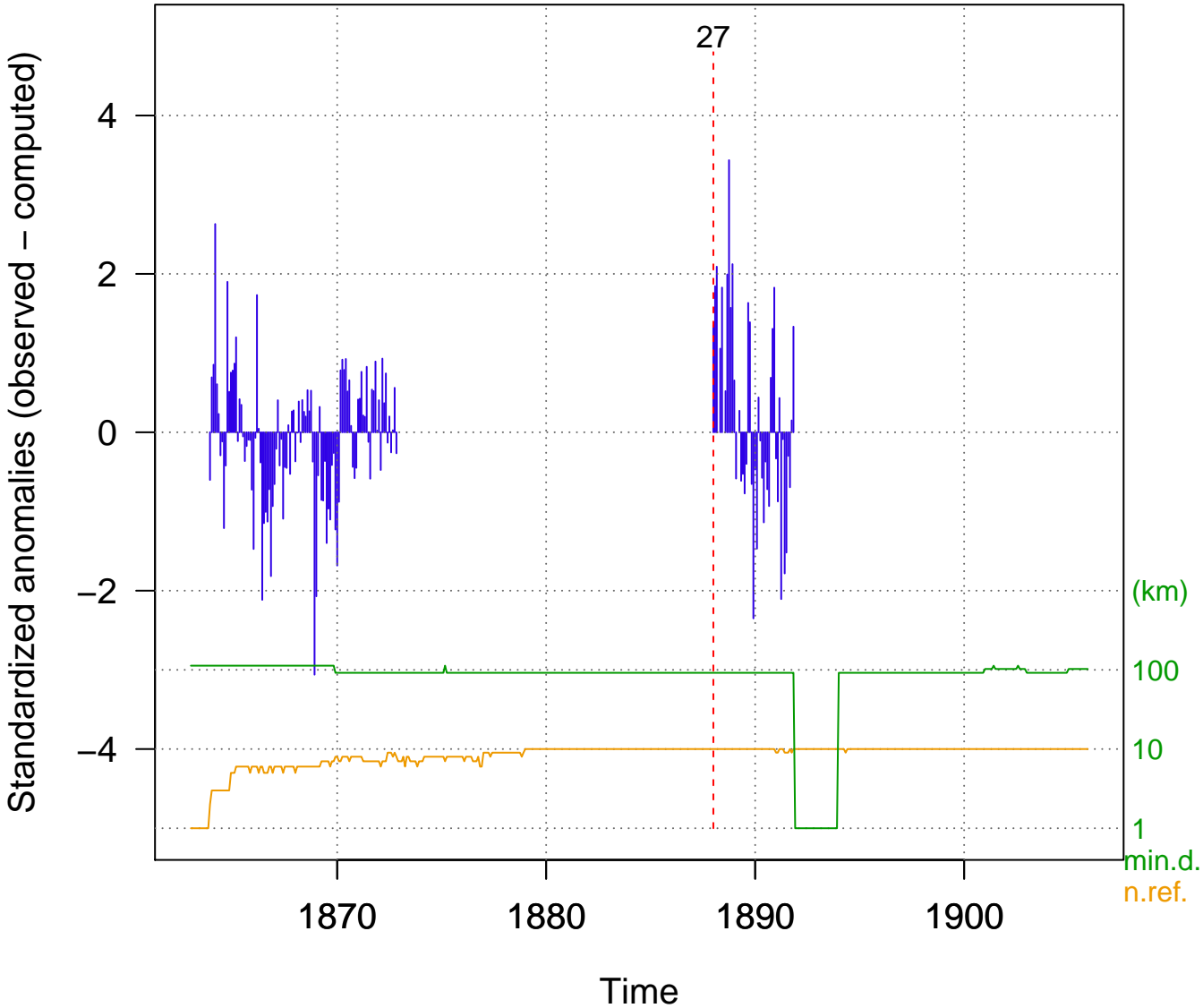
O3 28 (Evora-2) Evora-2



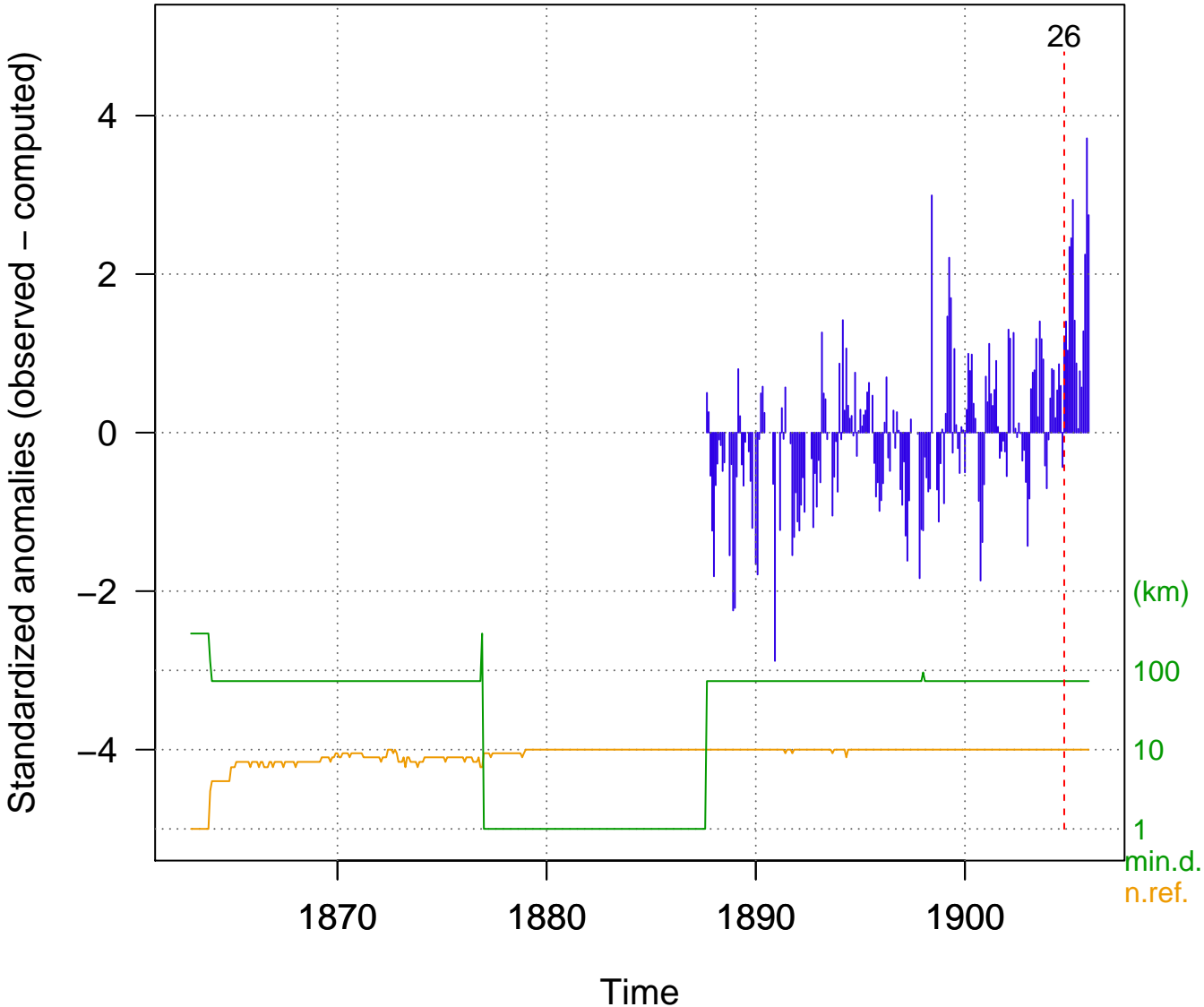
O3 27 (Montalegre-2)
Montalegre-2



O3 38 (Campo_Maior-2) Campo Maior-2

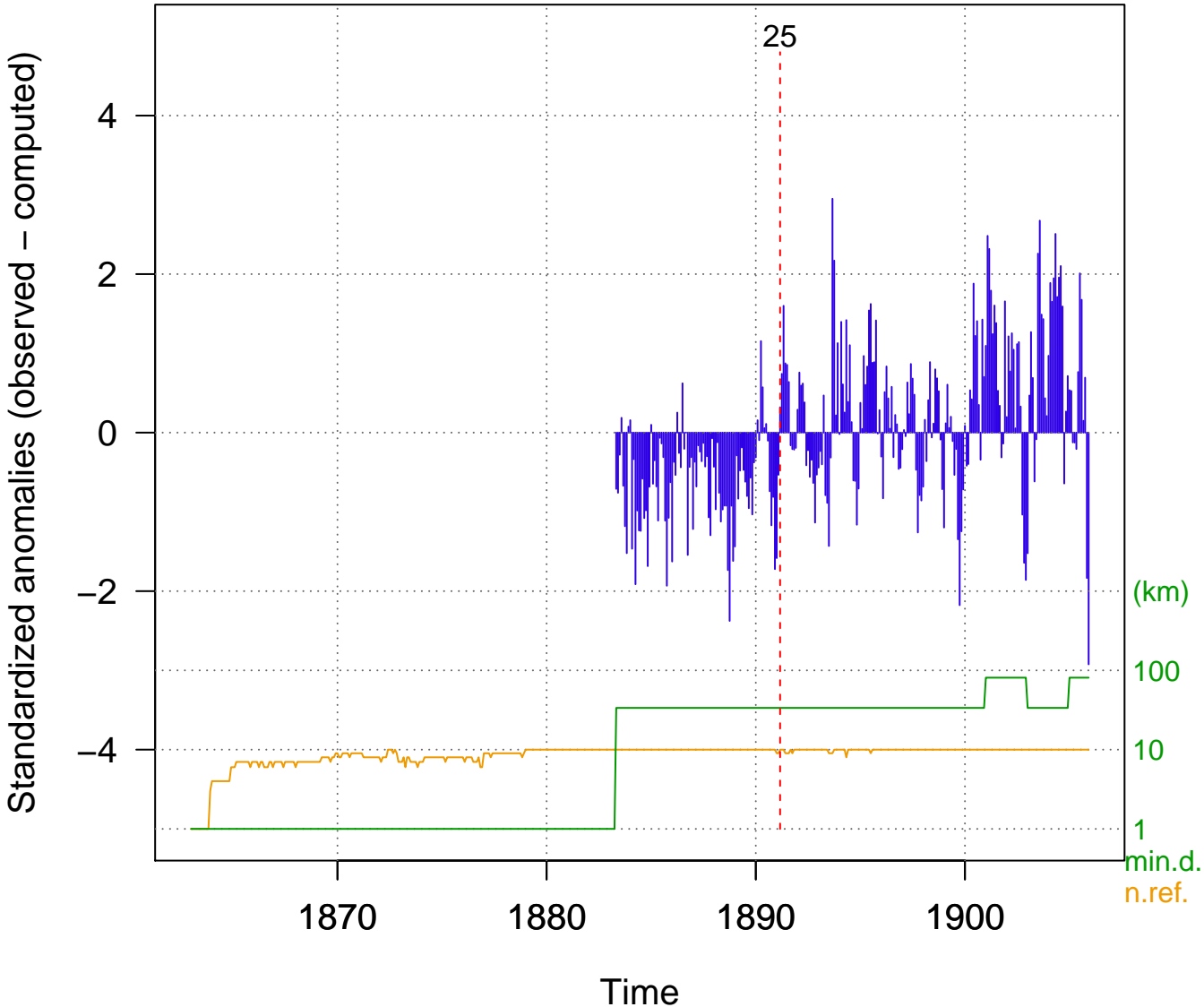


O3 2 (Moncorvo) Moncorvo



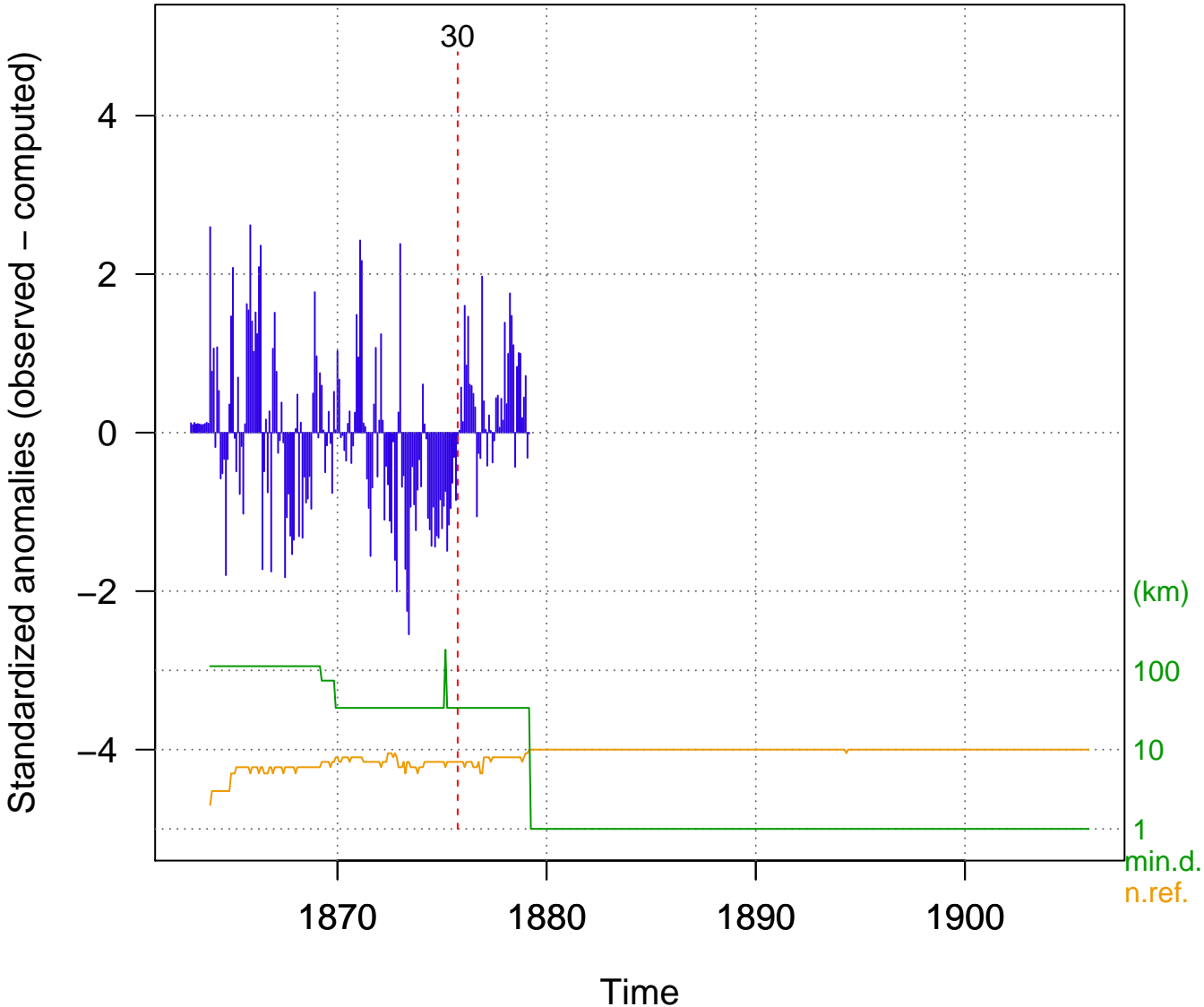
O3 10 (Infante_D_Luiz)

Lisbon Infante D. Luiz

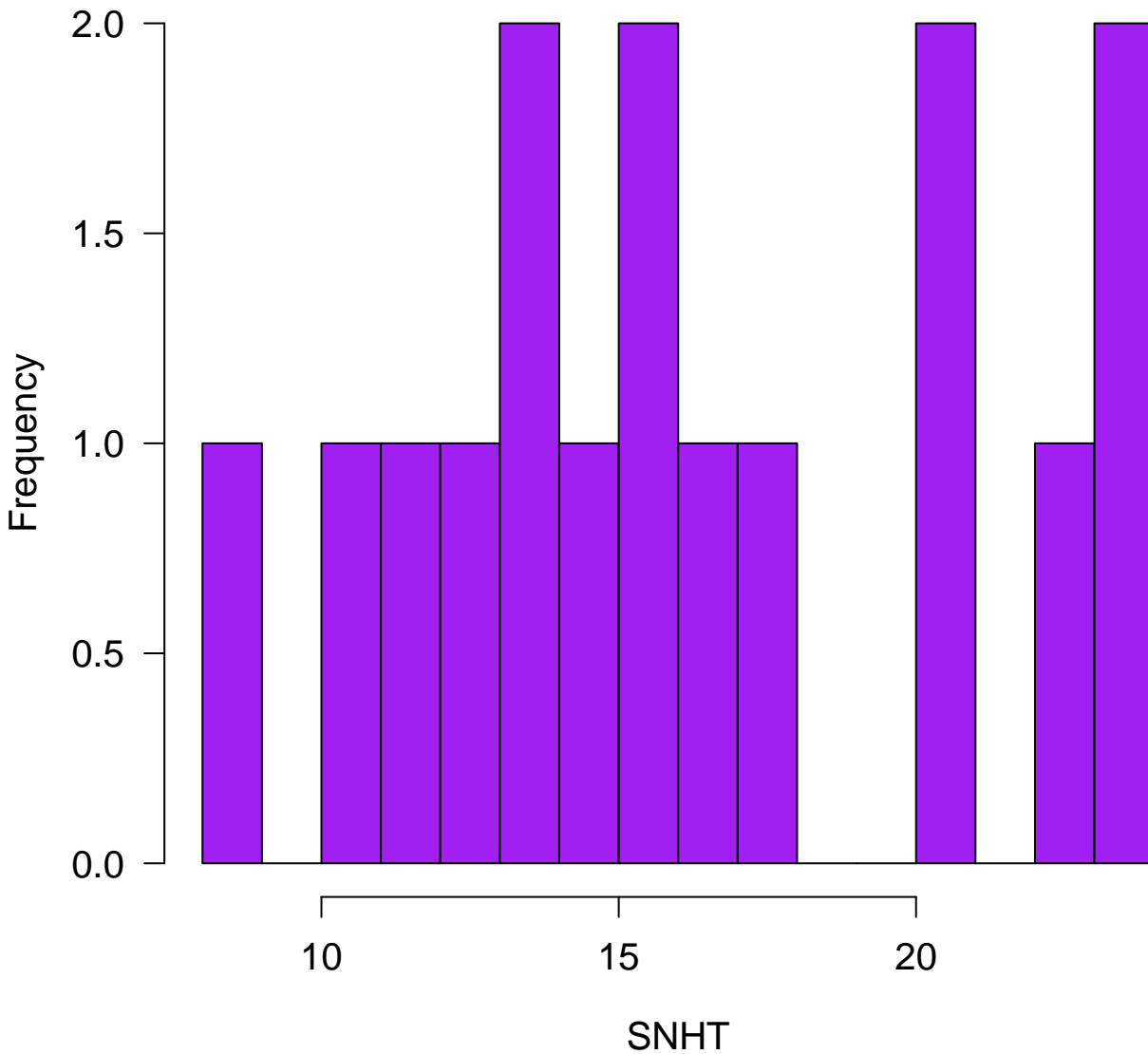


O3 26 (Infante_D_Luiz-2)

Lisbon Infante D. Luiz-2



Histogram of maximum SNHT (Stage 1)

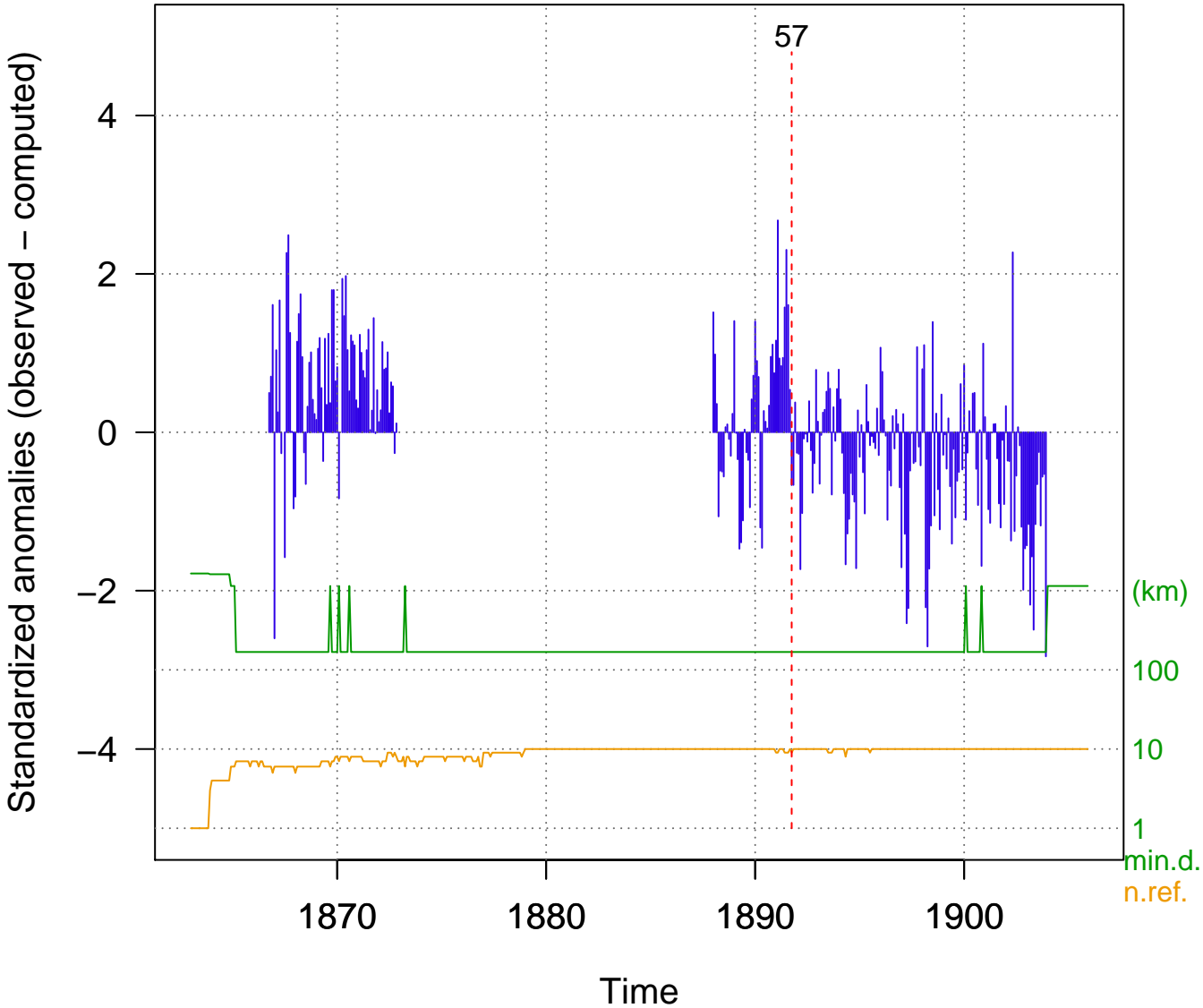


Stage 2

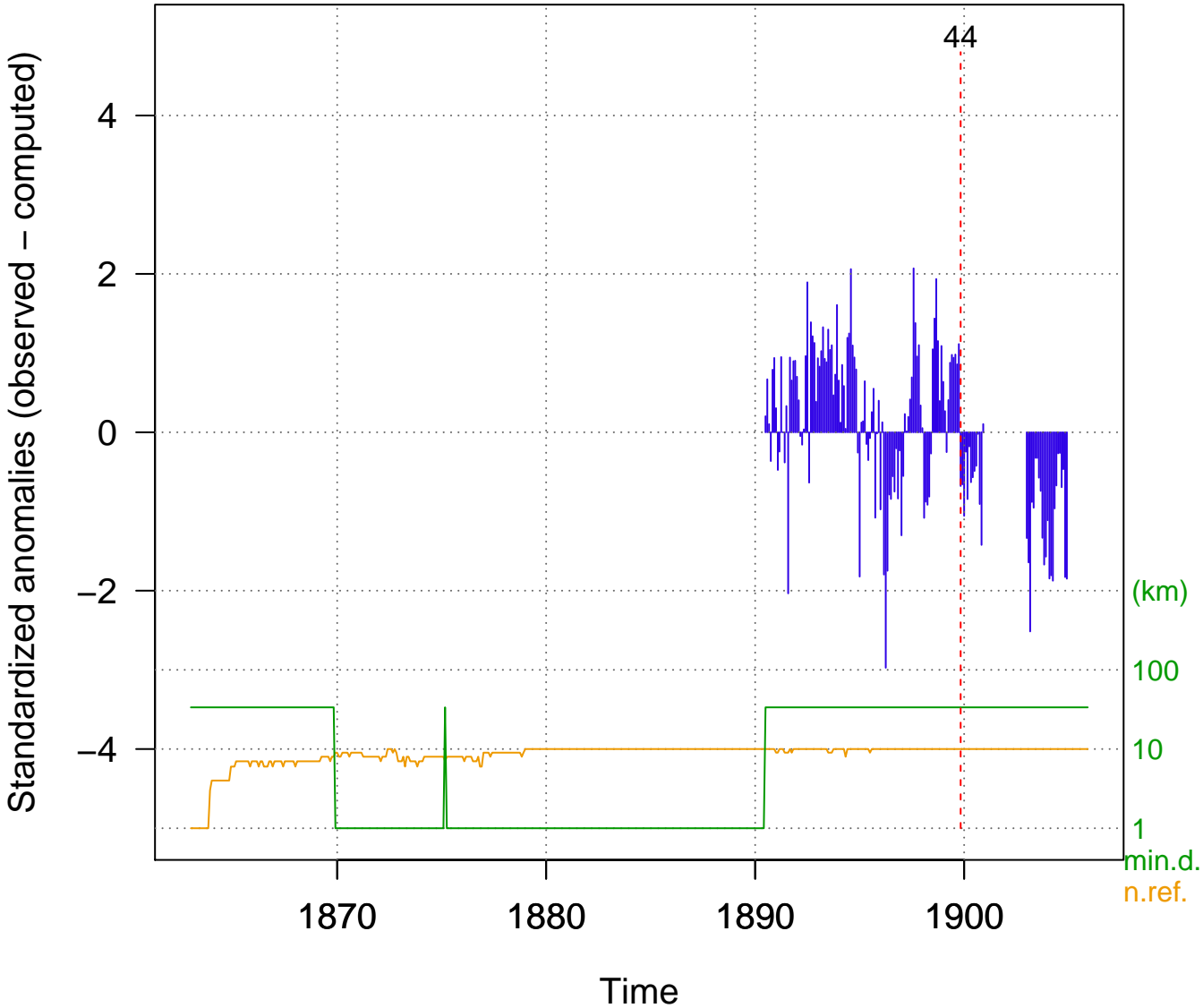
Binary splits on
whole series with
 $\text{std}=3$, $\text{SNHT}>25$
and $\text{wd}=1000$ km

O3 11 (Angra_do_Heroismo)

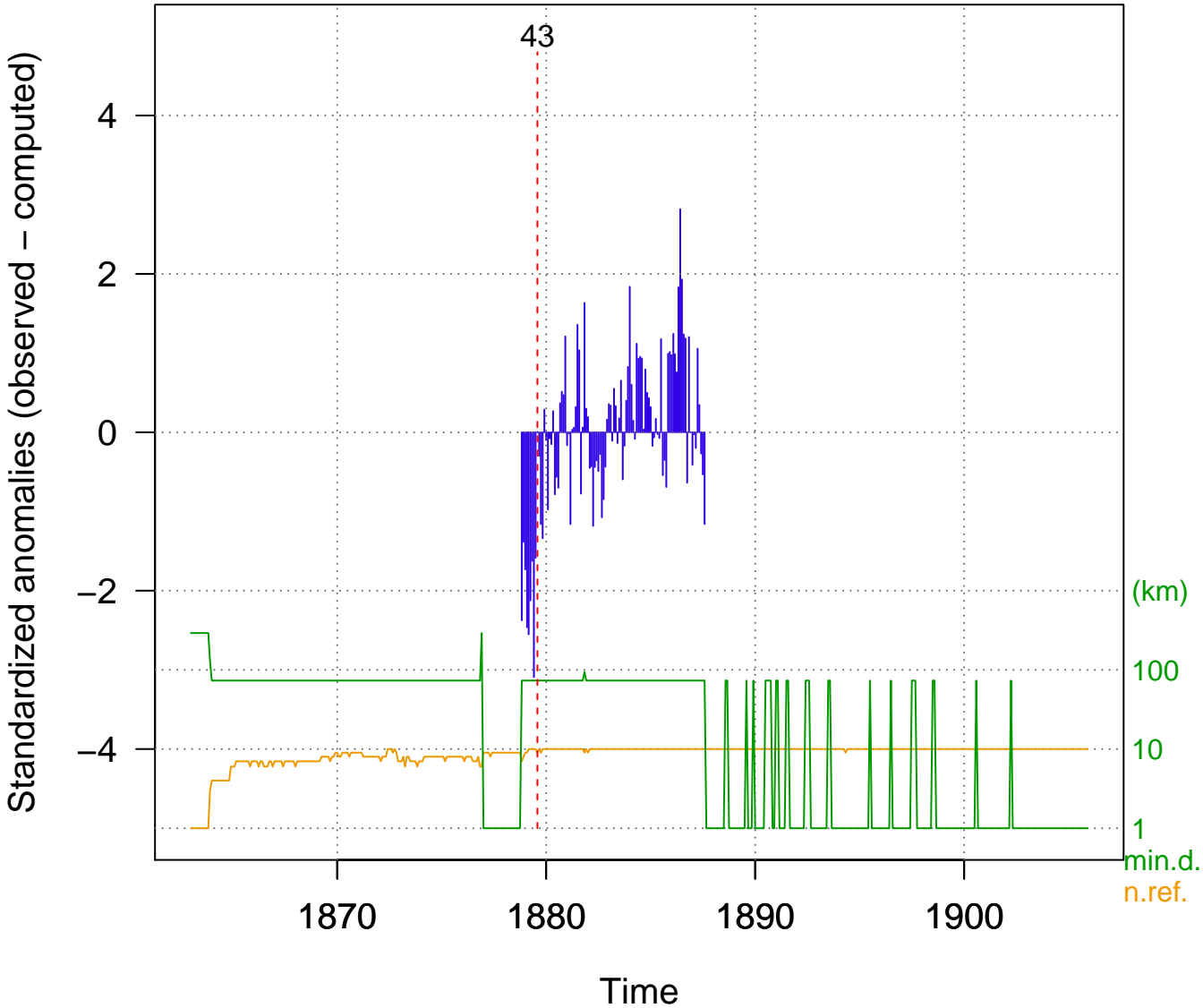
Angra do Heroismo



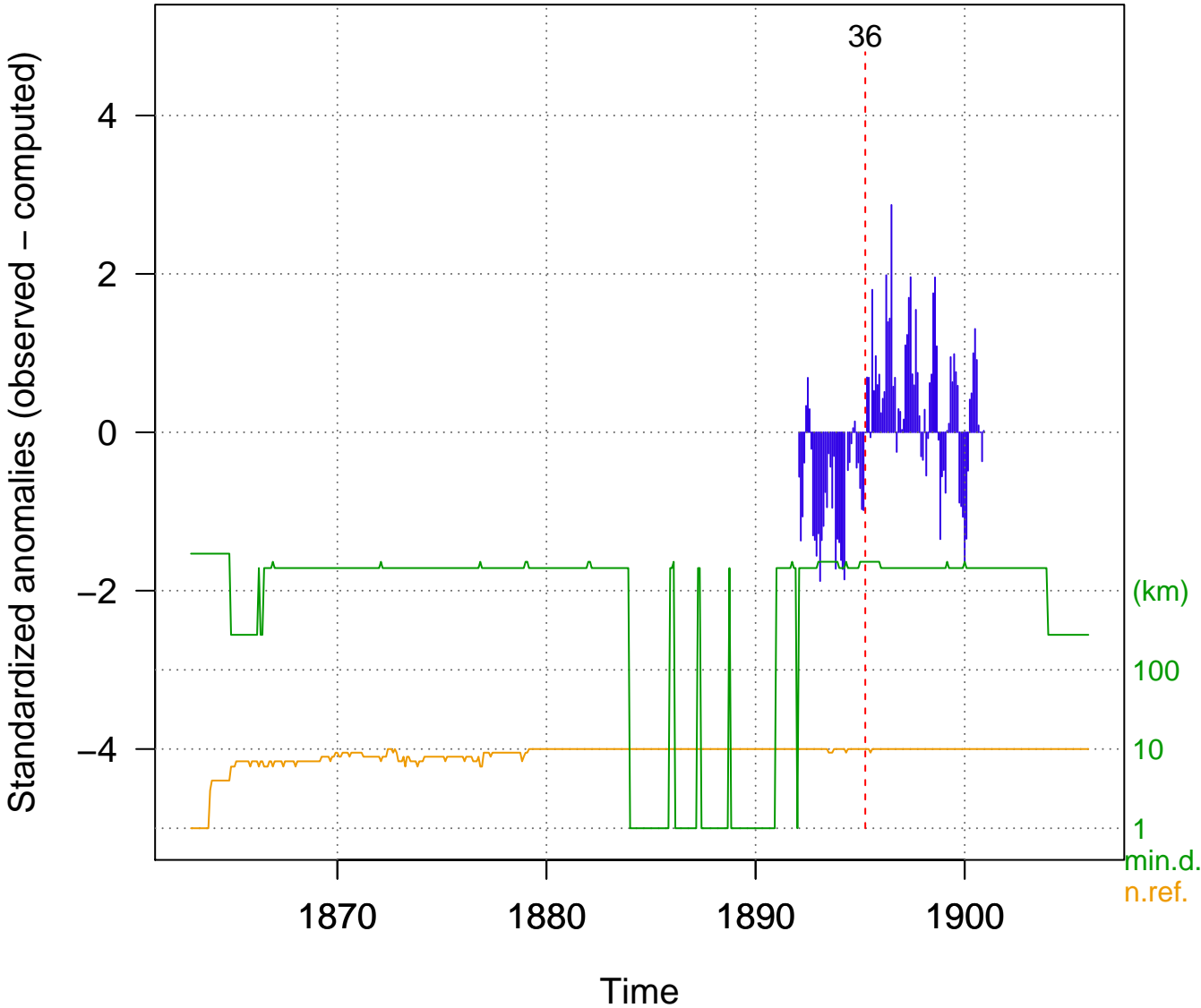
O3 12 (Evora) Evora



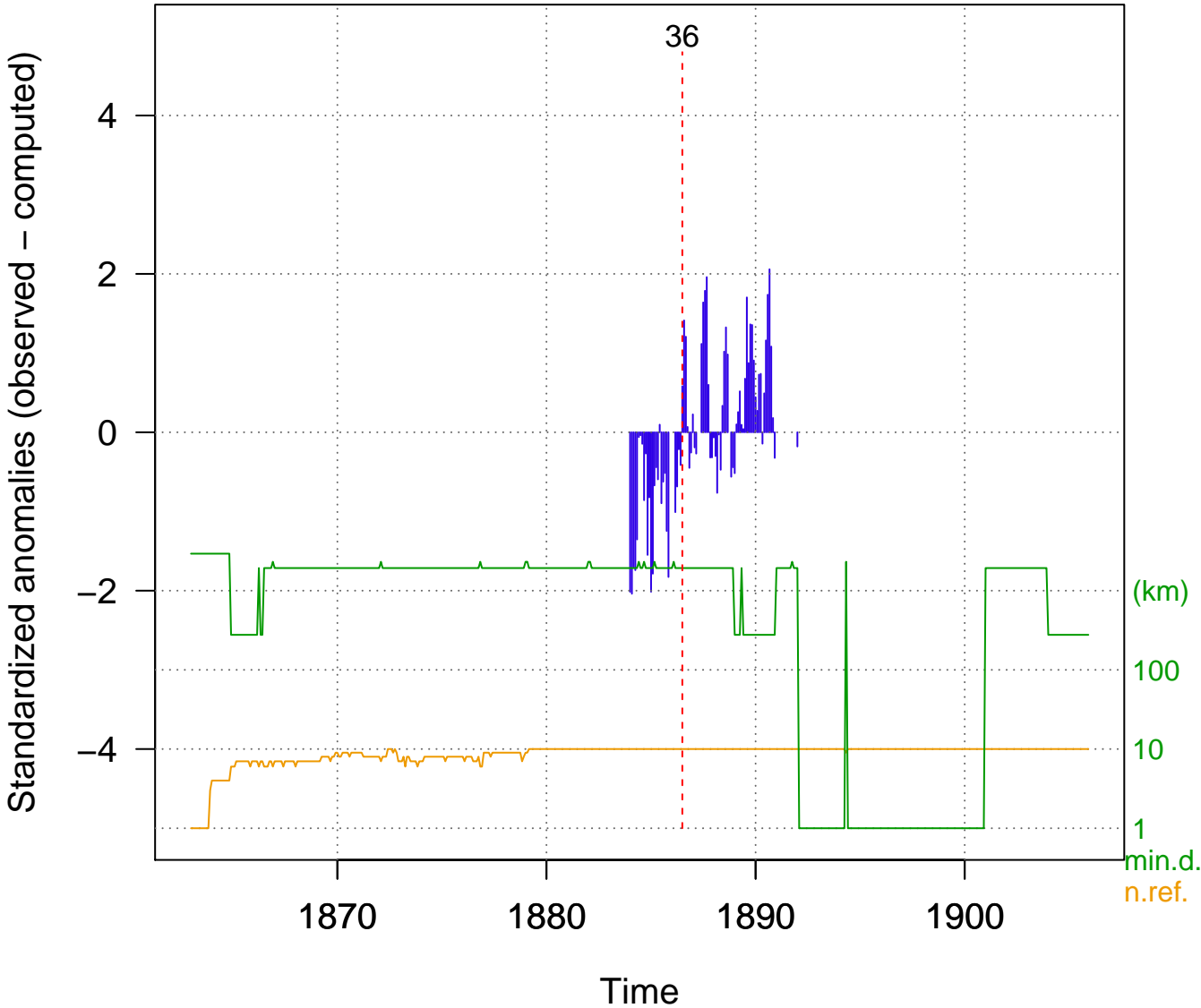
O3 24 (Moncorvo-2) Moncorvo-2



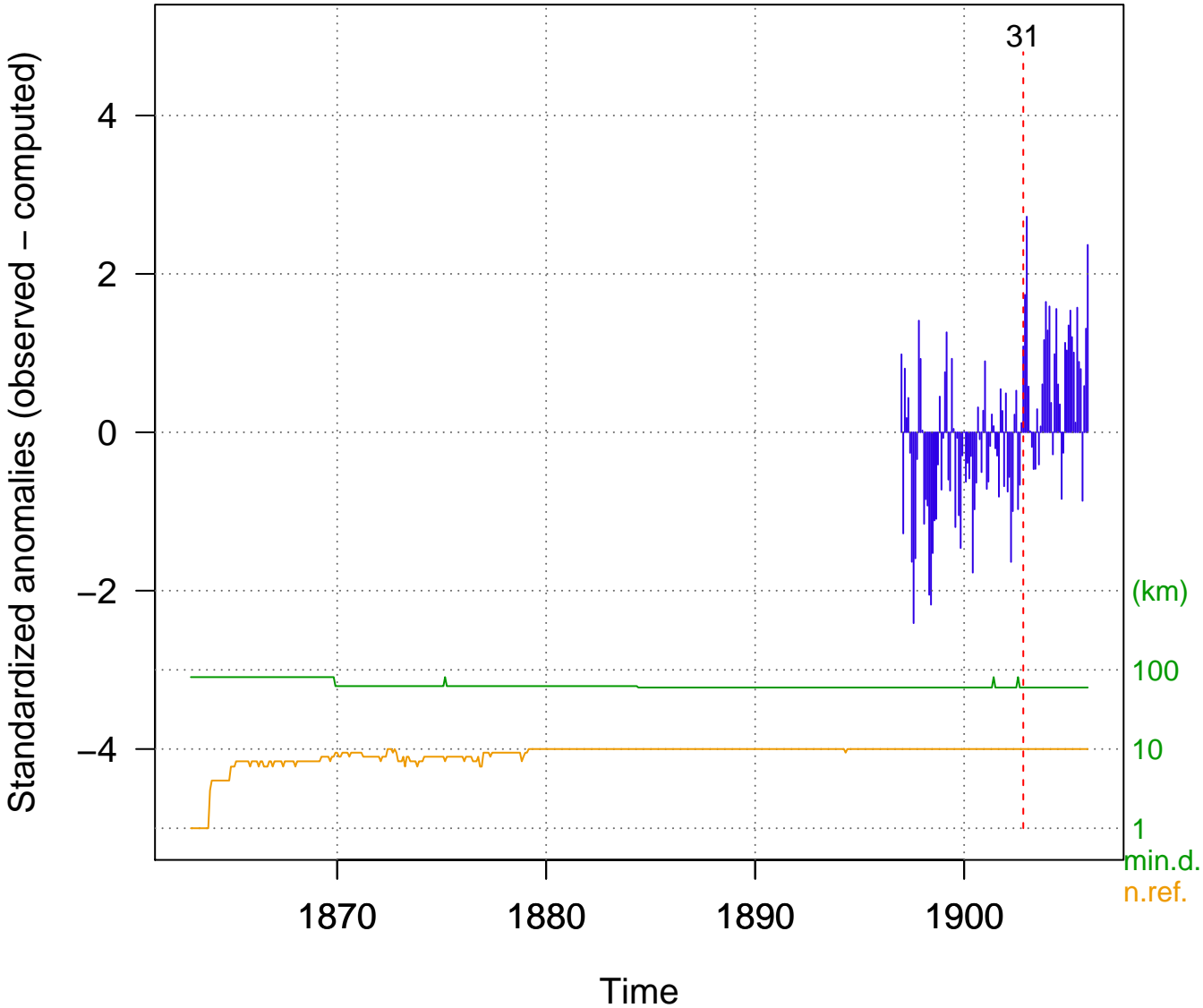
O3 19 (S._Vicente) S. Vicente



O3 42 (S._Vicente-2)
S. Vicente-2



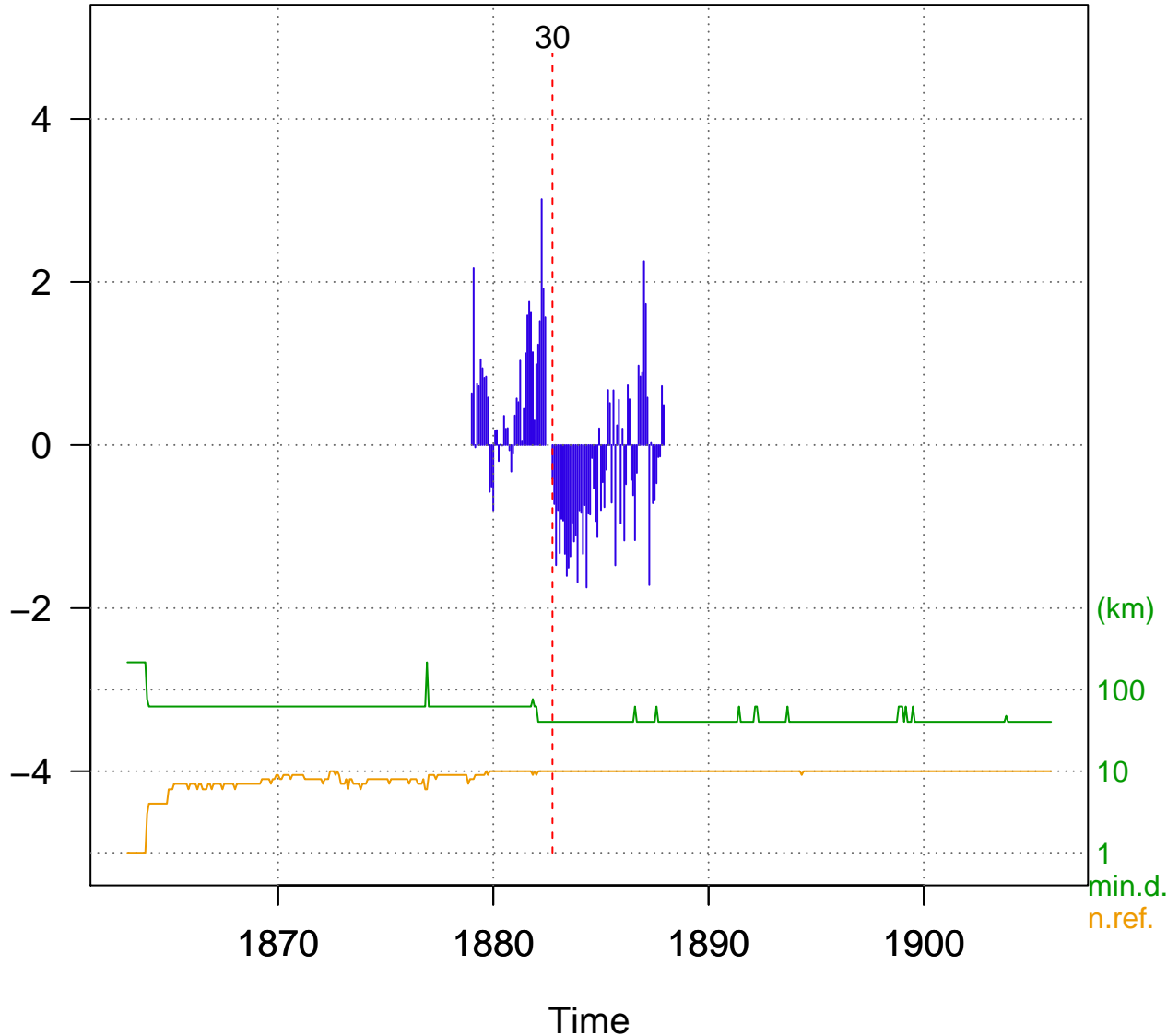
O3 14 (Beja) Beja



O3 4 (Vizeu)

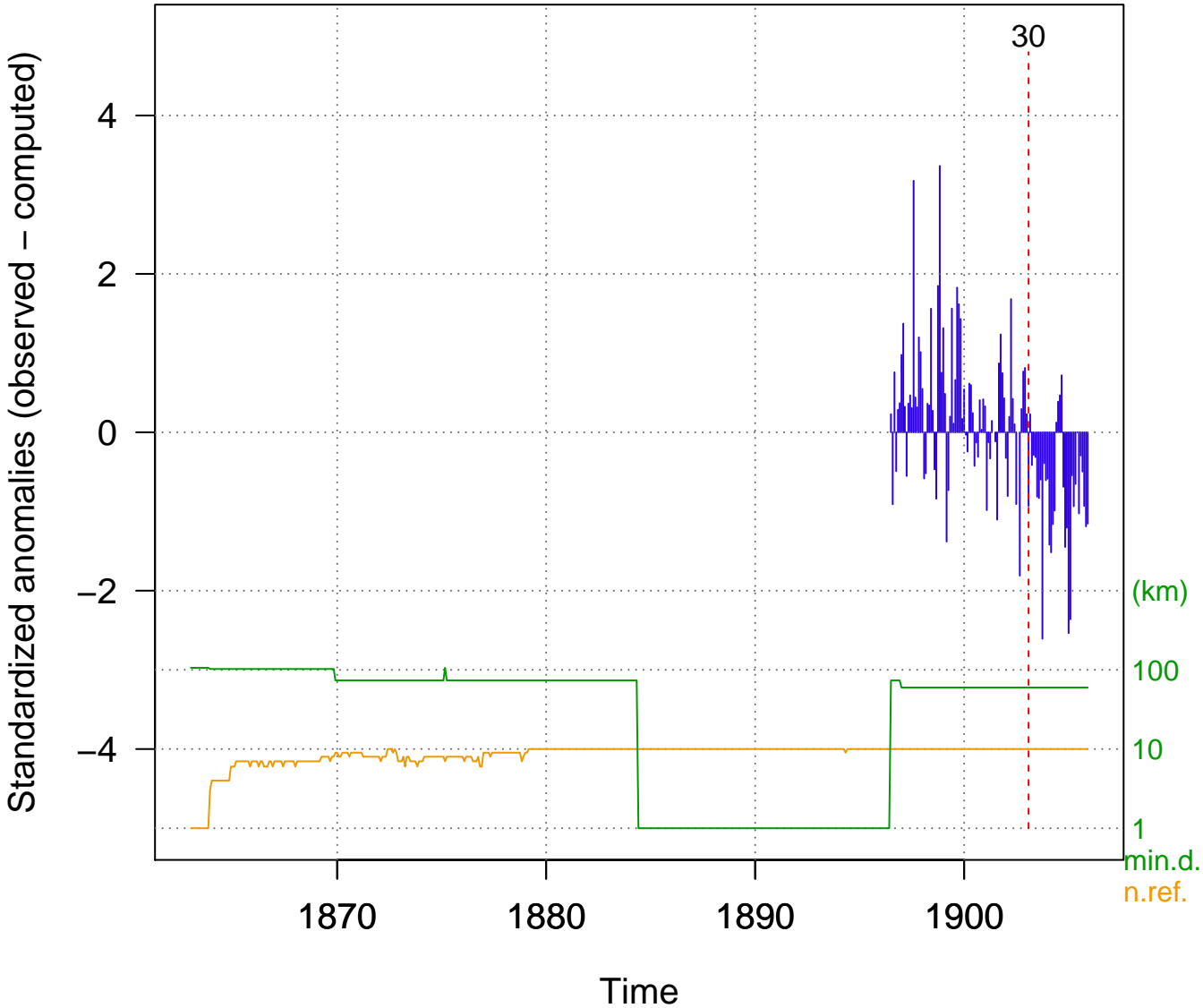
Vizeu

Standardized anomalies (observed - computed)

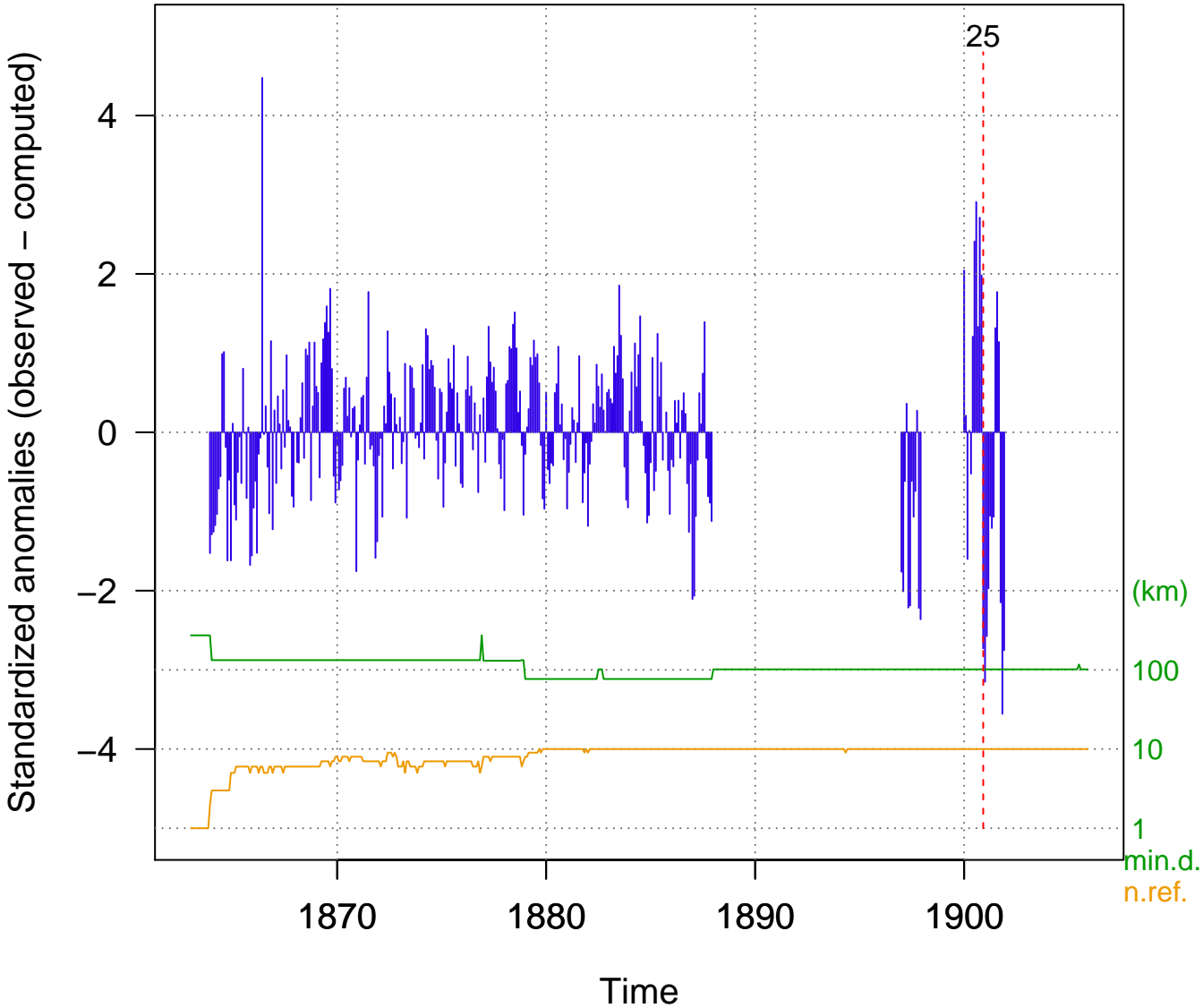


O3 13 (Villa_Fernando)

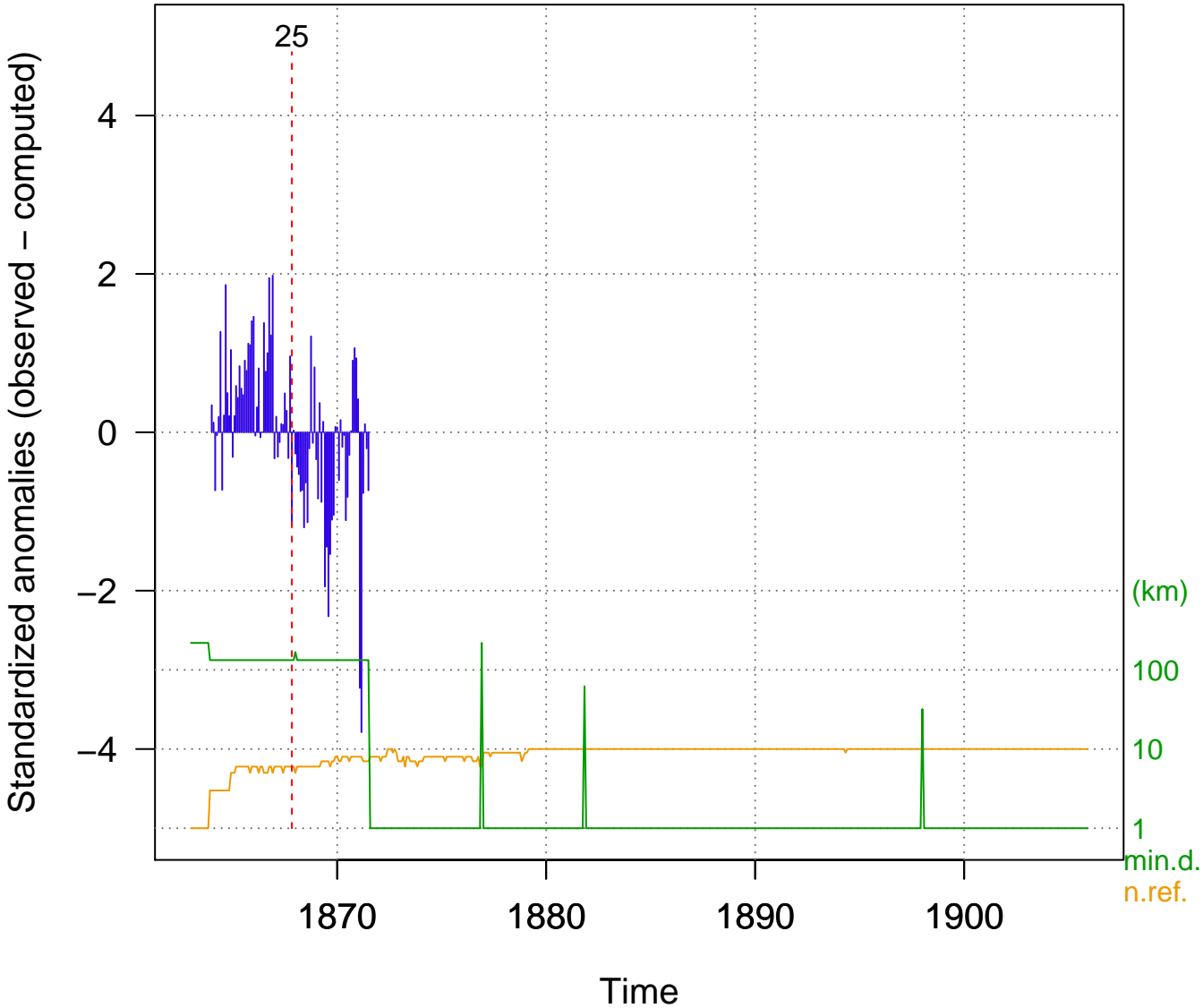
Villa Fernando



O3 3 (Porto) Porto

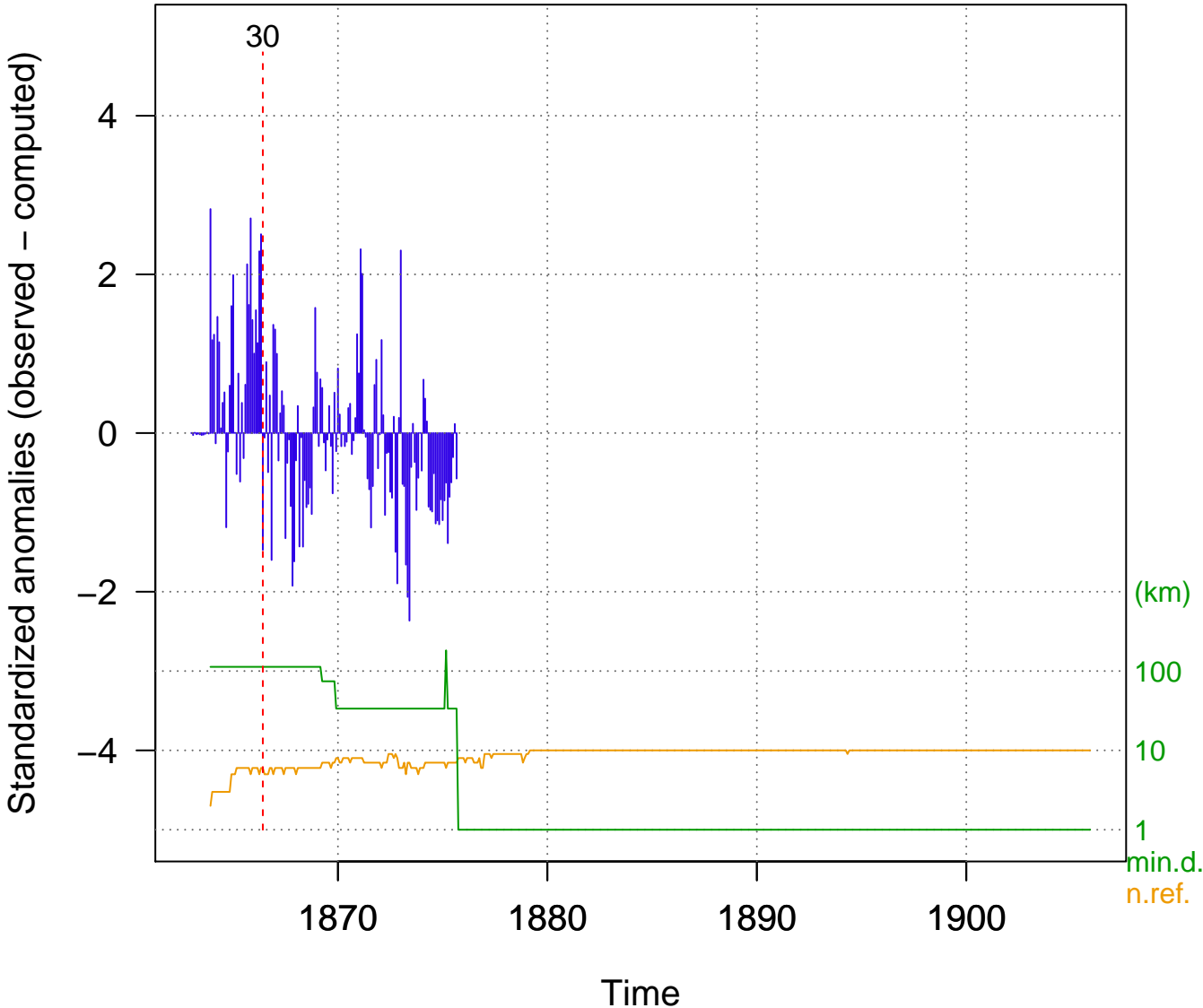


O3 40 (Guarda-4) Guarda-4

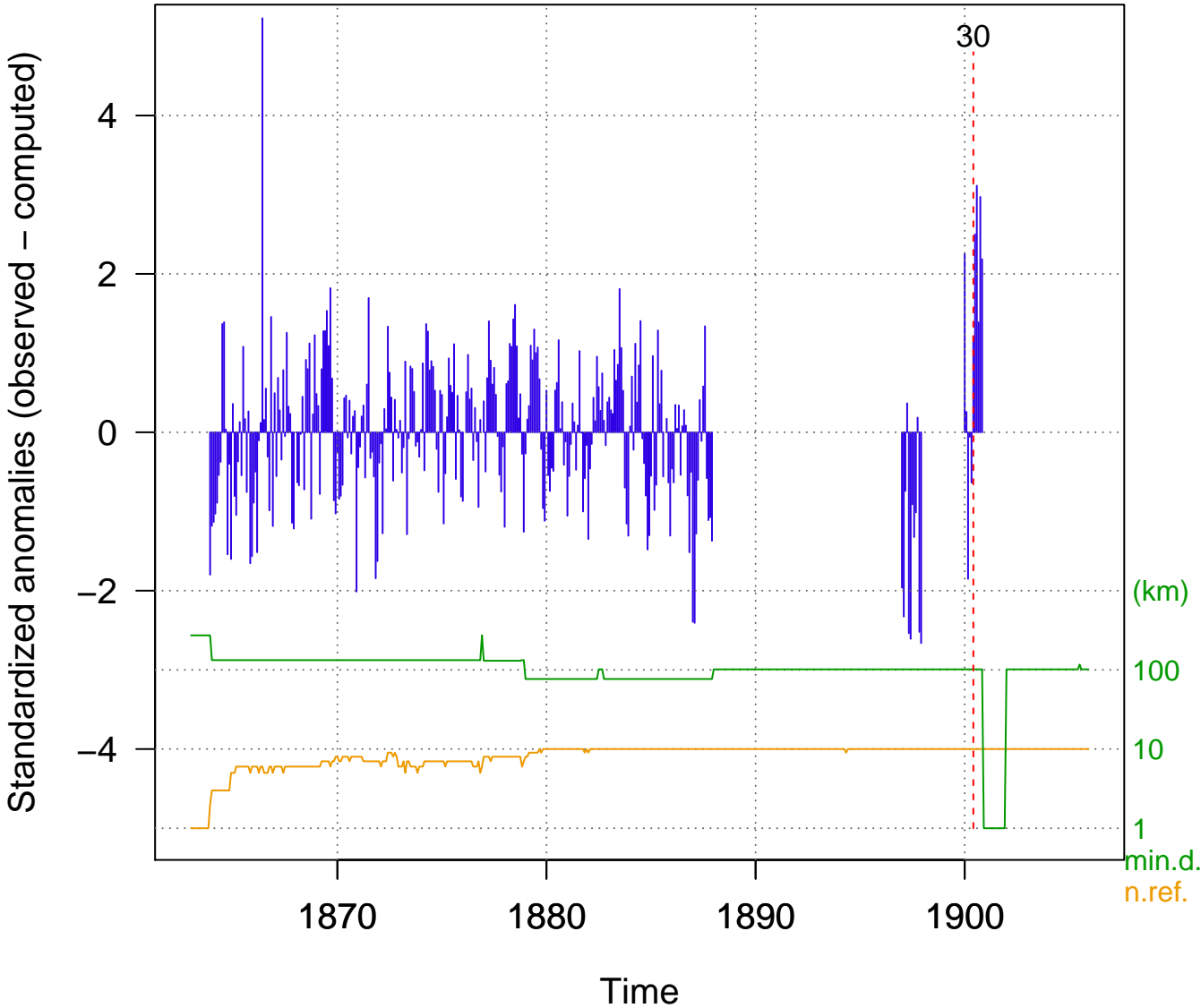


O3 50 (Infante_D_Luiz-5)

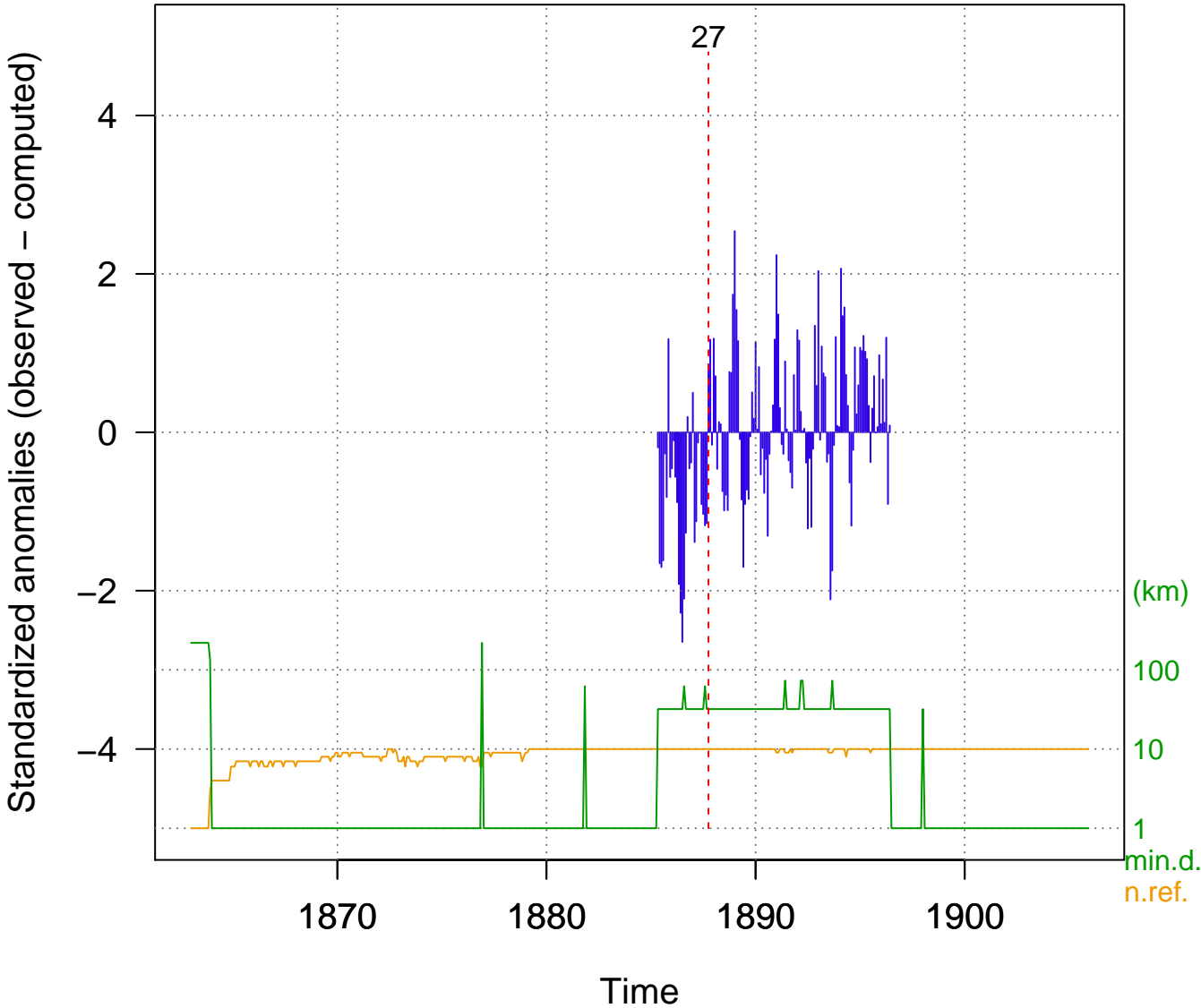
Lisbon Infante D. Luiz-5



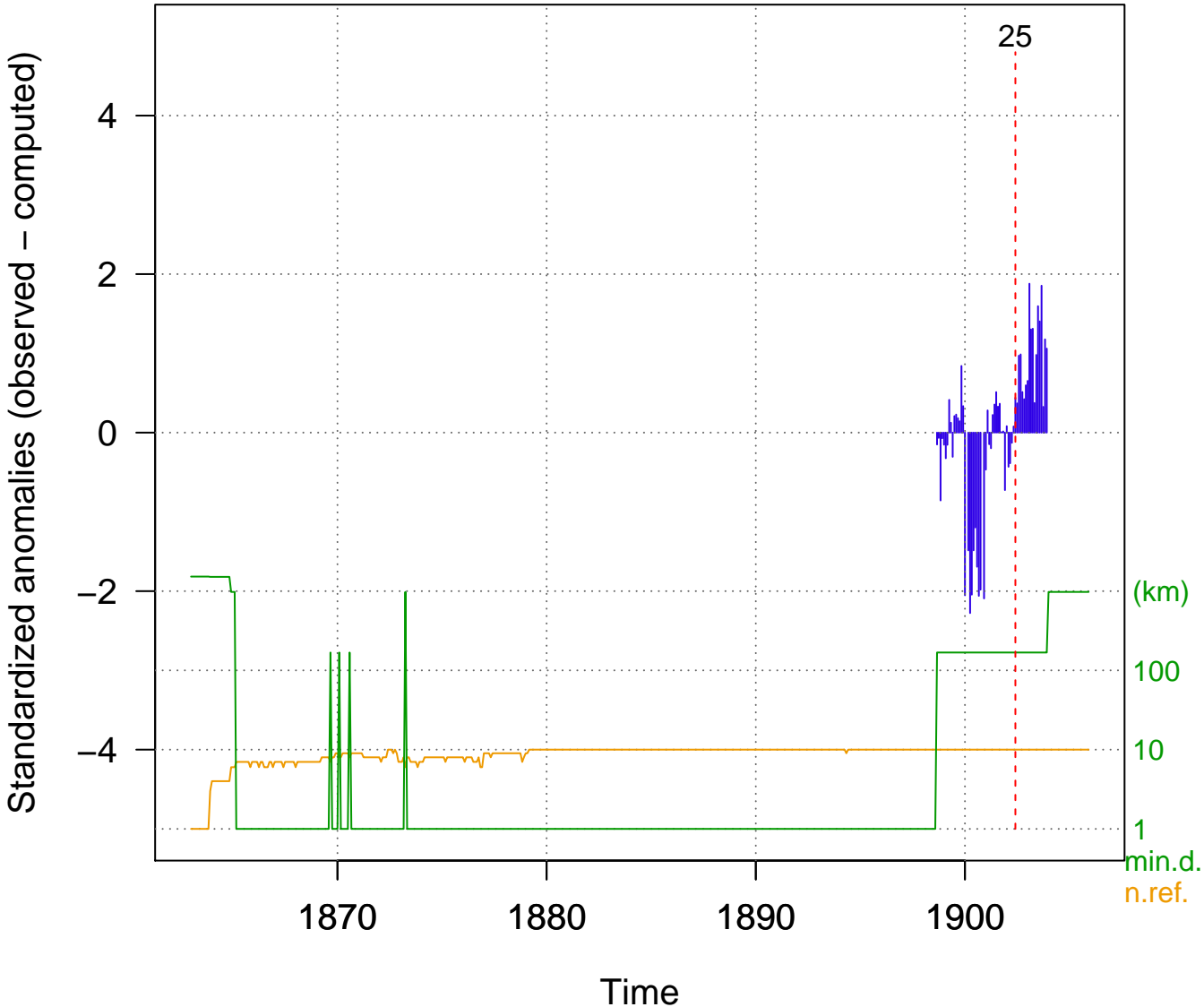
O3 58 (Porto-2) Porto-2



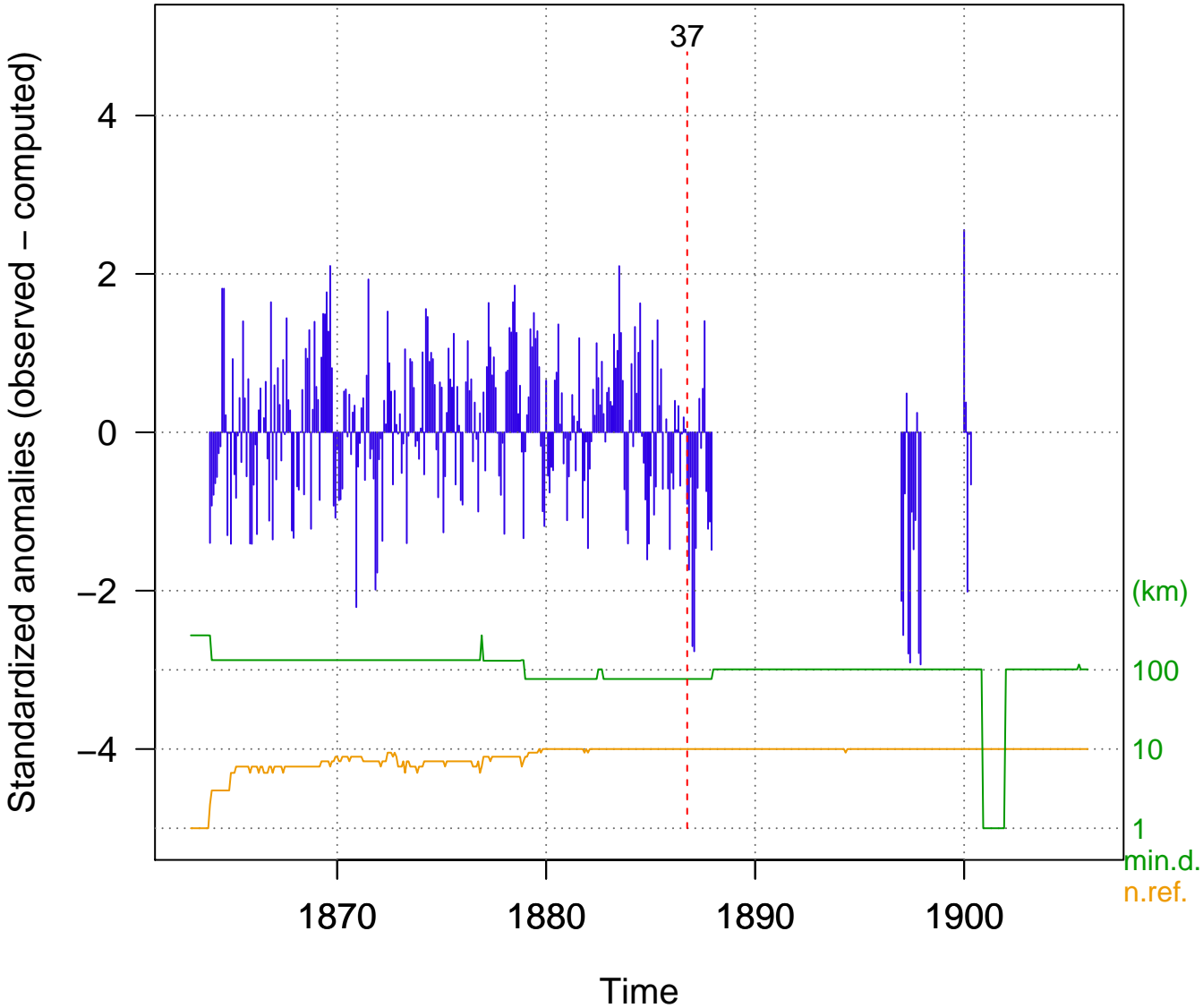
O3 33 (Guarda-2)
Guarda-2



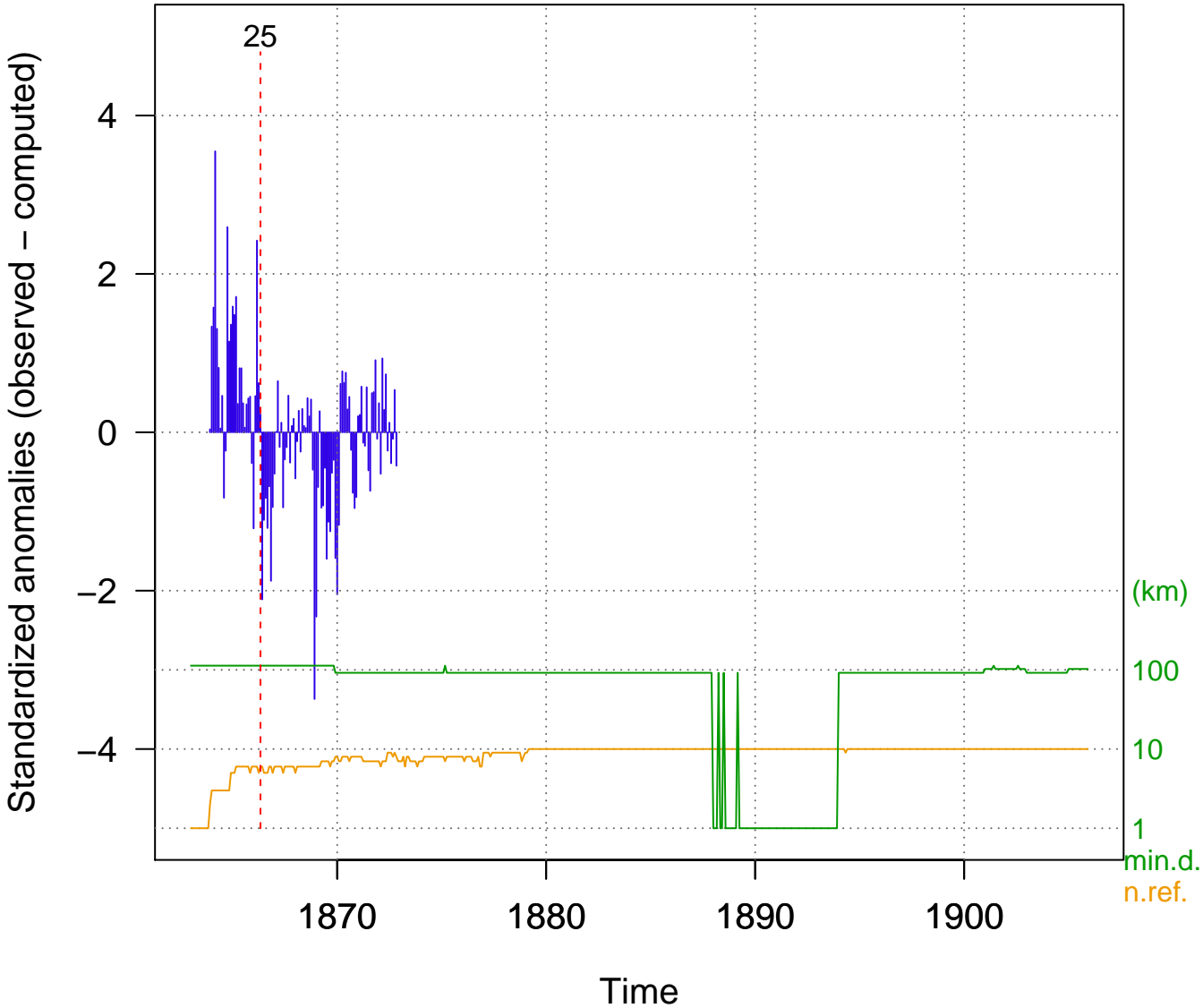
O3 15 (Ponta_Delgada) Ponta Delgada



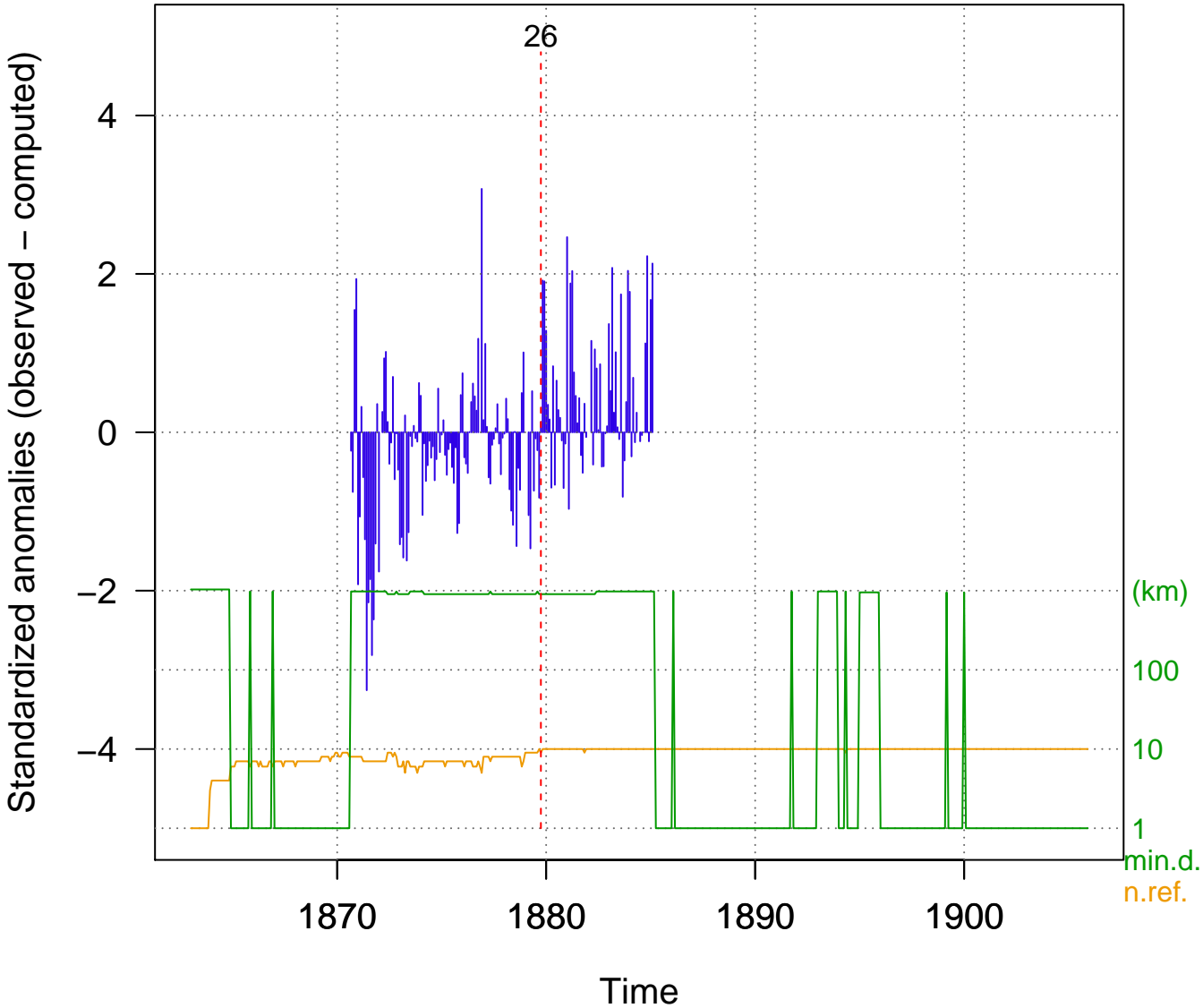
O3 58 (Porto-2) Porto-2



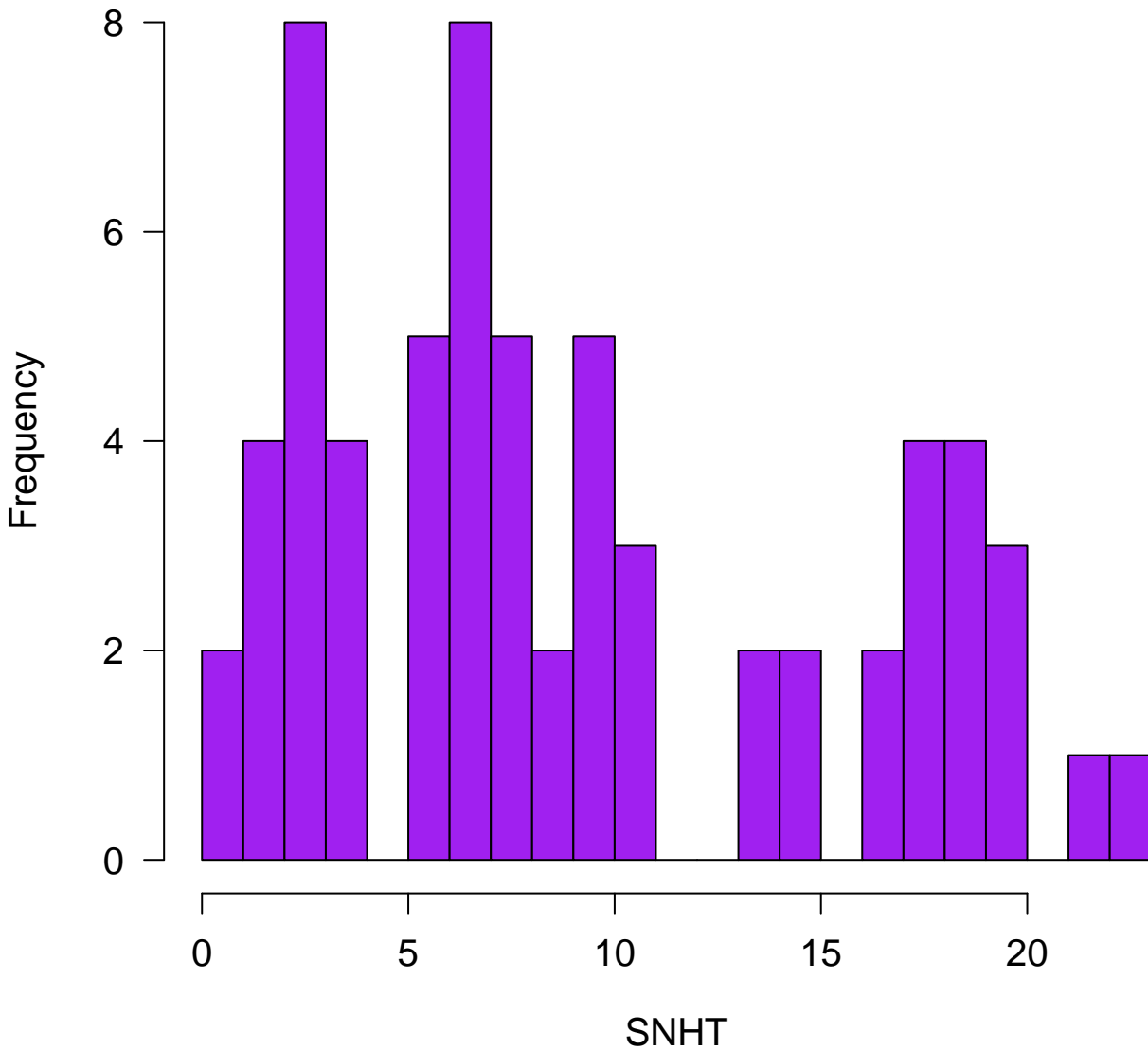
O3 47 (Campo_Maior-3)
Campo Maior-3



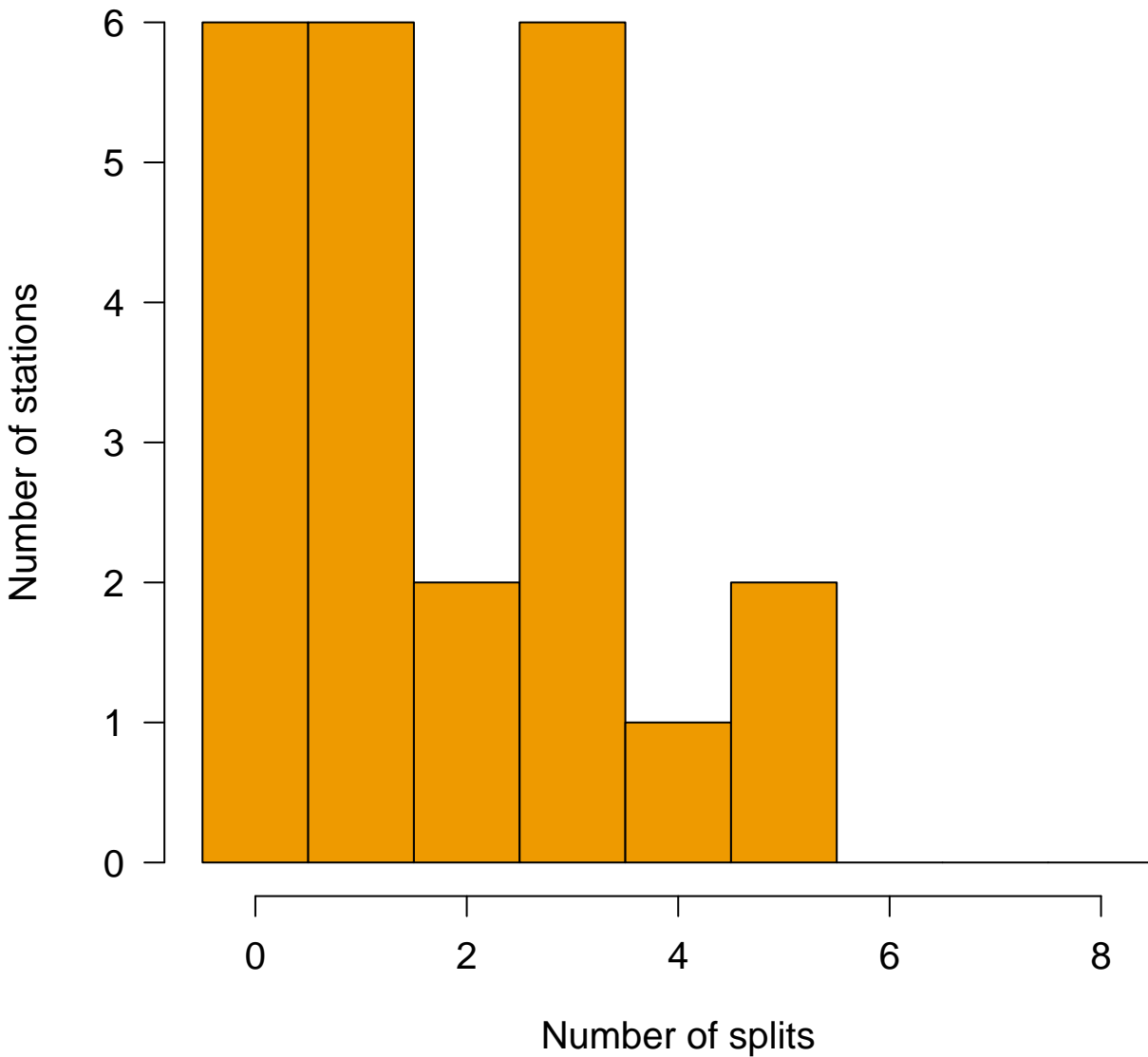
O3 35 (Funchal-2) Funchal-2



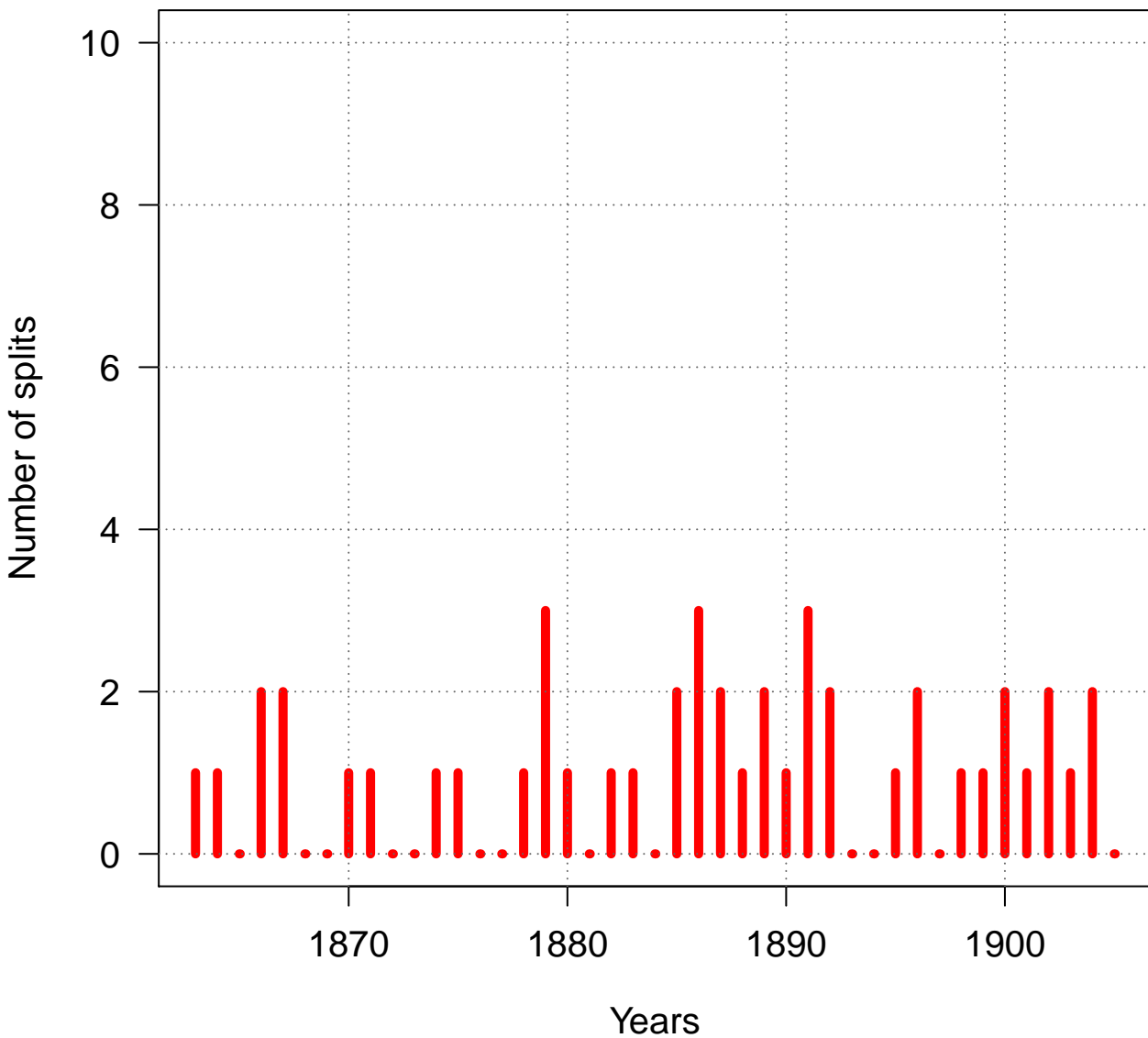
Histogram of maximum SNHT (Stage 2)



Number of splits per station



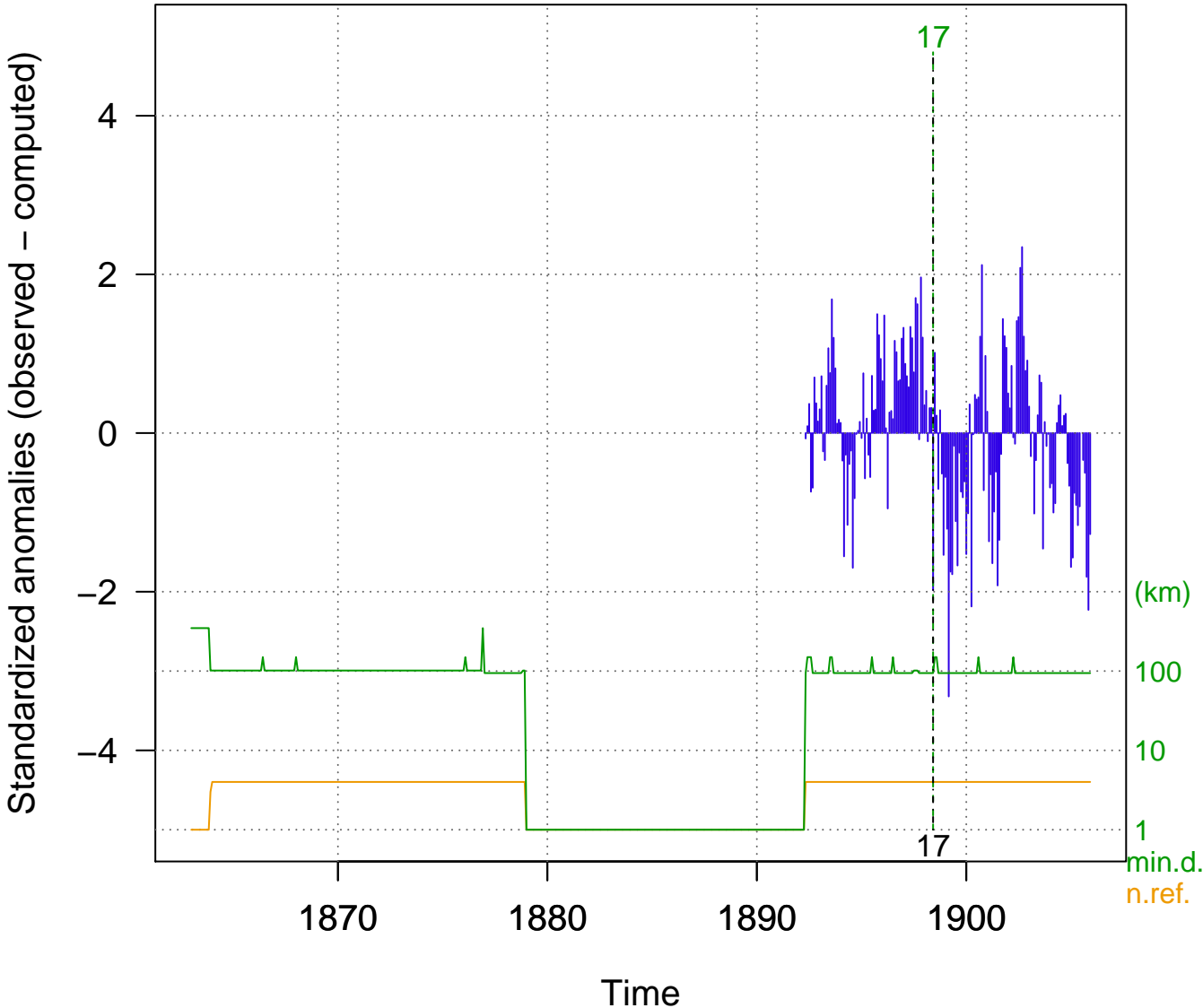
Number of splits per year



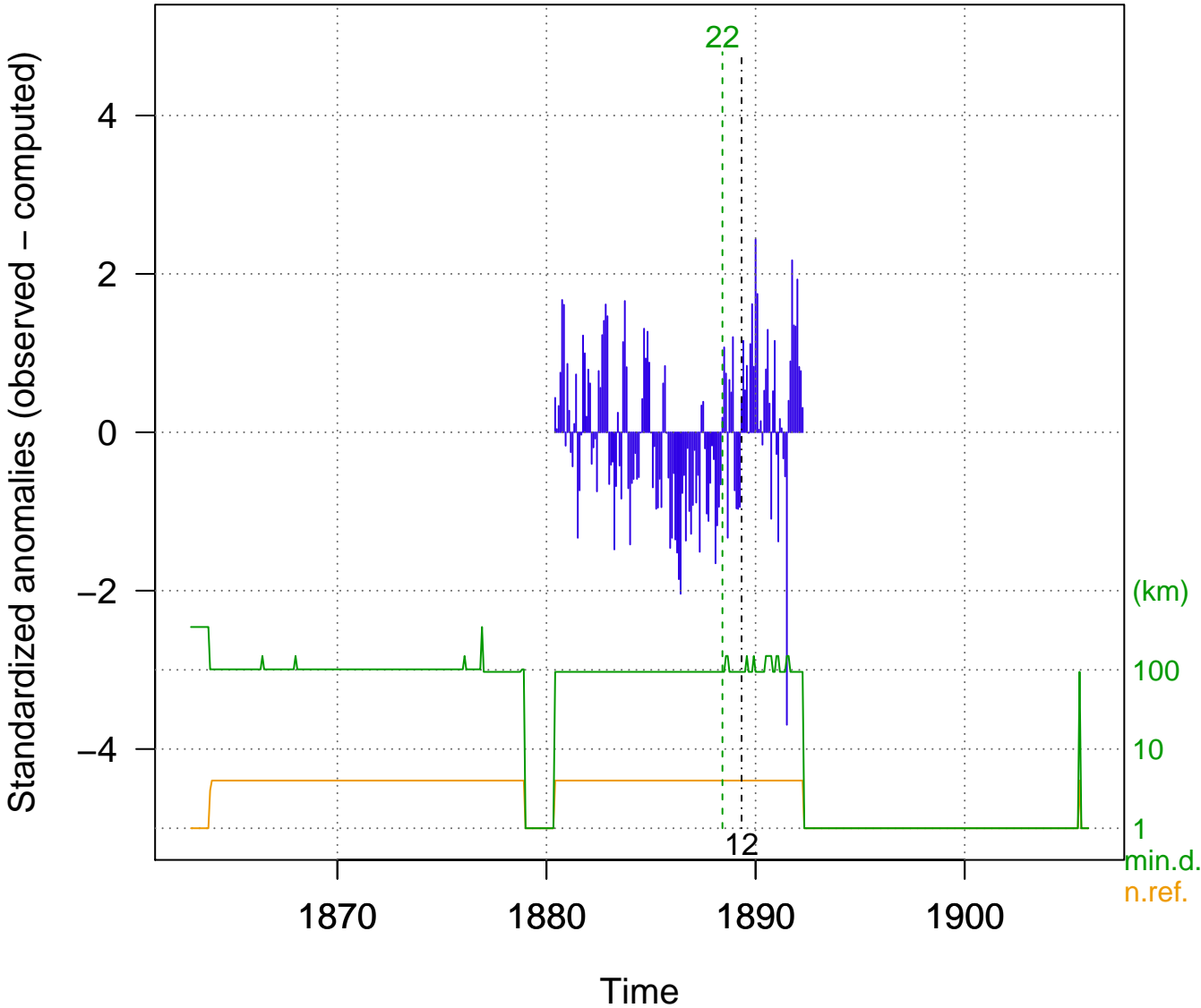
Stage 3

Final anomalies of the
homogenized series with
 $wd = 100$ km and $nref = 4$

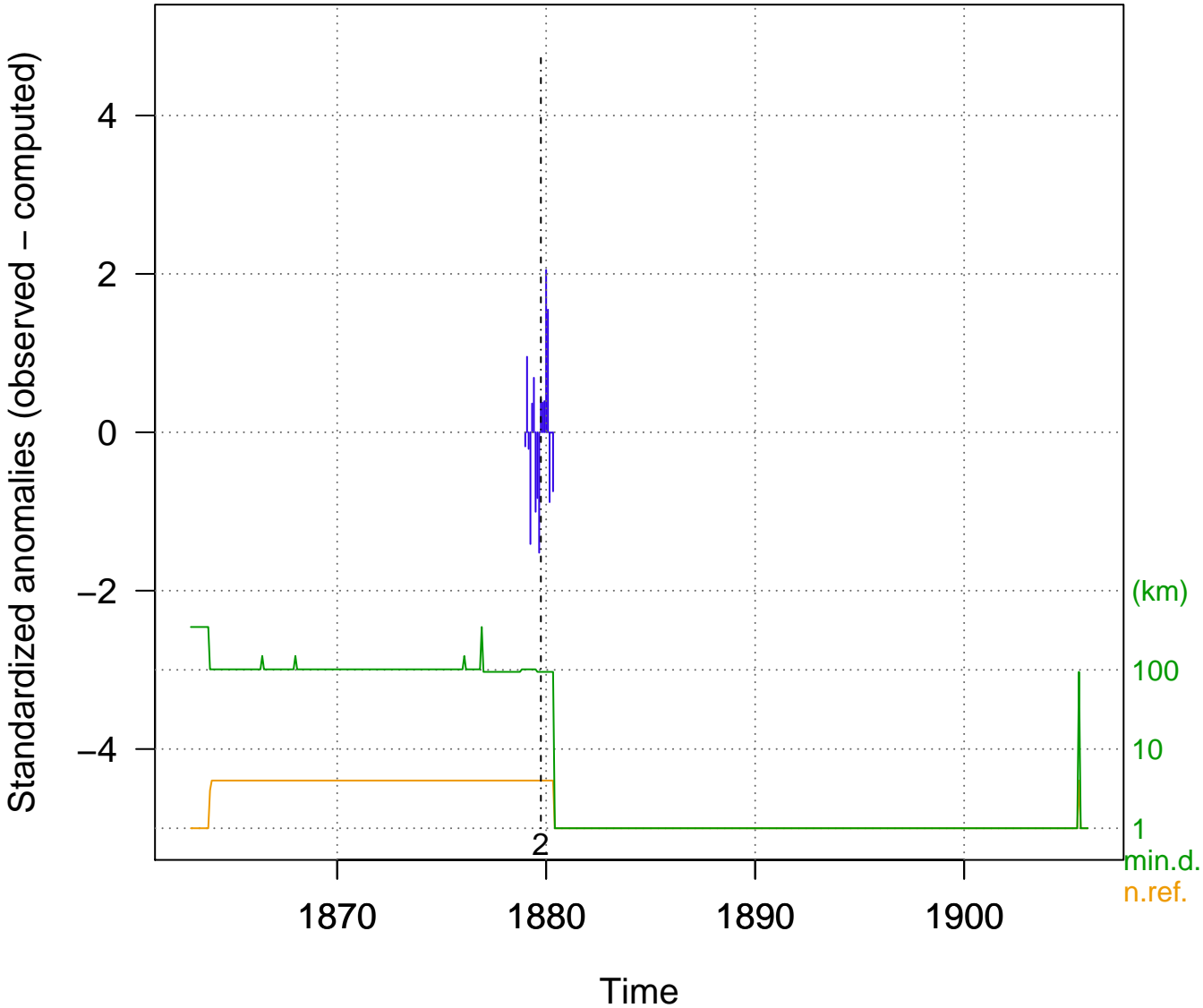
O3 1 (Montalegre) Montalegre



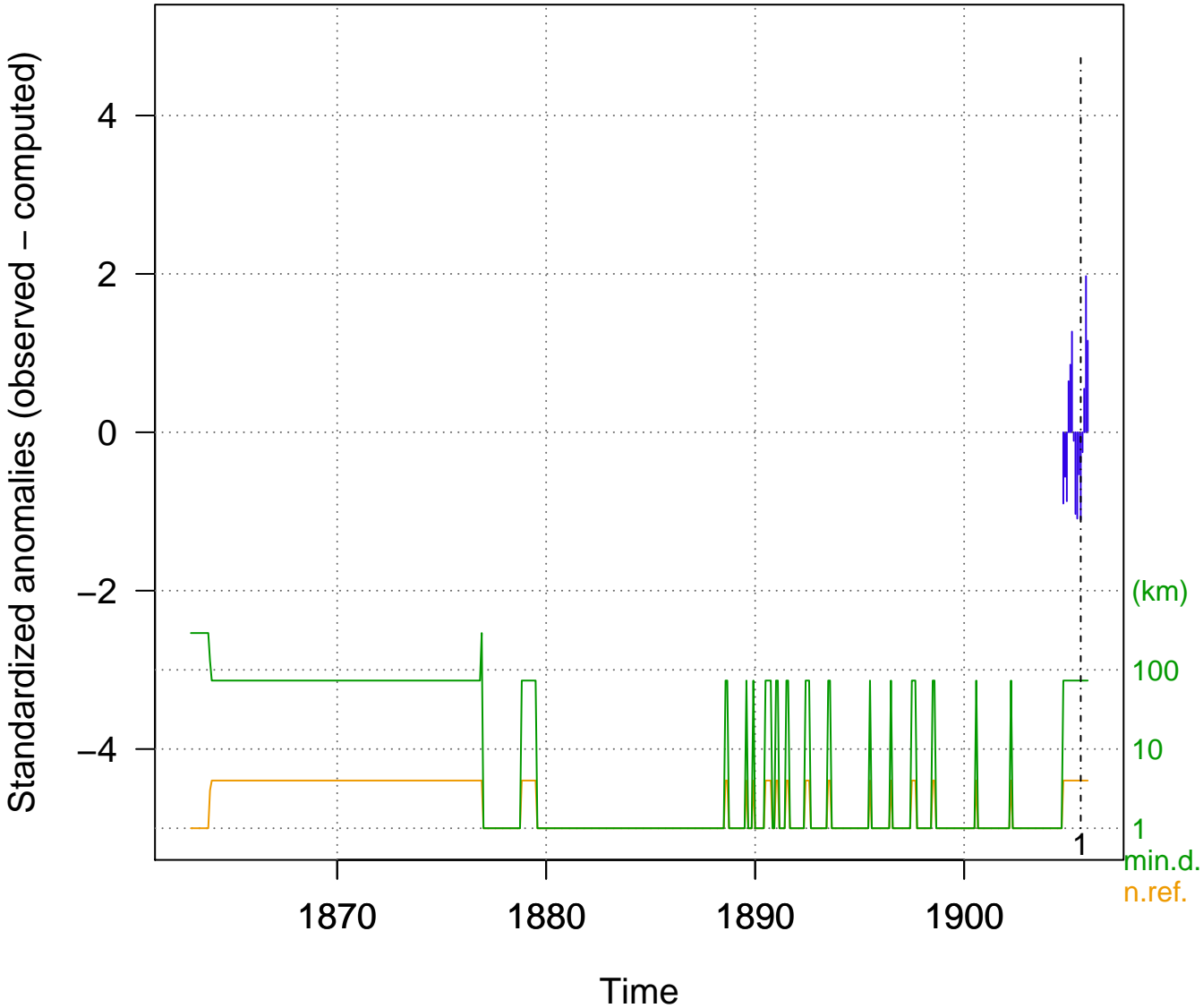
O3 27 (Montalegre-2) Montalegre-2



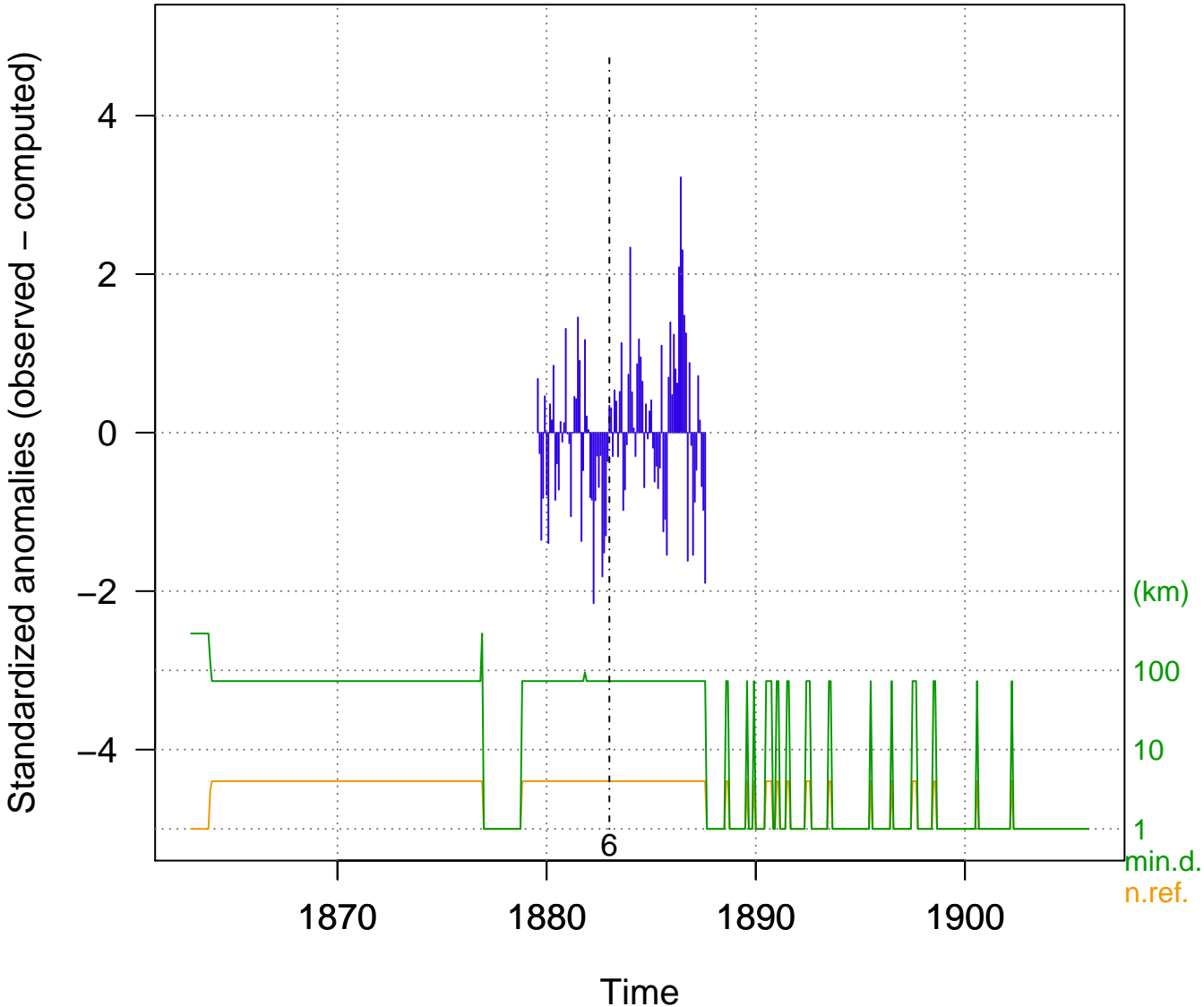
O3 46 (Montalegre-3) Montalegre-3



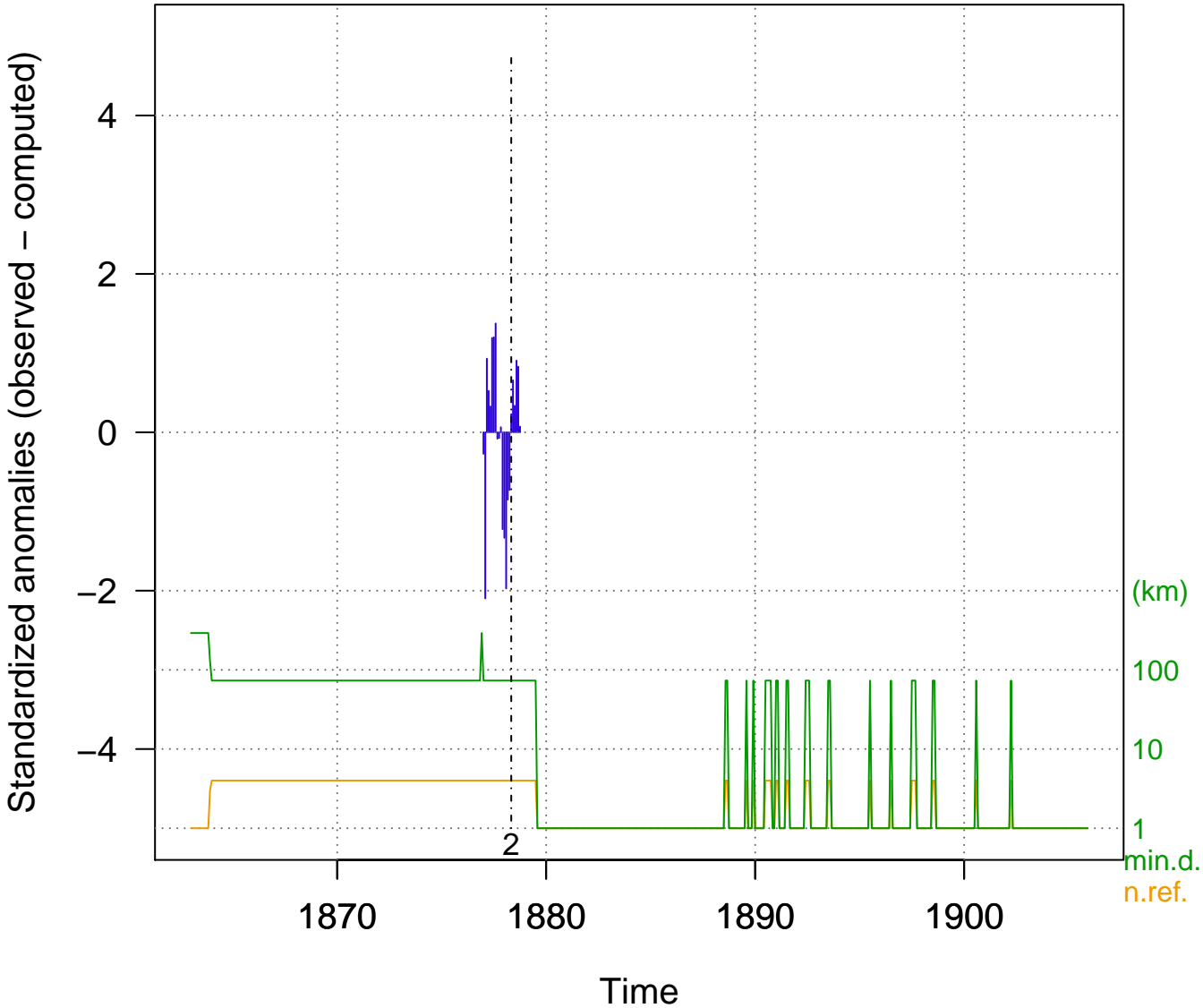
Moncorvo



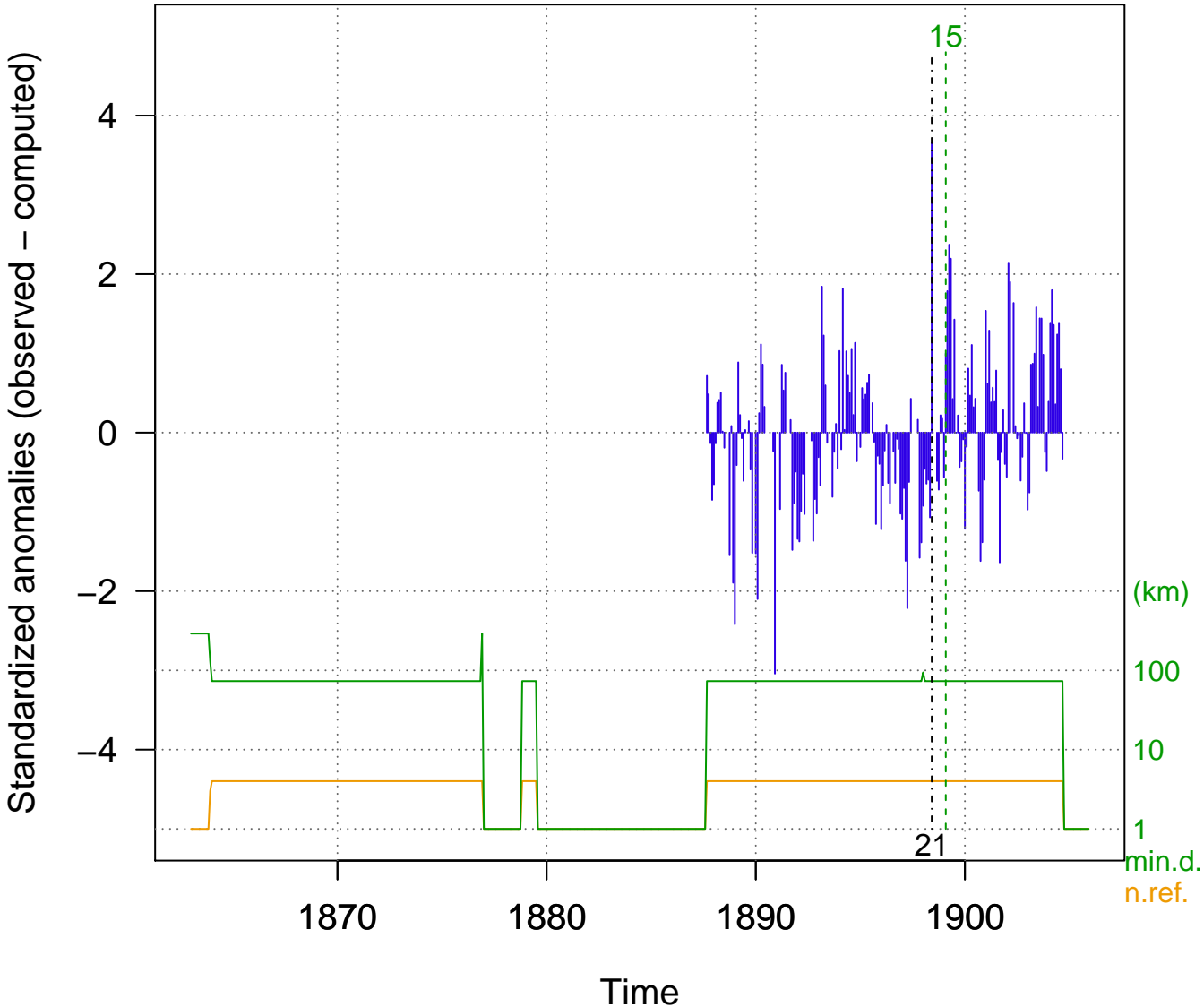
O3 24 (Moncorvo-2) Moncorvo-2



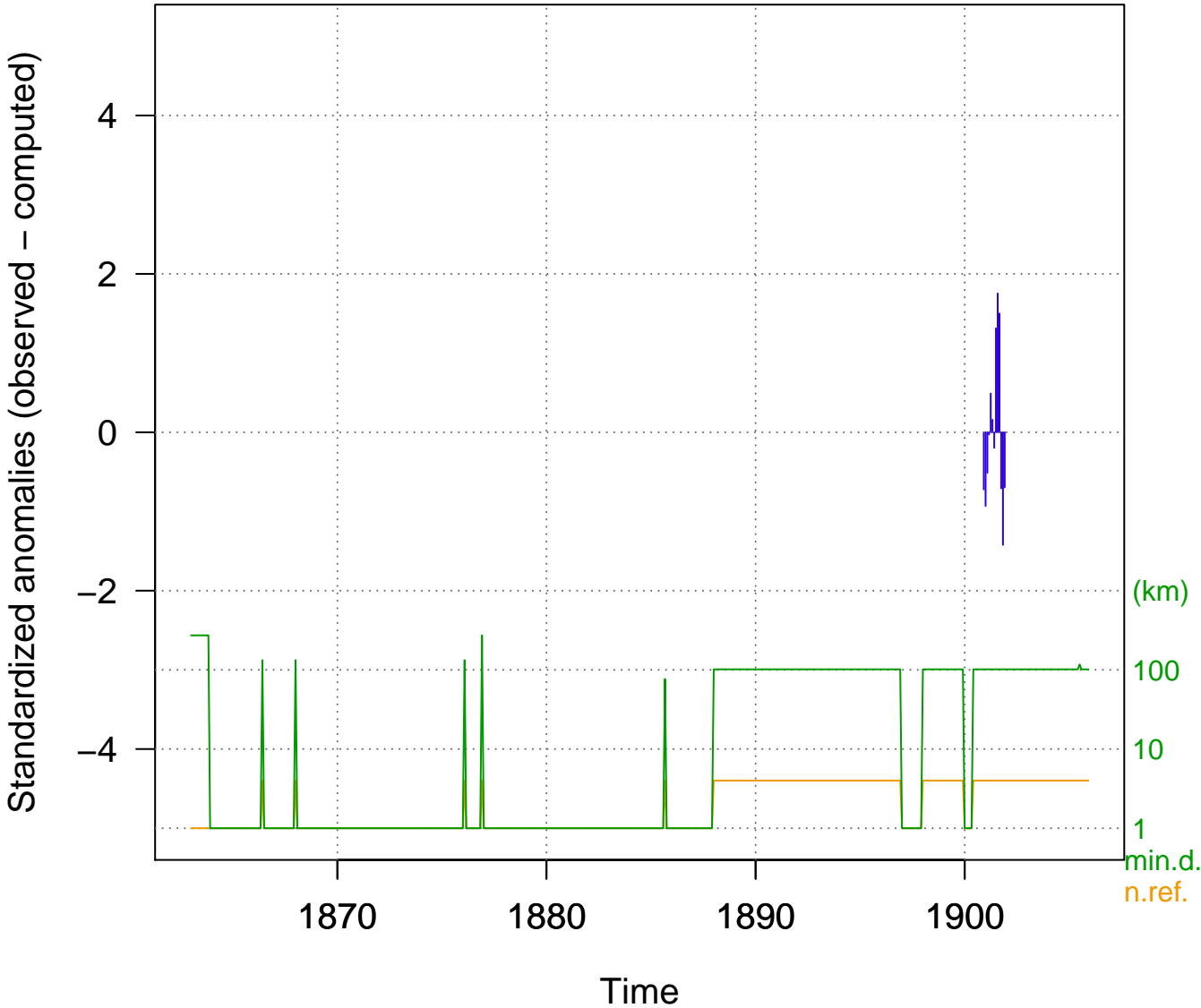
O3 39 (Moncorvo-3) Moncorvo-3



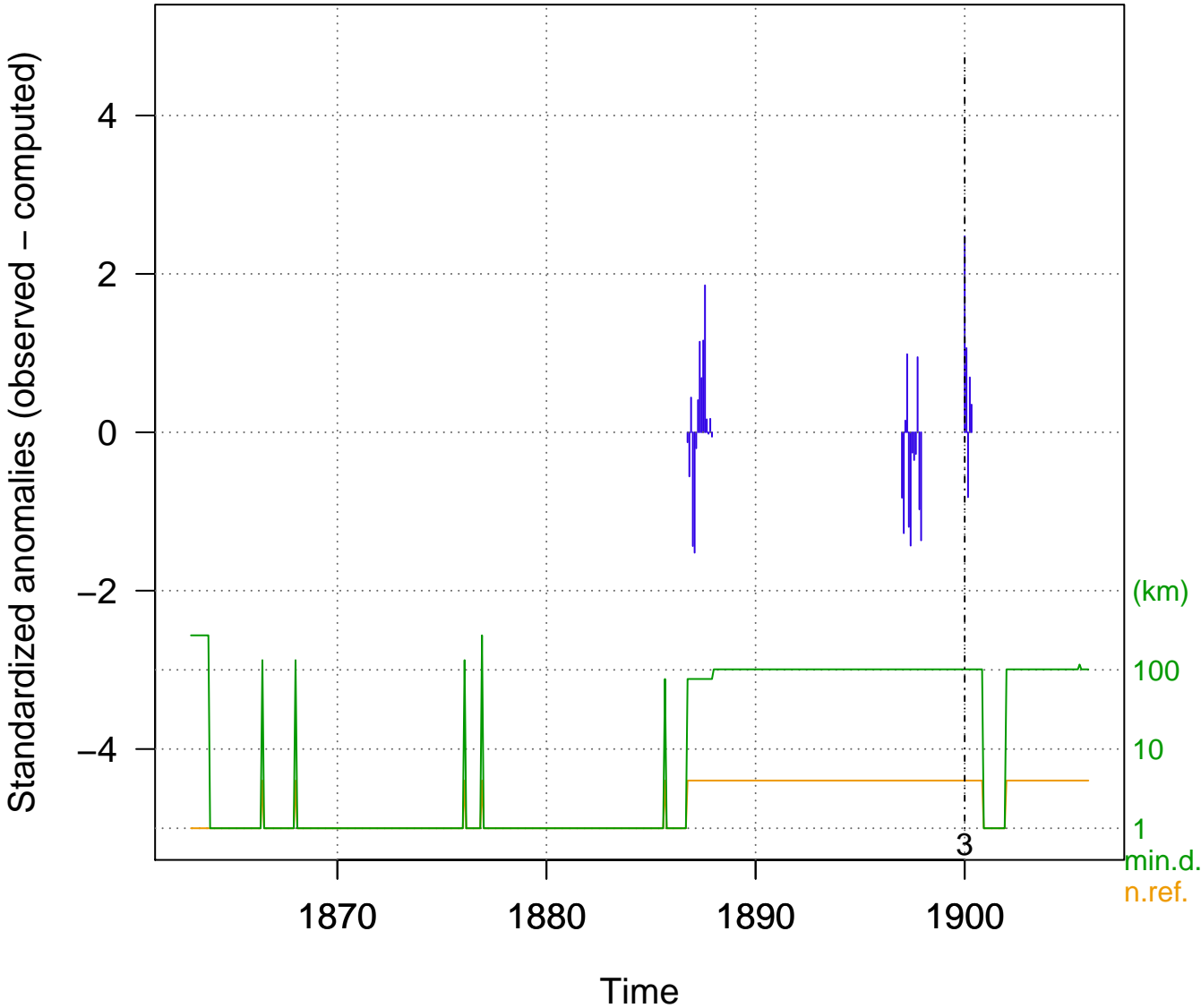
O3 48 (Moncorvo-4) Moncorvo-4



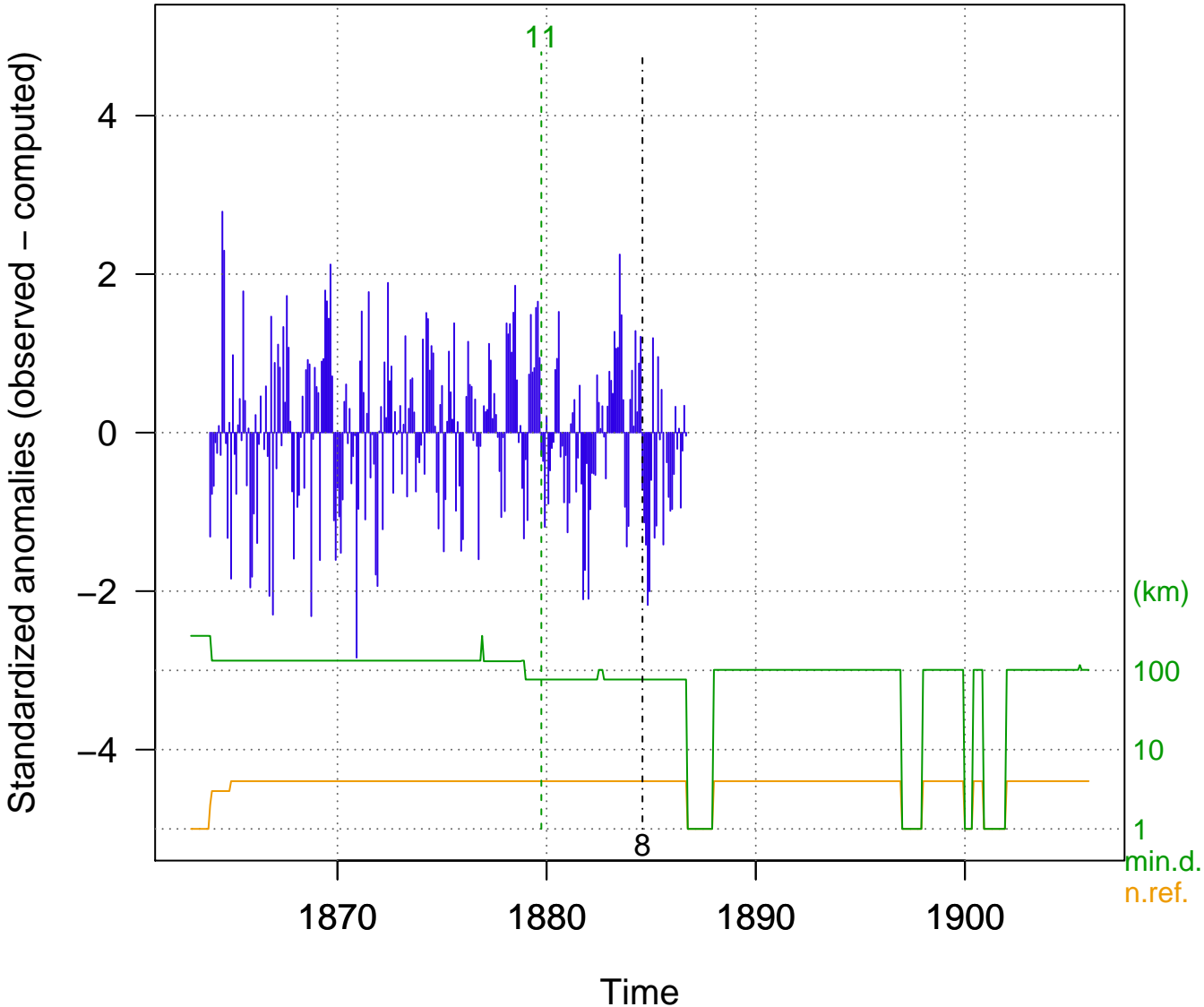
O3 3 (Porto) Porto



O3 58 (Porto-2) Porto-2



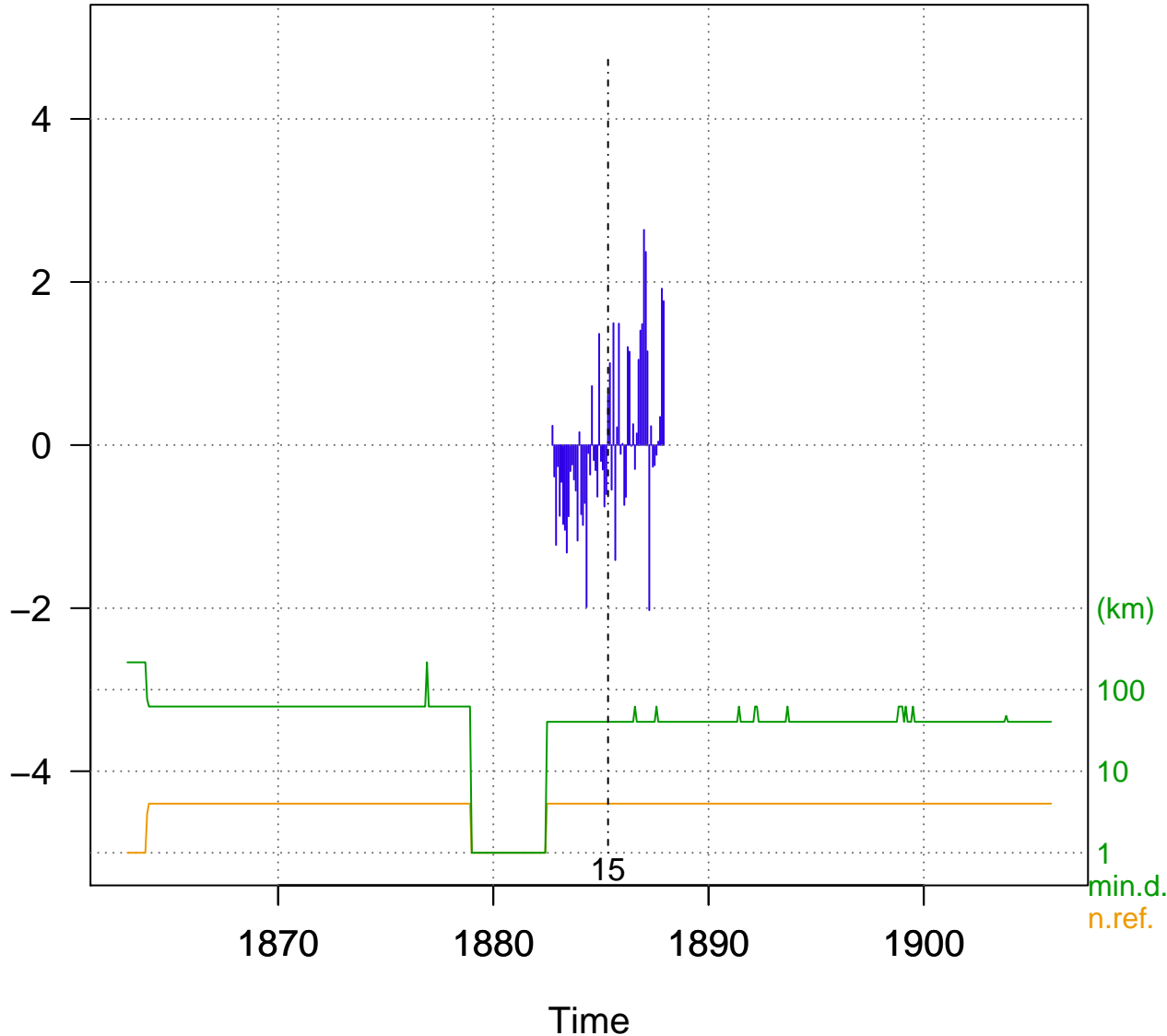
O3 63 (Porto-3) Porto-3



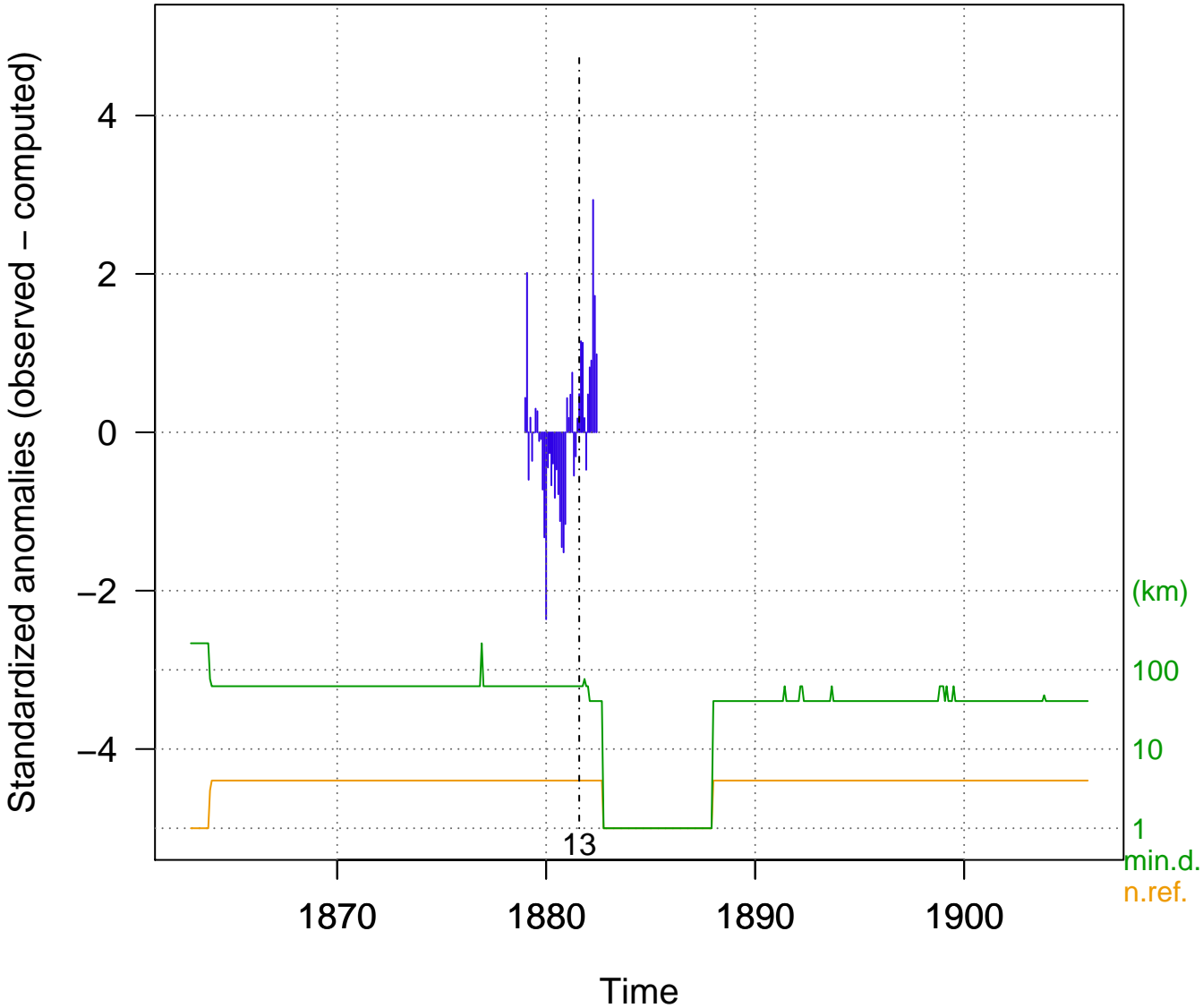
O3 4 (Vizeu)

Vizeu

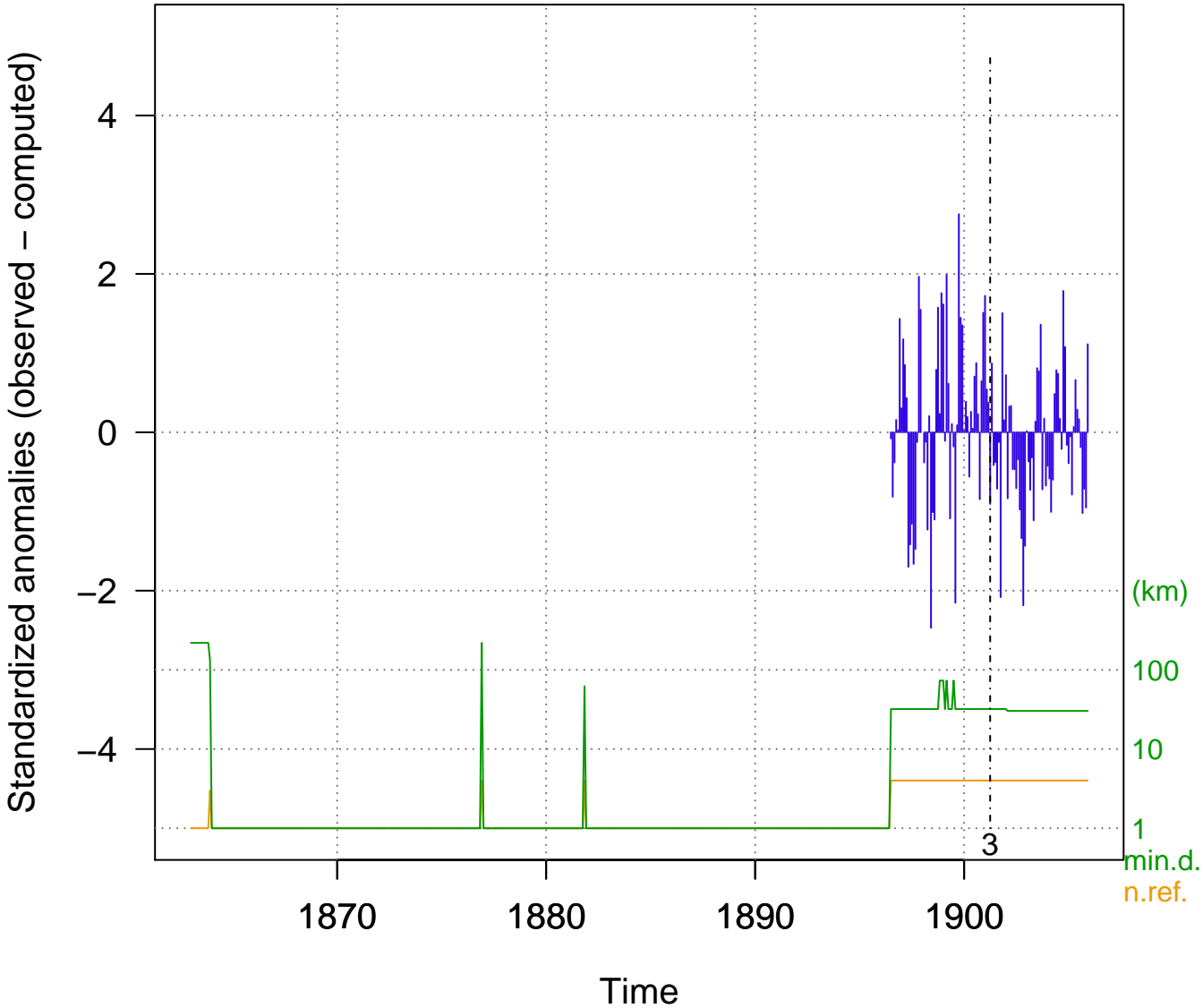
Standardized anomalies (observed - computed)



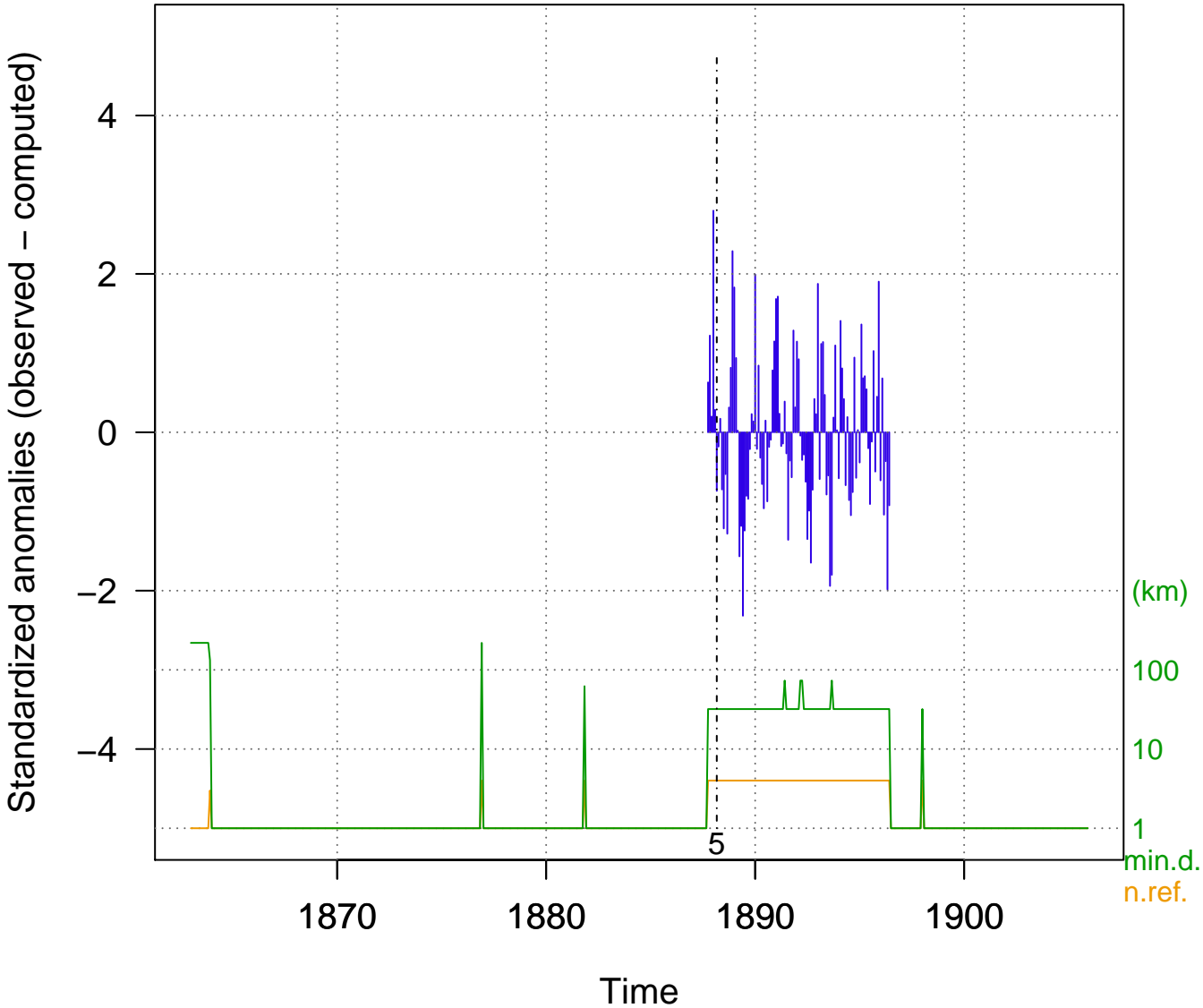
O3 56 (Vizeu-2) Vizeu-2



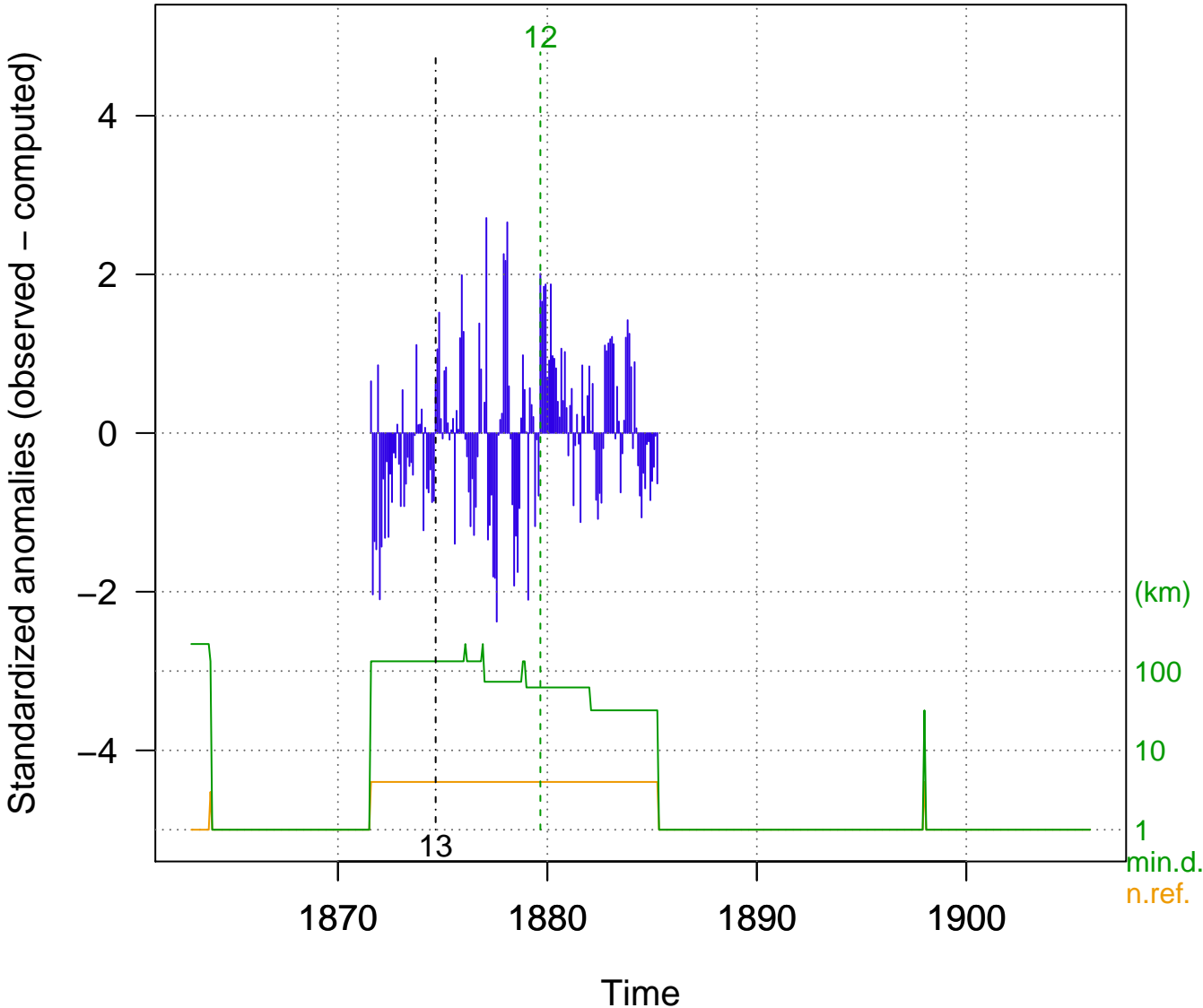
O3 5 (Guarda) Guarda



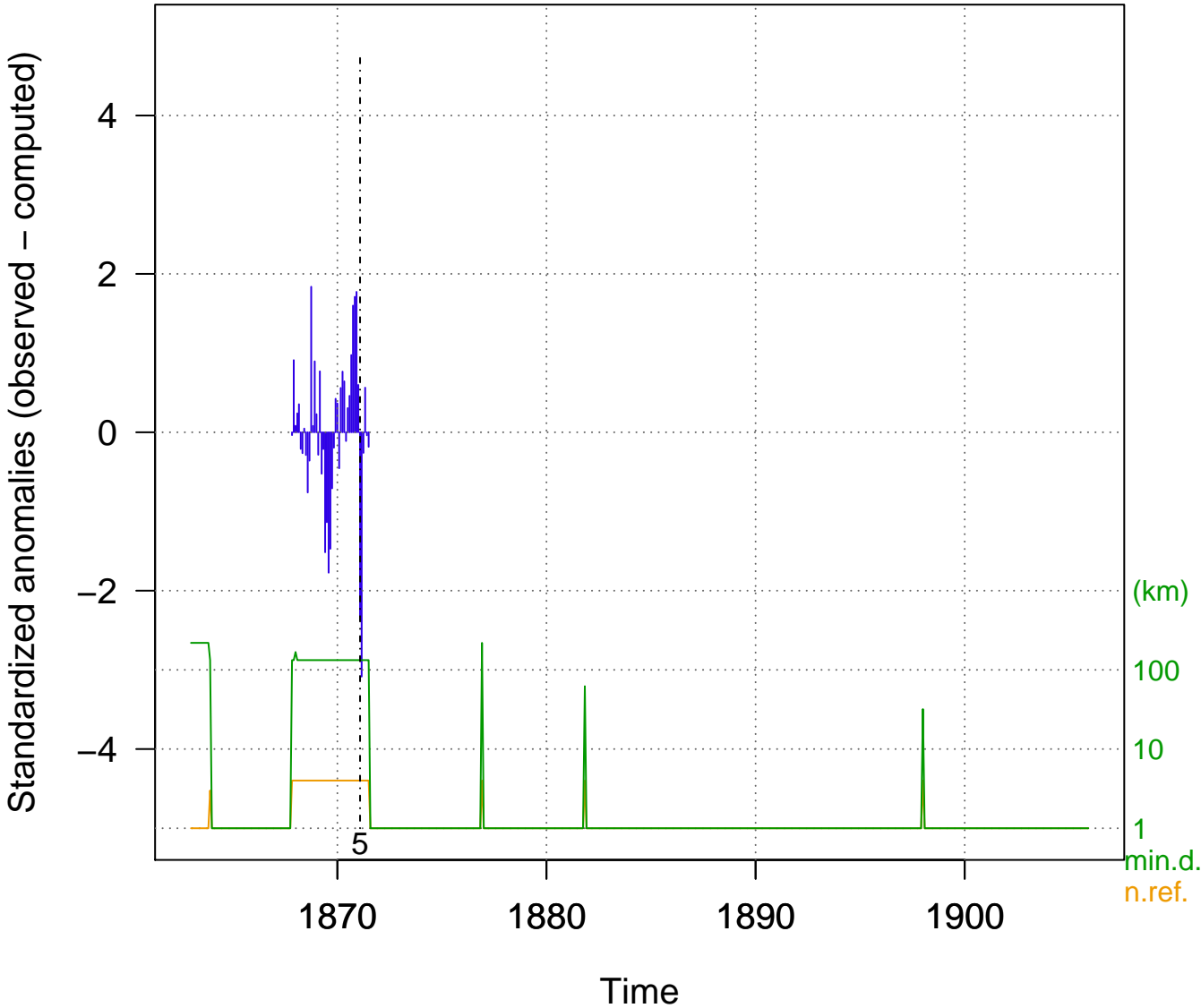
O3 33 (Guarda-2) Guarda-2



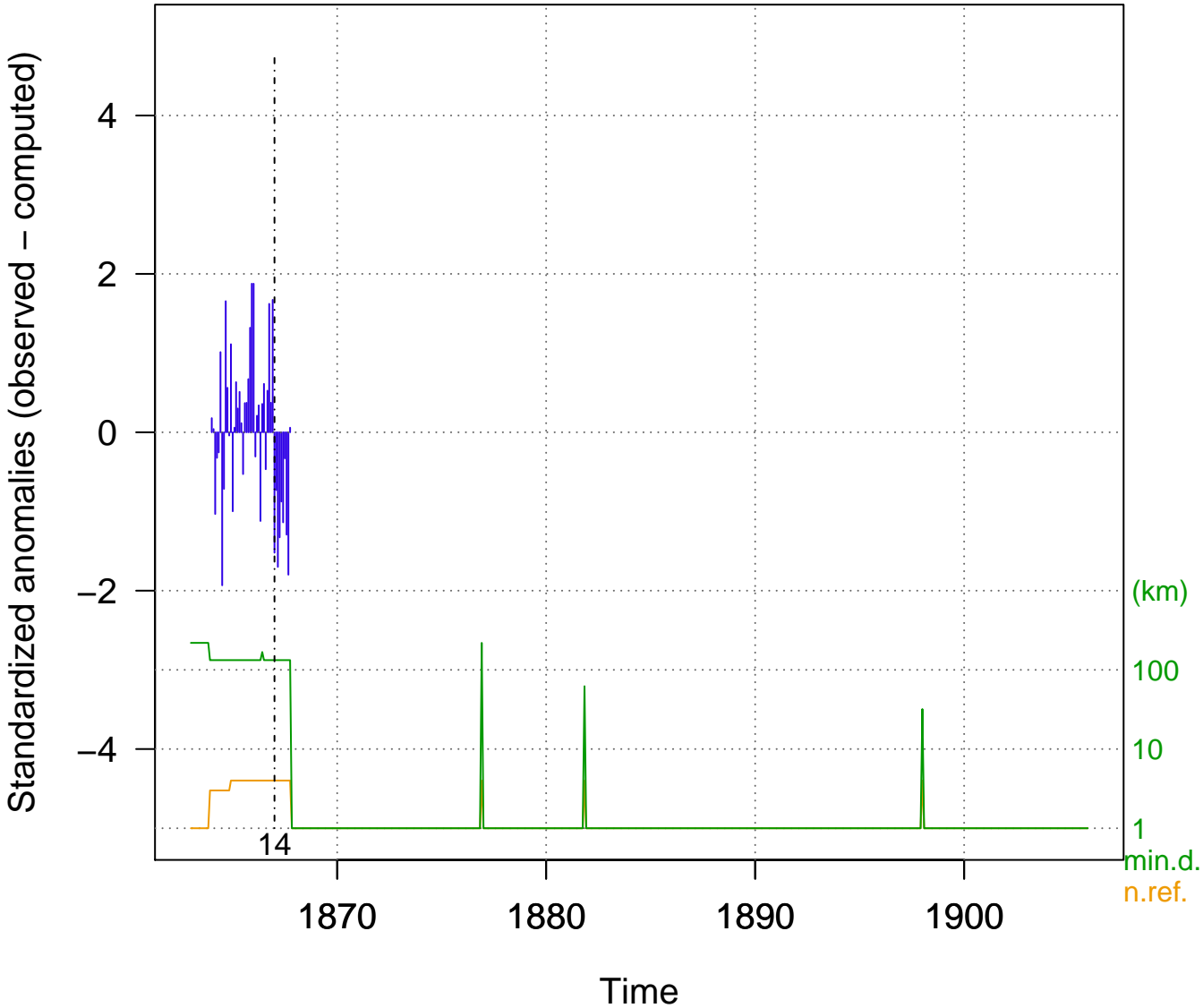
O3 36 (Guarda-3) Guarda-3



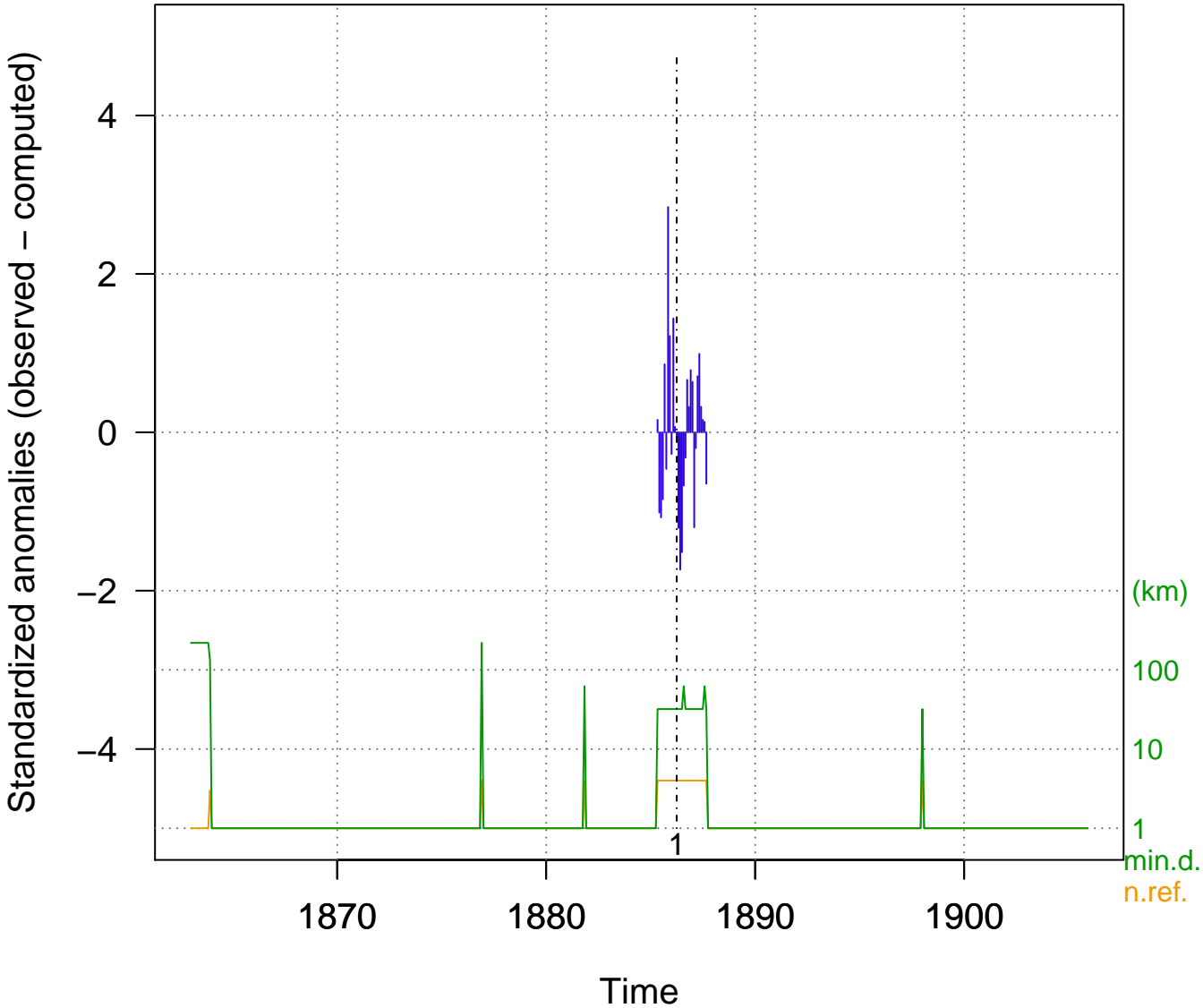
O3 40 (Guarda-4) Guarda-4



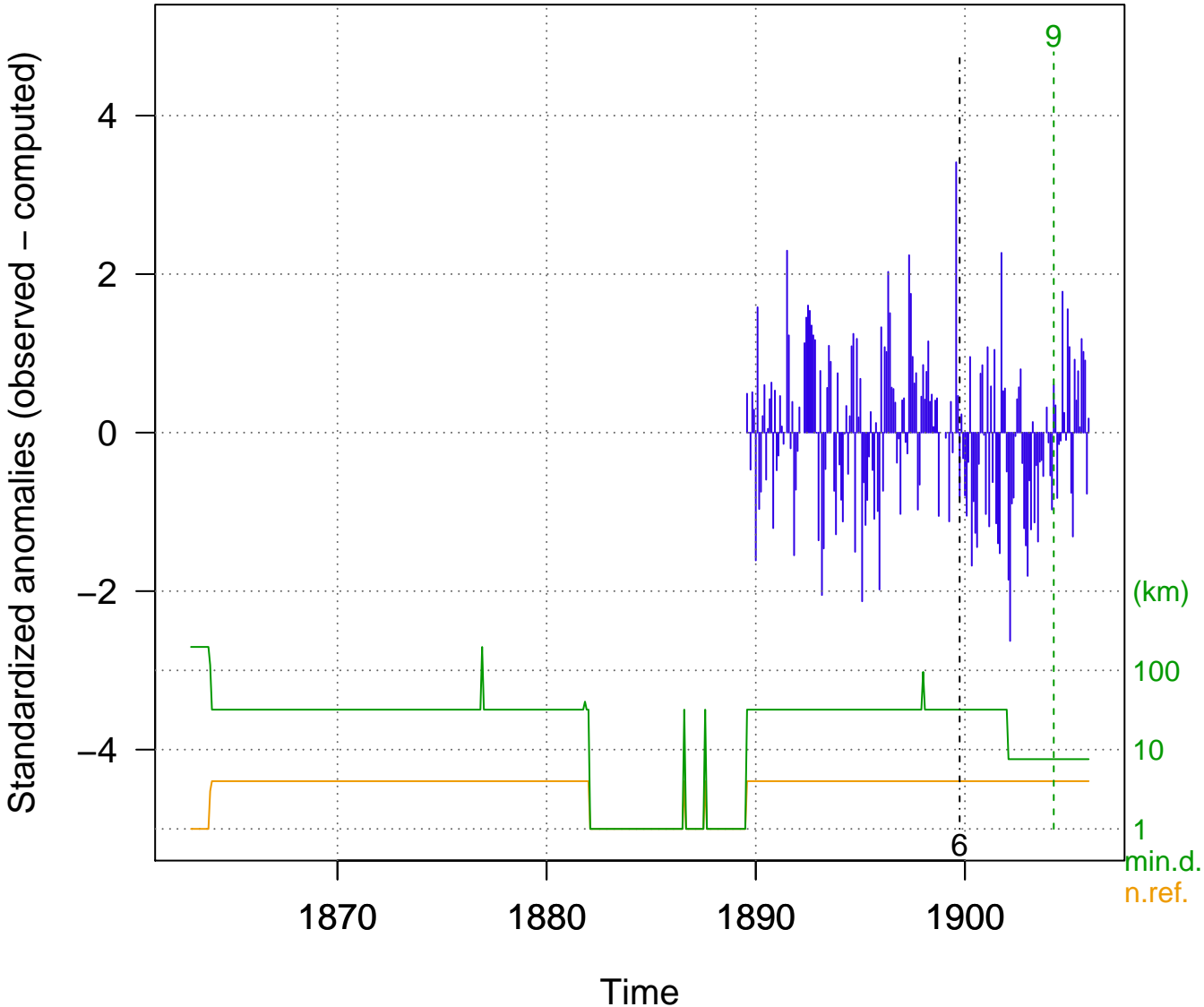
O3 59 (Guarda-5) Guarda-5



O3 61 (Guarda-6) Guarda-6

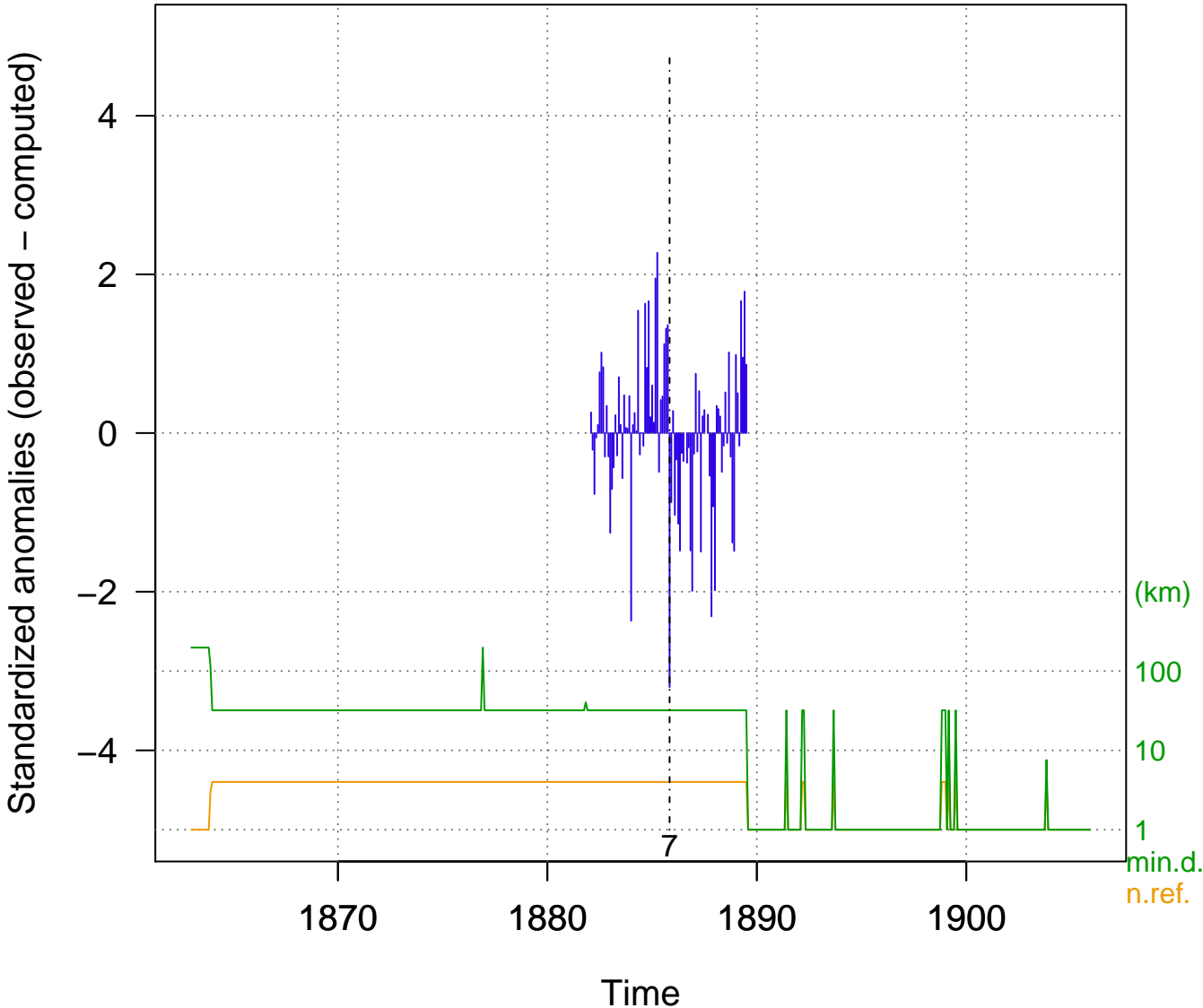


O3 6 (Serra_da_Estrella) Serra da Estrella

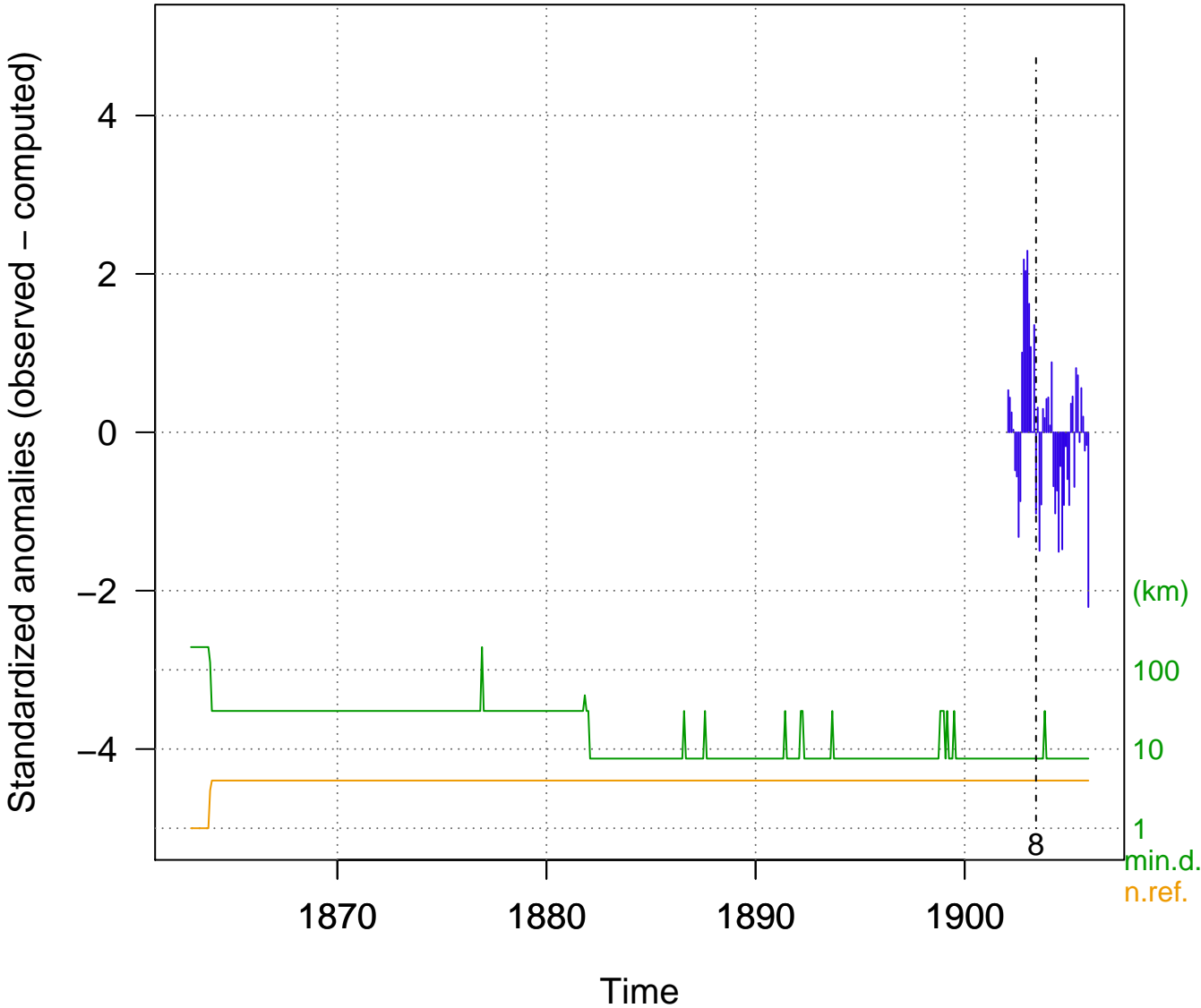


O3 44 (Serra_da_Estrella-2)

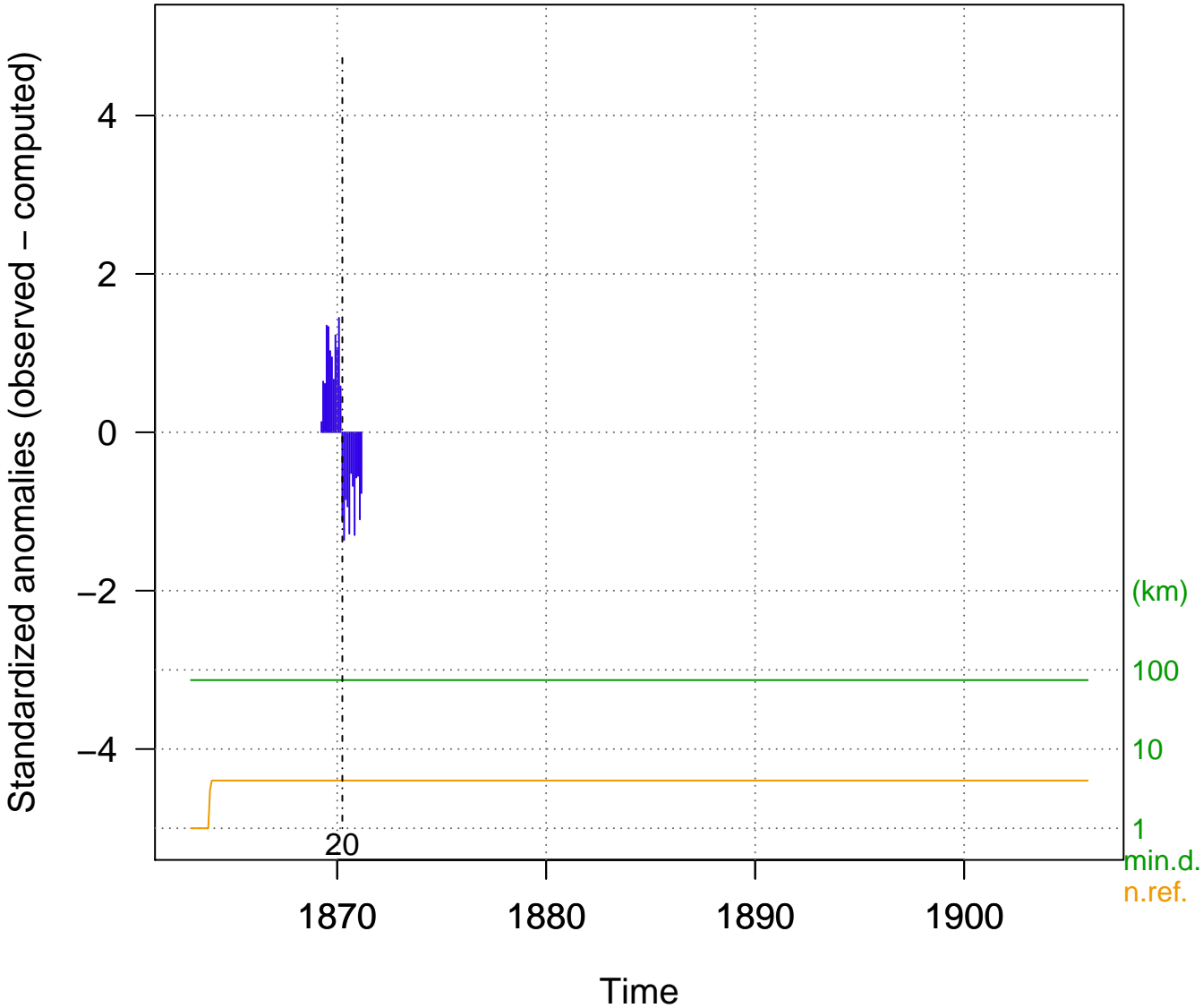
Serra da Estrella-2



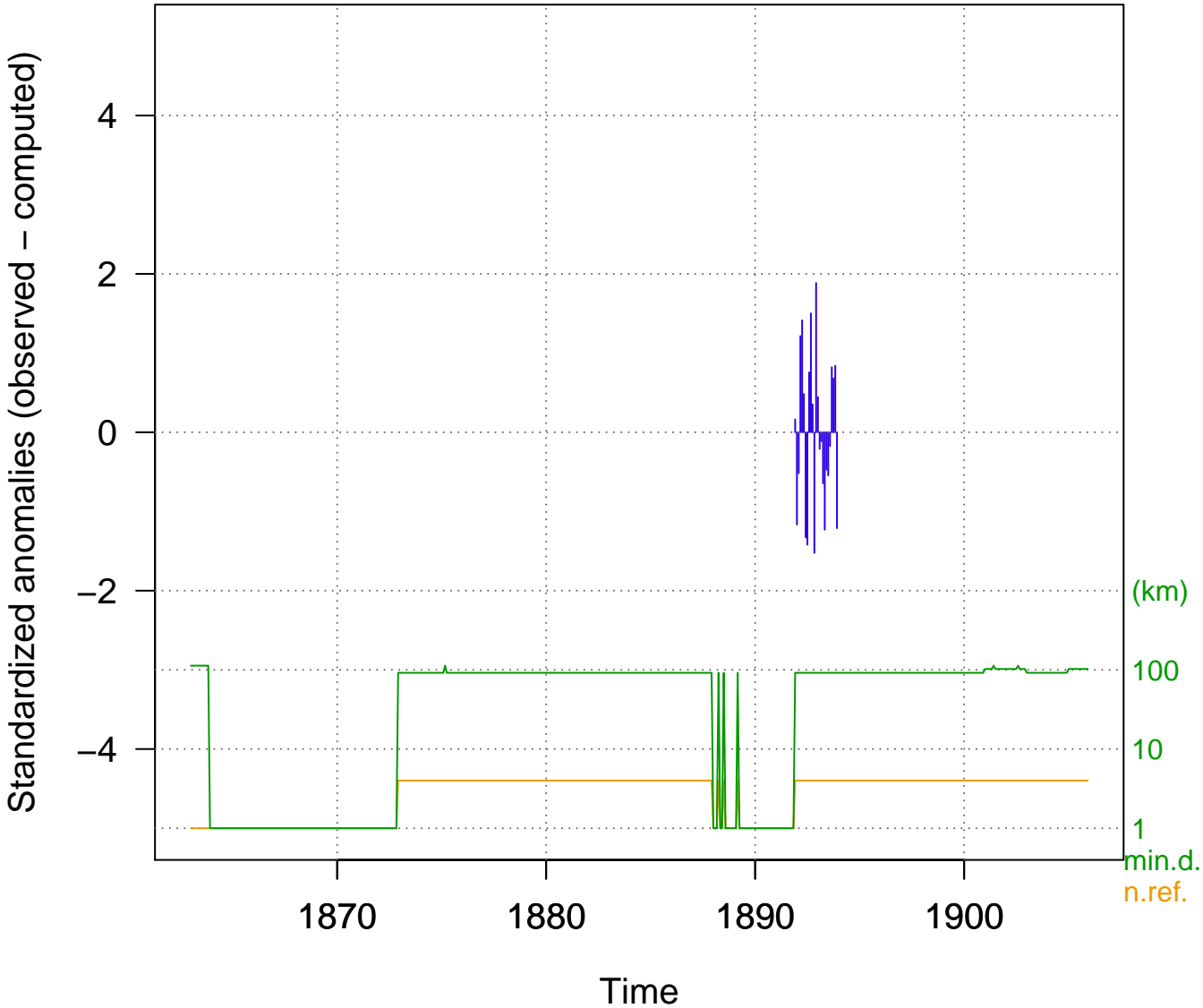
O3 7 (S._Fiel)
S. Fiel



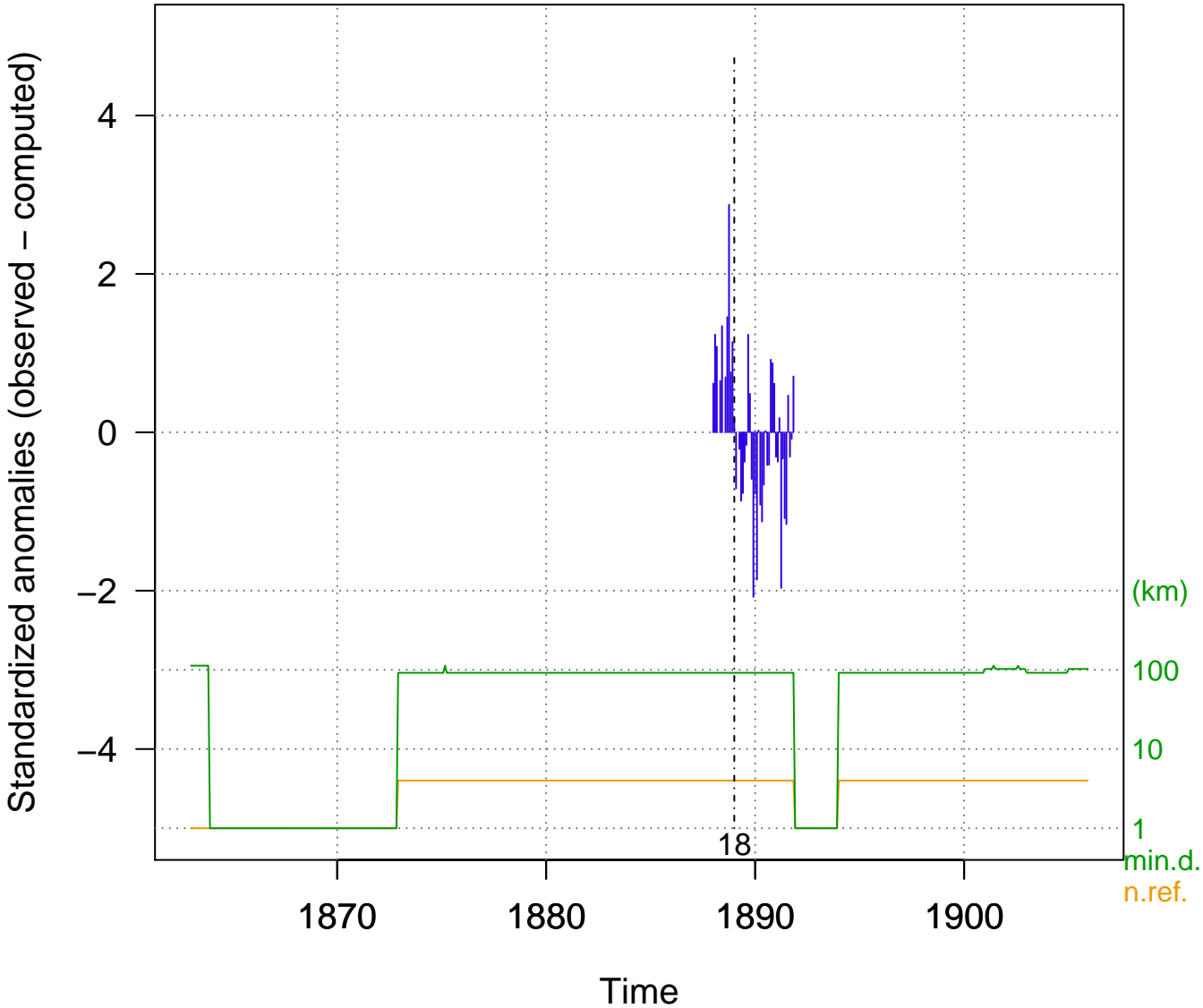
O3 8 (Alcanhoes) Alcanhoes



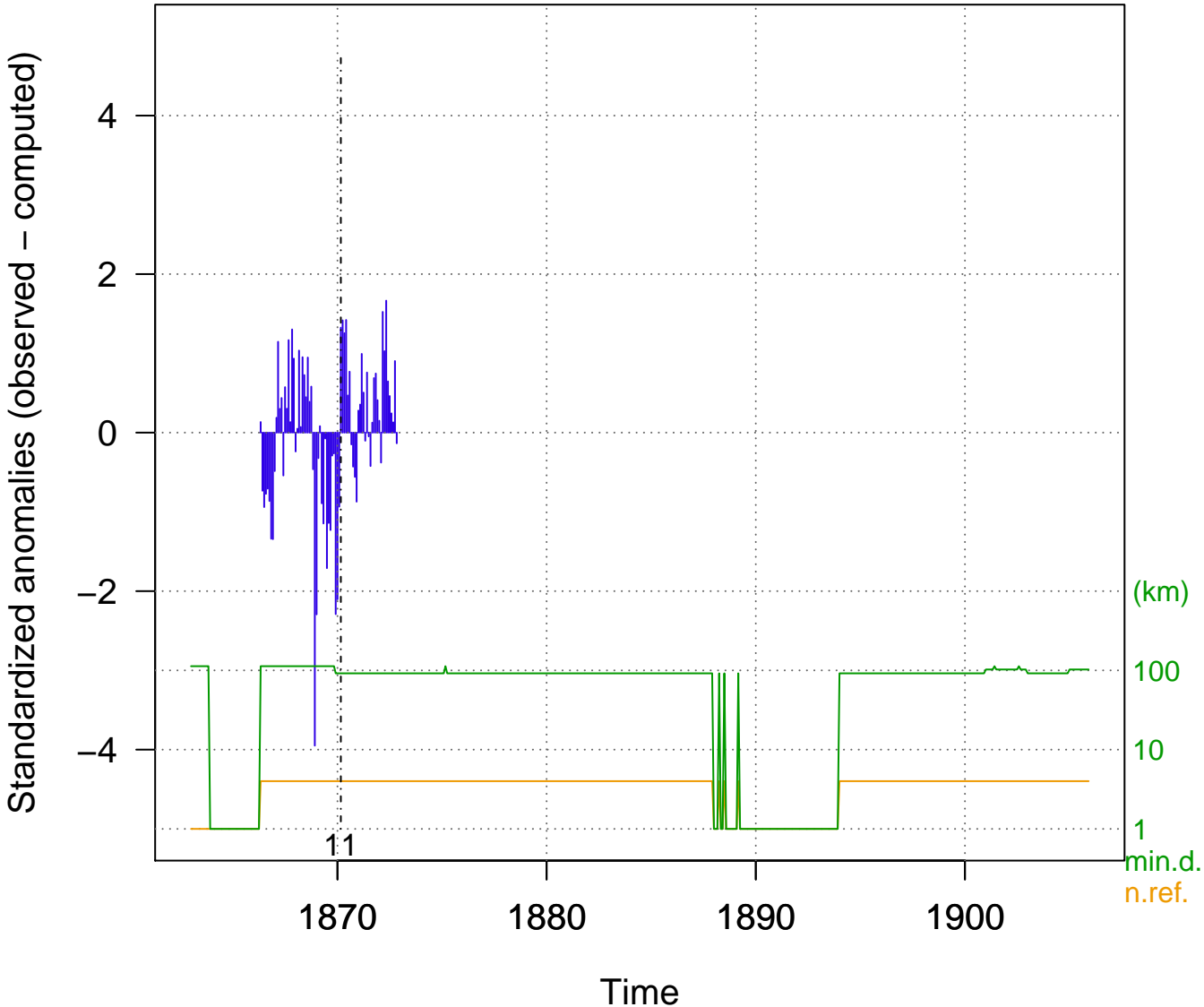
O3 9 (Campo_Maior) Campo Maior



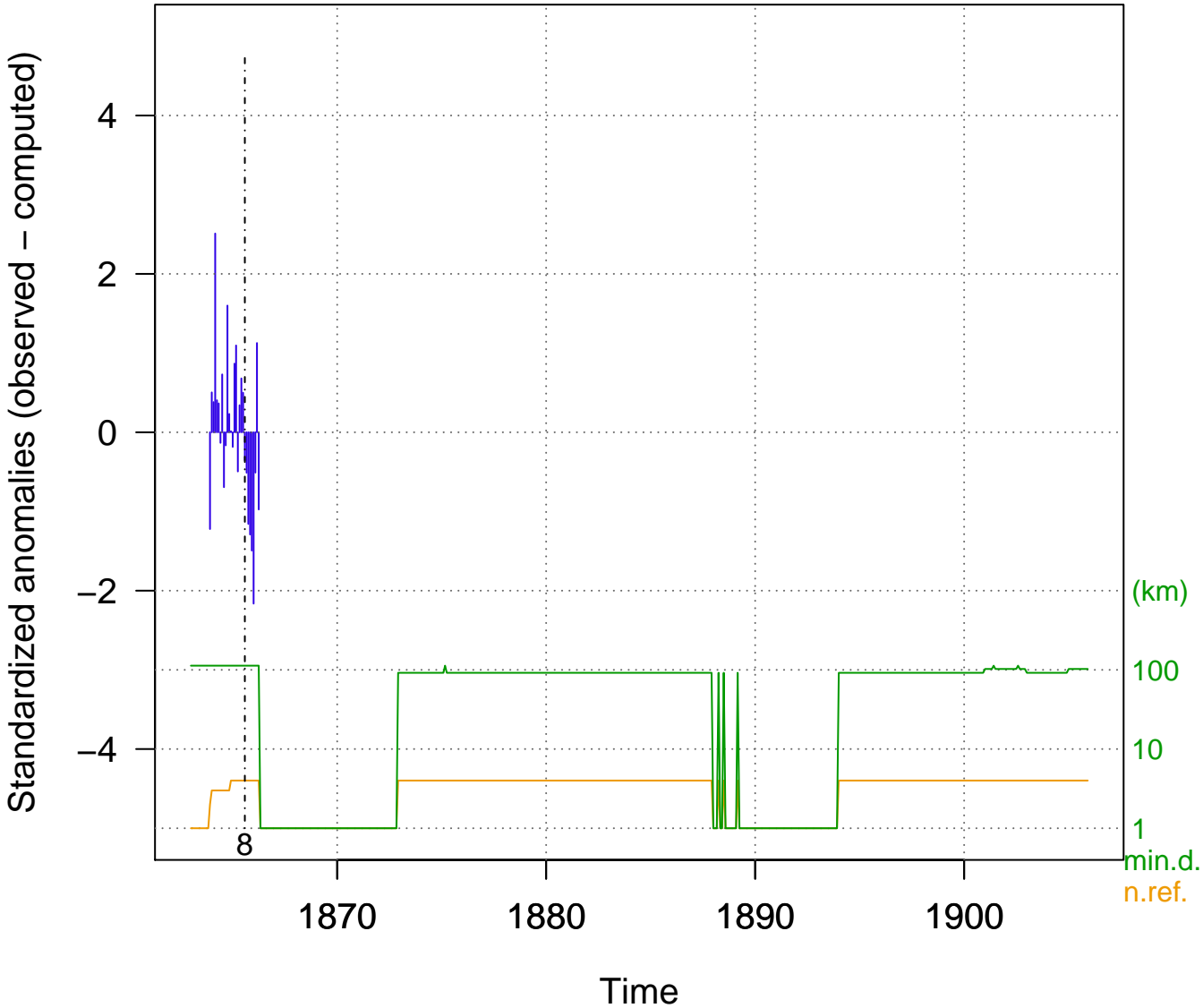
O3 38 (Campo_Maior-2) Campo Maior-2



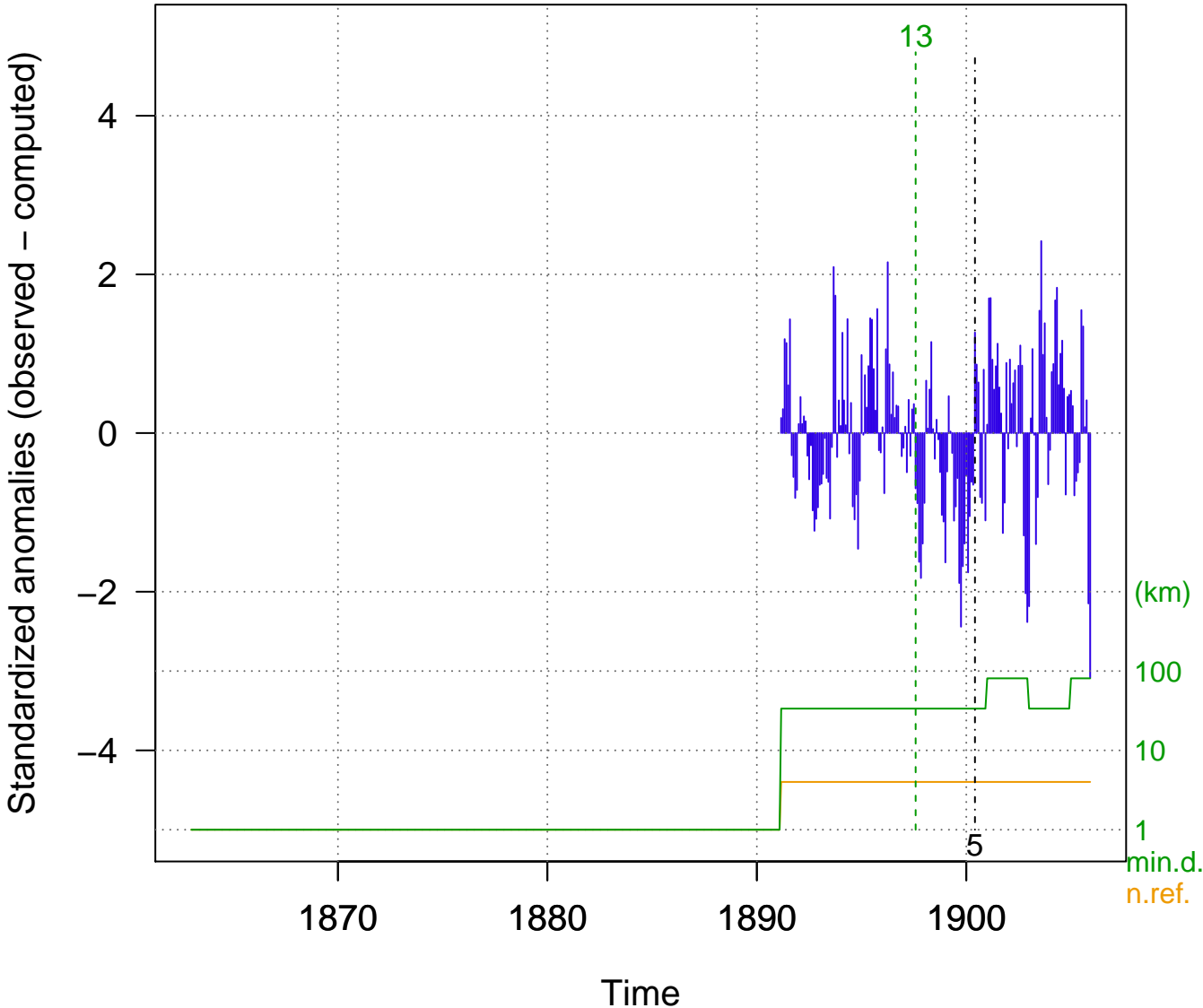
O3 47 (Campo_Maior-3) Campo Maior-3



O3 64 (Campo_Maior-4) Campo Maior-4

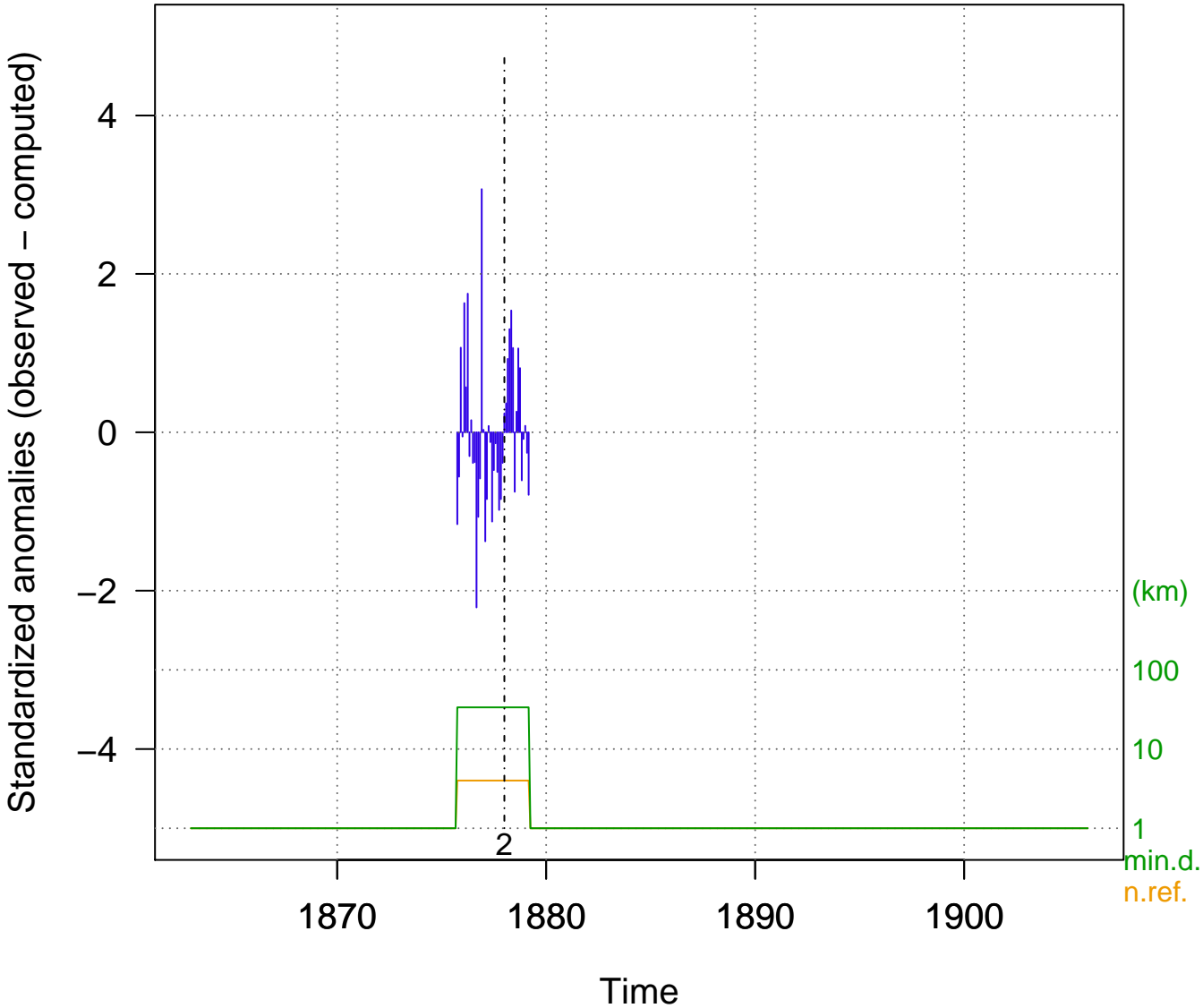


O3 10 (Infante_D_Luiz)
Lisbon Infante D. Luiz



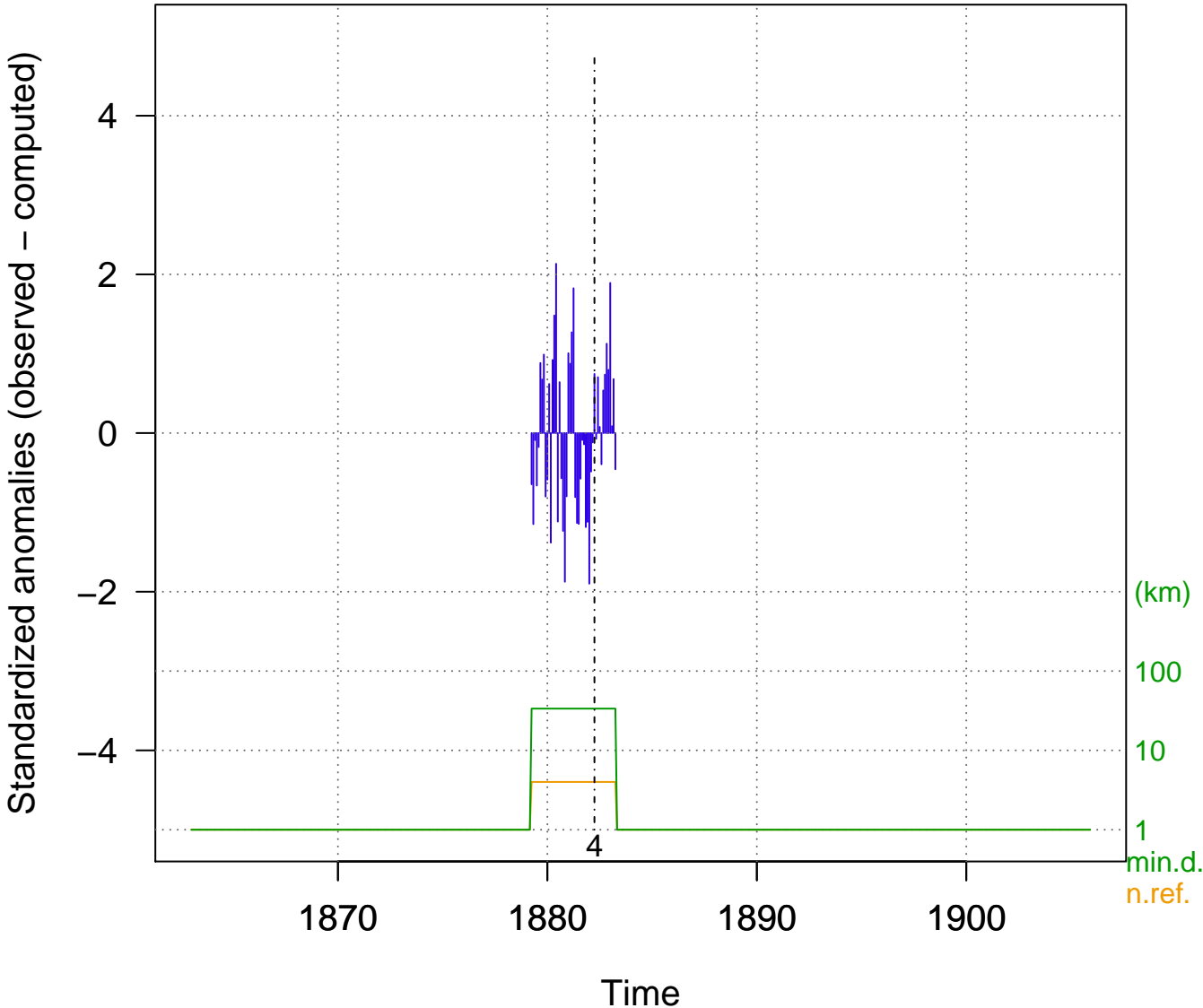
O3 26 (Infante_D_Luiz-2)

Lisbon Infante D. Luiz-2



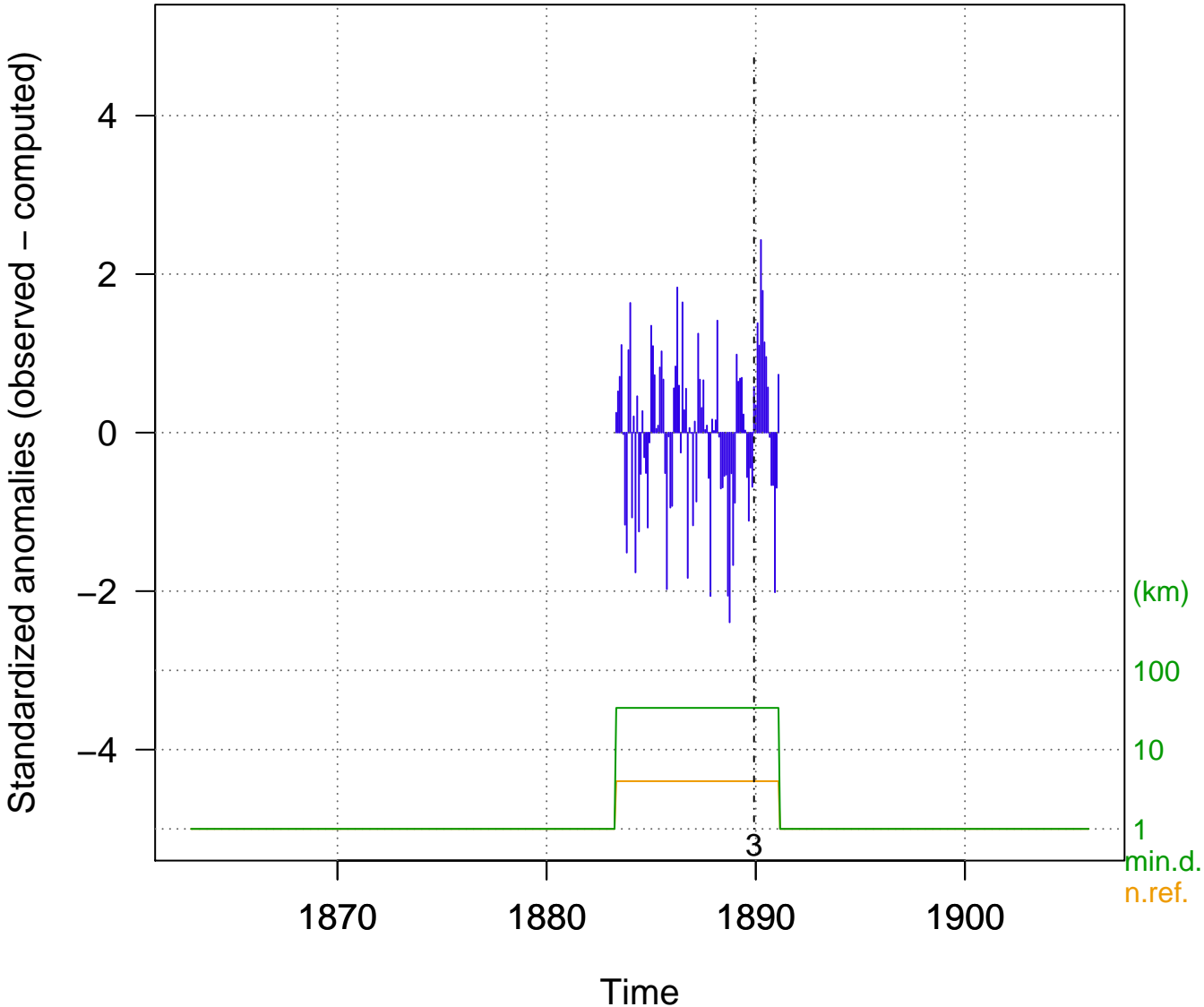
O3 34 (Infante_D_Luiz-3)

Lisbon Infante D. Luiz-3



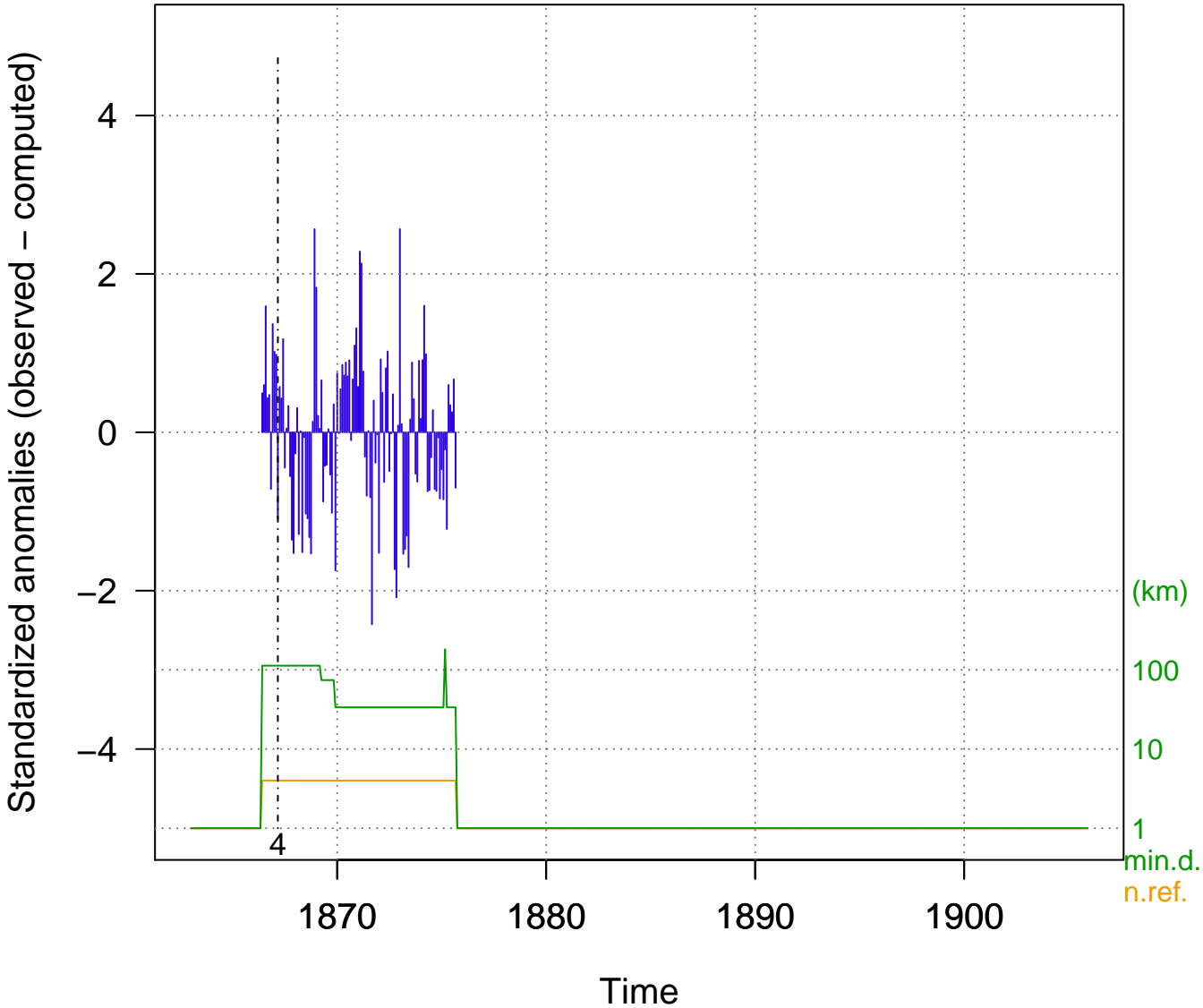
O3 49 (Infante_D_Luiz-4)

Lisbon Infante D. Luiz-4



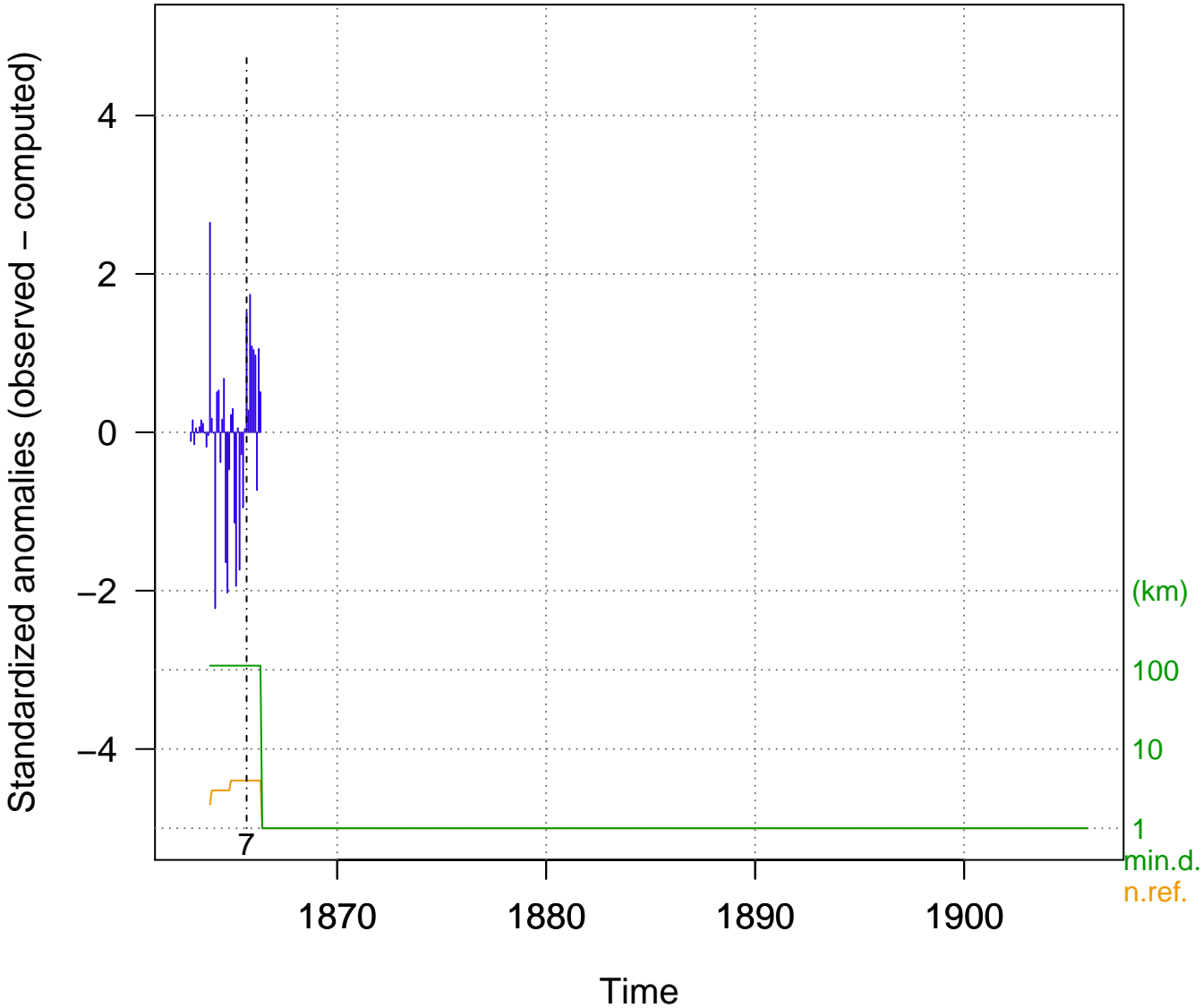
O3 50 (Infante_D_Luiz-5)

Lisbon Infante D. Luiz-5



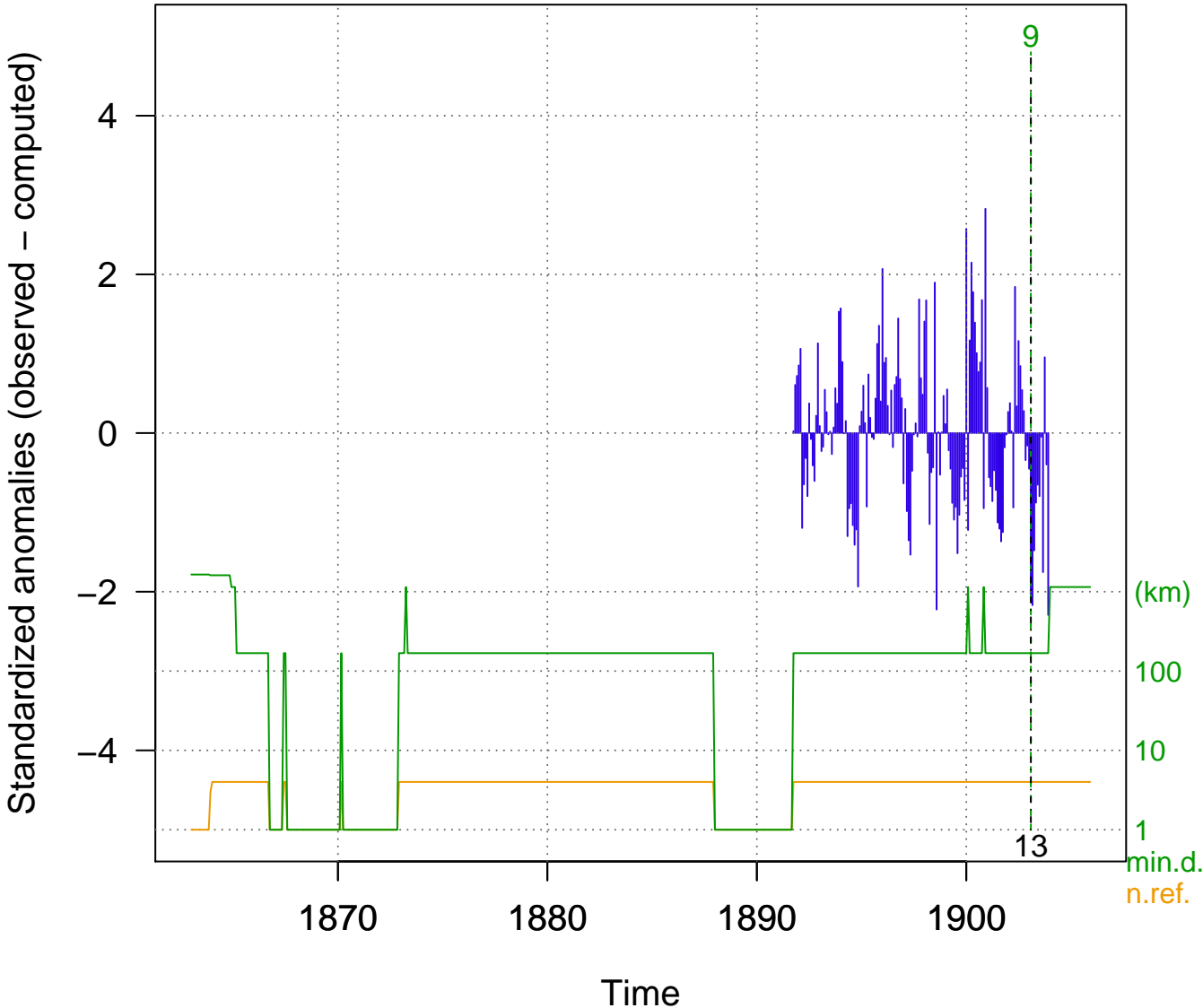
O3 60 (Infante_D_Luiz-6)

Lisbon Infante D. Luiz-6



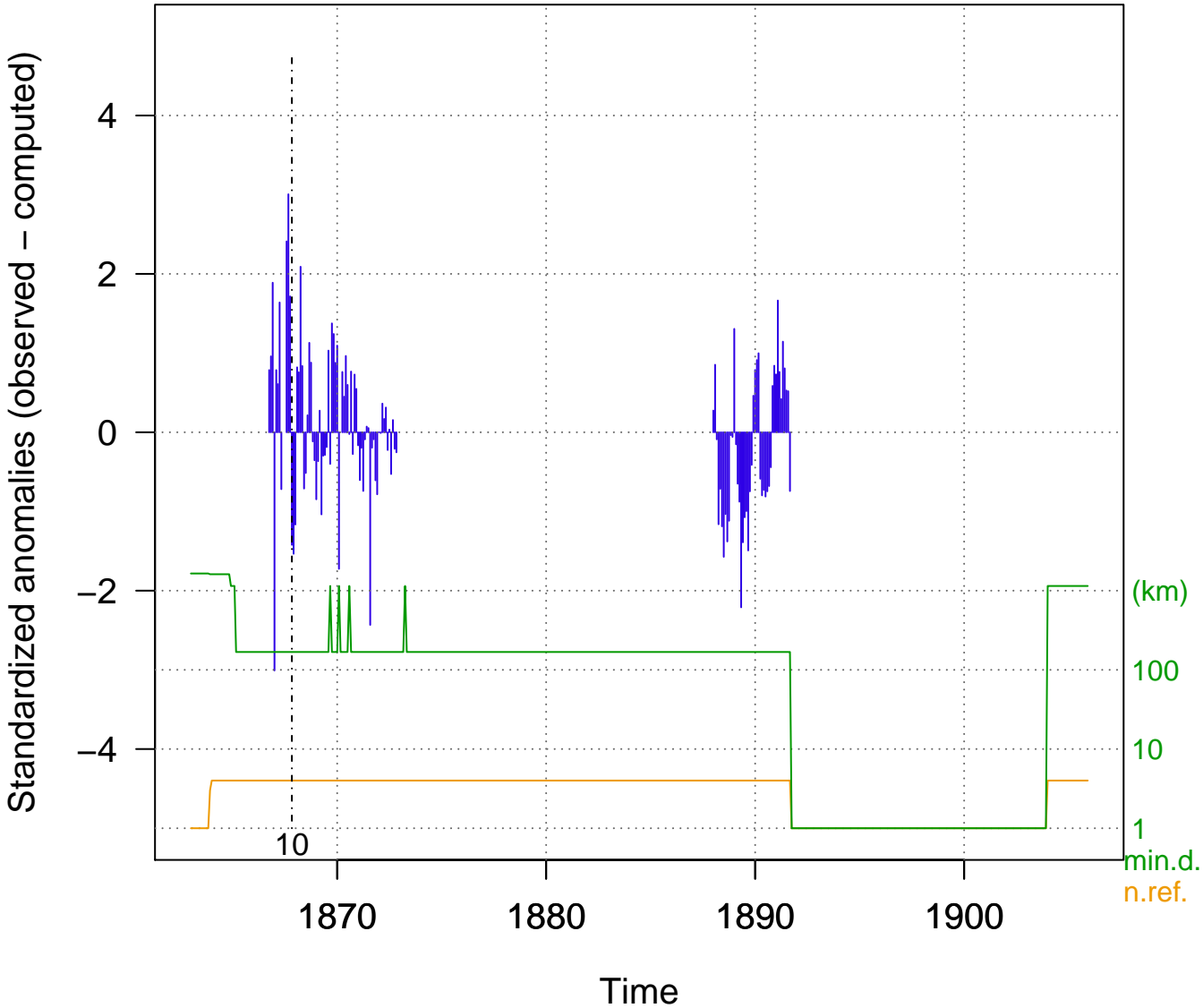
O3 11 (Angra_do_Heroismo)

Angra do Heroismo

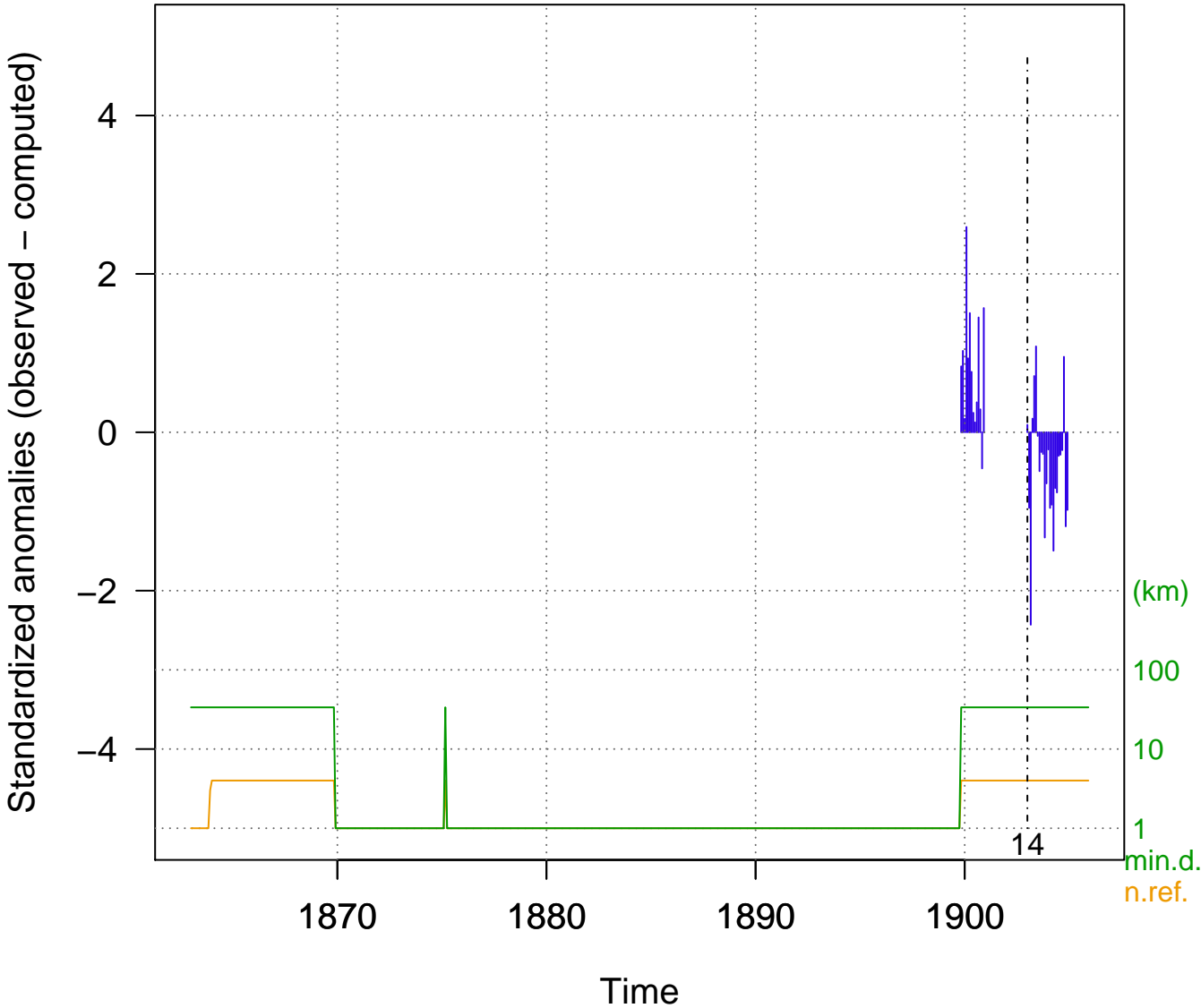


O3 51 (Angra_do_Heroismo-2)

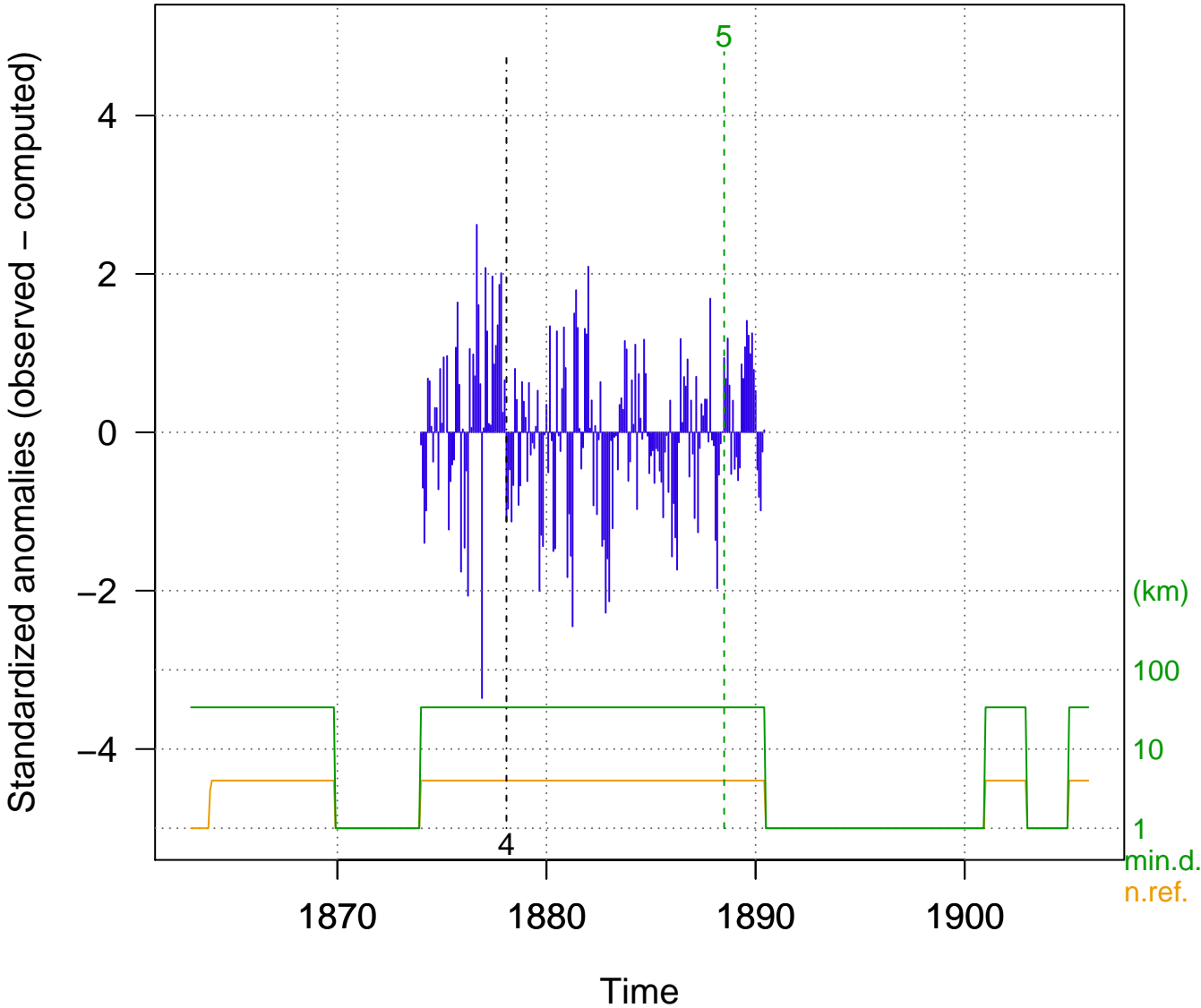
Angra do Heroismo-2



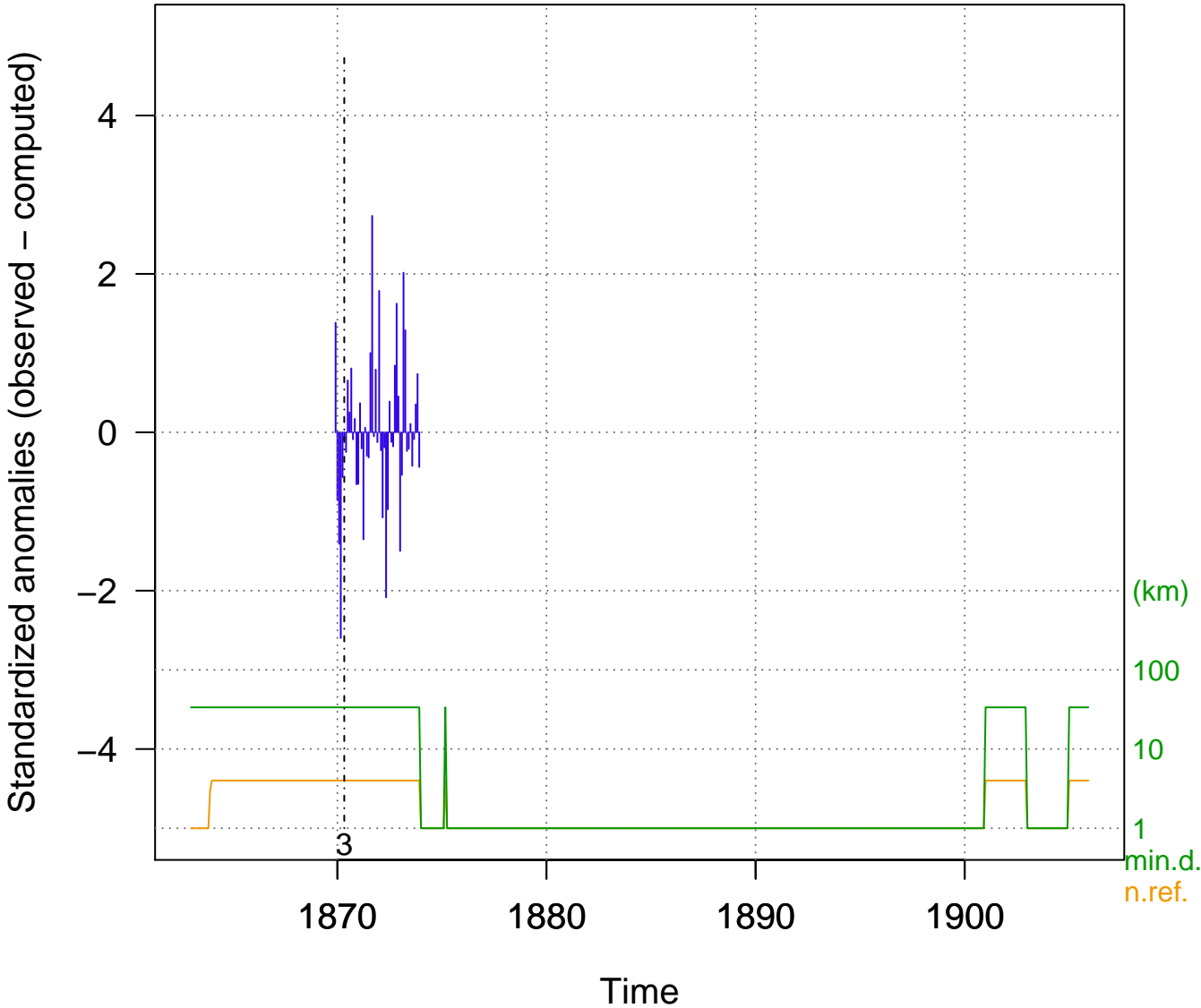
O3 12 (Evora) Evora



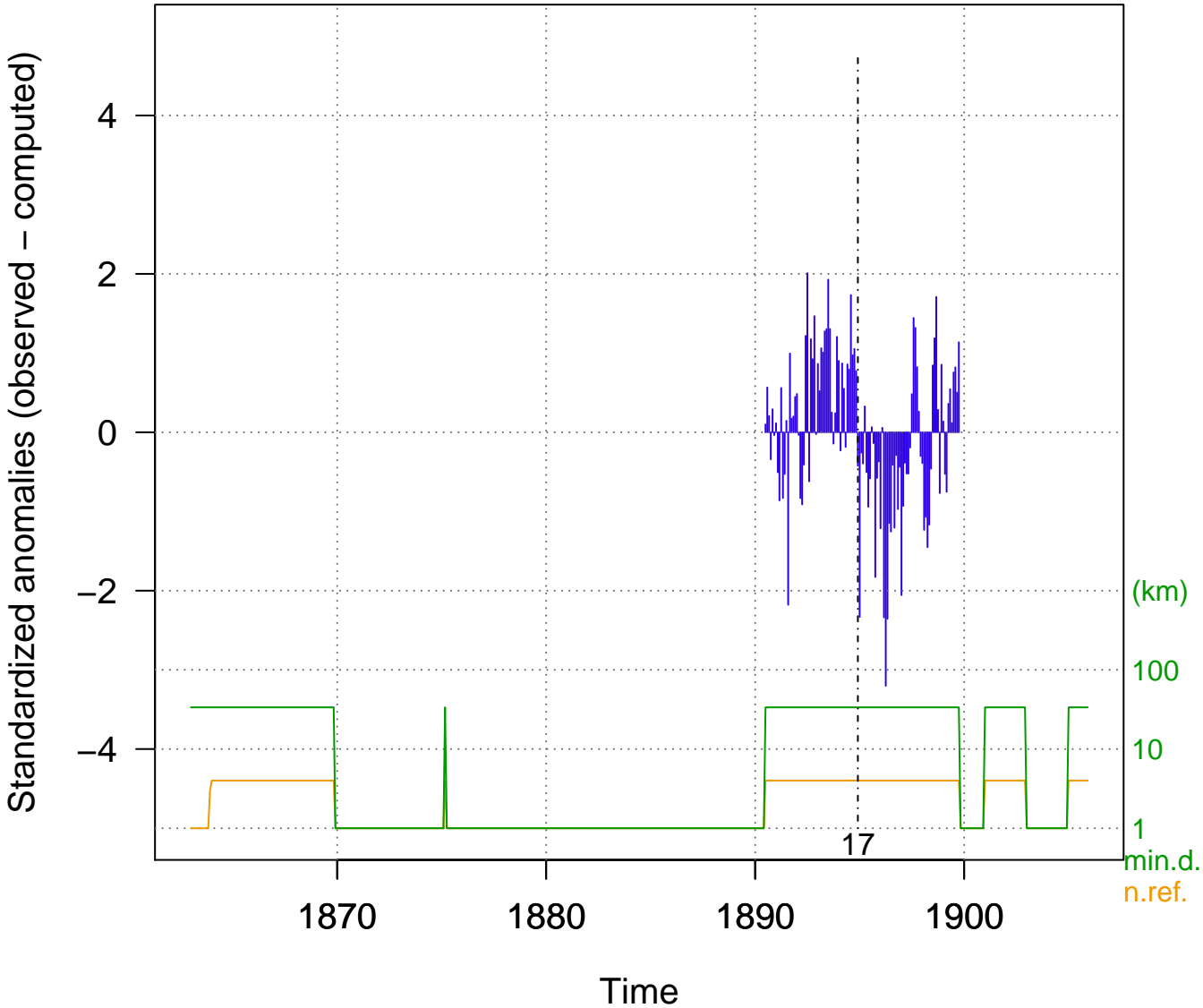
O3 28 (Evora-2) Evora-2



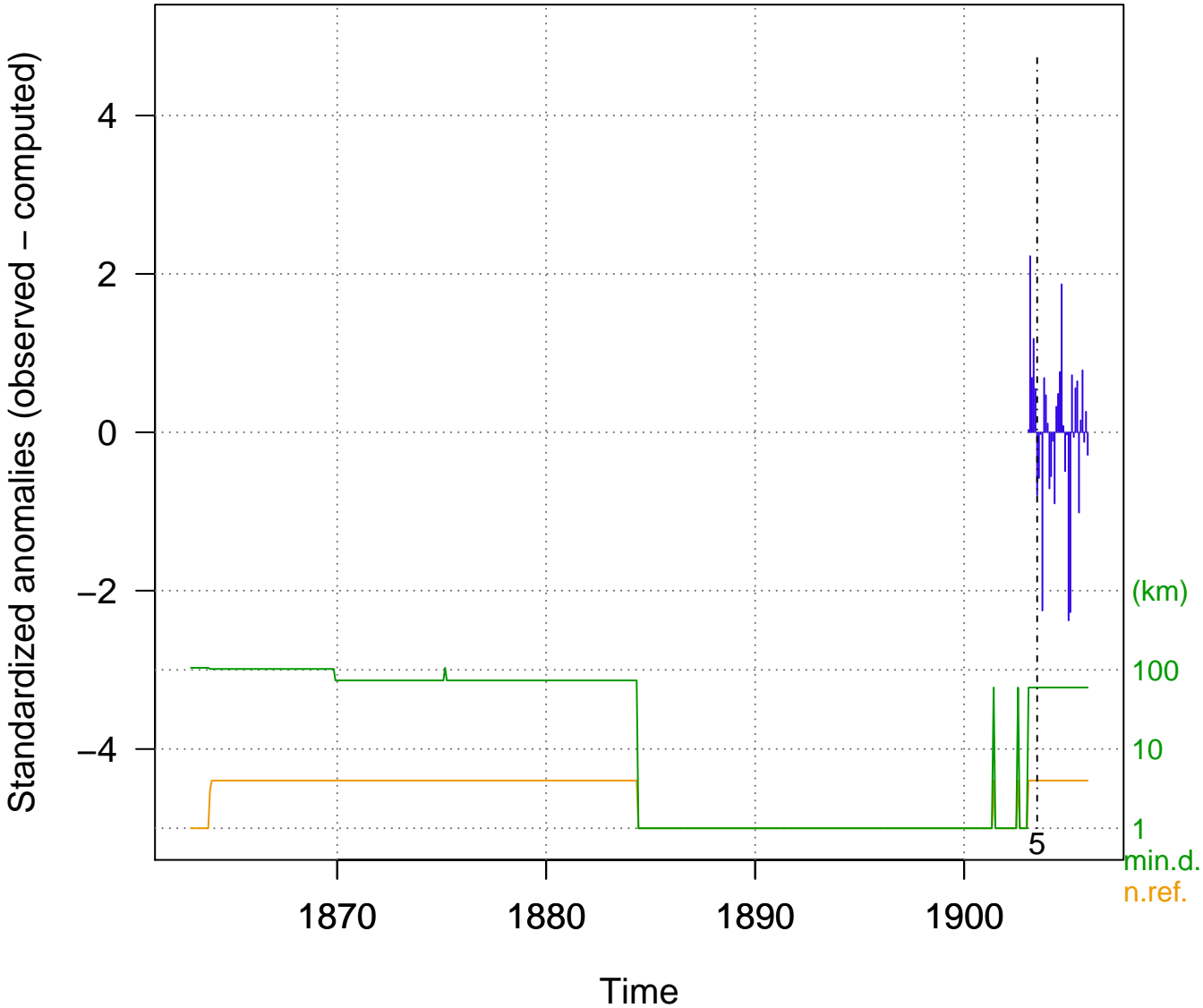
O3 45 (Evora-3)
Evora-3



O3 52 (Evora-4)
Evora-4

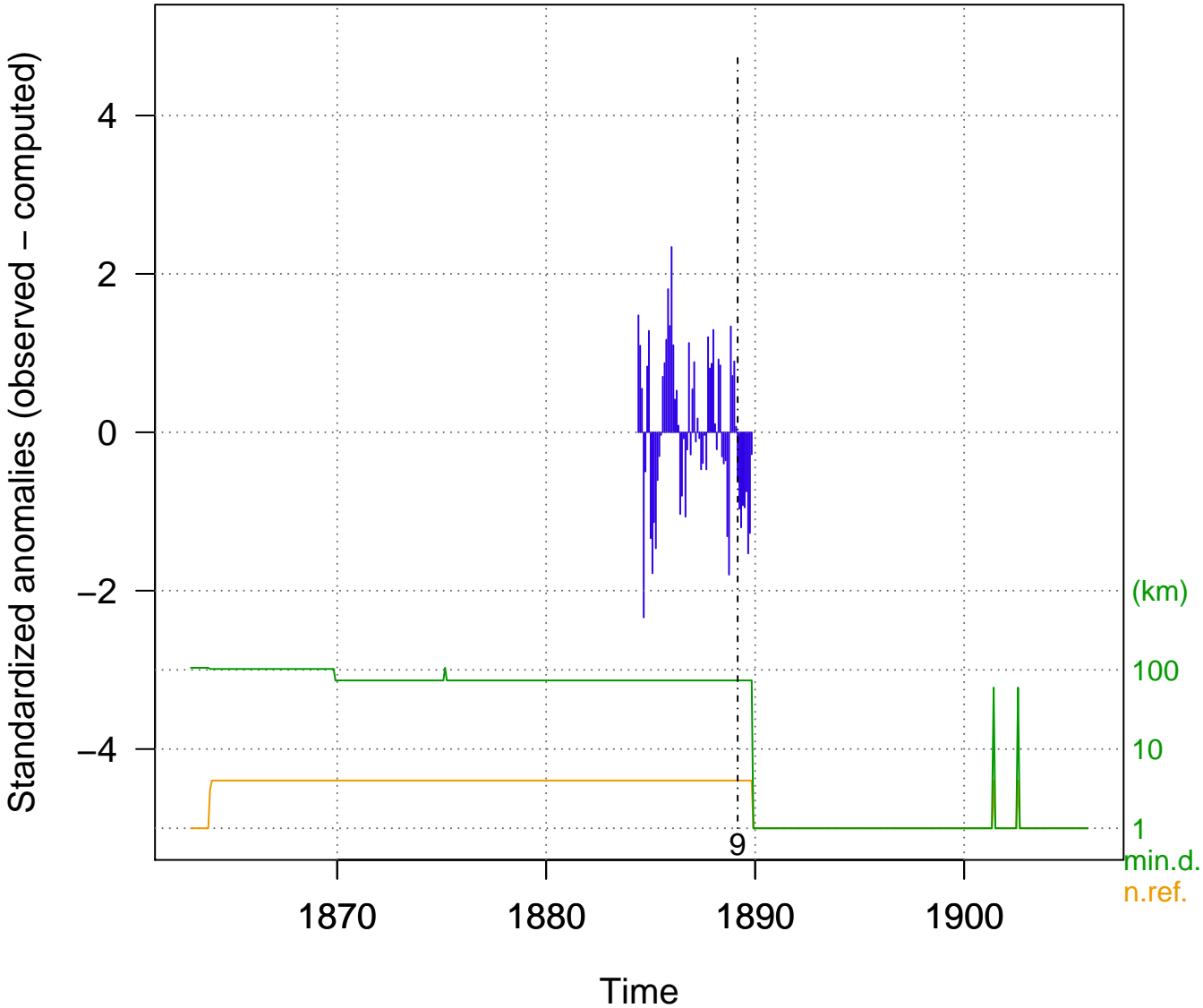


O3 13 (Villa_Fernando) Villa Fernando



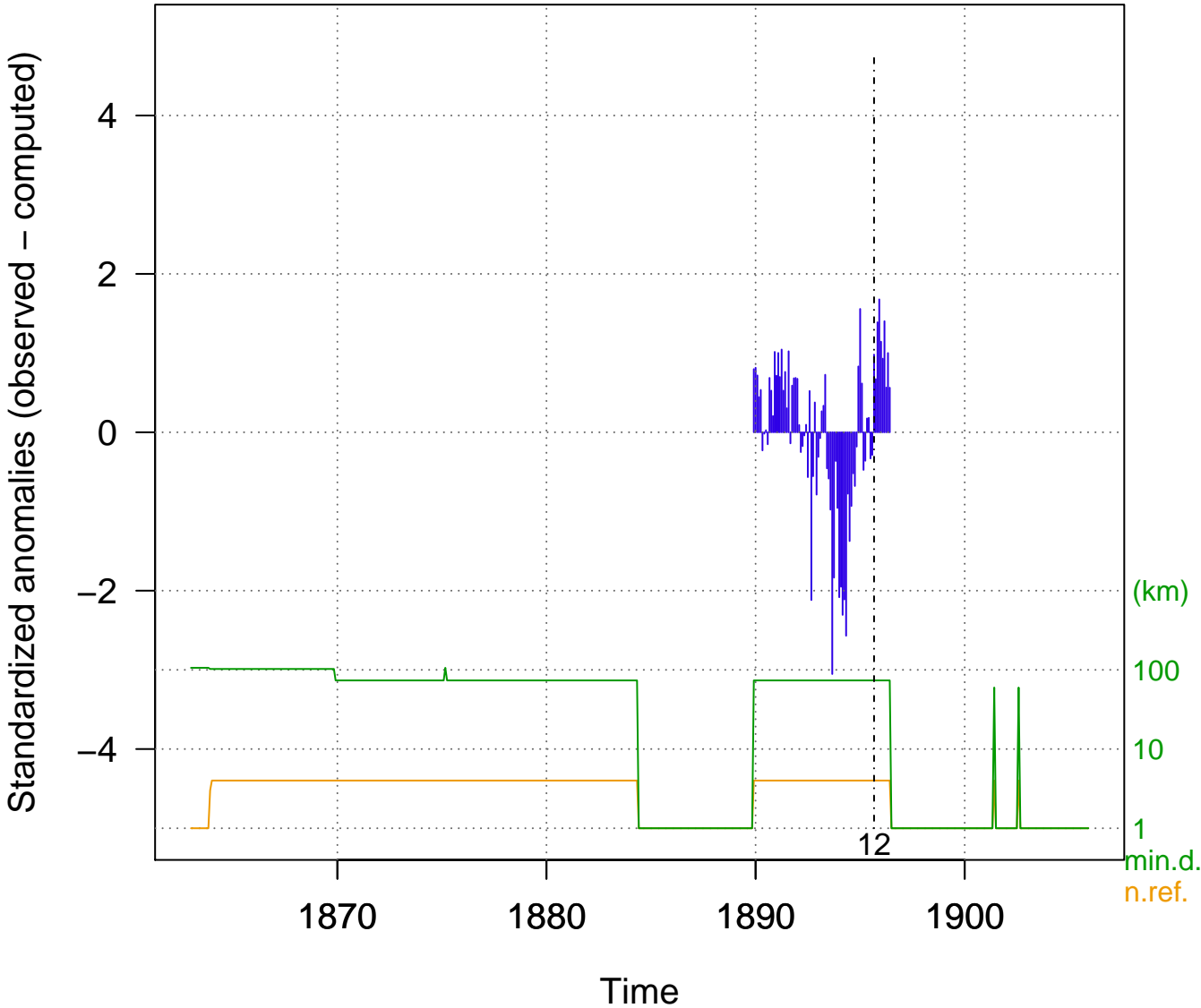
O3 31 (Villa_Fernando-2)

Villa Fernando-2



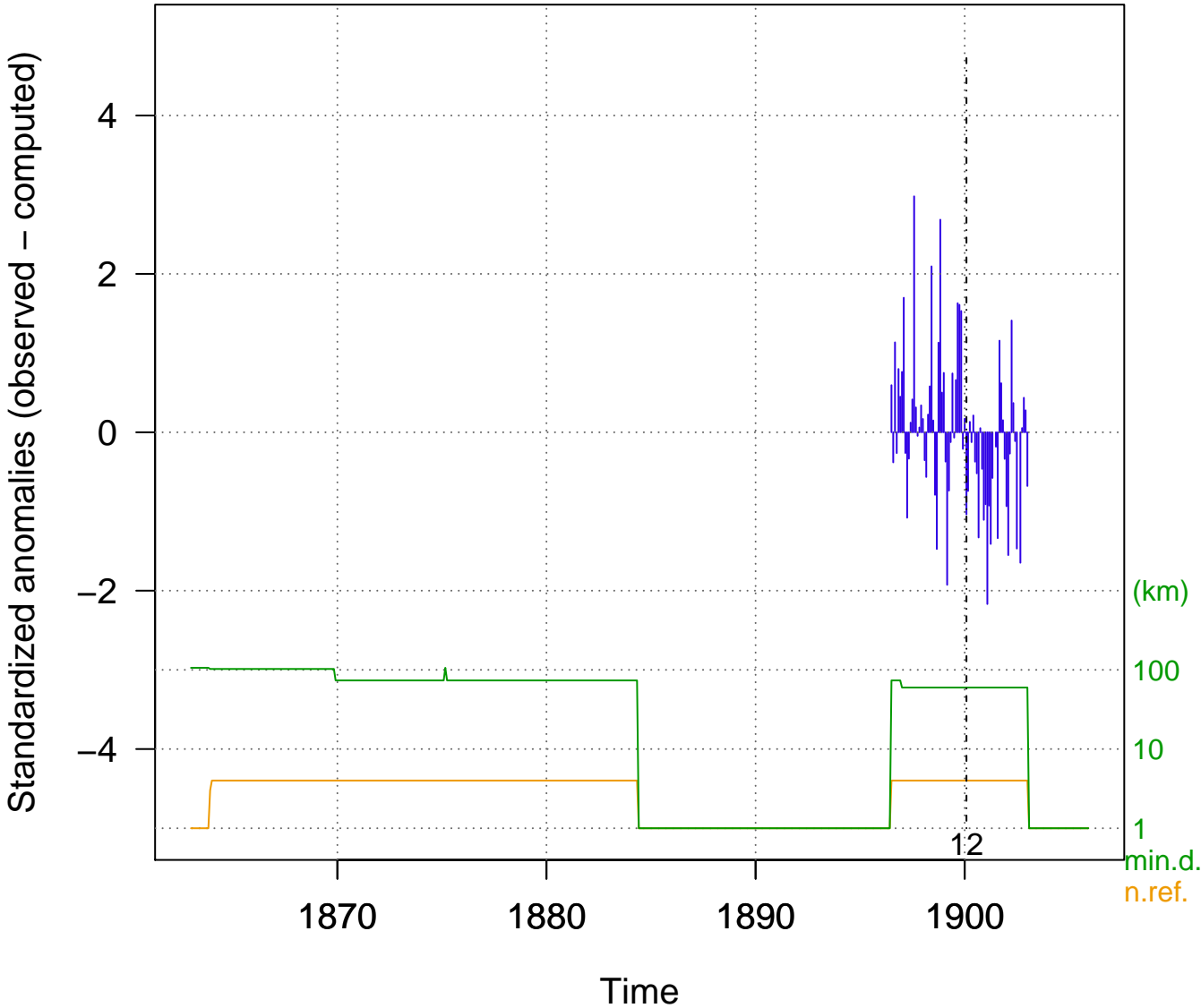
O3 32 (Villa_Fernando-3)

Villa Fernando-3

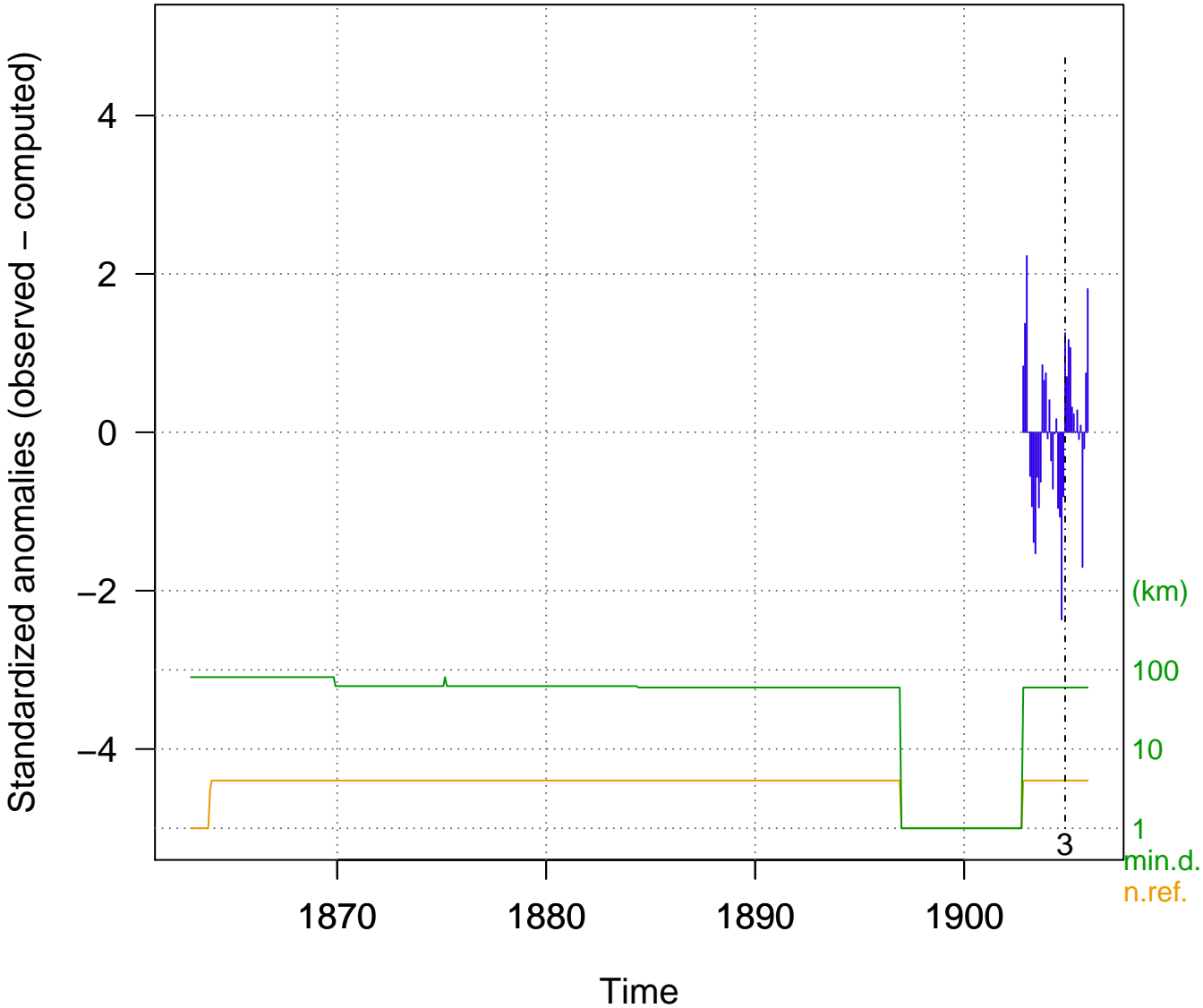


O3 57 (Villa_Fernando-4)

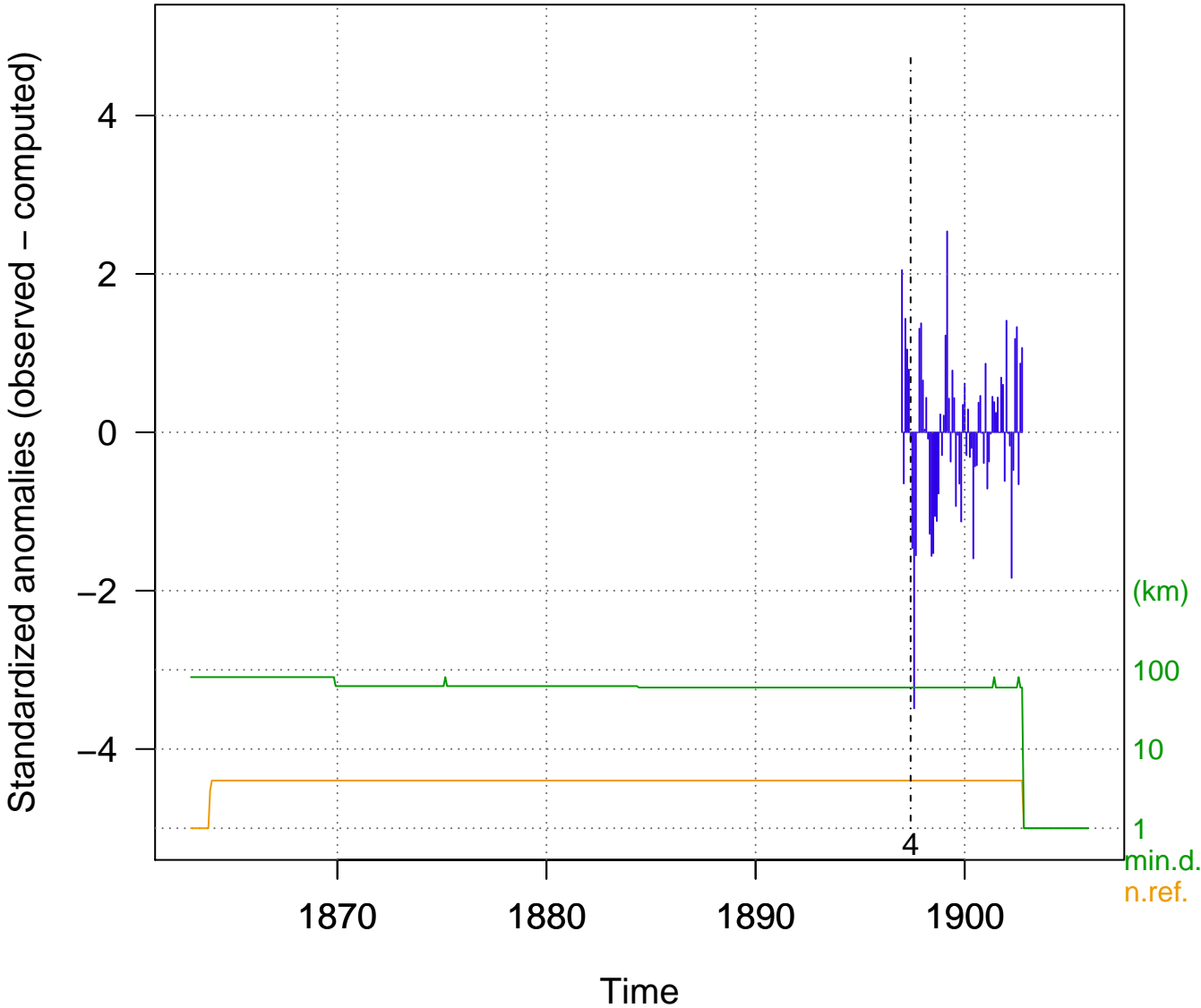
Villa Fernando-4



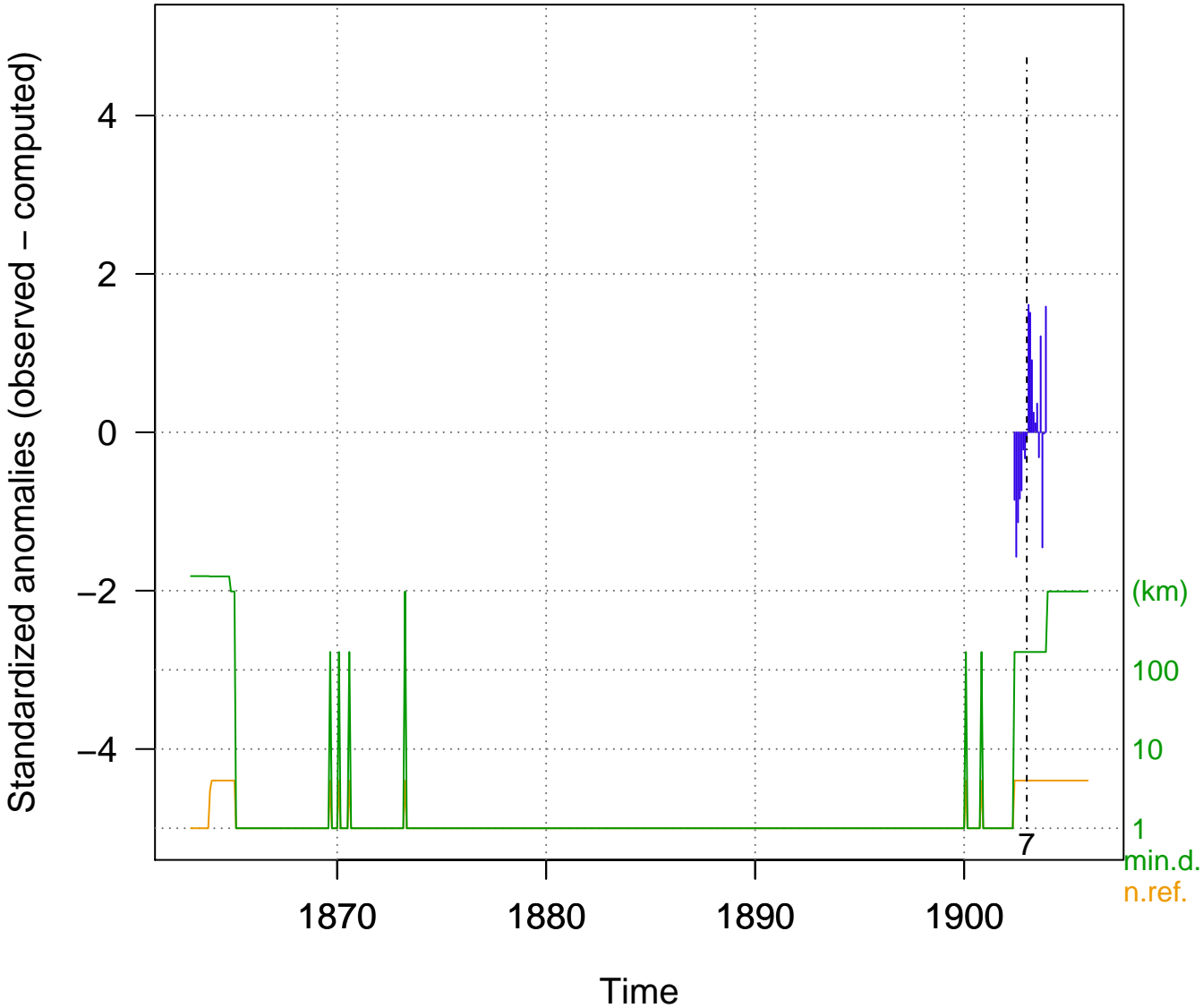
O3 14 (Beja) Beja



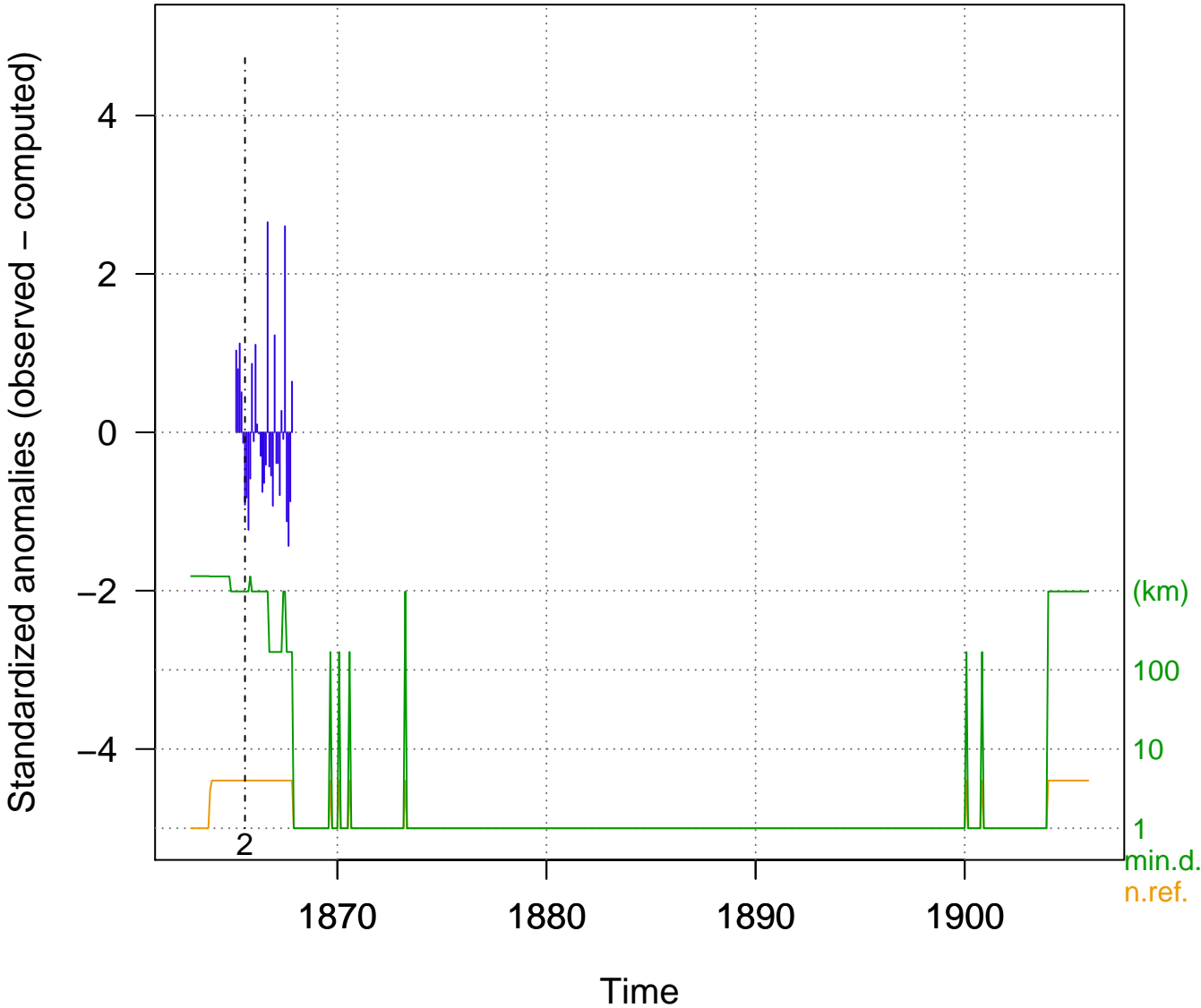
O3 55 (Beja-2)
Beja-2



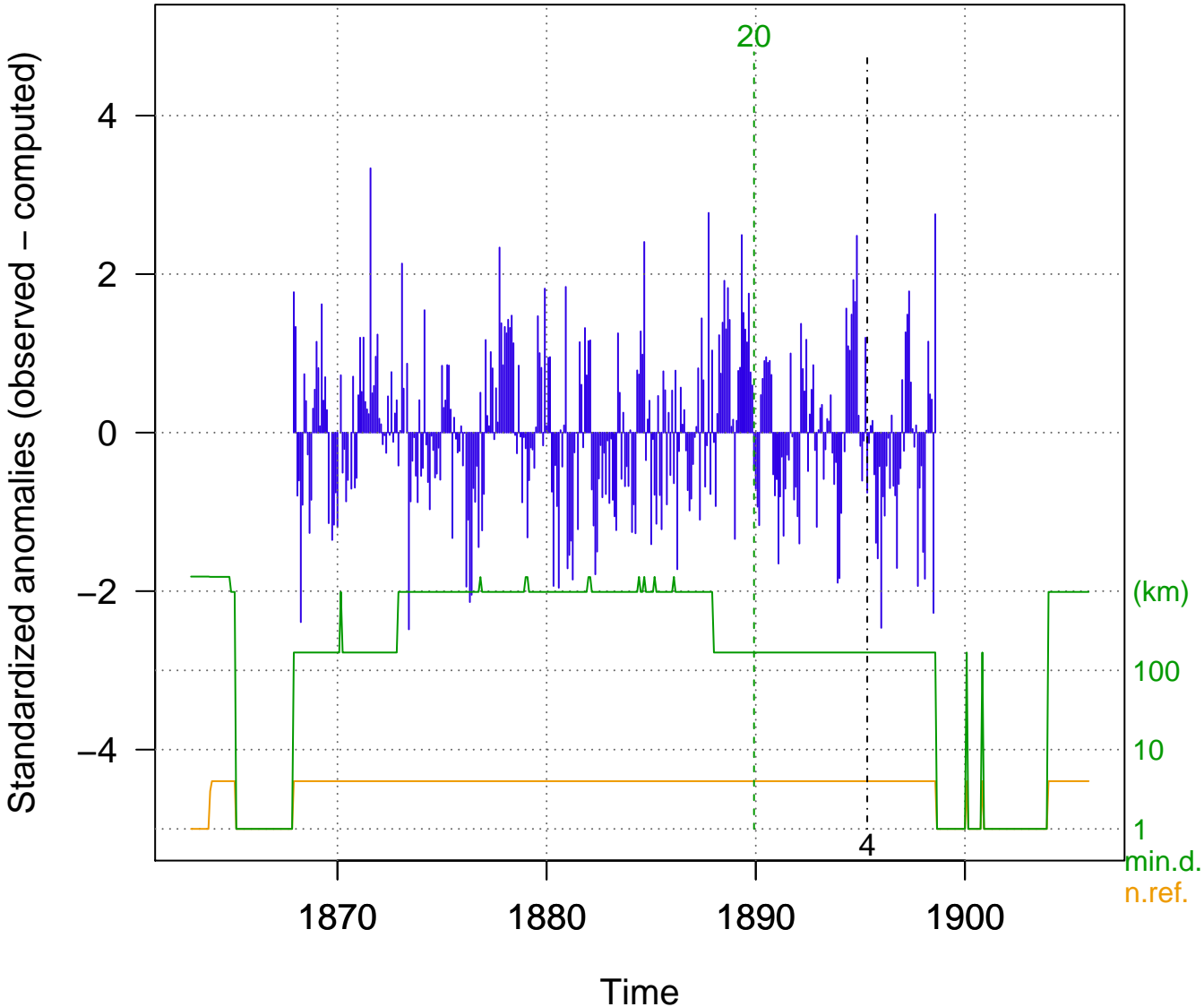
O3 15 (Ponta_Delgada) Ponta Delgada



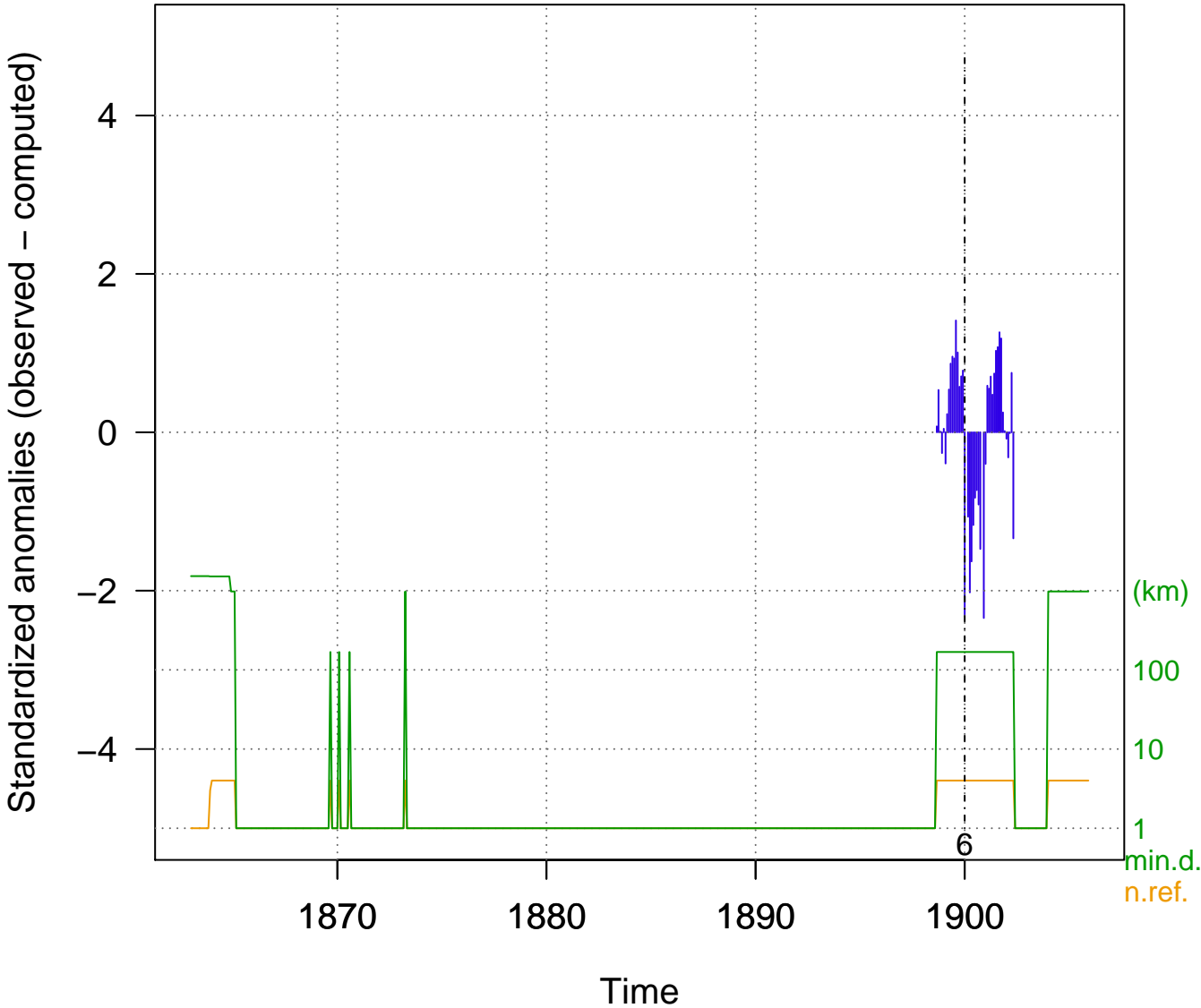
O3 25 (Ponta_Delgada-2) Ponta Delgada-2



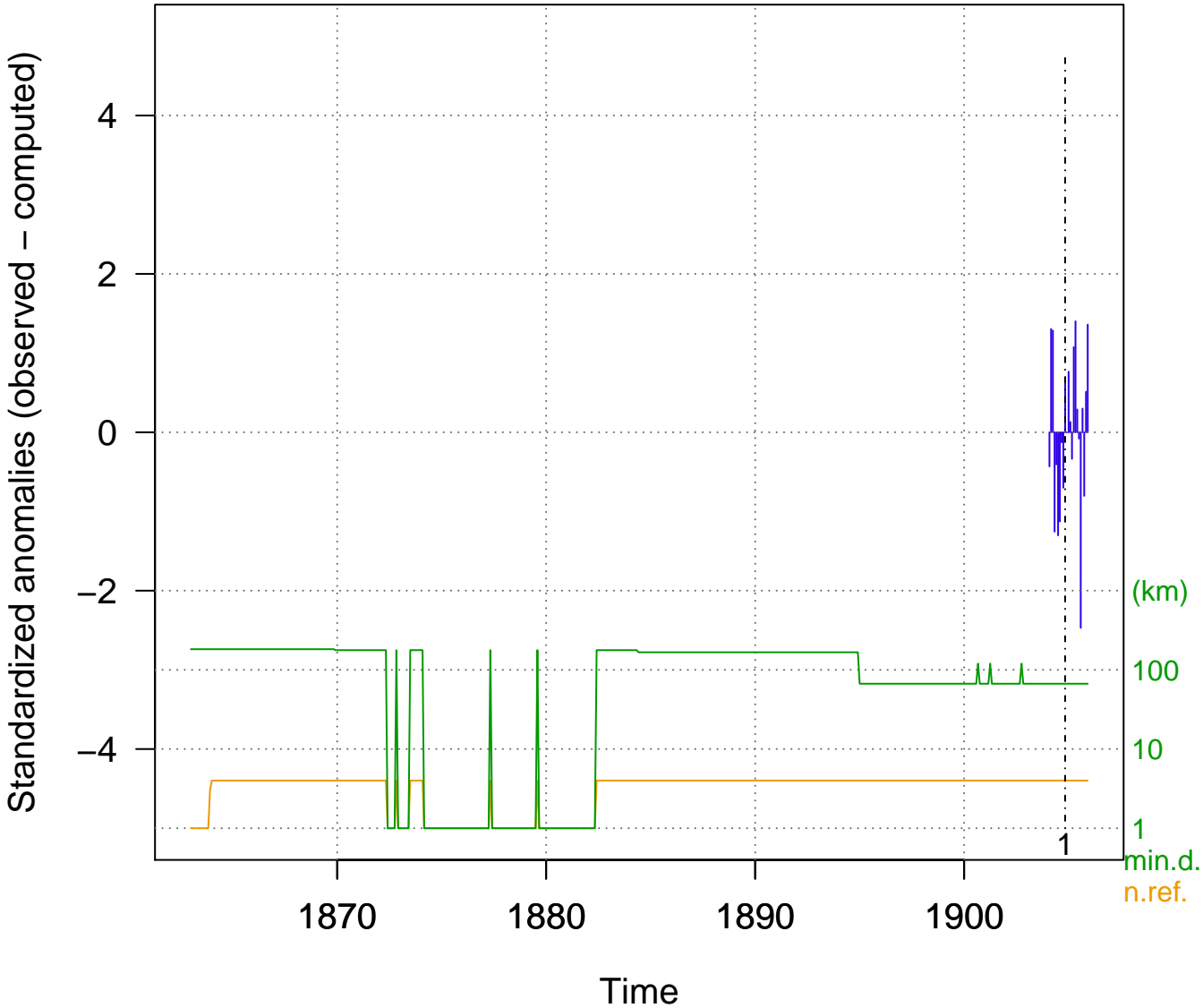
O3 37 (Ponta_Delgada-3)
Ponta Delgada-3



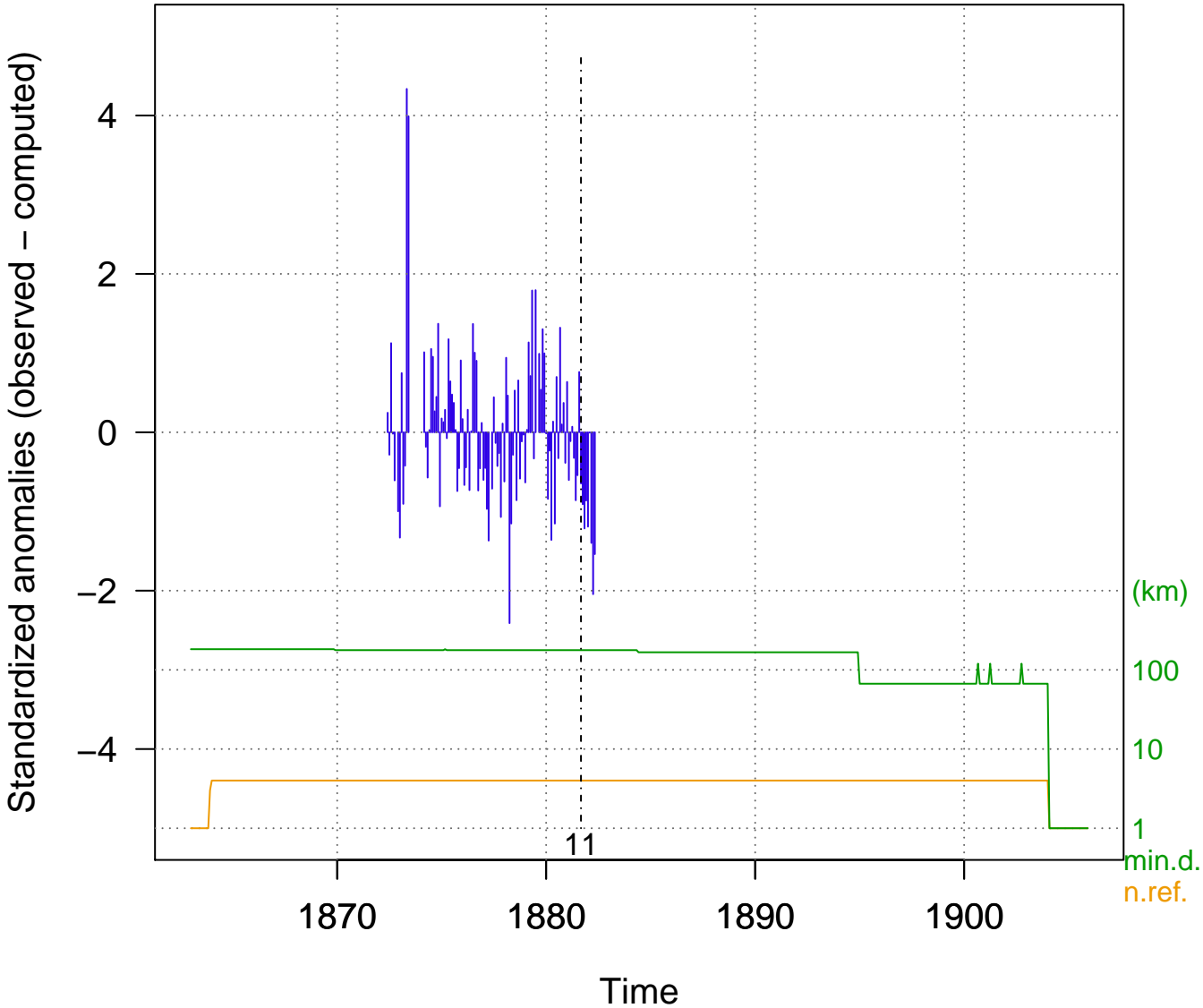
O3 62 (Ponta_Delgada-4)
Ponta Delgada-4



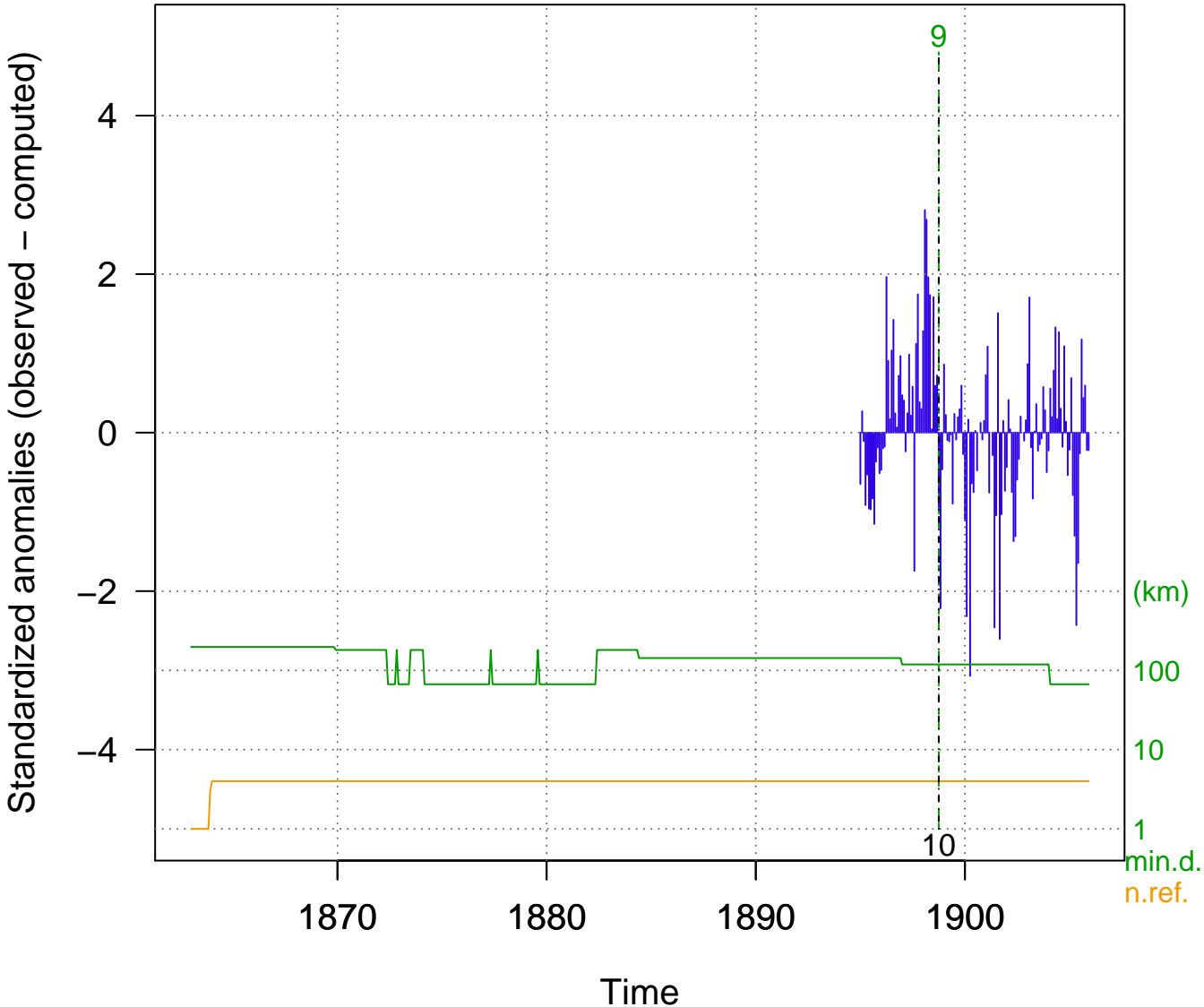
O3 16 (Lagos) Lagos



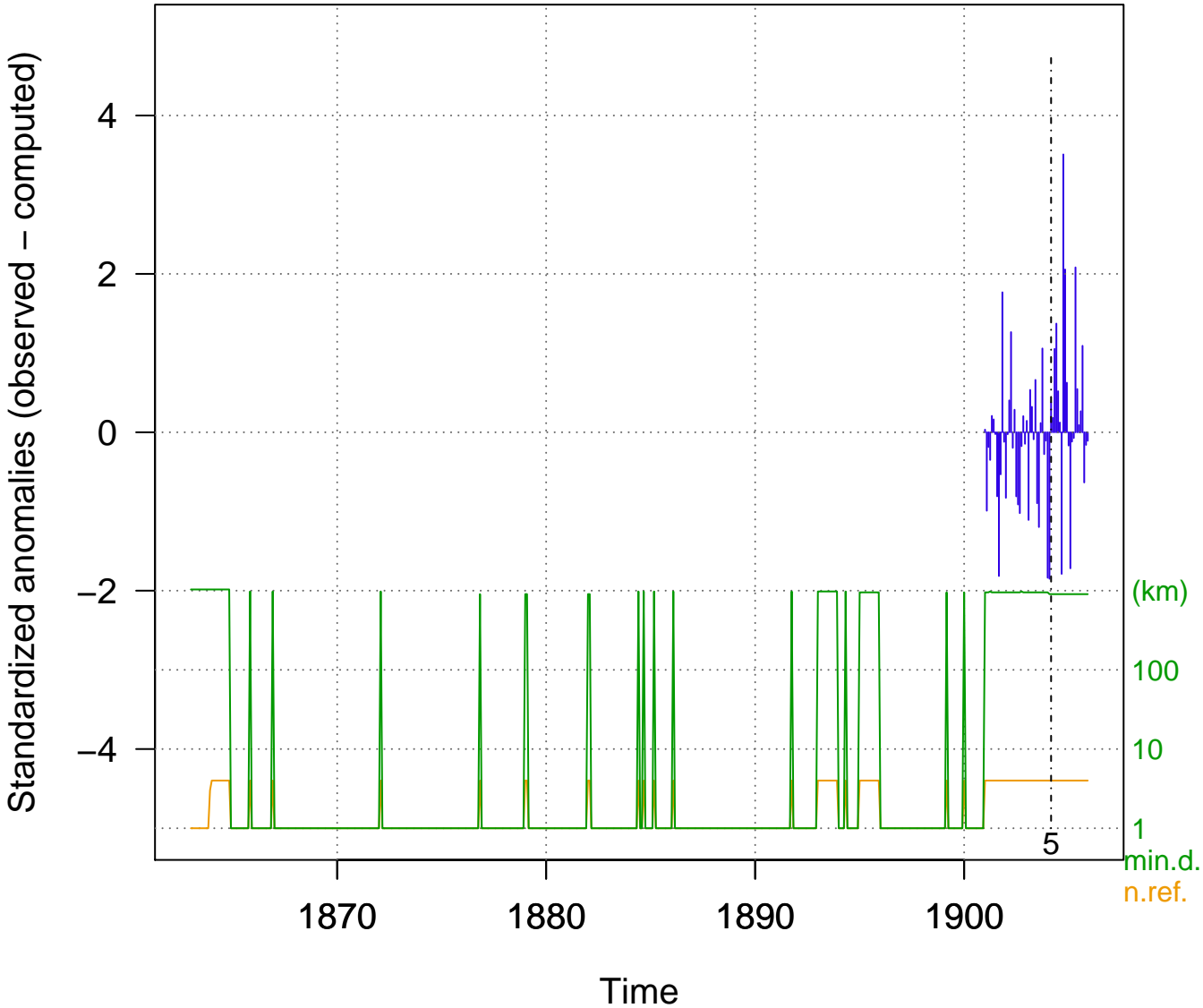
O3 29 (Lagos-2) Lagos-2



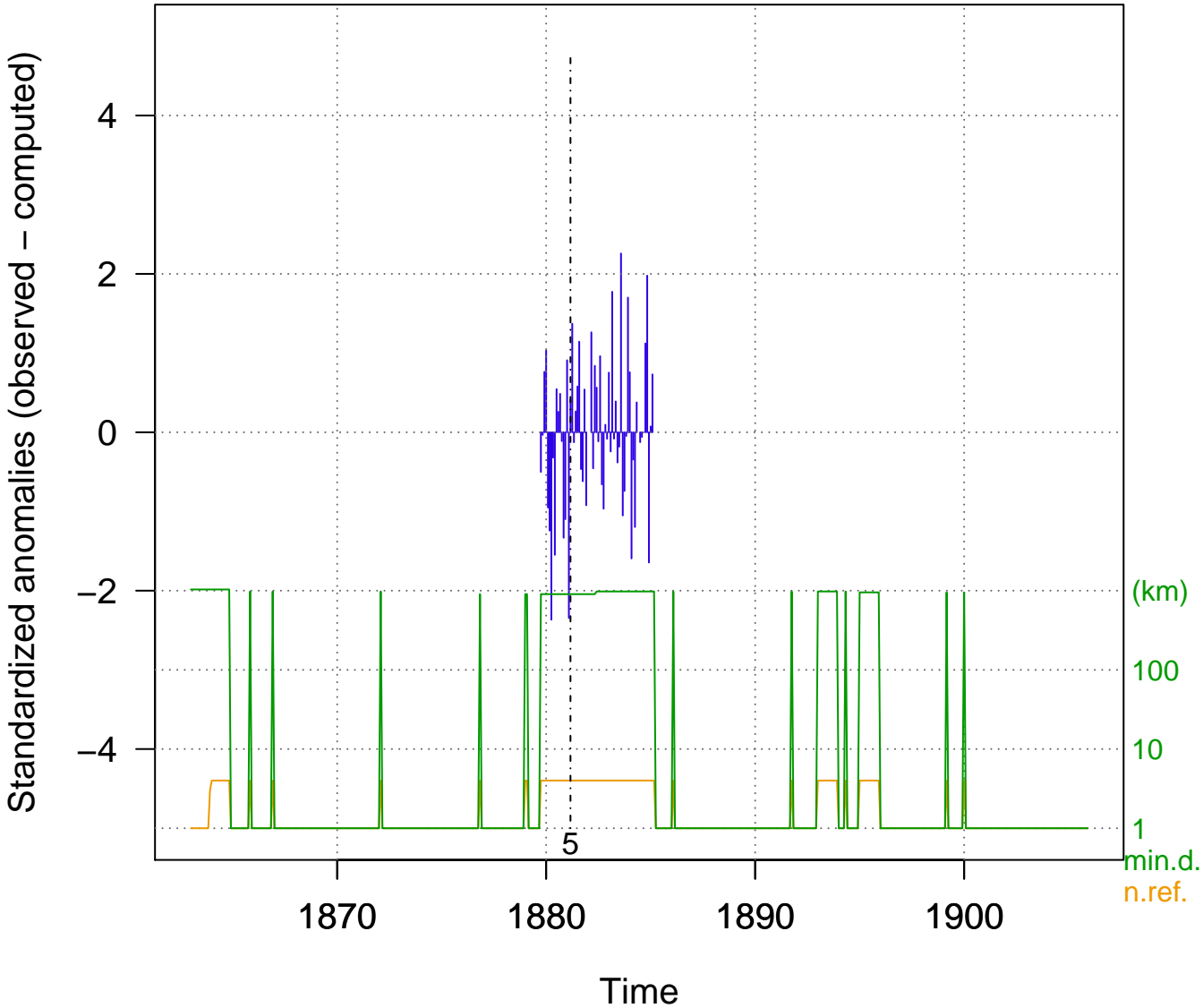
O3 17 (Faro) Faro



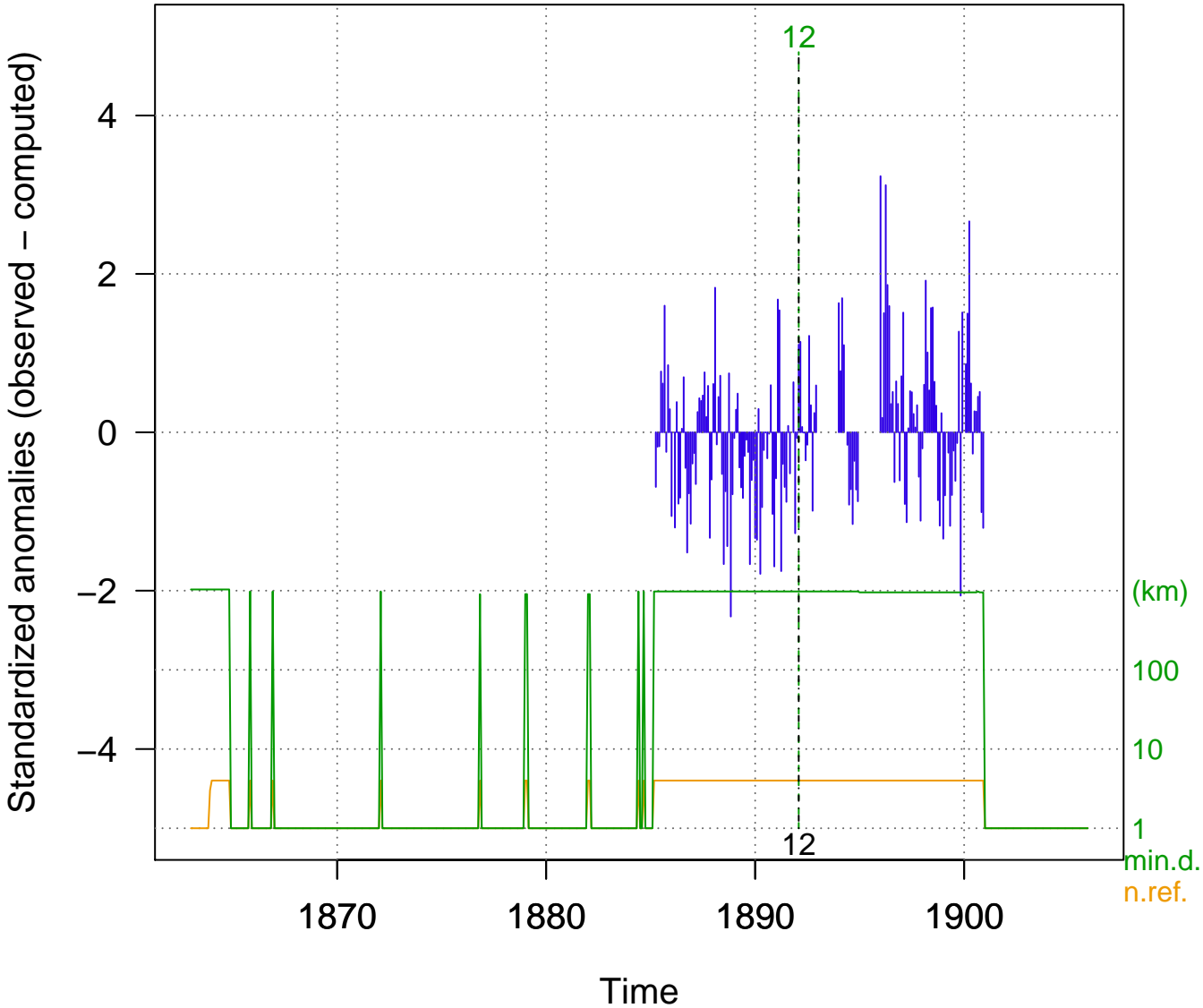
O3 18 (Funchal) Funchal



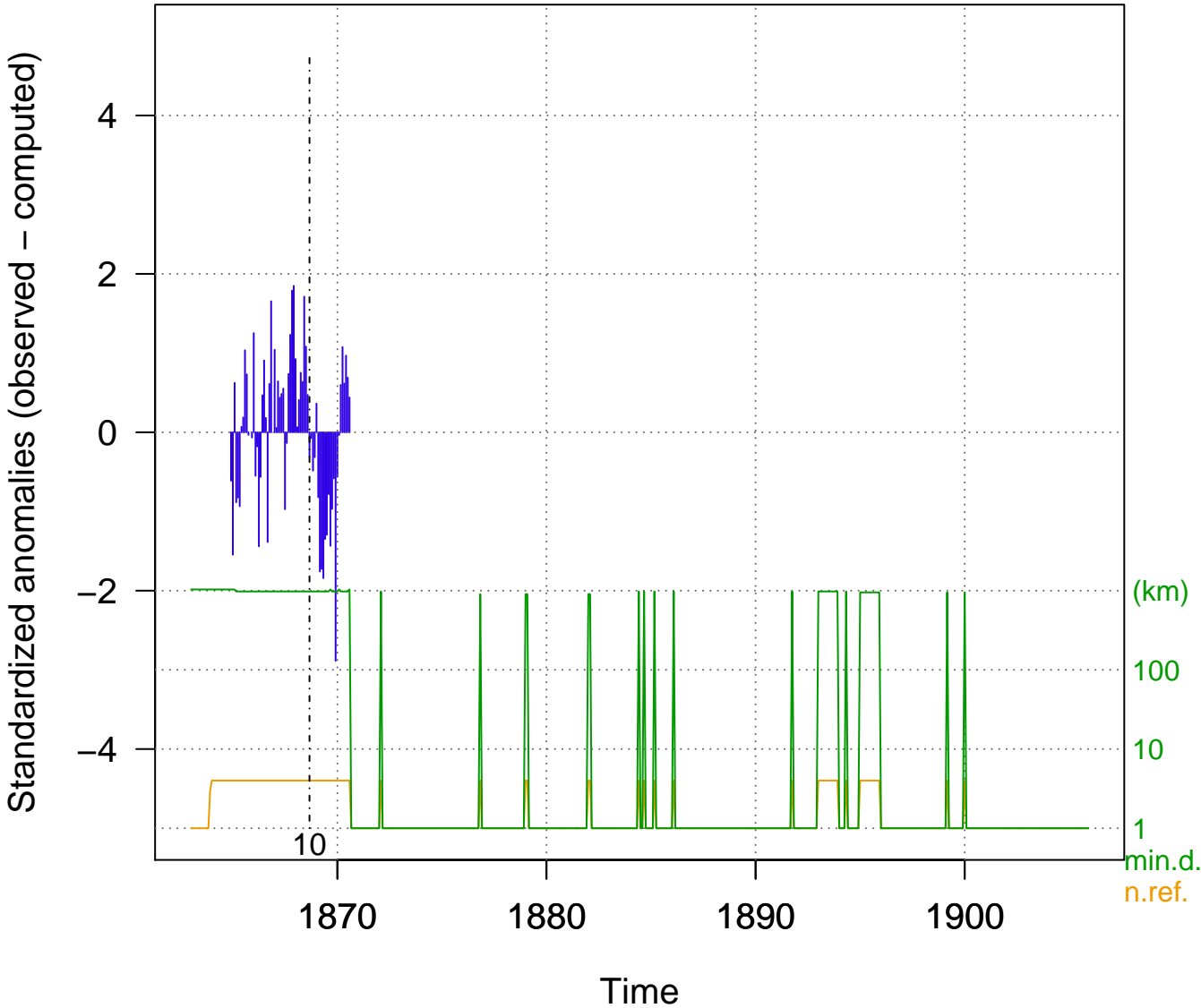
O3 35 (Funchal-2) Funchal-2



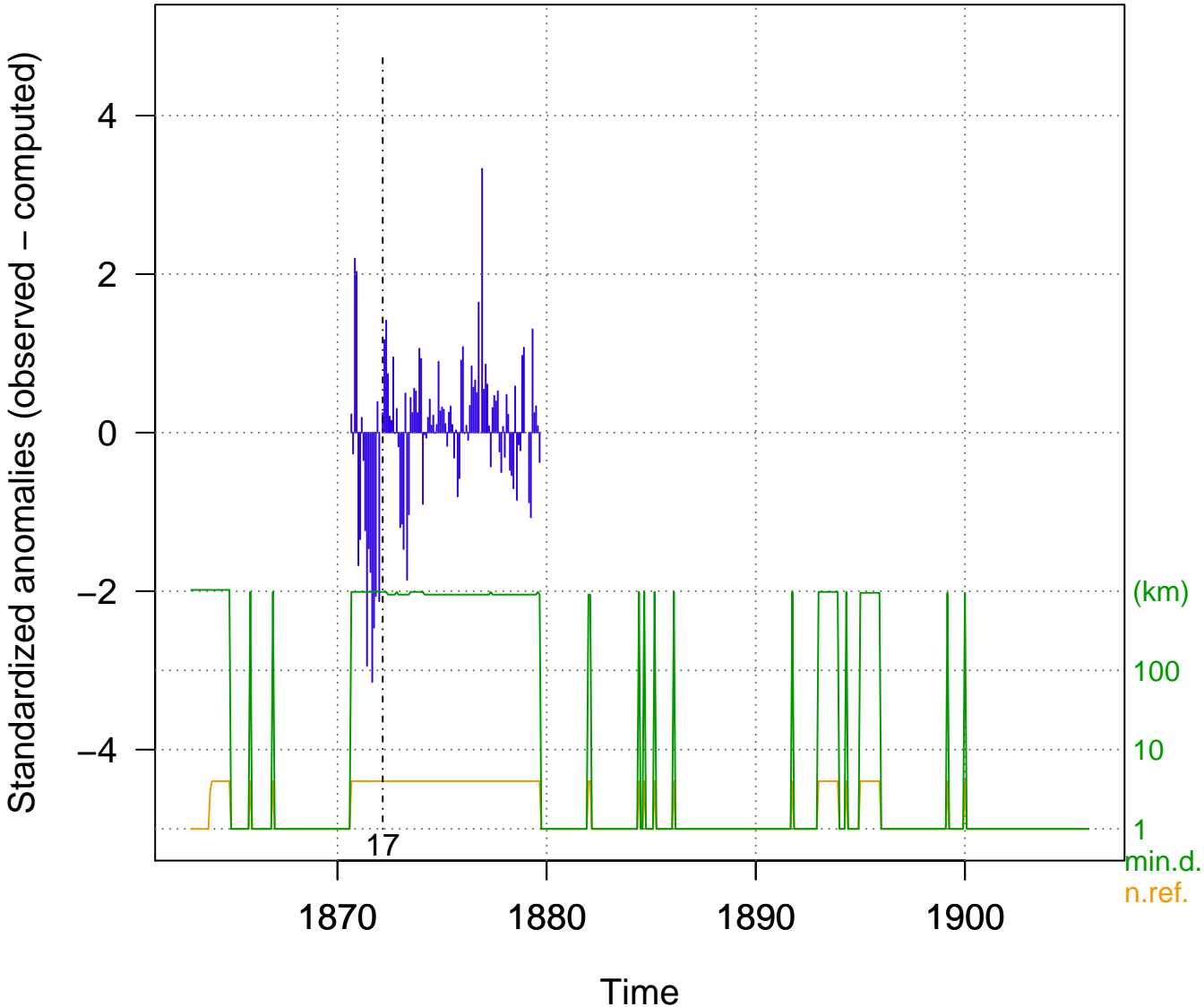
O3 41 (Funchal-3) Funchal-3



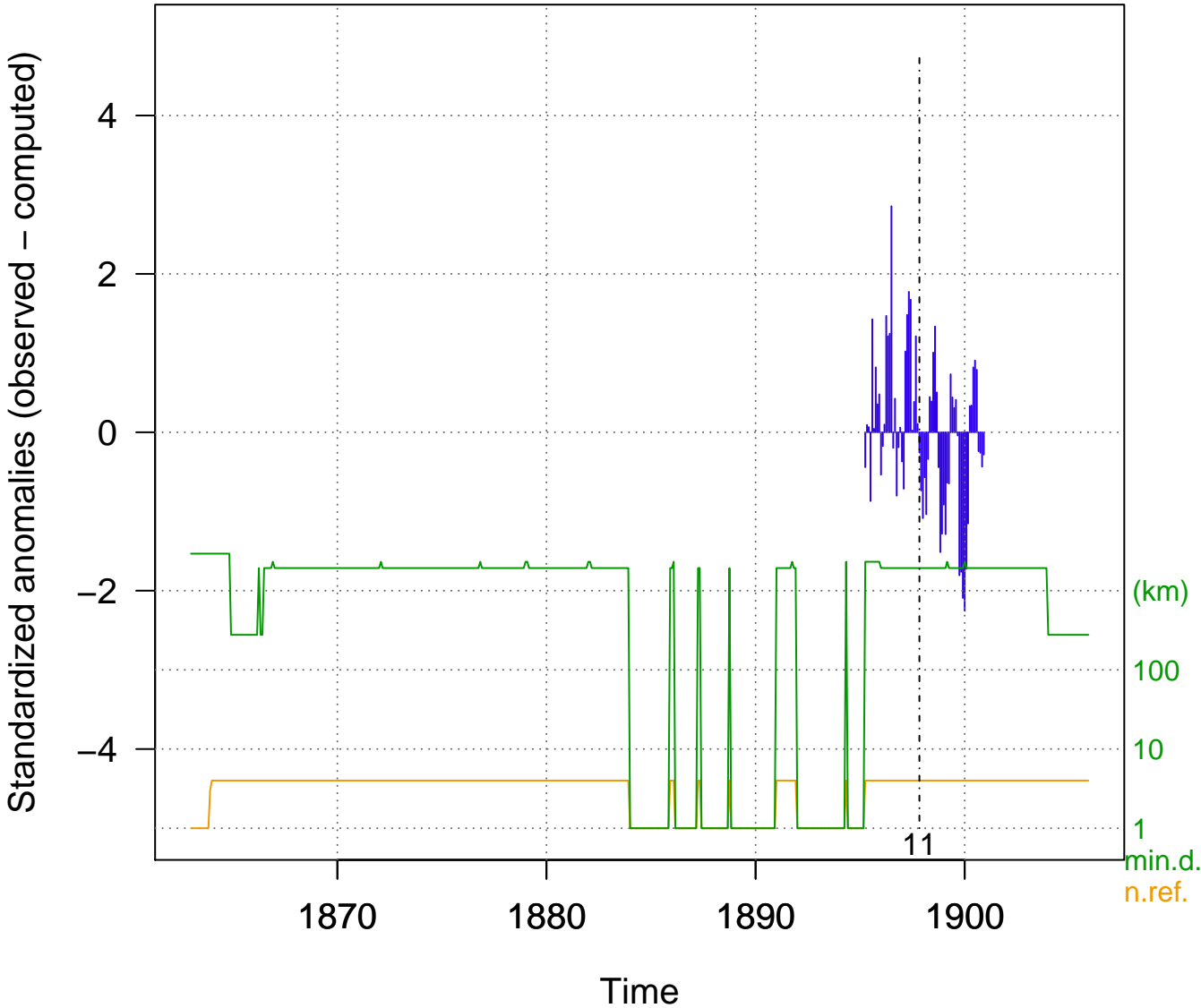
O3 43 (Funchal-4) Funchal-4



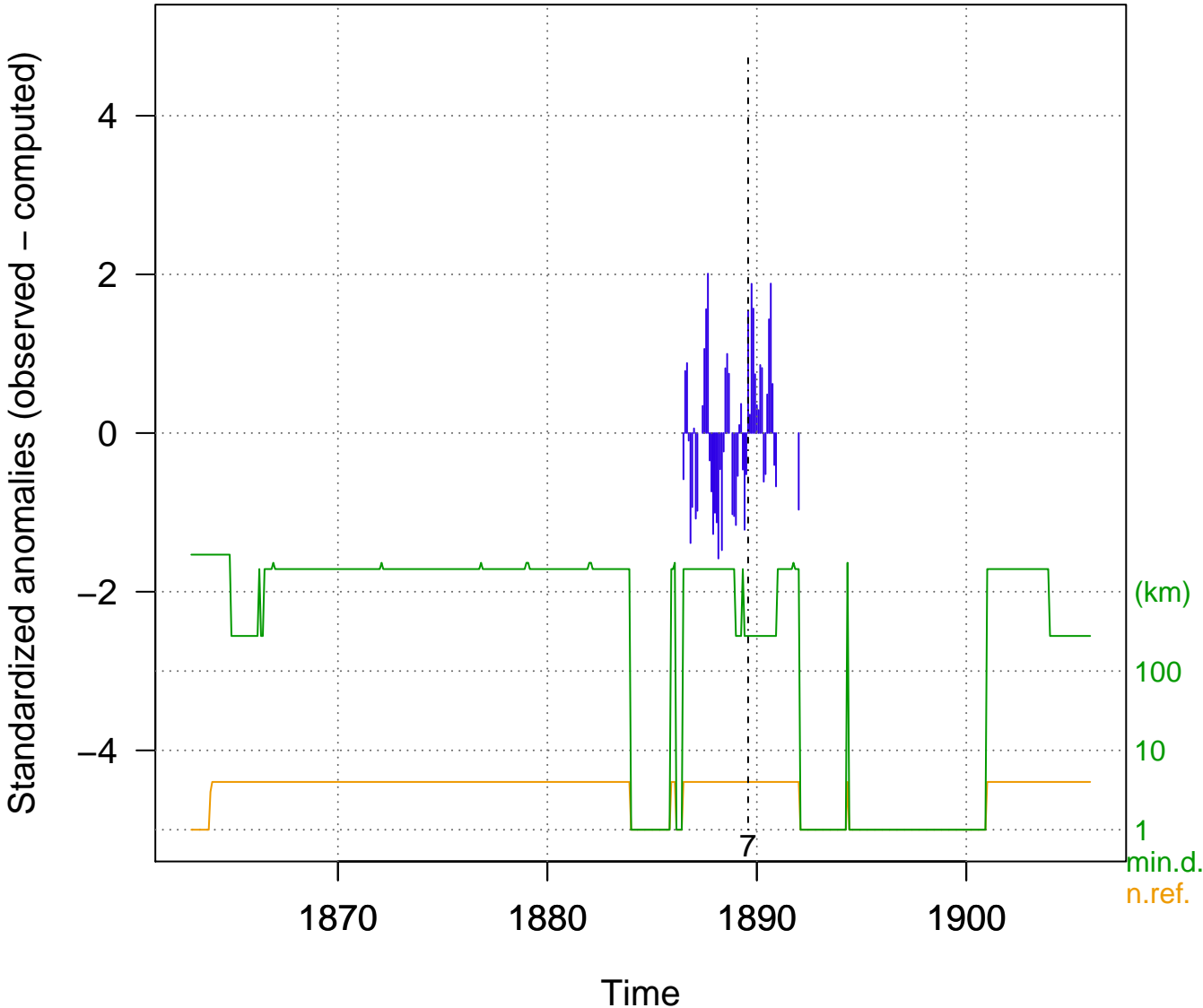
O3 65 (Funchal-5) Funchal-5



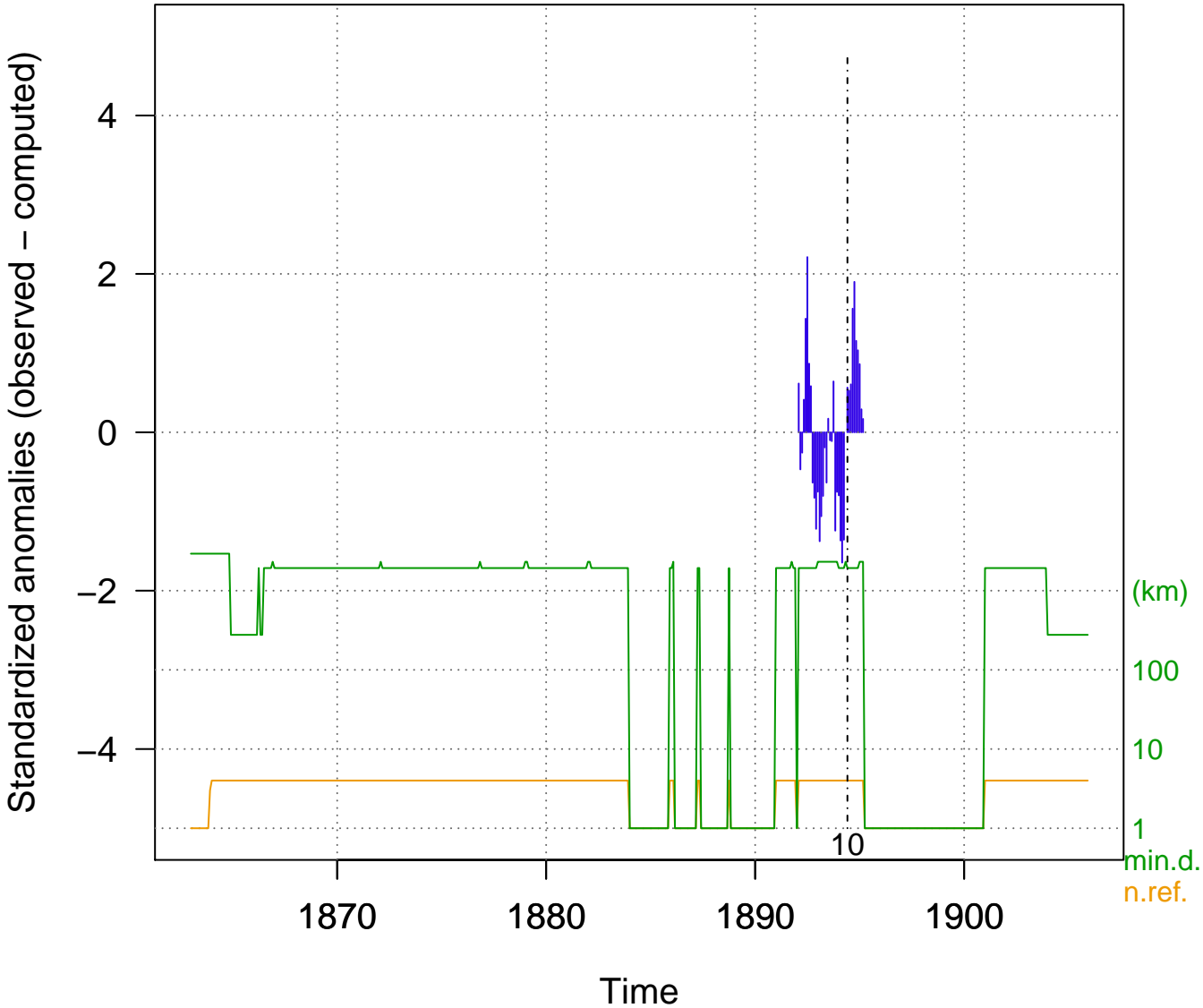
O3 19 (S._Vicente) S. Vicente



O3 42 (S._Vicente-2)
S. Vicente-2



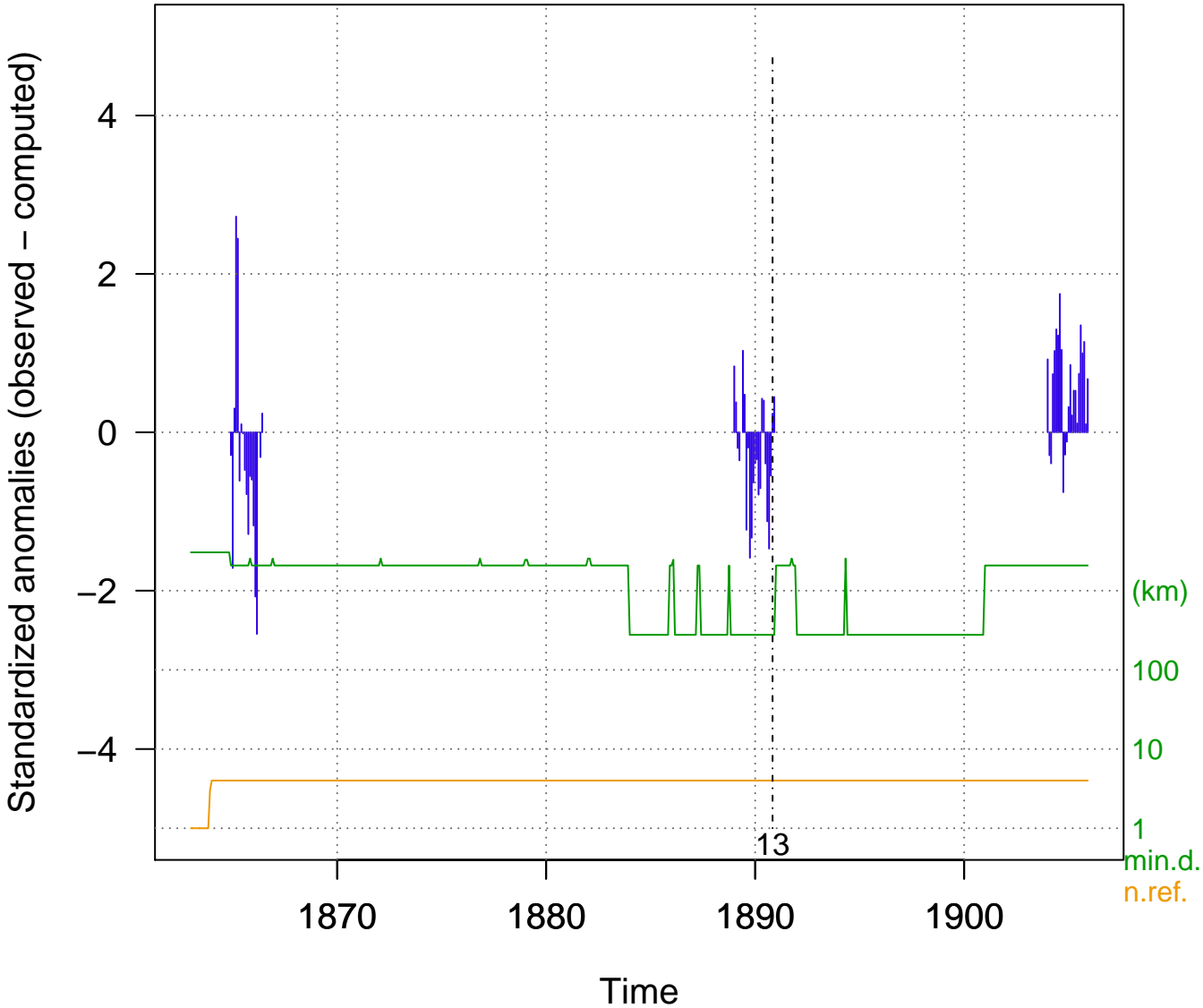
O3 53 (S._Vicente-3)
S. Vicente-3



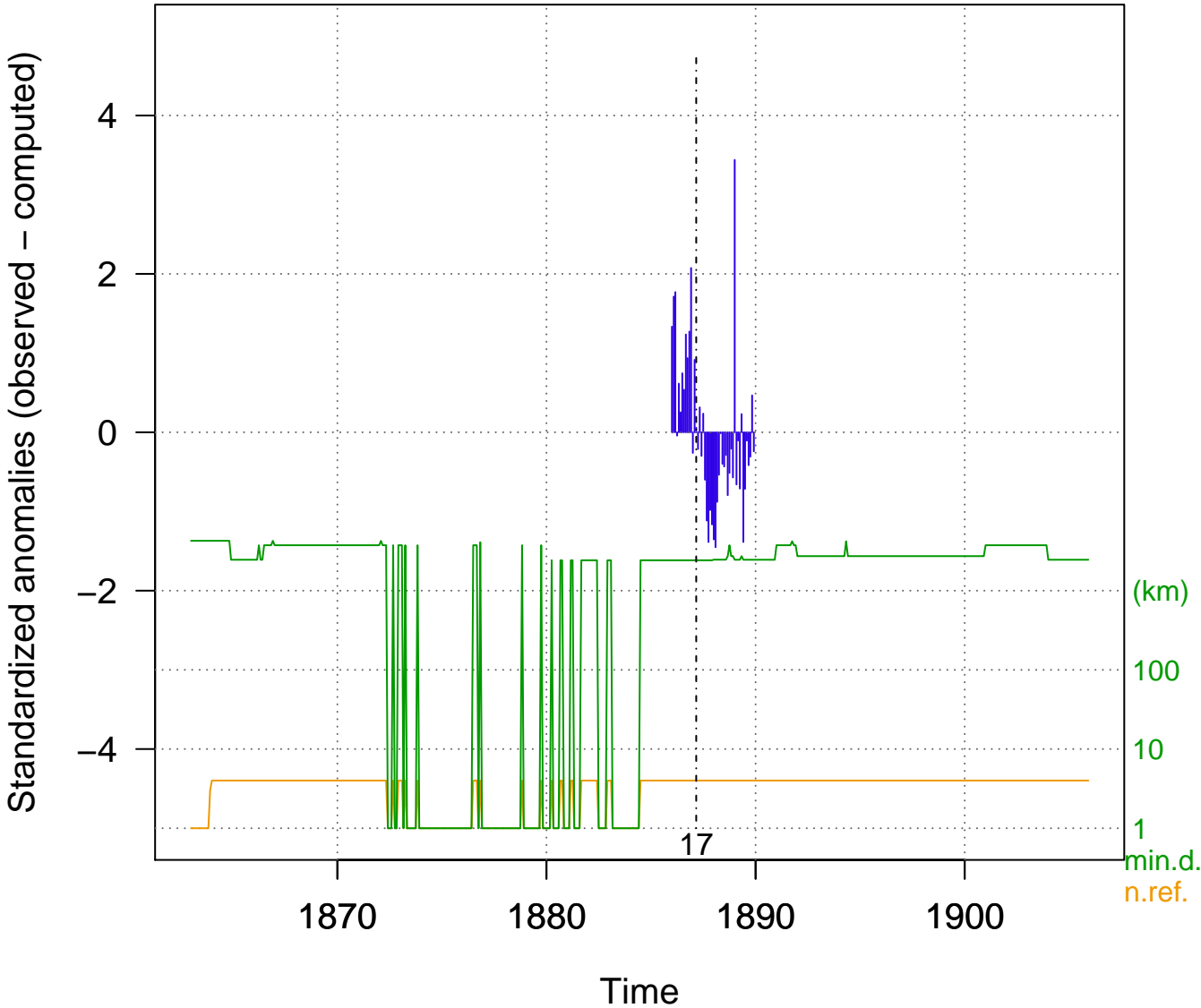
O3 54 (S._Vicente-4)
S. Vicente-4



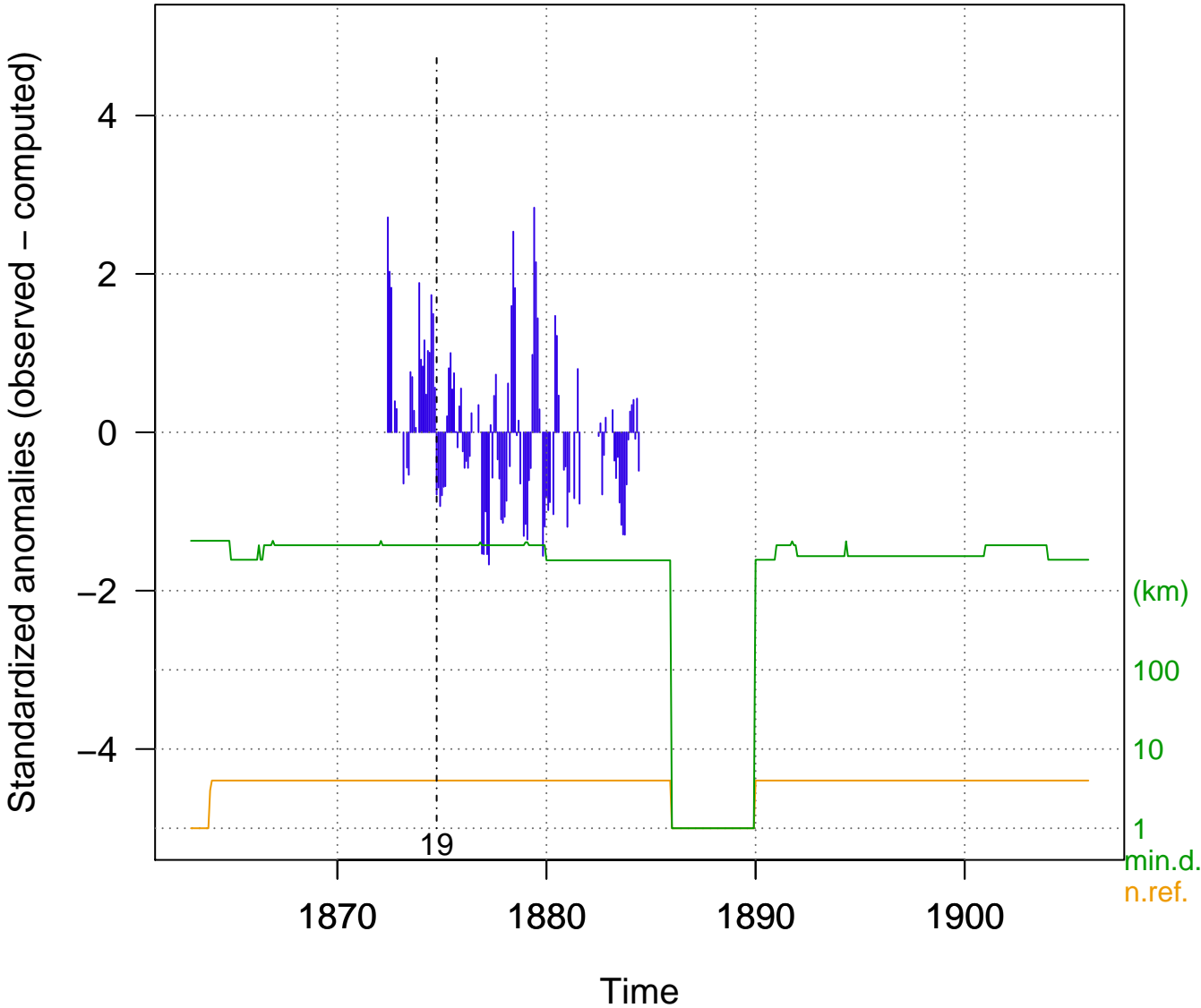
O3 20 (Cidade_da_Praia) Cidade da Praia



O3 21 (S._Thome)
S. Thome

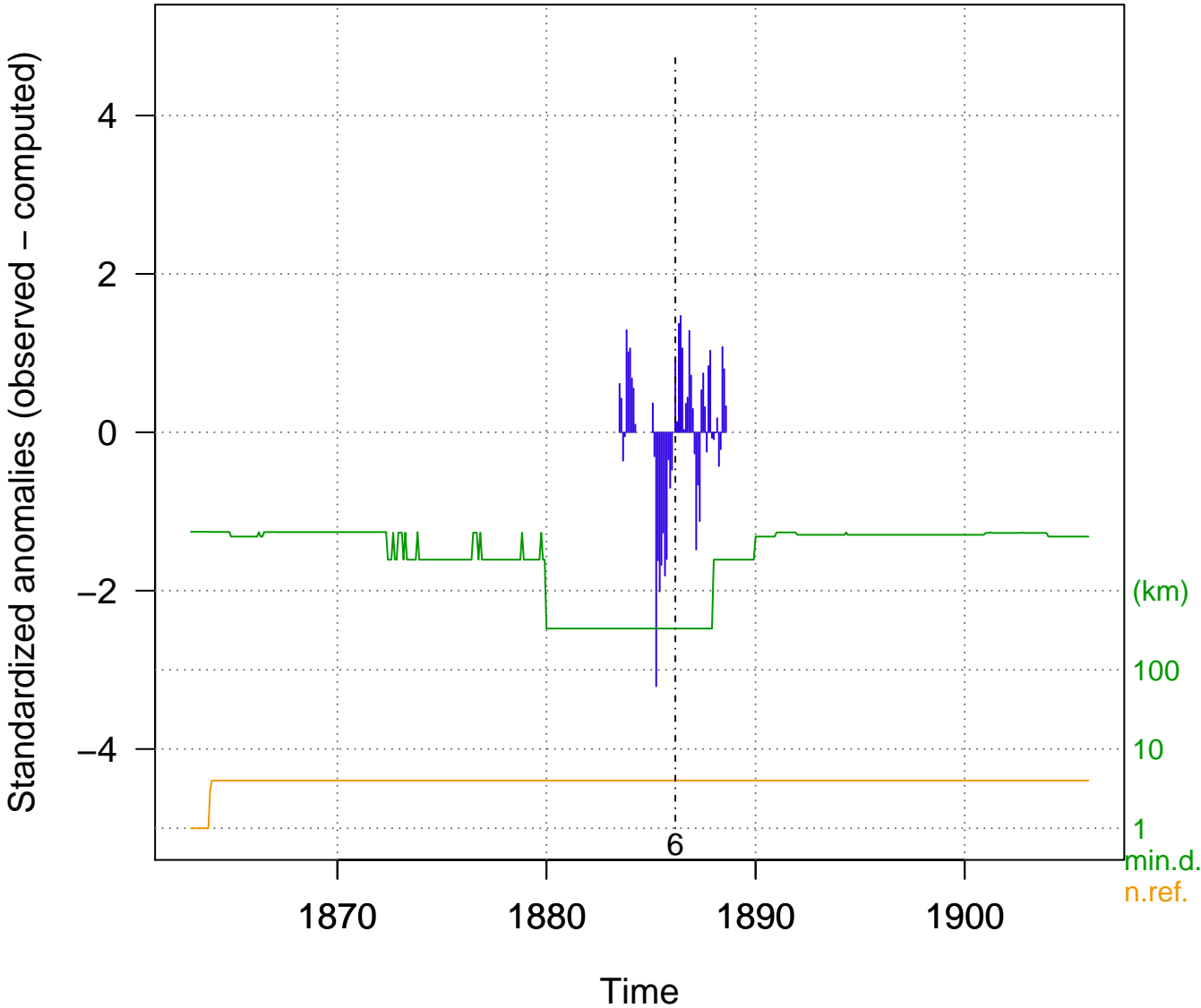


O3 30 (S._Thome-2)
S. Thome-2

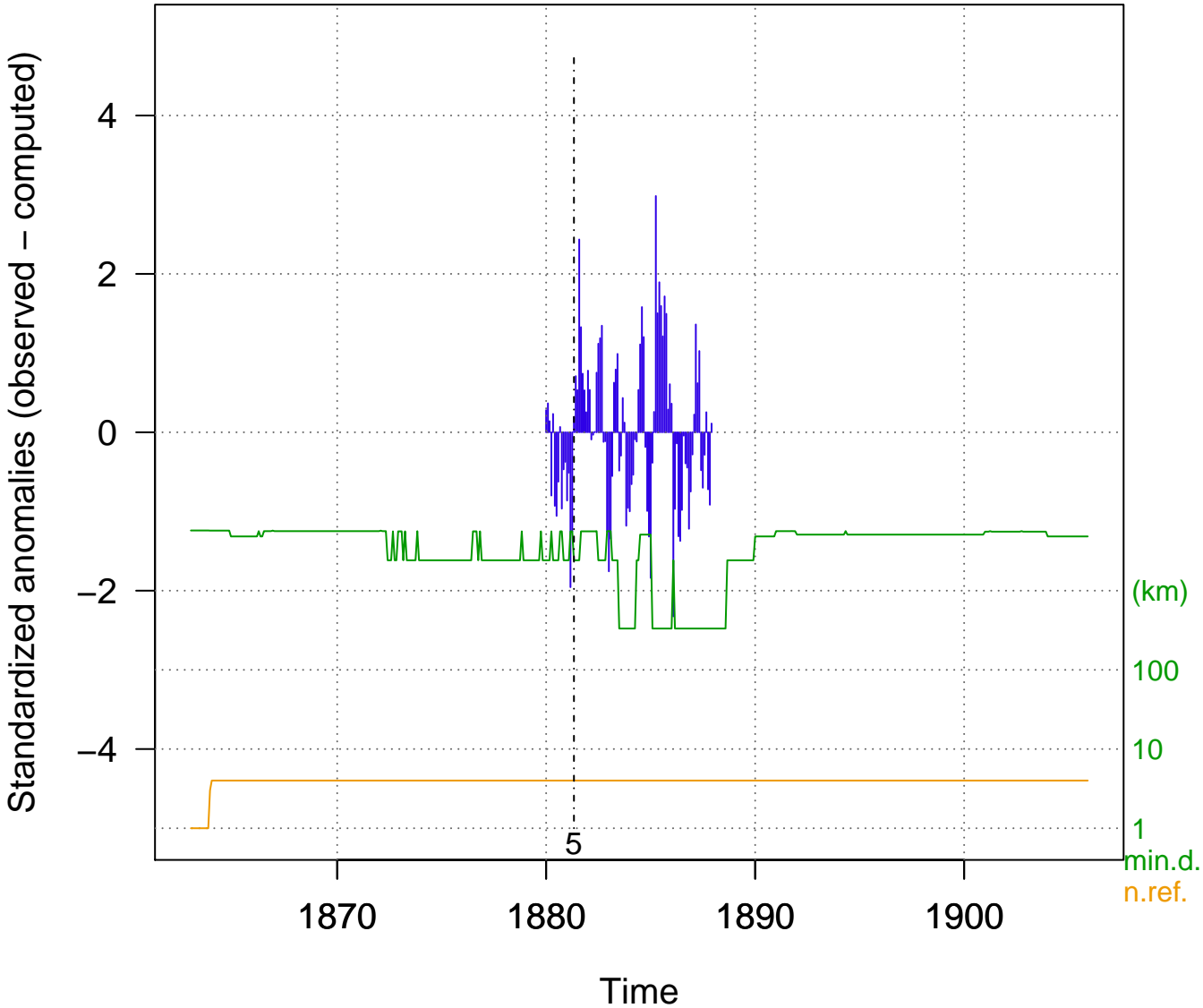


O3 22 (S._Salvador_do_Congo)

S. Salvador do Congo



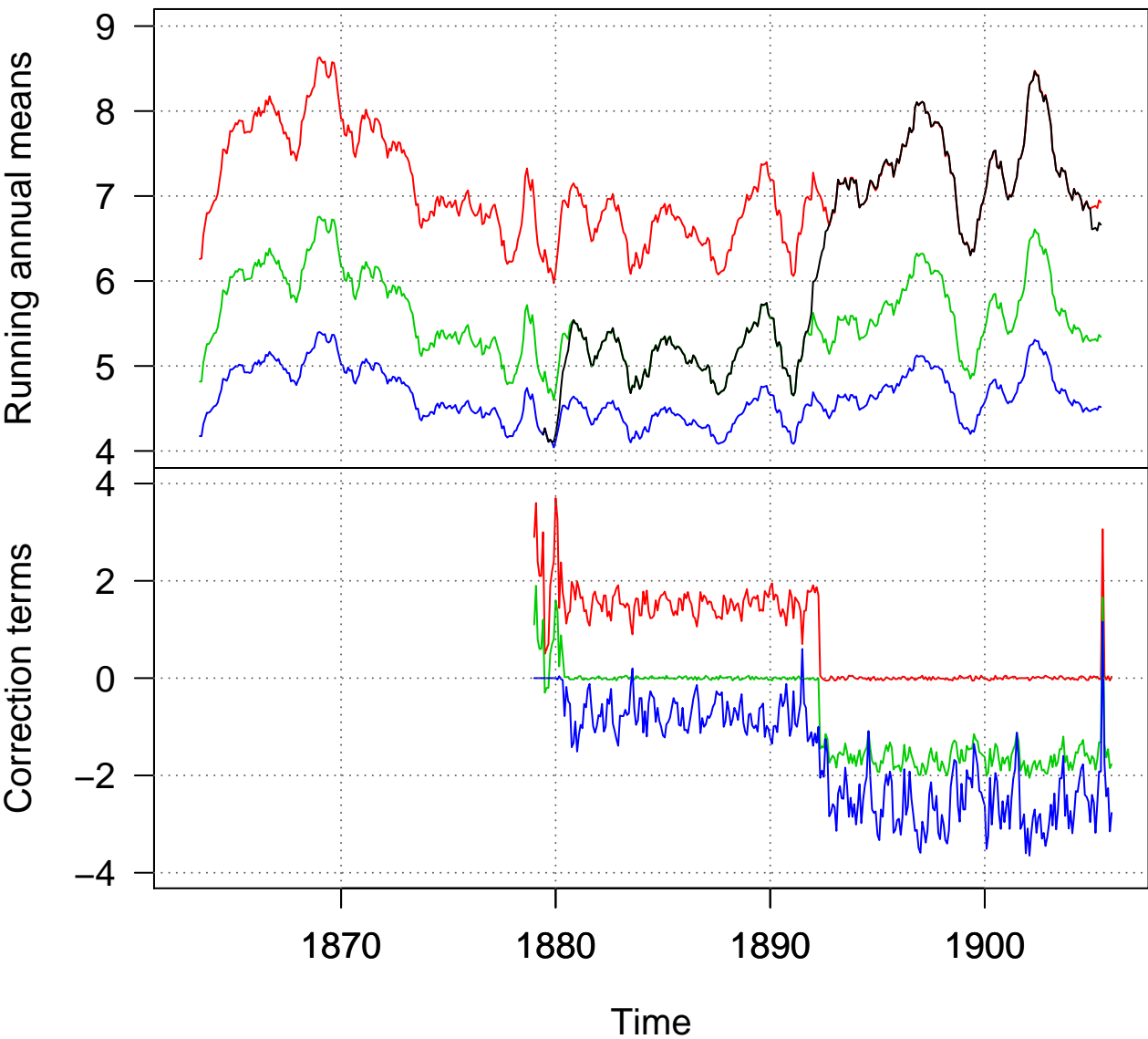
O3 23 (Loanda) Loanda



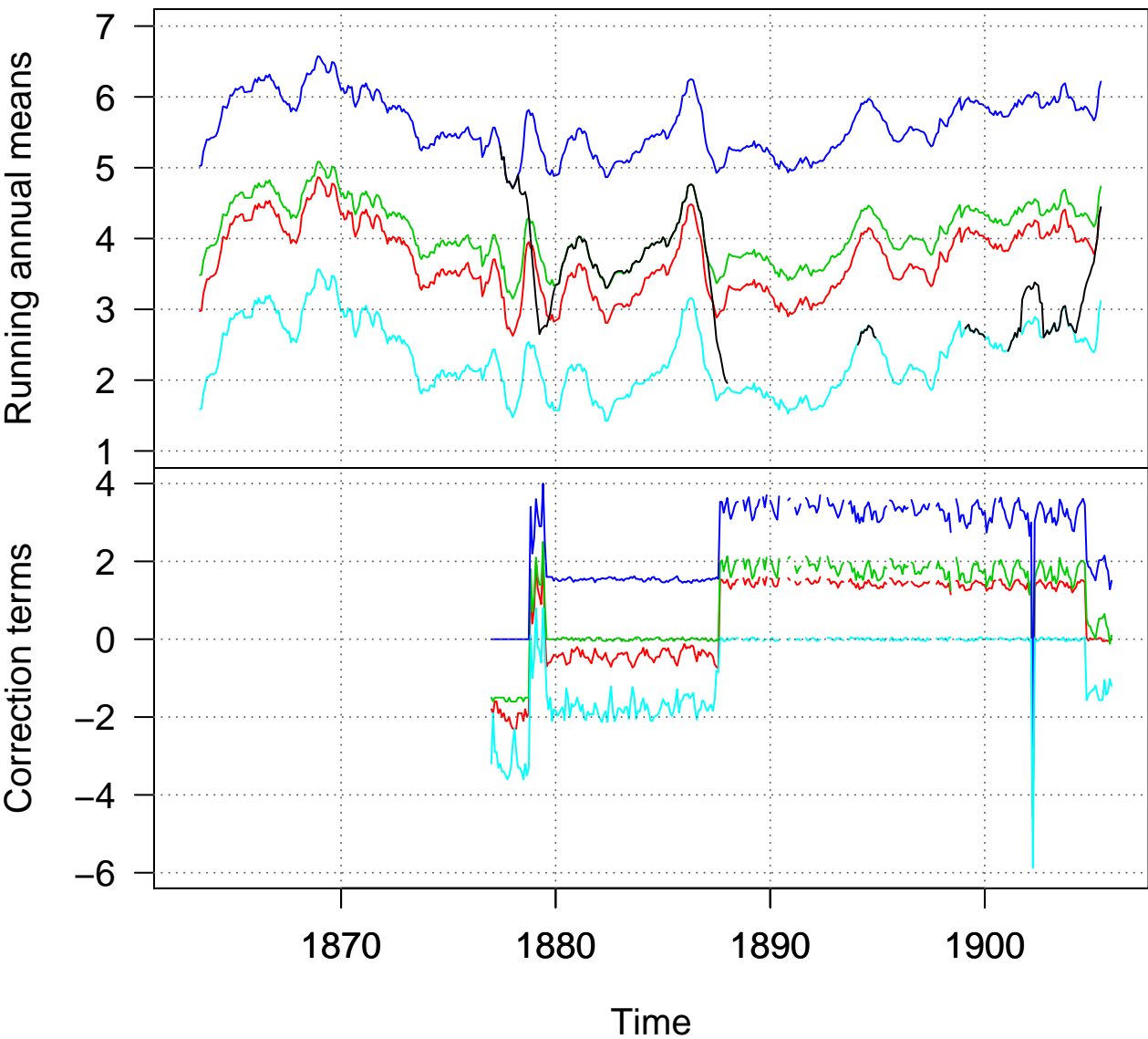
Final graphics

Adjusted series and
applied corrections

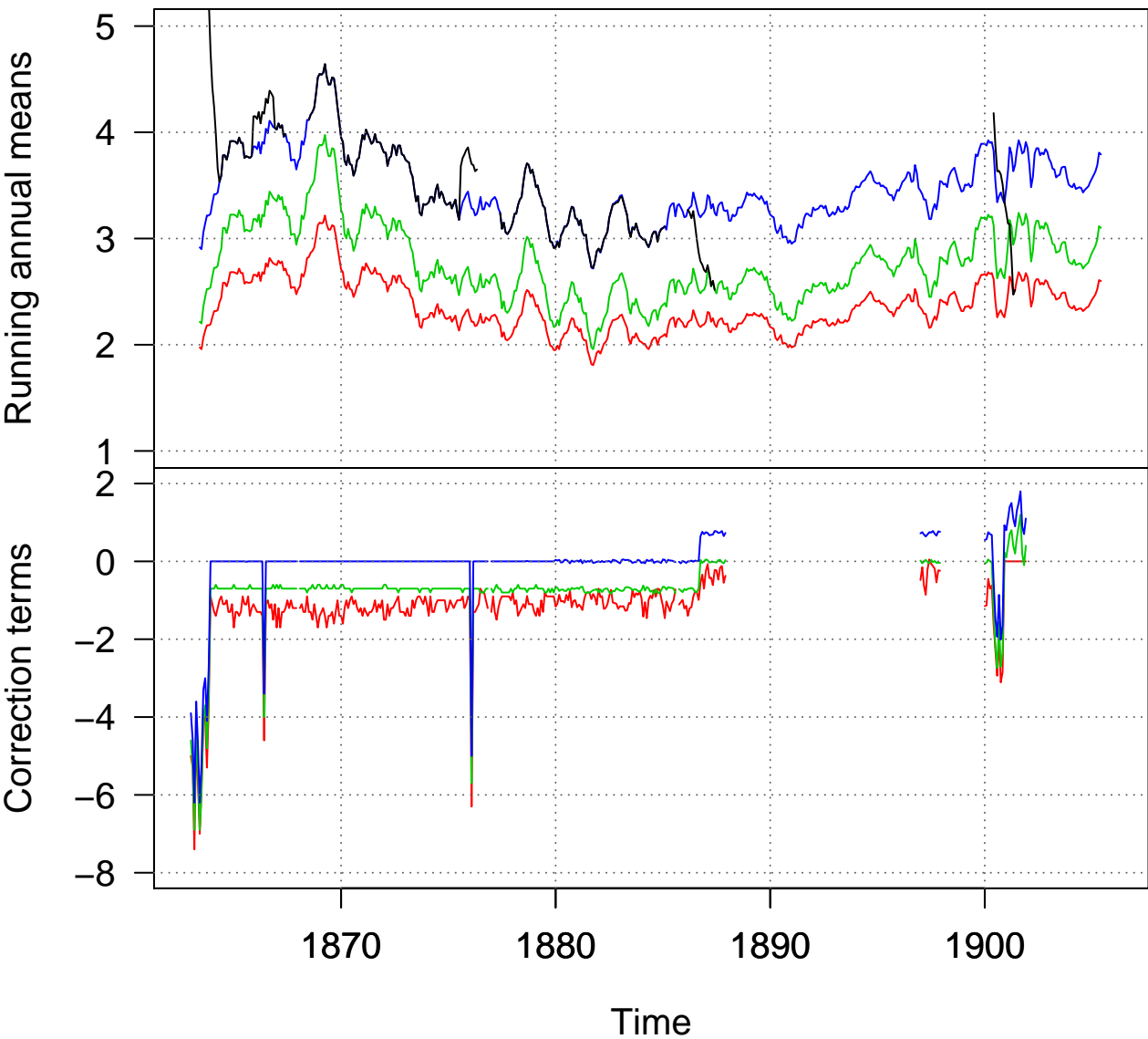
O3 1 (Montalegre) Montalegre



O3 2 (Moncorvo) Moncorvo

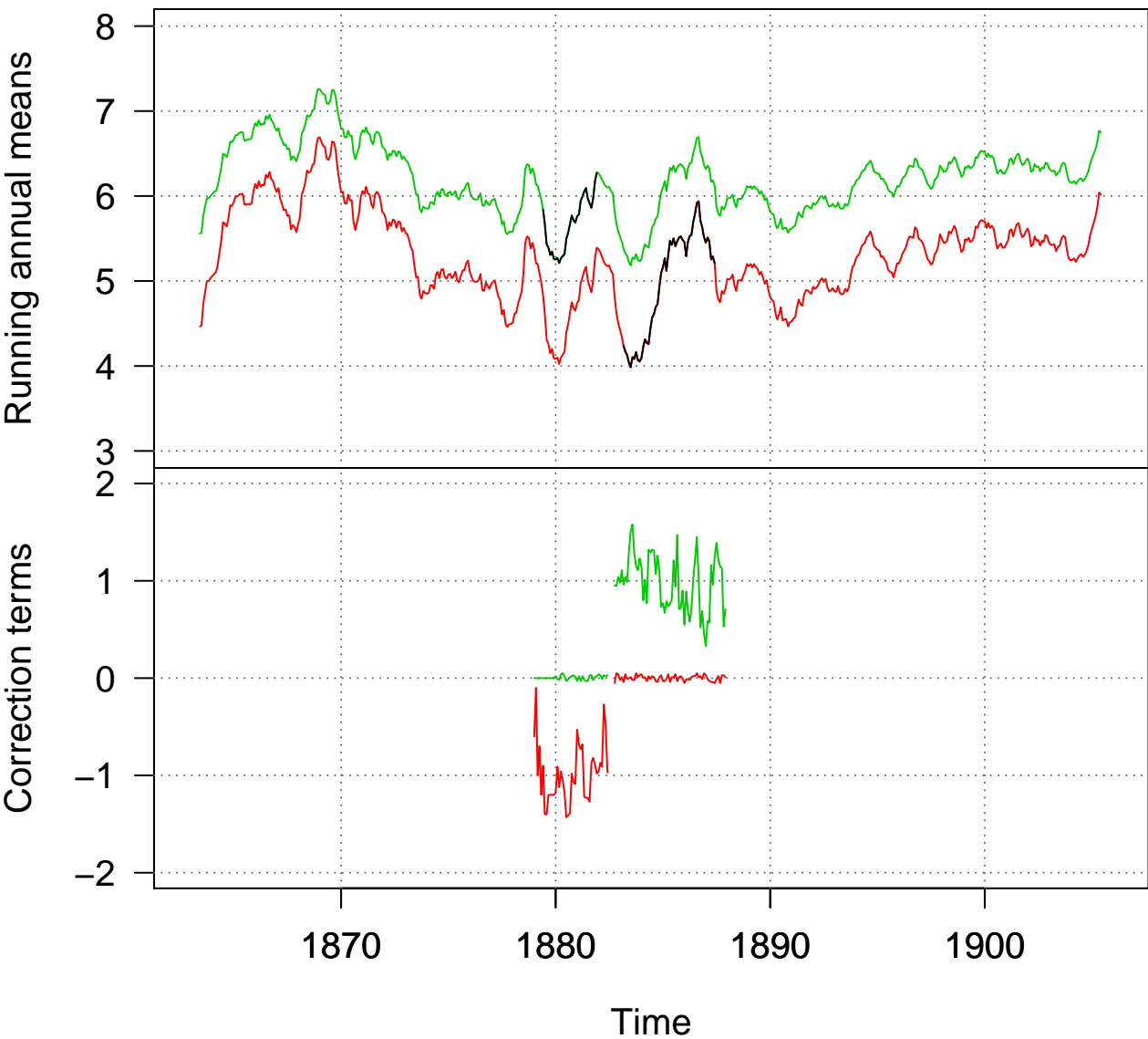


O3 3 (Porto) Porto

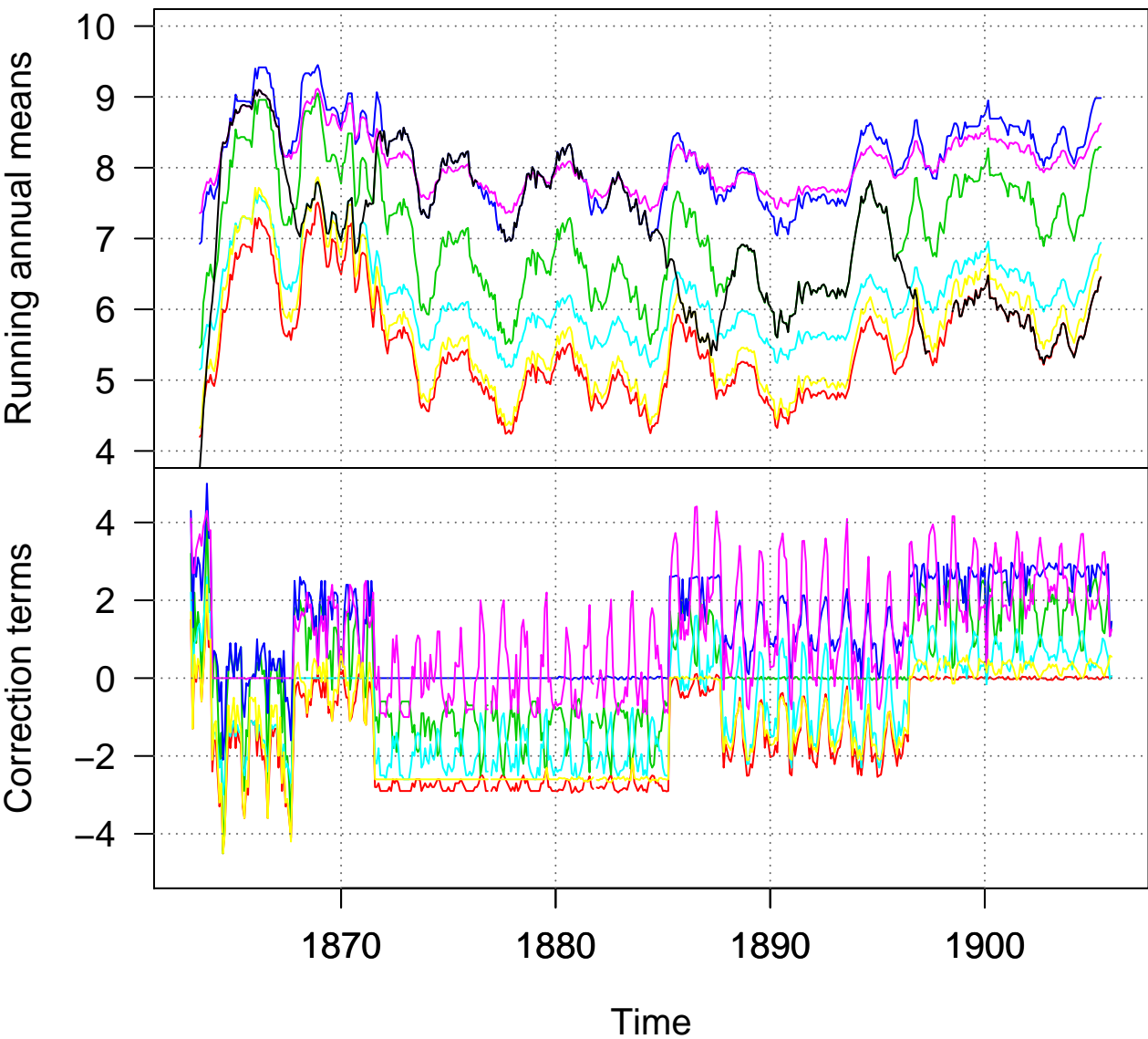


O3 4 (Vizeu)

Vizeu

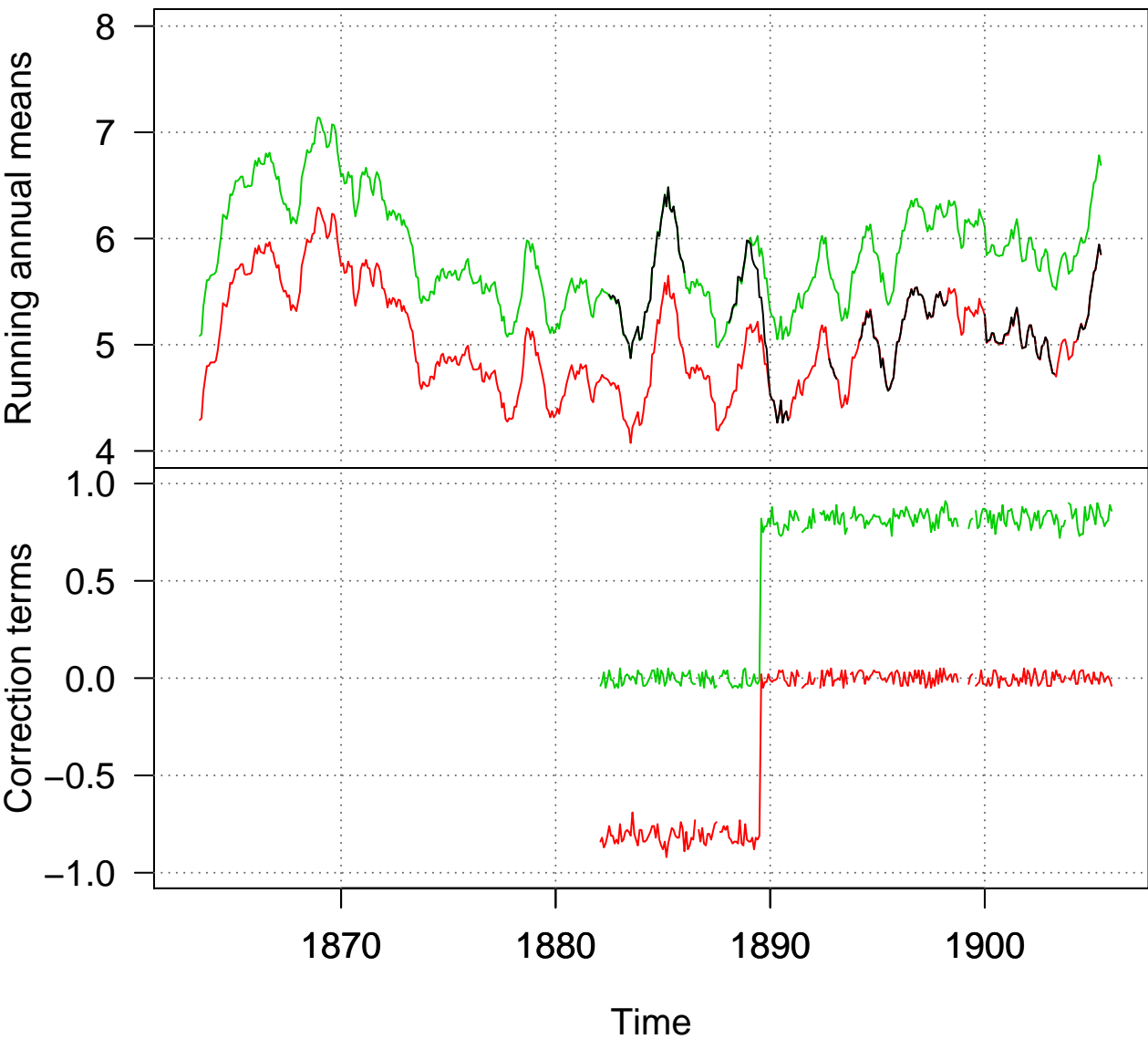


O3 5 (Guarda) Guarda

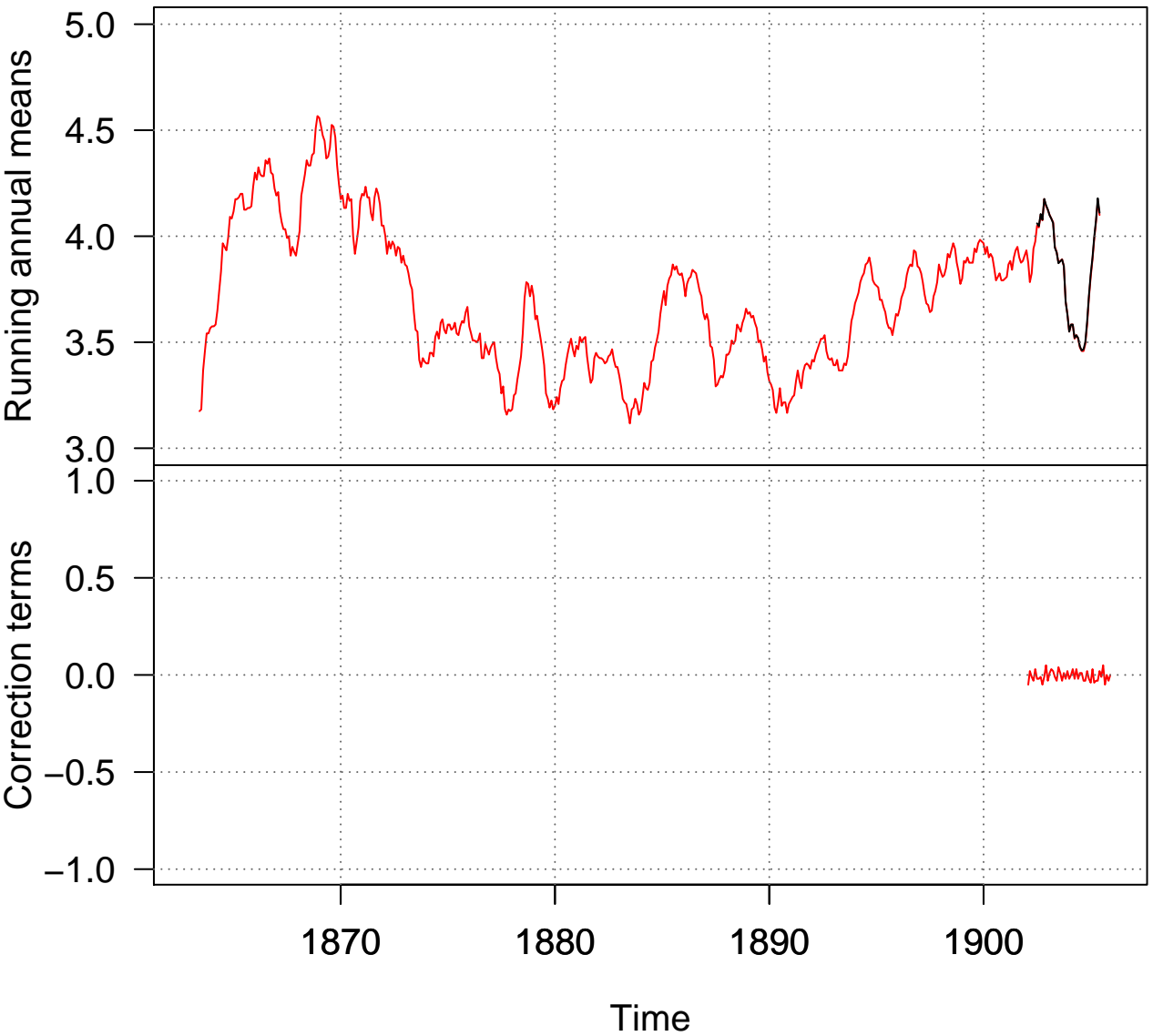


O3 6 (Serra_da_Estrella)

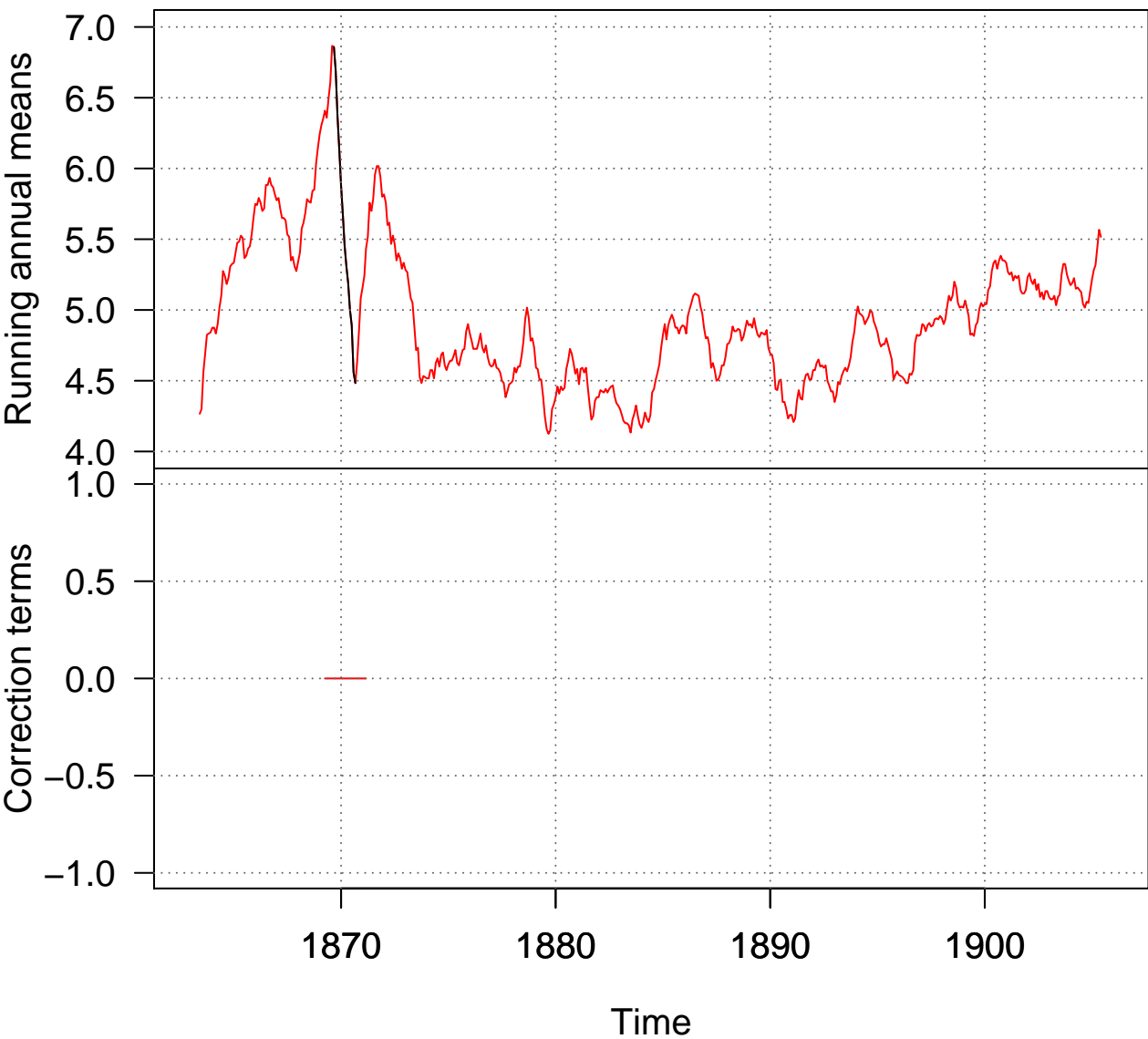
Serra da Estrella



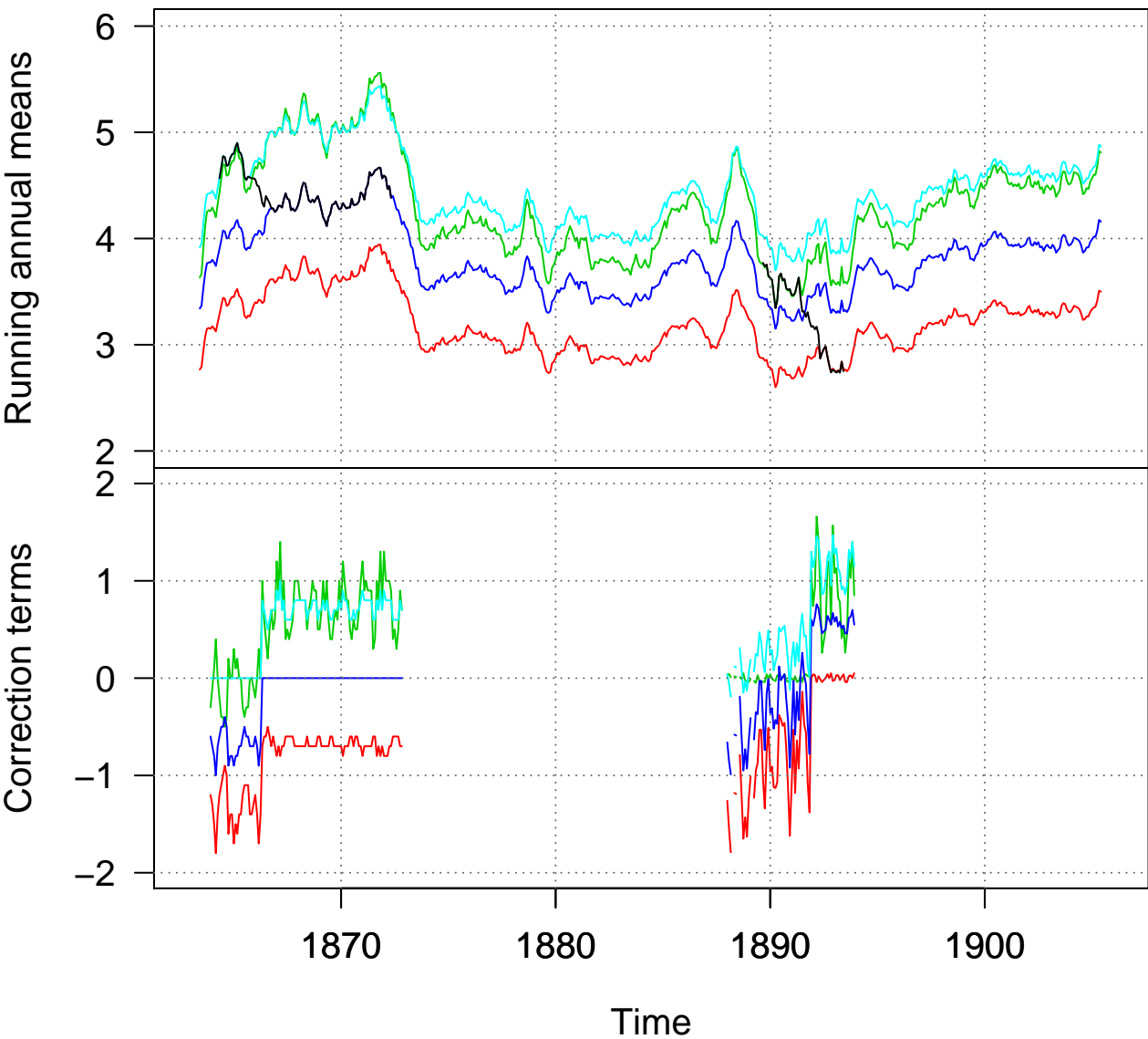
O3 7 (S._Fiel)
S. Fiel



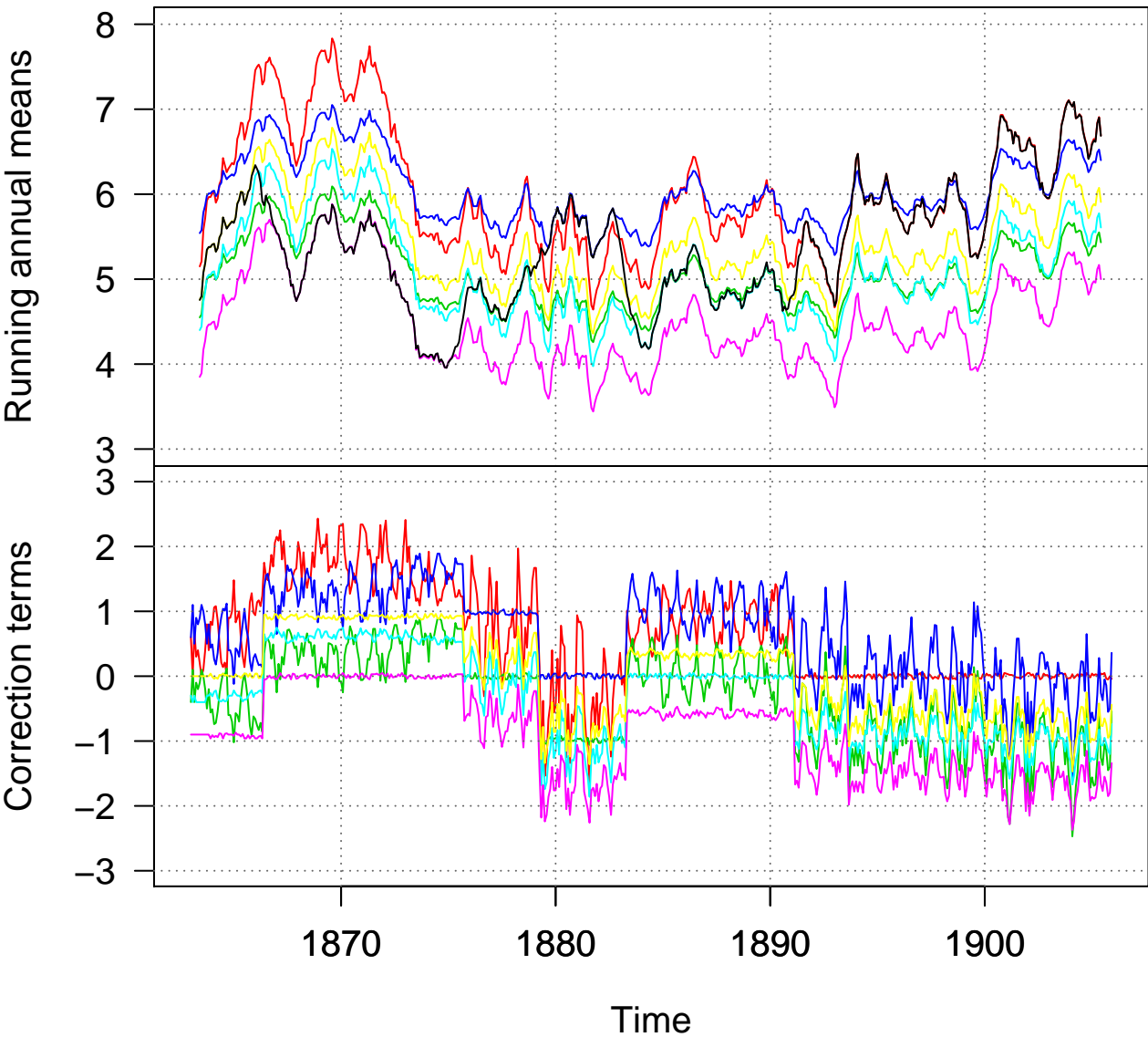
O3 8 (Alcanhoes) Alcanhoes



O3 9 (Campo_Maior) Campo Maior

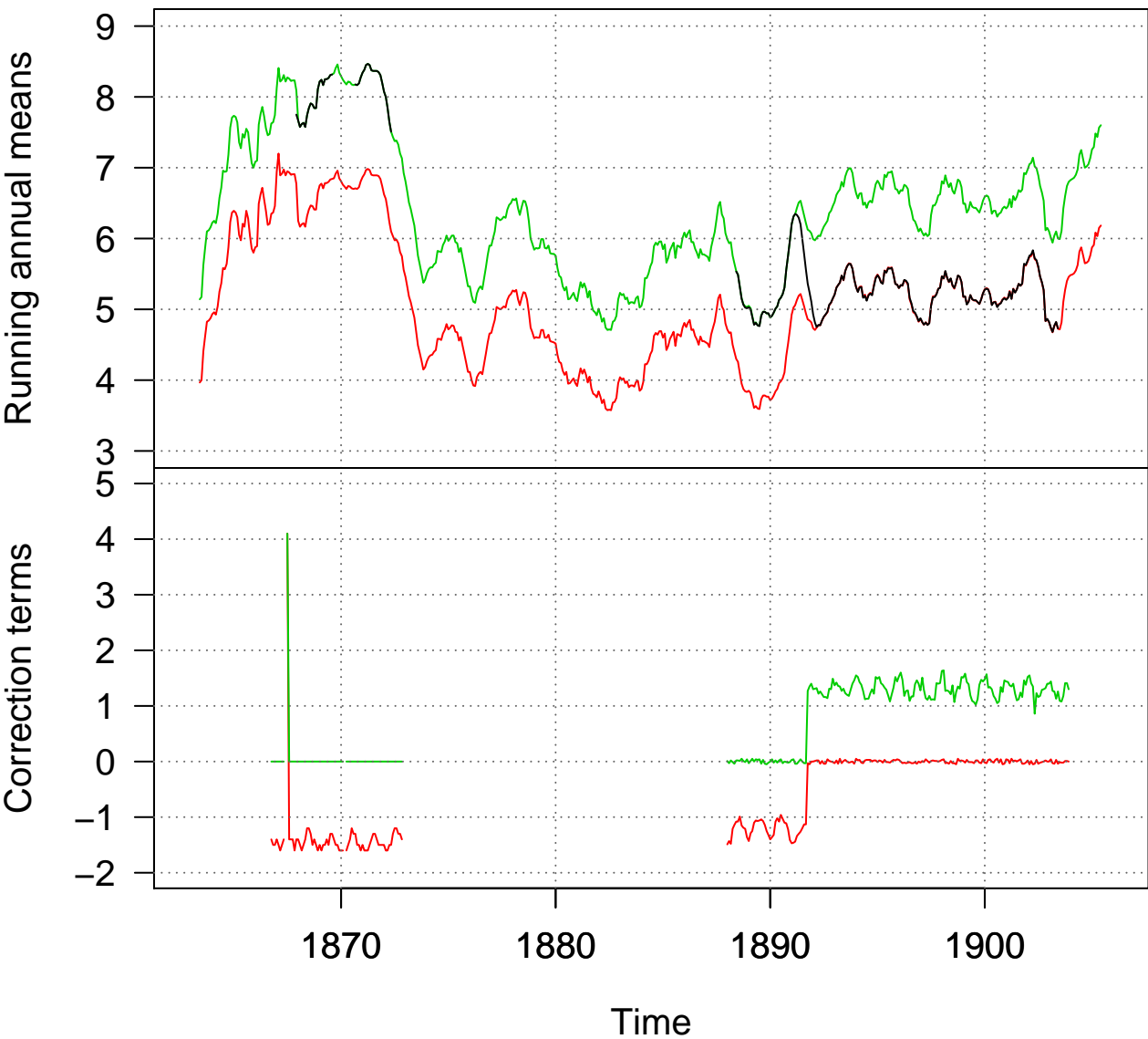


O3 10 (Infante_D_Luiz)
Lisbon Infante D. Luiz

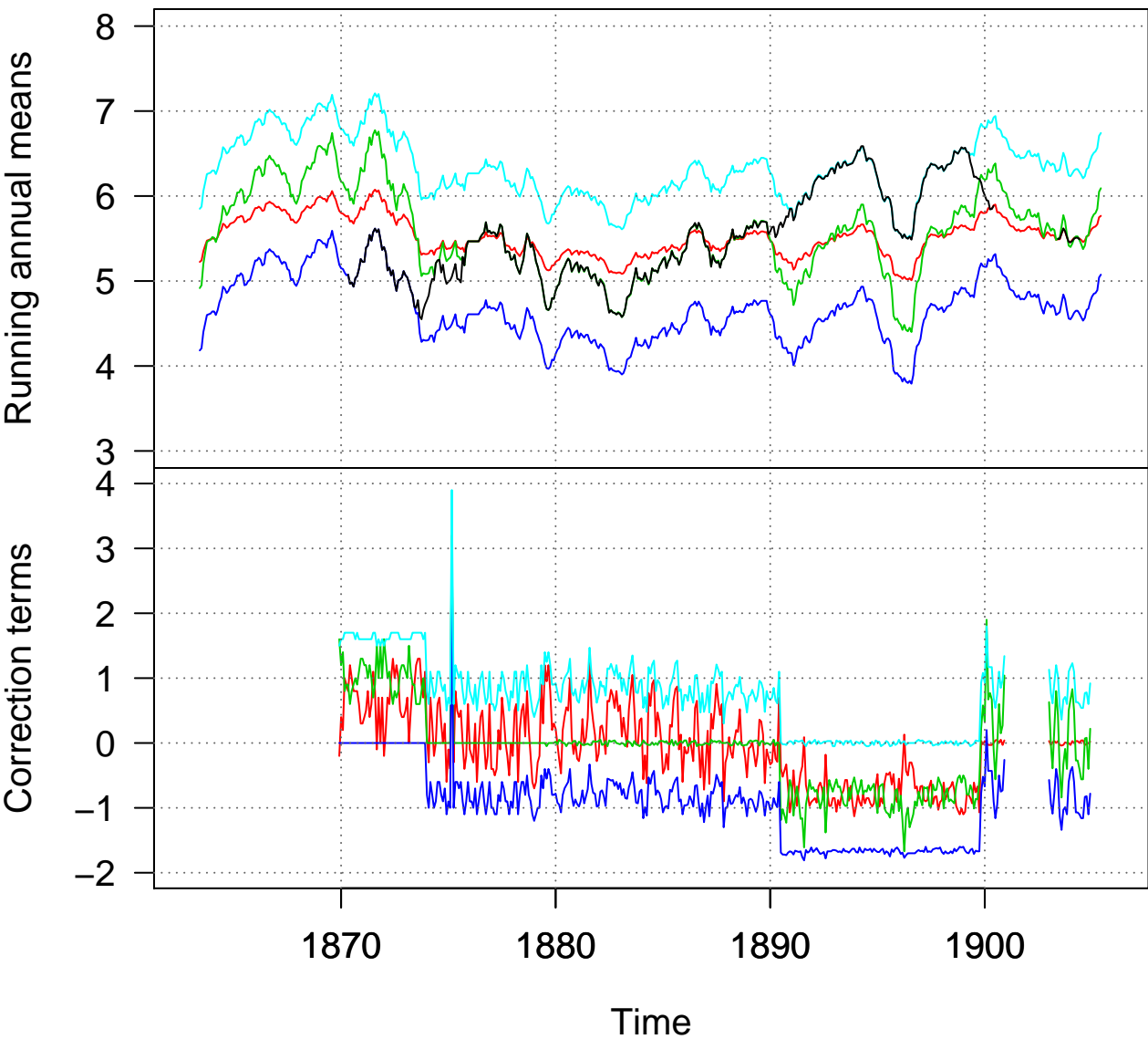


O3 11 (Angra_do_Heroismo)

Angra do Heroismo

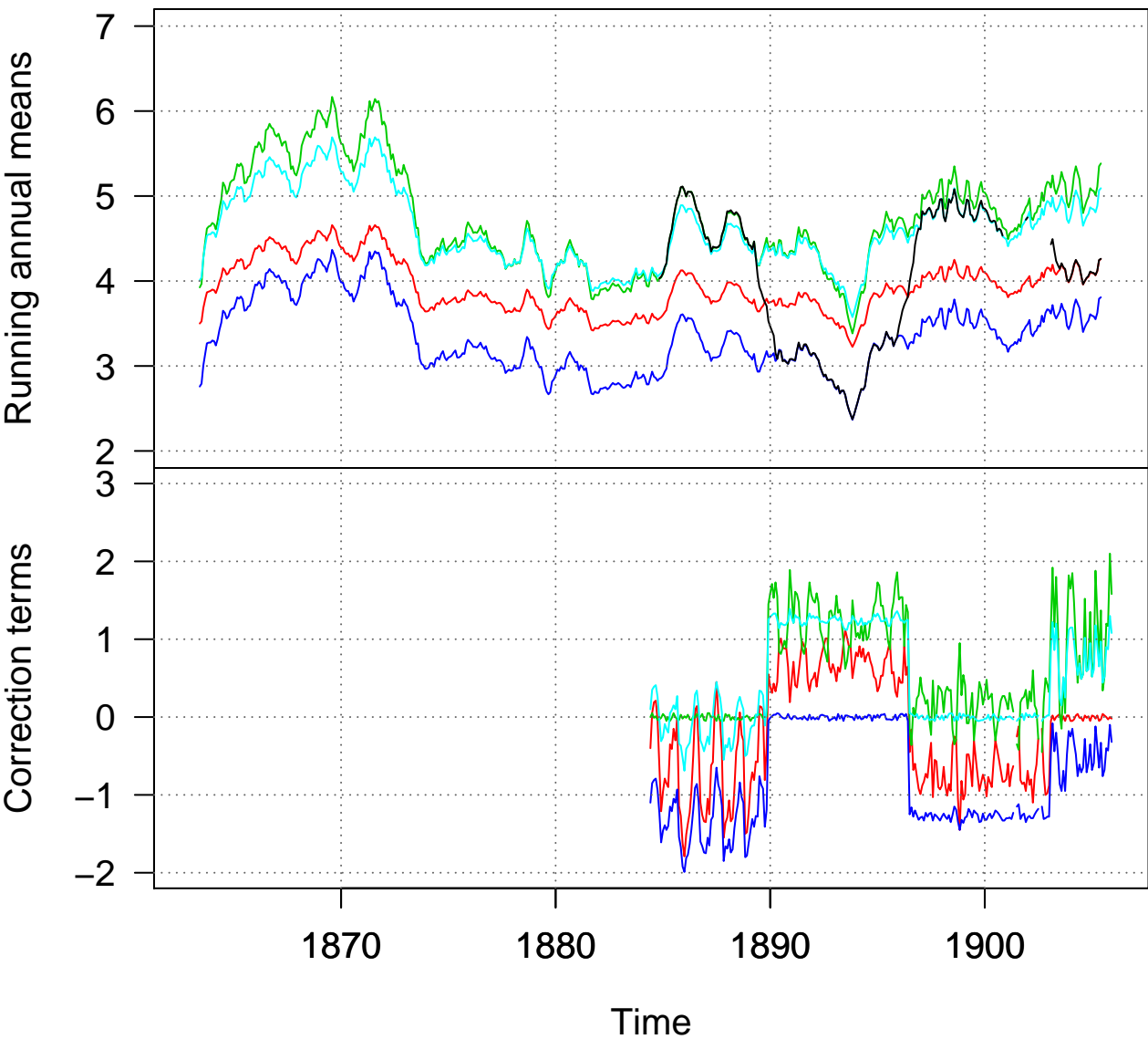


O3 12 (Evora) Evora

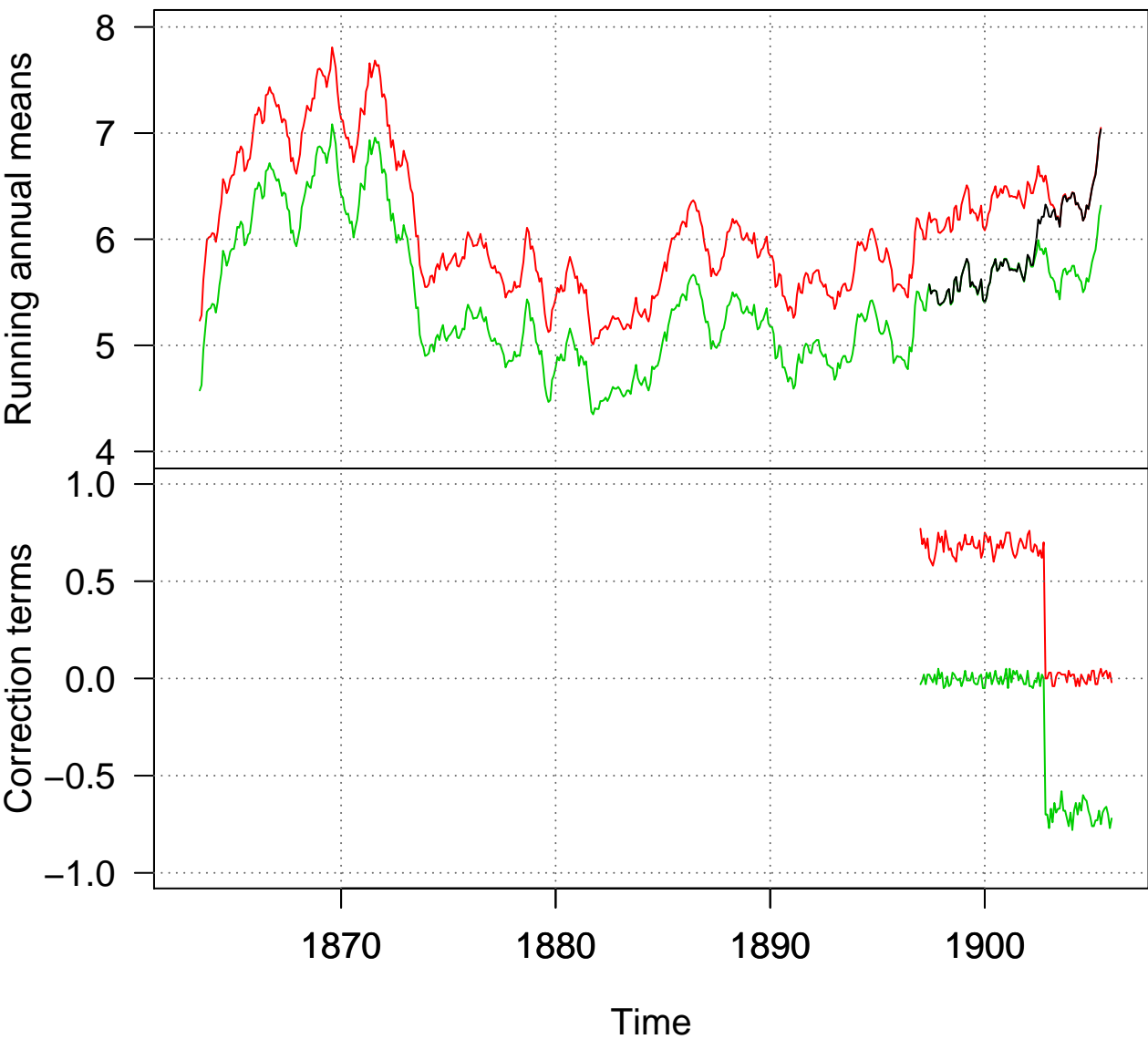


O3 13 (Villa_Fernando)

Villa Fernando

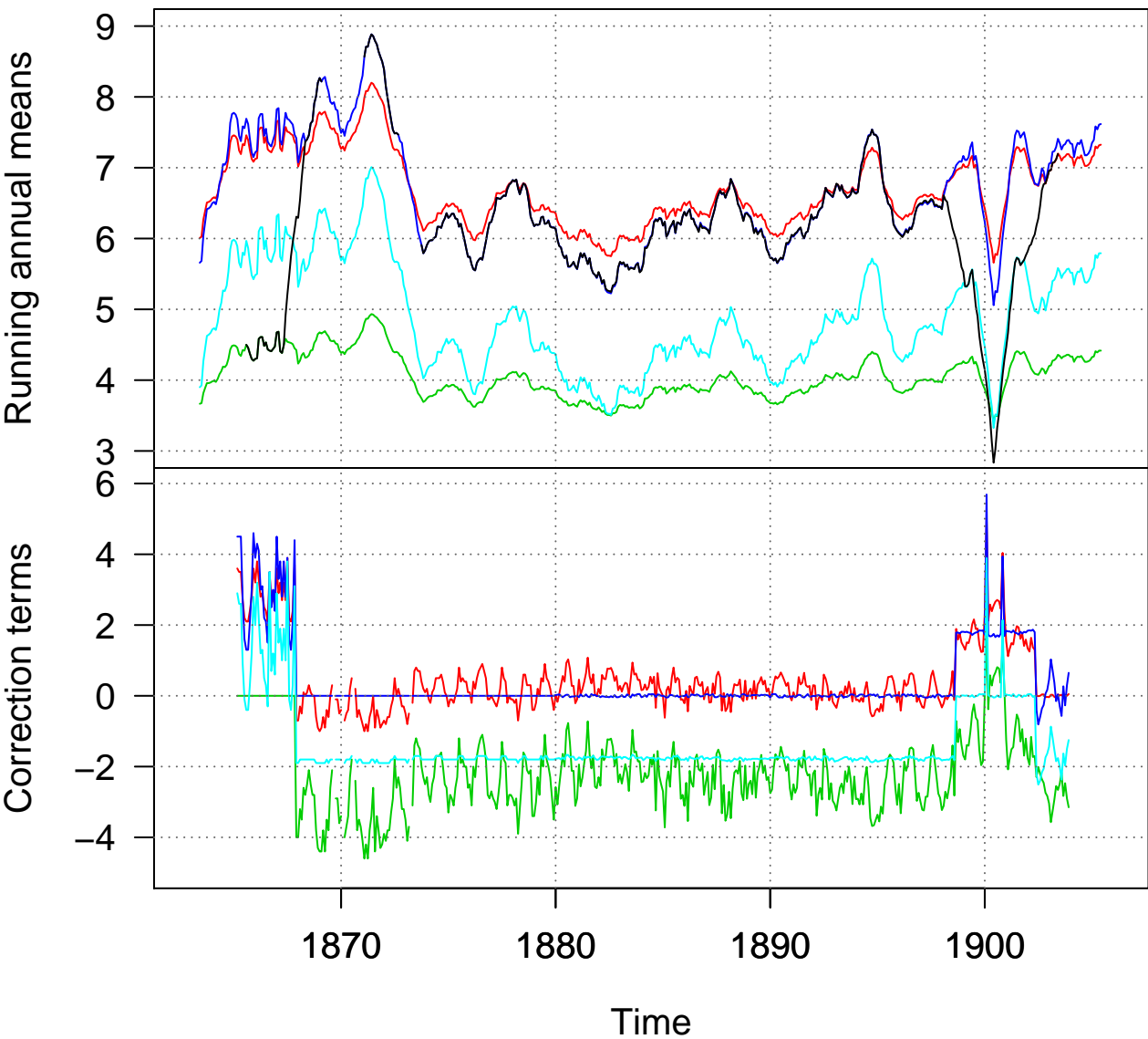


O3 14 (Beja) Beja

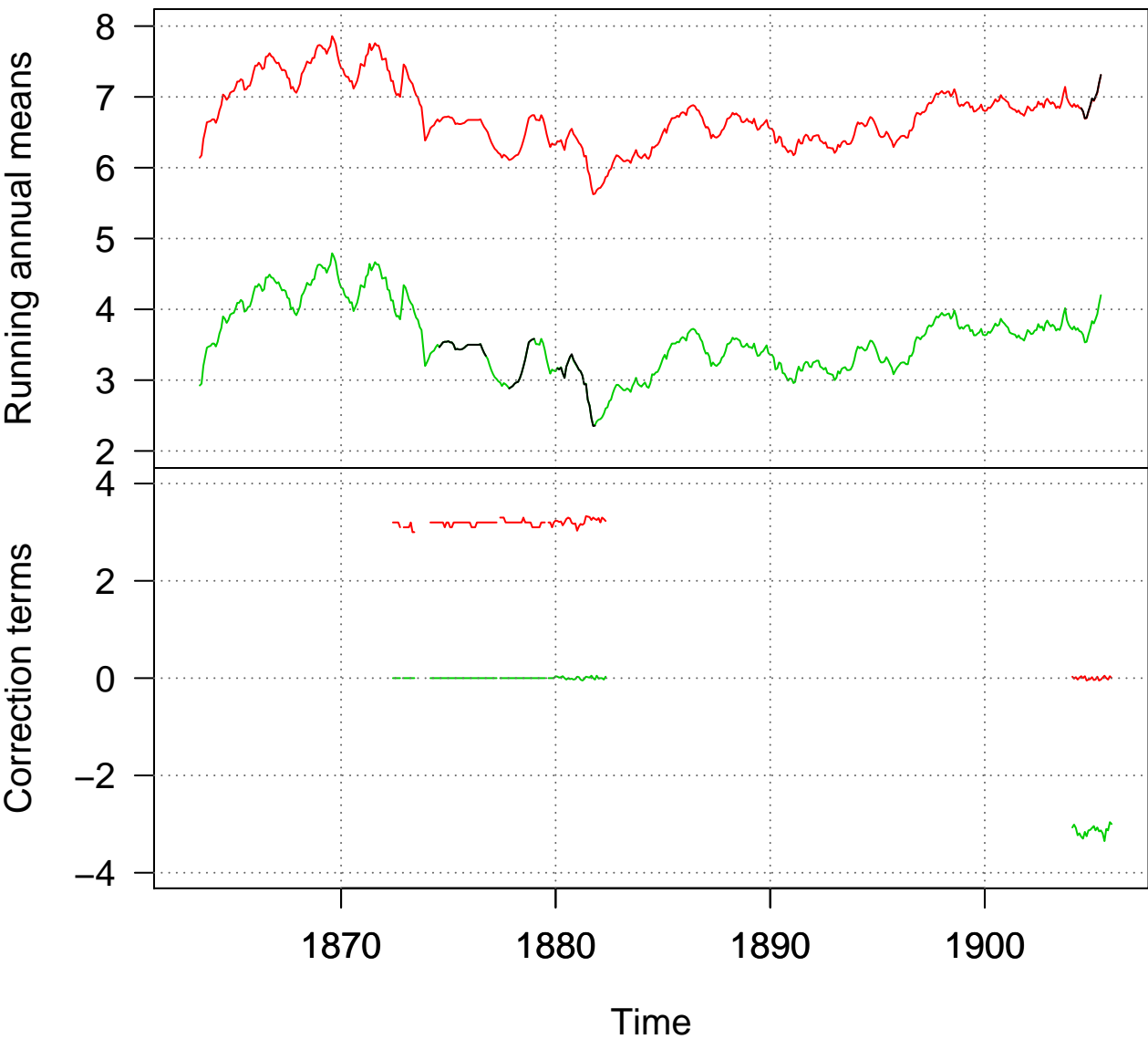


O3 15 (Ponta_Delgada)

Ponta Delgada

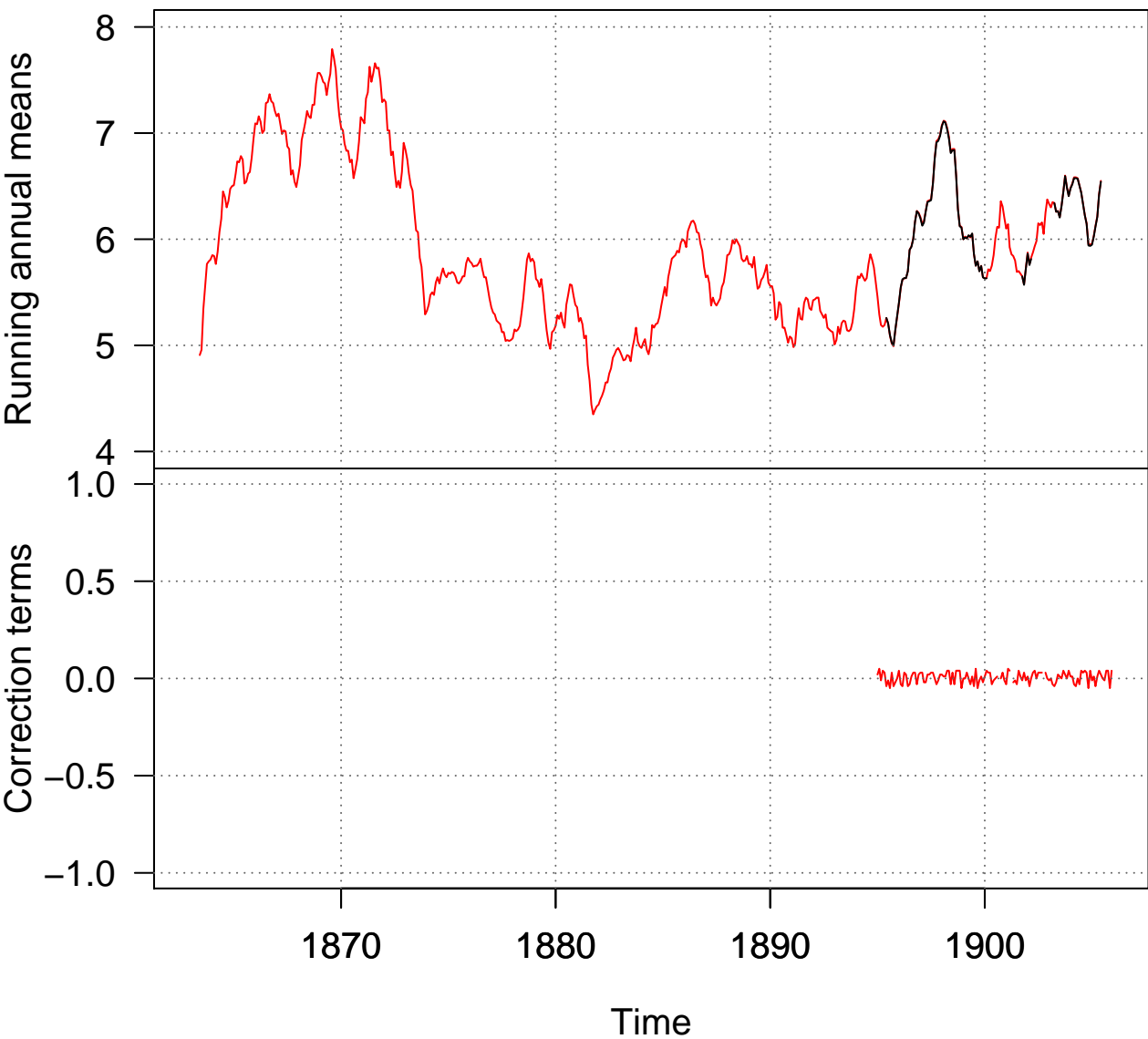


O3 16 (Lagos) Lagos

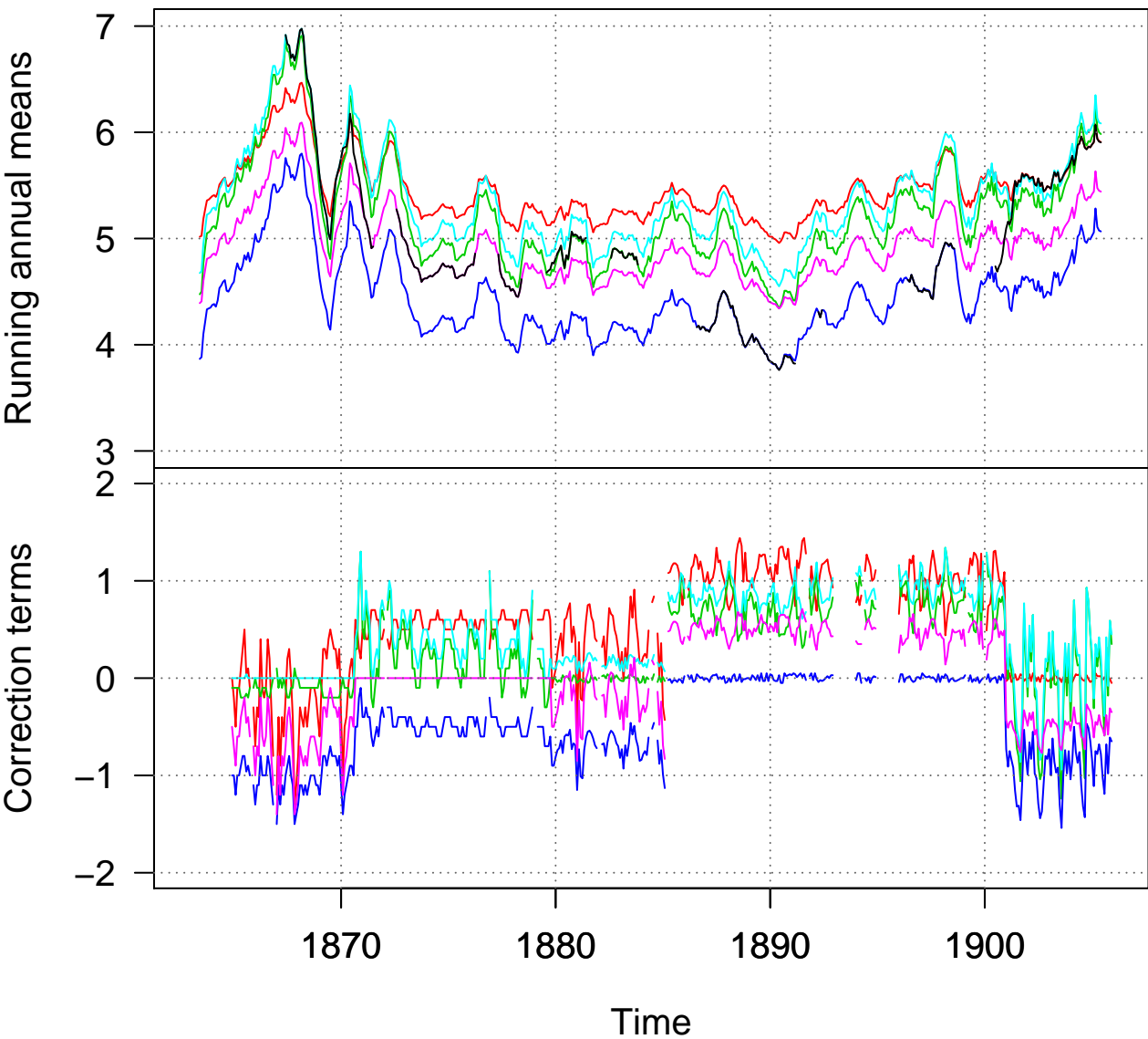


O3 17 (Faro)

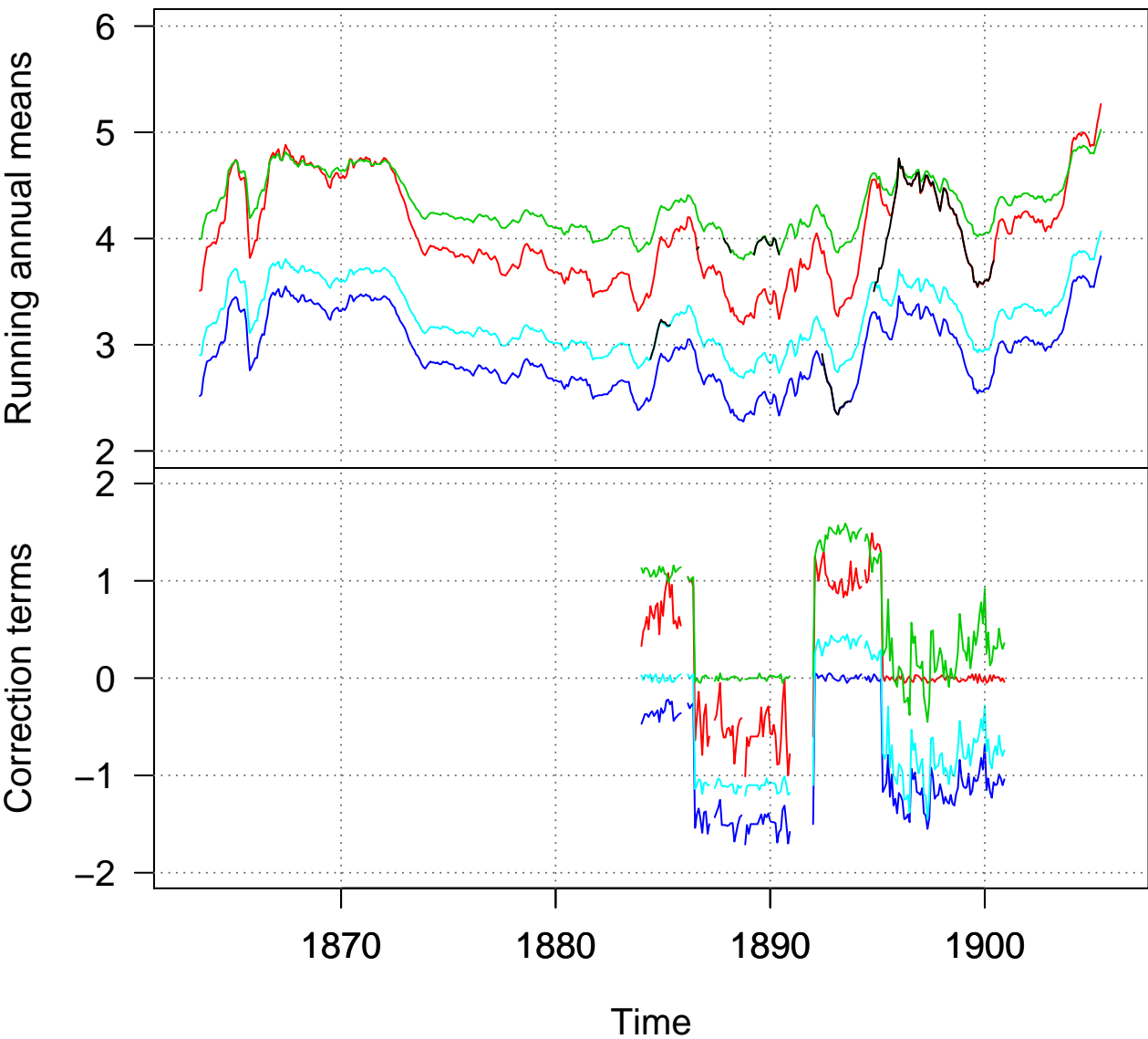
Faro



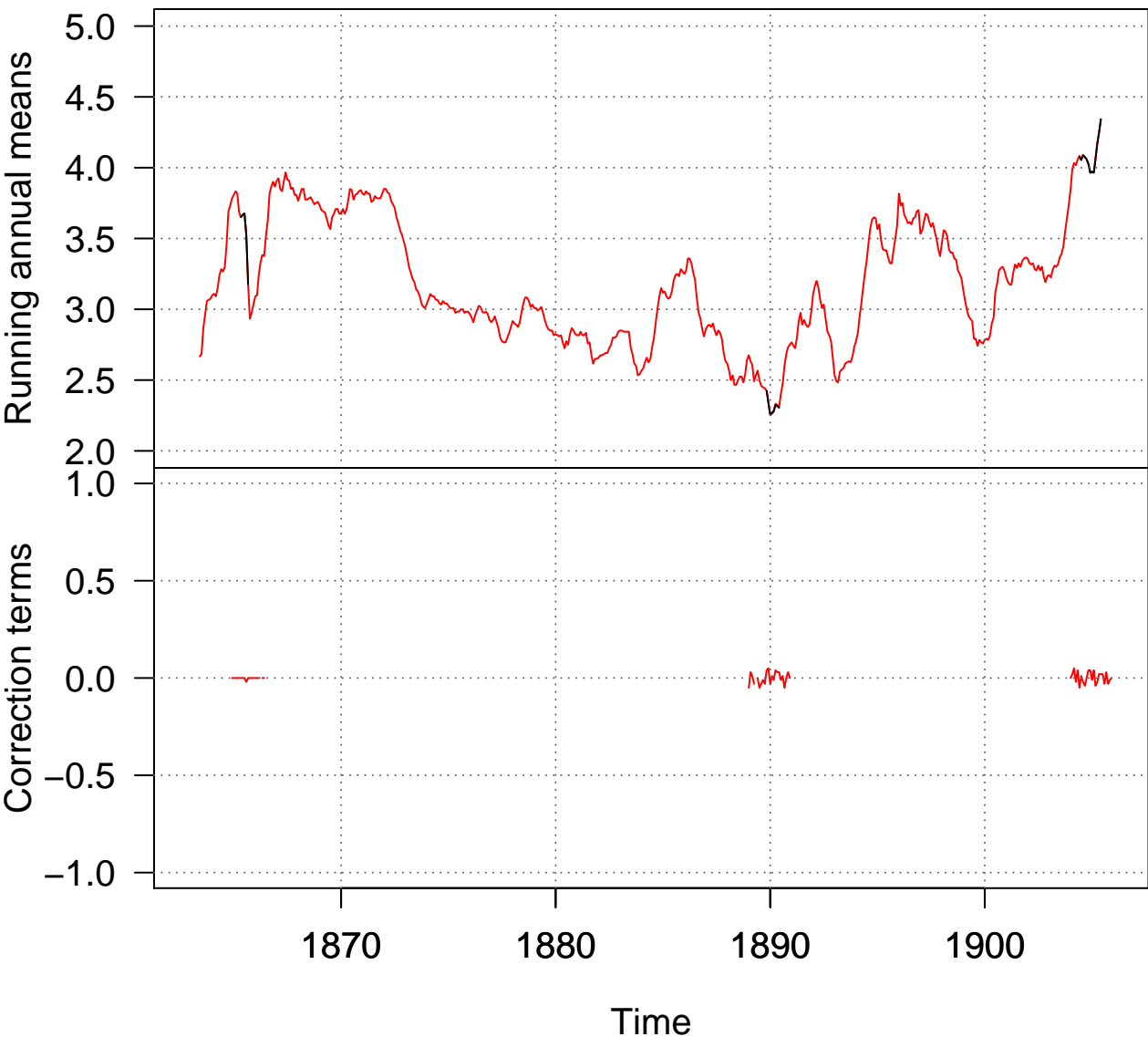
O3 18 (Funchal) Funchal



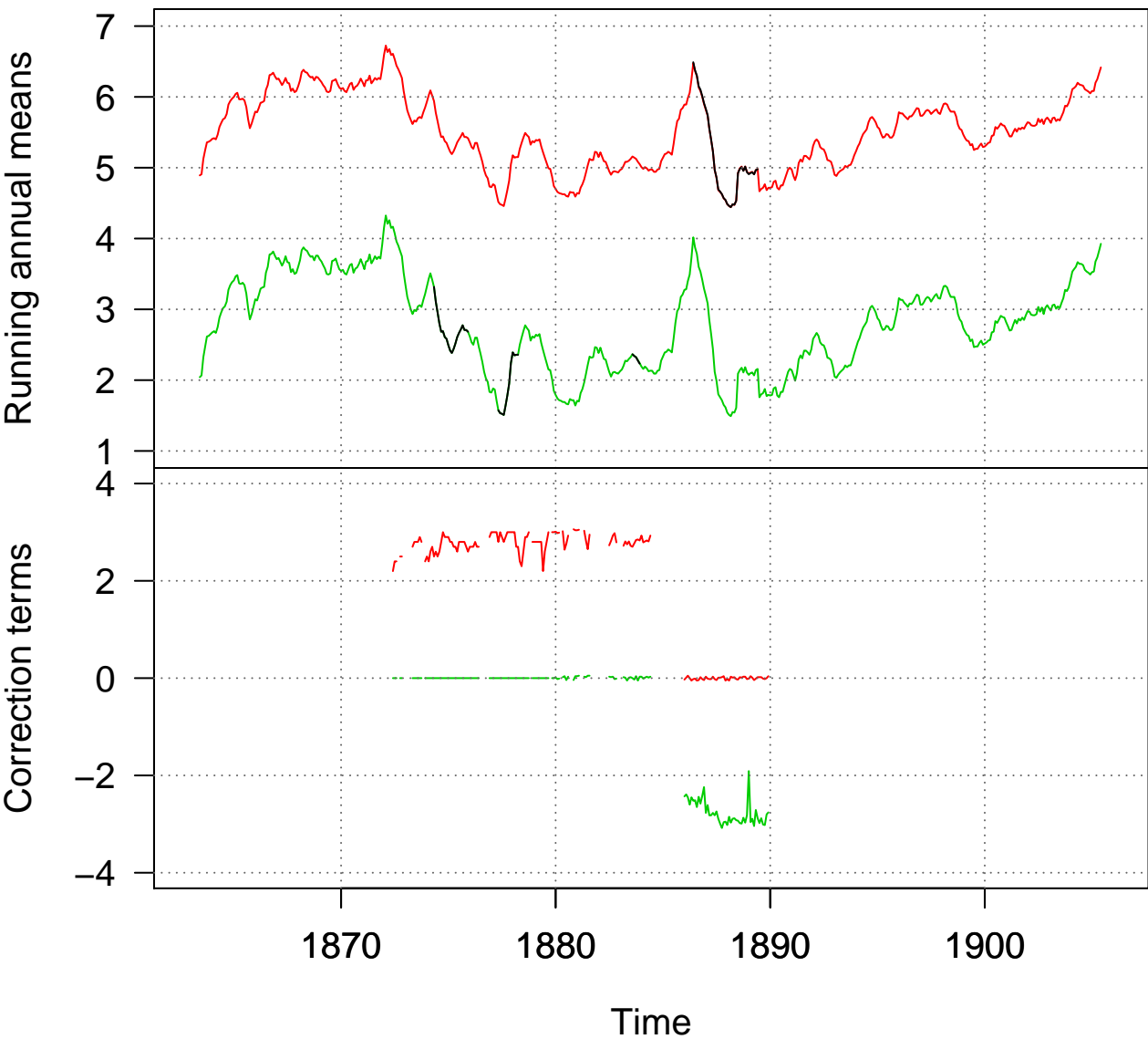
O3 19 (S._Vicente)
S. Vicente



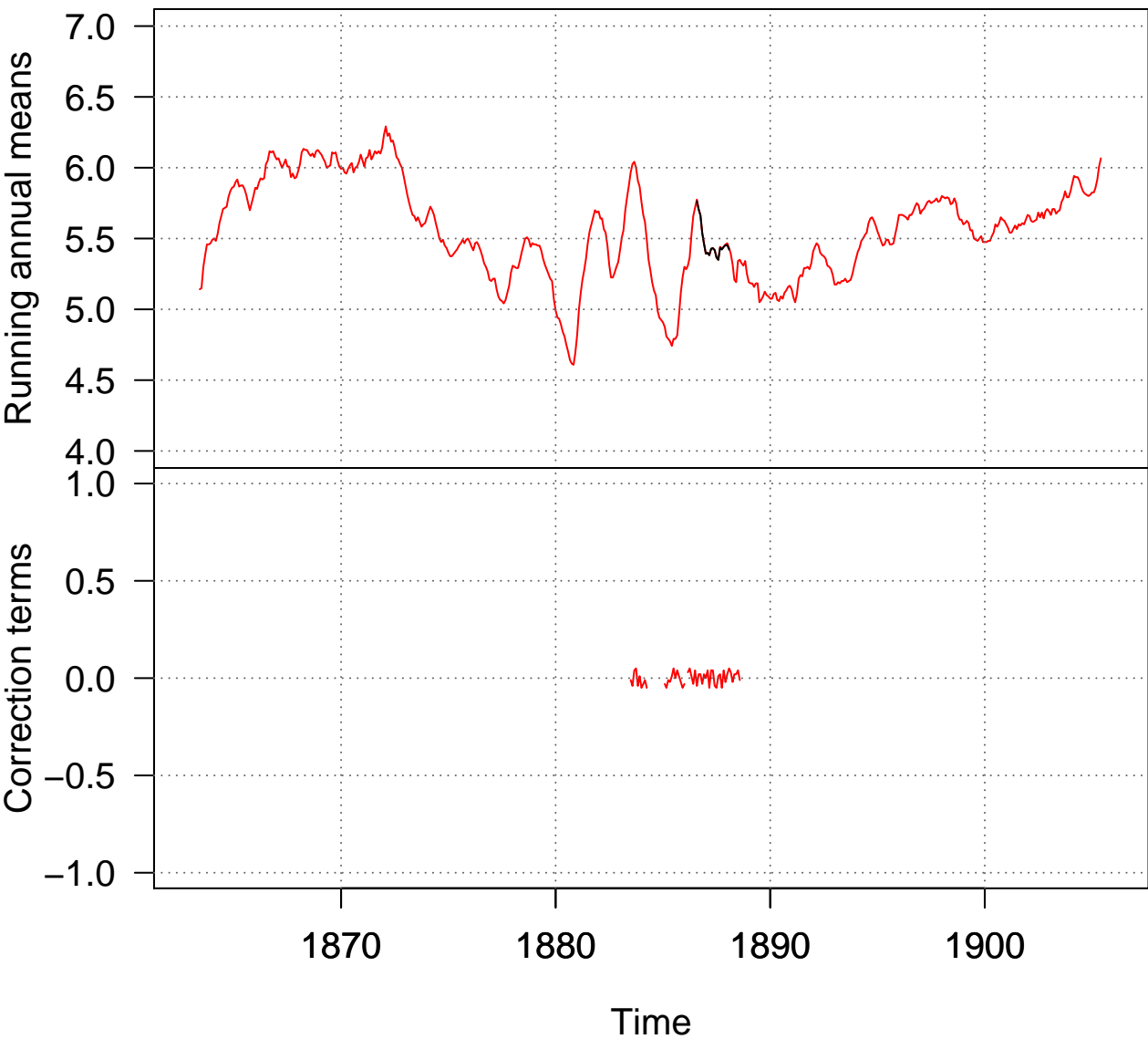
O3 20 (Cidade_da_Praia)
Cidade da Praia



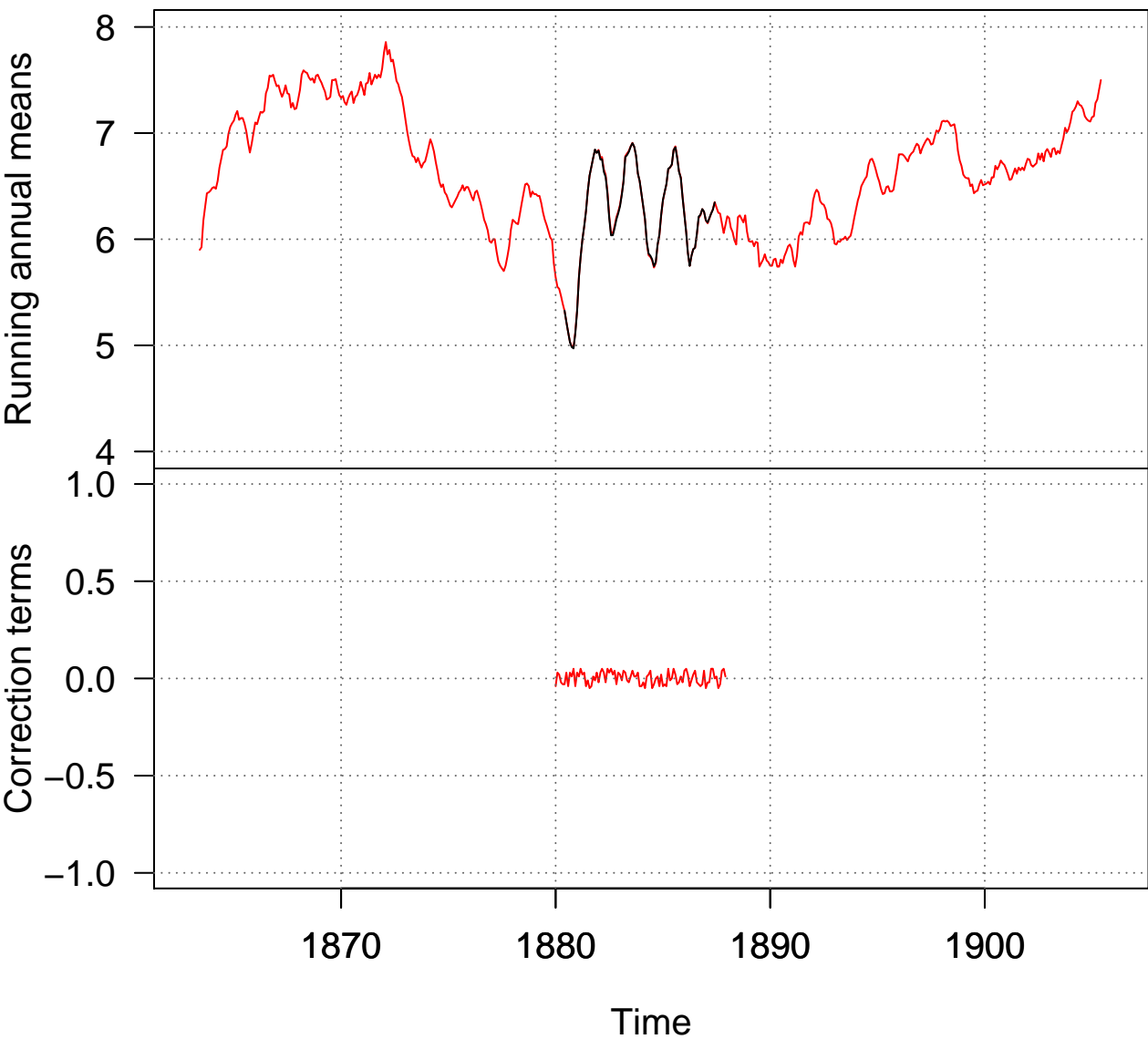
O3 21 (S._Thome)
S. Thome



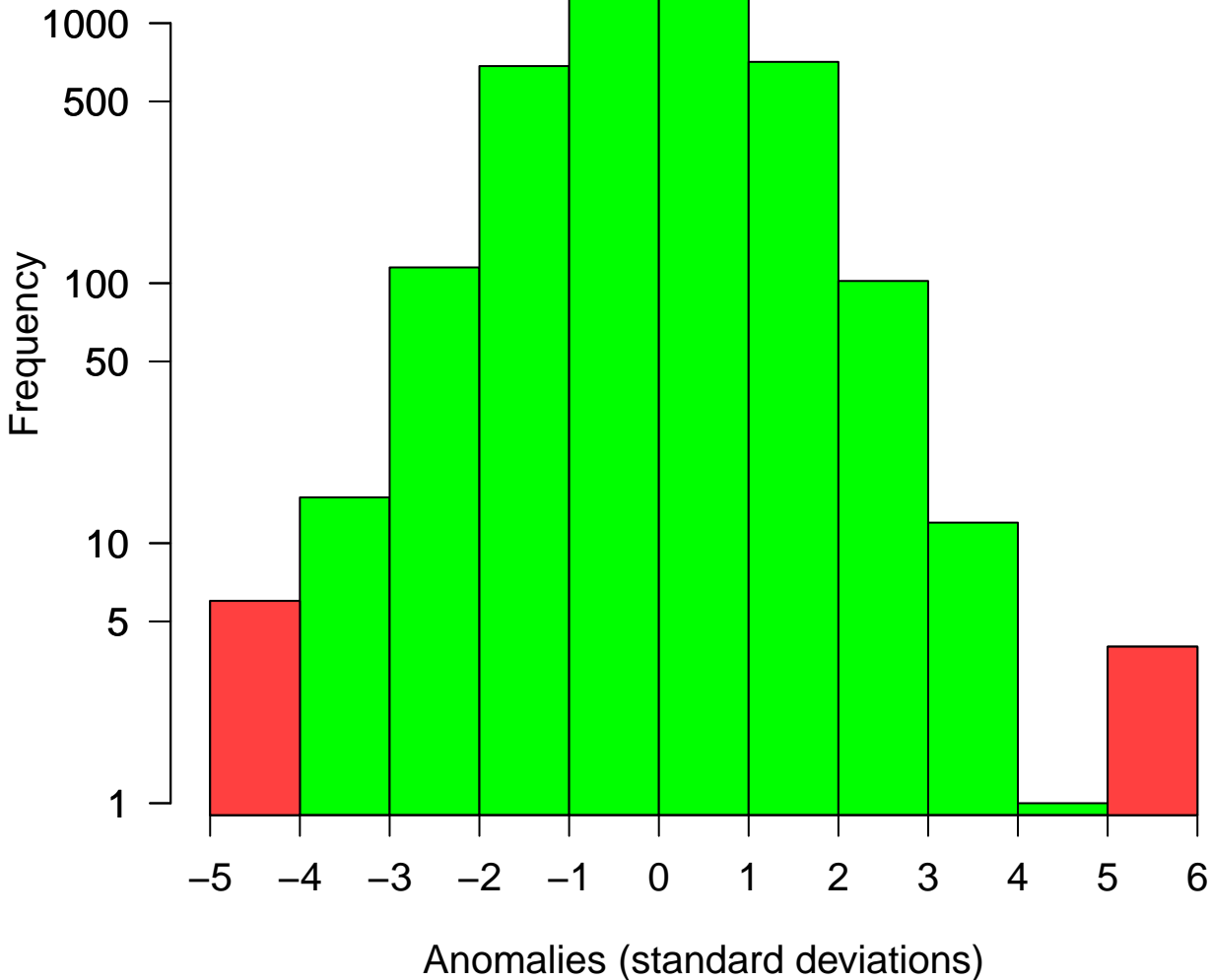
O3 22 (S._Salvador_do_Congo)
S. Salvador do Congo



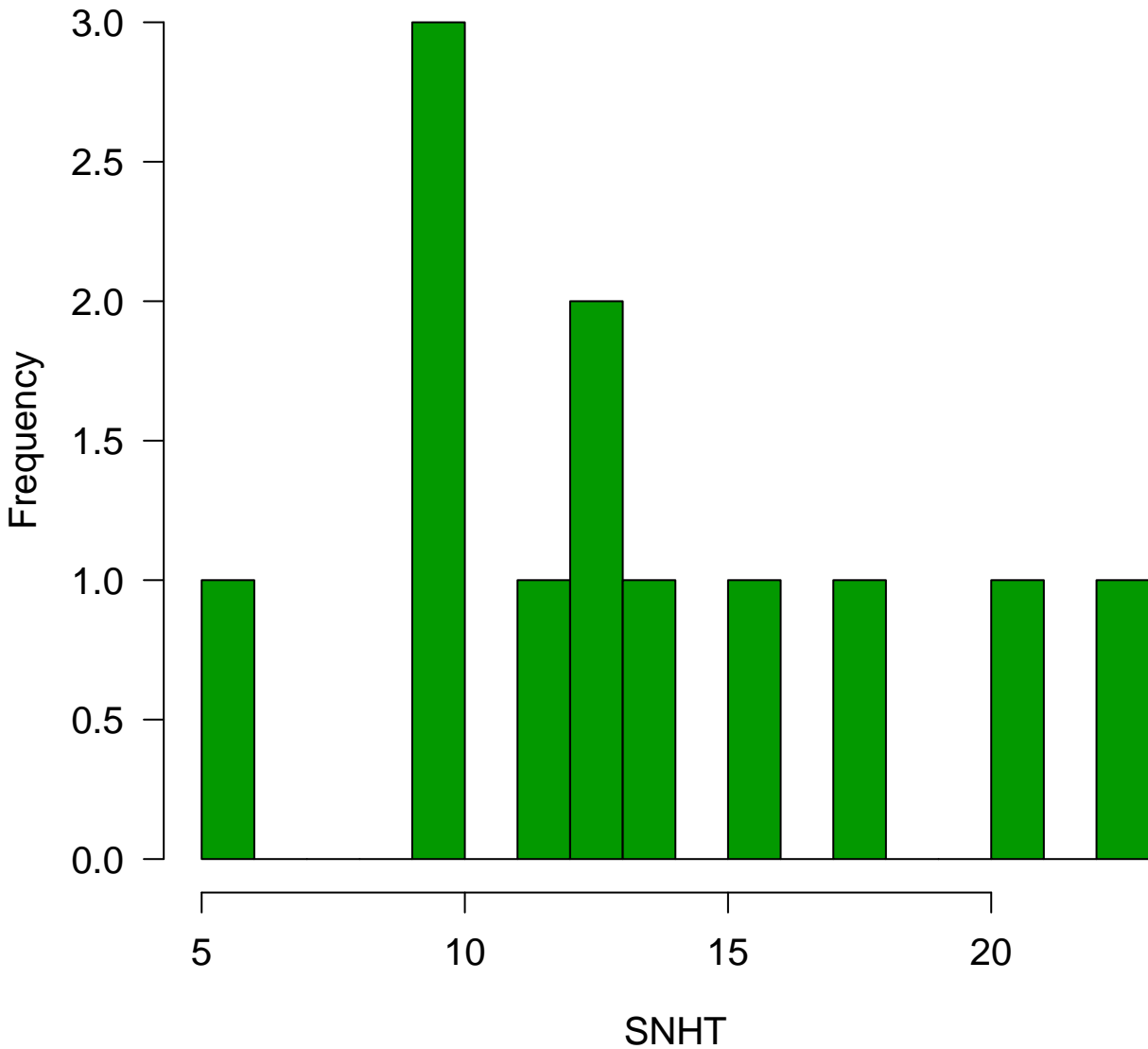
O3 23 (Loanda) Loanda



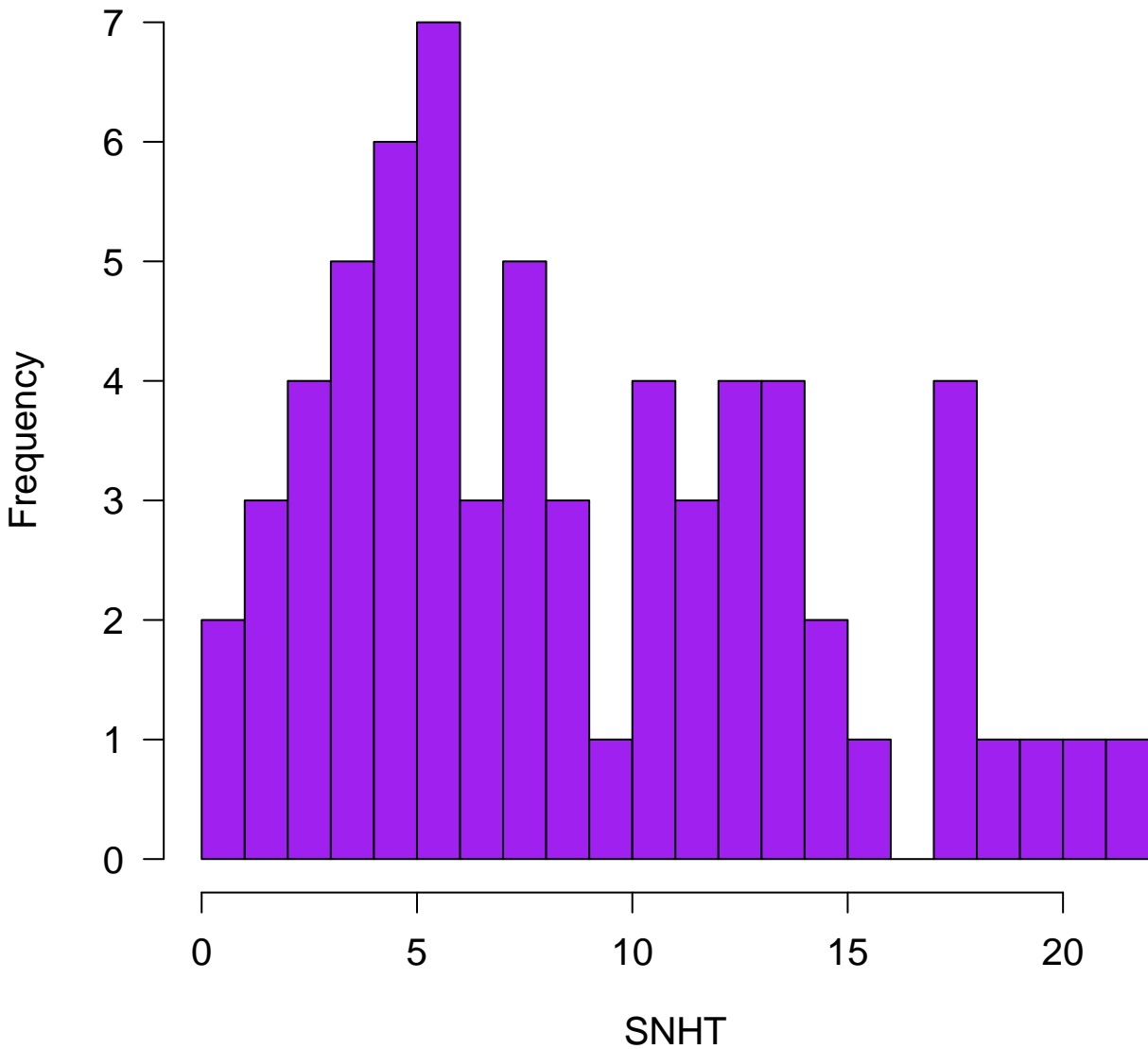
Histogram of standardized anomalies



Histogram of maximum windowed SNHT



Histogram of maximum global SNHT



Station's quality/singularity

