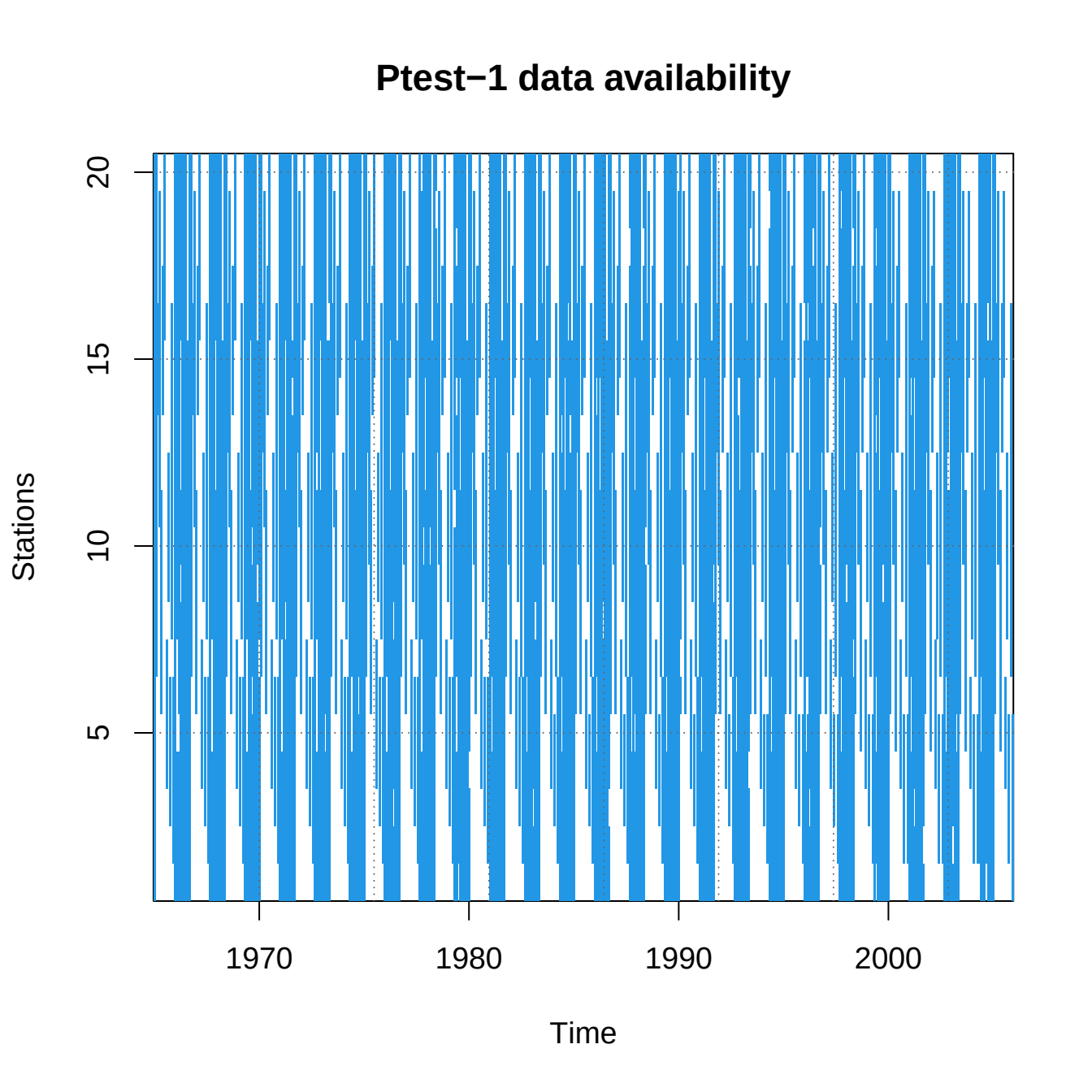
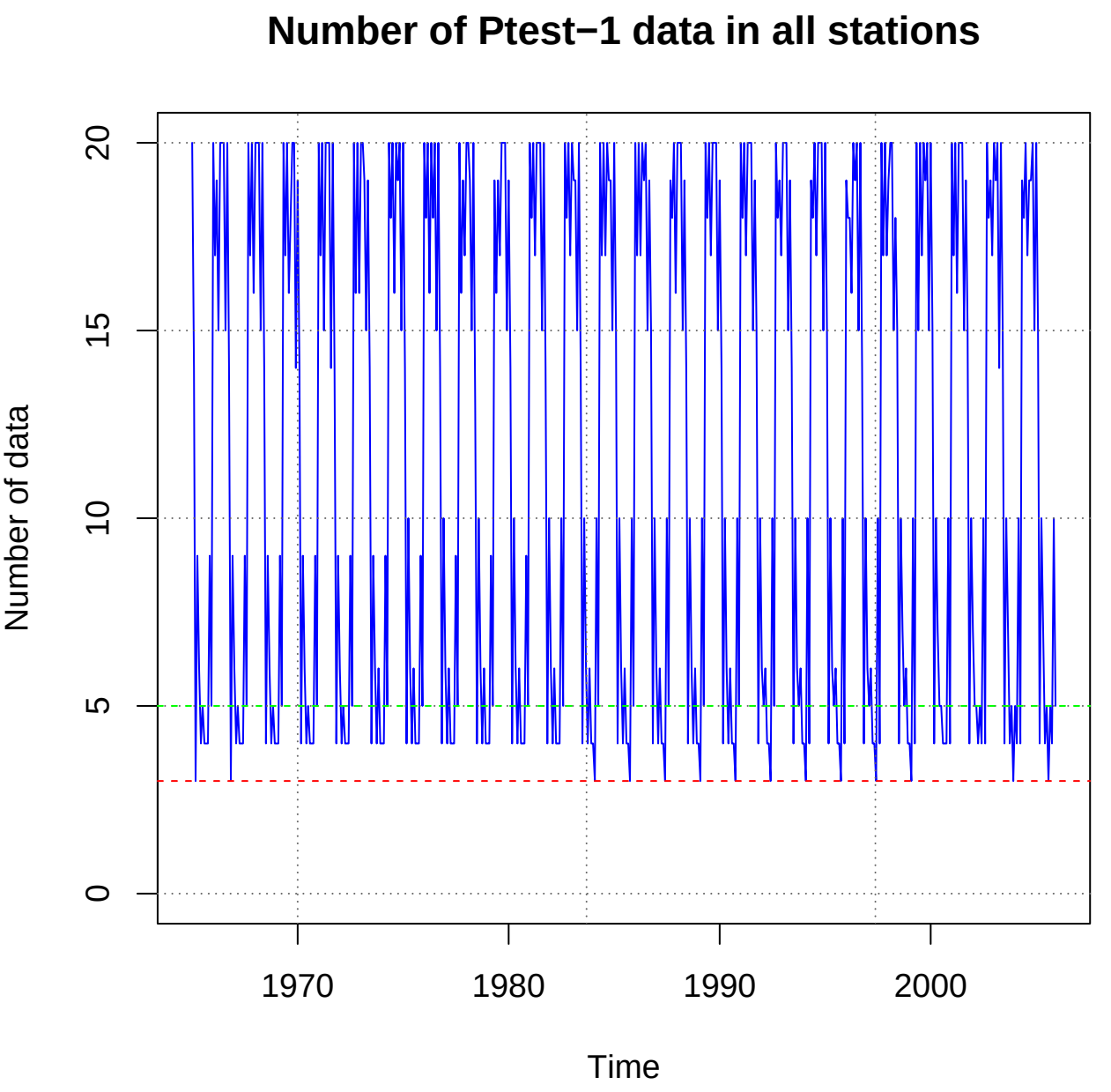
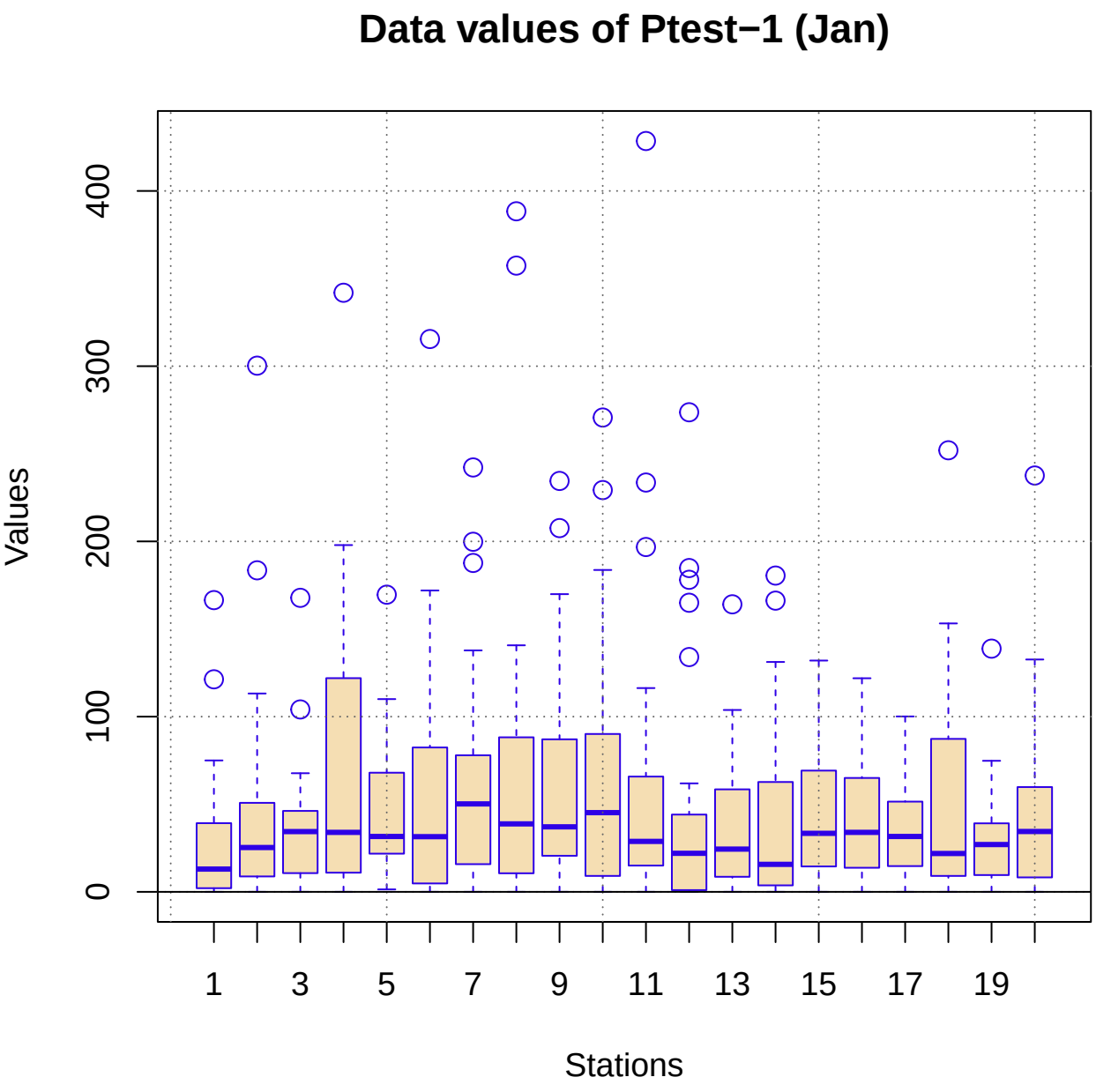
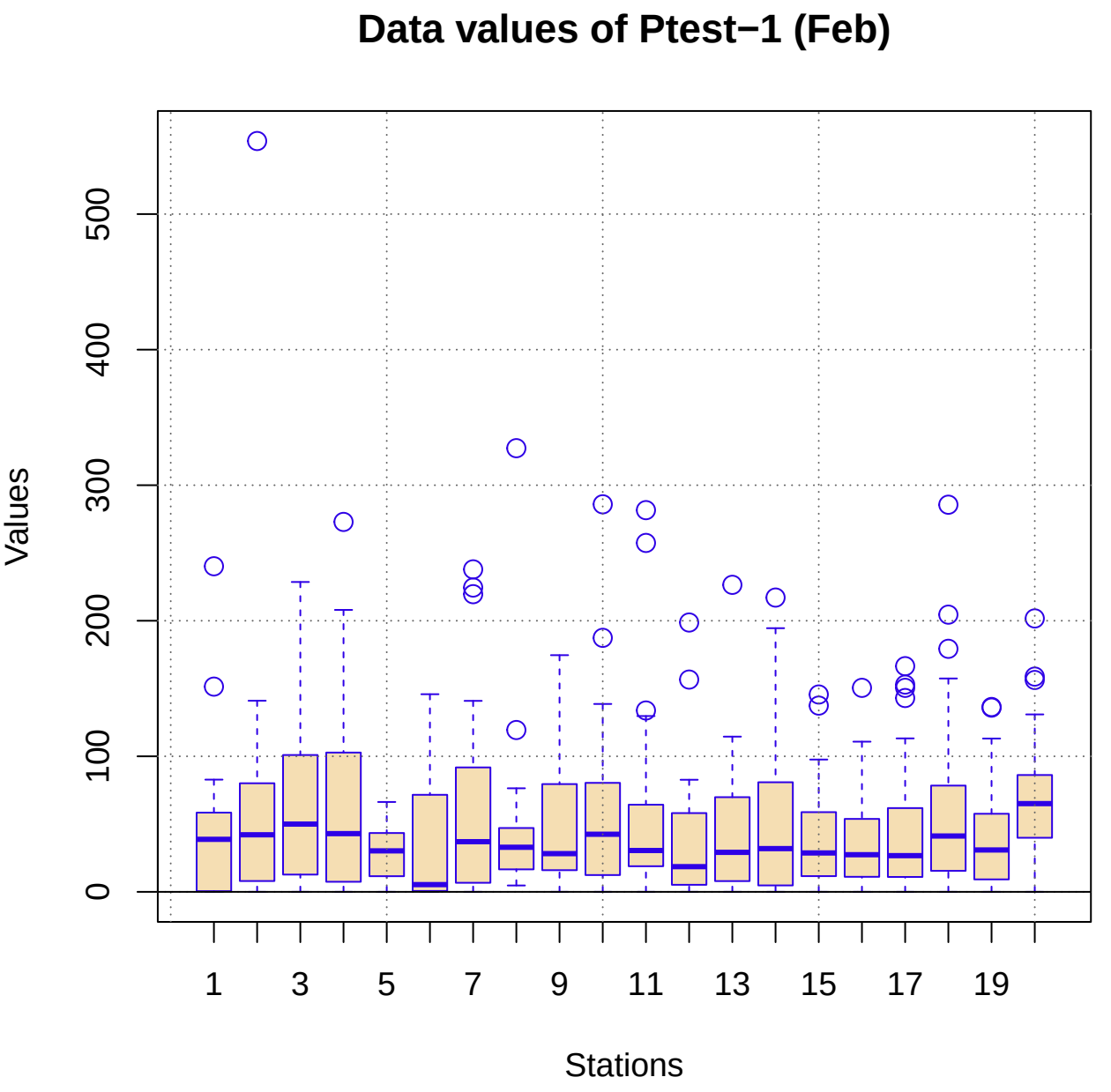
CLIMATOL 3.1.1

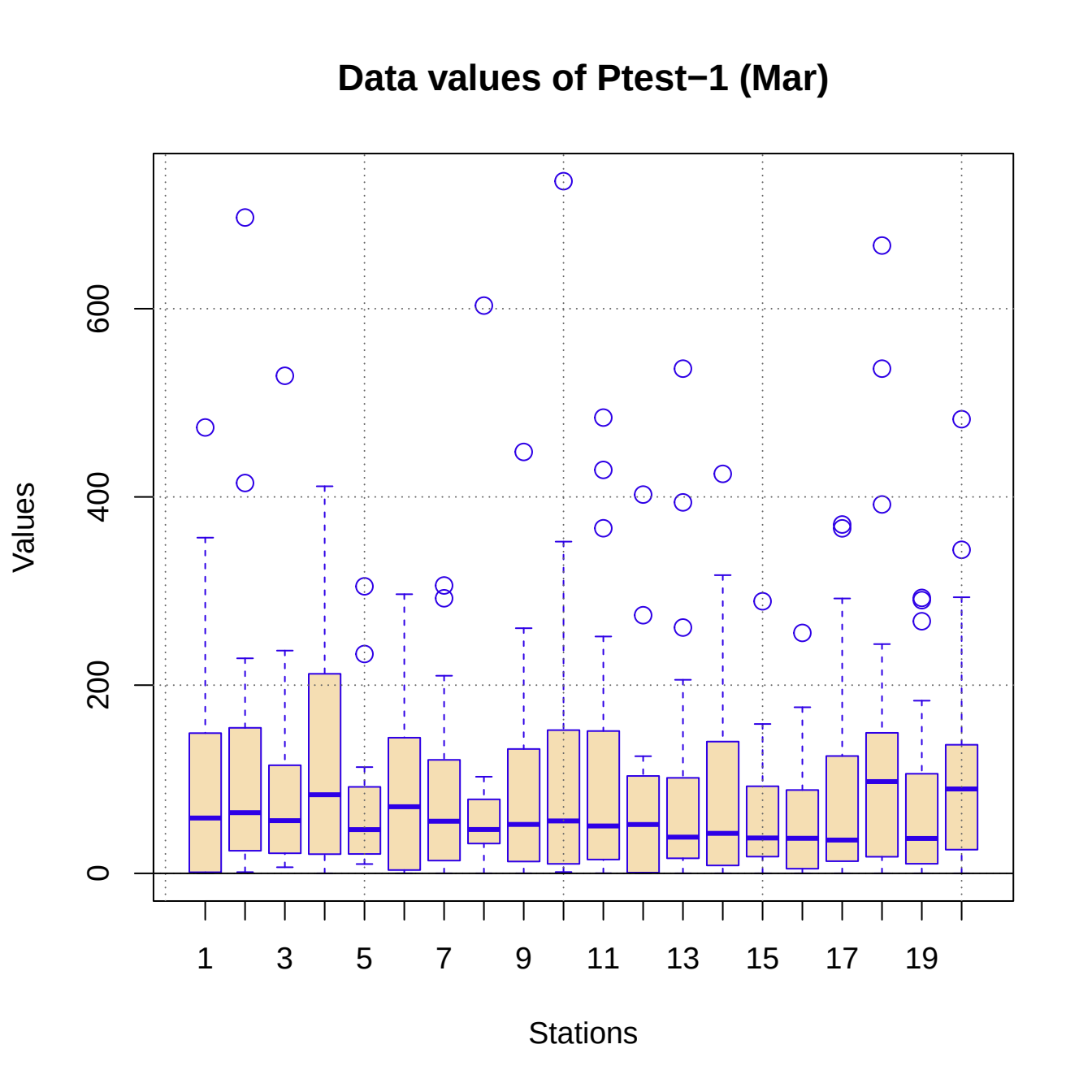
Homogenization
graphic output of
Ptest−1
1965−2005

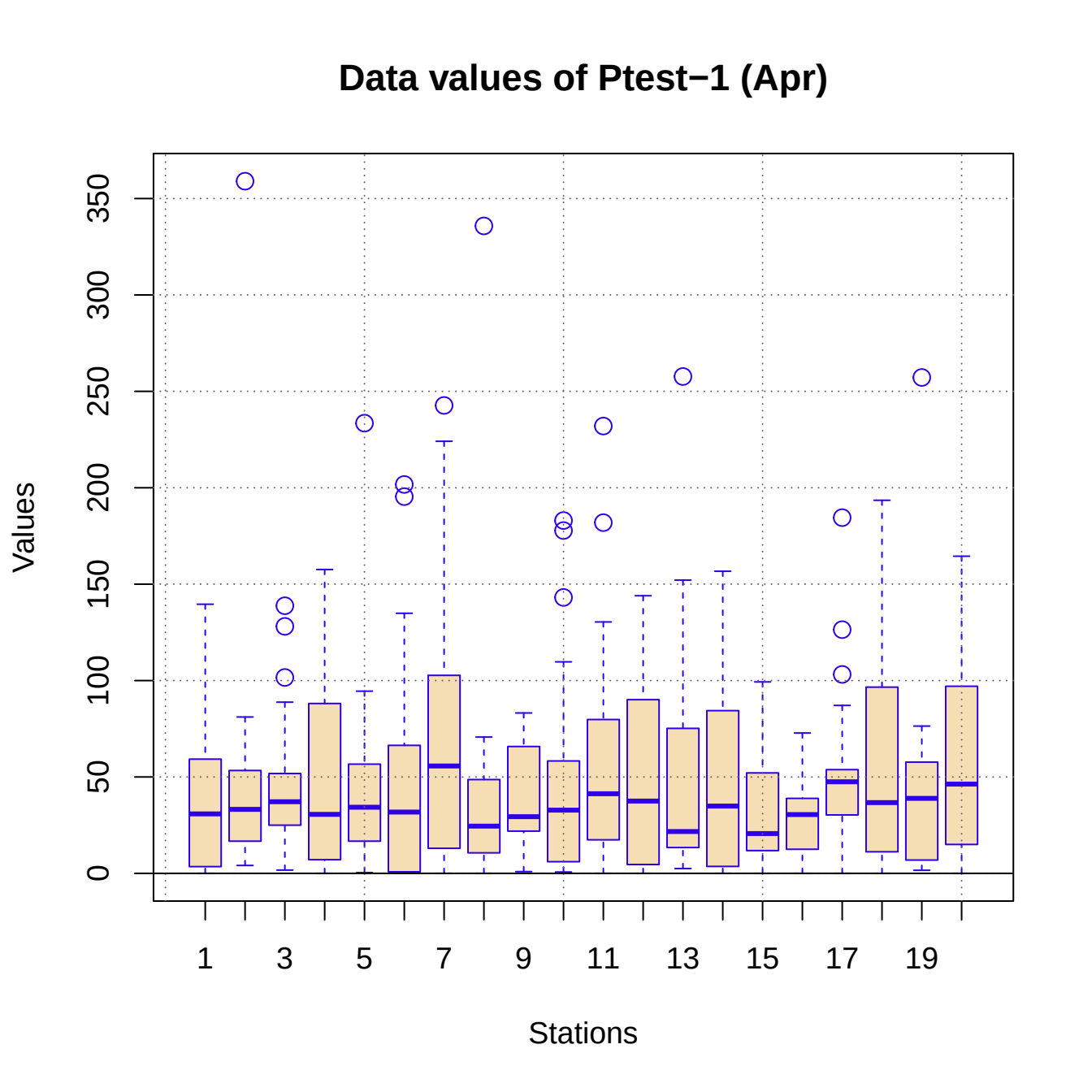

Ptest−1 data availability
Stations
5
10
15
20
1970
1980
1990
2000
Time

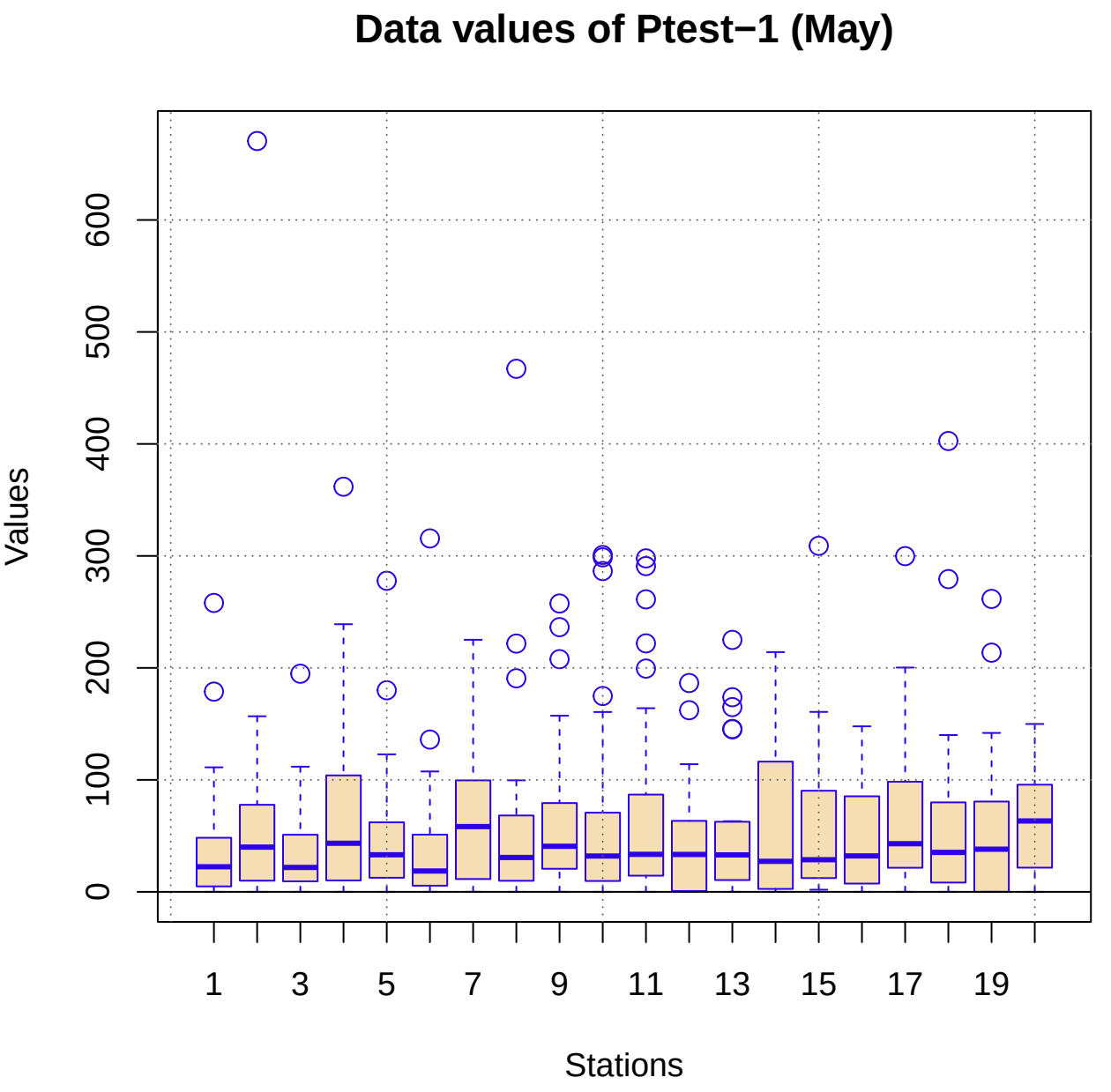

Number of Ptest−1 data in all stations
Number of data
0
5
10
15
20
1970
1980
1990
2000
Time

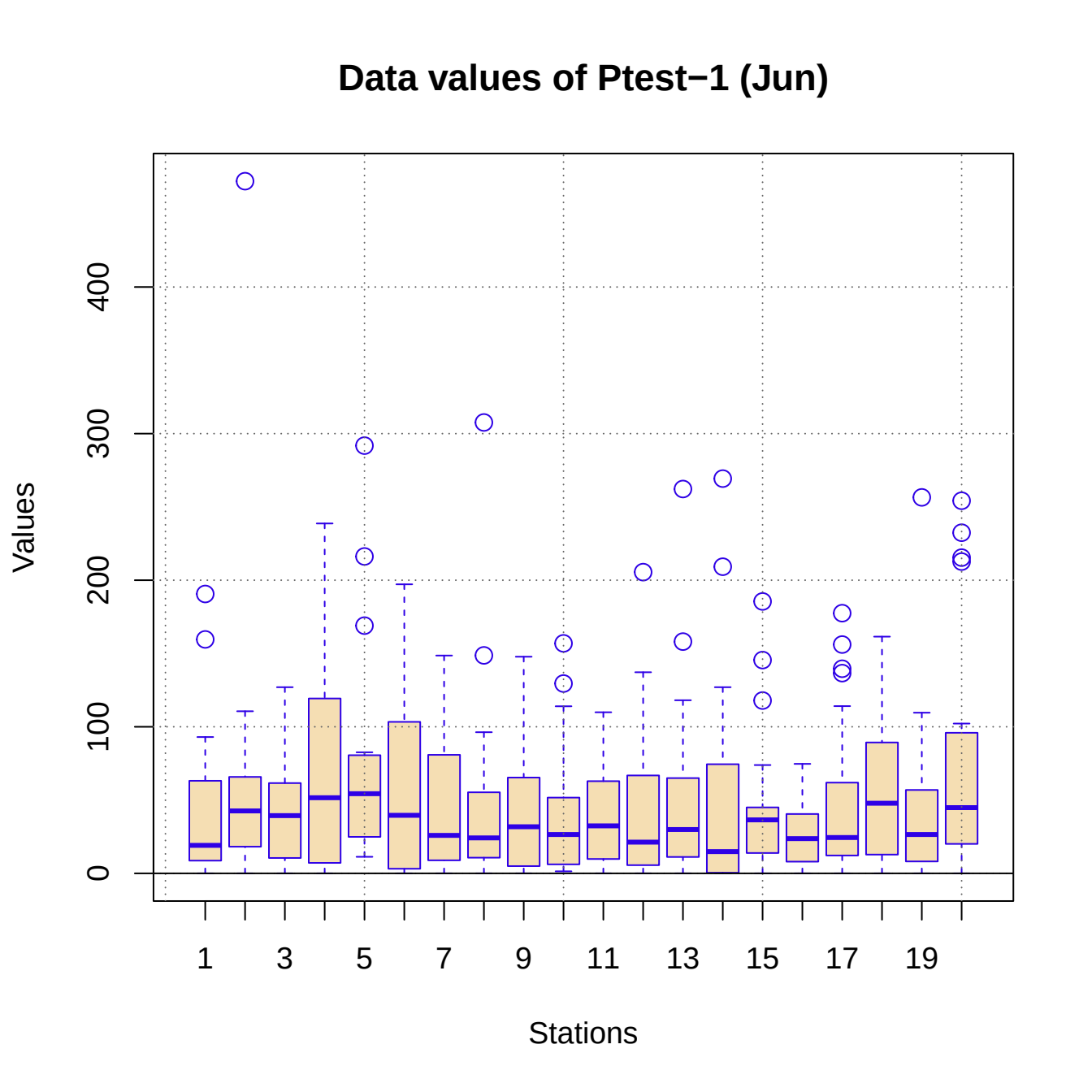

Data values of Ptest−1 (Jan)
Values
0
100
200
300
400
1
3
5
7
9
11
13
15
17
19
Stations

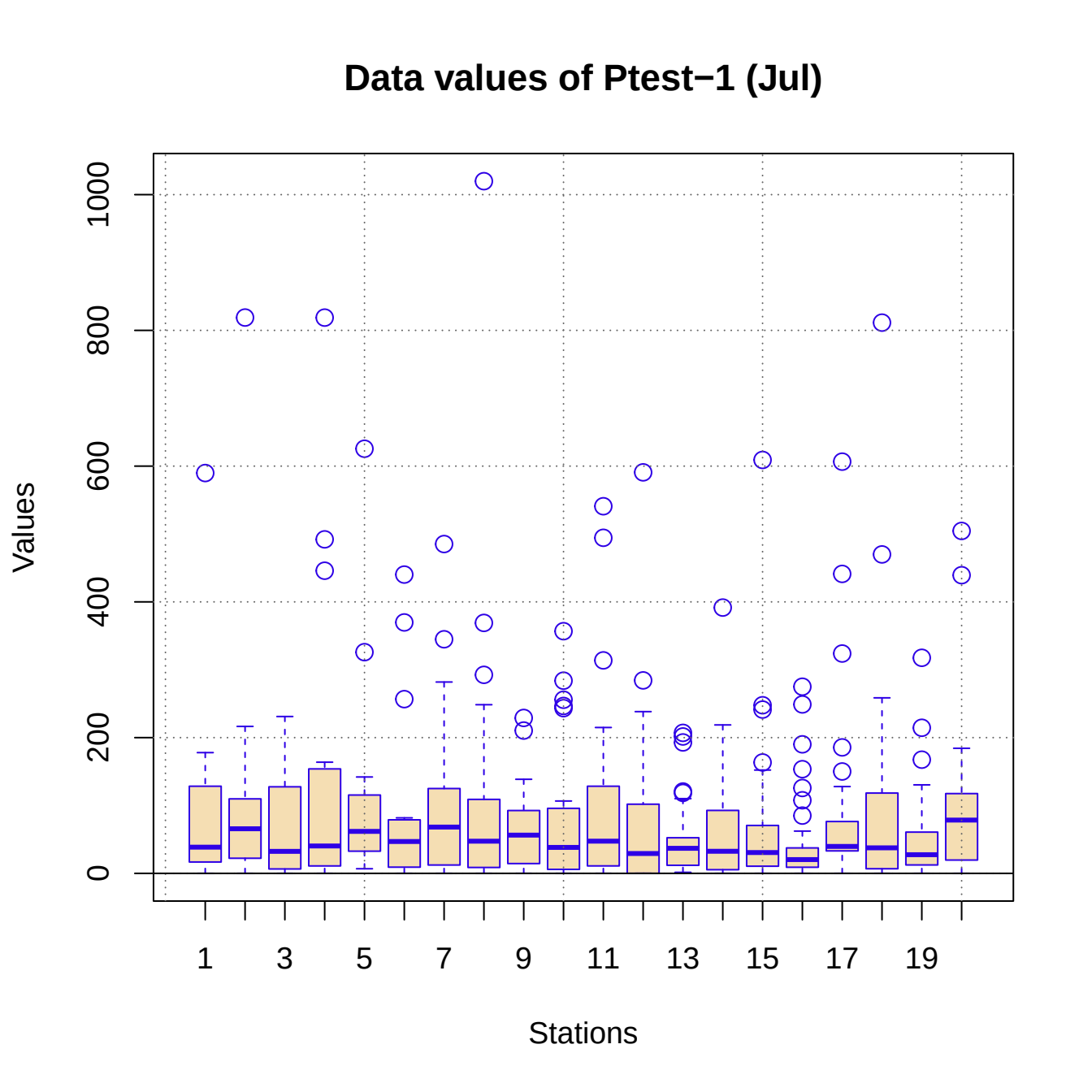

Data values of Ptest−1 (Feb)
Values
0
100
200
300
400
500
1
3
5
7
9
11
13
15
17
19
Stations

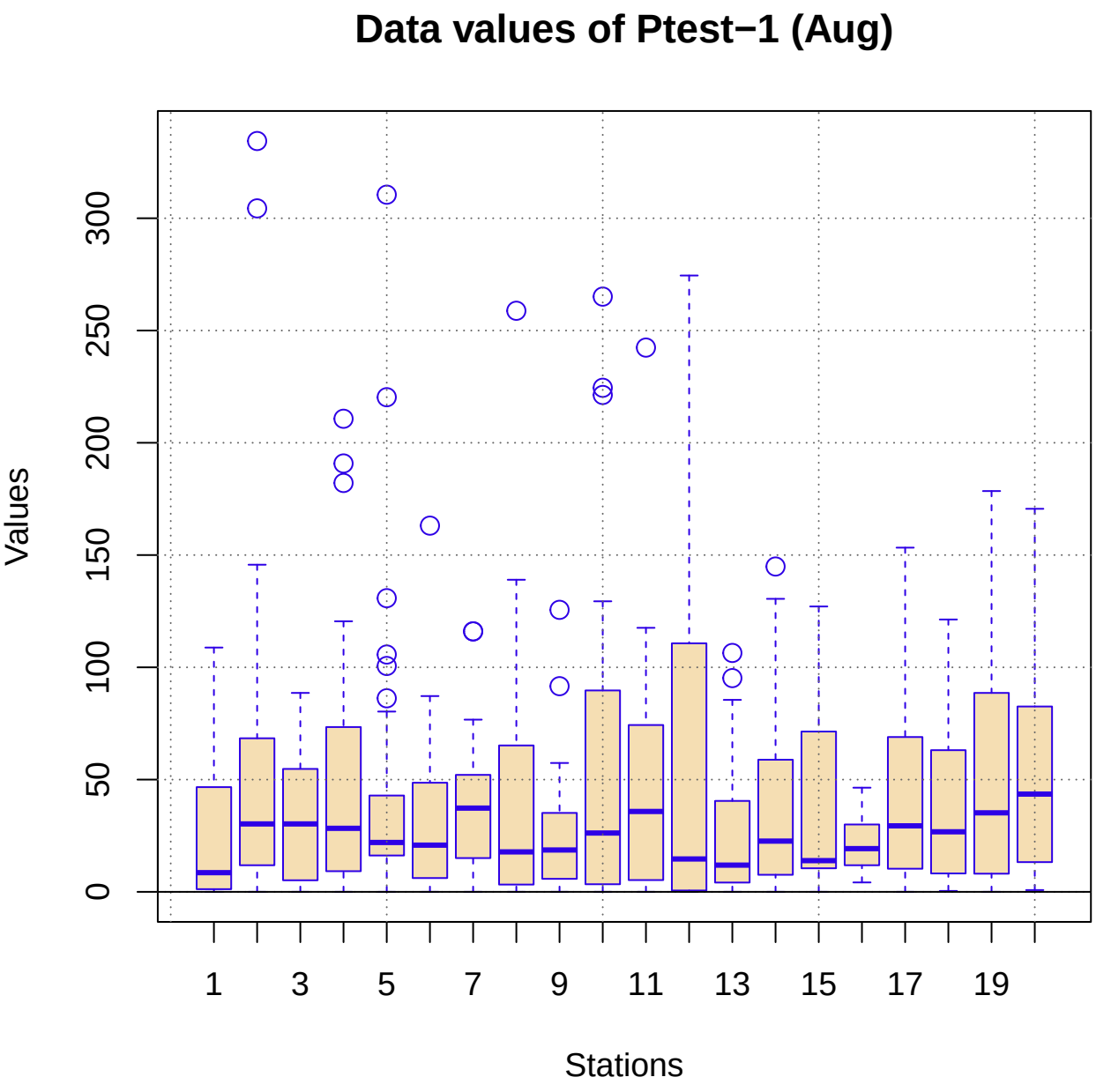

Data values of Ptest−1 (Mar)
Values
0
200
400
600
1
3
5
7
9
11
13
15
17
19
Stations

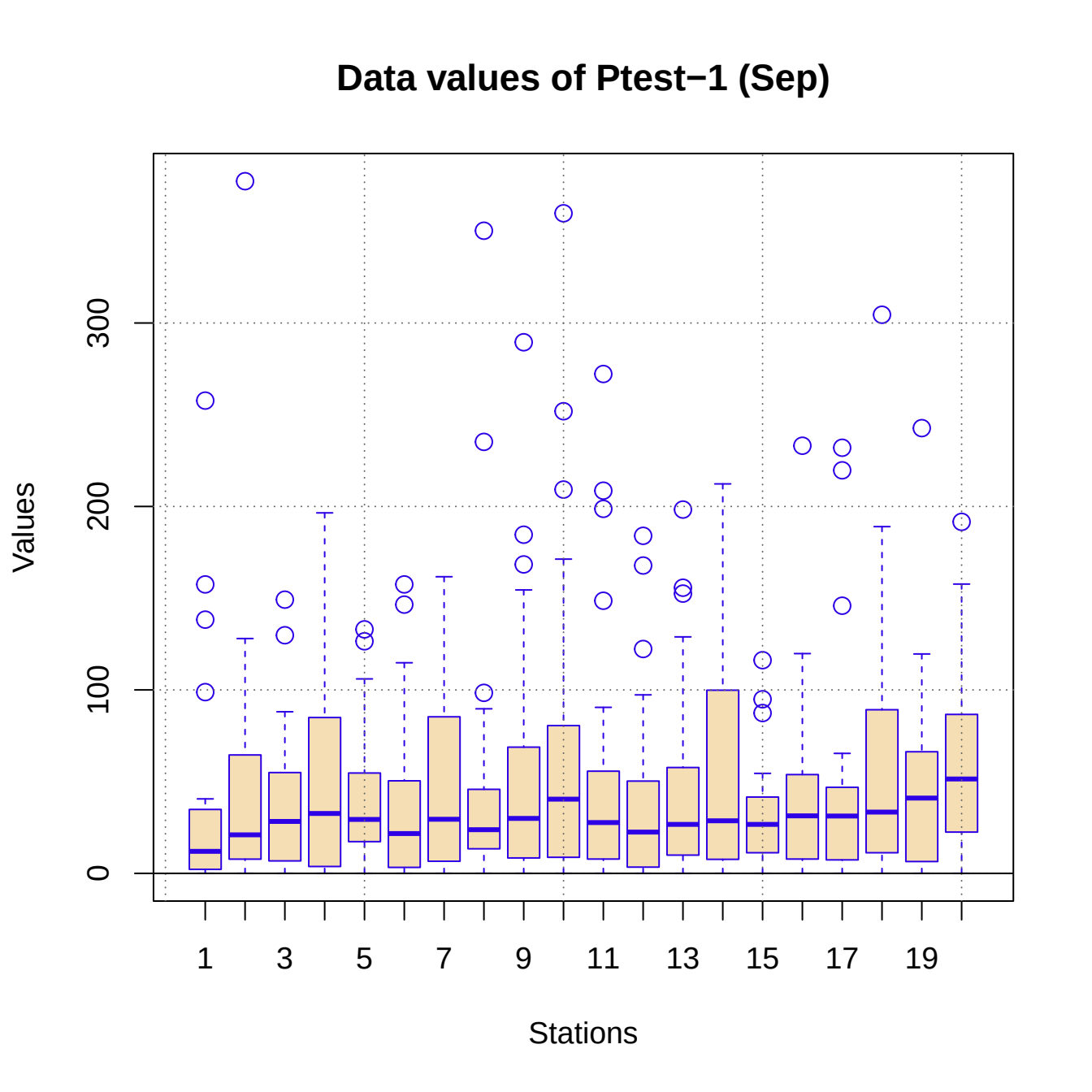

Data values of Ptest−1 (Apr)
Values
0
50
100
150
200
250
300
350
1
3
5
7
9
11
13
15
17
19
Stations

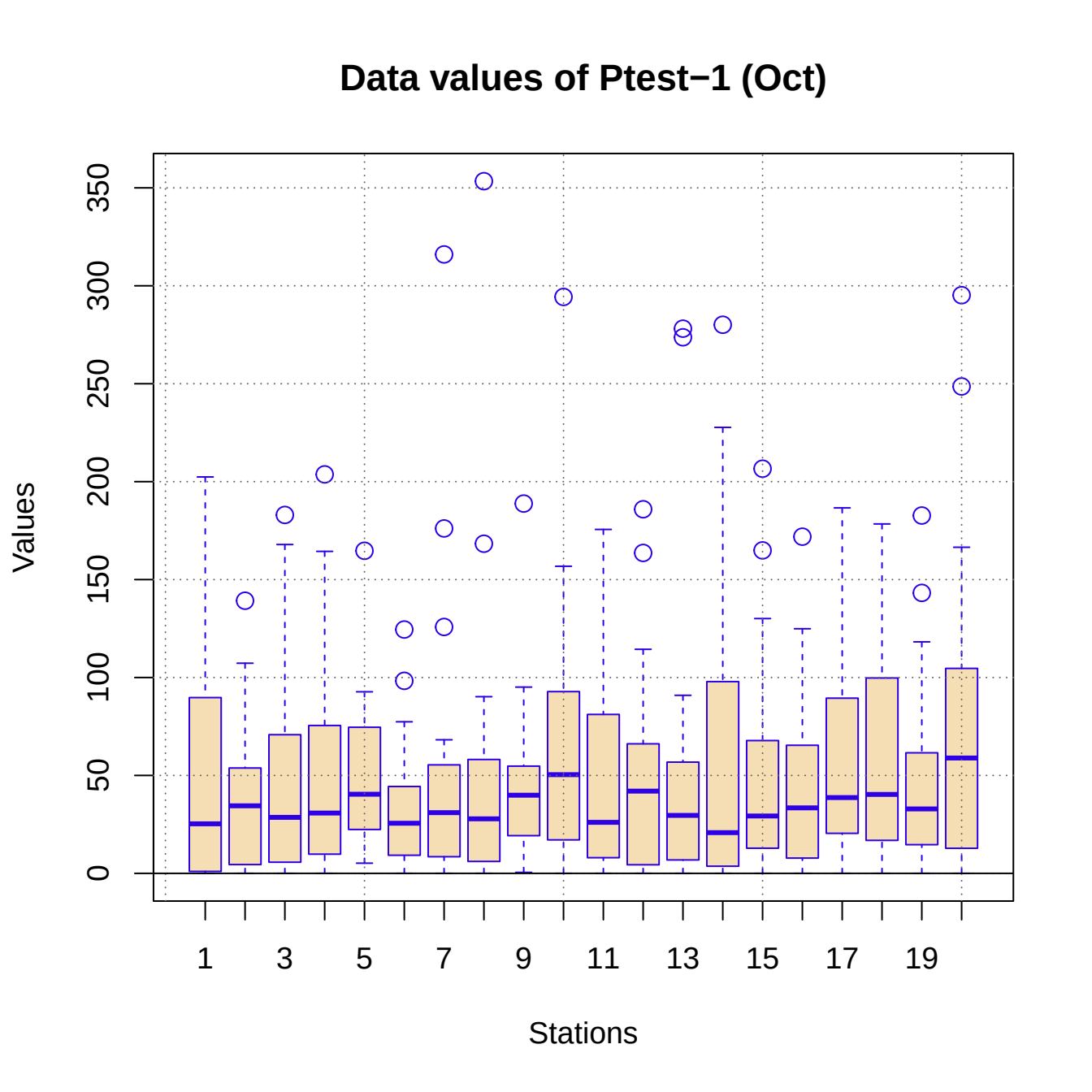

Data values of Ptest−1 (May)
Values
0
100
200
300
400
500
600
1
3
5
7
9
11
13
15
17
19
Stations

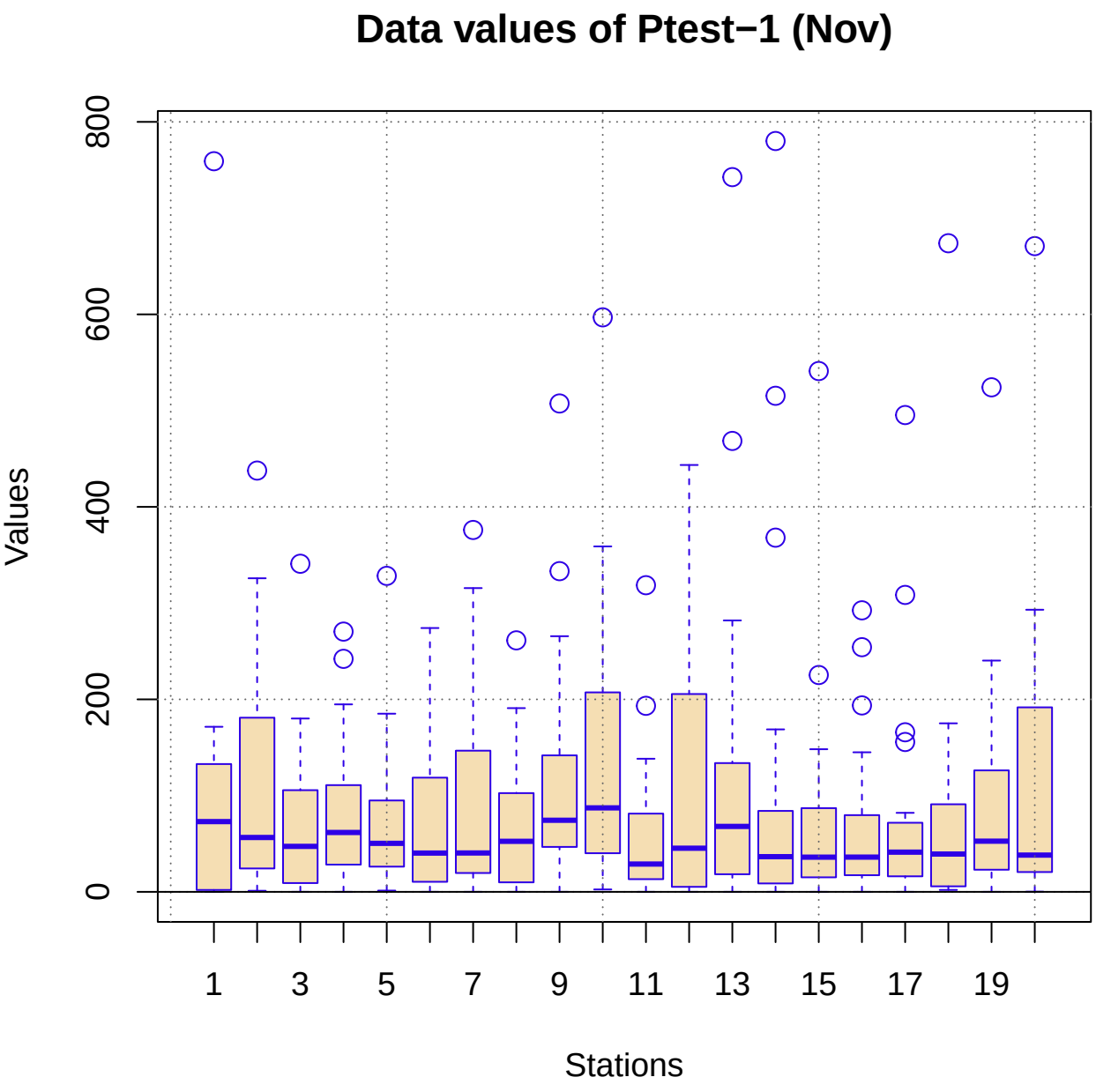

Data values of Ptest−1 (Jun)
Values
0
100
200
300
400
1
3
5
7
9
11
13
15
17
19
Stations

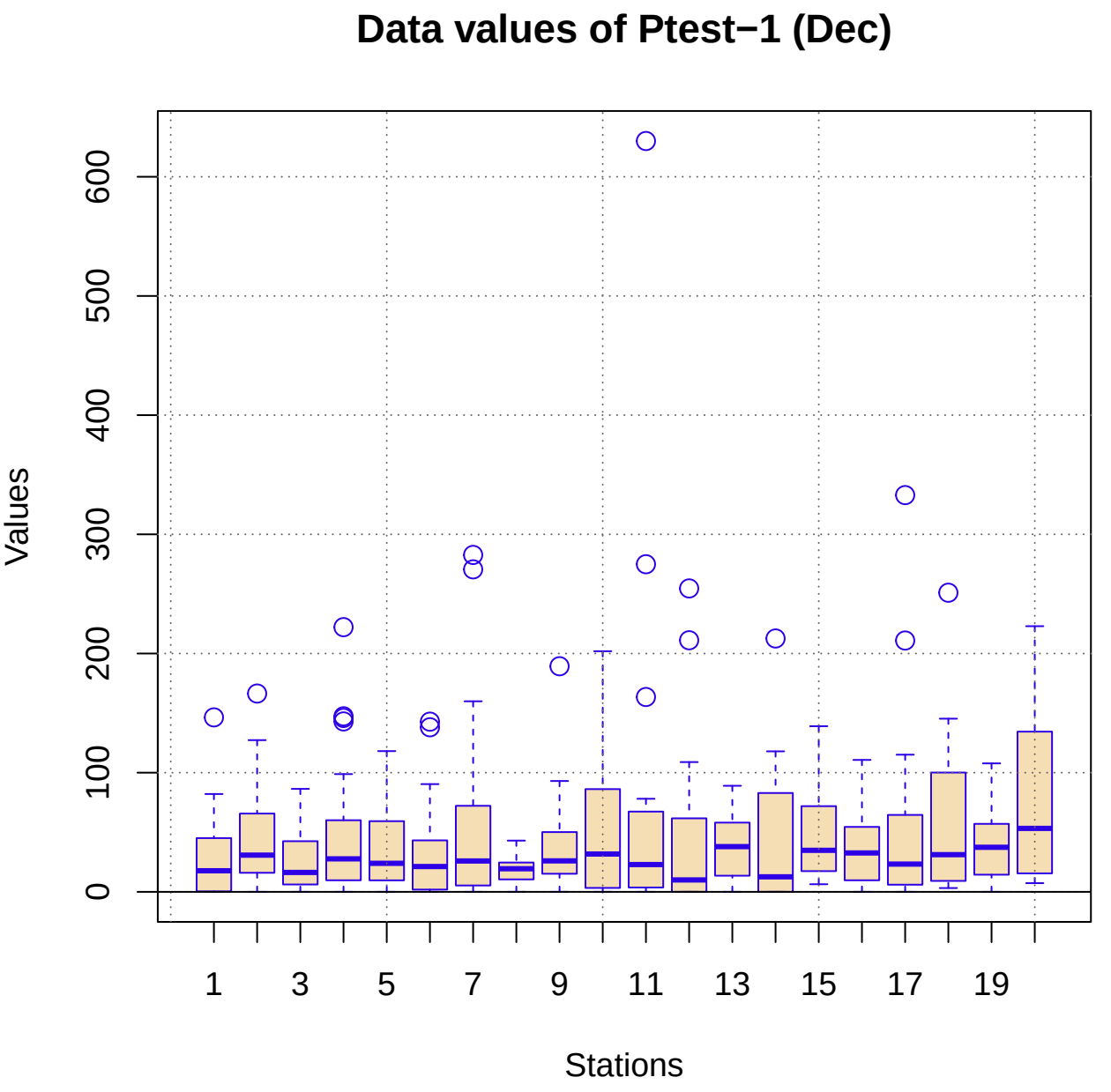

Data values of Ptest−1 (Jul)
Values
0
200
400
600
800
1000
1
3
5
7
9
11
13
15
17
19
Stations

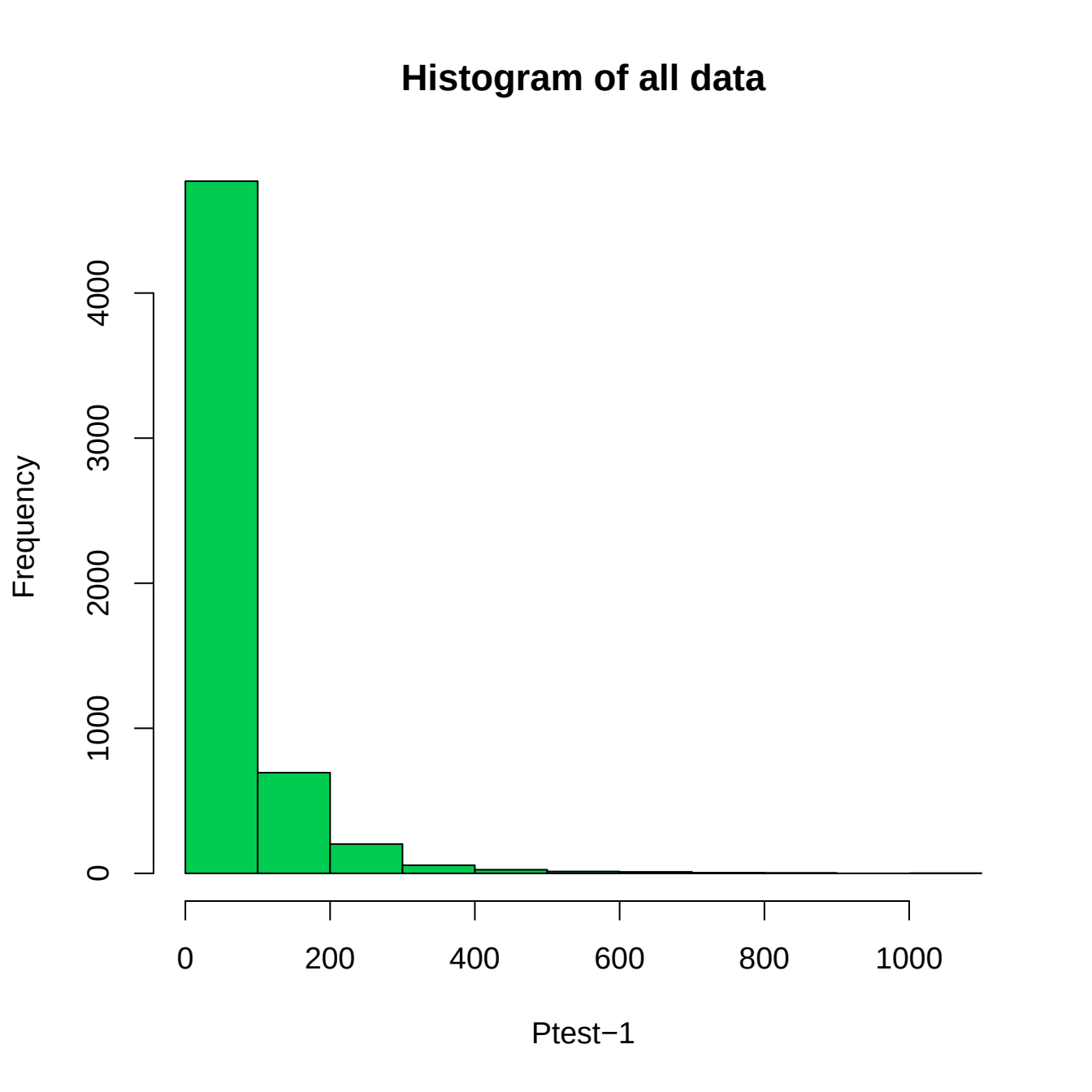

Data values of Ptest−1 (Aug)
Values
0
50
100
150
200
250
300
1
3
5
7
9
11
13
15
17
19
Stations

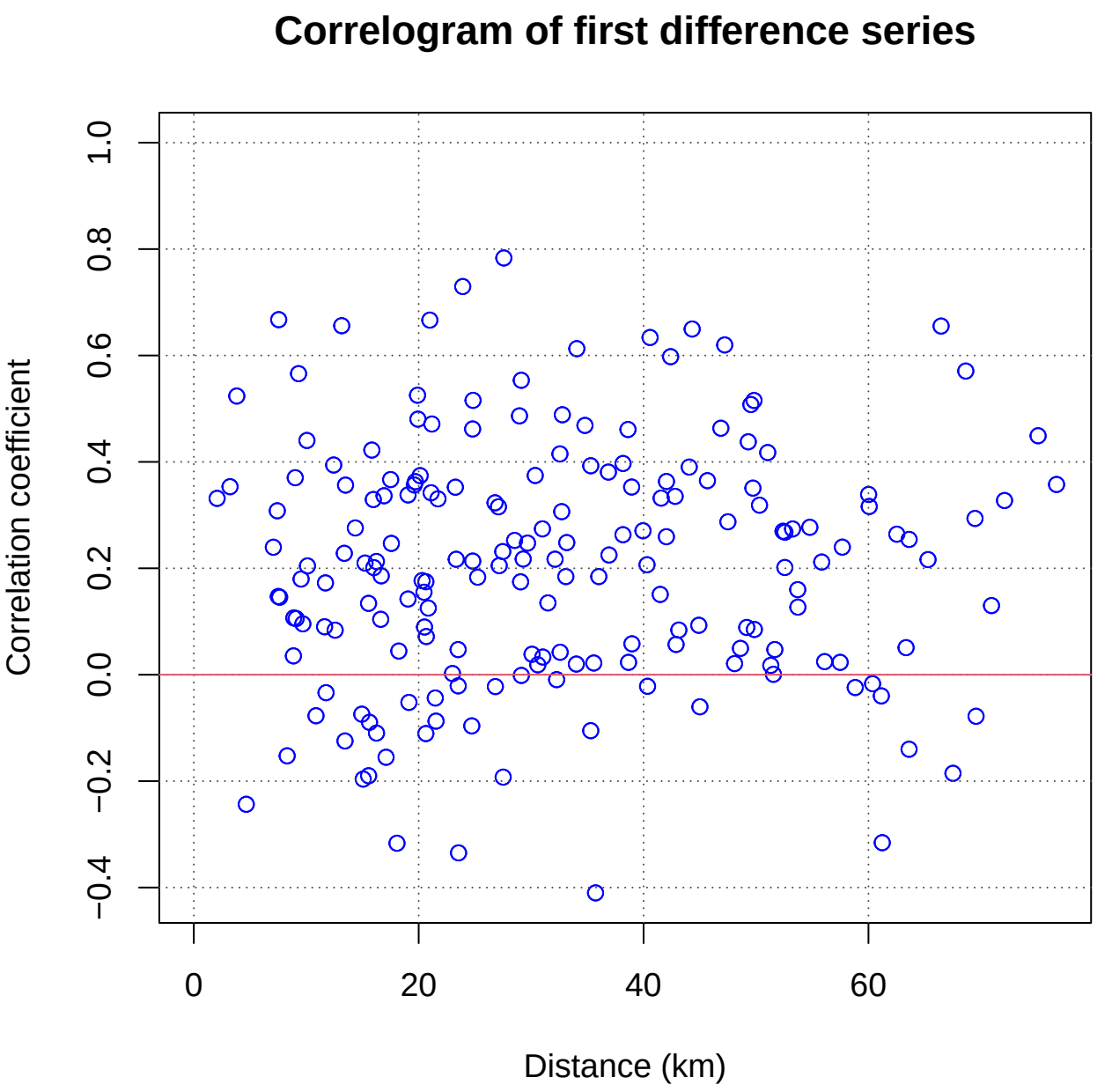

Data values of Ptest−1 (Sep)
Values
0
100
200
300
1
3
5
7
9
11
13
15
17
19
Stations

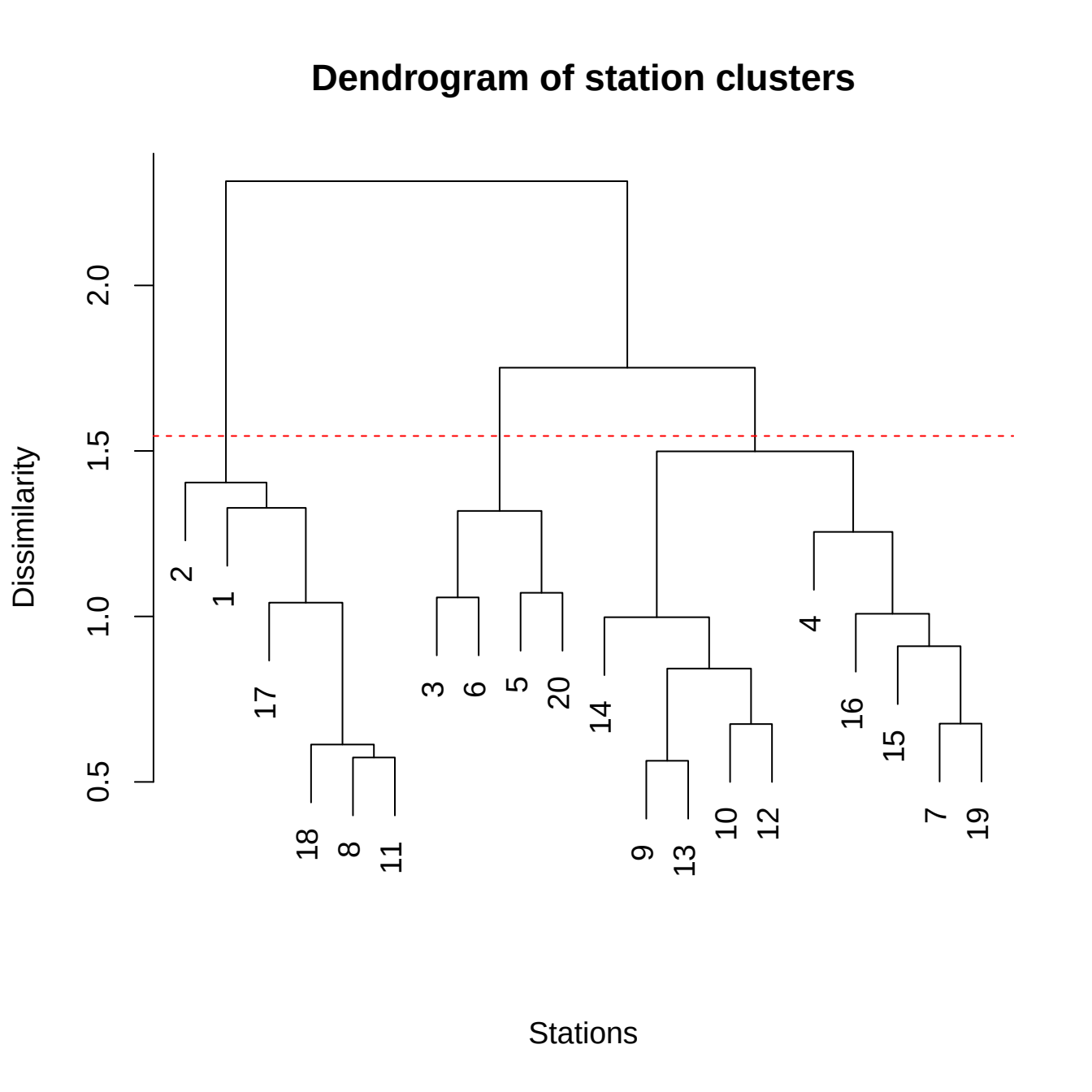

Data values of Ptest−1 (Oct)
Values
0
50
100
150
200
250
300
350
1
3
5
7
9
11
13
15
17
19
Stations

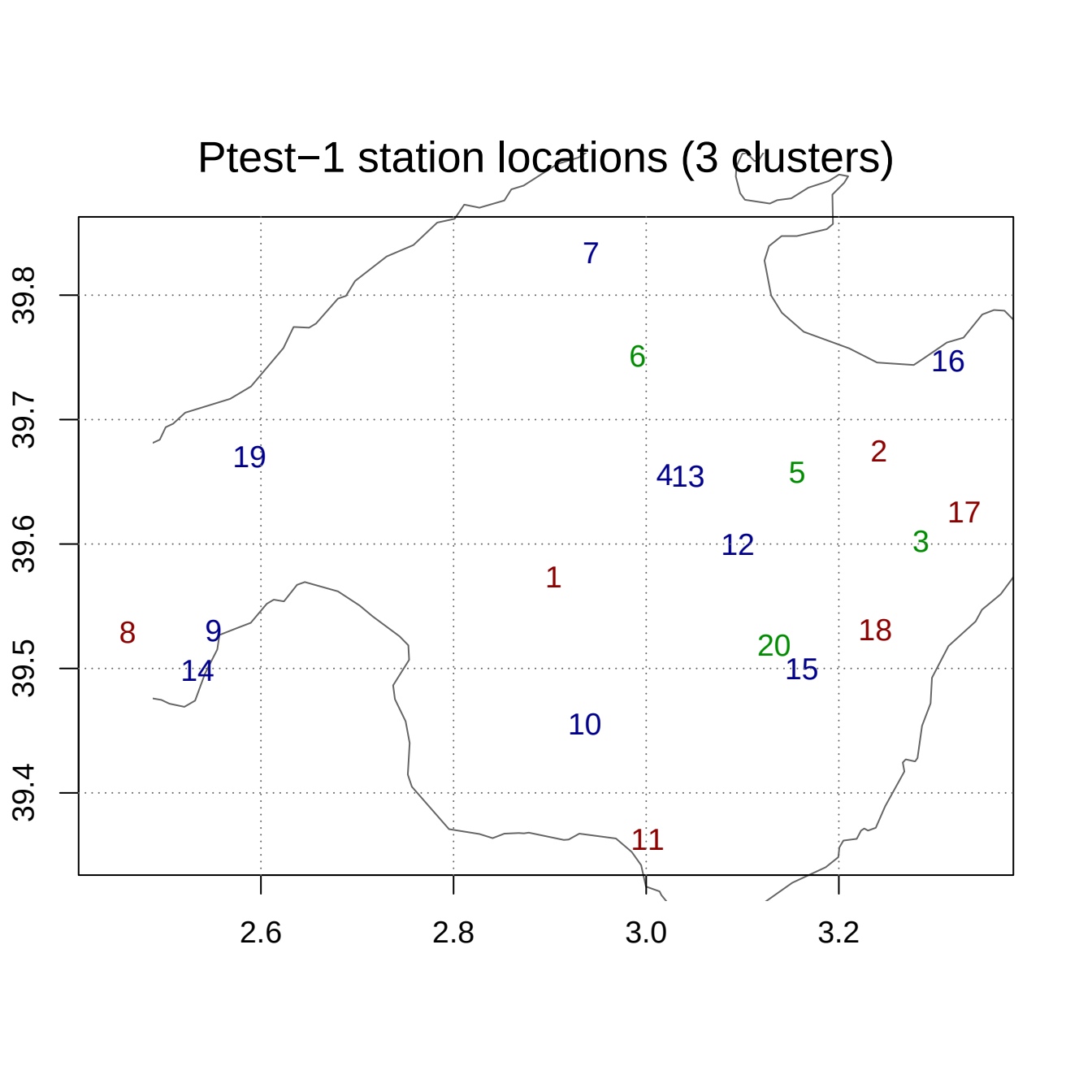

Data values of Ptest−1 (Nov)
Values
0
200
400
600
800
1
3
5
7
9
11
13
15
17
19
Stations


Data values of Ptest−1 (Dec)
Values
0
100
200
300
400
500
600
1
3
5
7
9
11
13
15
17
19
Stations


Histogram of all data
Frequency
0
1000
2000
3000
4000
0
200
400
600
800
1000
Ptest−1

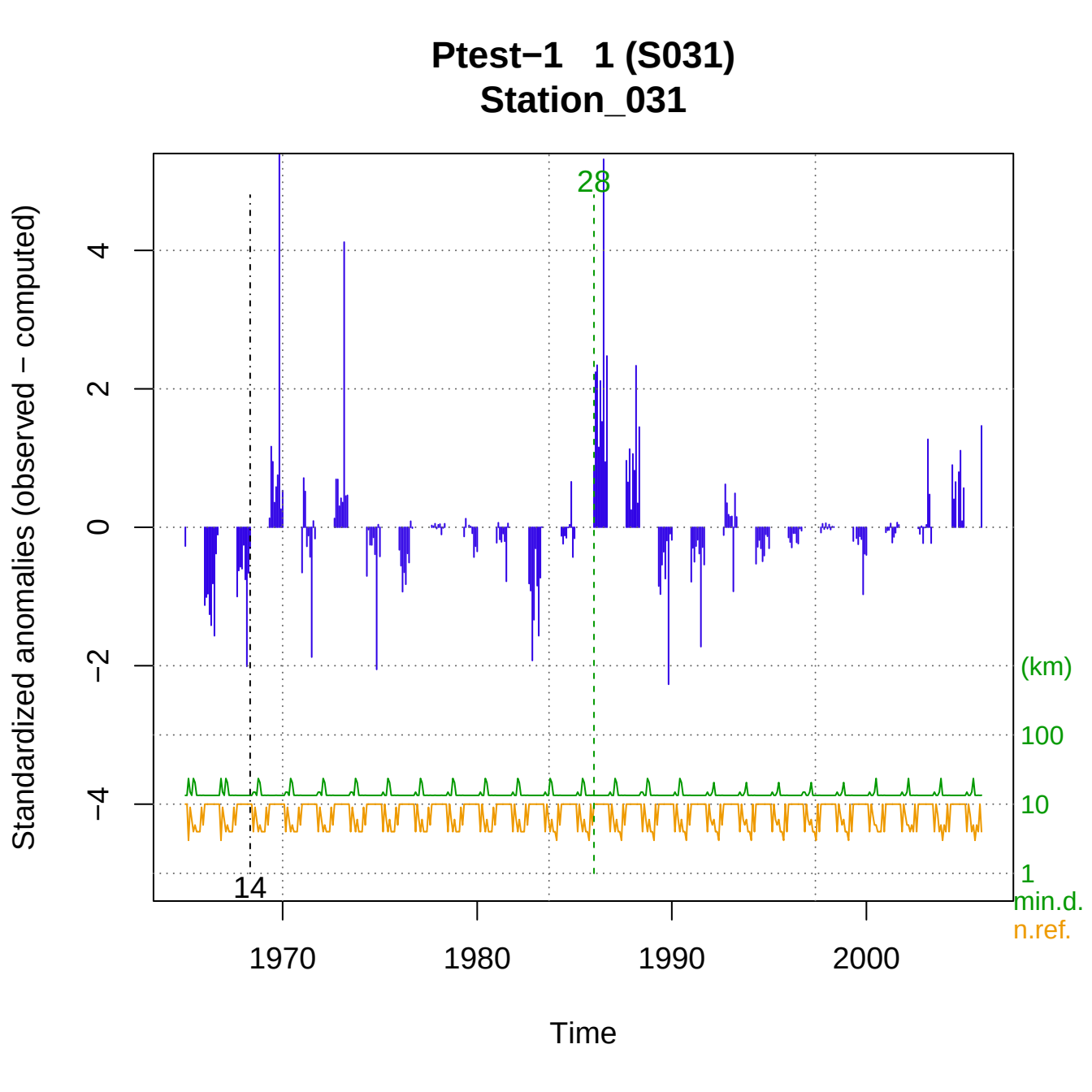

Correlogram of first difference series
Correlation coefficient
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
0
20
40
60
Distance (km)

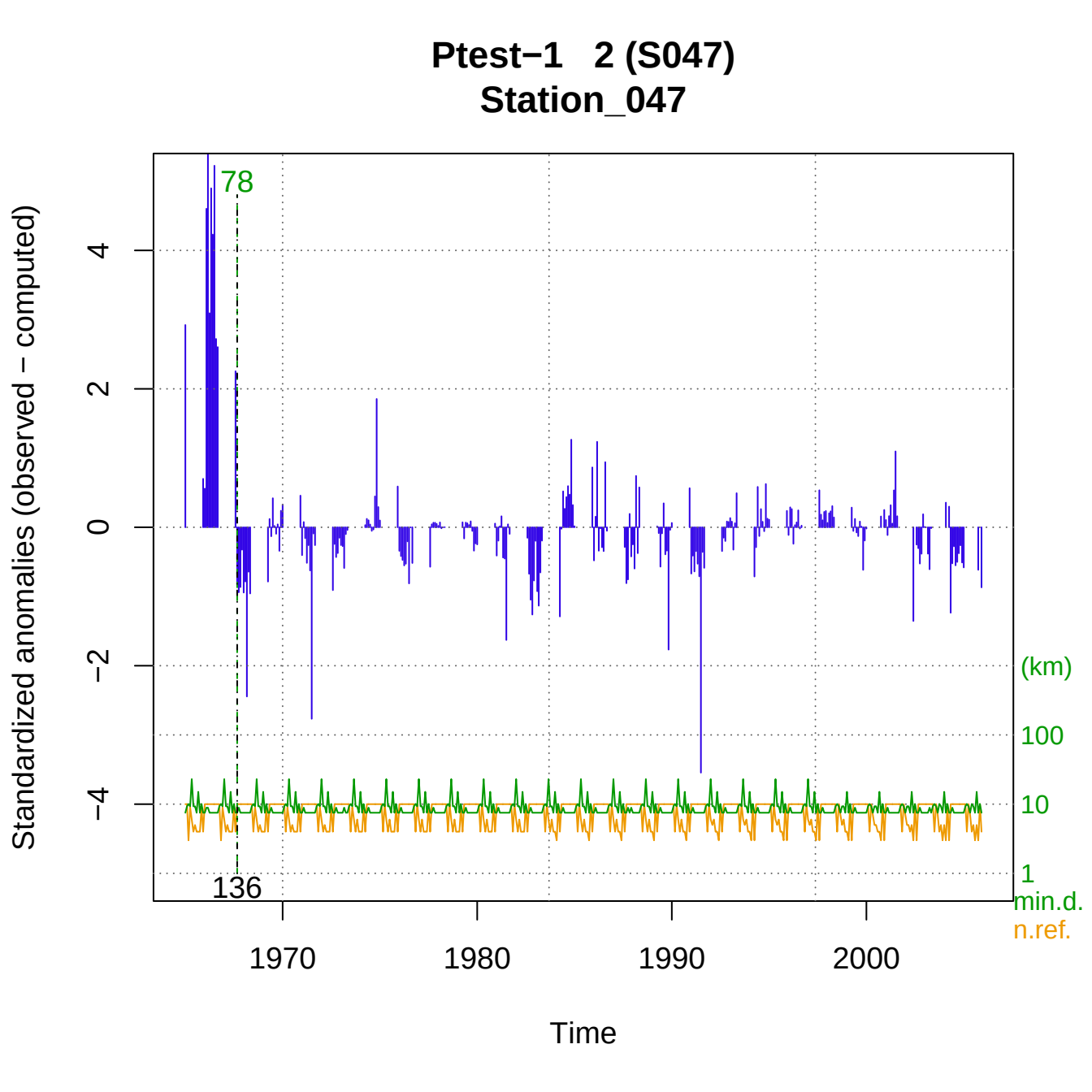

Dendrogram of station clusters
Dissimilarity
0.5
1.0
1.5
2.0
2
1
17
18
8
11
3
6
5
20
14
9
13
10
12
4
16
15
7
19
Stations

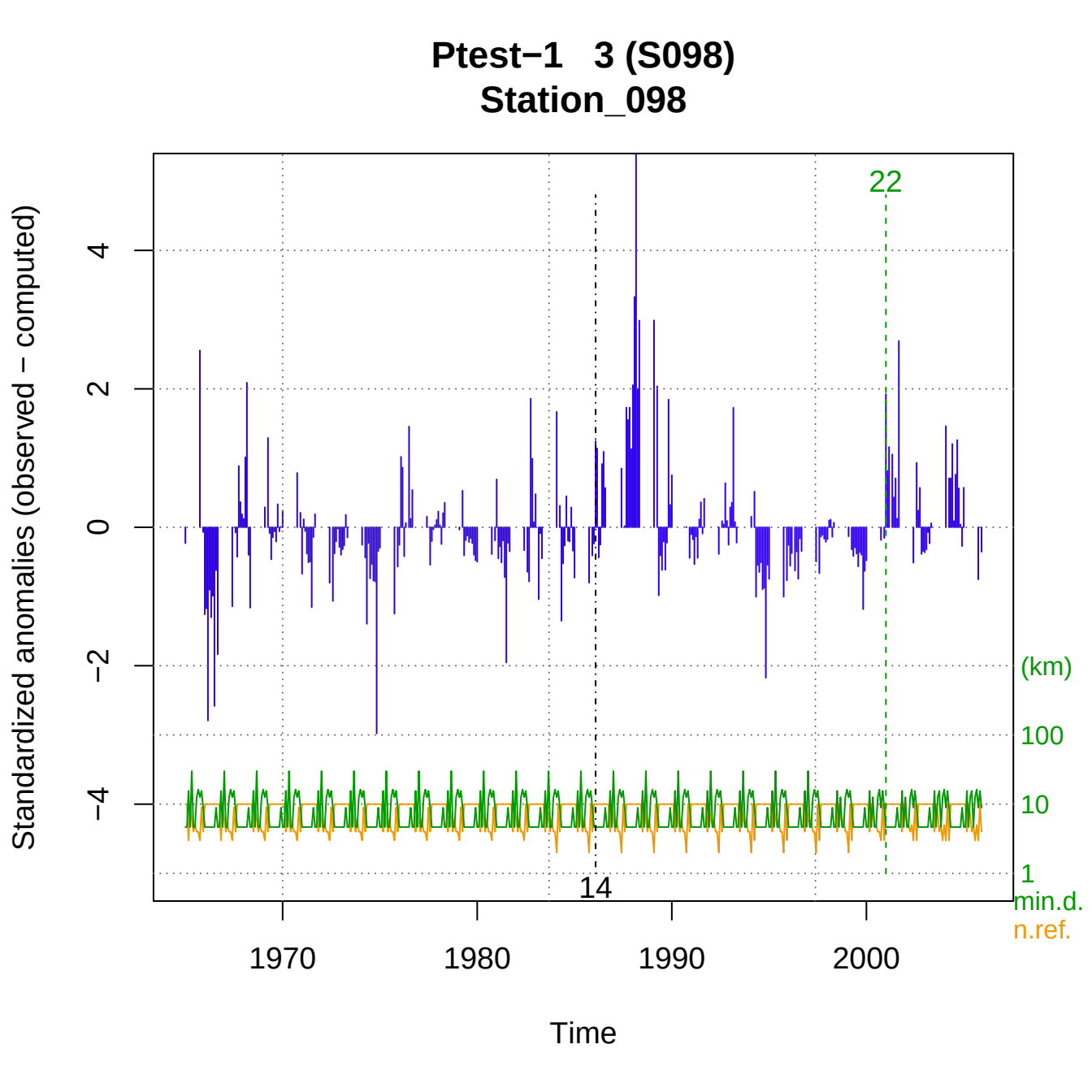

Ptest−1 station locations (3 clusters)
39.8
39.7
39.6
39.5
39.4
2.6
2.8
3.0
3.2
7
6
16
19
2
413
5
17
12
3
1
8
9
18
20
14
15
10
11

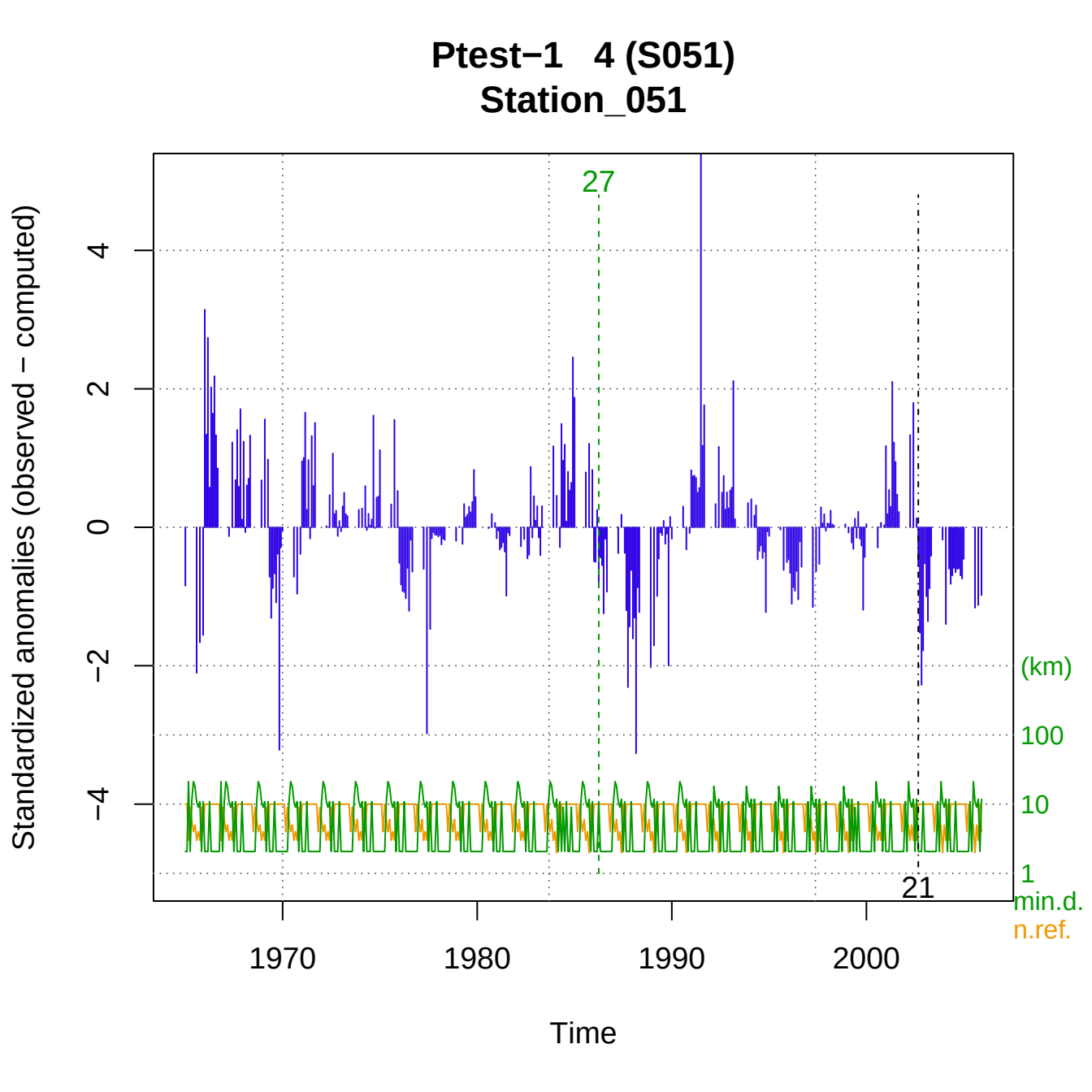
Stage 3

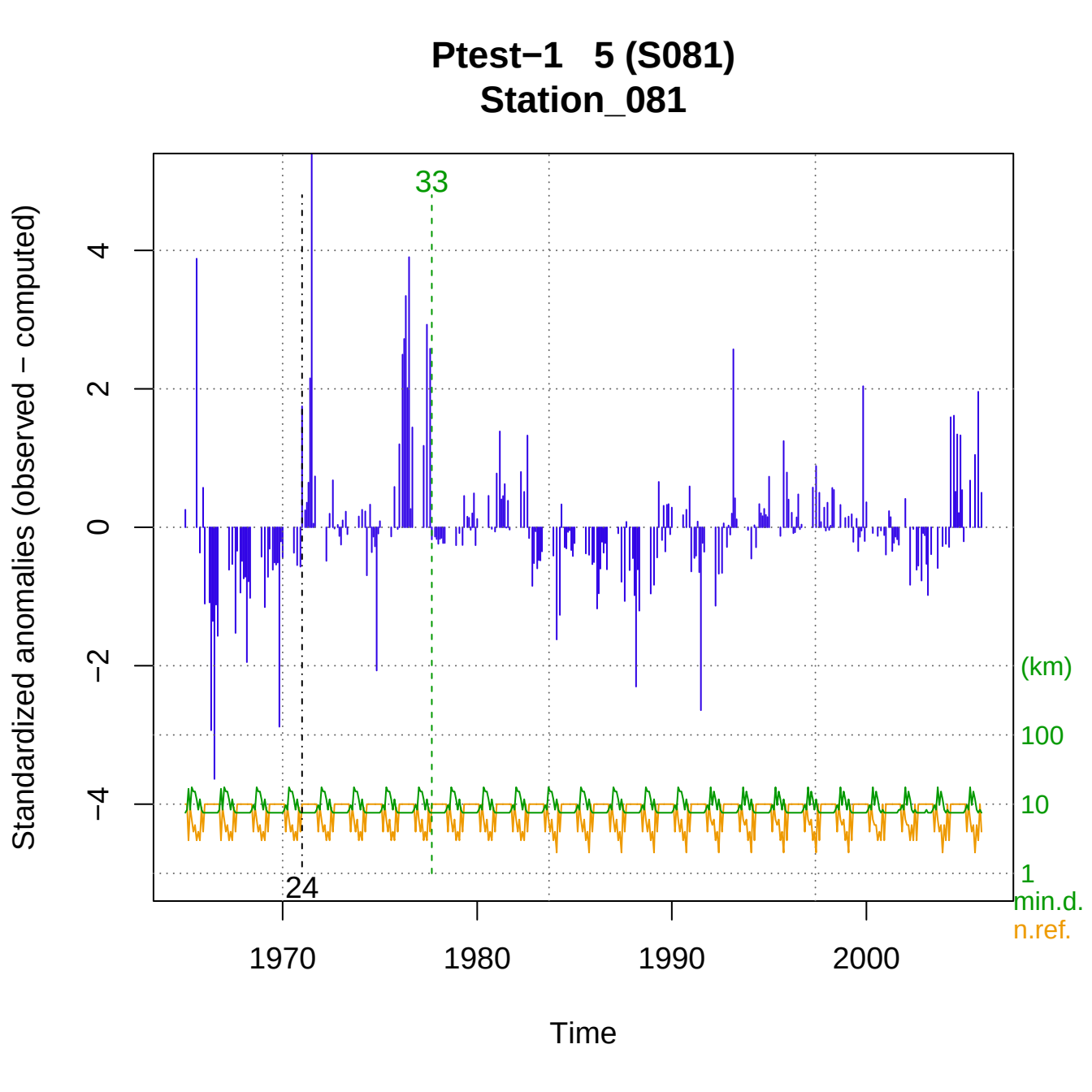
Anomalies after
missing data
recalculation
with wd = 100 km
(swa = 60)

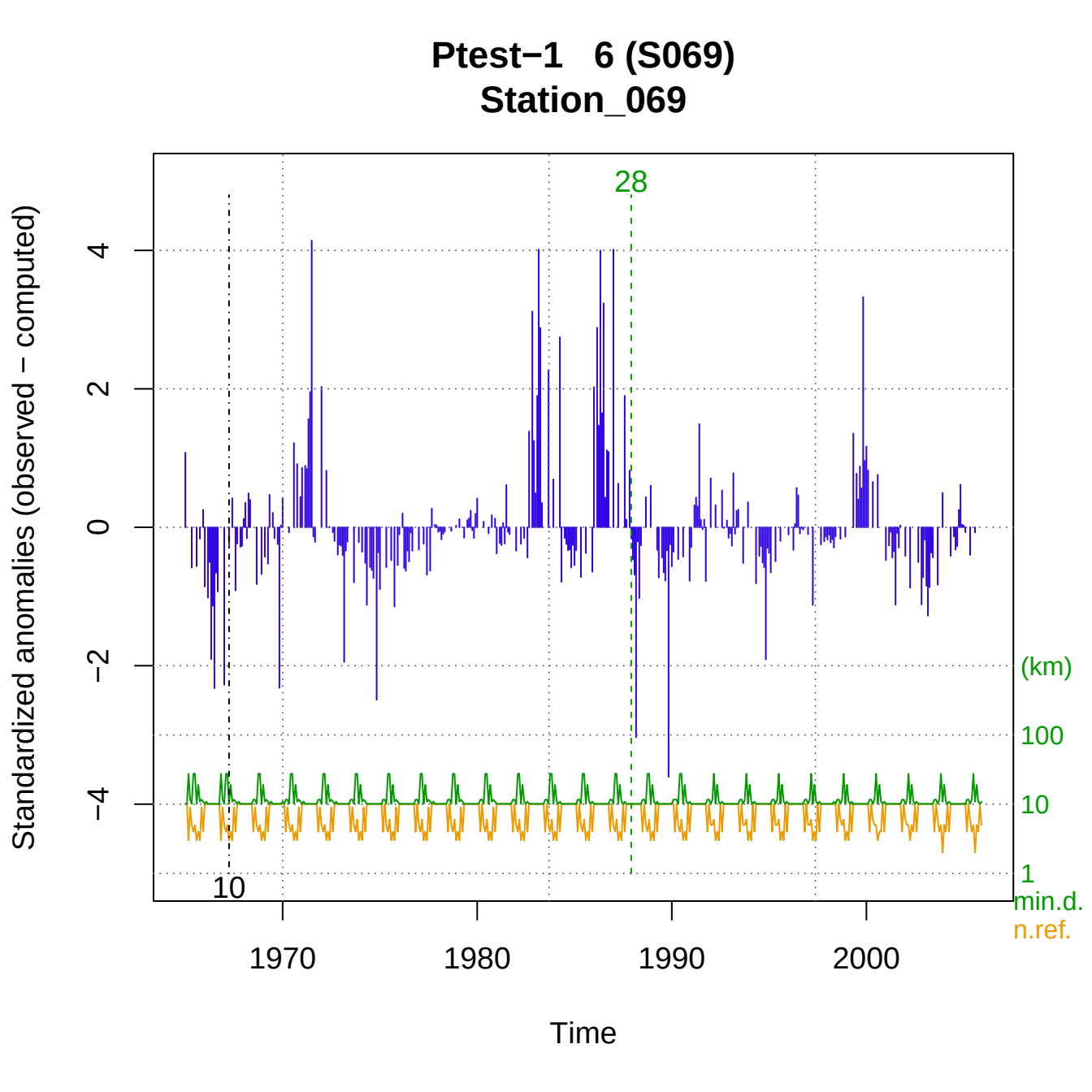

Ptest−1 1 (S031)
Station_031
28
14
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
1970
1980
1990
2000
Time

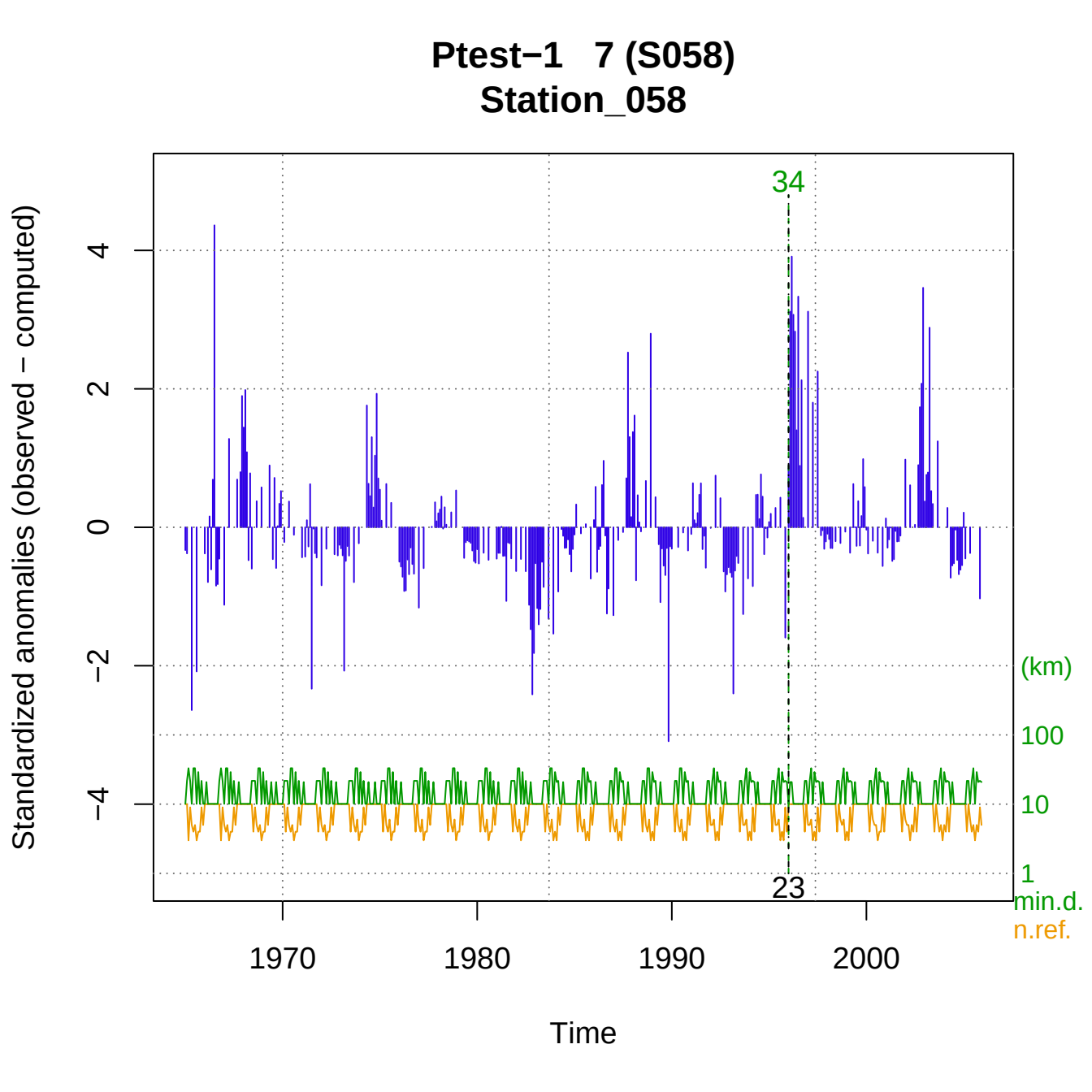

Ptest−1 2 (S047)
Station_047
78
136
Standardized anomalies (observed − computed)
4
2
0
−2
−4
1970
1980
1990
2000
Time
(km)
100
10
1
min.d.
n.ref.

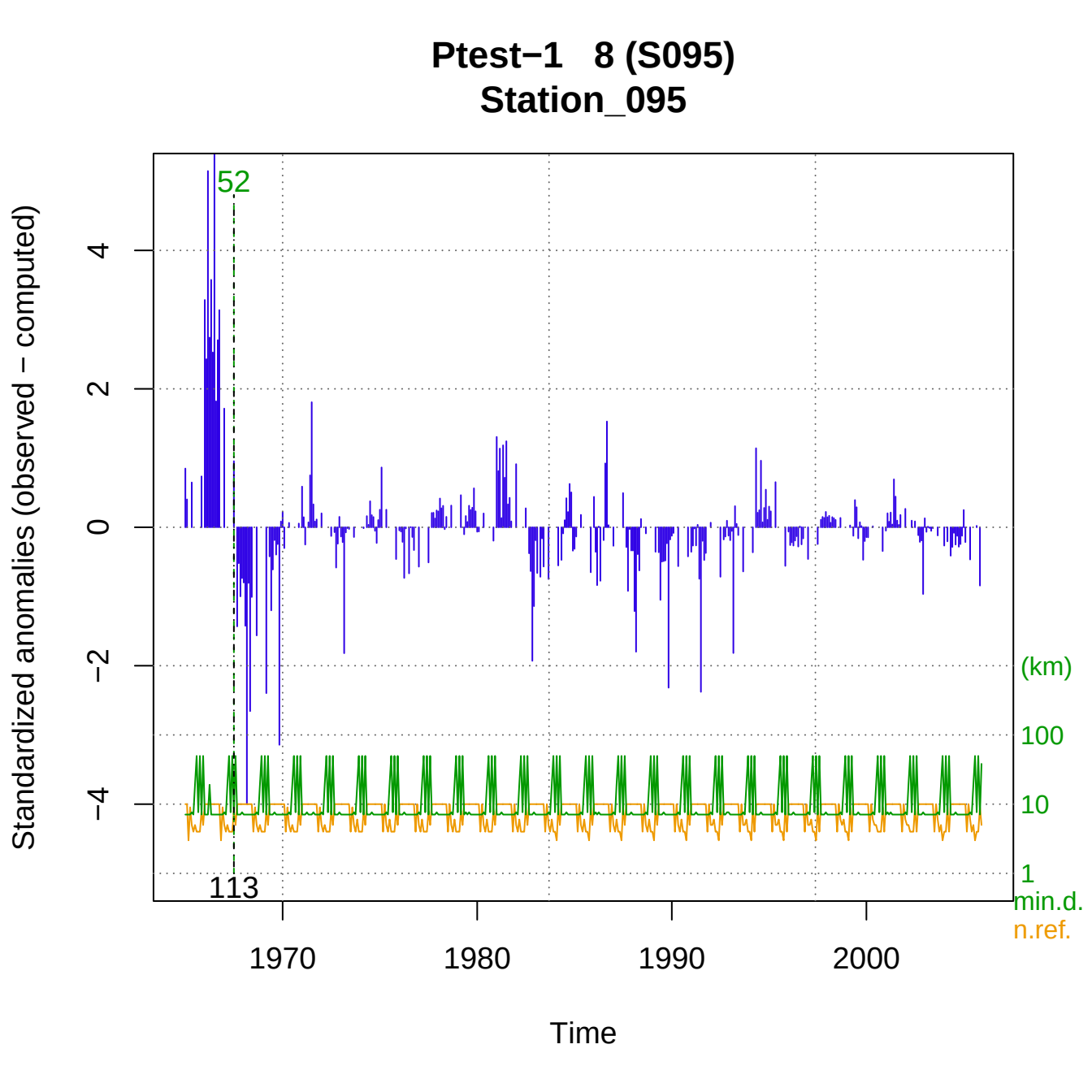

Ptest−1 3 (S098)
Station_098
Standardized anomalies (observed − computed)
4
2
0
−2
−4
22
14
(km)
100
10
1
min.d.
n.ref.
1970
1980
1990
2000
Time

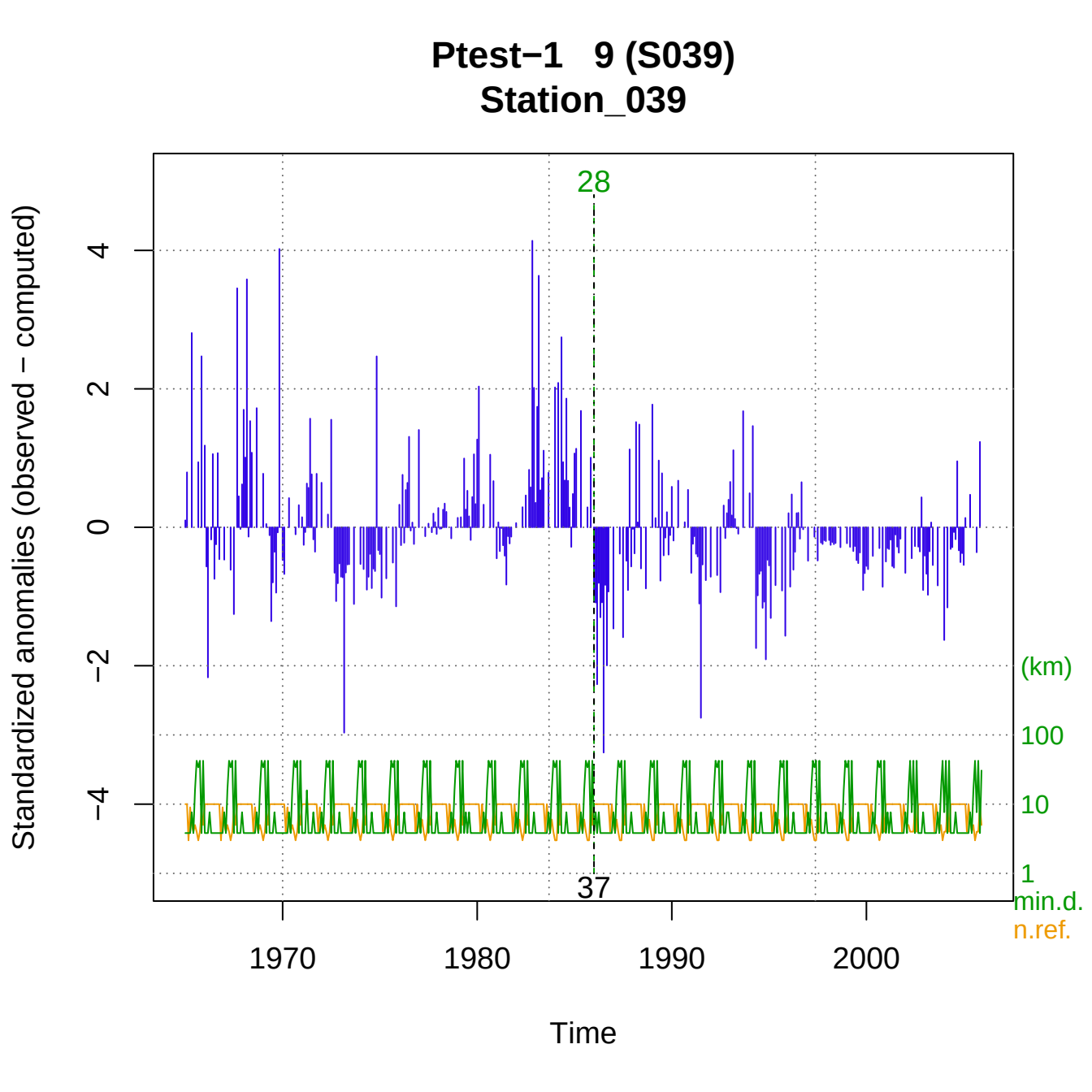

Ptest−1 4 (S051)
Station_051
Standardized anomalies (observed − computed)
4
2
0
−2
−4
27
21
(km)
100
10
1
min.d.
n.ref.
1970
1980
1990
2000
Time

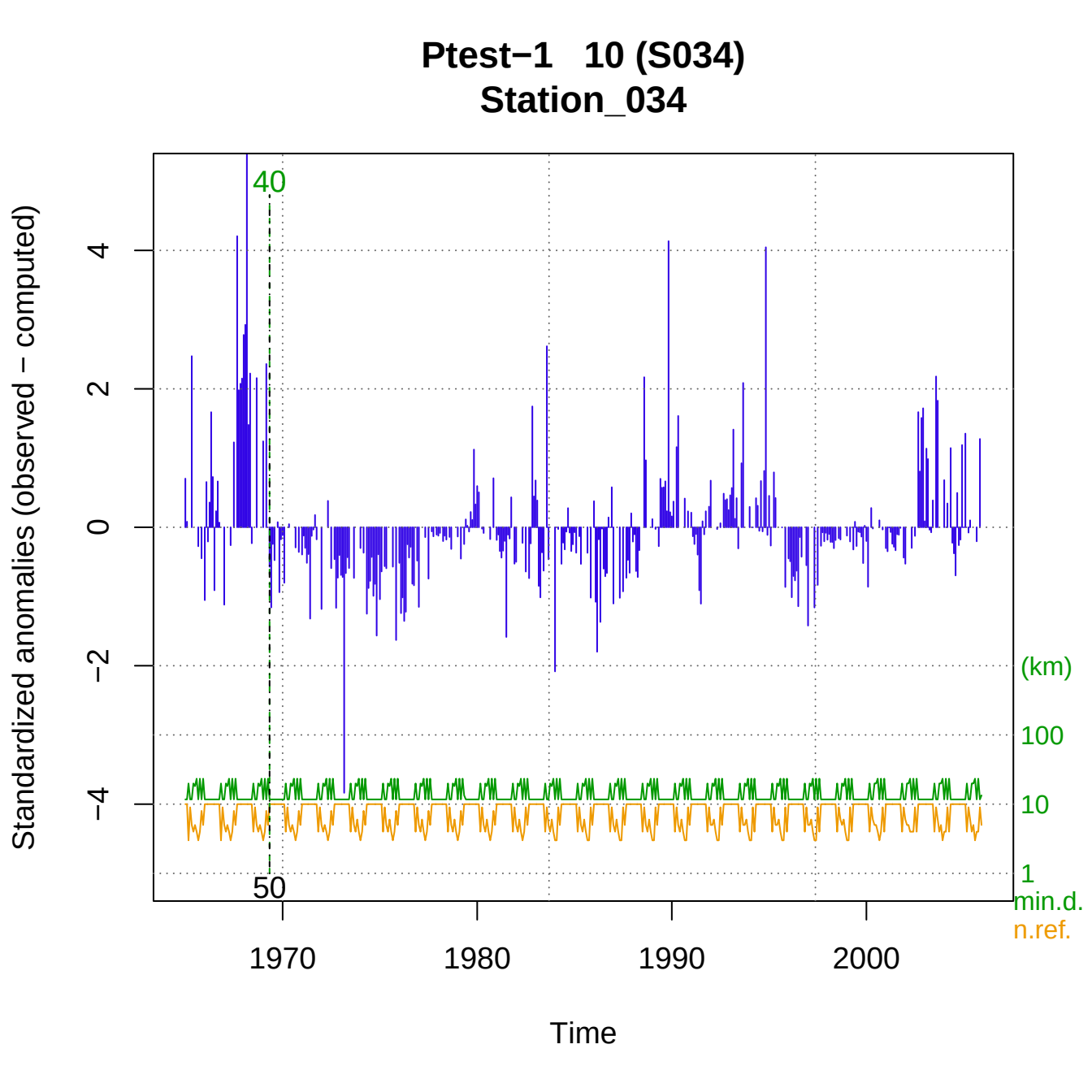

Ptest−1 5 (S081)
Station_081
33
24
Standardized anomalies (observed − computed)
4
2
0
−2
−4
1970
1980
1990
2000
Time
(km)
100
10
1
min.d.
n.ref.

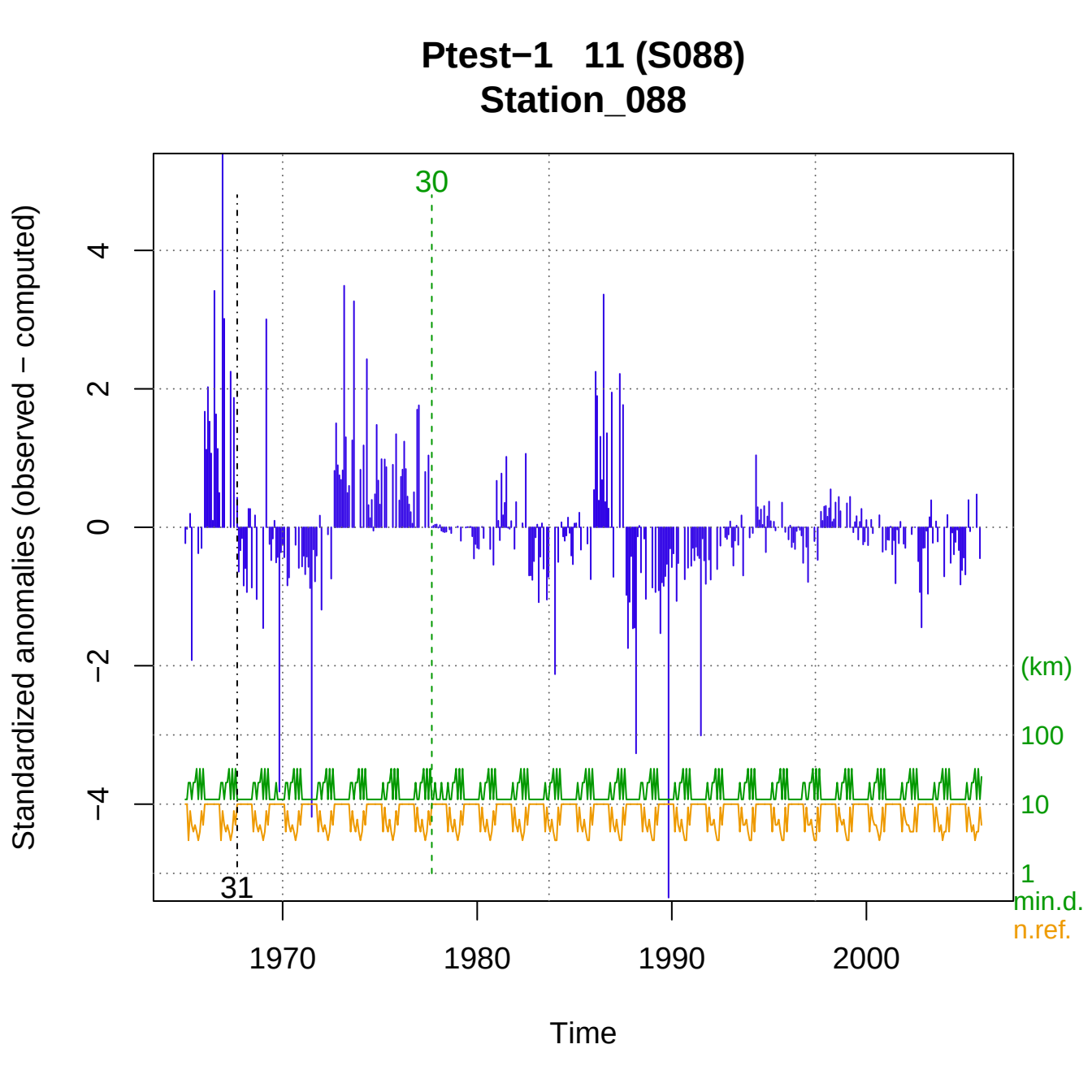

Ptest−1 6 (S069)
Station_069
28
10
Standardized anomalies (observed − computed)
4
2
0
−2
−4
1970
1980
1990
2000
Time
(km)
100
10
1
min.d.
n.ref.

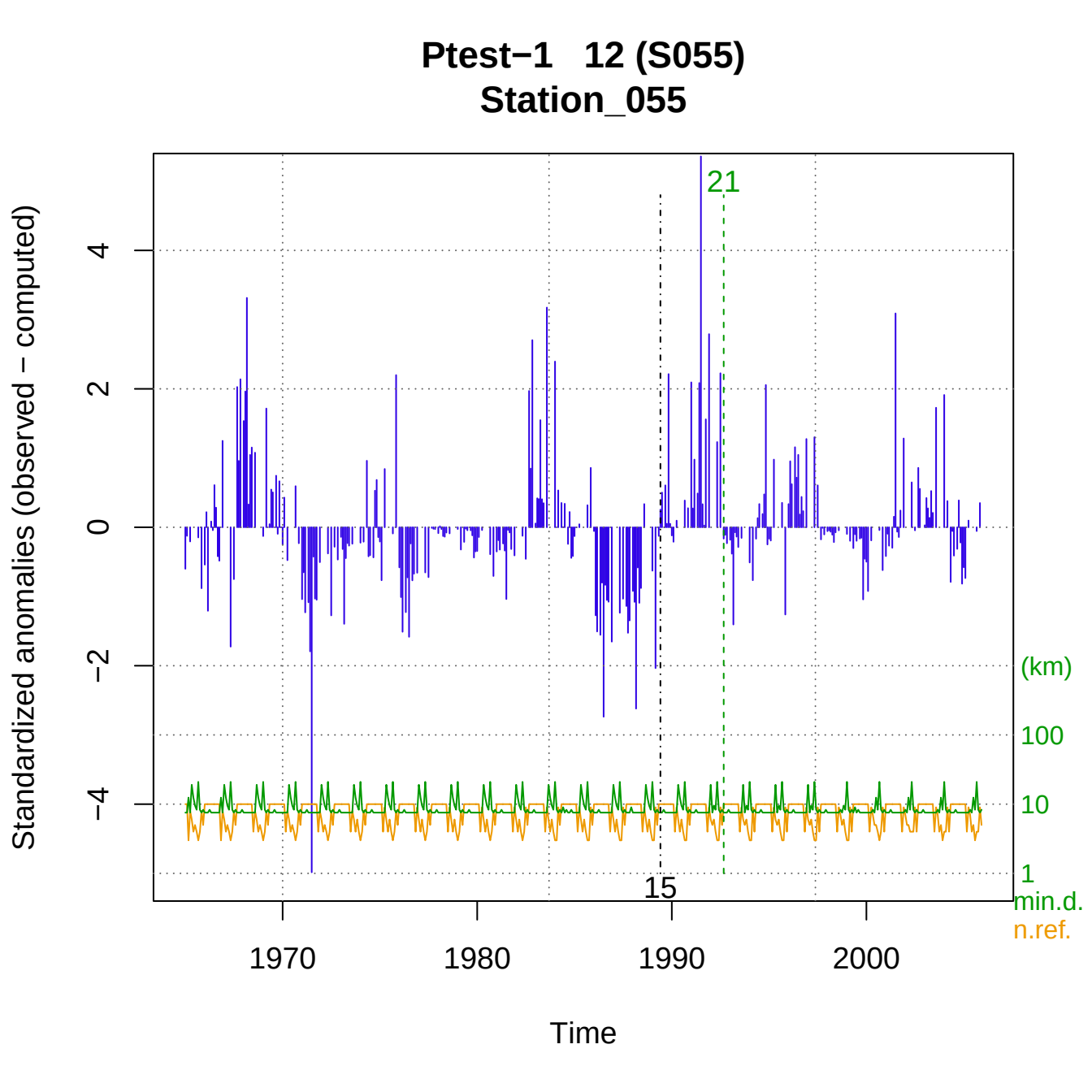

Ptest−1 7 (S058)
Station_058
34
23
Standardized anomalies (observed − computed)
4
2
0
−2
−4
1970
1980
1990
2000
Time
(km)
100
10
1
min.d.
n.ref.

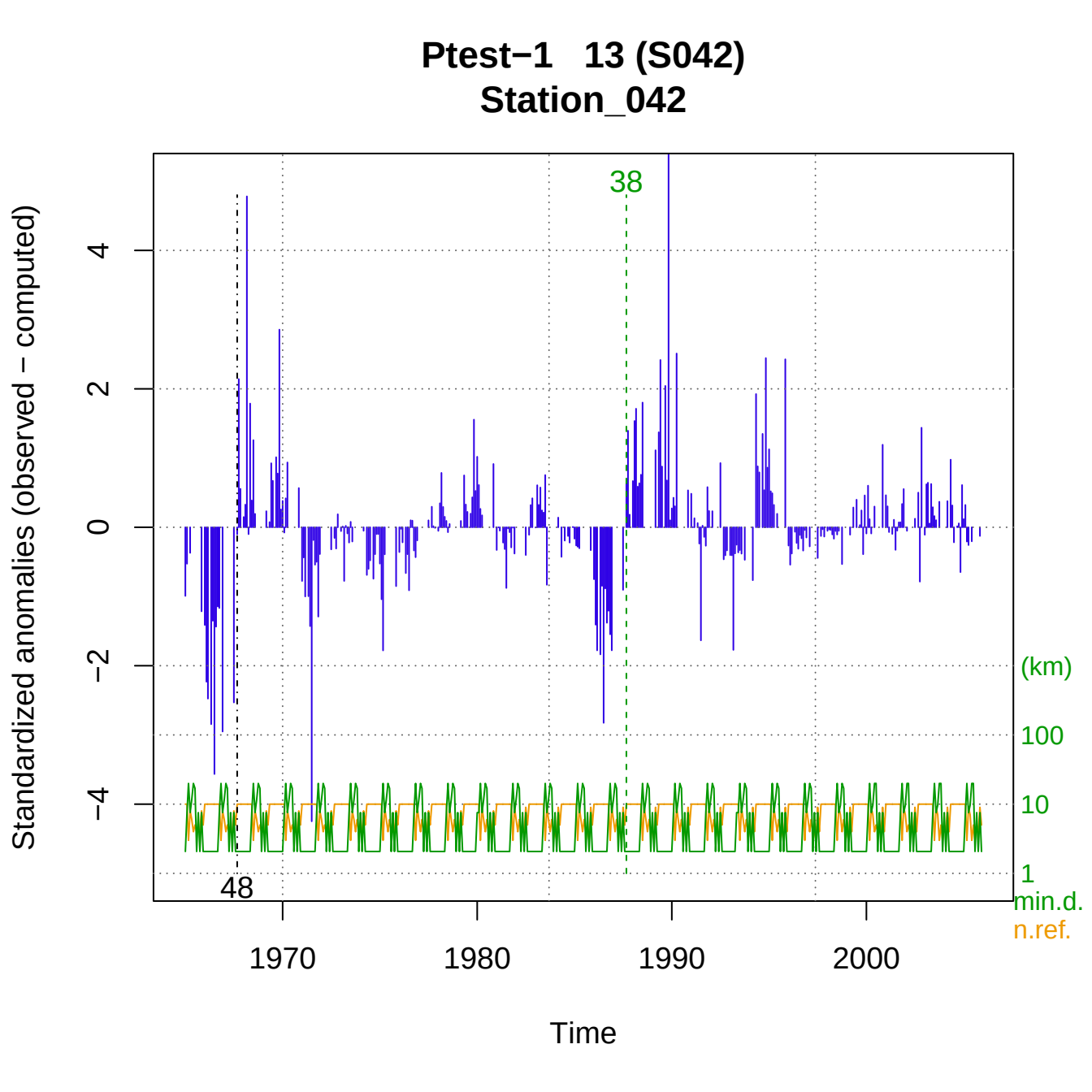

Ptest−1 8 (S095)
Station_095
52
113
Standardized anomalies (observed − computed)
4
2
0
−2
−4
1970
1980
1990
2000
Time
(km)
100
10
1
min.d.
n.ref.

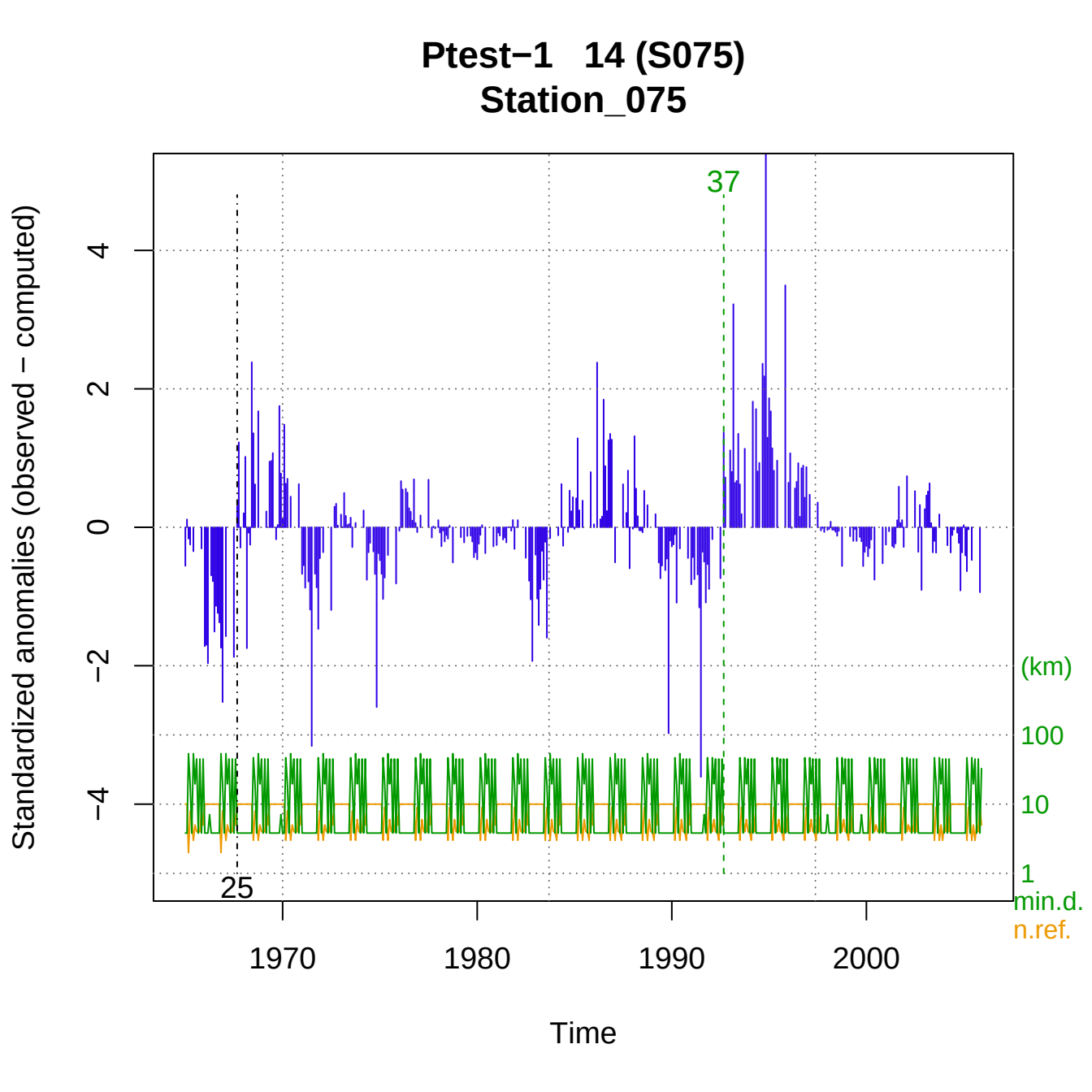

Ptest−1 9 (S039)
Station_039
28
37
Standardized anomalies (observed − computed)
4
2
0
−2
−4
1970
1980
1990
2000
Time
(km)
100
10
1
min.d.
n.ref.

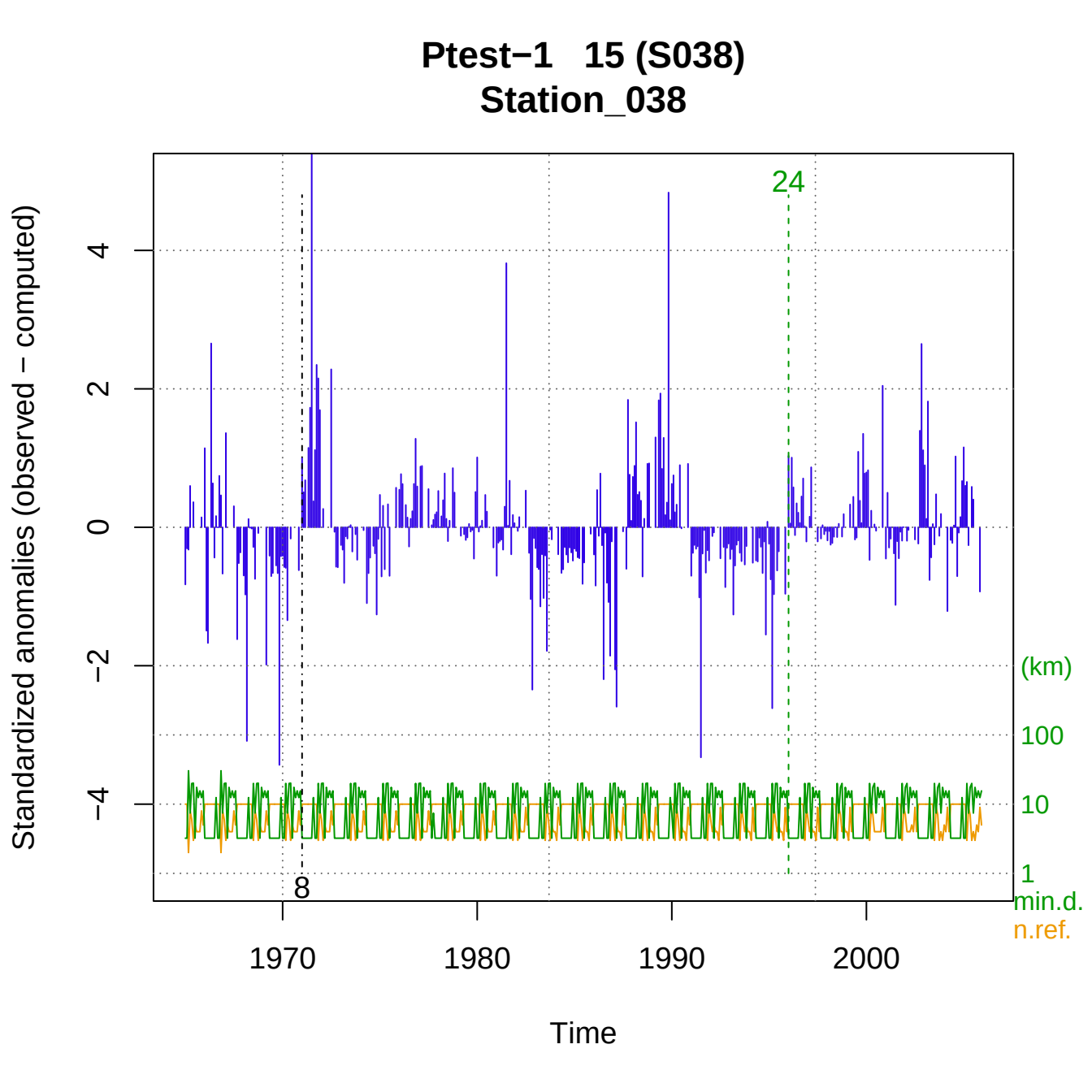

Ptest−1 10 (S034)
Station_034
Standardized anomalies (observed − computed)
40
50
4
2
0
−2
−4
1970
1980
1990
2000
Time
(km)
100
10
1
min.d.
n.ref.

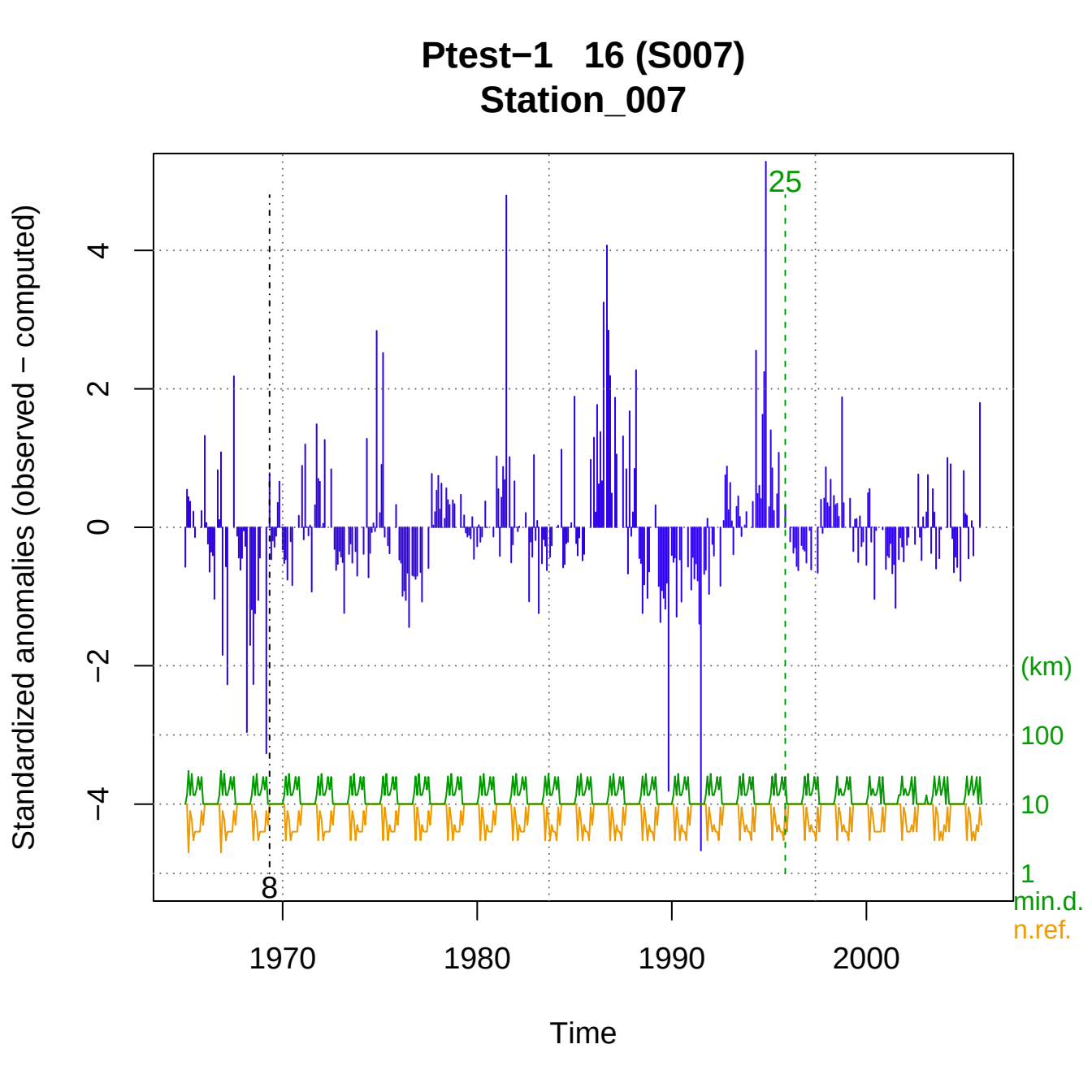

Ptest−1 11 (S088)
Station_088
30
31
Standardized anomalies (observed − computed)
4
2
0
−2
−4
1970
1980
1990
2000
Time
(km)
100
10
1
min.d.
n.ref.

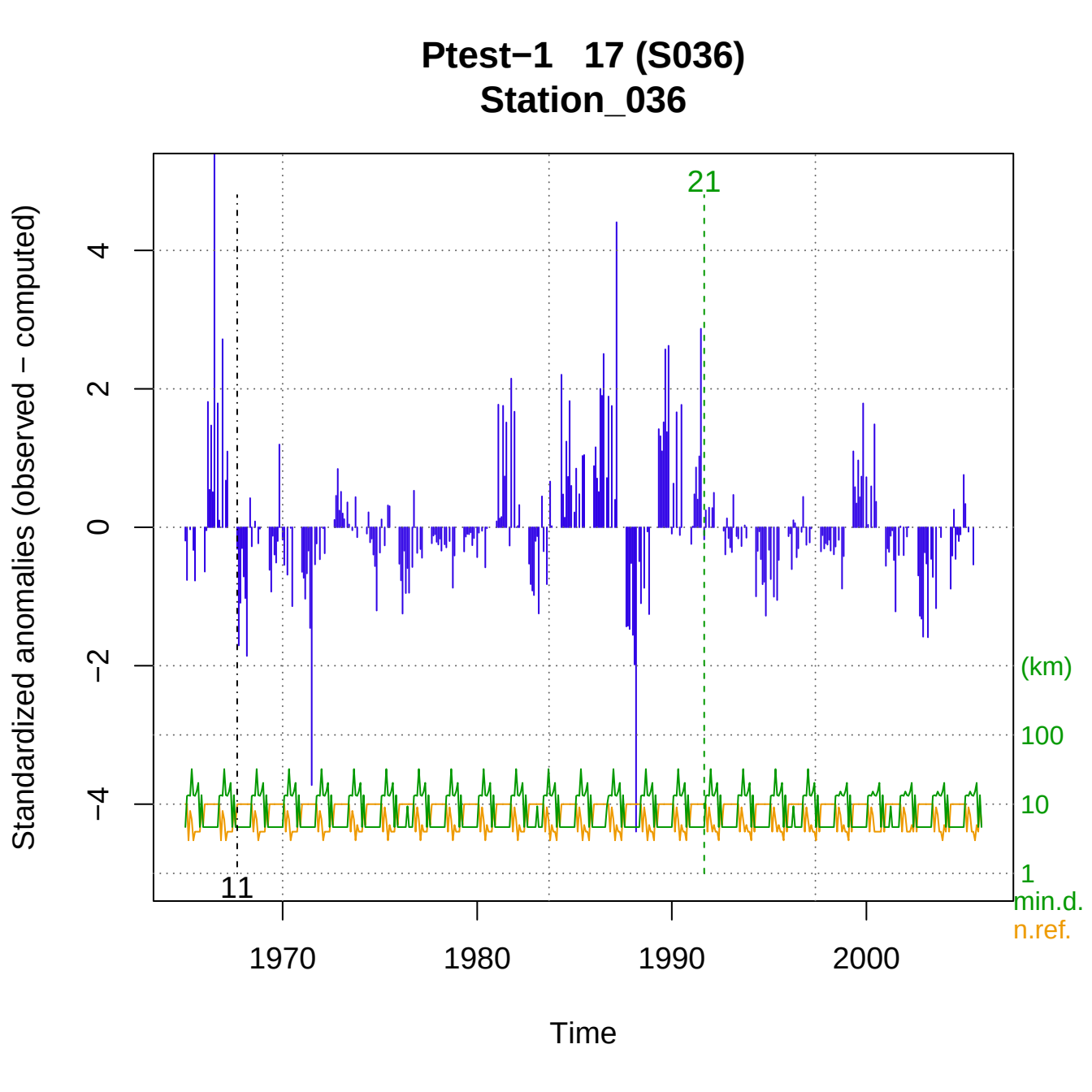

Ptest−1 12 (S055)
Station_055
Standardized anomalies (observed − computed)
4
2
0
−2
−4
21
15
(km)
100
10
1
min.d.
n.ref.
1970
1980
1990
2000
Time

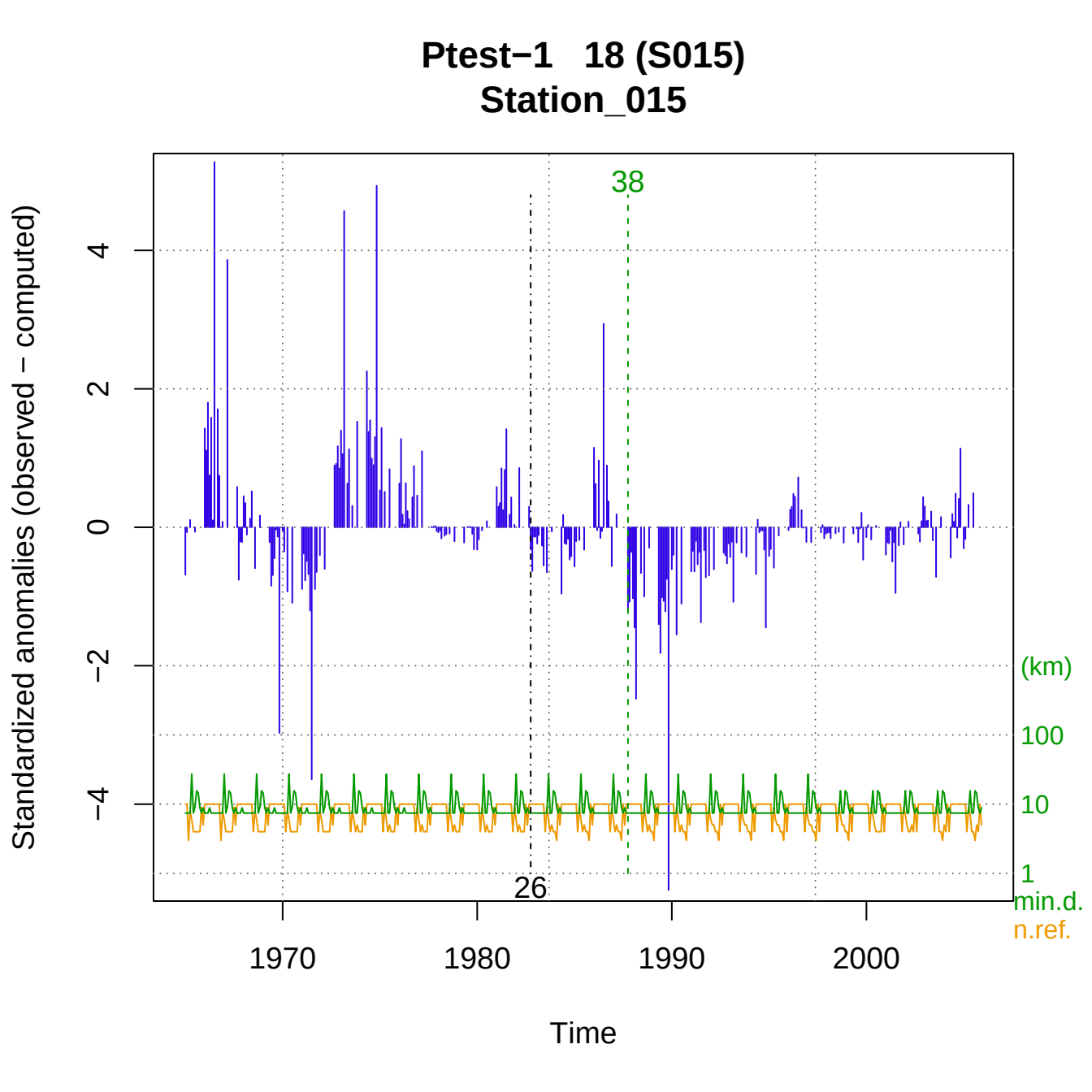

Ptest−1 13 (S042)
Station_042
38
48
Standardized anomalies (observed − computed)
4
2
0
−2
−4
1970
1980
1990
2000
Time
(km)
100
10
1
min.d.
n.ref.

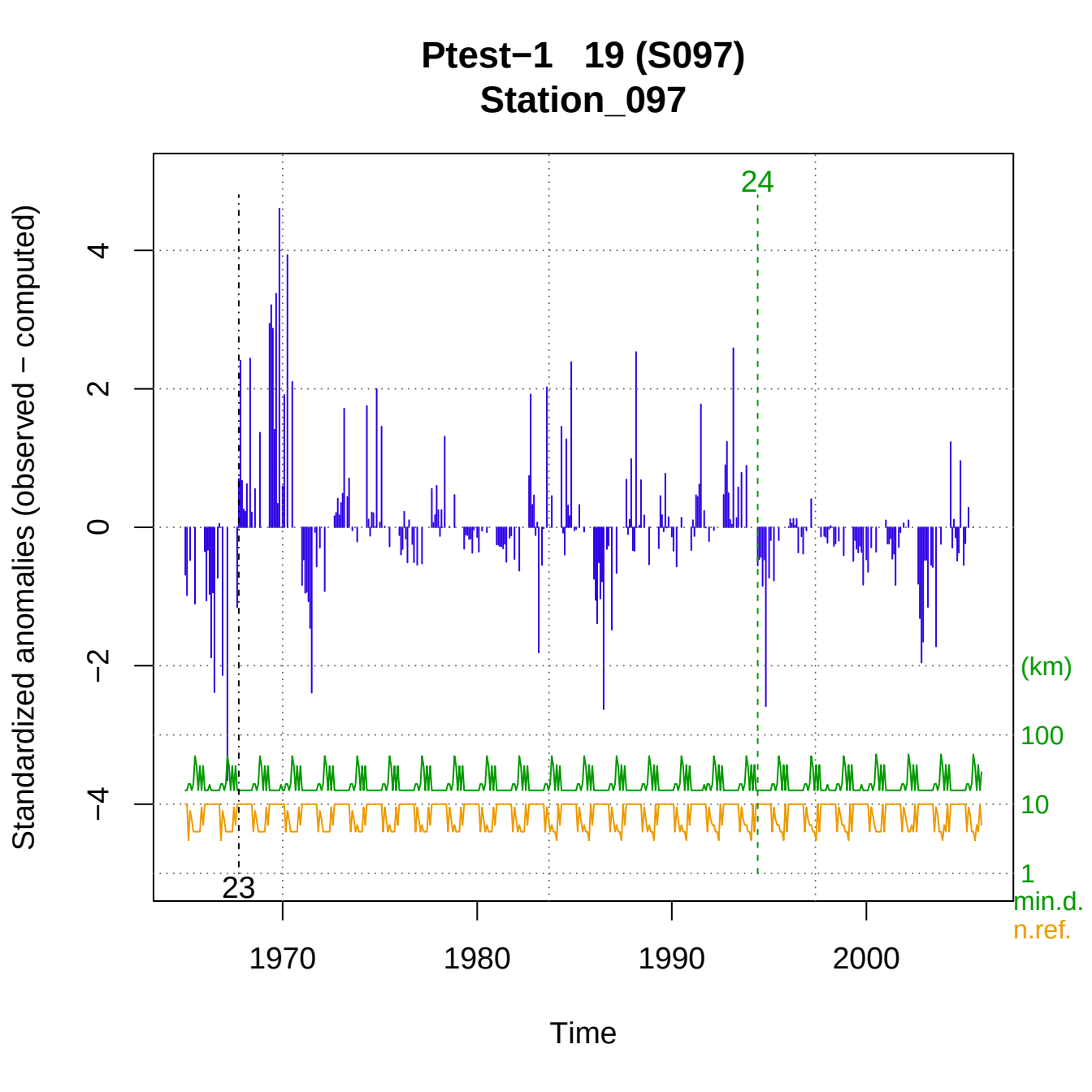

Ptest−1 14 (S075)
Station_075
Standardized anomalies (observed − computed)
4
2
0
−2
−4
37
25
1970
1980
1990
2000
Time
(km)
100
10
1
min.d.
n.ref.

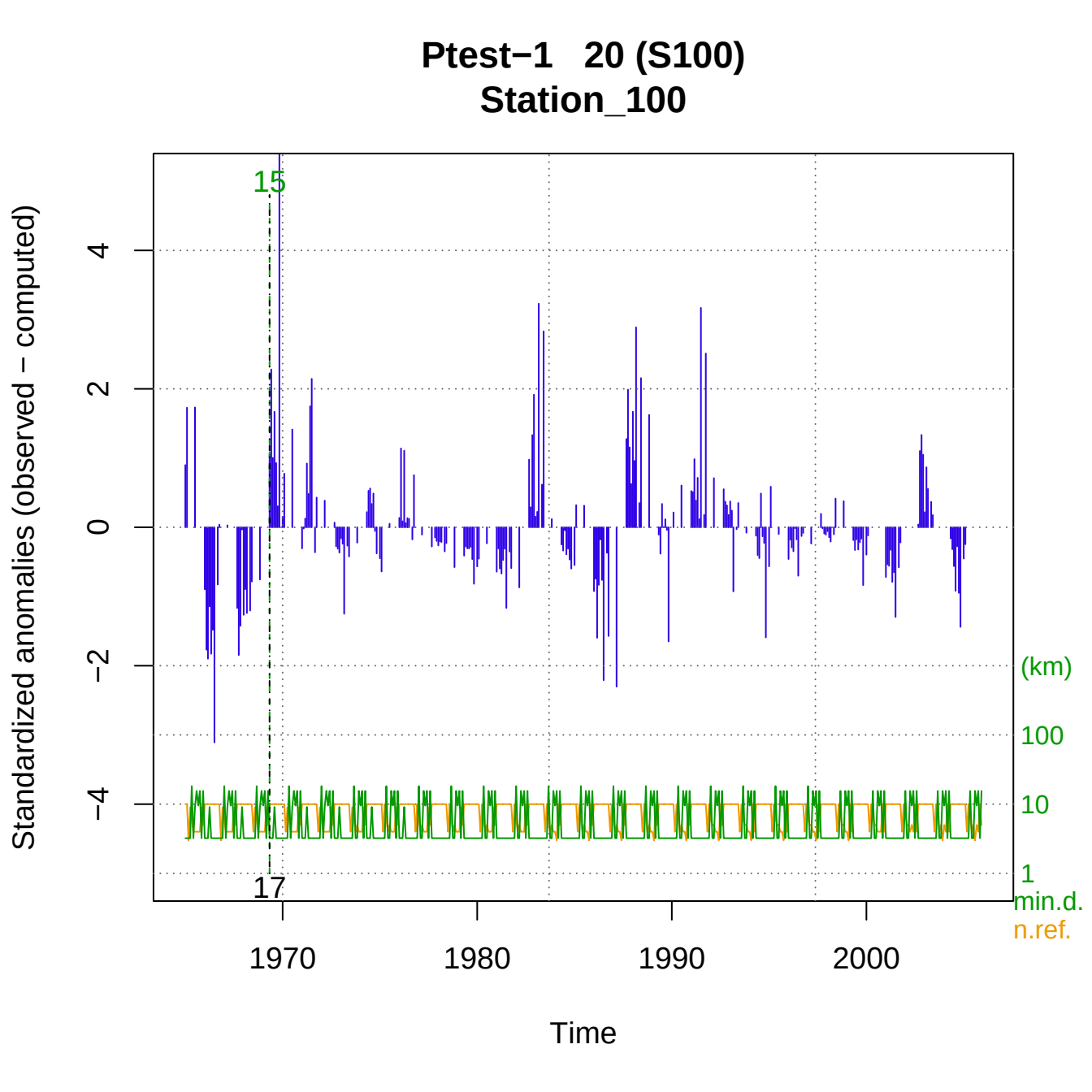

Ptest−1 15 (S038)
Station_038
Standardized anomalies (observed − computed)
4
2
0
−2
−4
24
8
(km)
100
10
1
min.d.
n.ref.
1970
1980
1990
2000
Time


Ptest−1 16 (S007)
Station_007
Standardized anomalies (observed − computed)
4
2
0
−2
−4
25
8
(km)
100
10
1
min.d.
n.ref.
1970
1980
1990
2000
Time


Ptest−1 17 (S036)
Station_036
Standardized anomalies (observed − computed)
4
2
0
−2
−4
21
11
1970
1980
1990
2000
Time
(km)
100
10
1
min.d.
n.ref.

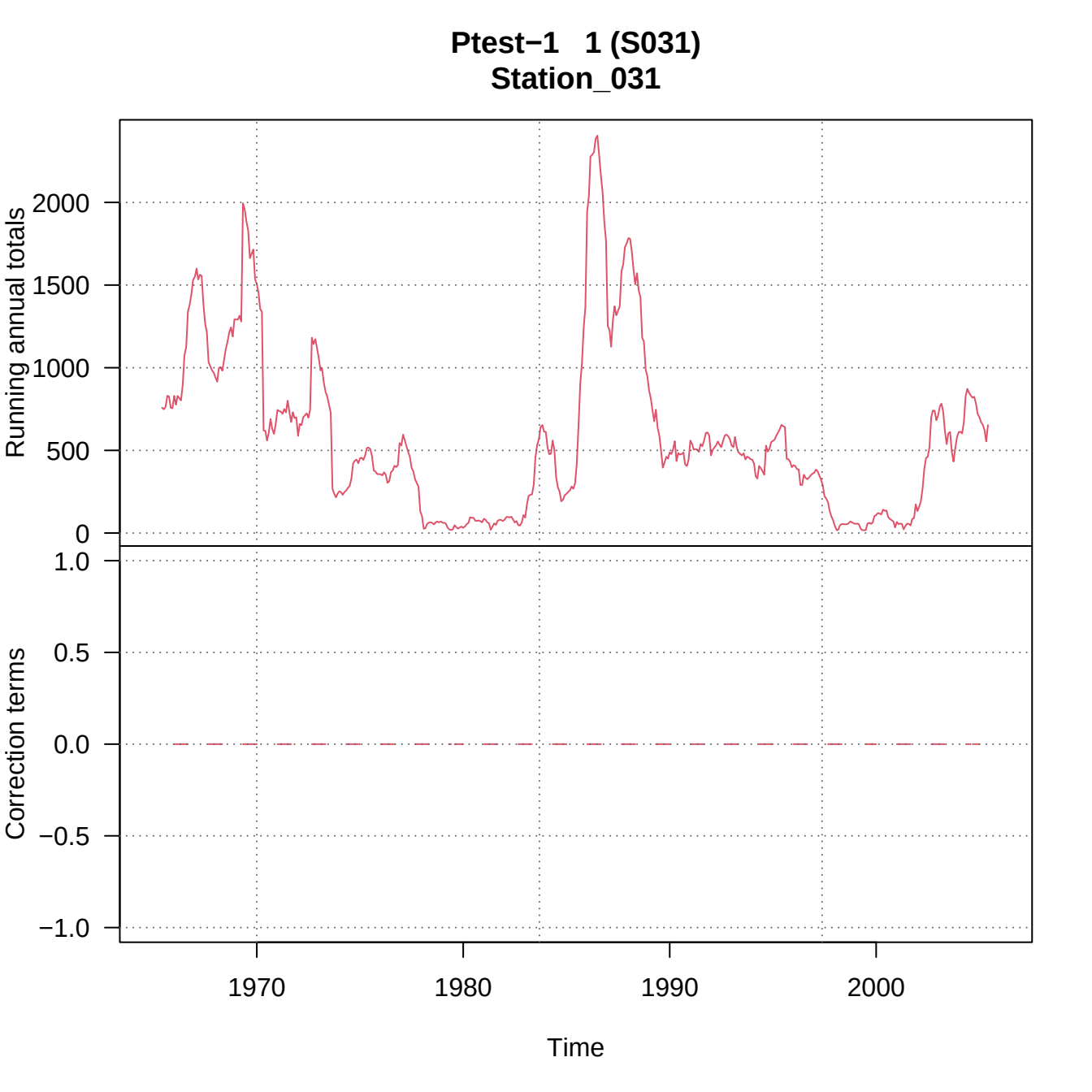

Ptest−1 18 (S015)
Station_015
38
26
Standardized anomalies (observed − computed)
4
2
0
−2
−4
1970
1980
1990
2000
Time
(km)
100
10
1
min.d.
n.ref.

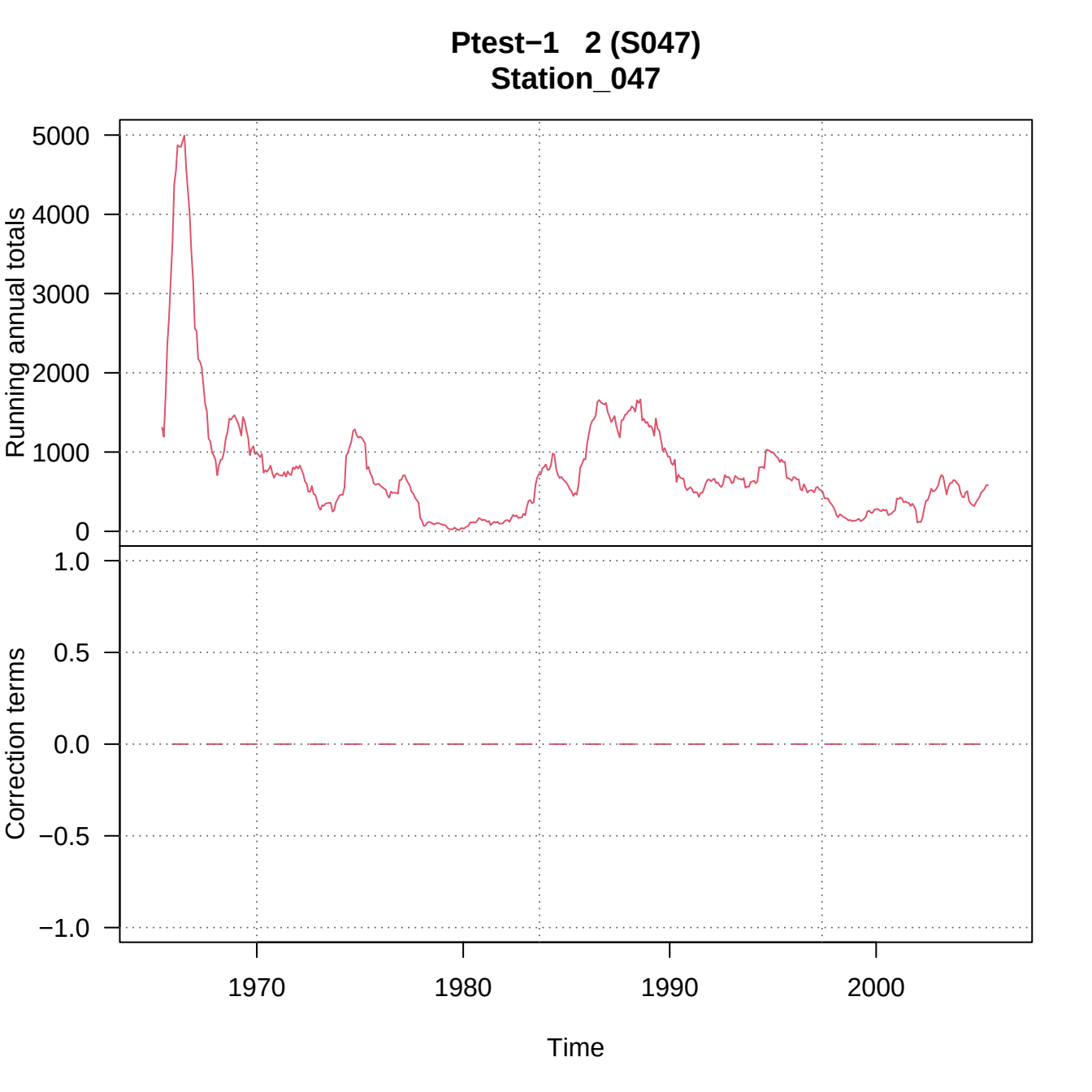

Ptest−1 19 (S097)
Station_097
Standardized anomalies (observed − computed)
4
2
0
−2
−4
24
23
1970
1980
1990
2000
Time
(km)
100
10
1
min.d.
n.ref.

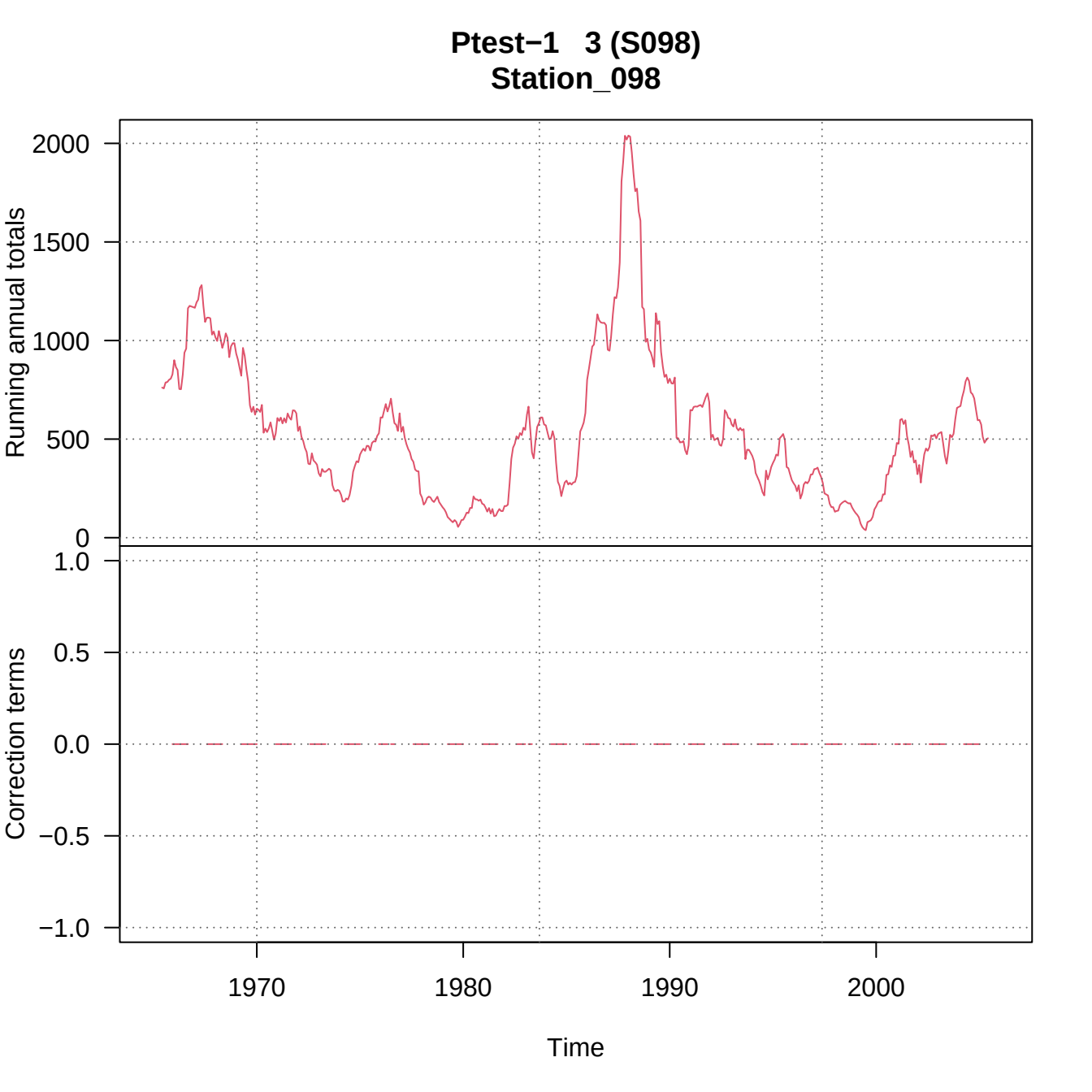

Ptest−1 20 (S100)
Station_100
15
17
Standardized anomalies (observed − computed)
4
2
0
−2
−4
1970
1980
1990
2000
Time
(km)
100
10
1
min.d.
n.ref.

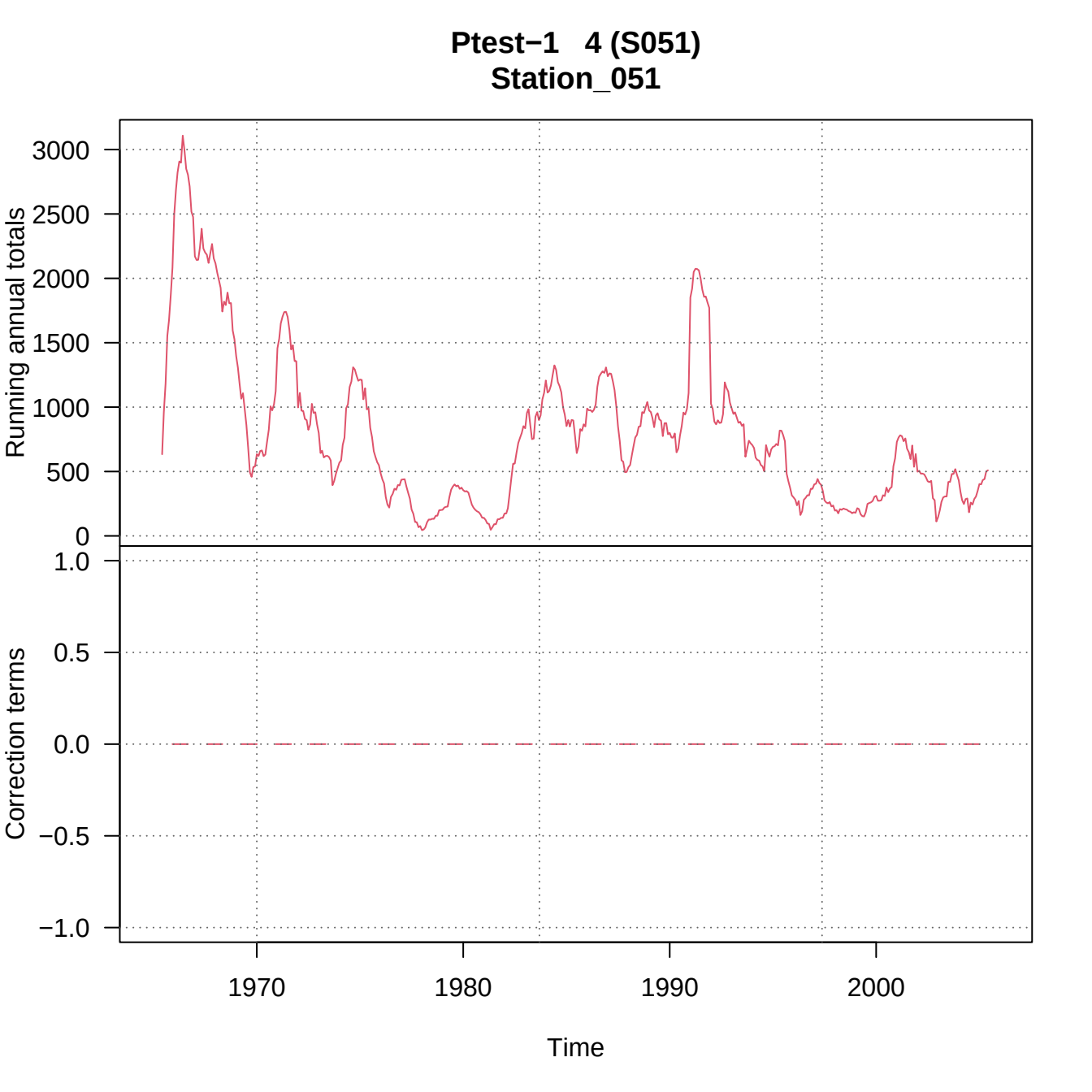
Final graphics

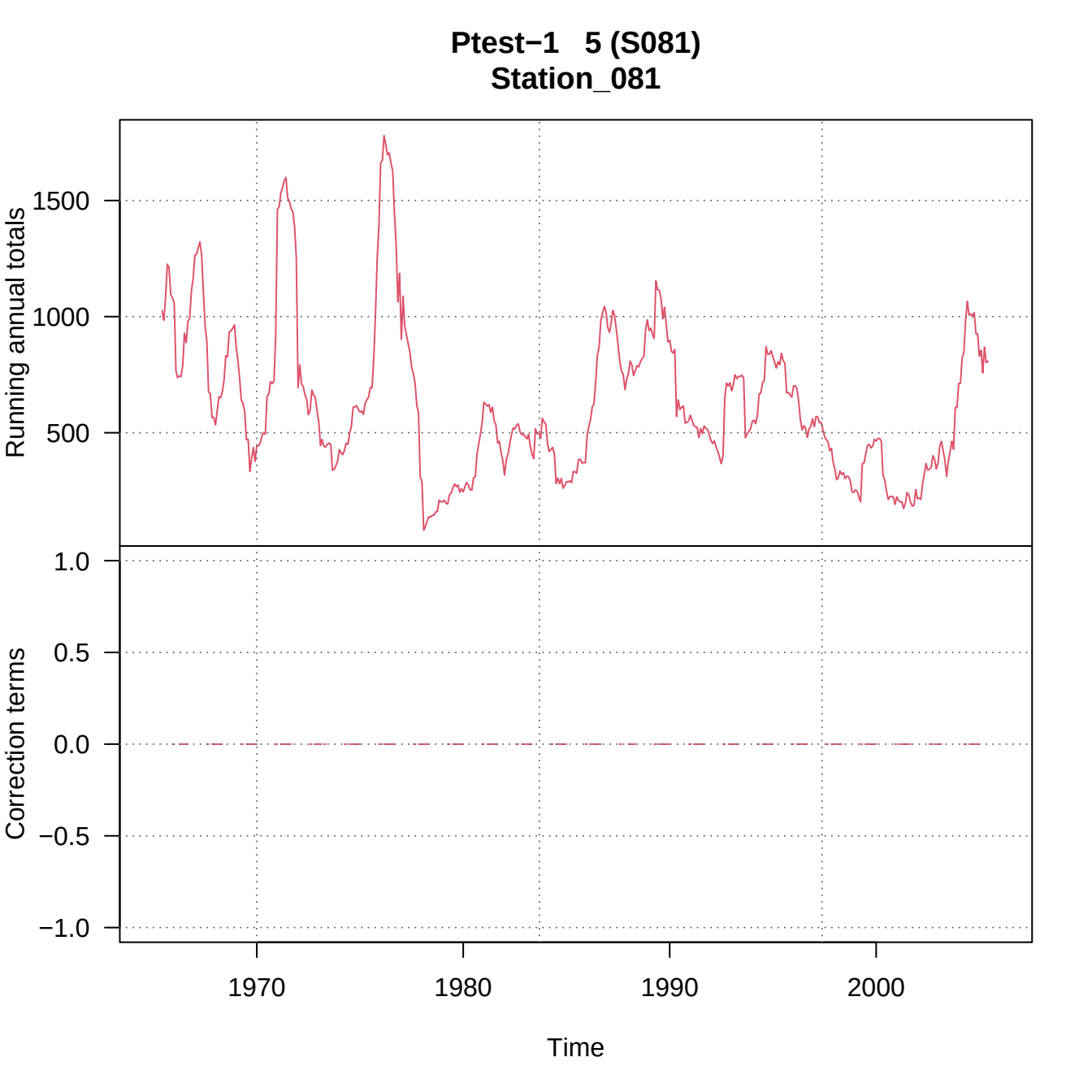
Adjusted series and applied corrections

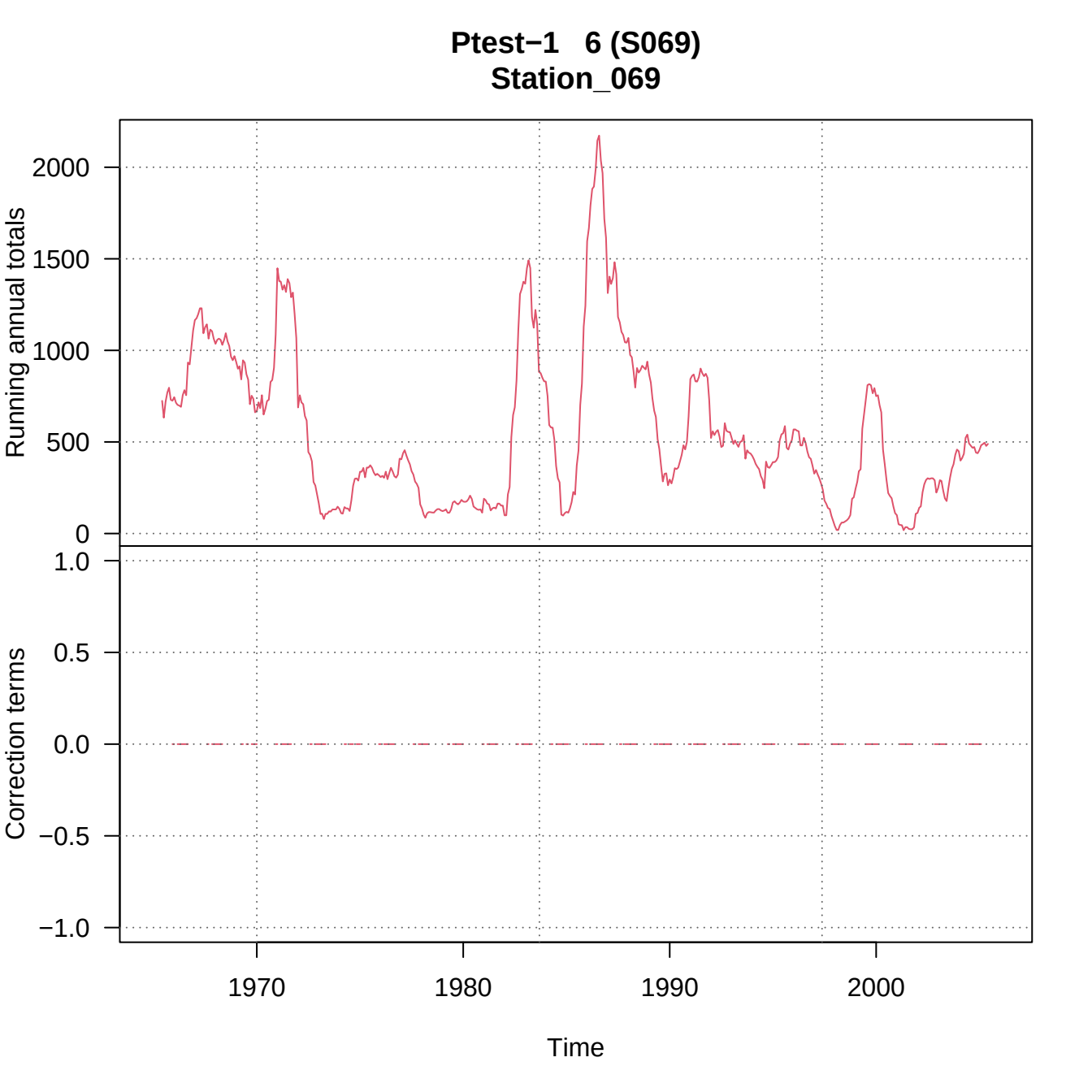

Ptest−1 1 (S031)
Station_031
Running annual totals
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

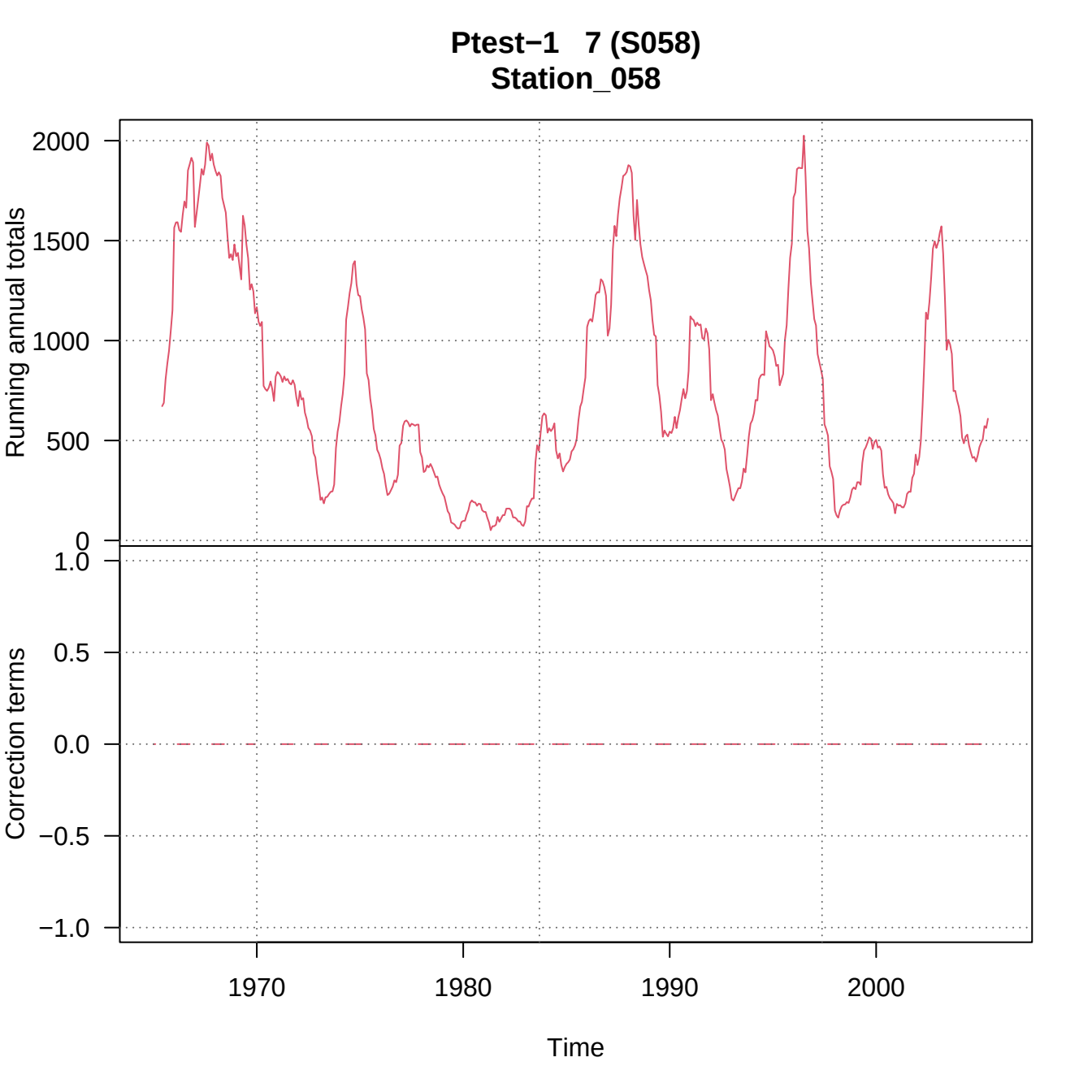

Ptest−1 2 (S047)
Station_047
Running annual totals
5000
4000
3000
2000
1000
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

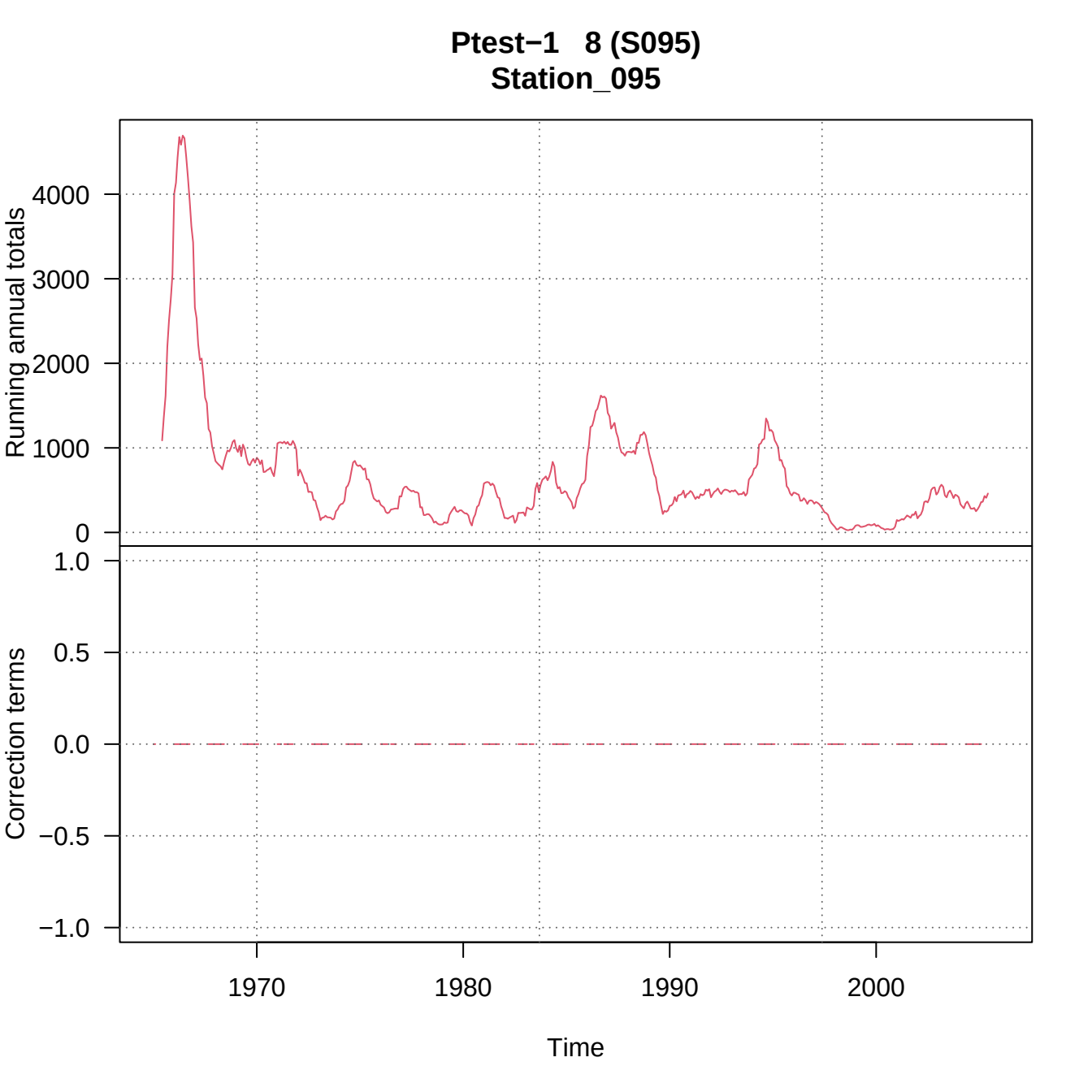

Ptest−1 3 (S098)
Station_098
Running annual totals
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

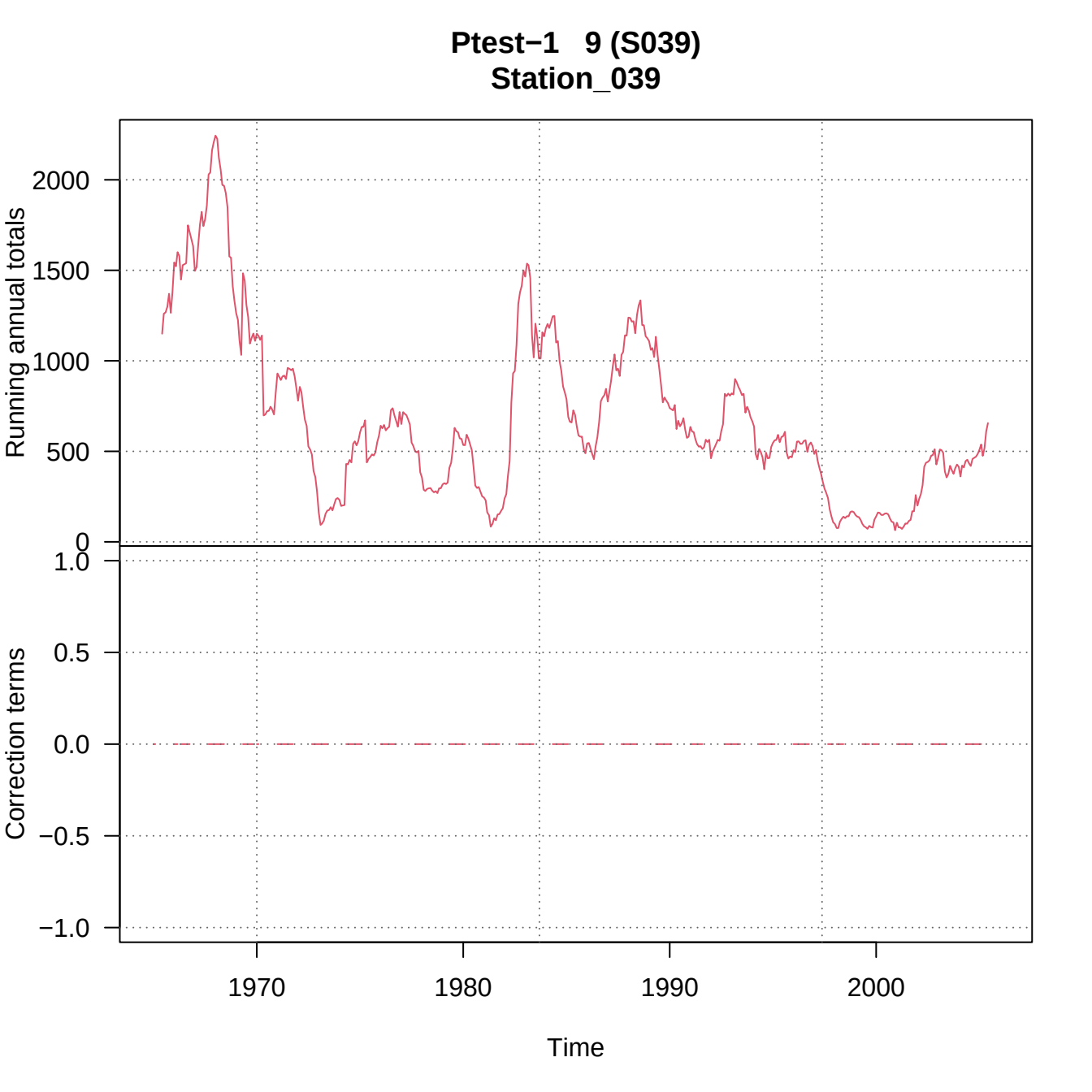

Ptest−1 4 (S051)
Station_051
Running annual totals
3000
2500
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

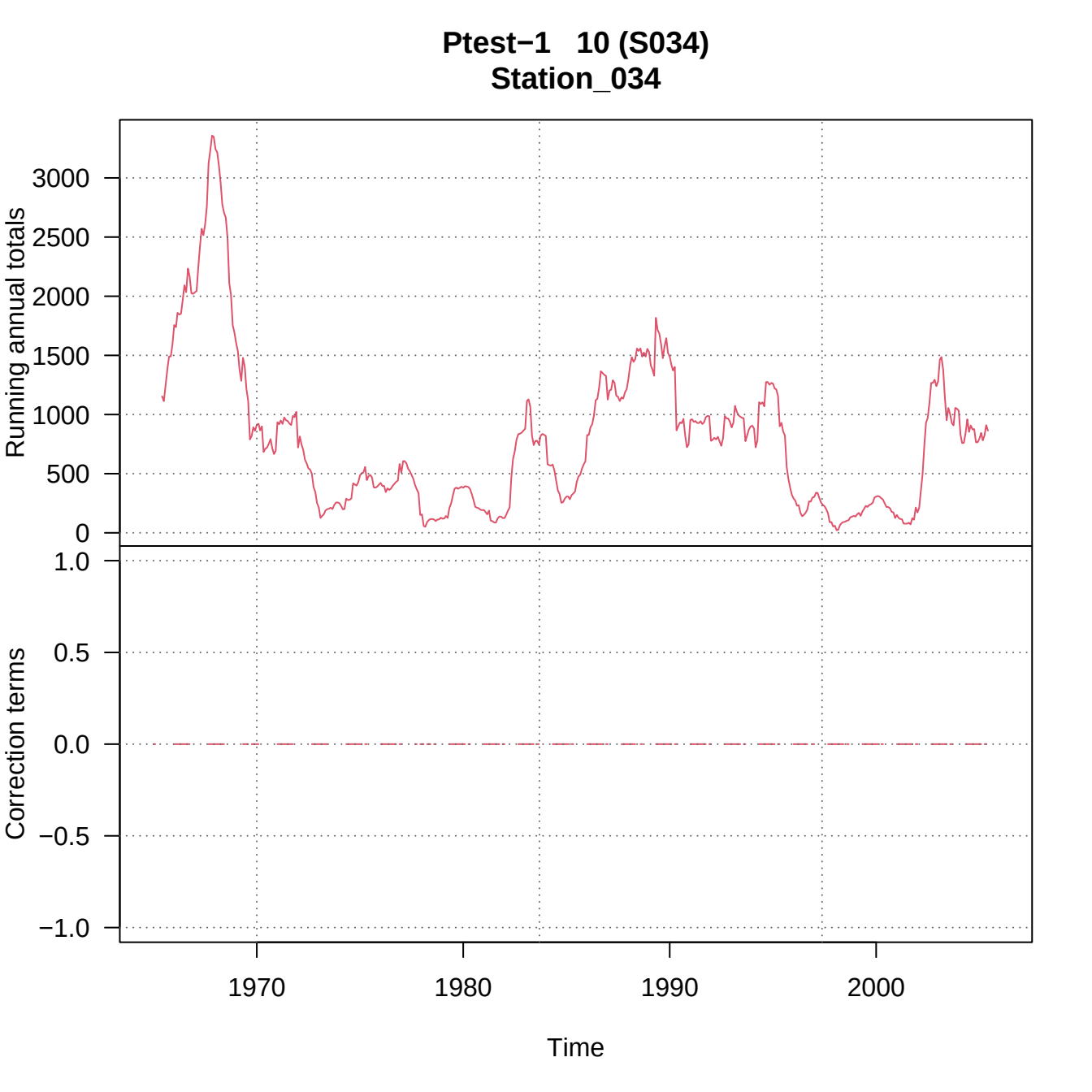

Ptest−1 5 (S081)
Station_081
Running annual totals
1500
1000
500
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

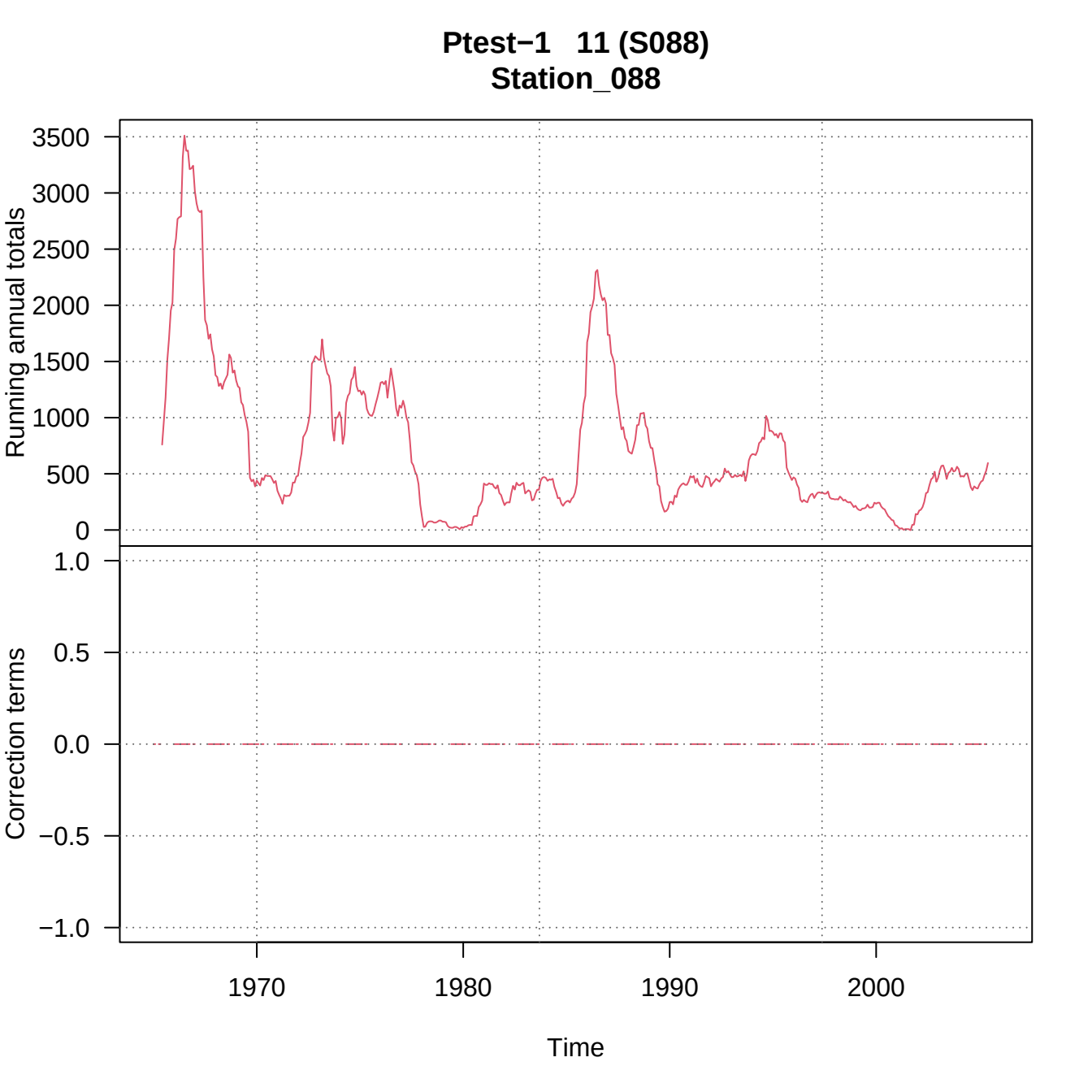

Ptest−1 6 (S069)
Station_069
Running annual totals
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

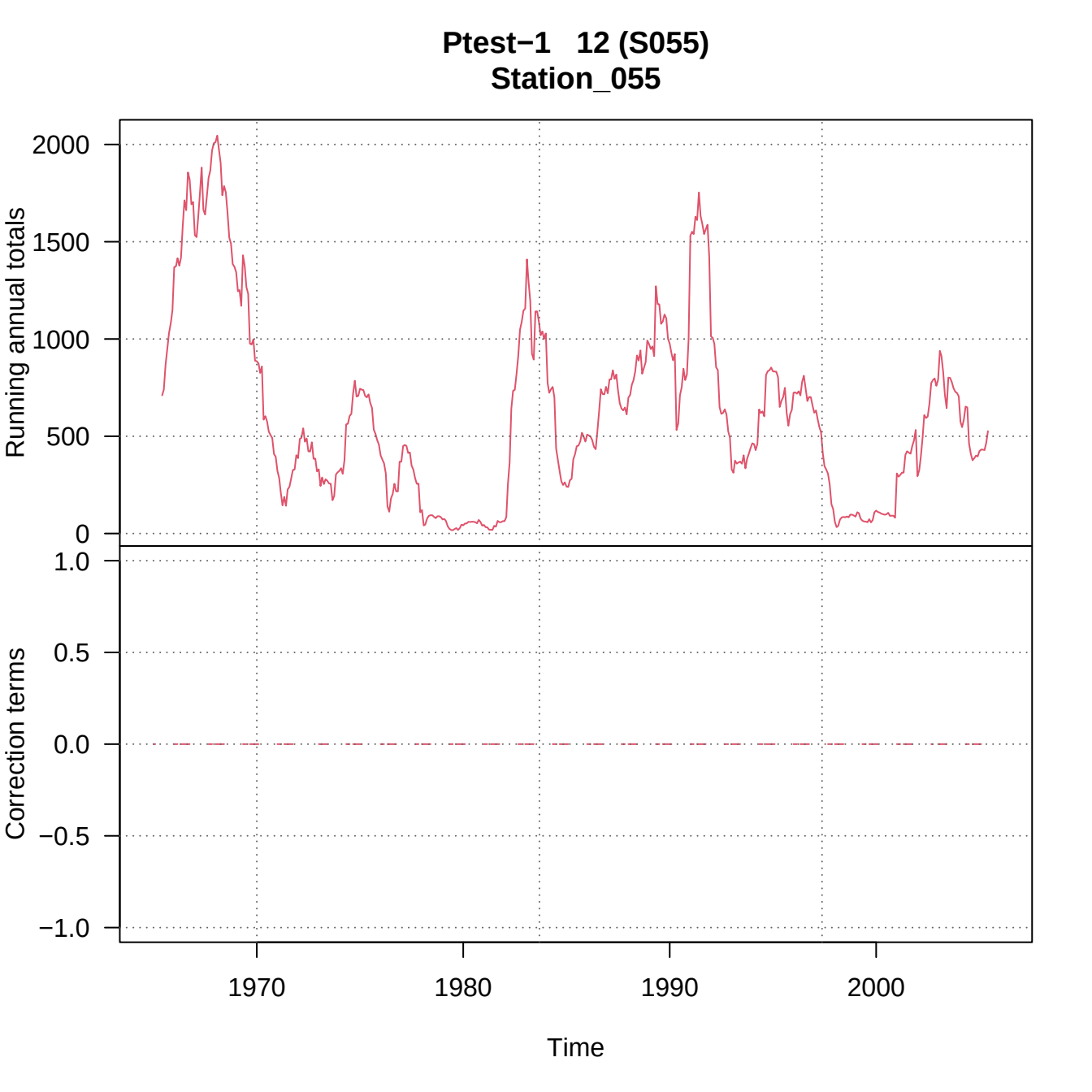

Ptest−1 7 (S058)
Station_058
Running annual totals
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

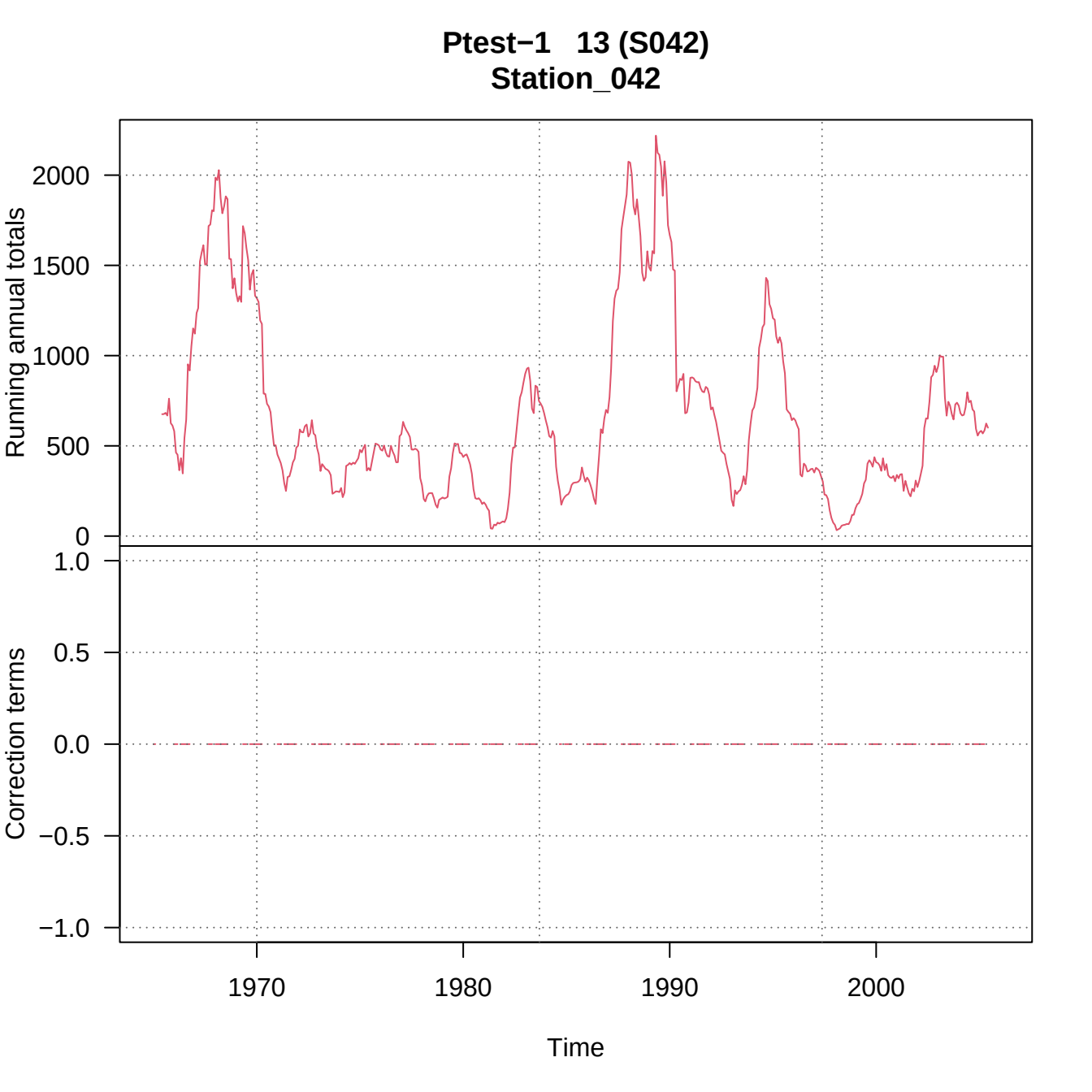

Ptest−1 8 (S095)
Station_095
Running annual totals
4000
3000
2000
1000
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

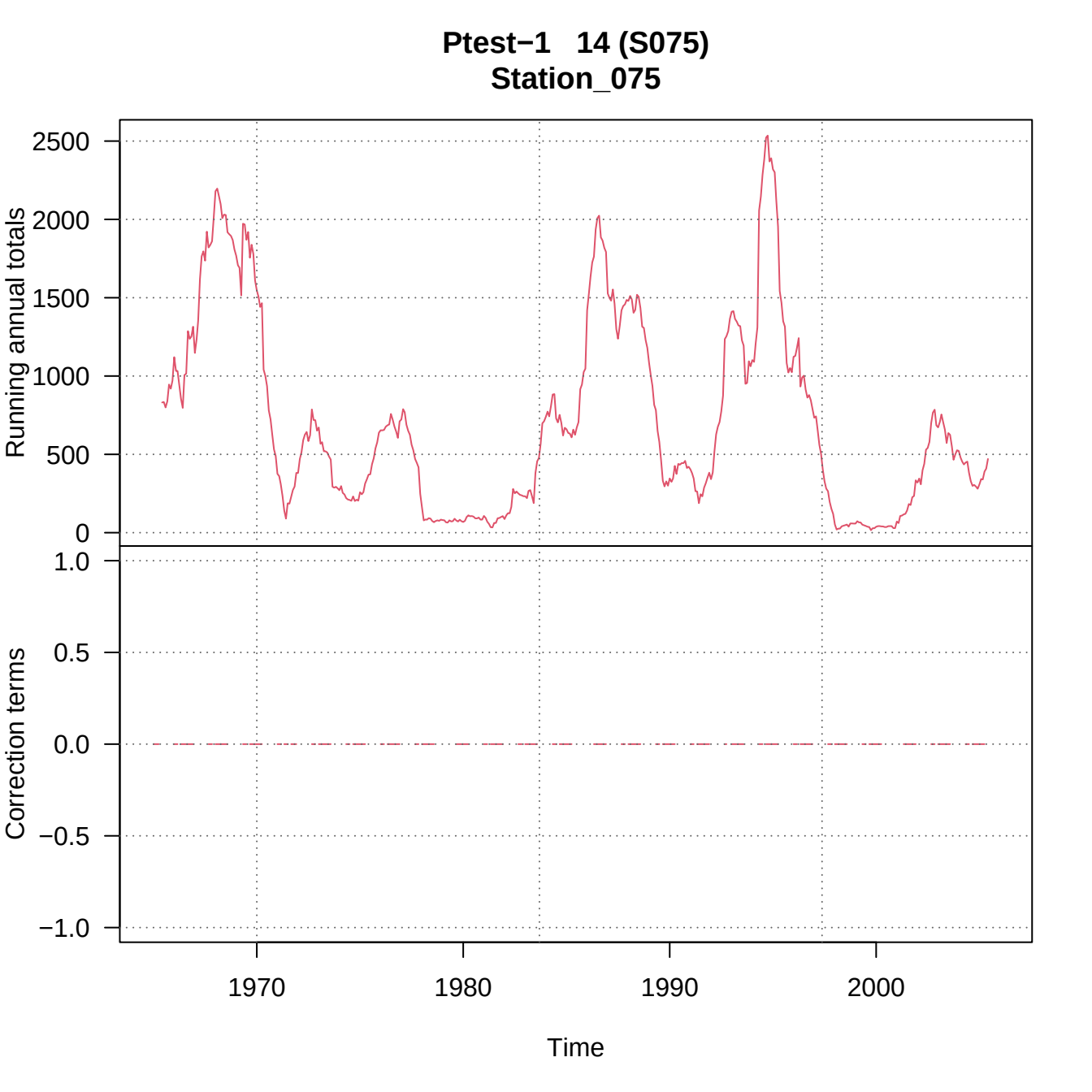

Ptest−1 9 (S039)
Station_039
Running annual totals
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

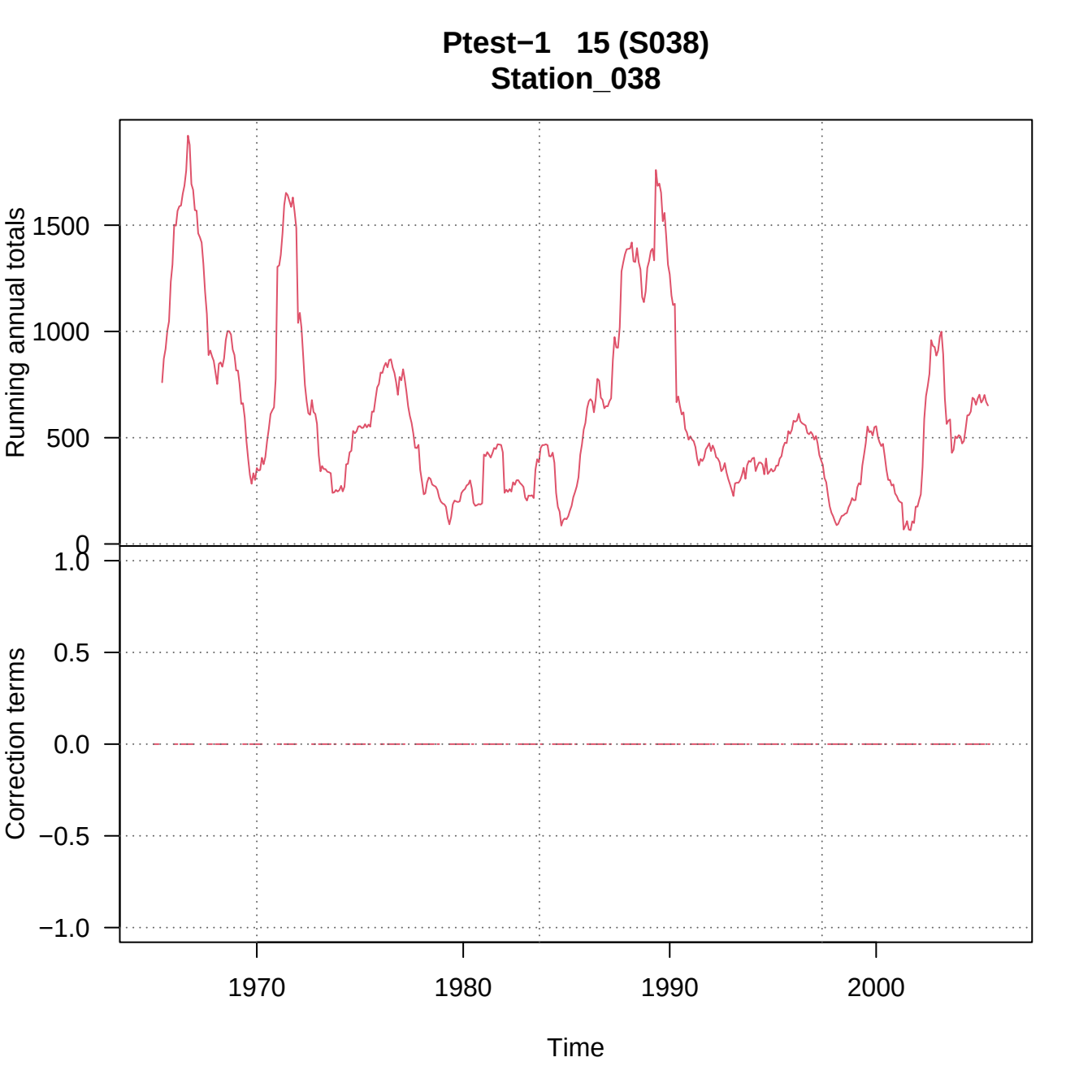

Ptest−1 10 (S034)
Station_034
Running annual totals
3000
2500
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

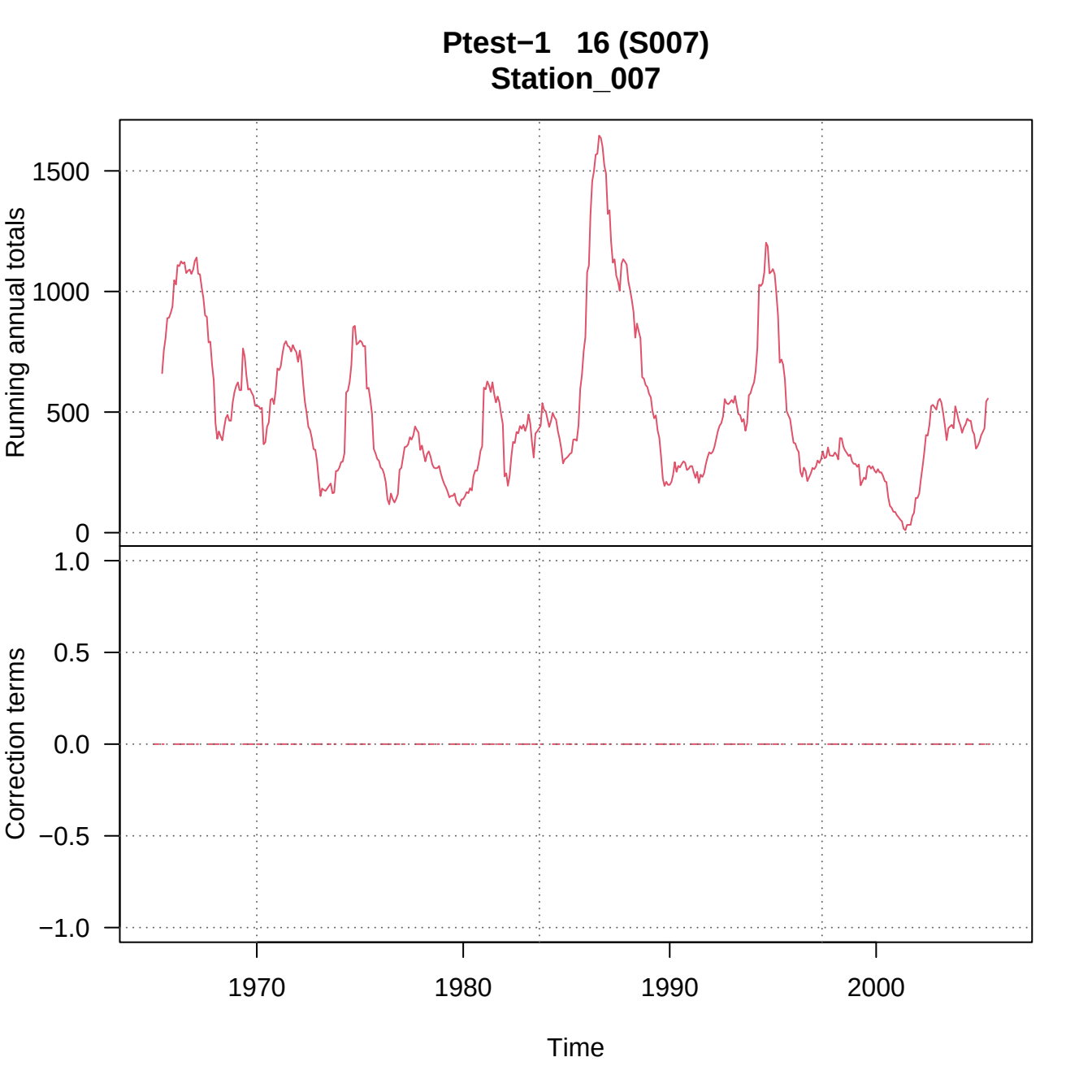

Ptest−1 11 (S088)
Station_088
Running annual totals
3500
3000
2500
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

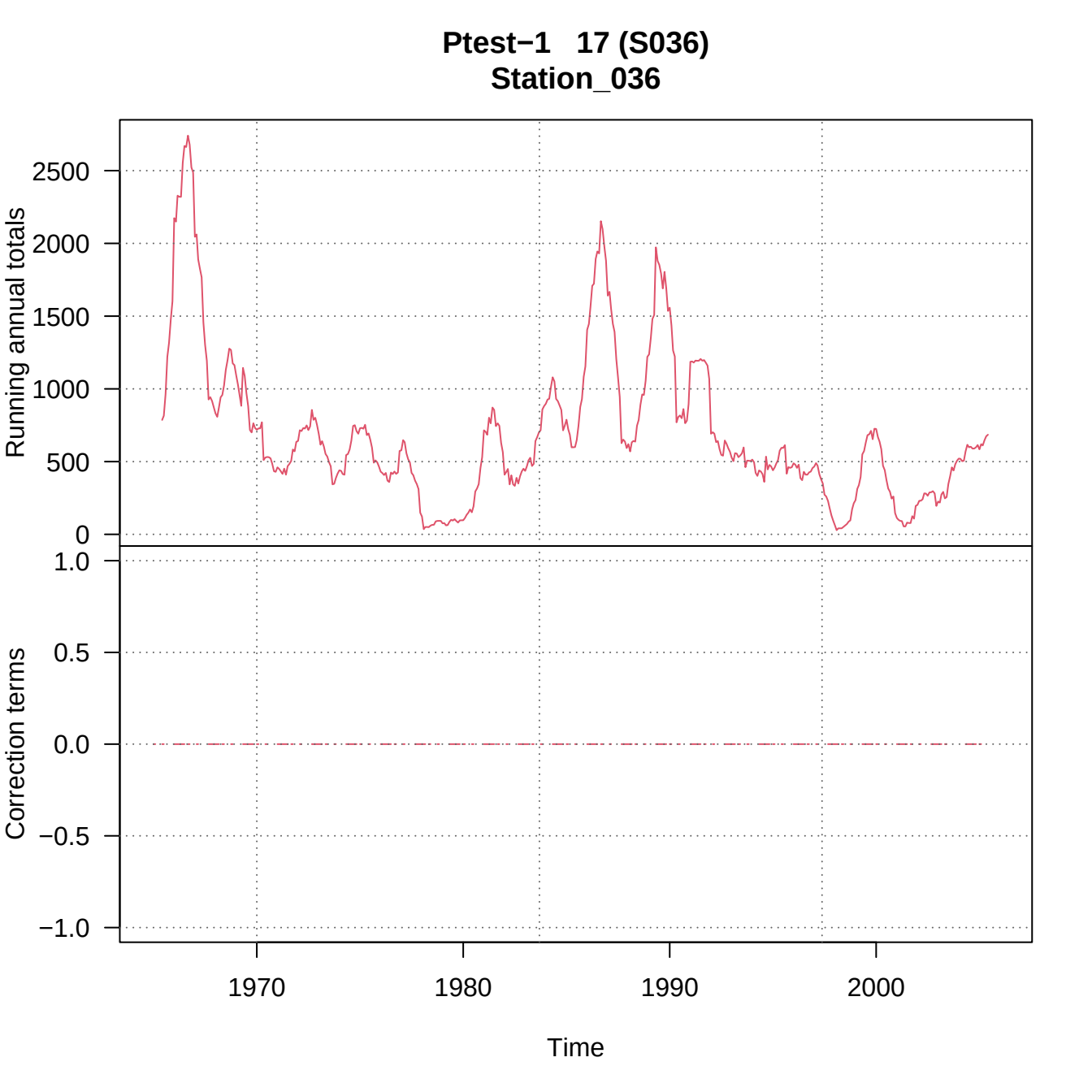

Ptest−1 12 (S055)
Station_055
Running annual totals
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

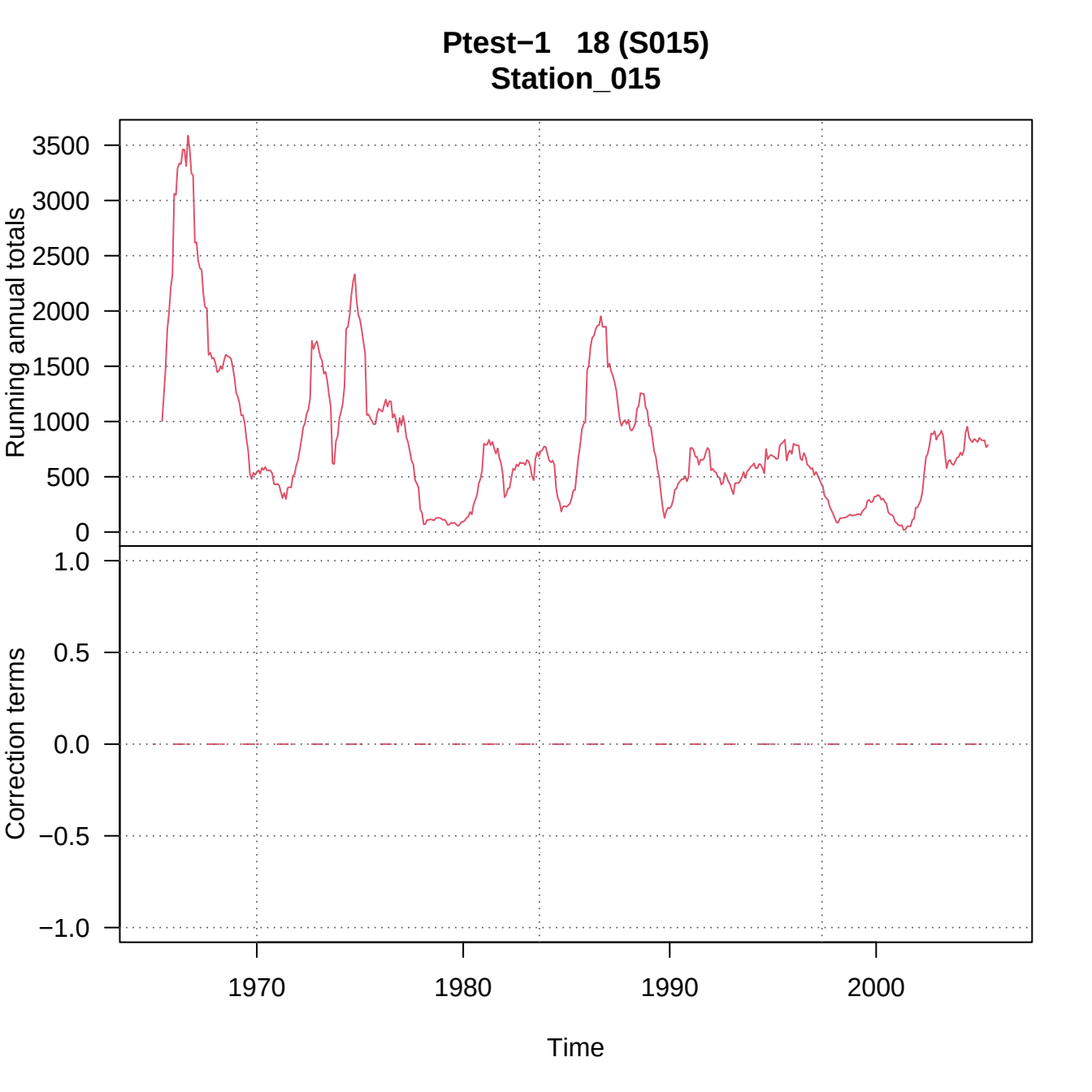

Ptest−1 13 (S042)
Station_042
Running annual totals
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

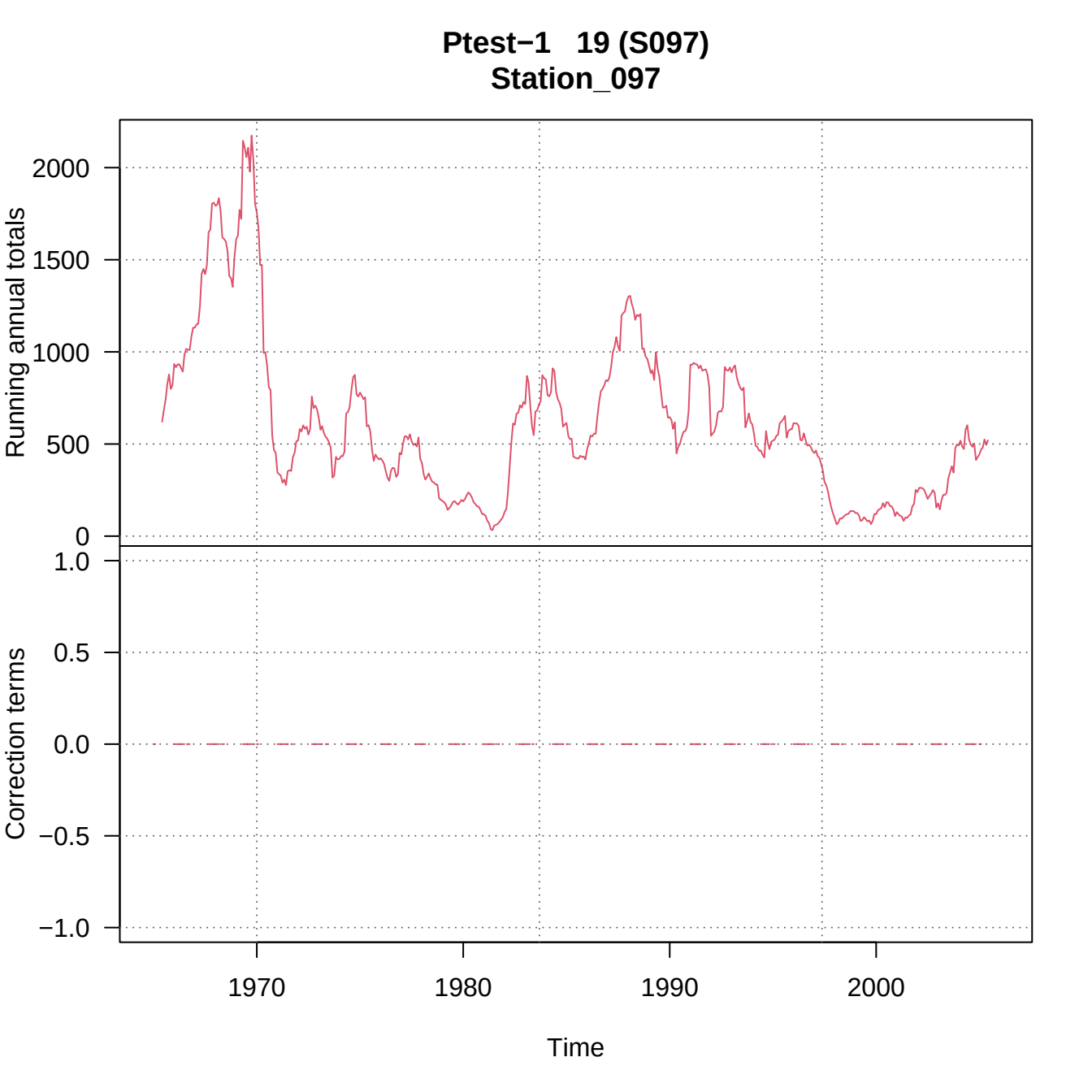

Ptest−1 14 (S075)
Station_075
Running annual totals
2500
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

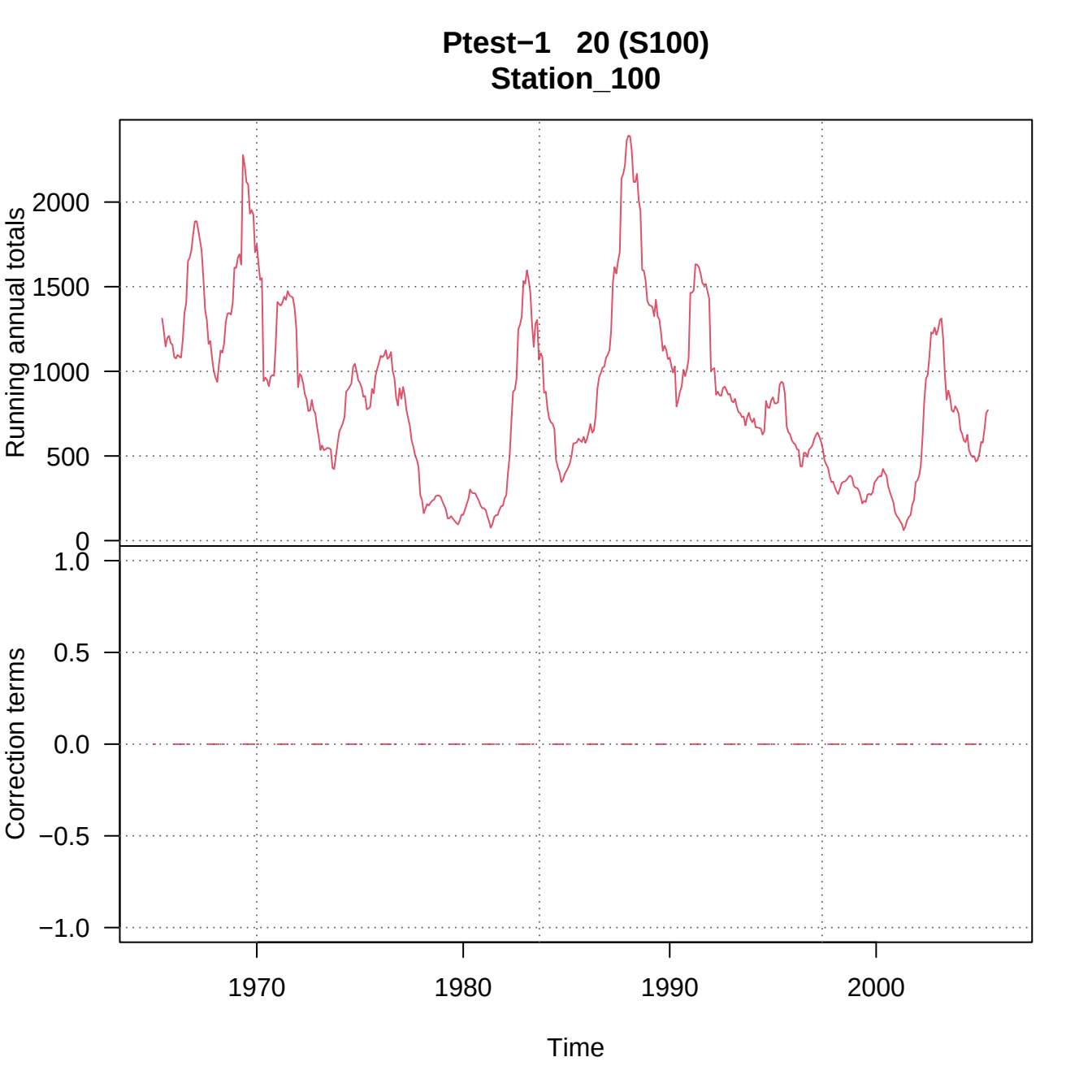

Ptest−1 15 (S038)
Station_038
Running annual totals
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

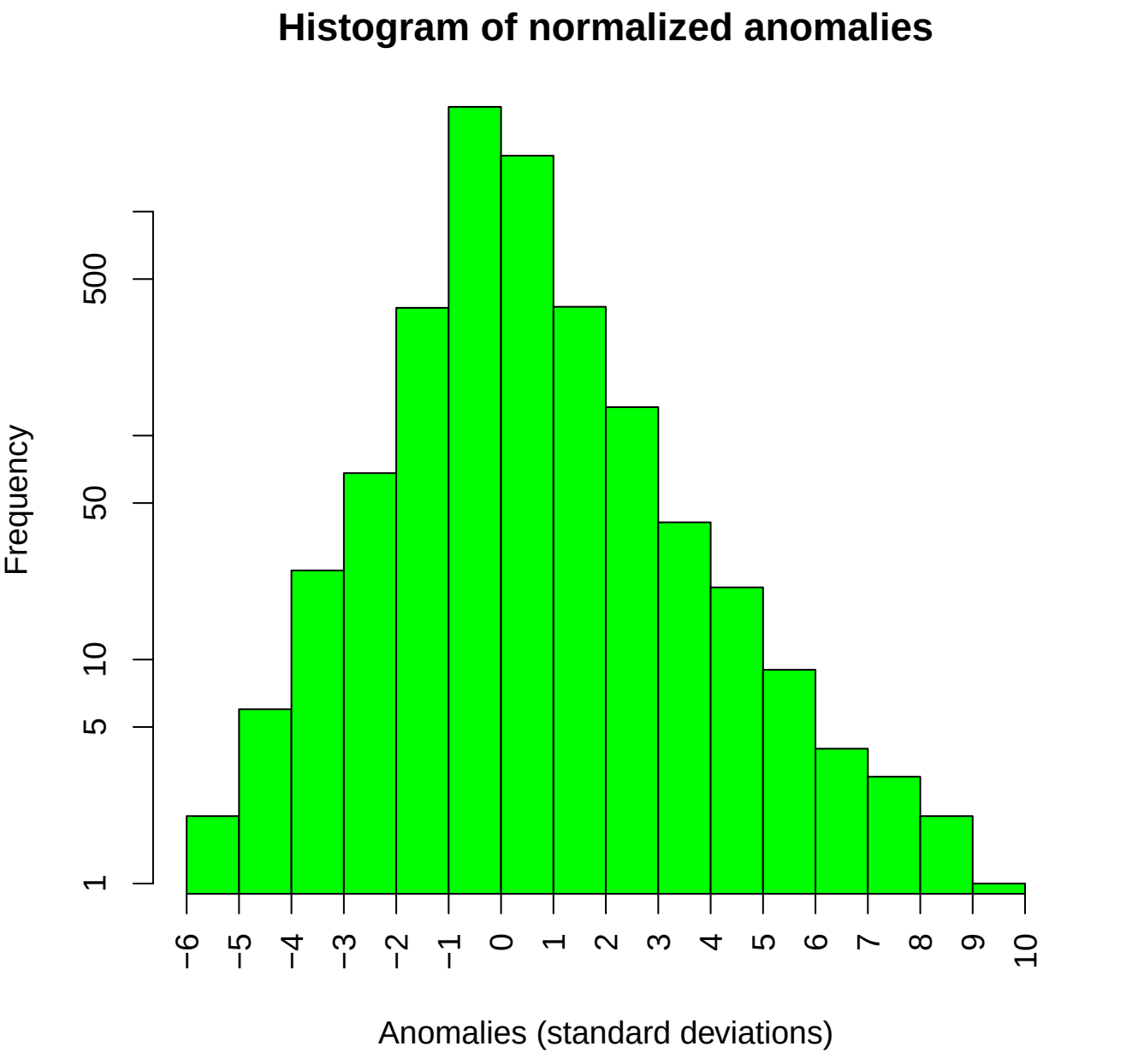

Ptest−1 16 (S007)
Station_007
Running annual totals
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

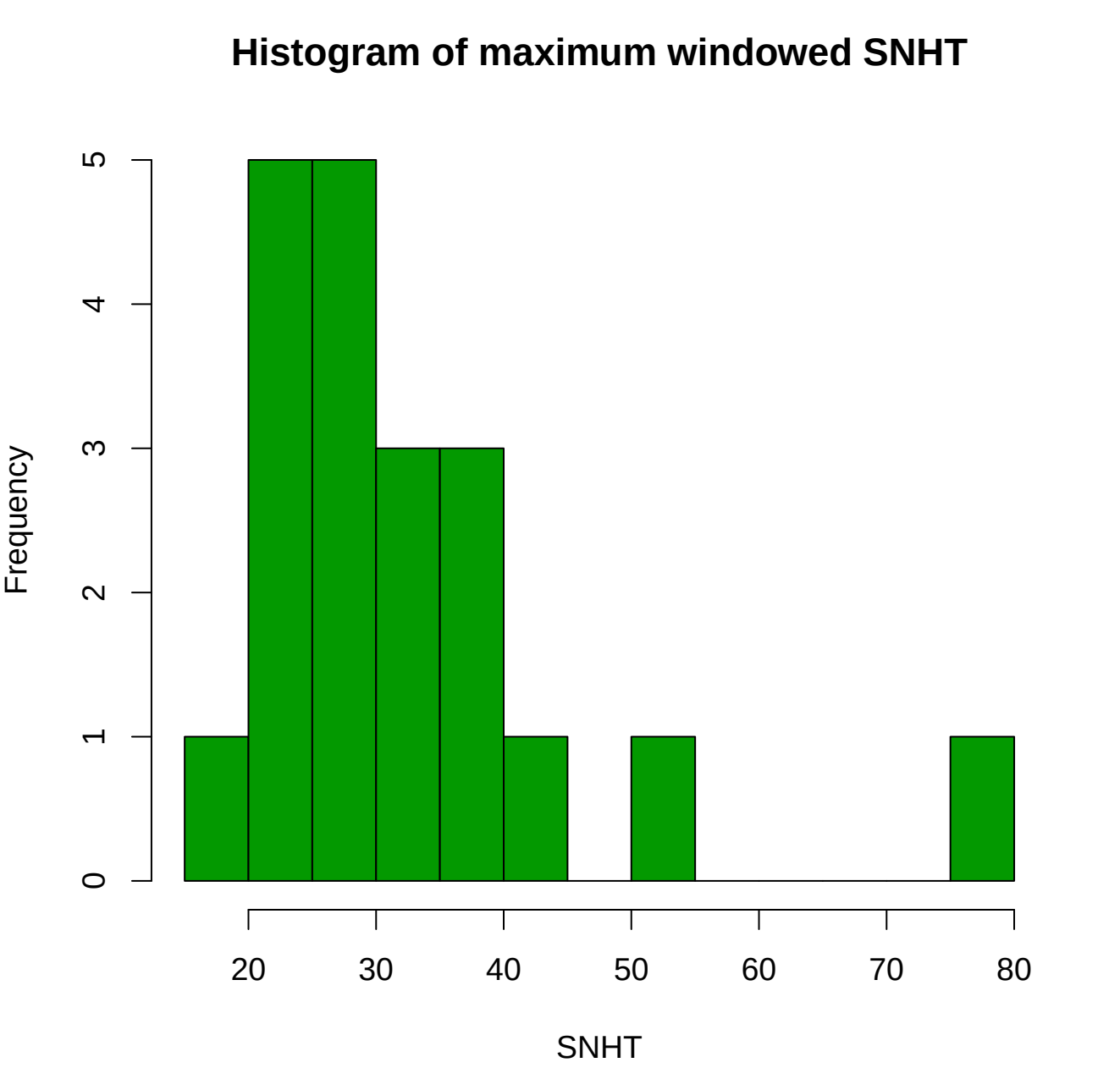

Ptest−1 17 (S036)
Station_036
Running annual totals
2500
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

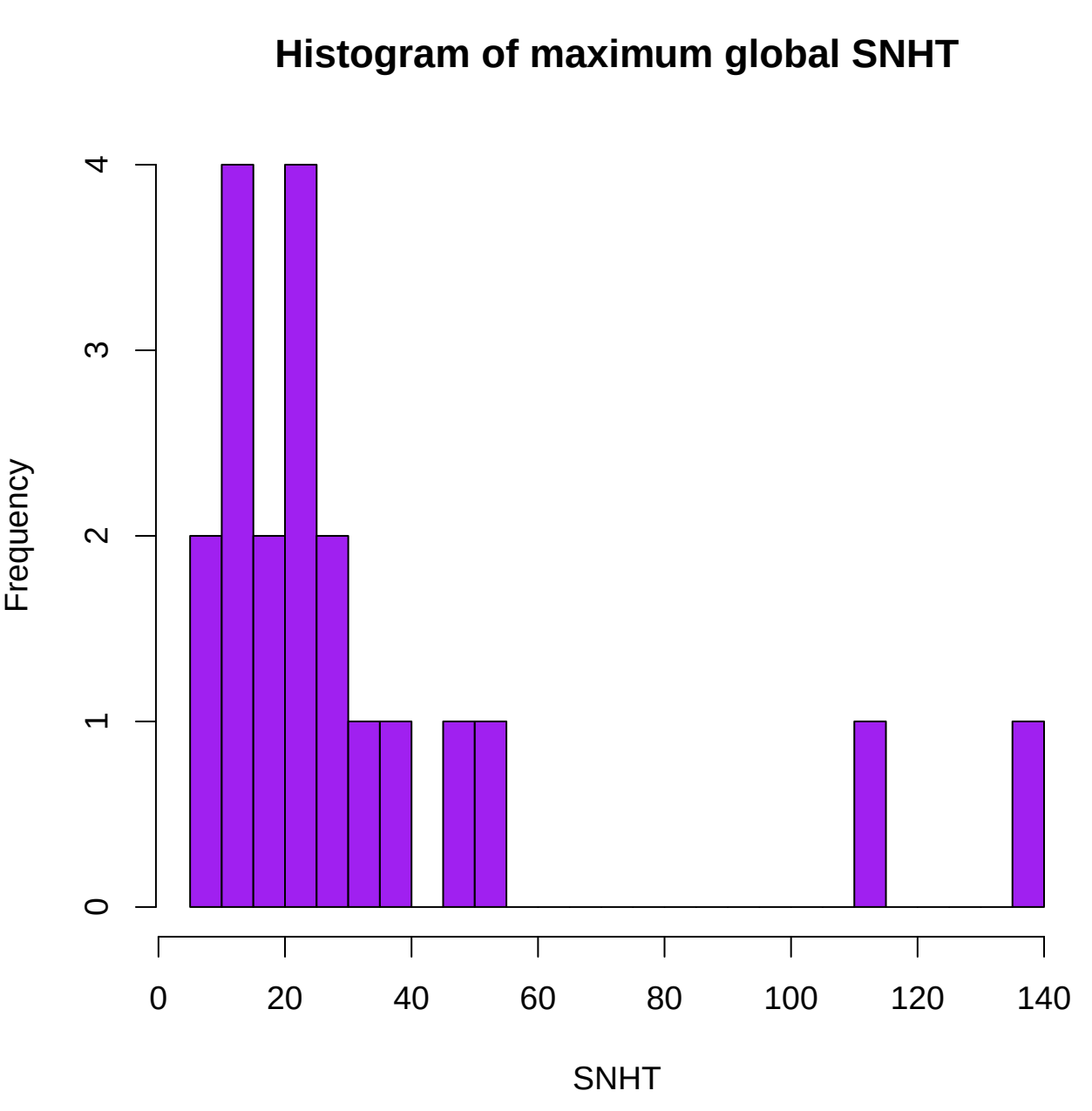

Ptest−1 18 (S015)
Station_015
Running annual totals
3500
3000
2500
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time

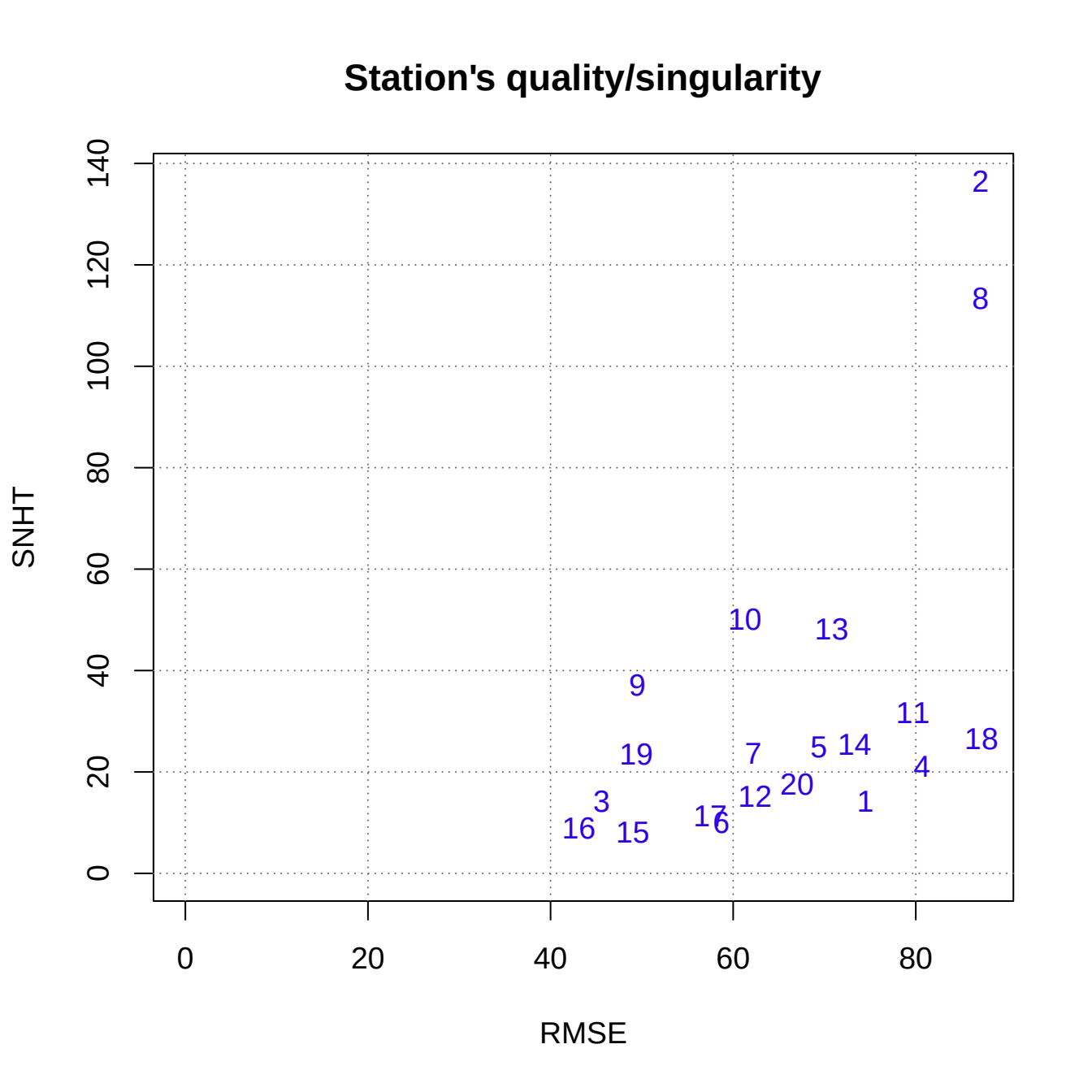

Ptest−1 19 (S097)
Station_097
Running annual totals
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time


Ptest−1 20 (S100)
Station_100
Running annual totals
2000
1500
1000
500
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1970
1980
1990
2000
Time


Histogram of normalized anomalies
Frequency
1
5
10
50
500
−6
−5
−4
−3
−2
−1
0
1
2
3
4
5
6
7
8
9
10
Anomalies (standard deviations)


Histogram of maximum windowed SNHT
Frequency
0
1
2
3
4
5
20
30
40
50
60
70
80
SNHT


Histogram of maximum global SNHT
Frequency
0
1
2
3
4
0
20
40
60
80
100
120
140
SNHT


Station's quality/singularity
SNHT
RMSE
0
20
40
60
80
100
120
140
0
20
40
60
80
2
8
10
13
9
11
18
19
7
5
14
4
20
12
3
1
16
15
17
6