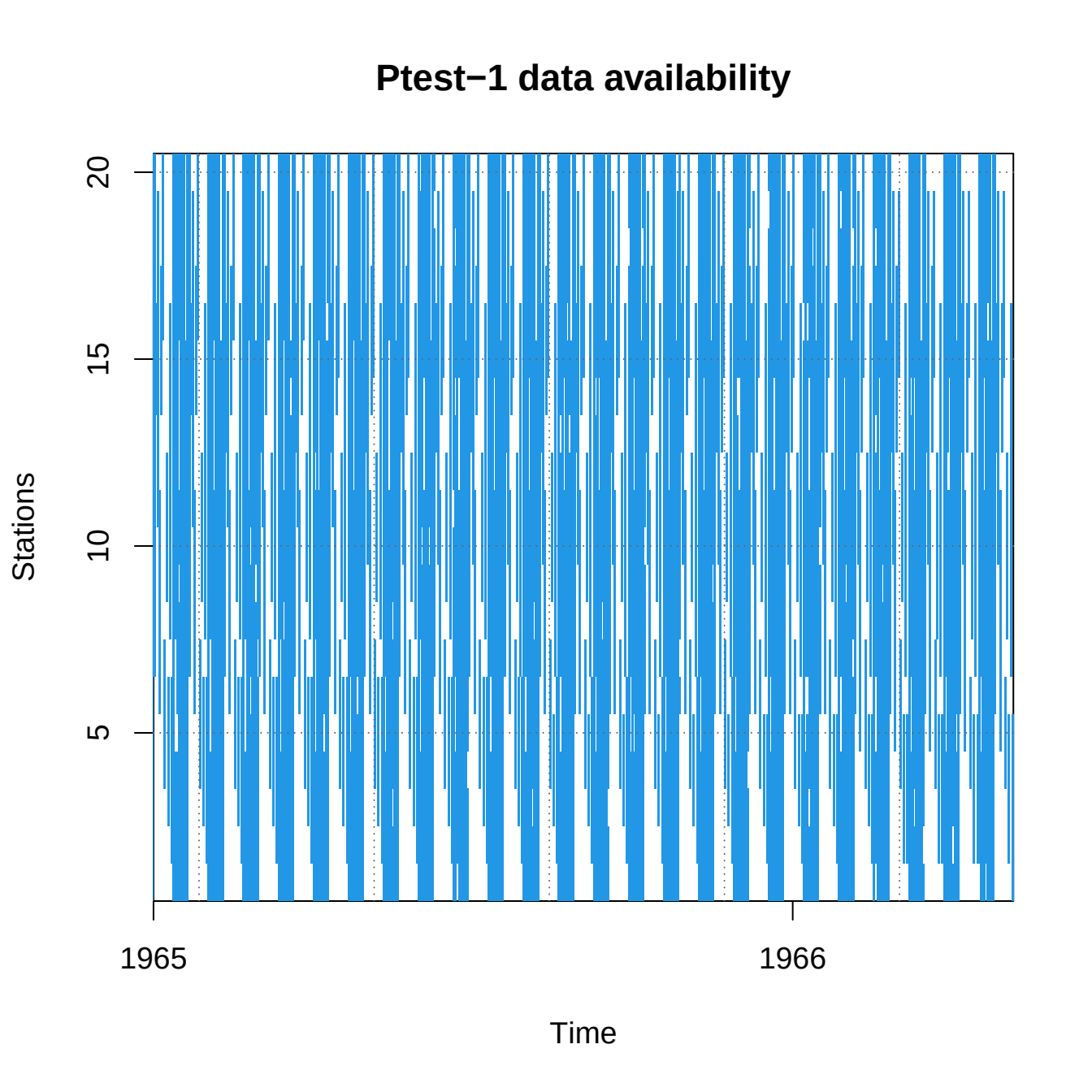
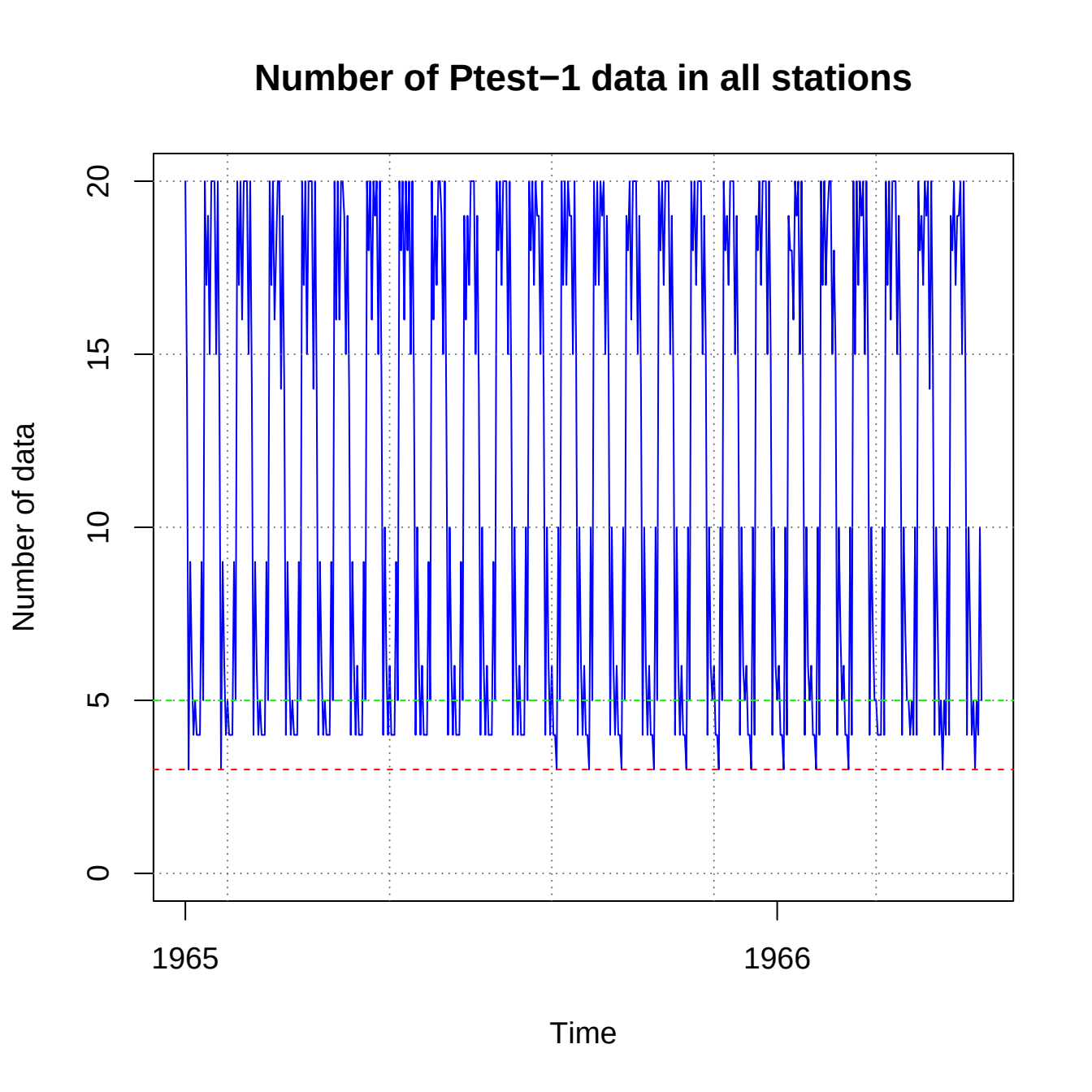
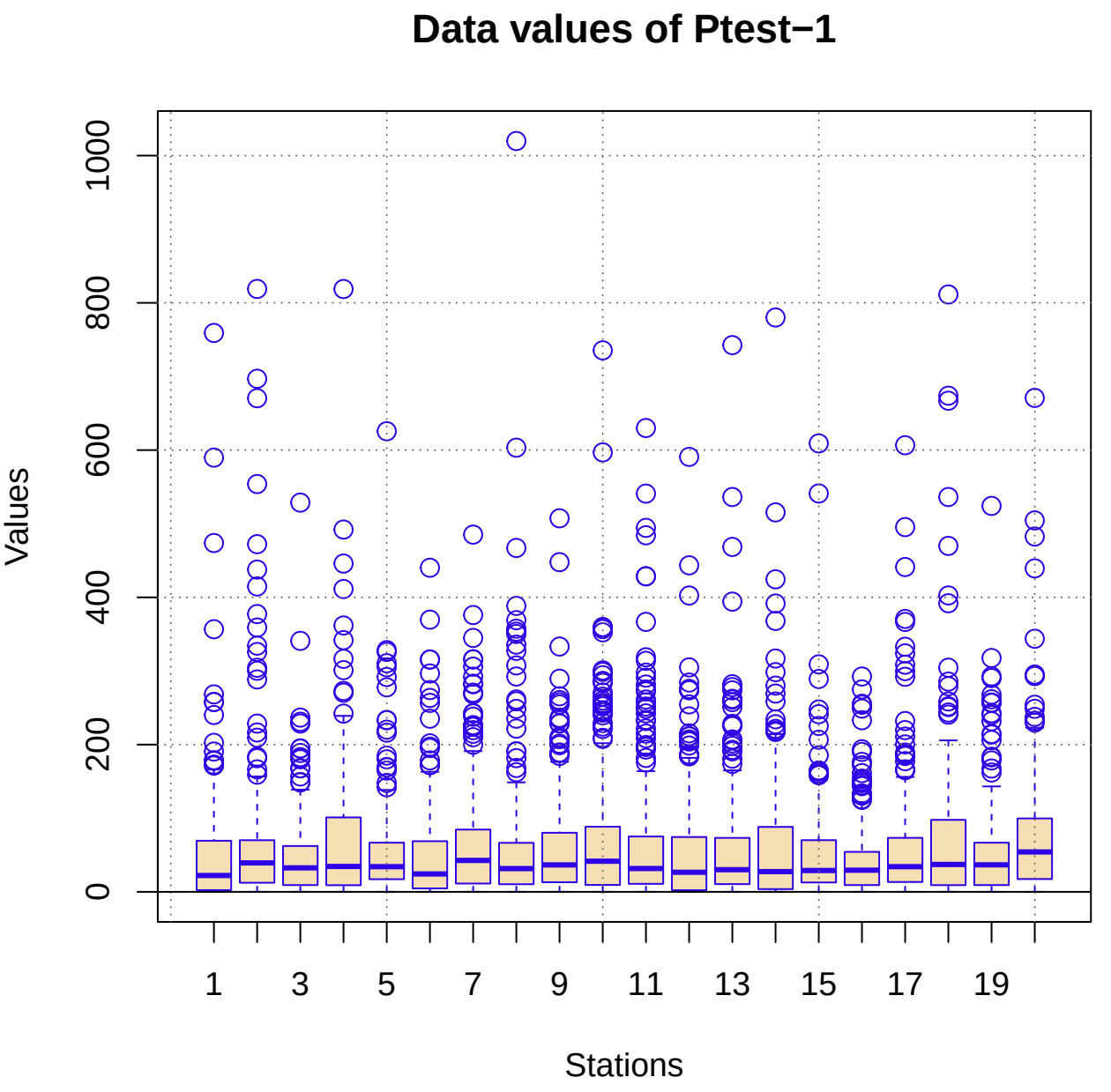
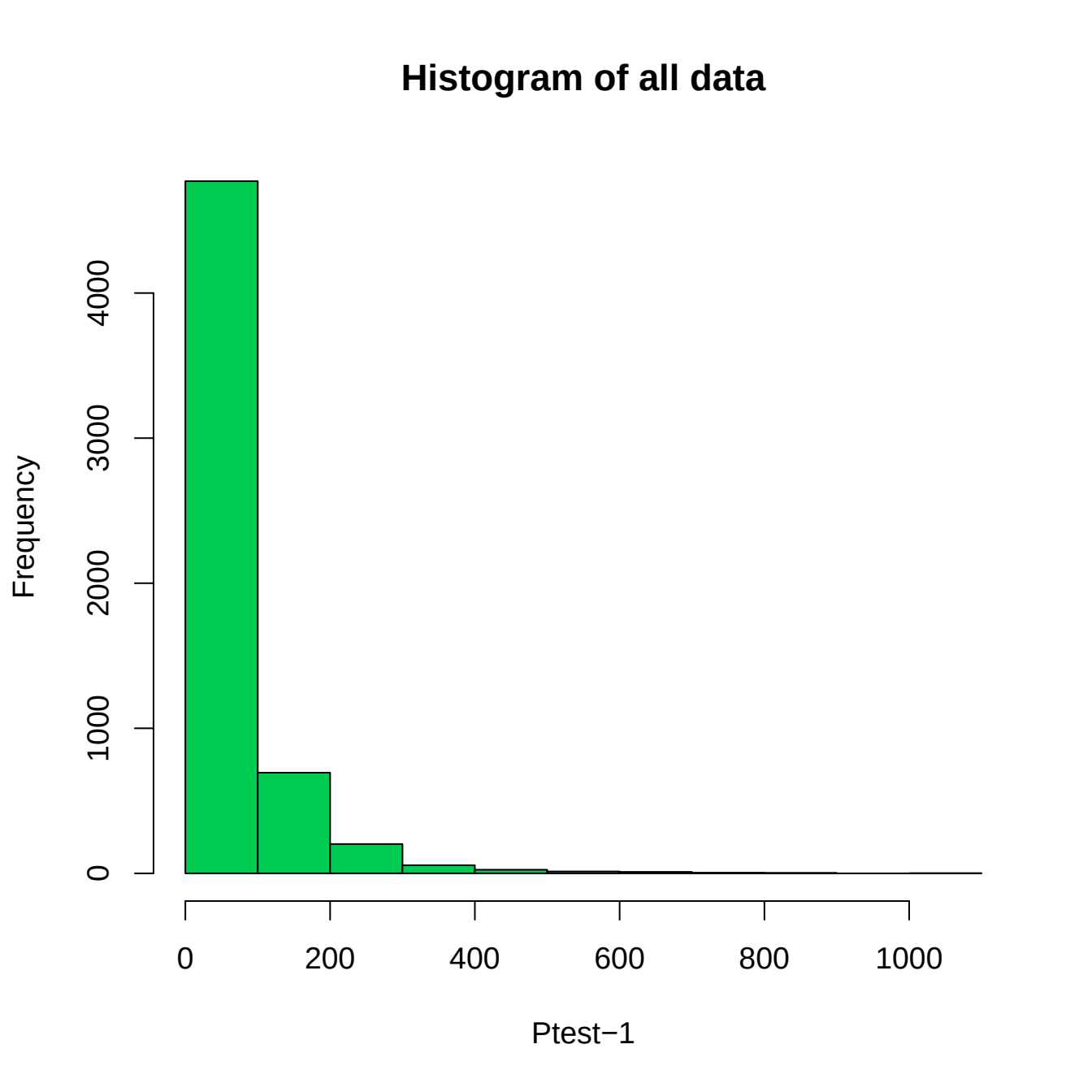
CLIMATOL 3.1.1

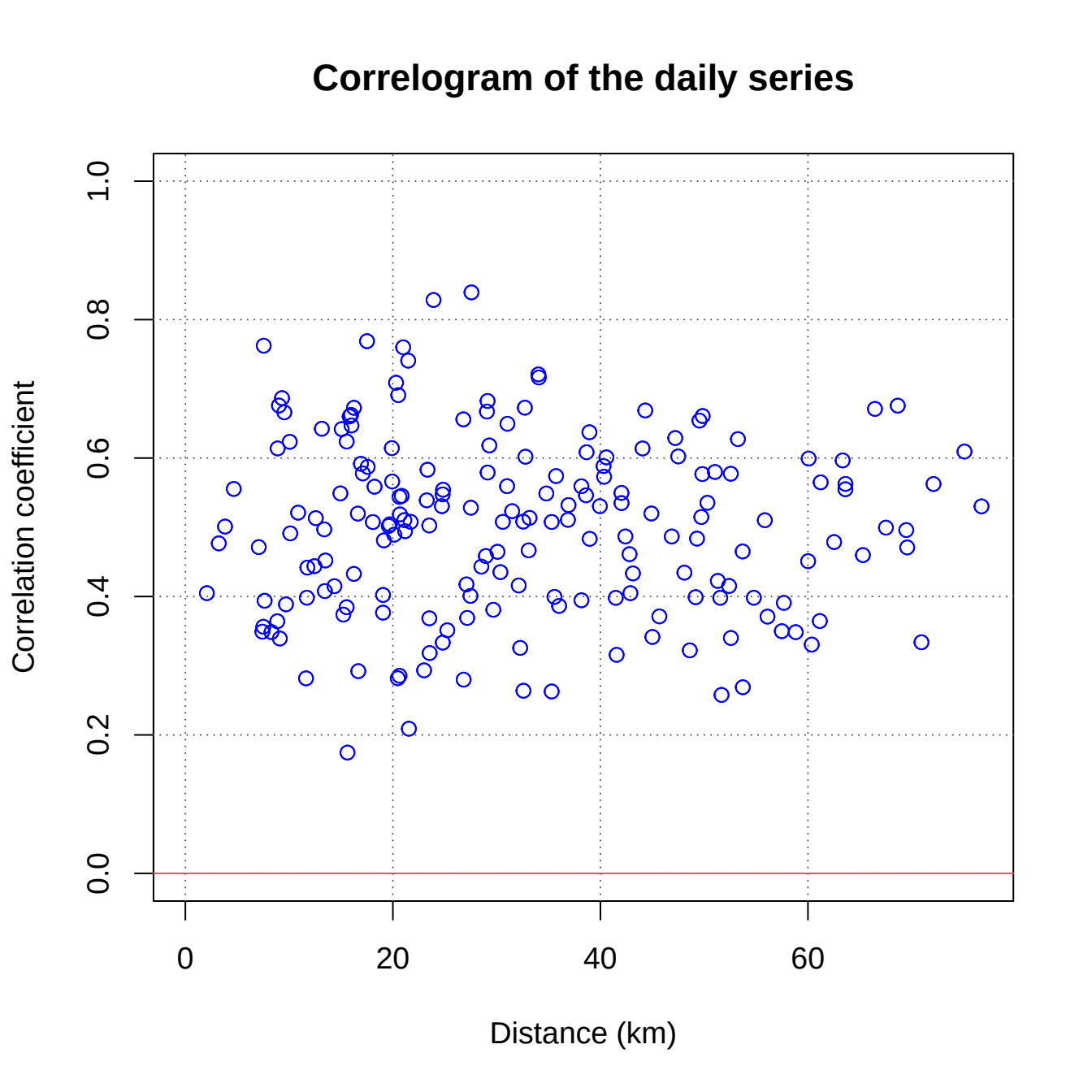
Homogenization
graphic output of
Ptest−1
1965−2005

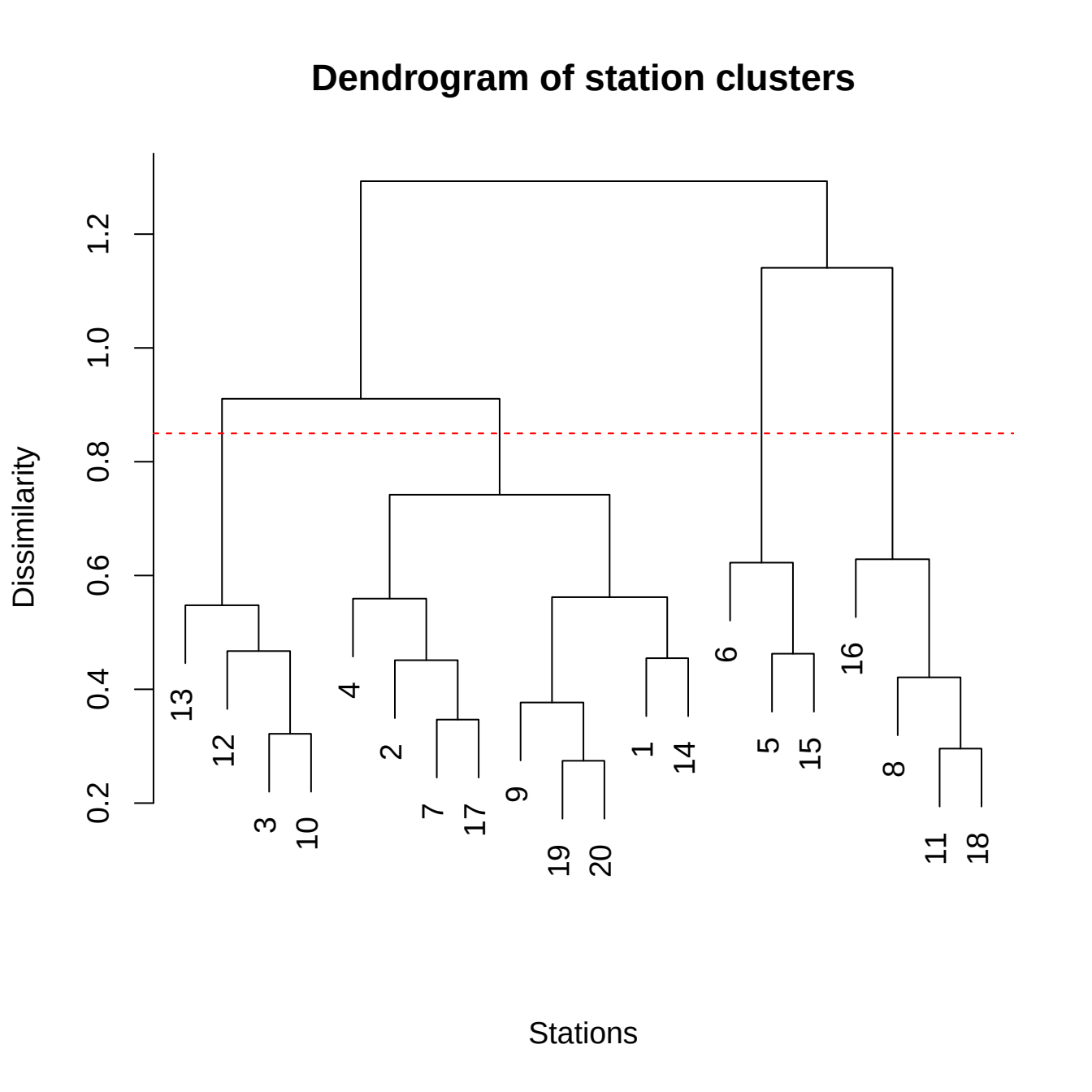

Ptest−1 data availability
Stations
20
15
10
5
1965
1966
Time

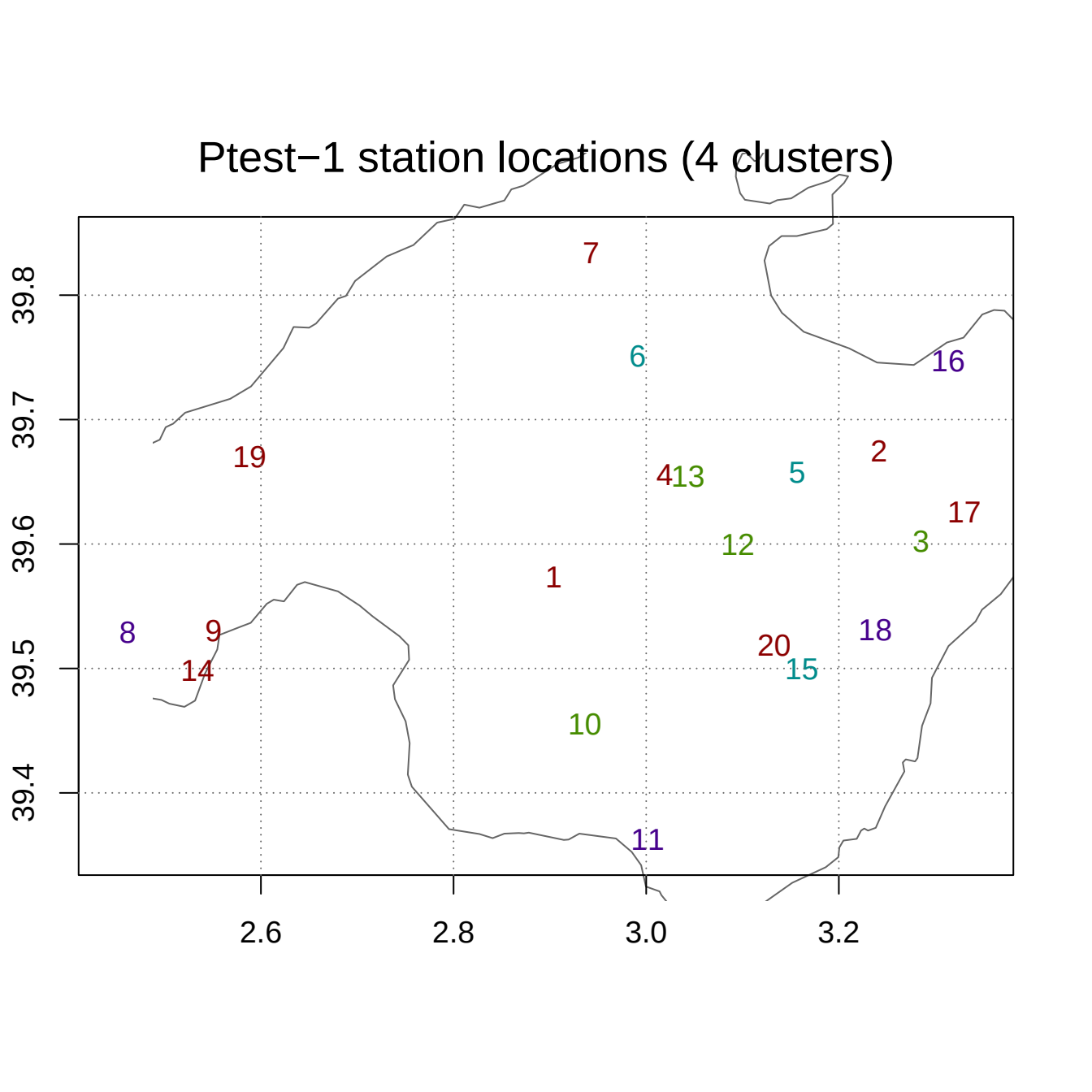

Number of Ptest−1 data in all stations
Number of data
0
5
10
15
20
1965
1966
Time


Data values of Ptest−1
Values
0
200
400
600
800
1000
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 the daily series
Correlation coefficient
1.0
0.8
0.6
0.4
0.2
0.0
0
20
40
60
Distance (km)


Dendrogram of station clusters
Dissimilarity
0.2
0.4
0.6
0.8
1.0
1.2
13
12
3
10
4
2
7
17
9
19
20
1
14
6
5
15
16
8
11
18
Stations

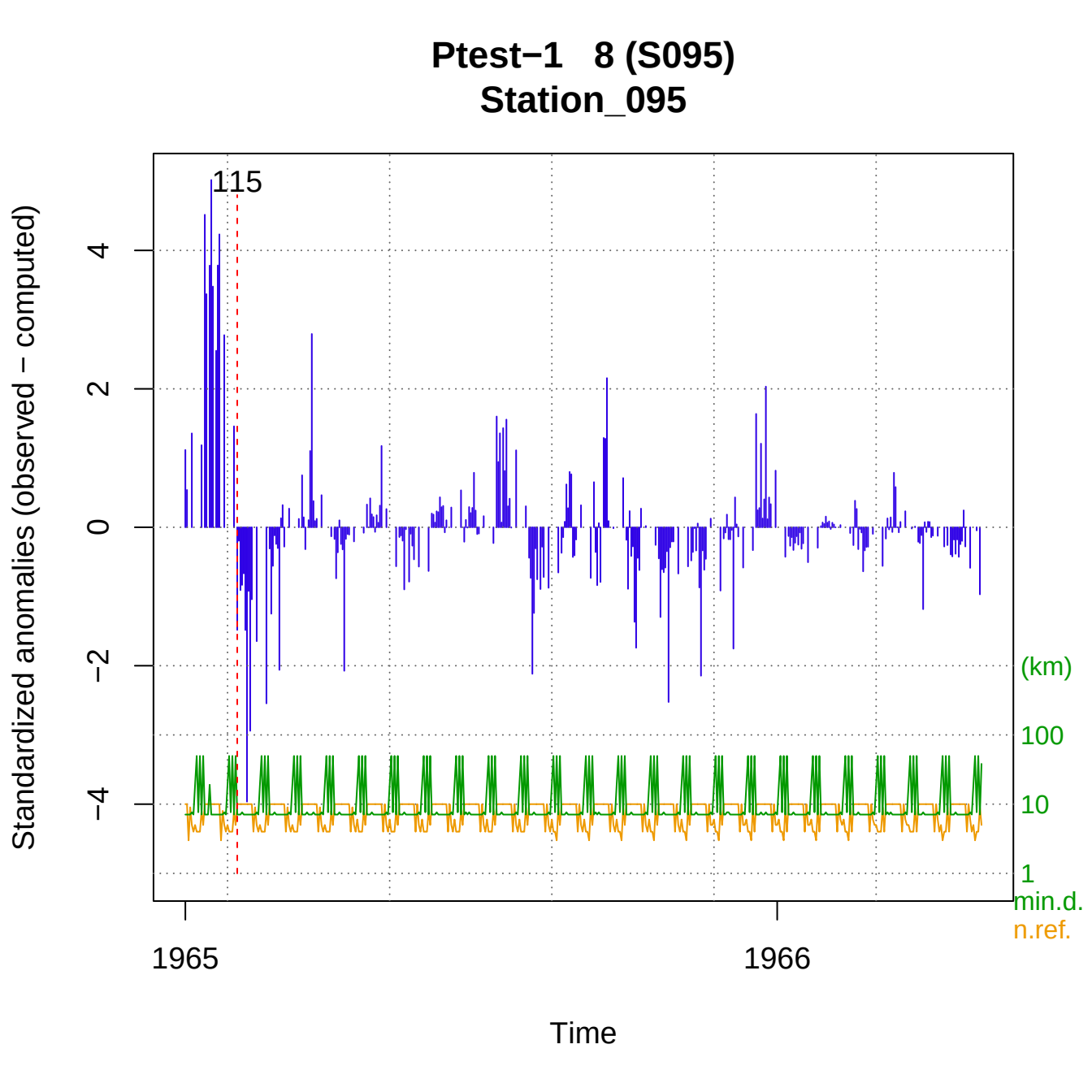

Ptest−1 station locations (4 clusters)
39.8
39.7
39.6
39.5
39.4
2.6
2.8
3.0
3.2
7
6
16
19
2
4
13
5
17
12
3
1
8
9
18
20
14
15
10
11

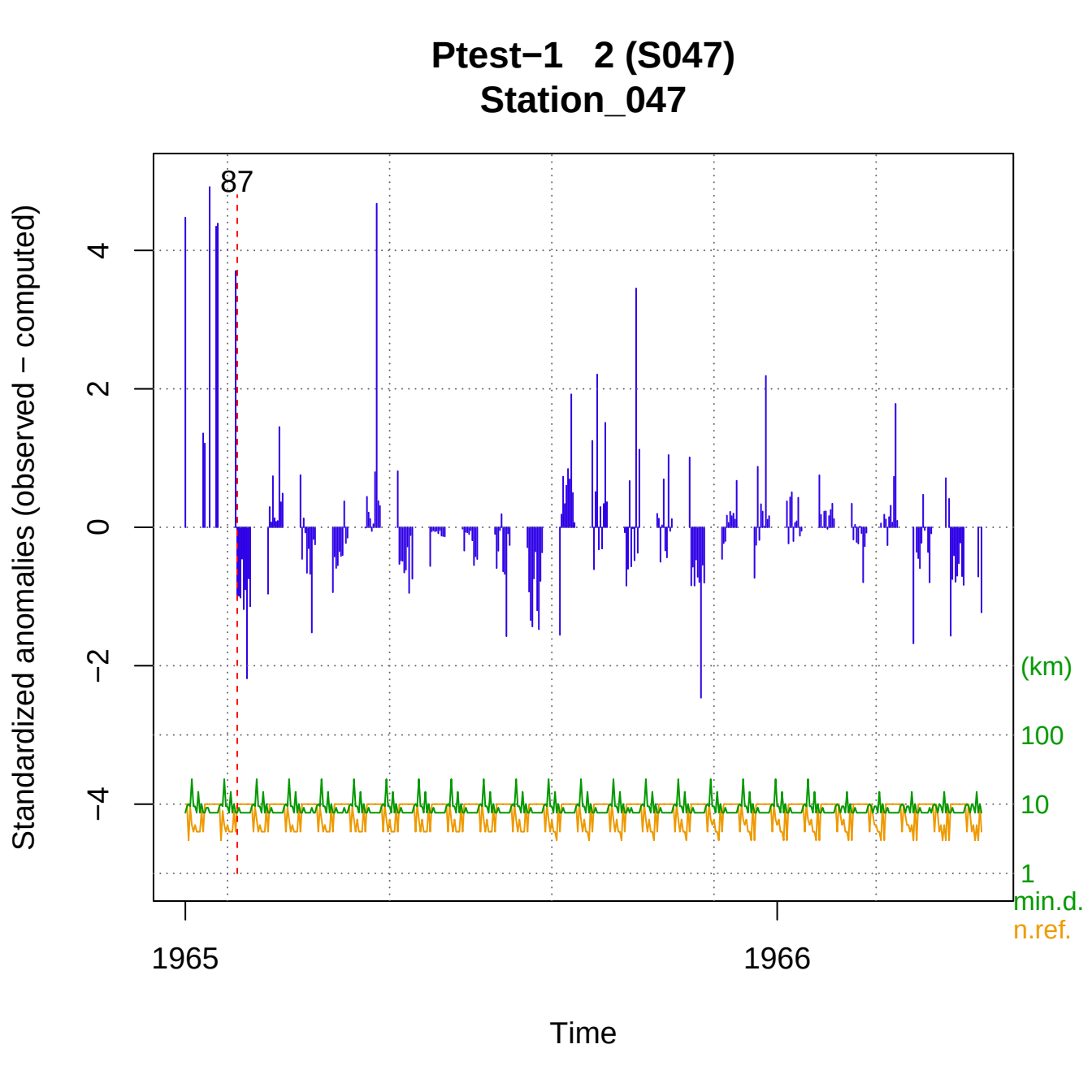
Stage 1

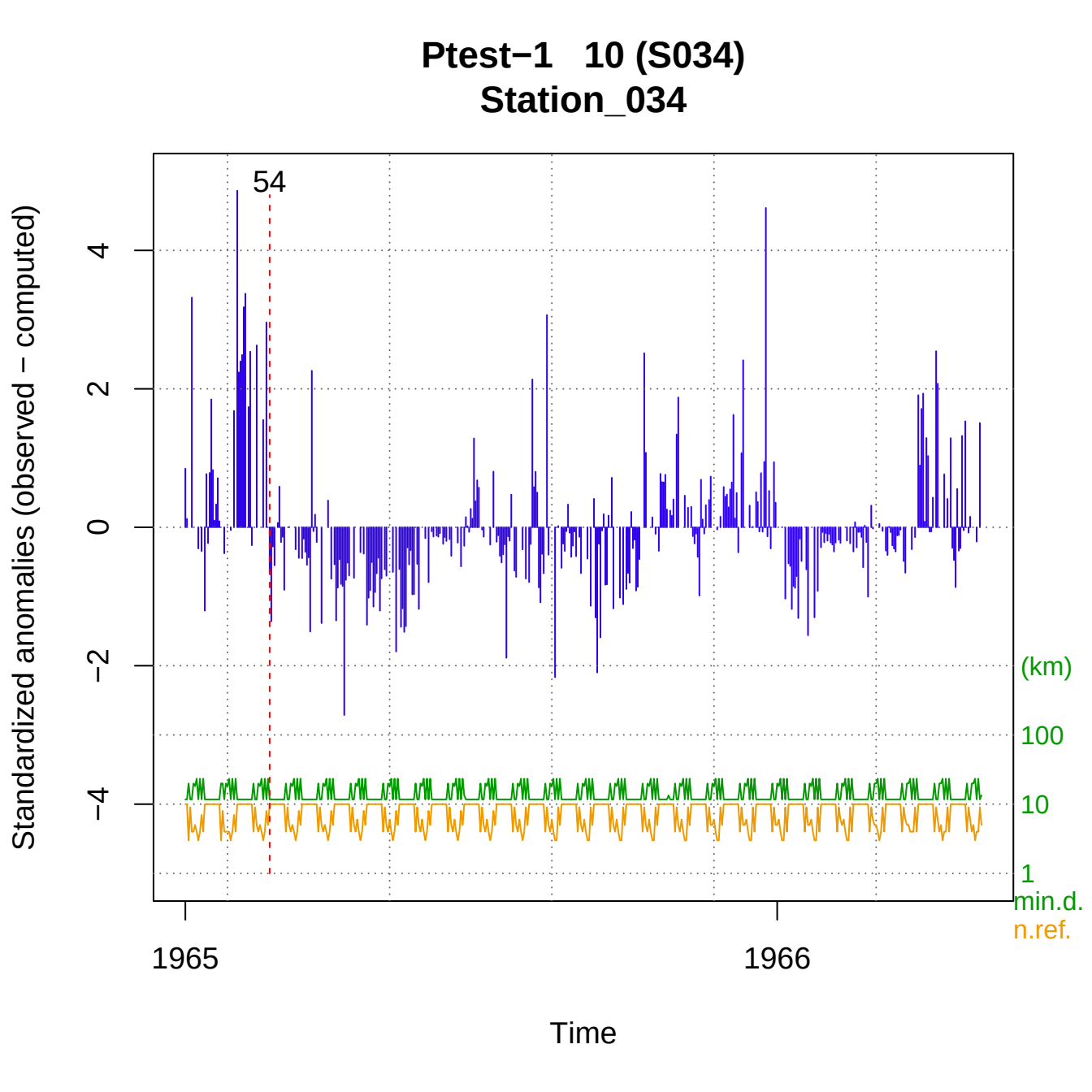
Binary splits on 365 term stepped windows with SNHT > 25 and wd = 0 km

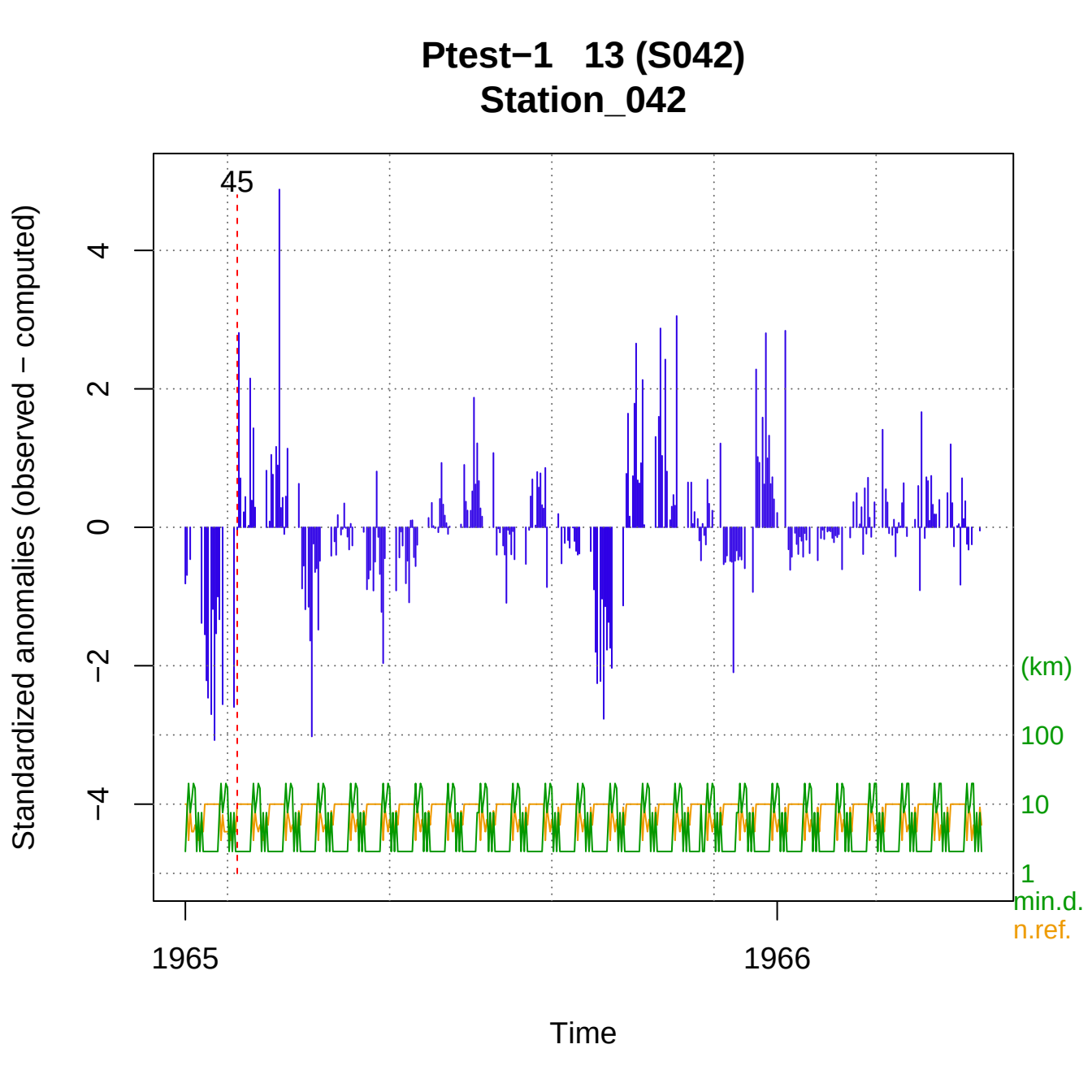
Stage 2

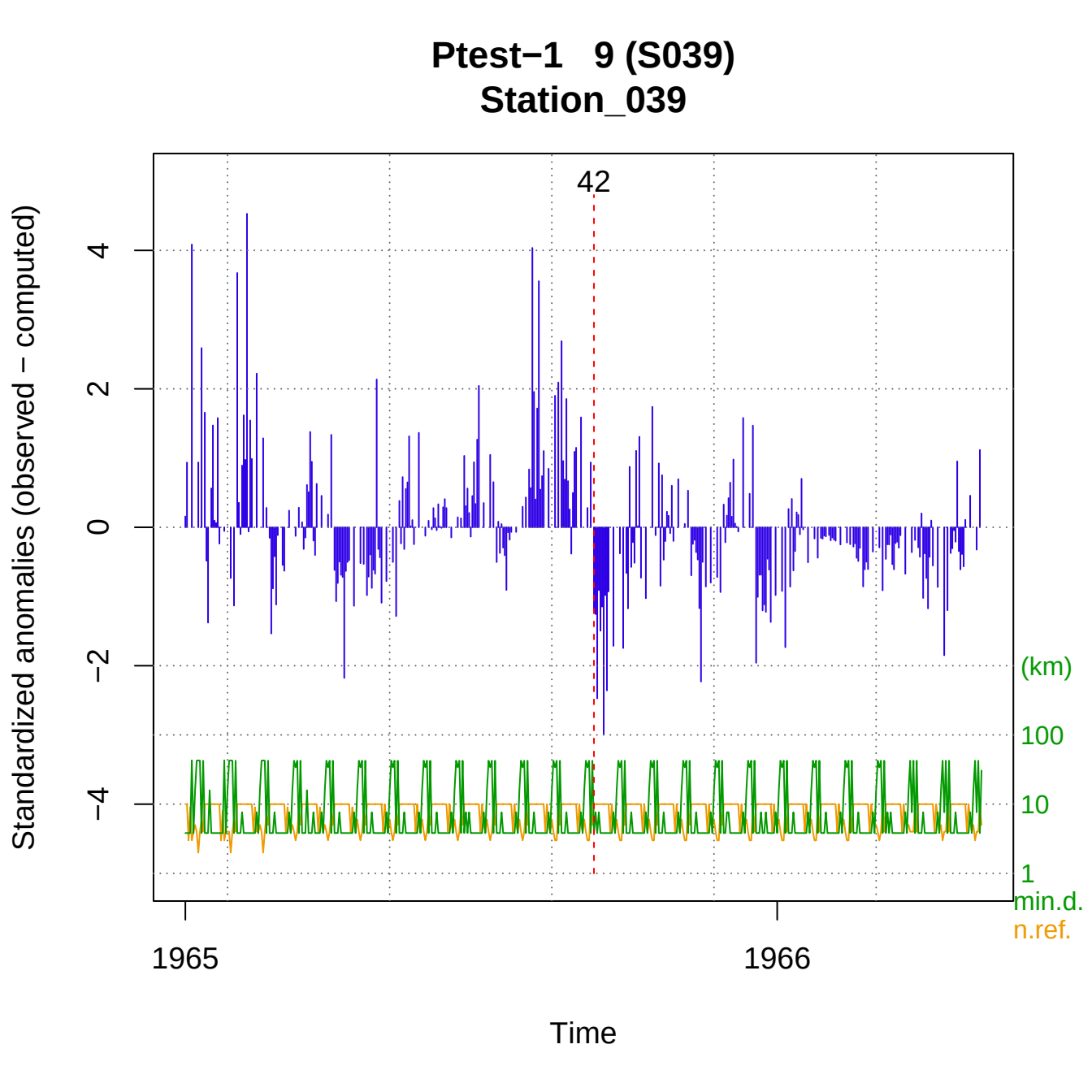
Binary splits on whole series with SNHT > 25 and wd = 0 km

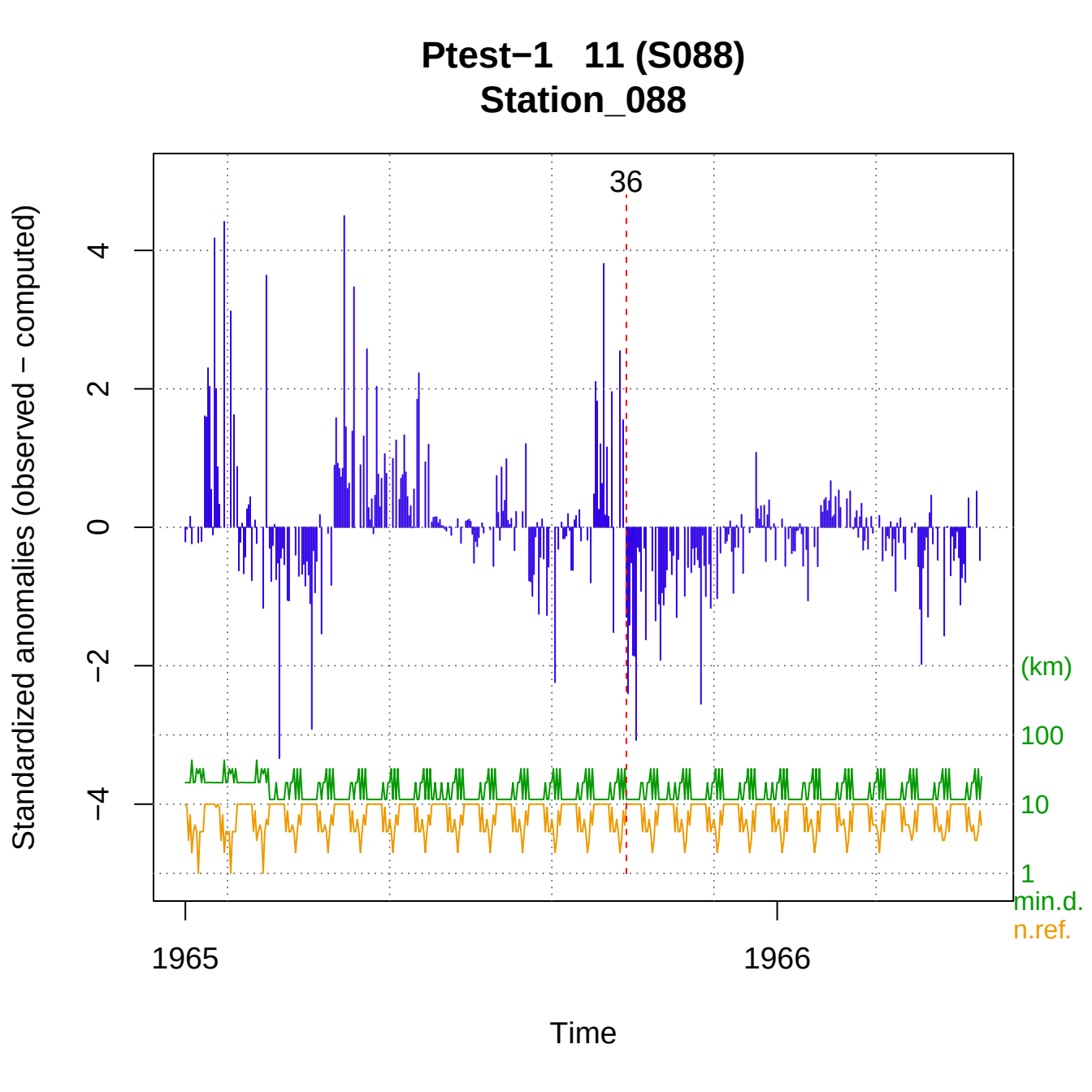

Ptest−1 8 (S095)
Station_095
115
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
1965
1966
Time

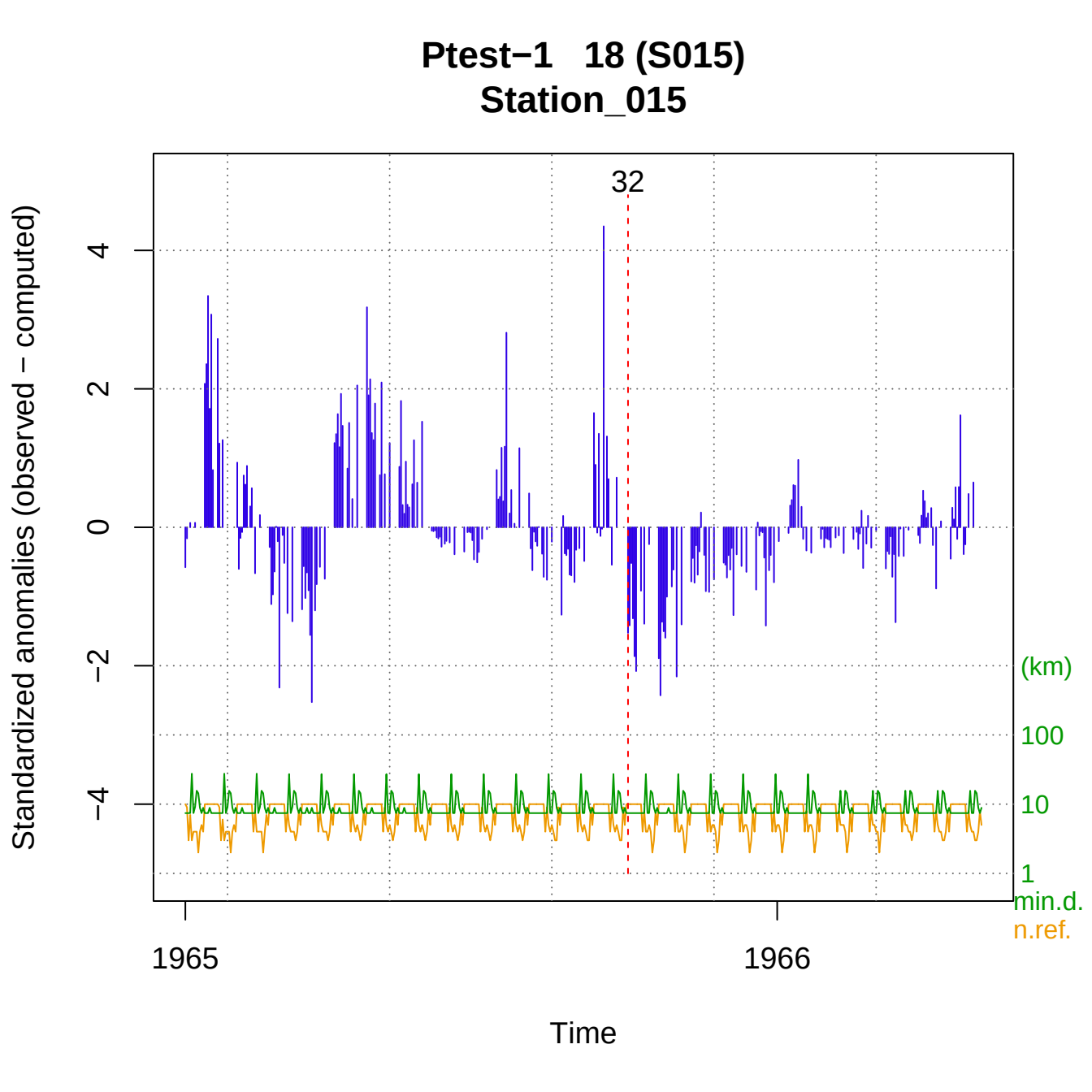

Ptest−1 2 (S047)
Station_047
87
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
1965
1966
Time

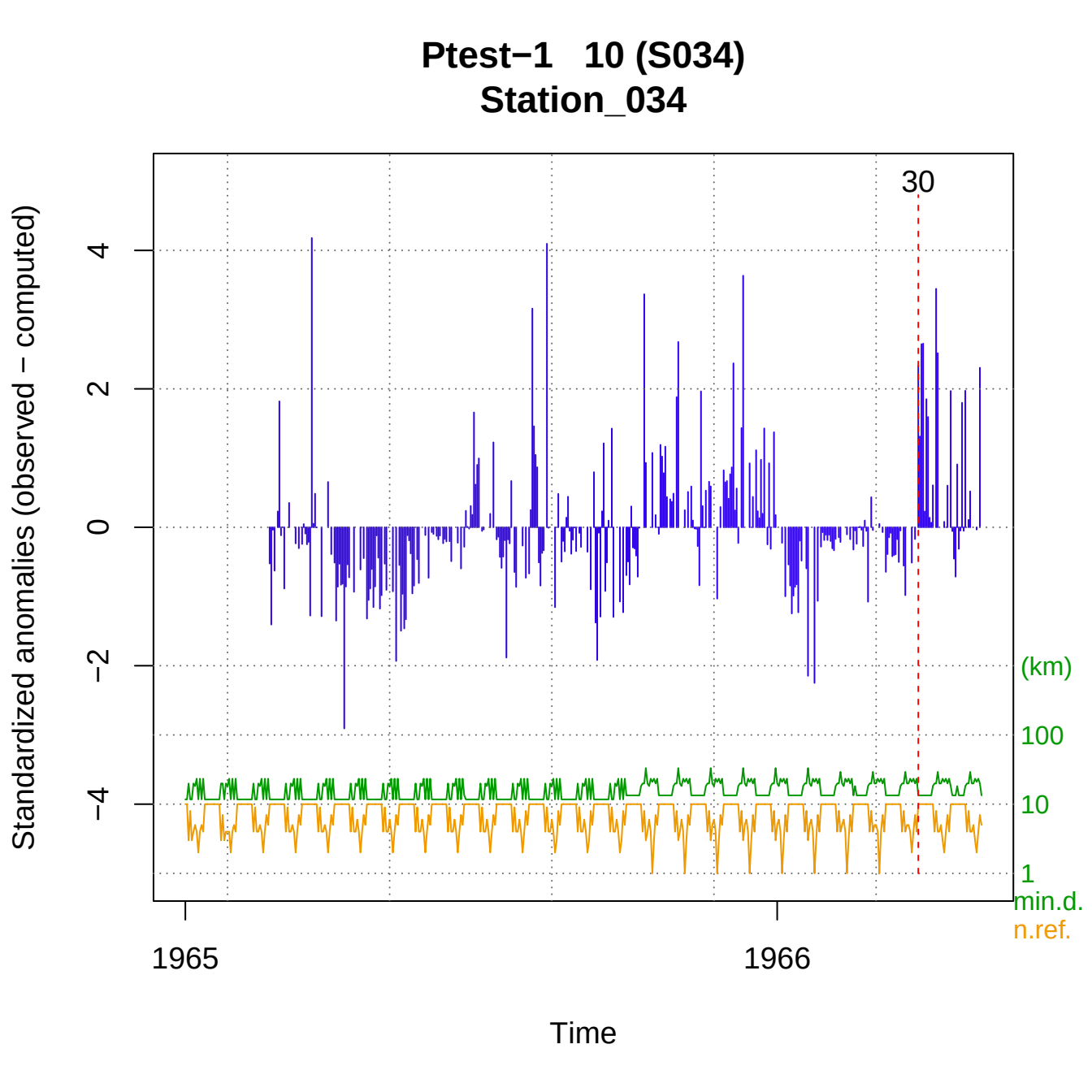

Ptest−1 10 (S034)
Station_034
54
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
1965
1966
Time

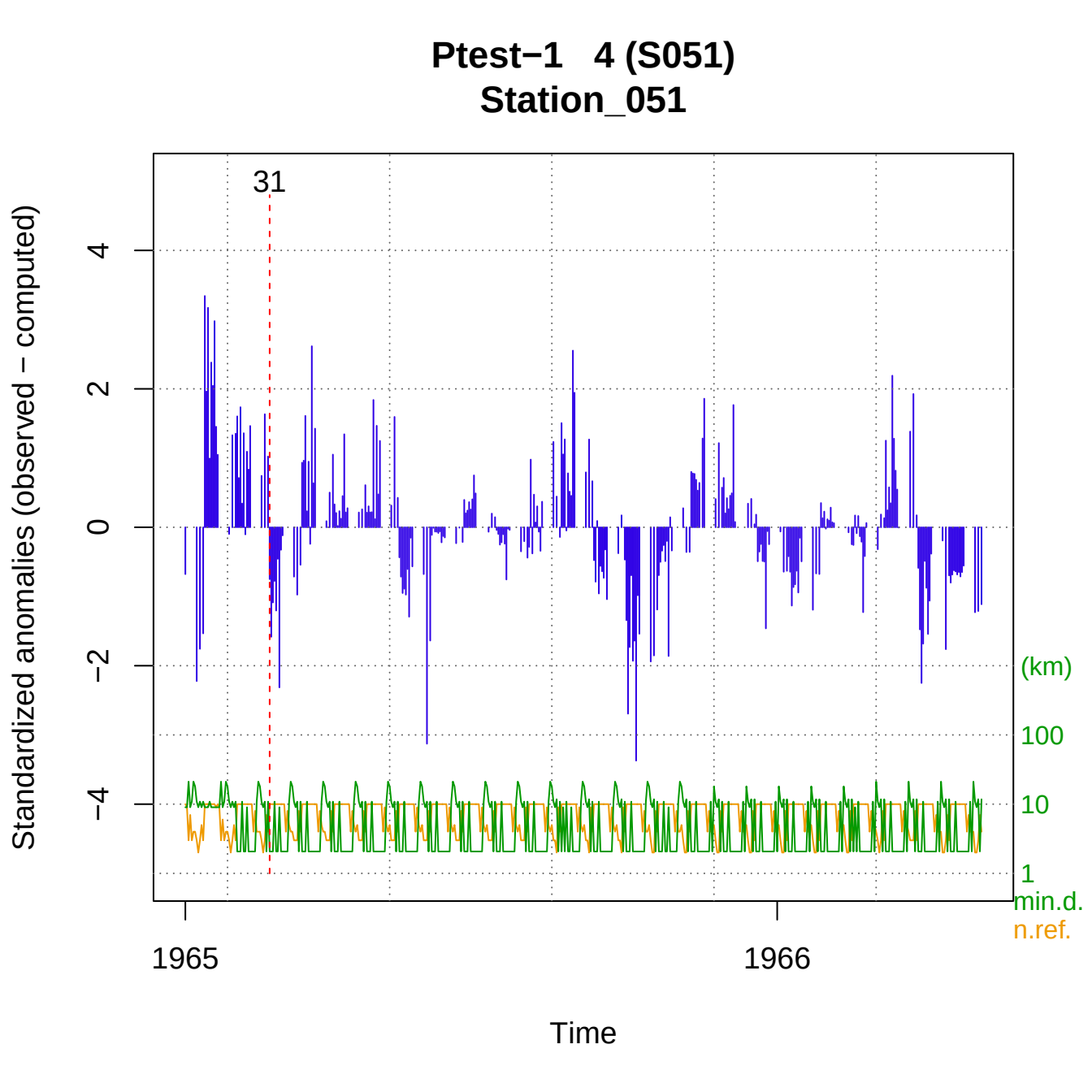

Ptest−1 13 (S042)
Station_042
45
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
1965
1966
Time

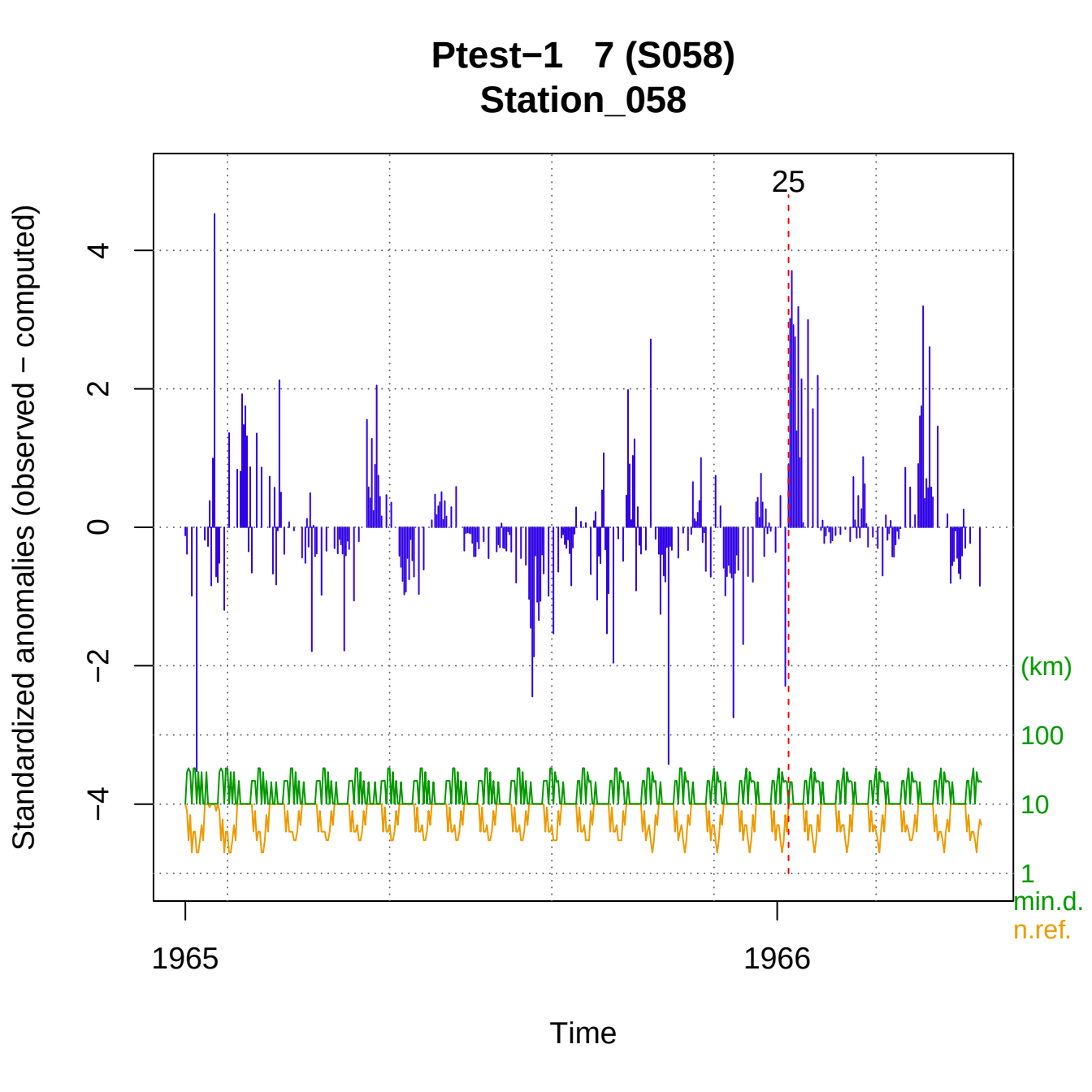

Ptest−1 9 (S039)
Station_039
42
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
1965
1966
Time

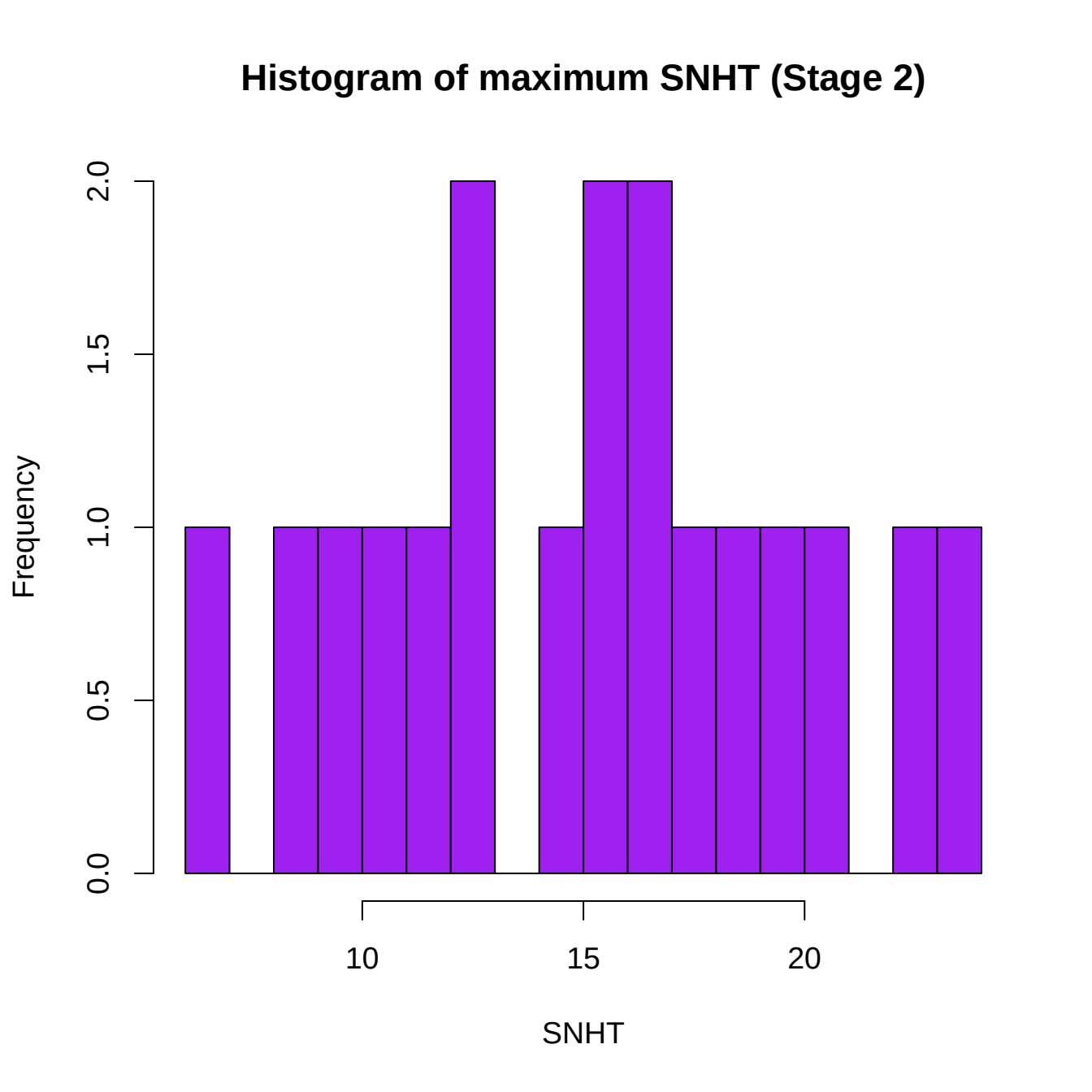

Ptest−1 11 (S088)
Station_088
36
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
1965
1966
Time

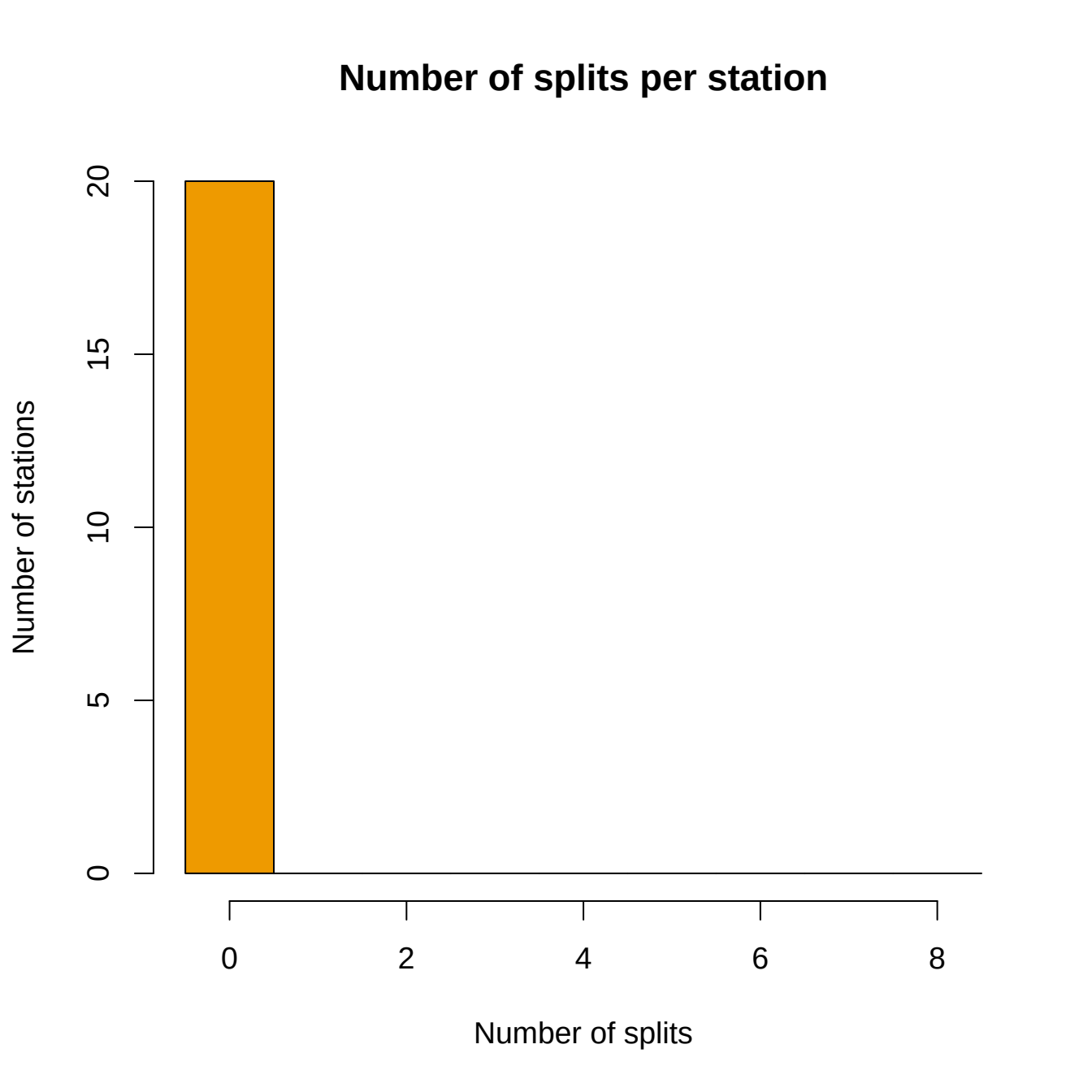

Ptest−1 18 (S015)
Station_015
32
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
1965
1966
Time

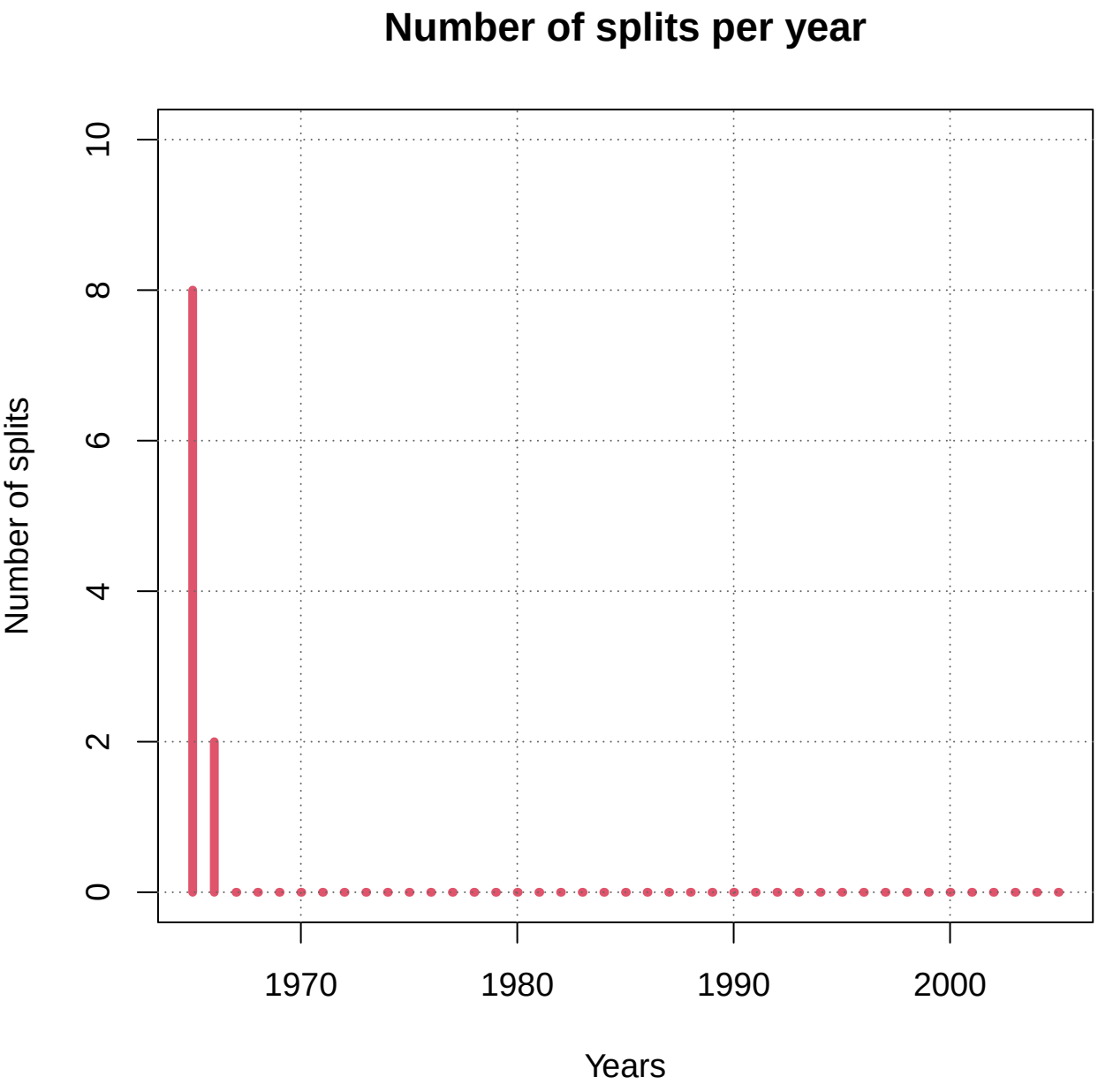

Ptest−1 10 (S034)
Station_034
30
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
1965
1966
Time


Ptest−1 4 (S051)
Station_051
31
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
1965
1966
Time


Ptest−1 7 (S058)
Station_058
25
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
1965
1966
Time

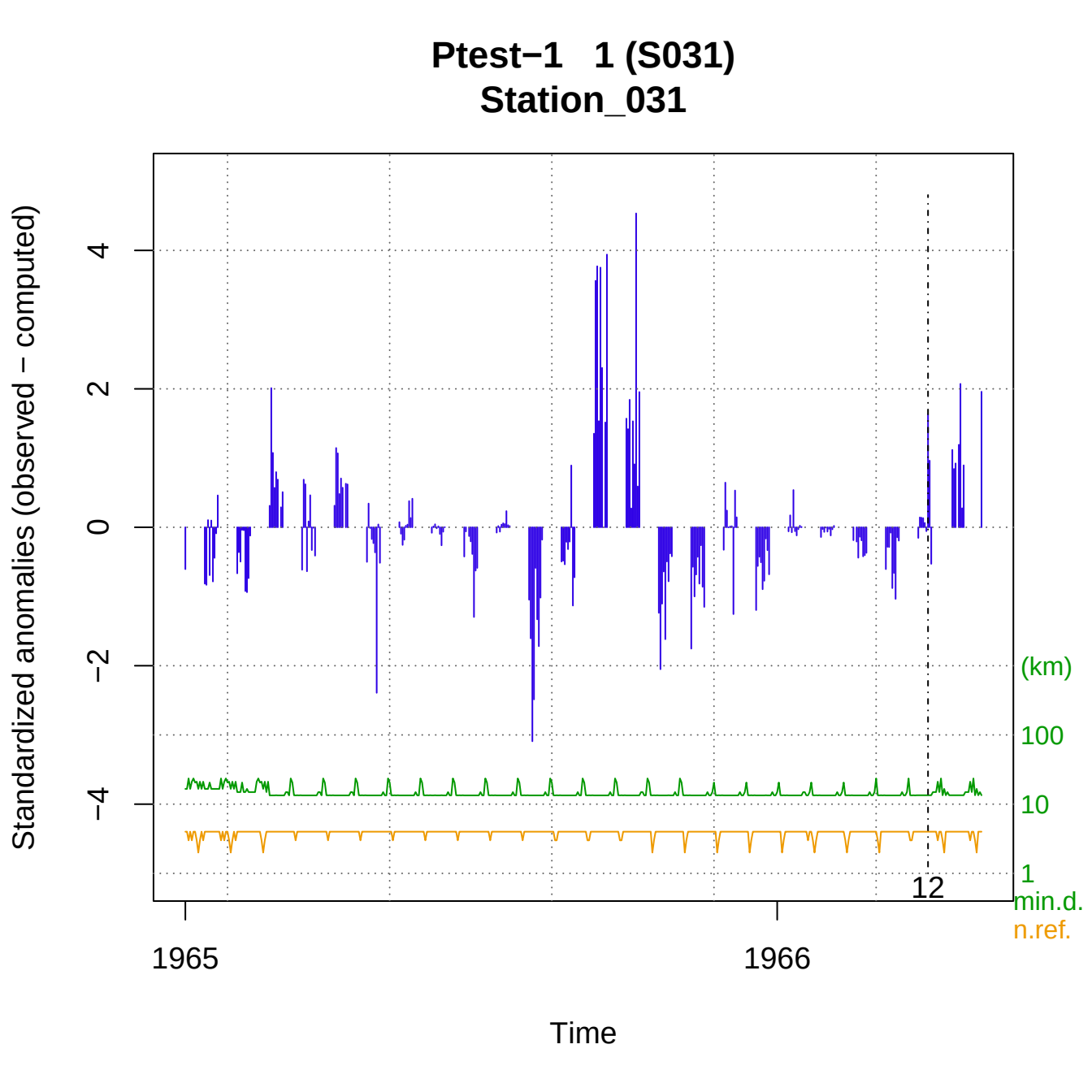

Histogram of maximum SNHT (Stage 2)
Frequency
0.0
0.5
1.0
1.5
2.0
10
15
20
SNHT

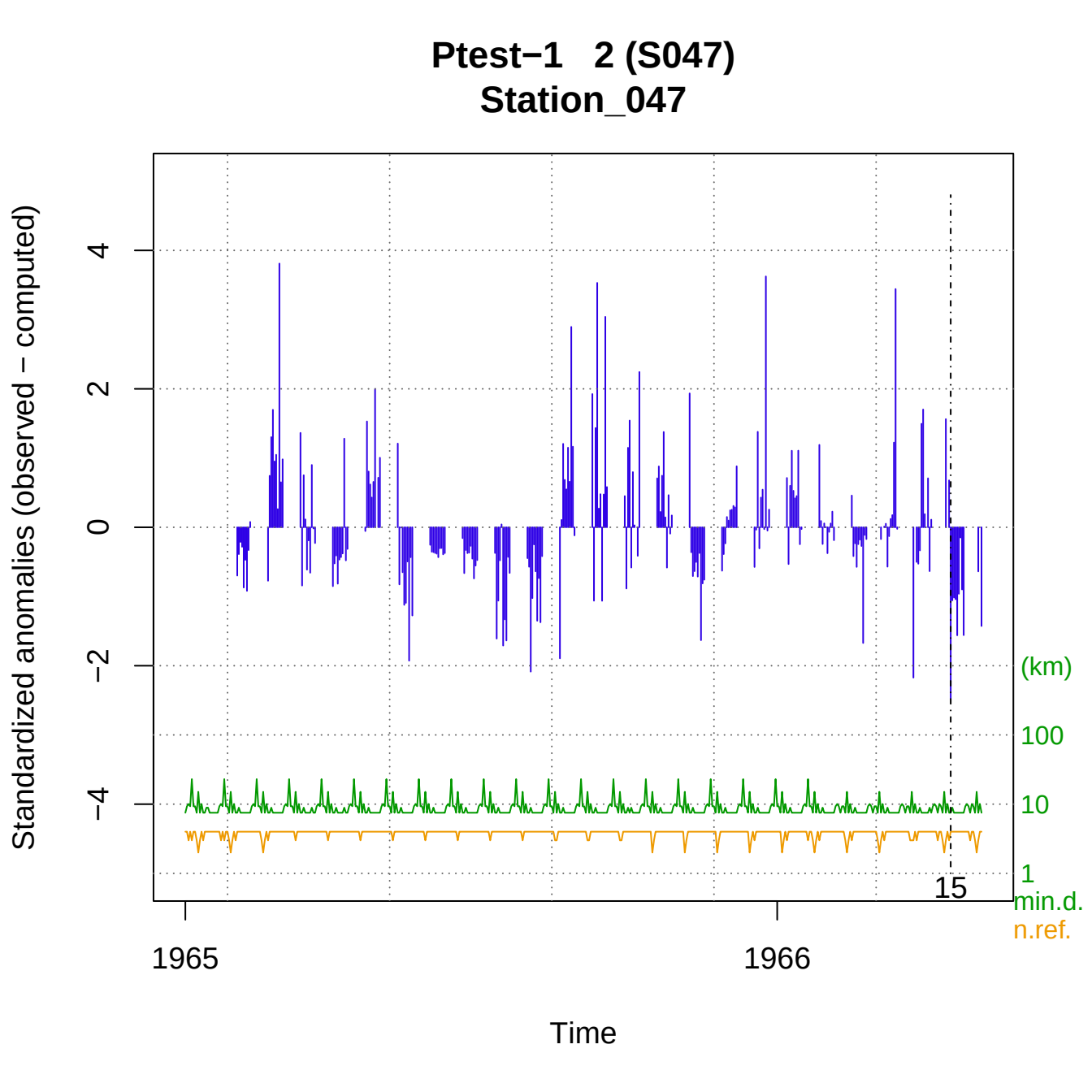

Number of splits per station
Number of stations
0
5
10
15
20
0
2
4
6
8
Number of splits

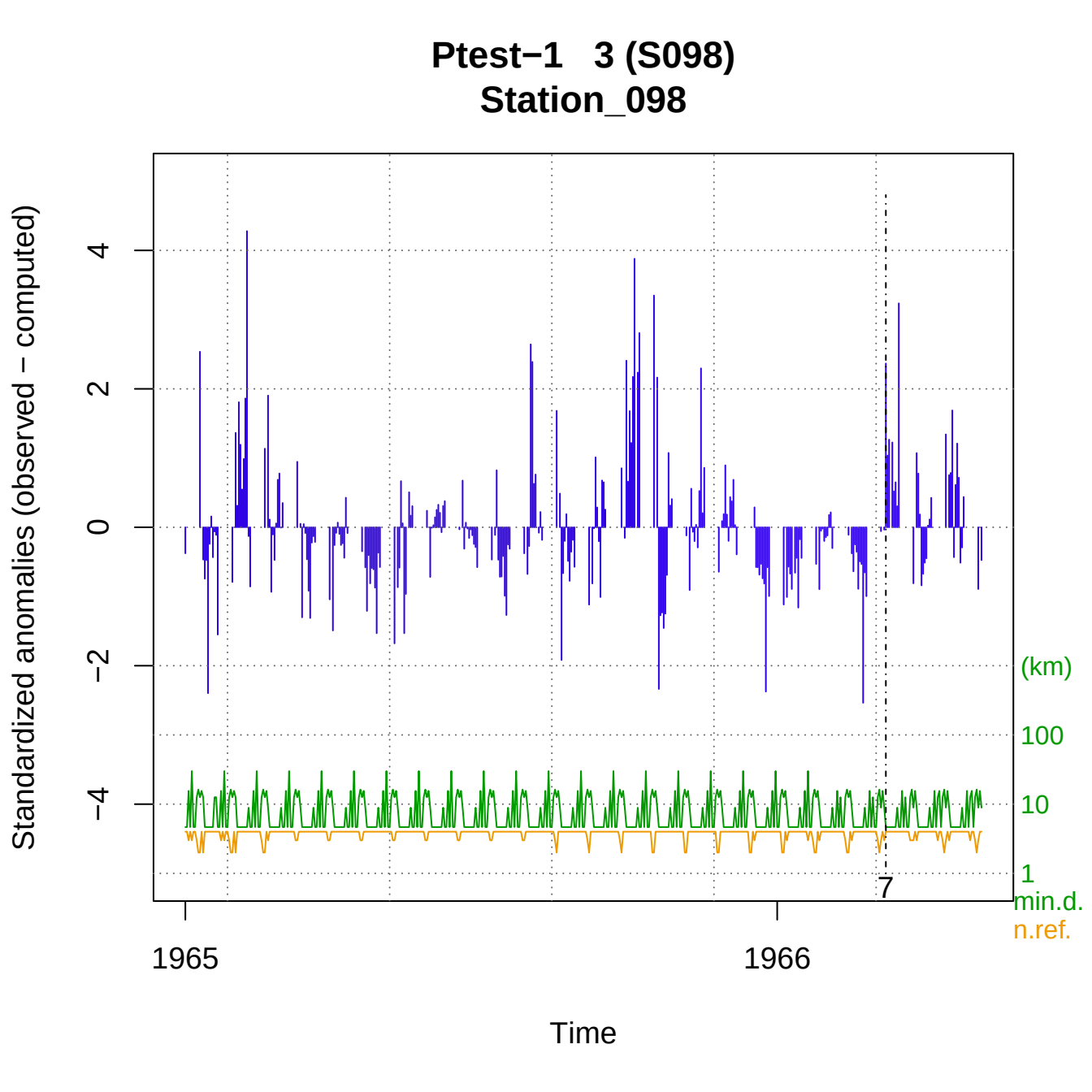

Number of splits per year
Number of splits
0
2
4
6
8
10
1970
1980
1990
2000
Years

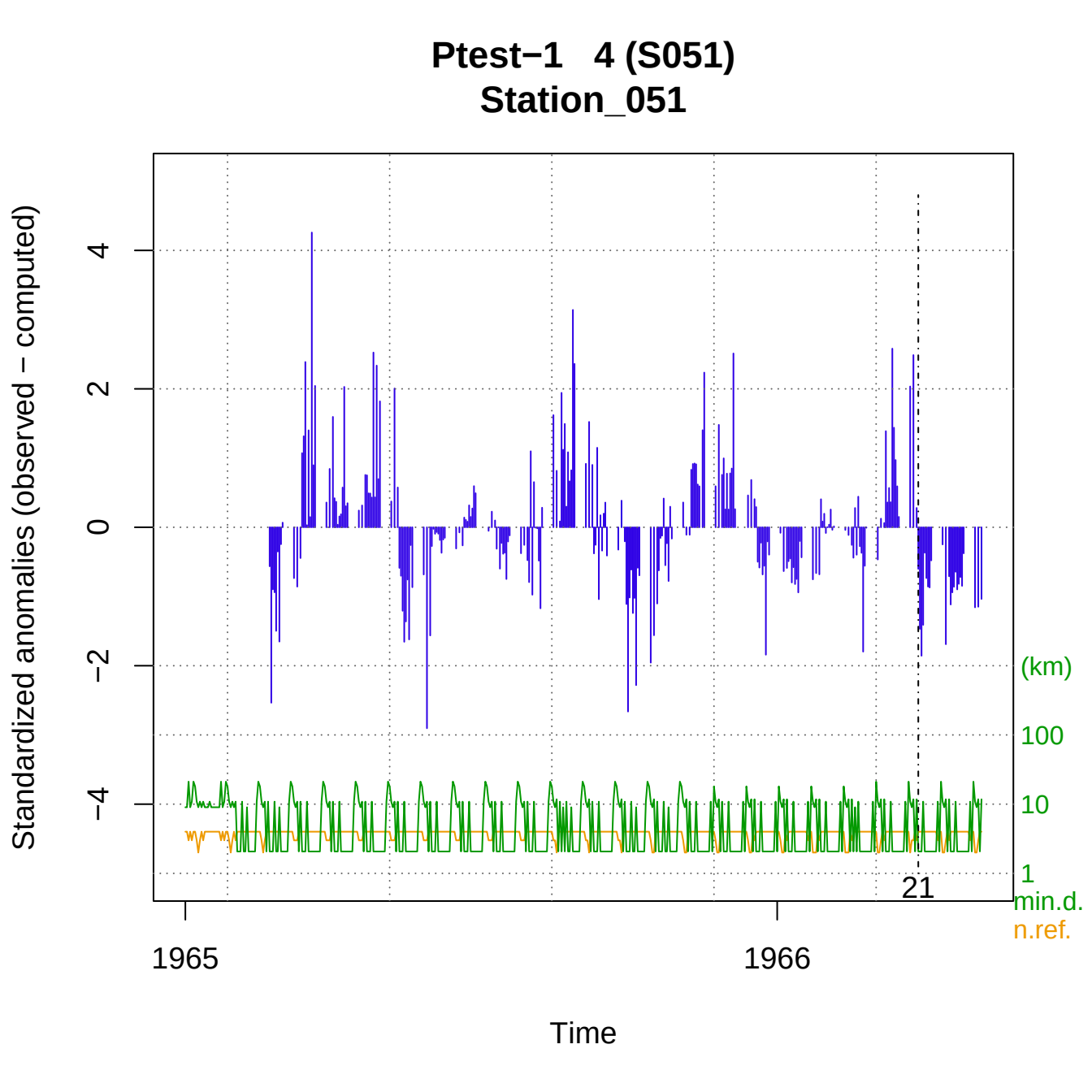
Stage 3

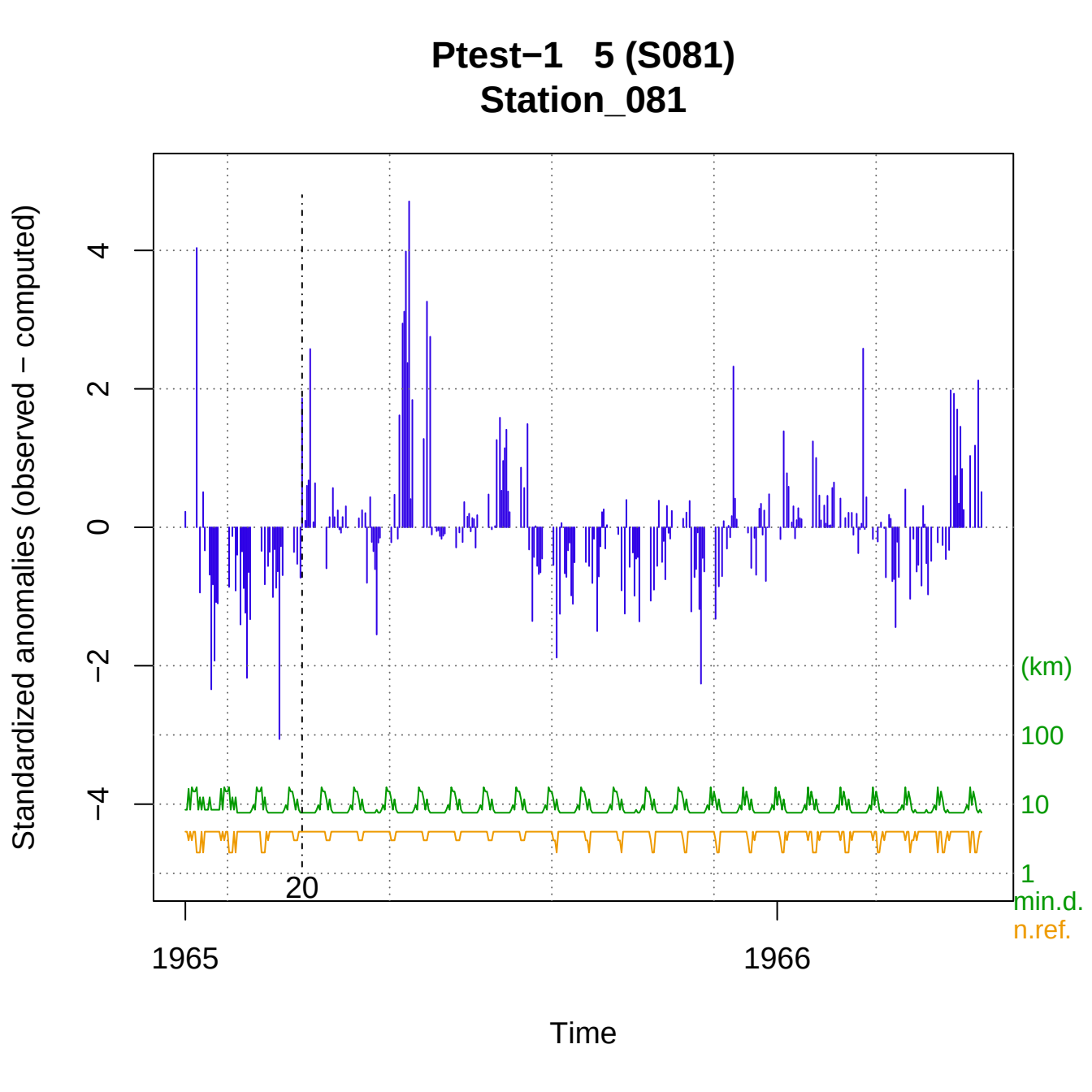
Anomalies after
missing data
recalculation
with wd = 100 km
(swa = 365)

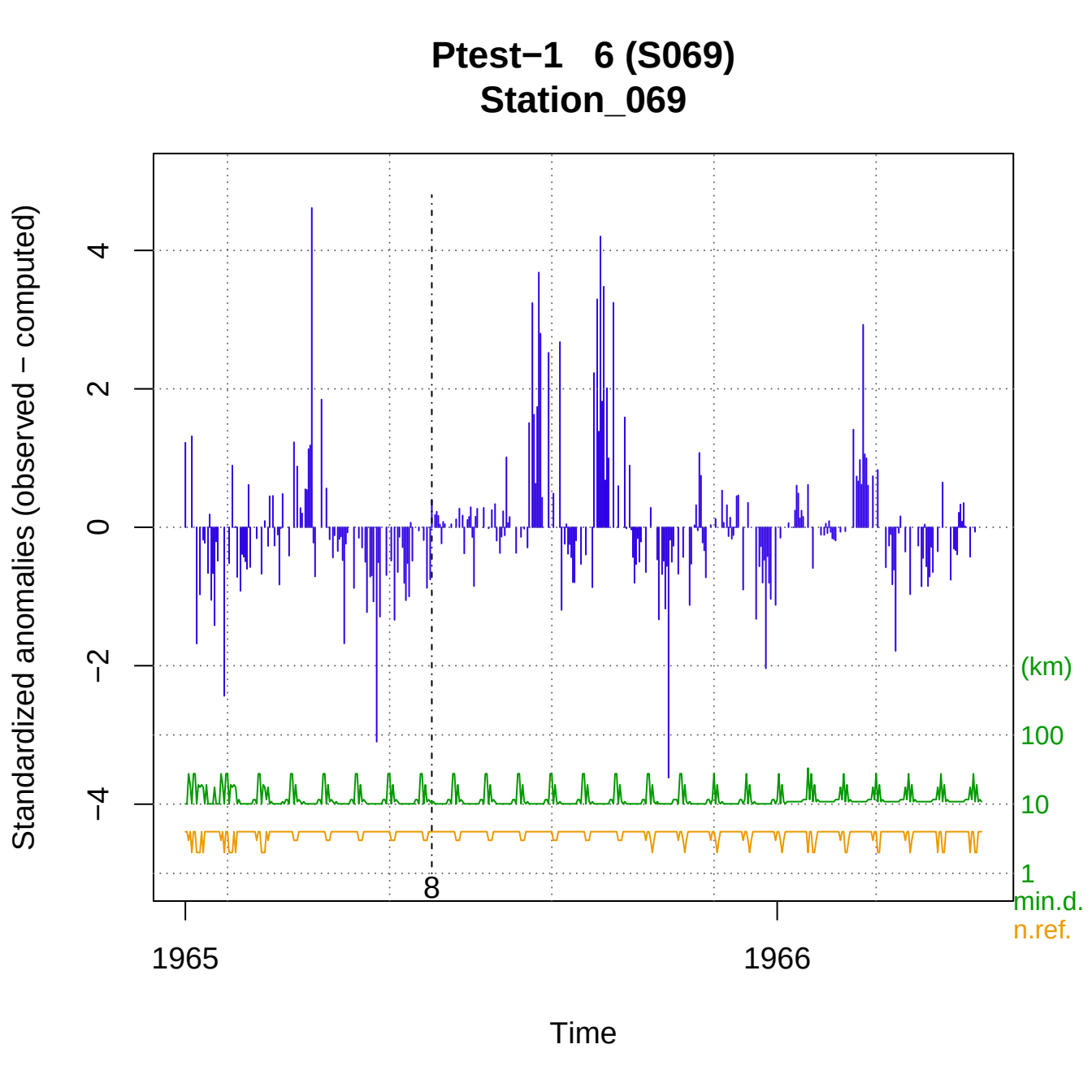

Ptest−1 1 (S031)
Station_031
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
12
1965
1966
Time

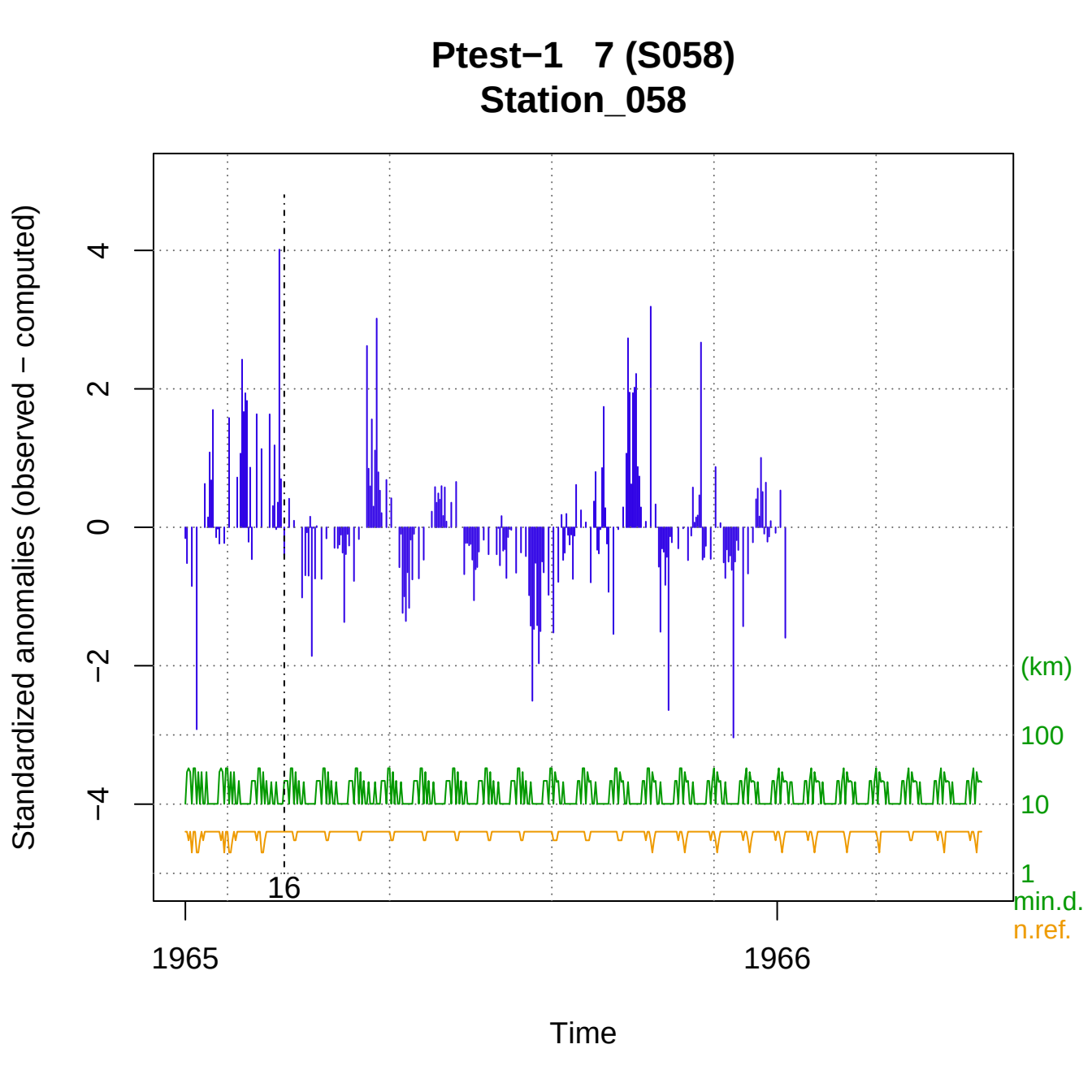

Ptest−1 2 (S047)
Station_047
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
15
1965
1966
Time

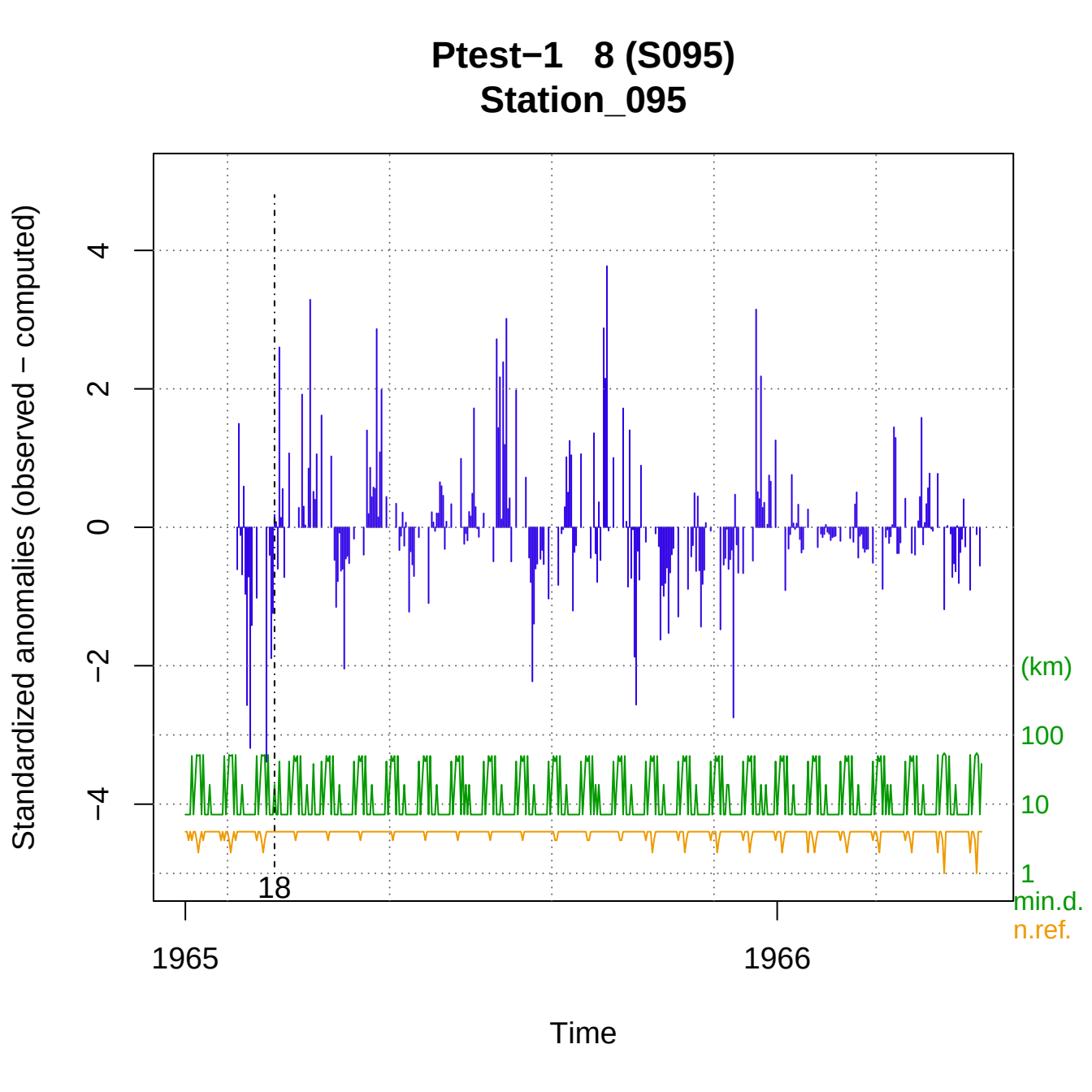

Ptest−1 3 (S098)
Station_098
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
7
1965
1966
Time

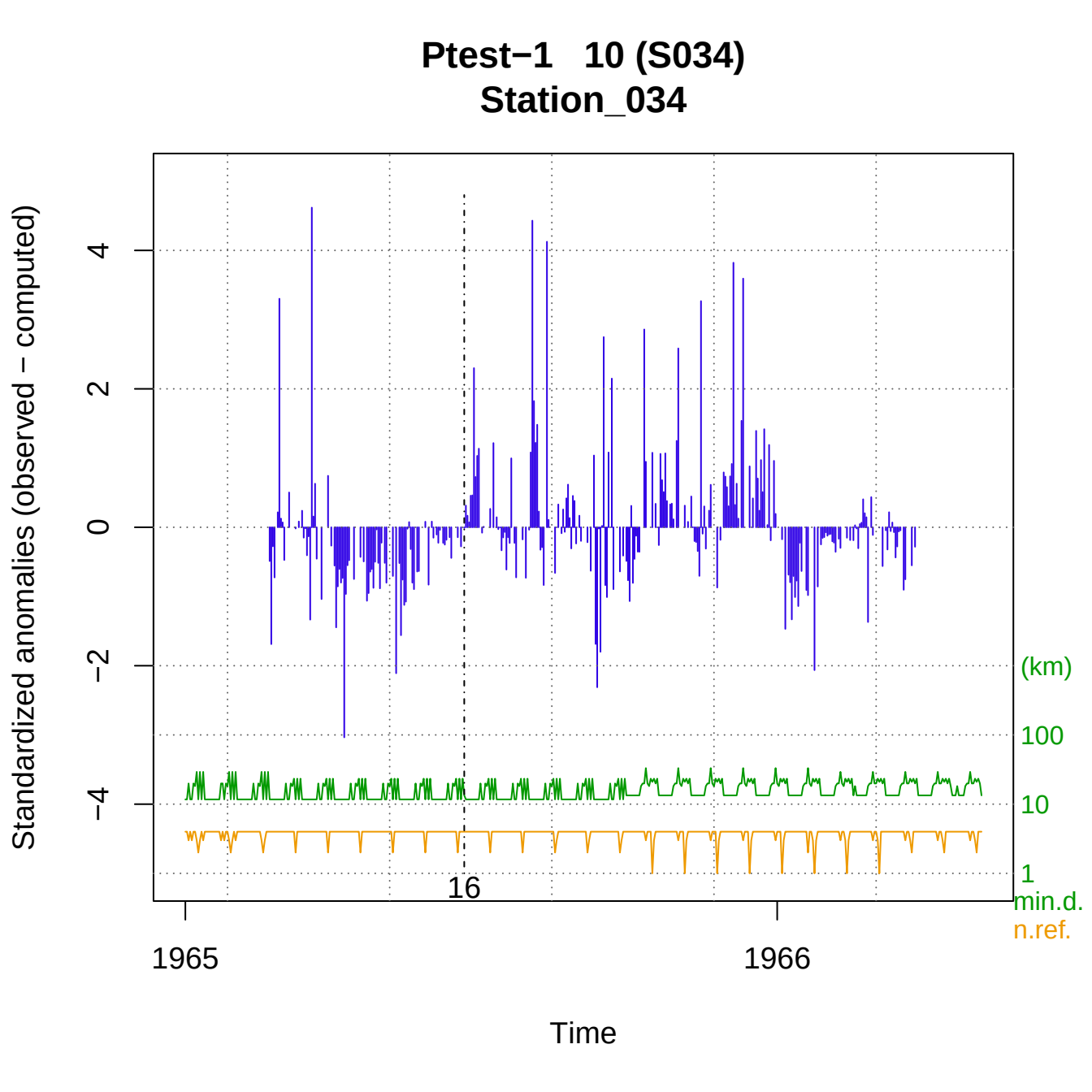

Ptest−1 4 (S051)
Station_051
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
21
1965
1966
Time

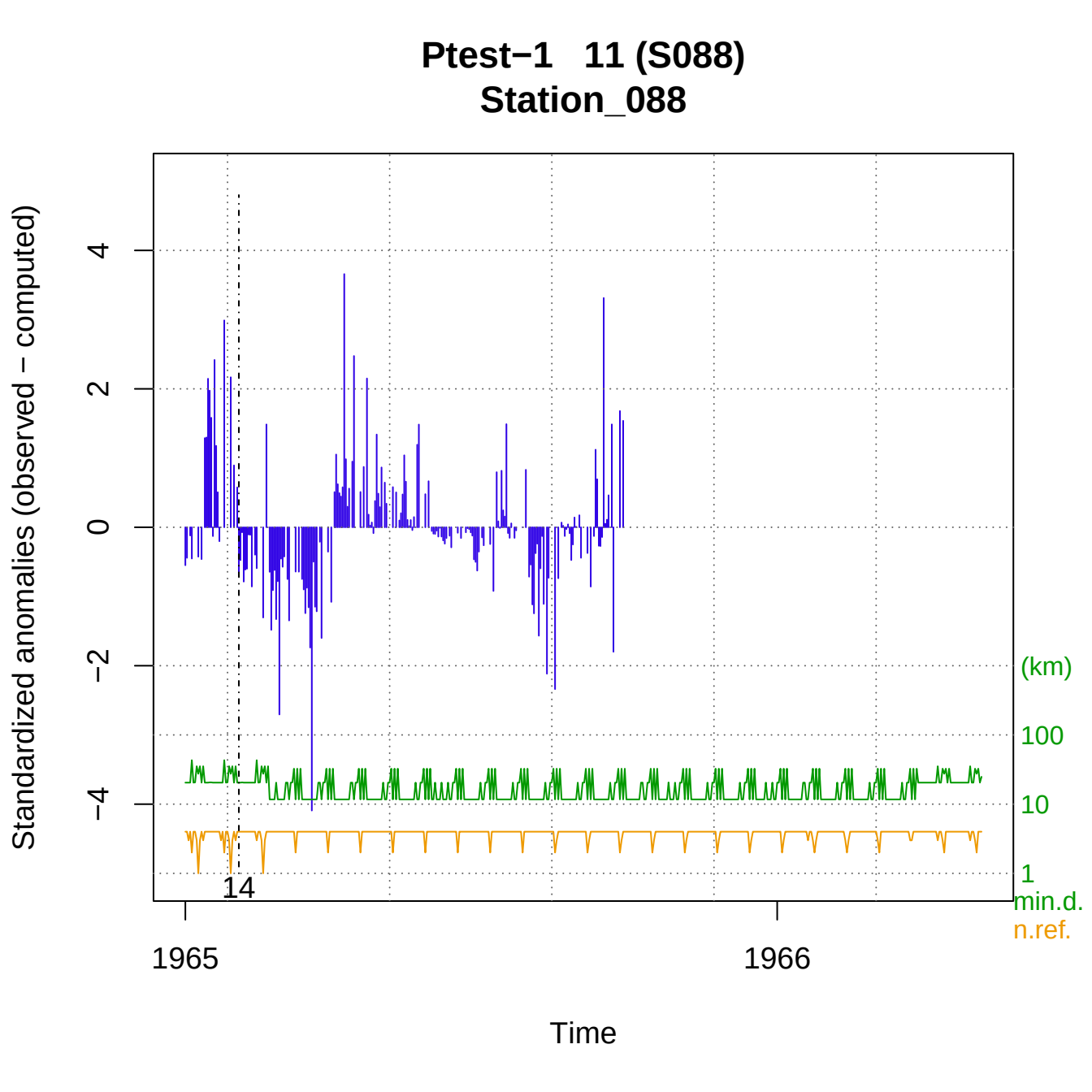

Ptest−1 5 (S081)
Station_081
Standardized anomalies (observed − computed)
4
2
0
−2
−4
20
1965
1966
Time
(km)
100
10
1
min.d.
n.ref.

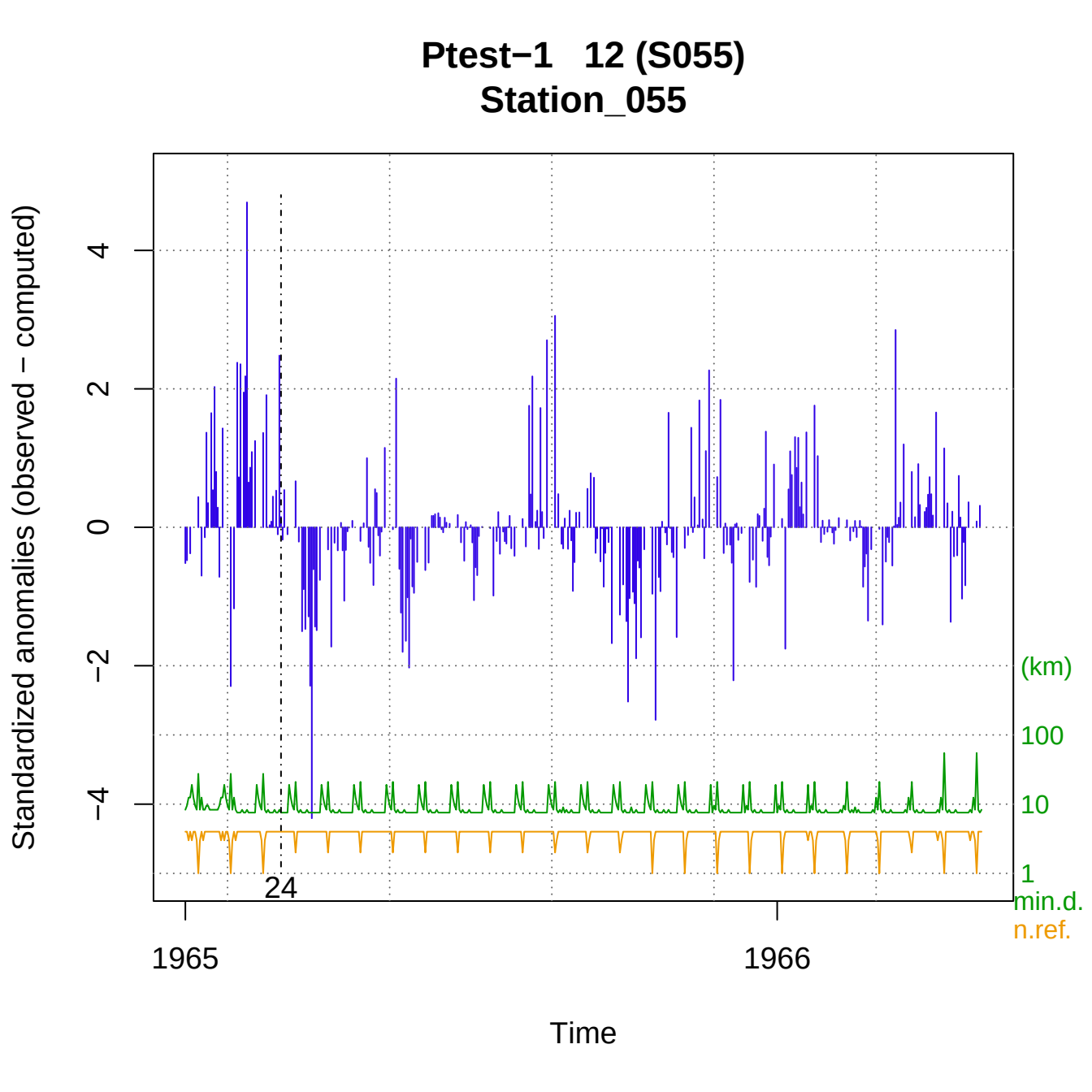

Ptest−1 6 (S069)
Station_069
Standardized anomalies (observed − computed)
4
2
0
−2
−4
8
1965
1966
Time
(km)
100
10
1
min.d.
n.ref.

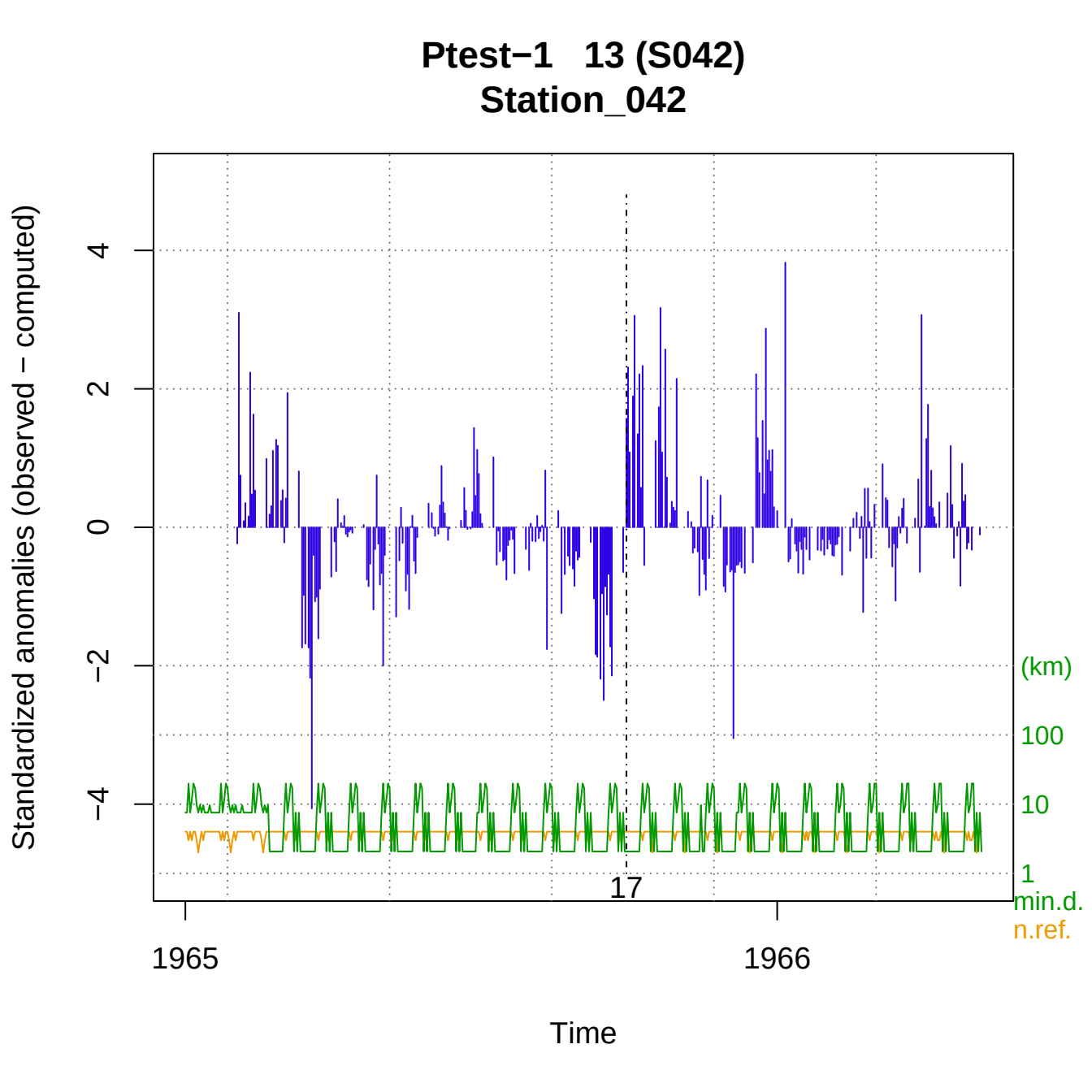

Ptest−1 7 (S058)
Station_058
Standardized anomalies (observed − computed)
4
2
0
−2
−4
16
1965
1966
Time
(km)
100
10
1
min.d.
n.ref.

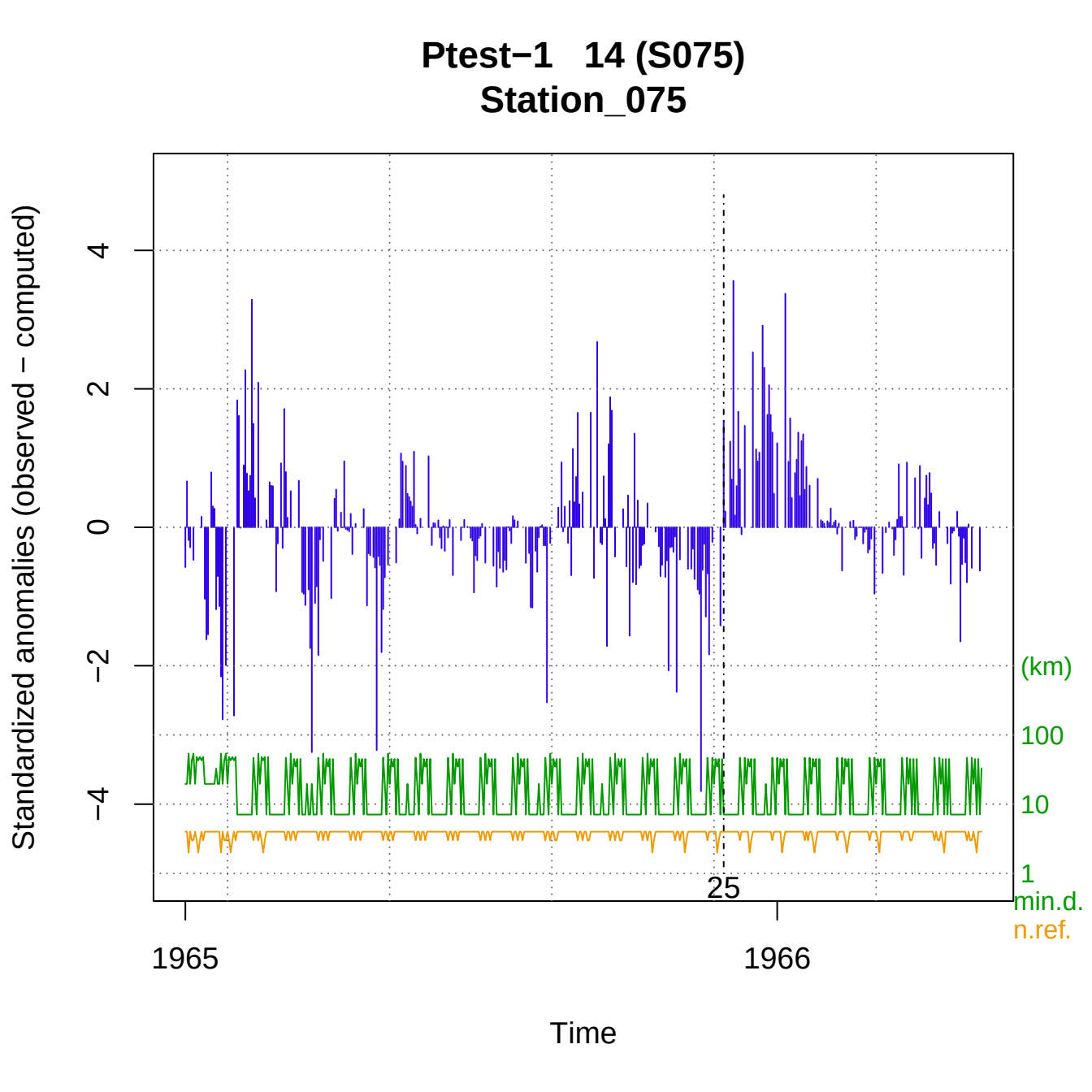

Ptest−1 8 (S095)
Station_095
Standardized anomalies (observed − computed)
4
2
0
−2
−4
18
1965
1966
Time
(km)
100
10
1
min.d.
n.ref.

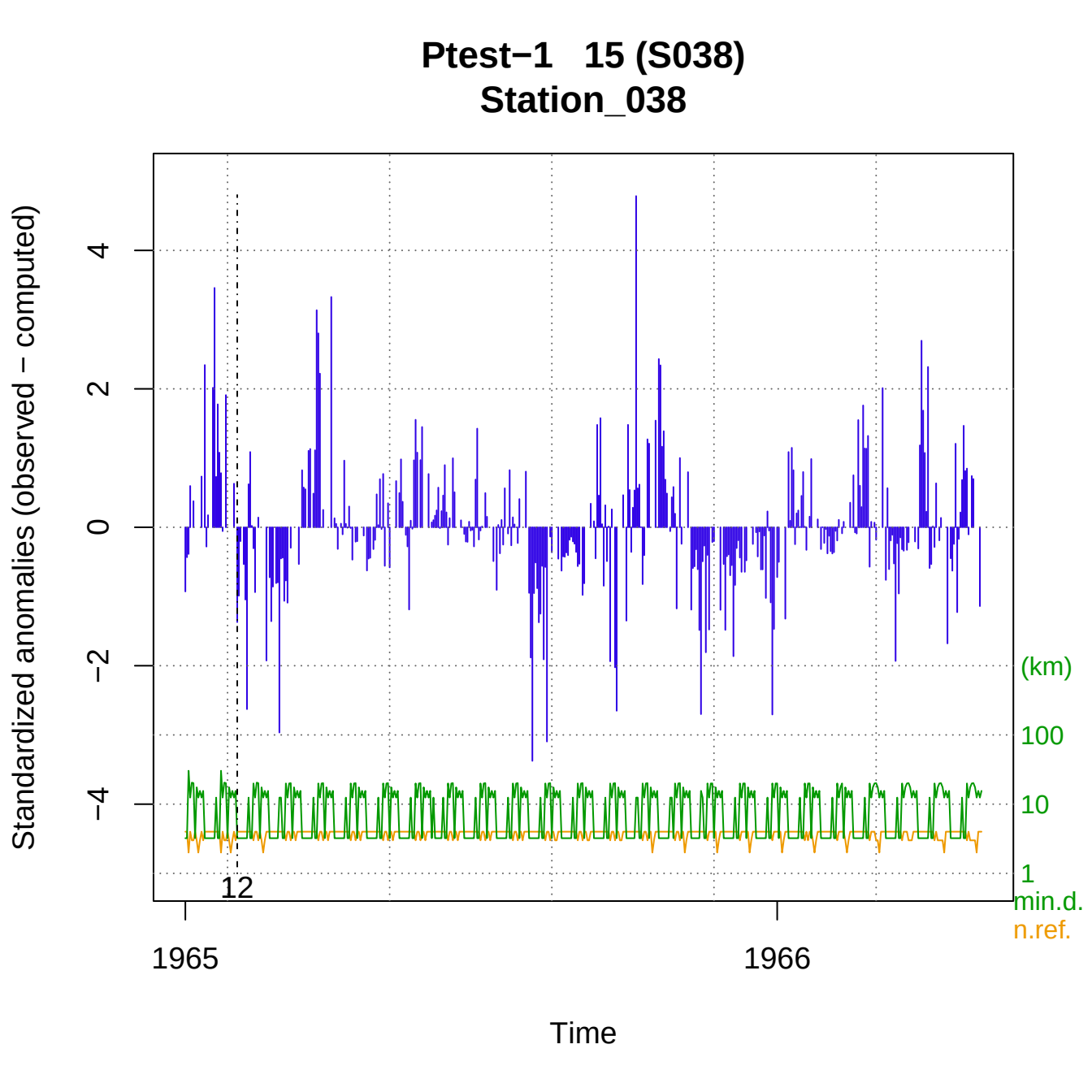

Ptest−1 10 (S034)
Station_034
Standardized anomalies (observed − computed)
4
2
0
−2
−4
16
1965
1966
Time
(km)
100
10
1
min.d.
n.ref.

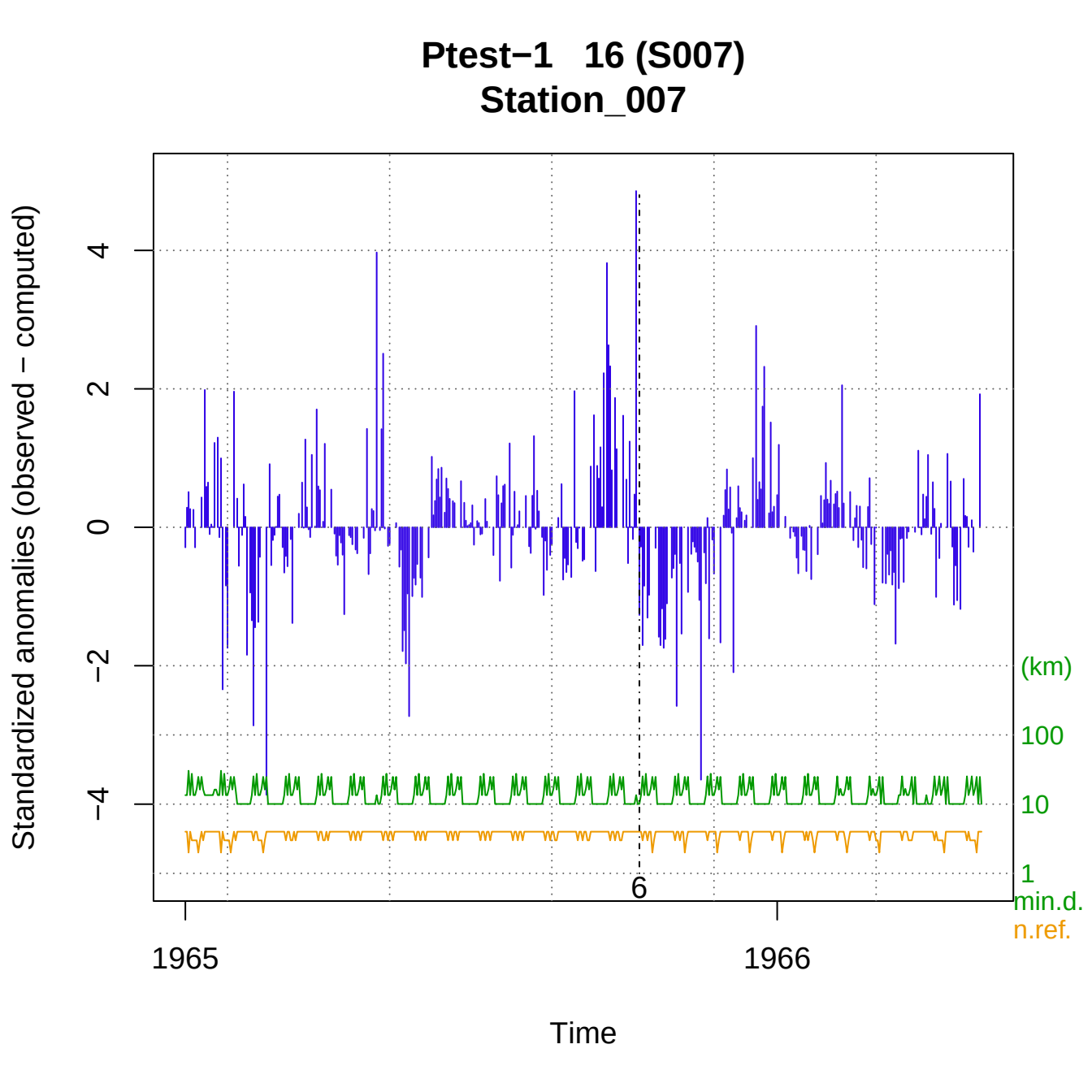

Ptest−1 11 (S088)
Station_088
Standardized anomalies (observed − computed)
4
2
0
−2
−4
14
1965
1966
Time
(km)
100
10
1
min.d.
n.ref.

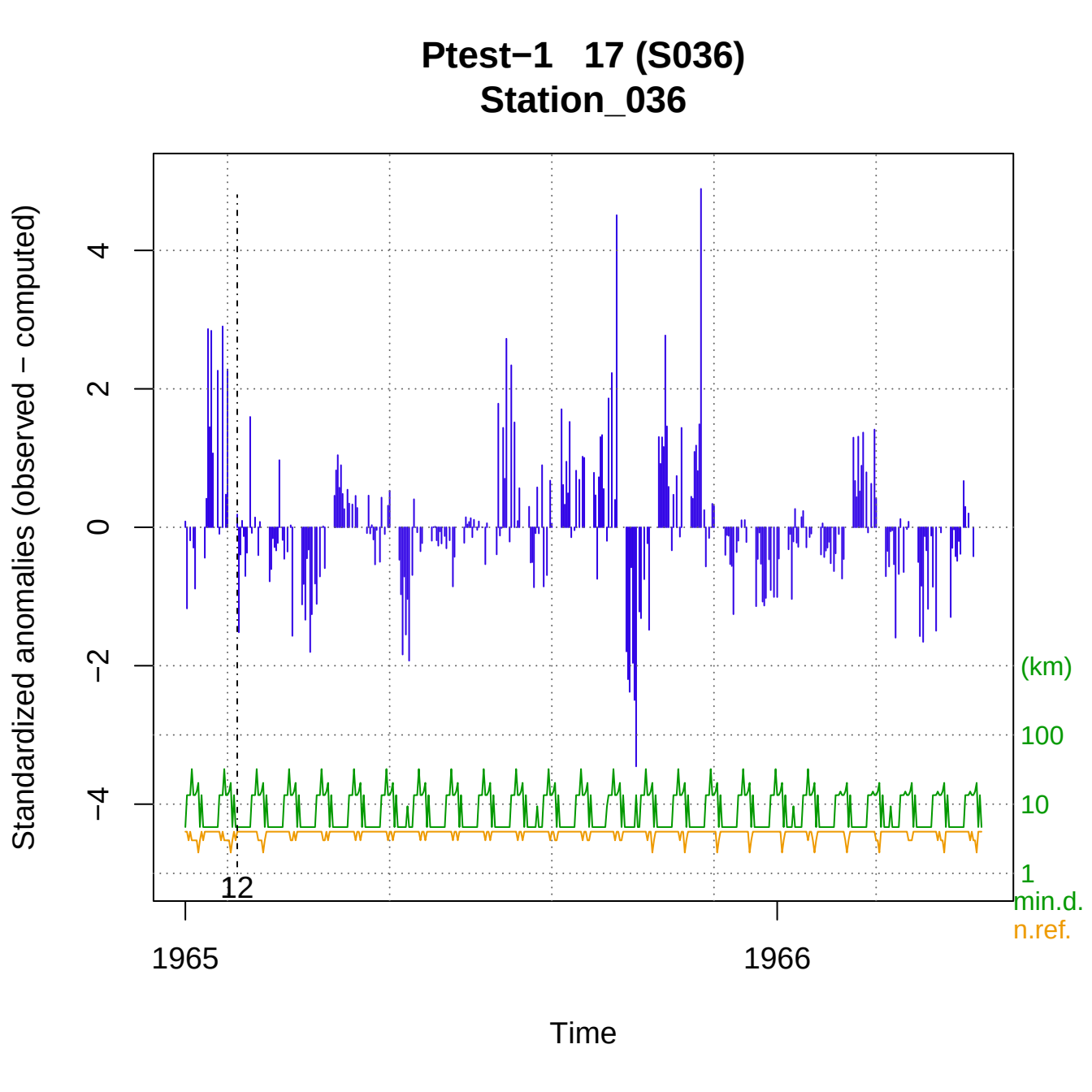

Ptest−1 12 (S055)
Station_055
Standardized anomalies (observed − computed)
4
2
0
−2
−4
24
1965
1966
Time
(km)
100
10
1
min.d.
n.ref.

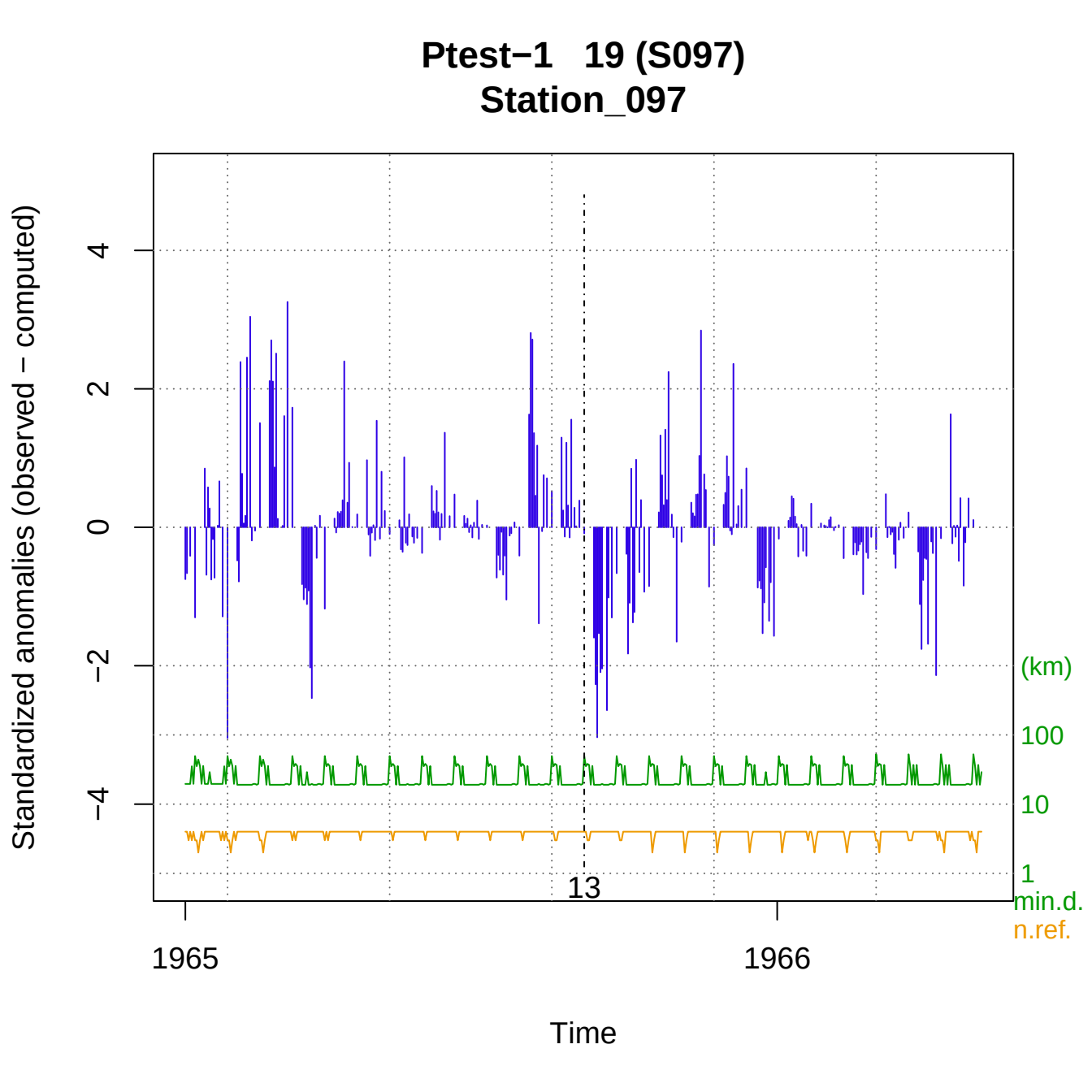

Ptest−1 13 (S042)
Station_042
Standardized anomalies (observed − computed)
4
2
0
−2
−4
17
1965
1966
Time
(km)
100
10
1
min.d.
n.ref.

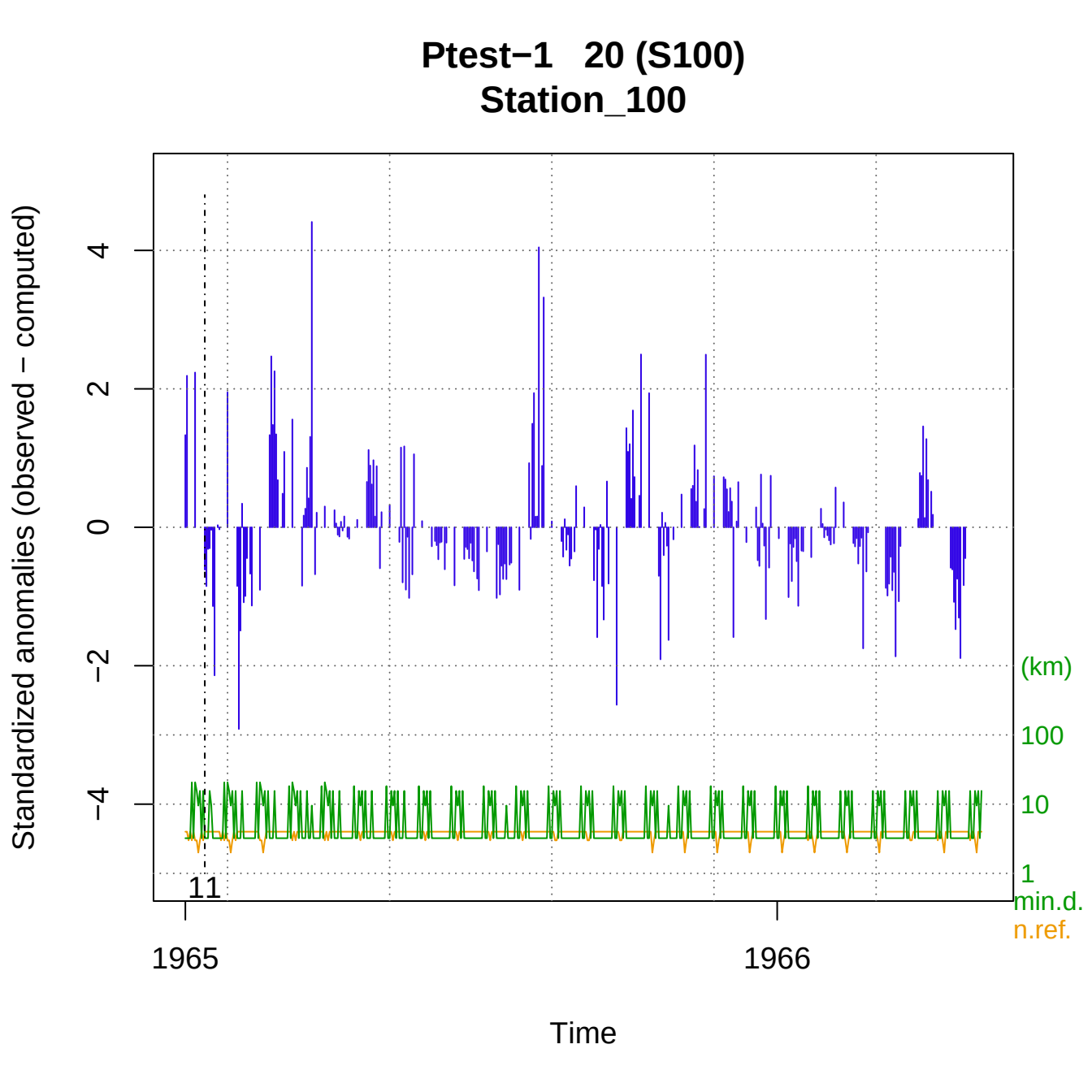

Ptest−1 14 (S075)
Station_075
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
25
1965
1966
Time


Ptest−1 15 (S038)
Station_038
Standardized anomalies (observed − computed)
4
2
0
−2
−4
12
1965
1966
Time
(km)
100
10
1
min.d.
n.ref.


Ptest−1 16 (S007)
Station_007
Standardized anomalies (observed − computed)
4
2
0
−2
−4
6
1965
1966
Time
(km)
100
10
1
min.d.
n.ref.

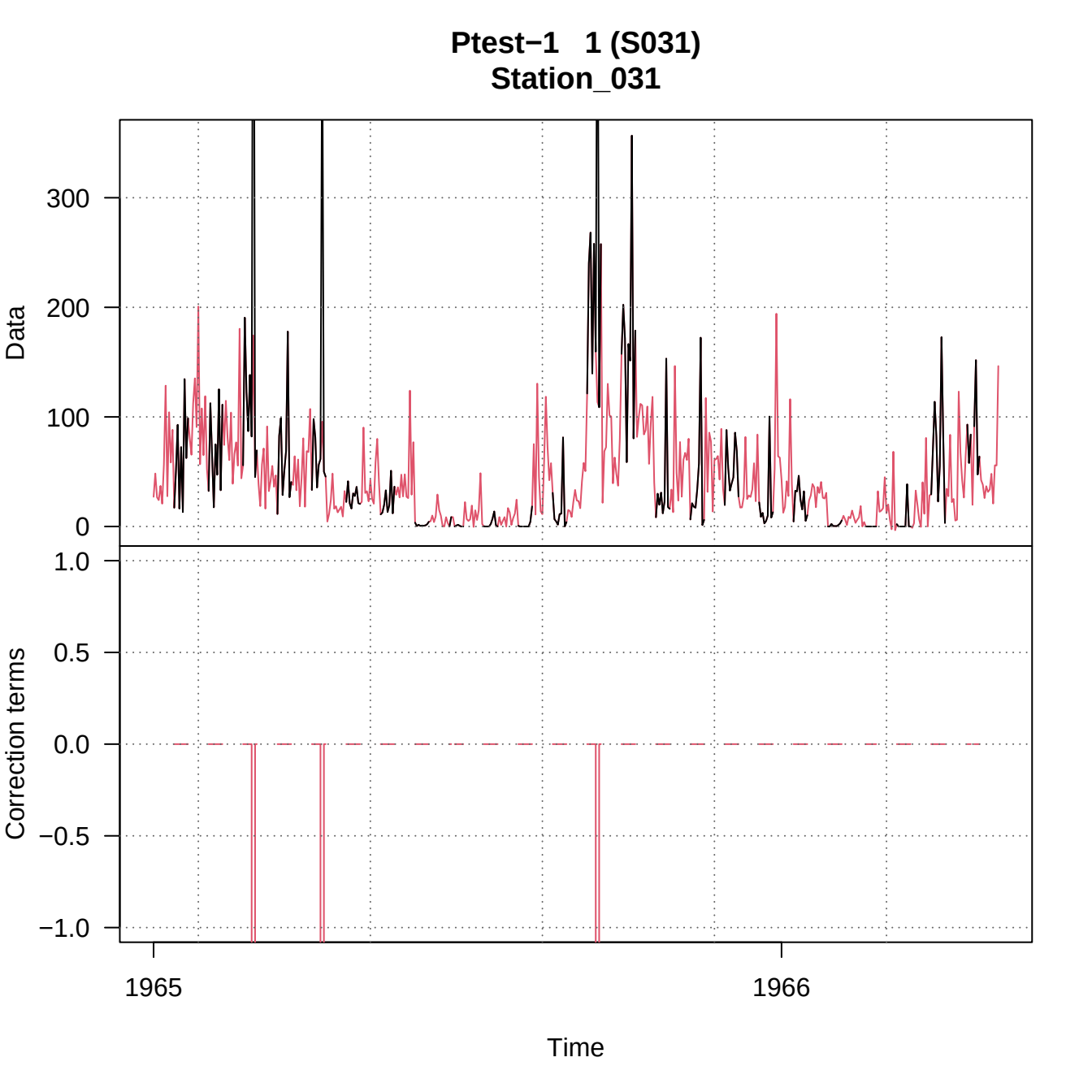

Ptest−1 17 (S036)
Station_036
Standardized anomalies (observed − computed)
4
2
0
−2
−4
12
1965
1966
Time
(km)
100
10
1
min.d.
n.ref.

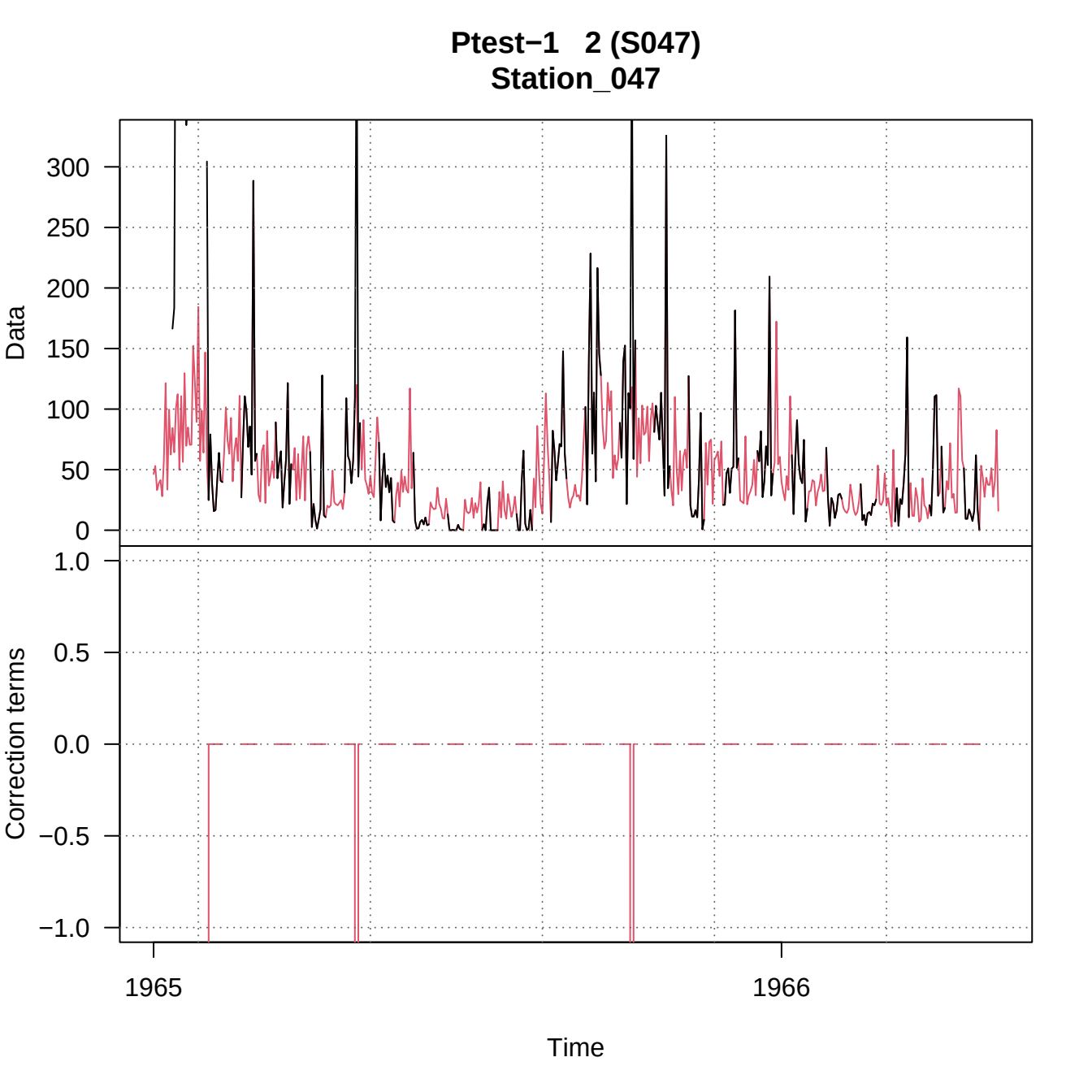

Ptest−1 19 (S097)
Station_097
Standardized anomalies (observed − computed)
4
2
0
−2
−4
(km)
100
10
1
min.d.
n.ref.
13
1965
1966
Time

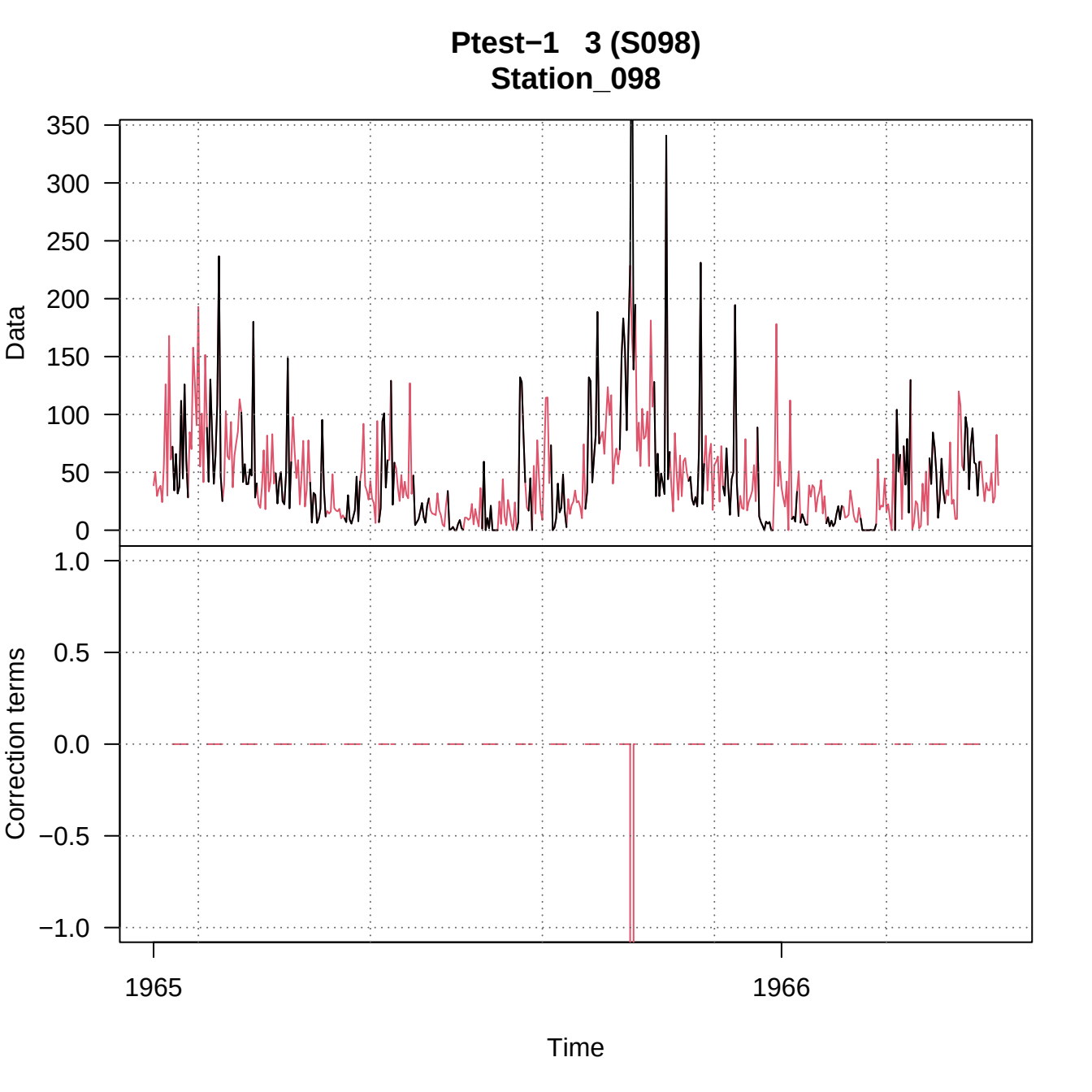

Ptest−1 20 (S100)
Station_100
Standardized anomalies (observed − computed)
4
2
0
−2
−4
11
1965
1966
Time
(km)
100
10
1
min.d.
n.ref.

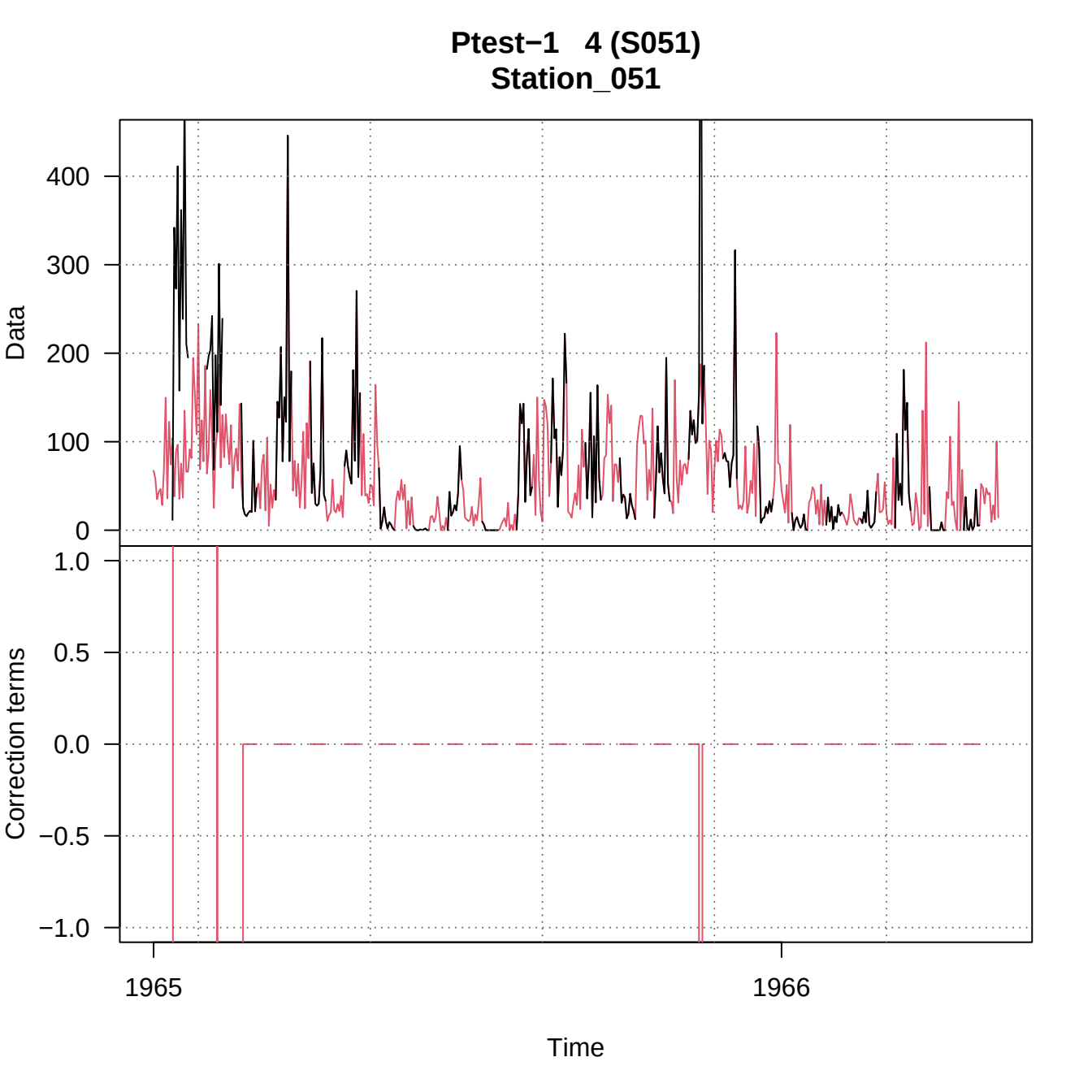
Final graphics

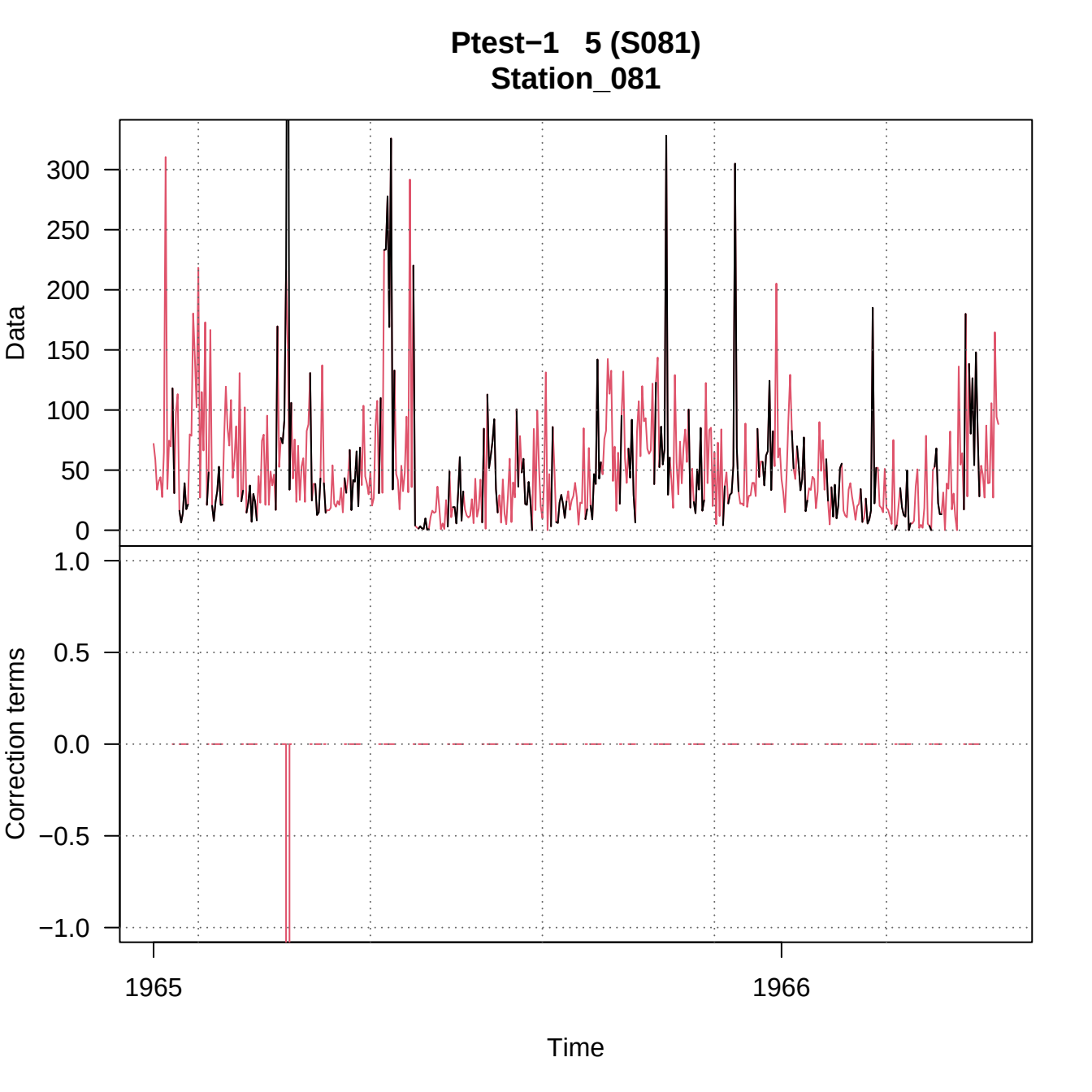
Adjusted series and applied corrections

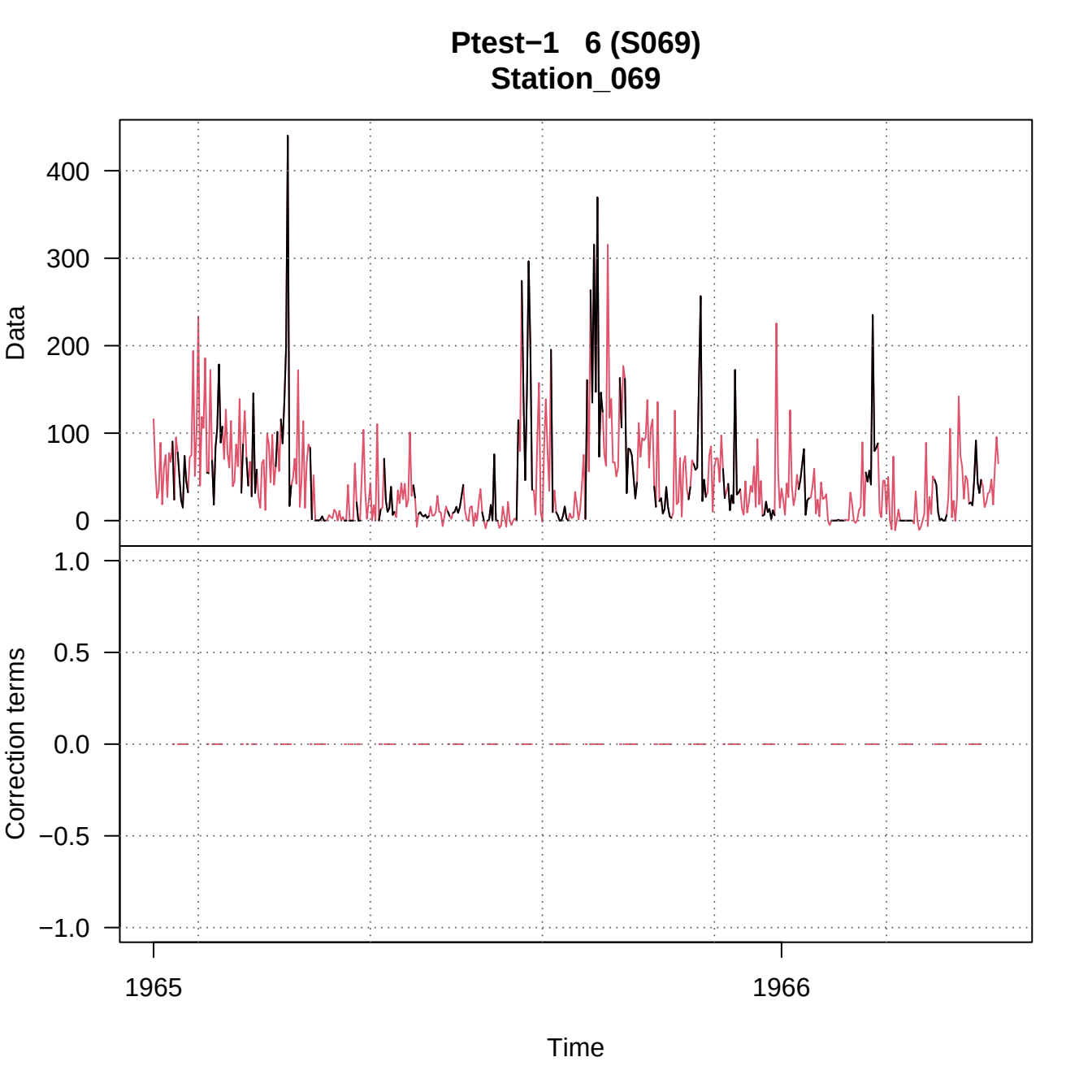

Ptest−1 1 (S031)
Station_031
Data
300
200
100
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

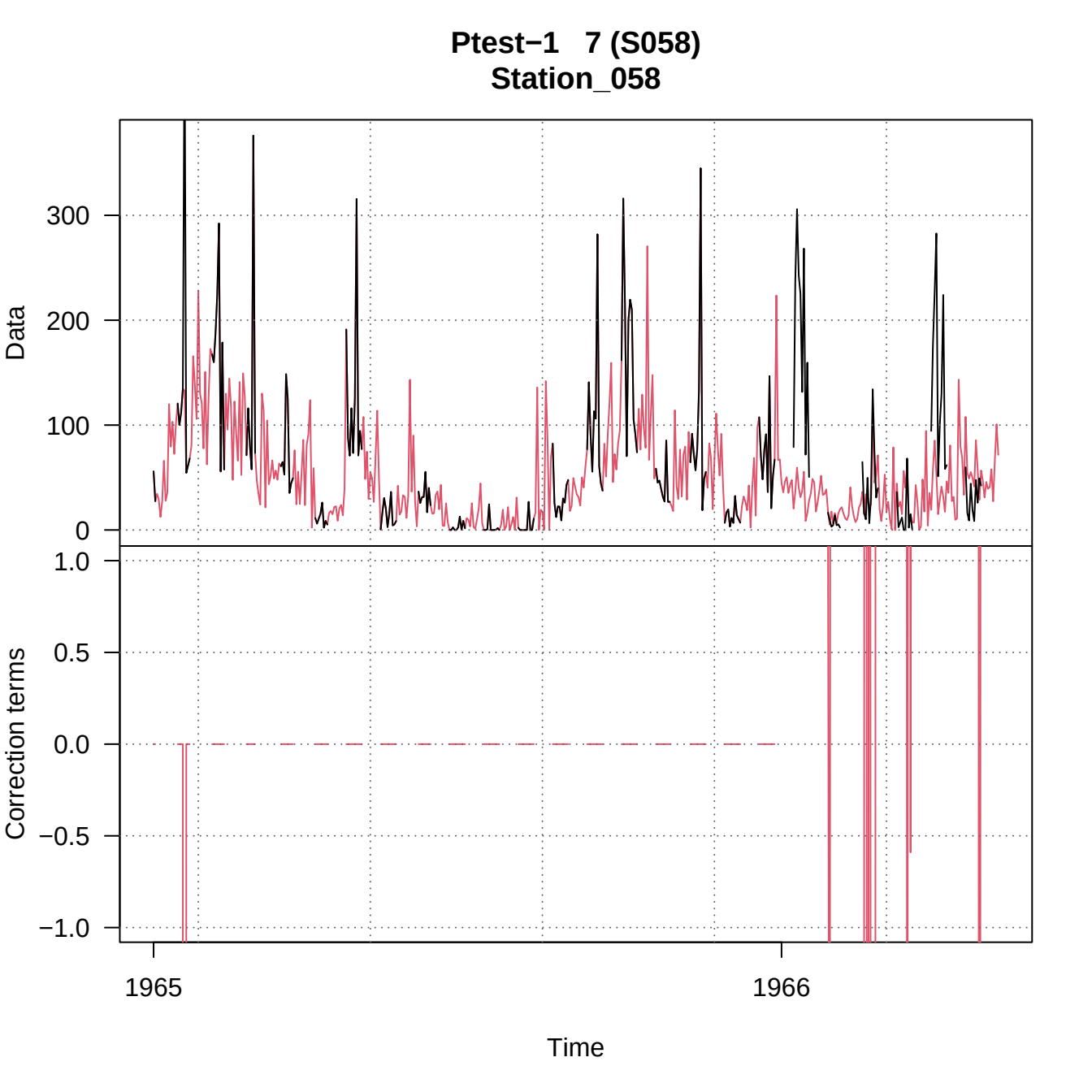

Ptest−1 2 (S047)
Station_047
Data
300
250
200
150
100
50
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

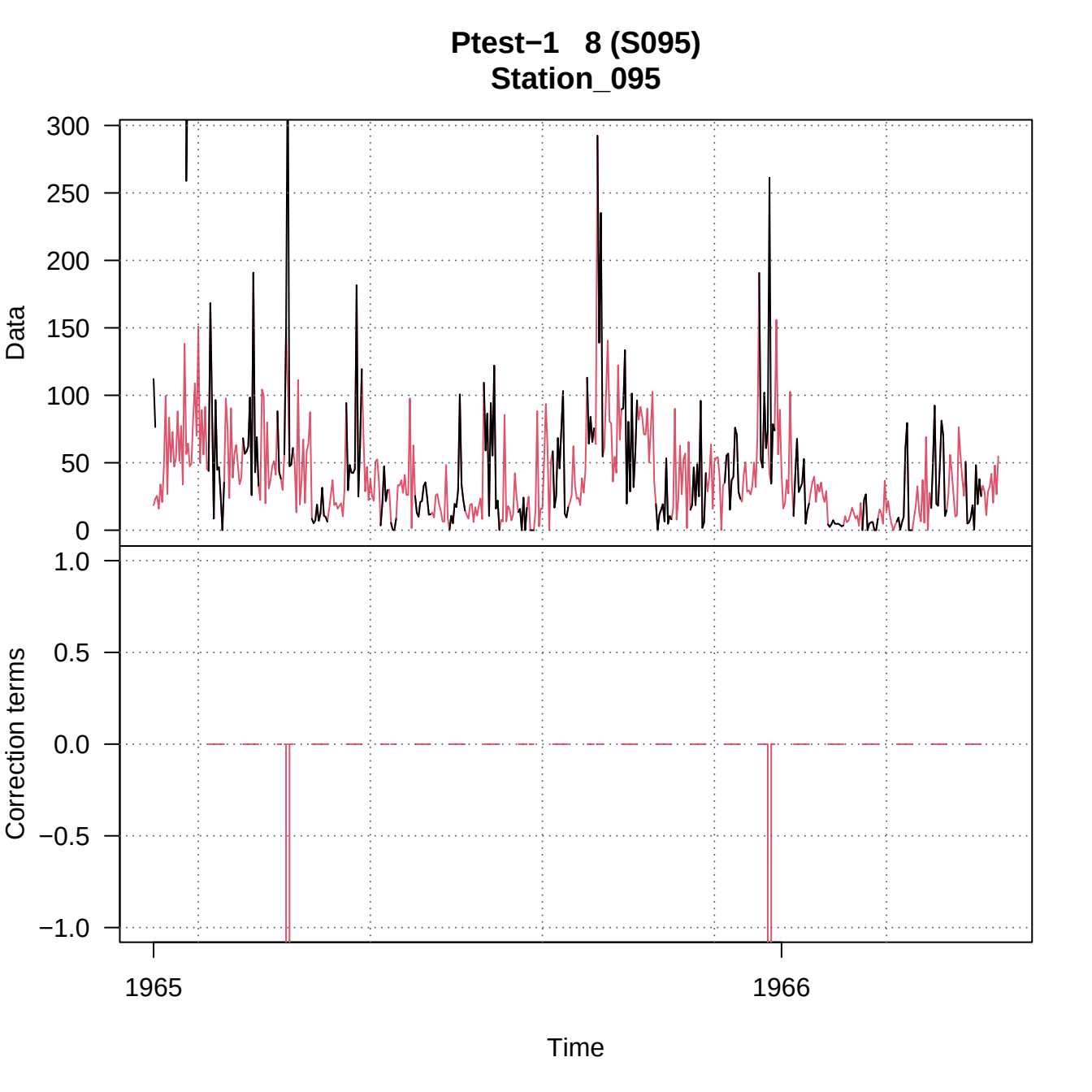

Ptest−1 3 (S098)
Station_098
Data
350
300
250
200
150
100
50
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

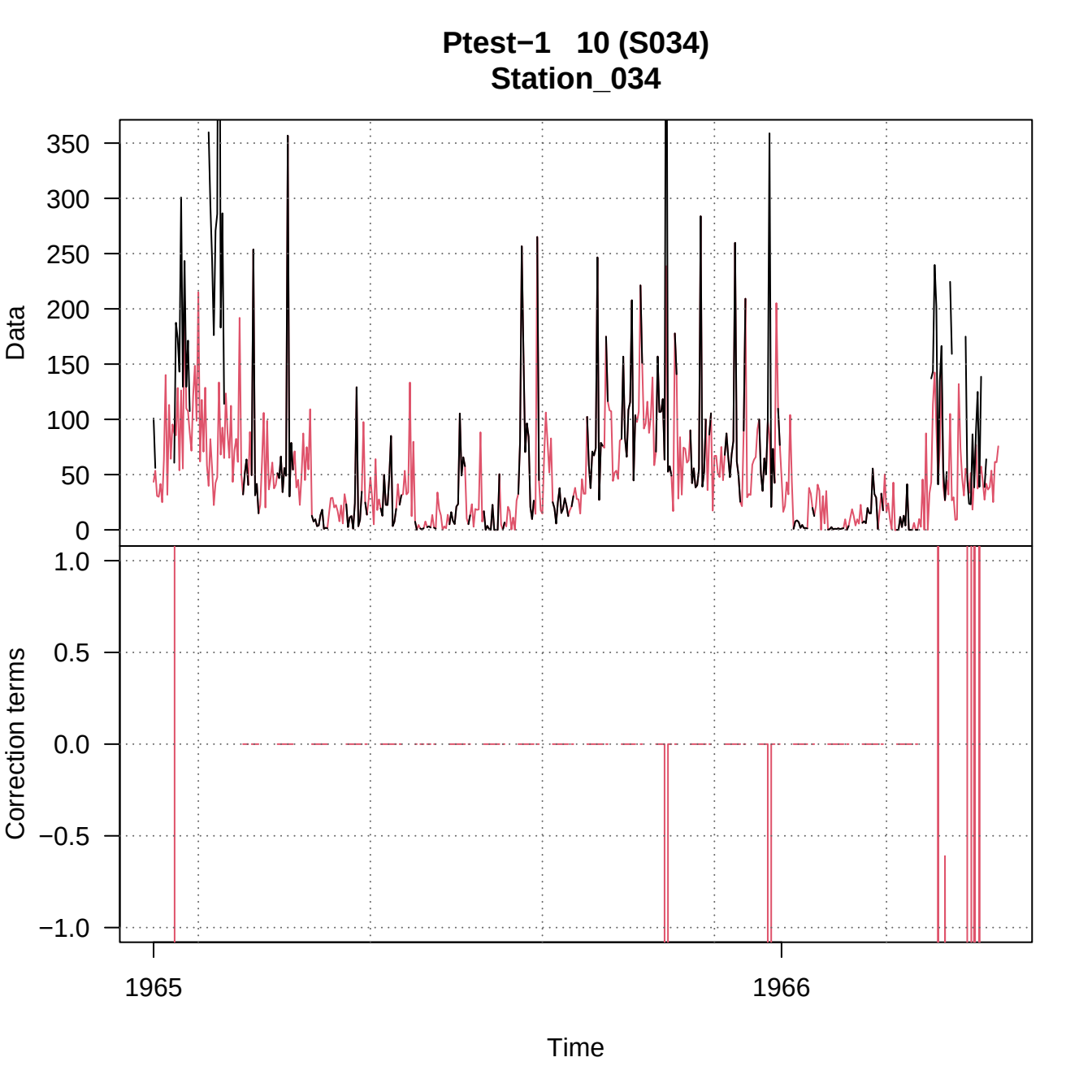

Ptest−1 4 (S051)
Station_051
Data
400
300
200
100
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

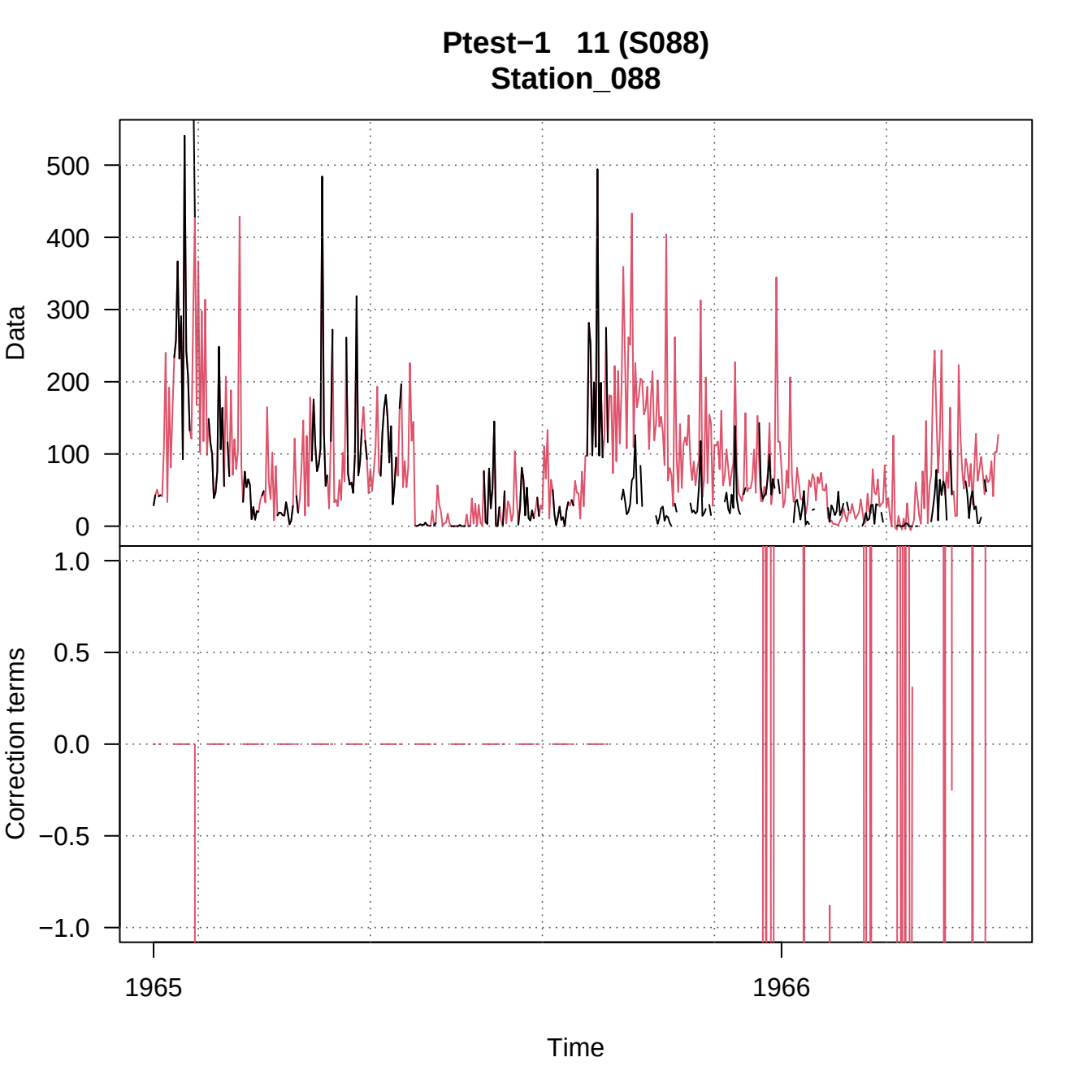

Ptest−1 5 (S081)
Station_081
Data
300
250
200
150
100
50
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

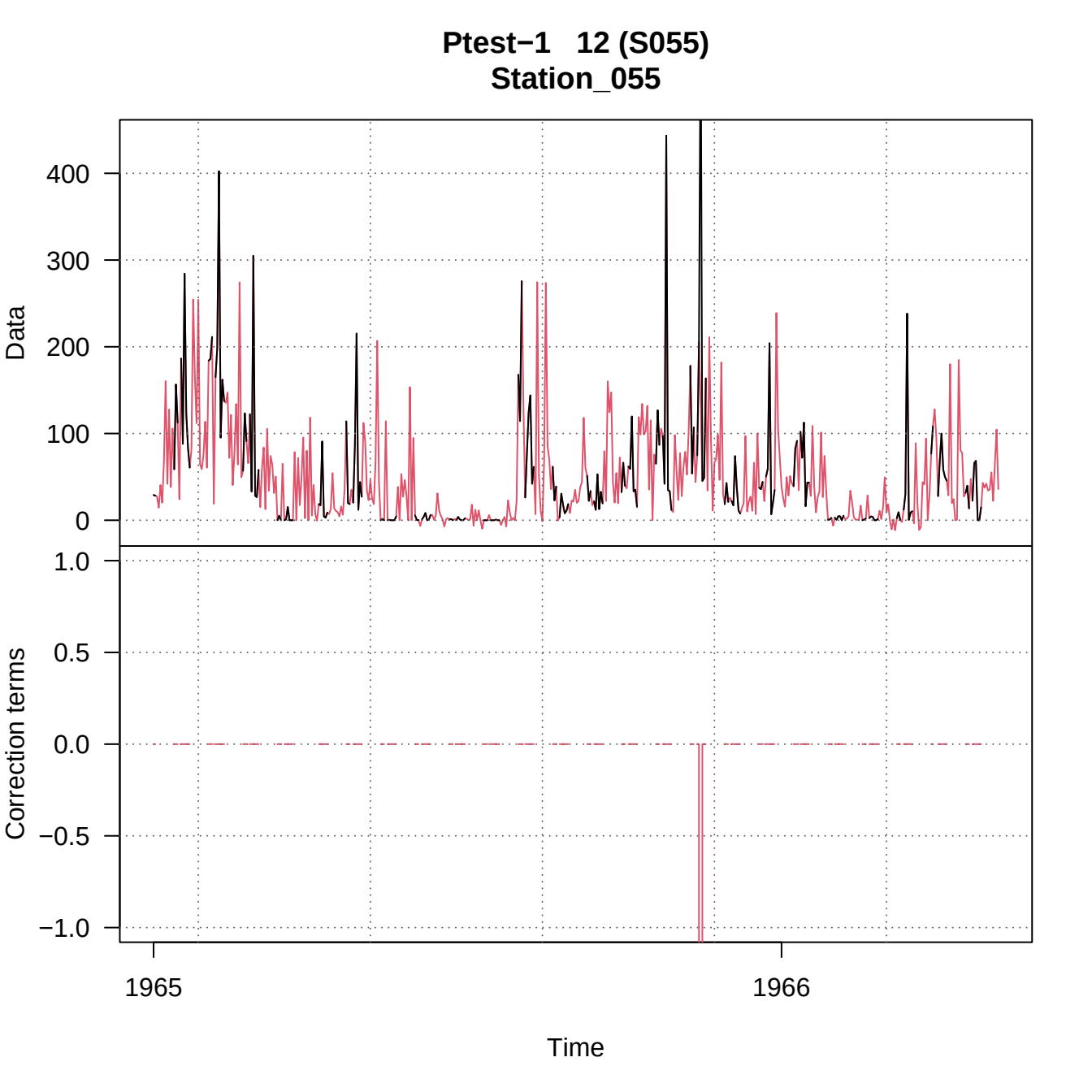

Ptest−1 6 (S069)
Station_069
Data
400
300
200
100
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

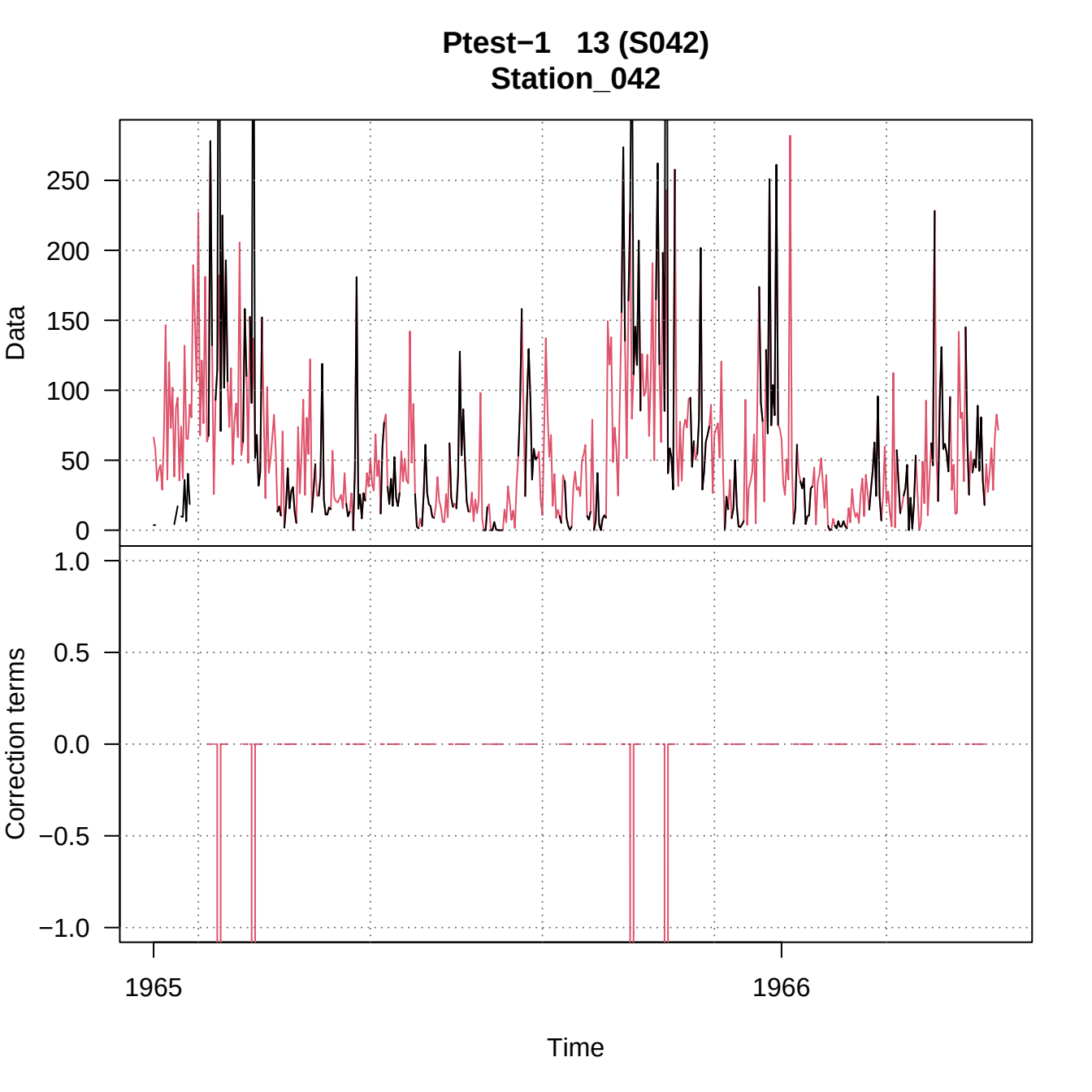

Ptest−1 7 (S058)
Station_058
Data
300
200
100
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

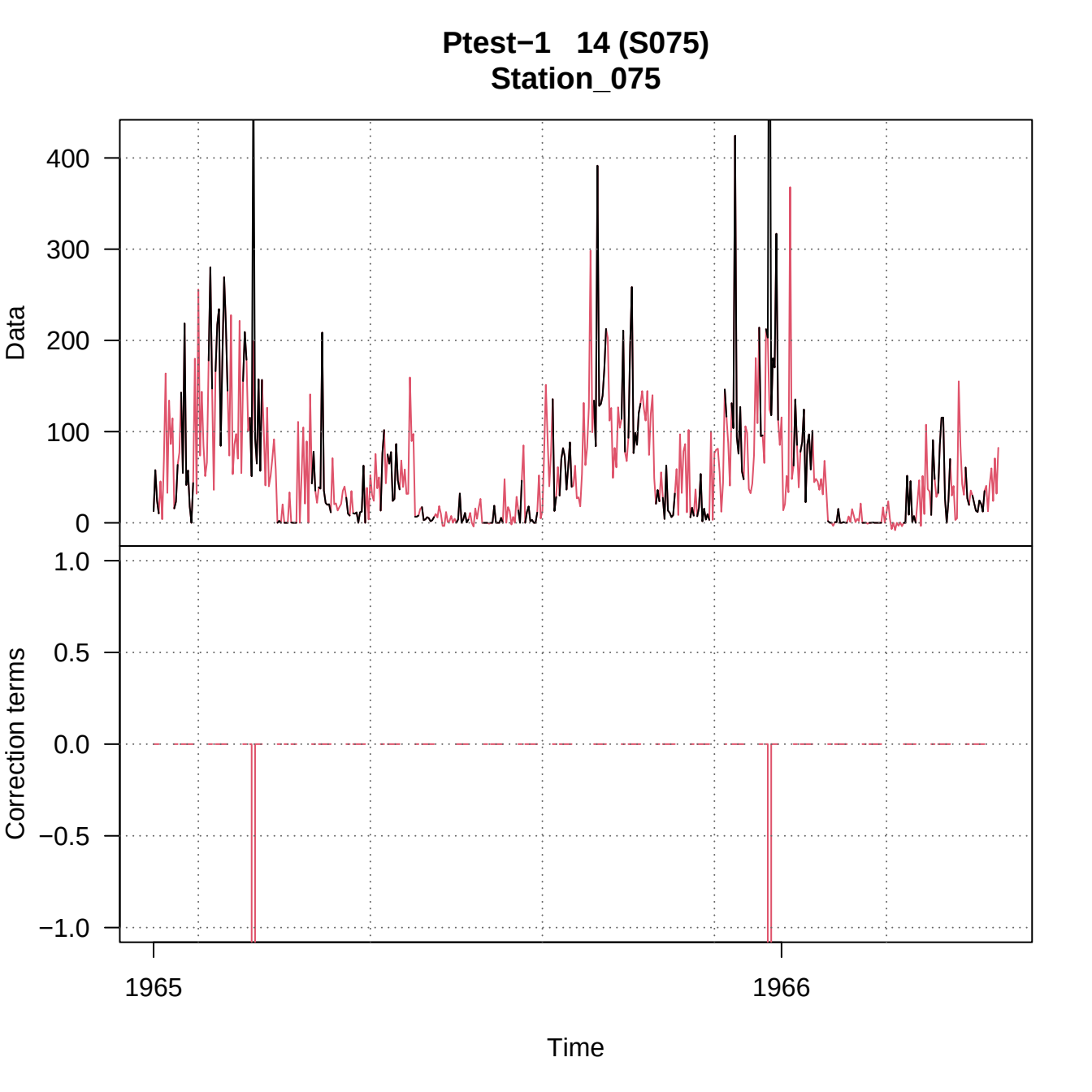

Ptest−1 8 (S095)
Station_095
Data
300
250
200
150
100
50
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

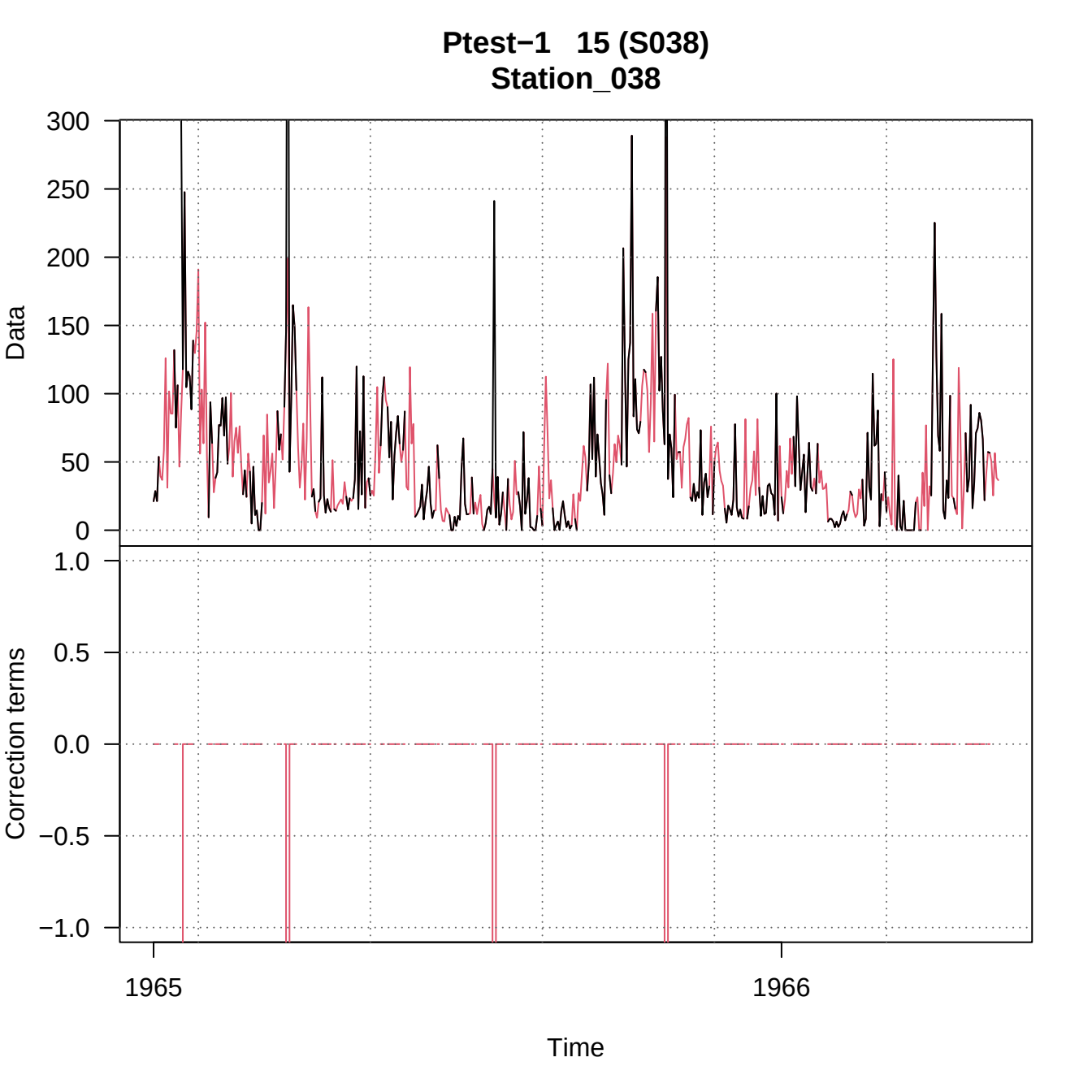

Ptest−1 10 (S034)
Station_034
Data
350
300
250
200
150
100
50
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

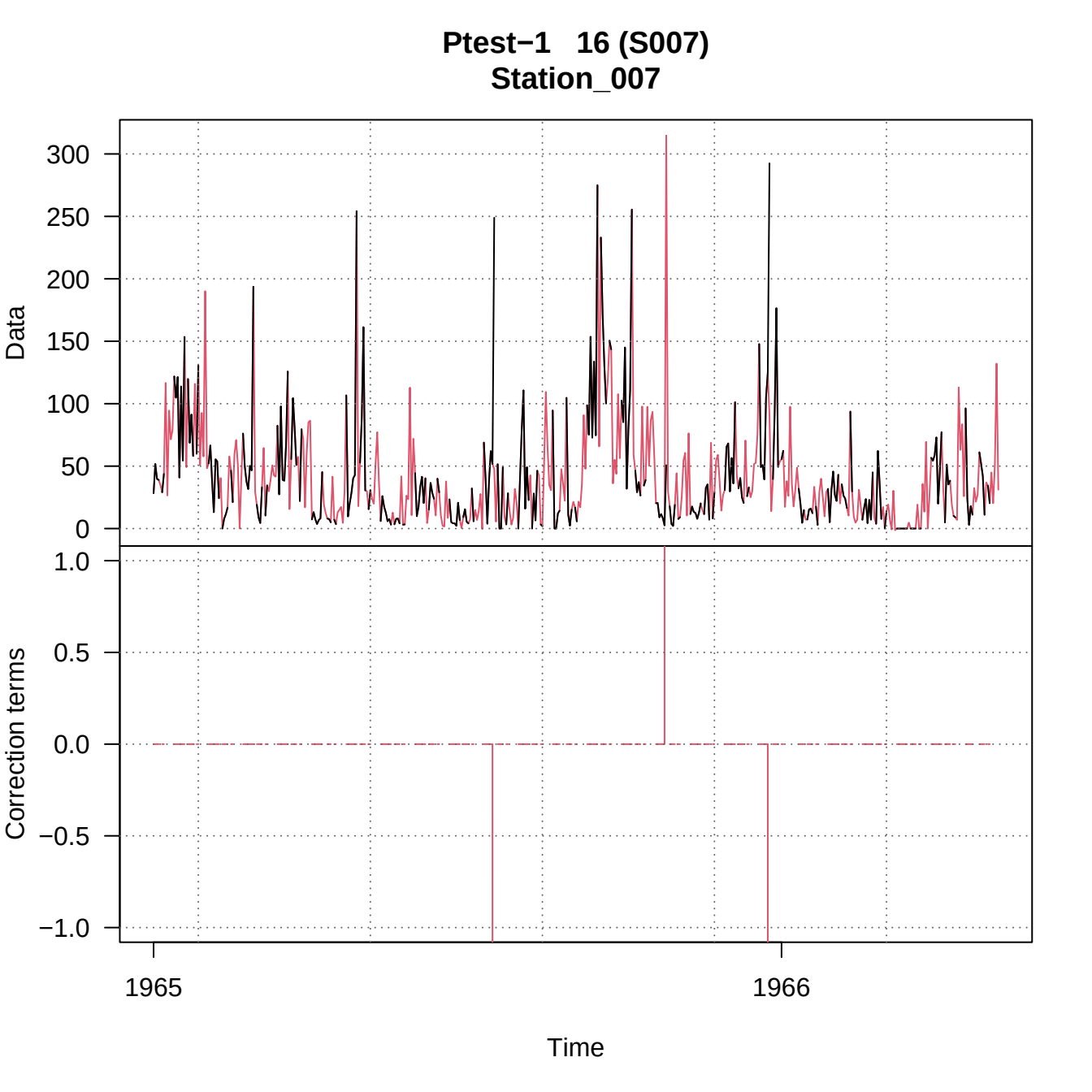

Ptest−1 11 (S088)
Station_088
Data
500
400
300
200
100
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

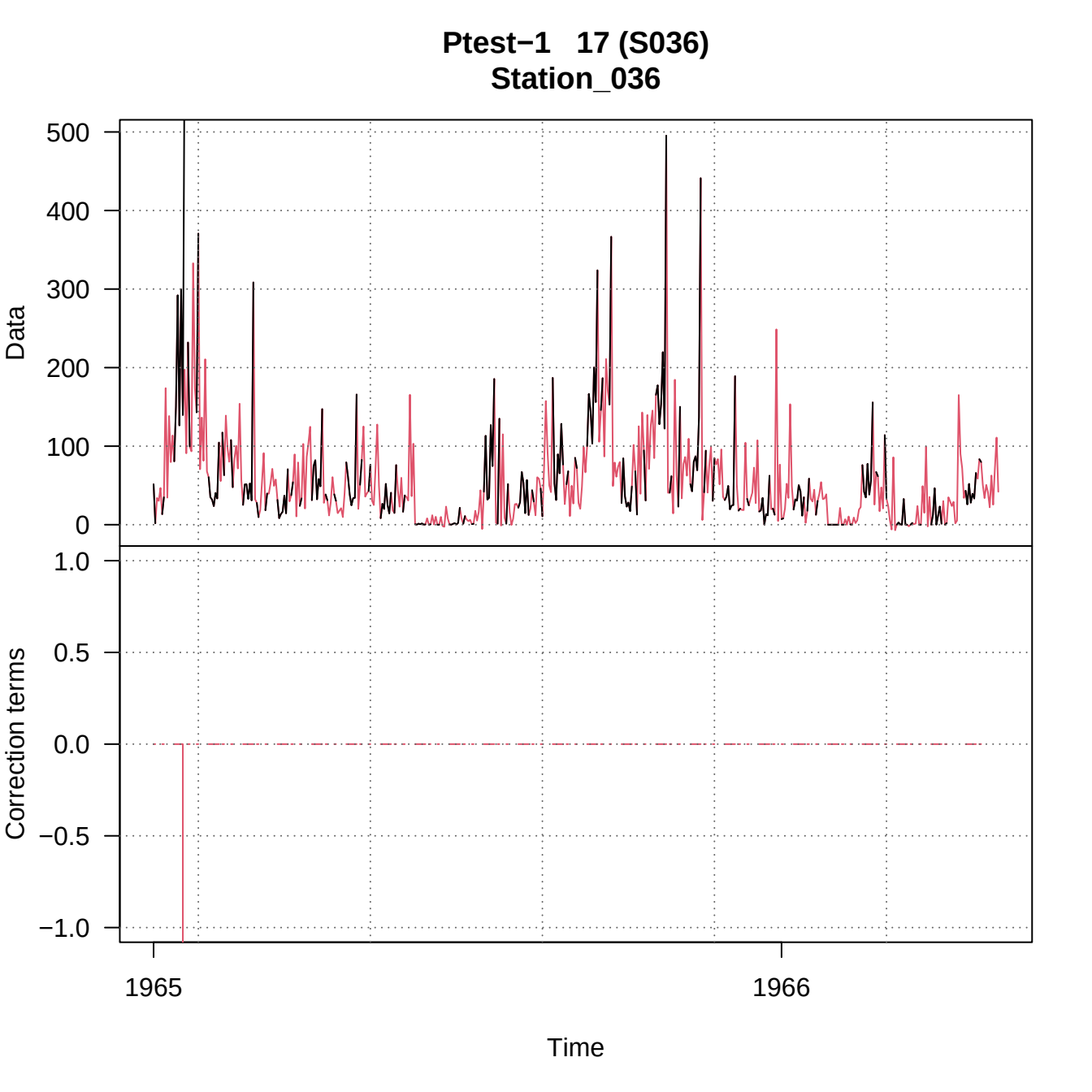

Ptest−1 12 (S055)
Station_055
Data
400
300
200
100
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

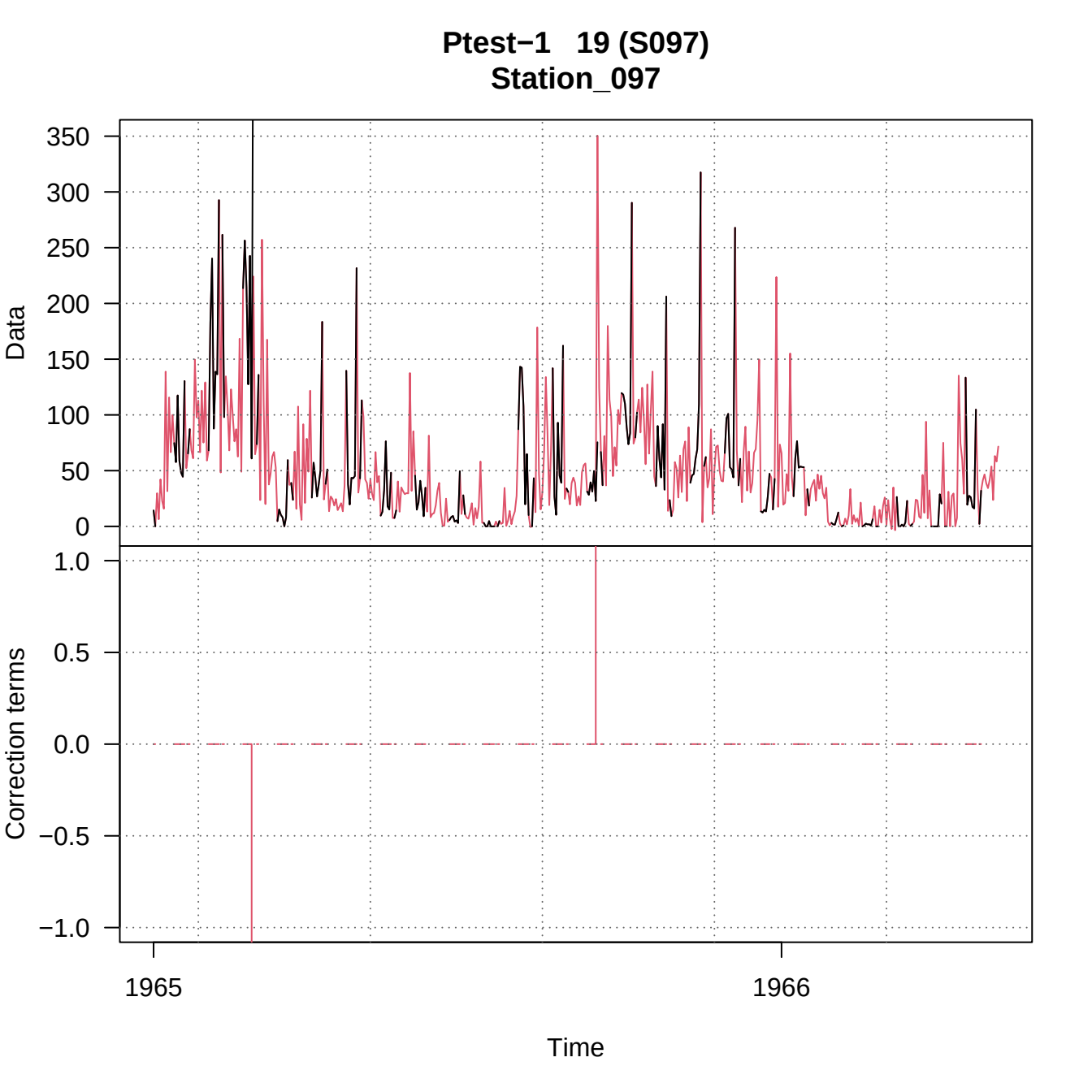

Ptest−1 13 (S042)
Station_042
Data
250
200
150
100
50
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

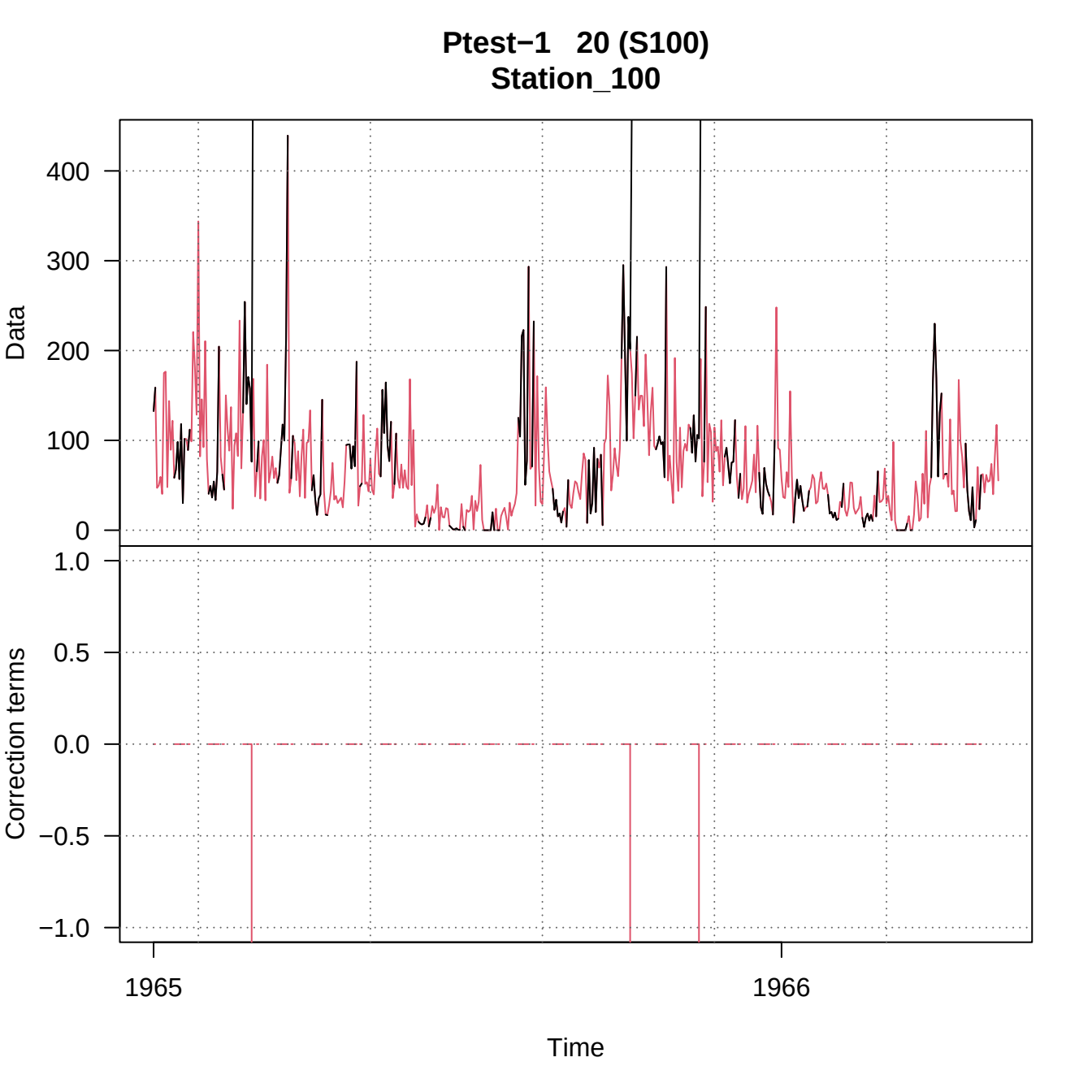

Ptest−1 14 (S075)
Station_075
Data
400
300
200
100
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

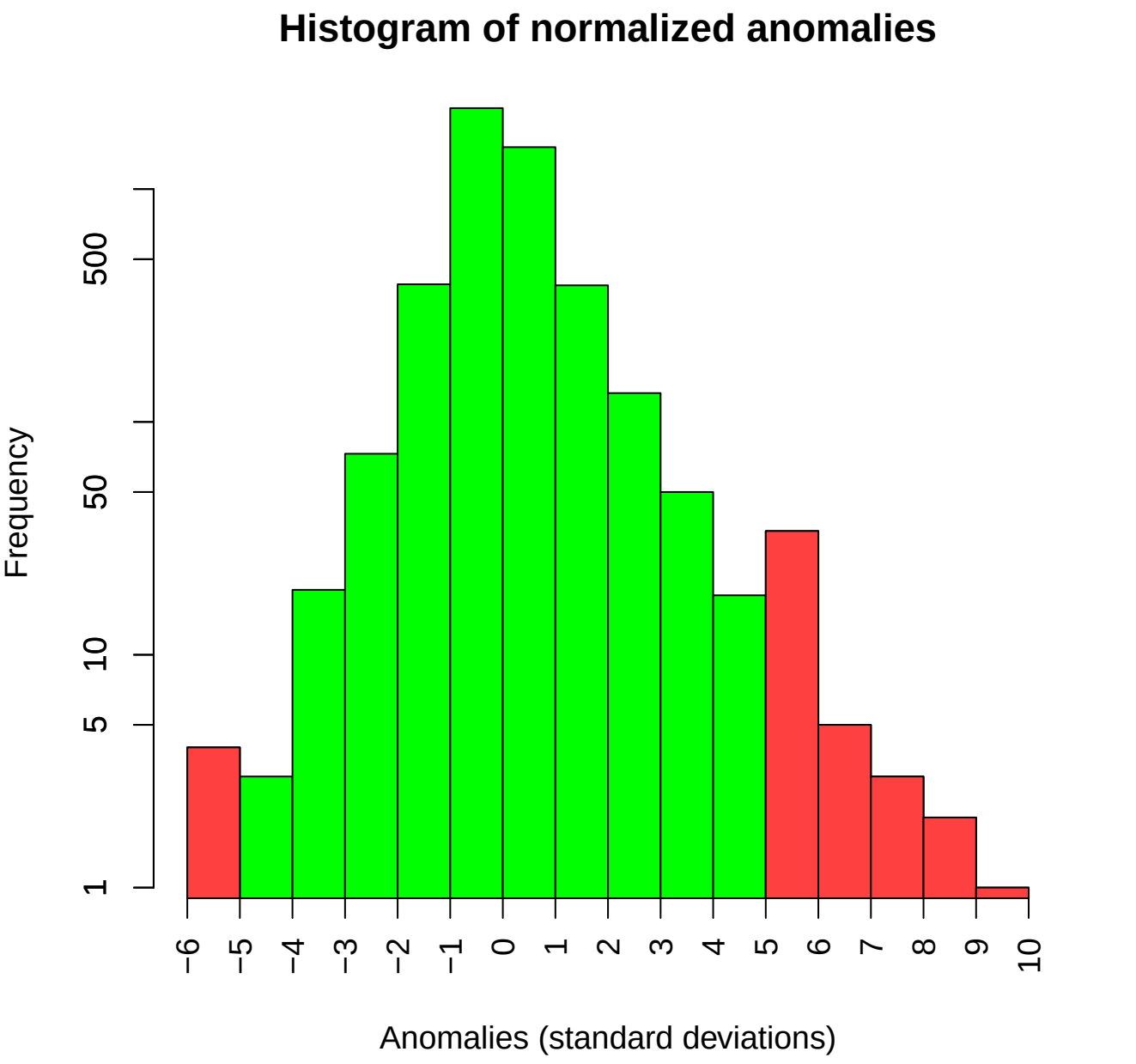

Ptest−1 15 (S038)
Station_038
Data
300
250
200
150
100
50
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

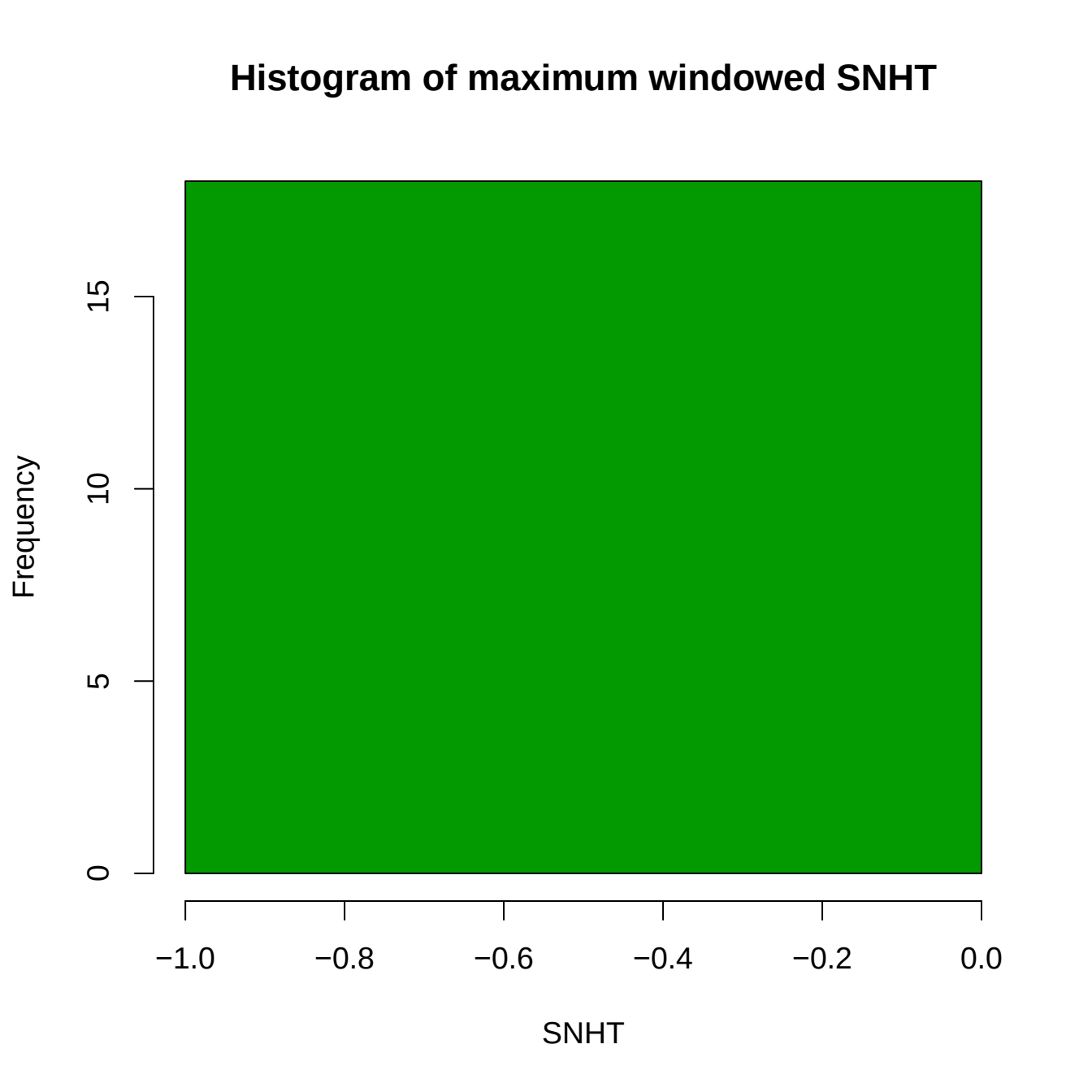

Ptest−1 16 (S007)
Station_007
Data
300
250
200
150
100
50
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

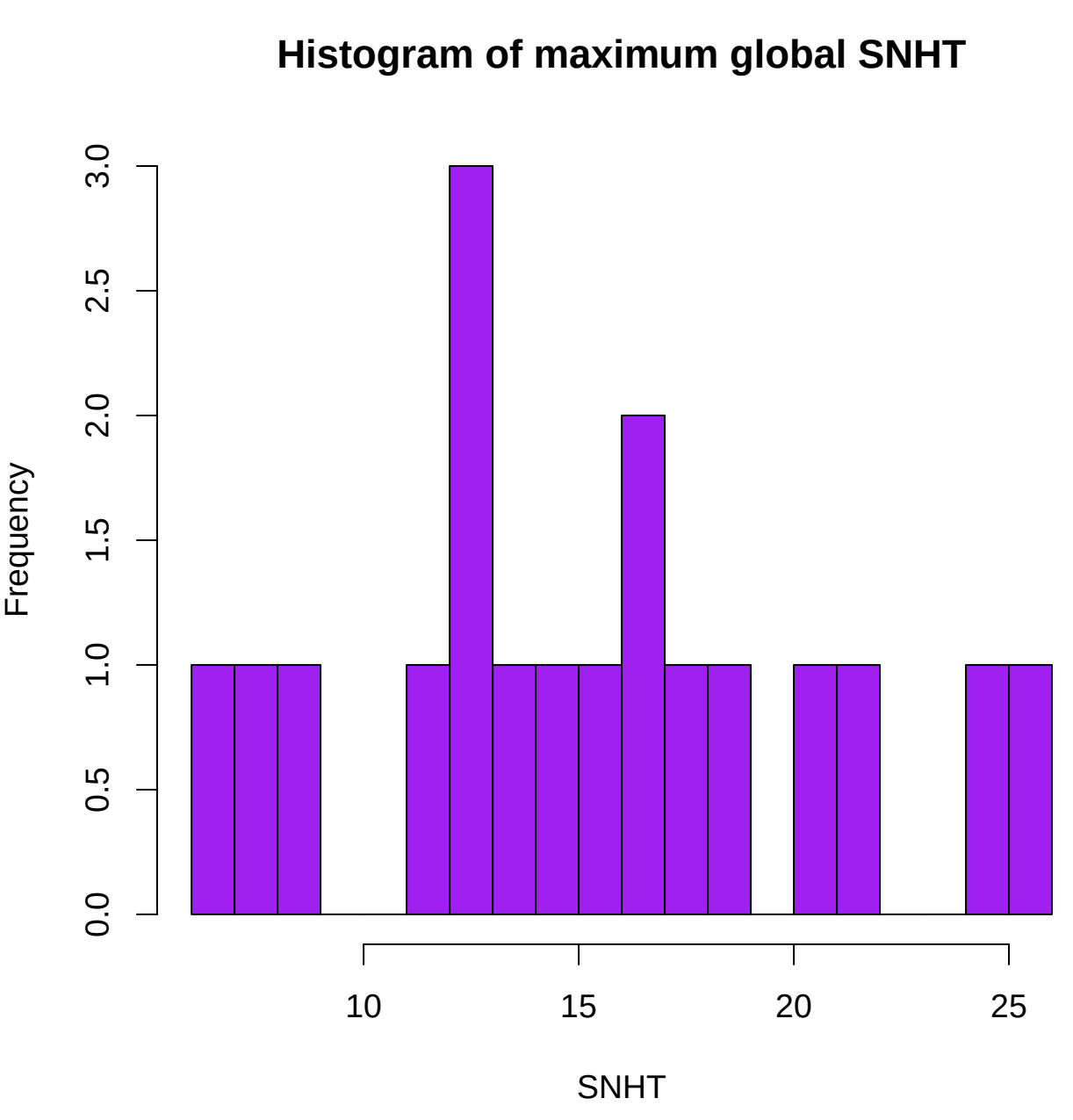

Ptest−1 17 (S036)
Station_036
Data
500
400
300
200
100
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time

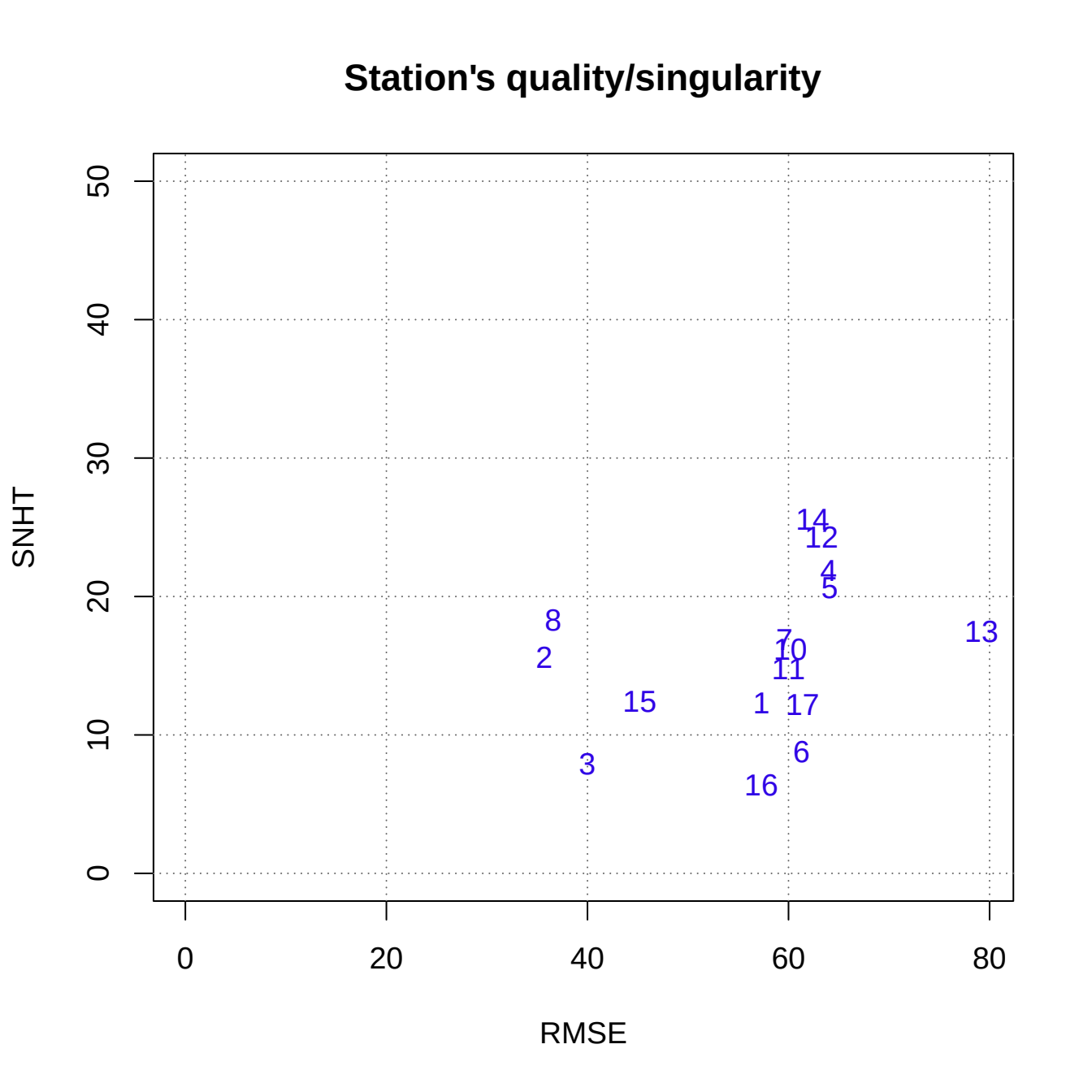

Ptest−1 19 (S097)
Station_097
Data
350
300
250
200
150
100
50
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
Time


Ptest−1 20 (S100)
Station_100
Data
400
300
200
100
0
Correction terms
1.0
0.5
0.0
−0.5
−1.0
1965
1966
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
5
10
15
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
SNHT


Histogram of maximum global SNHT
Frequency
0.0
0.5
1.0
1.5
2.0
2.5
3.0
10
15
20
25
SNHT


Station's quality/singularity
SNHT
RMSE
0
10
20
30
40
50
0
20
40
60
80
14
12
4
5
8
2
7
10
11
13
15
1
17
6
3
16