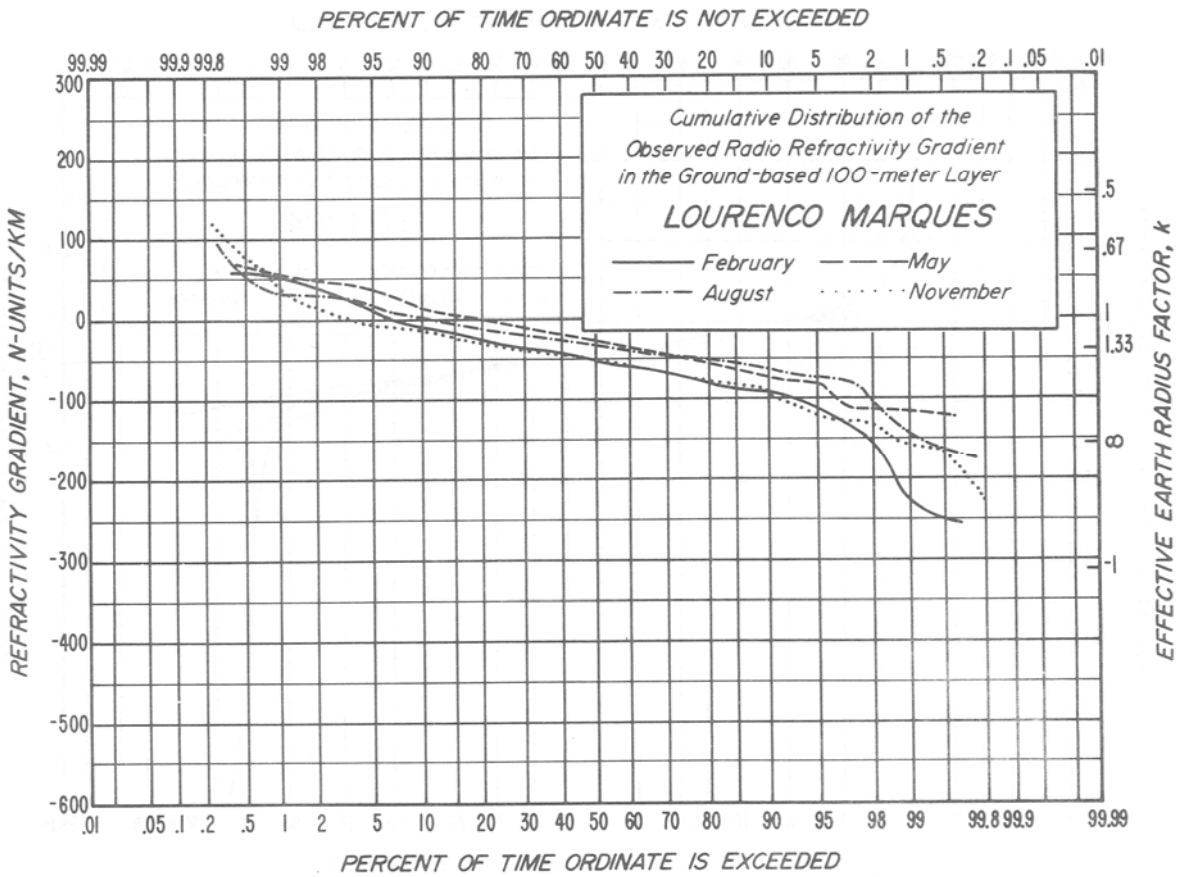


Lourenco Marques, Mozambique

25° 55' S, 32° 34' E 44 m m.s.l.

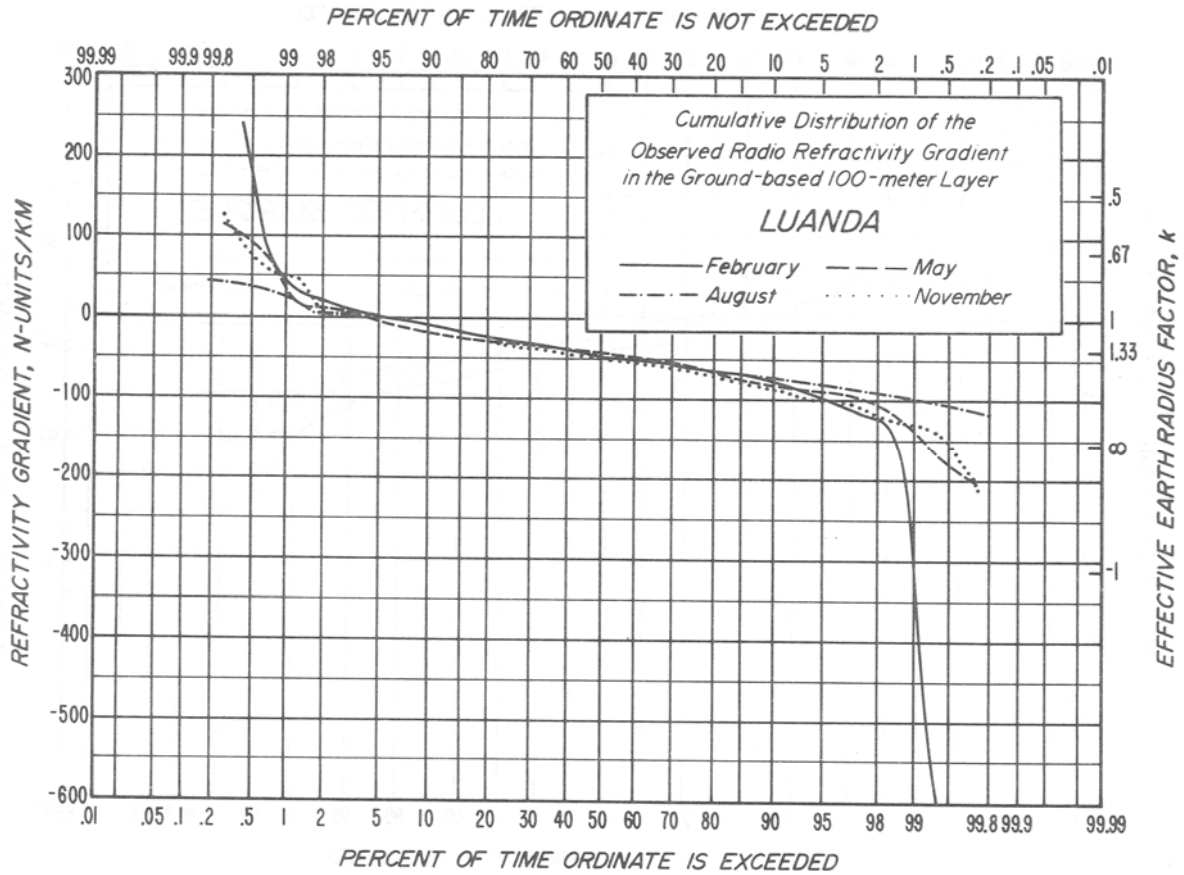
Data: Radiosonde. 0300Z (0500 LST): 11/54 - 2/59

Temperature (°F): January 86/71; July 76/55

Mean Dewpoint (°F): January 69; July 55

Precipitation (inches): Annual 29.9; January 5.10; July, August 0.50

Located on Delagoa Bay off the Indian Ocean. A warm maritime climate with wet and dry seasons.



Luanda, Angola

08° 49' S, 13° 13' E 70 m m.s.l.

Data: Radiosonde.

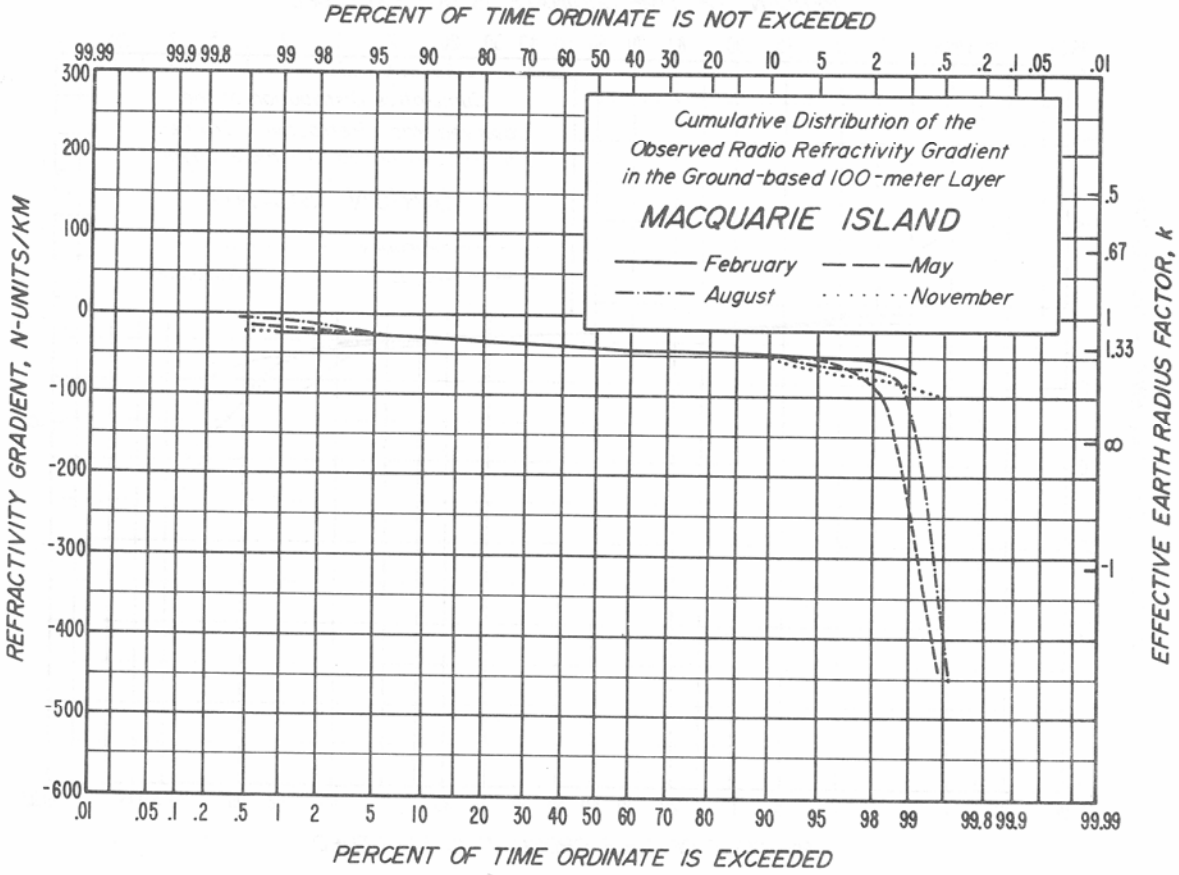
0700Z (0800 LST): 2/53 - 5/53
0500Z (0600 LST): 8/53 - 5/54
0300Z (0400 LST): 8/54 - 11/54
0200Z (0300 LST): 2/55 - 11/55
0600 and 1200Z (0700 and 1300 LST): 8/57 - 11/57
0000 and 1200Z (0100 and 1300 LST): 2/58 - 11/58
0000Z (0100 LST): 2/59 - 11/59

Temperature (°F): January 83/74; July 74/65

Mean Dewpoint (°F): January 70; July 63

Precipitation (inches): Annual 12.8; April 4.60; July 0.00

A port on the Atlantic Ocean. A warm, humid maritime climate.



Macquarie Island, Pacific

54° 30' S, 158° 57' E 6 m m.s.l.

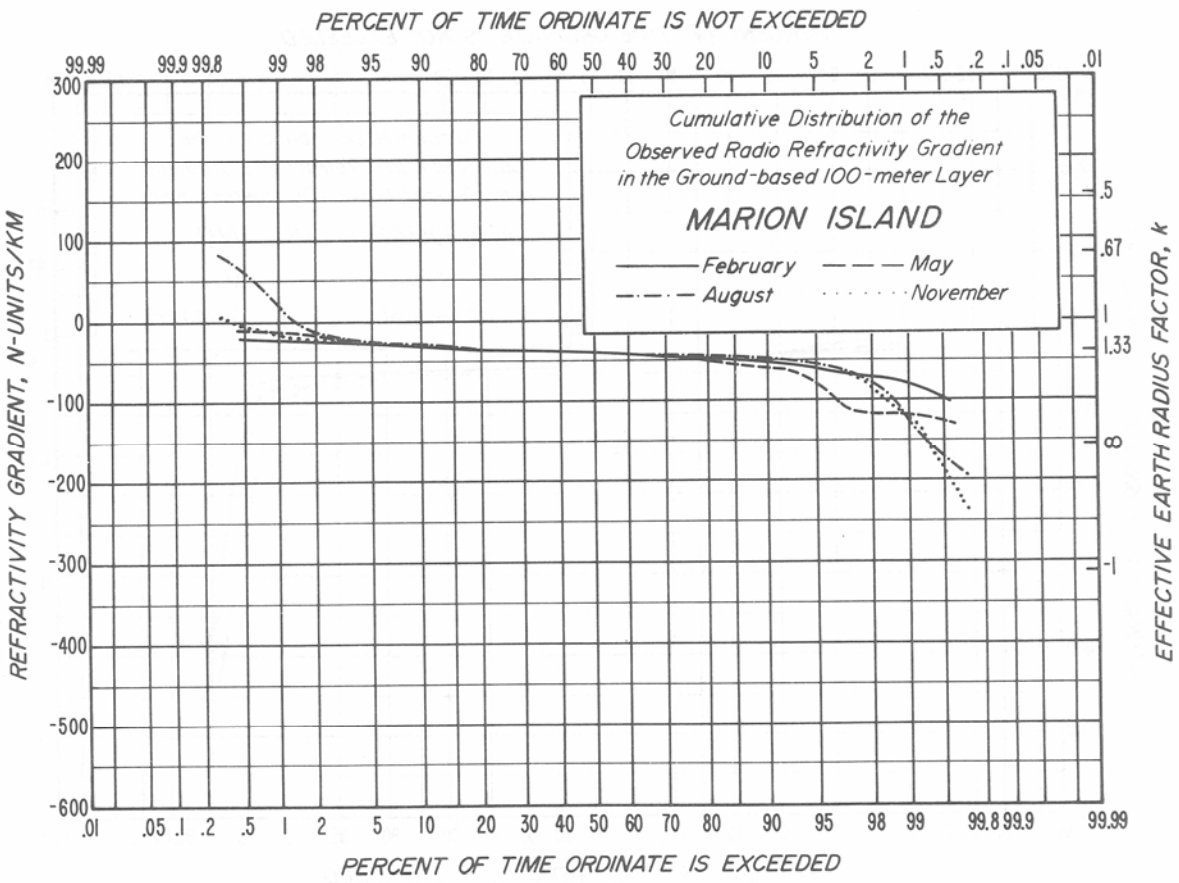
Data: Radiosonde. 0000Z (1100 LST): 8/57 - 11/59 and 5/62 - 11/62

Temperature (°F): January 47/40; July 41/34

Mean Dewpoint (°F): January 41; July 35

Precipitation (inches): Annual 35.5; June 4.11; December 1.67

A volcanic island in the South Pacific; 34 km long and 5 km wide. Rocky terrain with small glacial lakes. A cool maritime climate with small seasonal changes.



Marion Island

46° 53' S, 37° 52' E 26 m m.s.l.

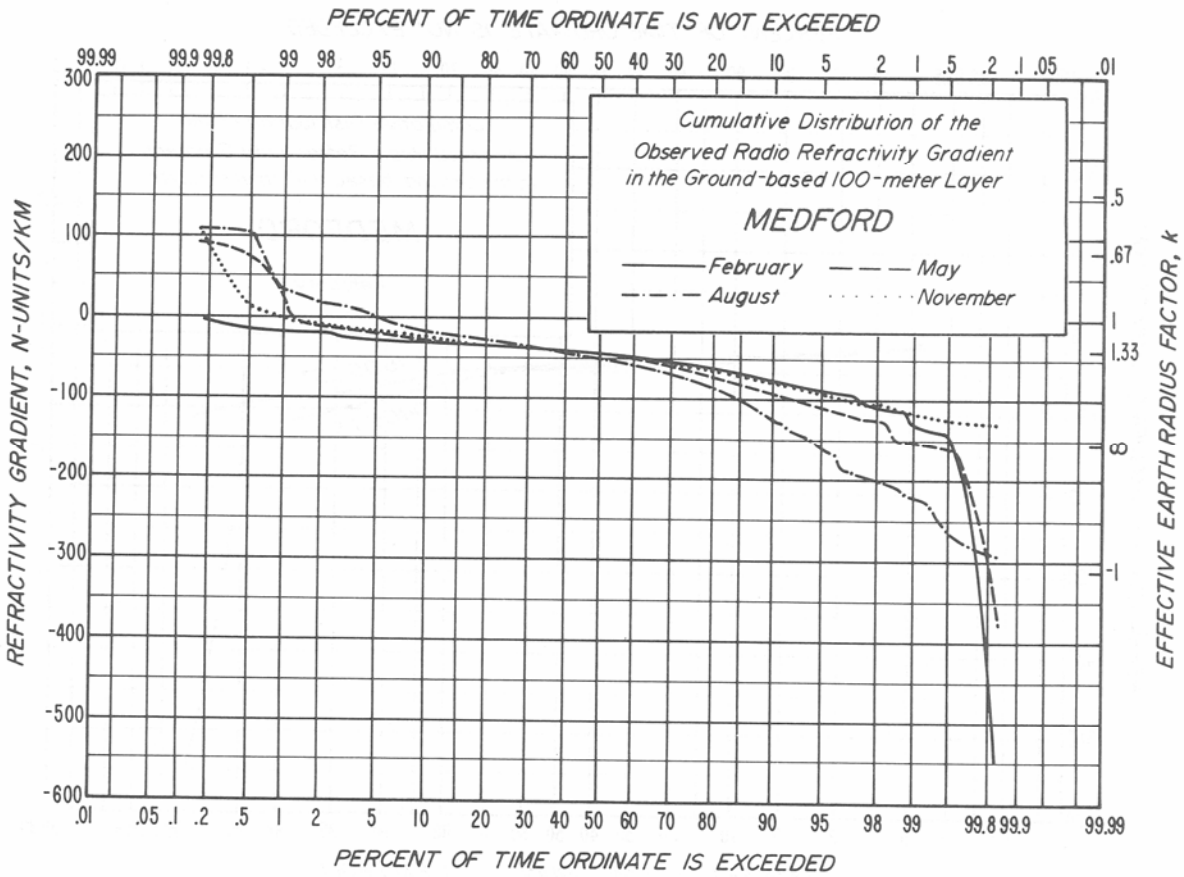
Data: Radiosonde.

0500Z	(0800 LST):	8/52 - 5/54
0600Z	(0900 LST):	8/54 - 11/54
0400Z	(0700 LST):	2/55 - 11/56
1200Z	(1500 LST):	8/57 - 11/58

Mean Temperature (°F): January 44; July 39

Precipitation (inches): Annual 96.5; May 9.25; October 6.57

An island 21 km long by 13 km wide in the southern Indian Ocean. A cool maritime climate with heavy rainfall throughout the year.



Medford, Oregon

42° 23' N, 122° 52' W 405 m m.s.l.

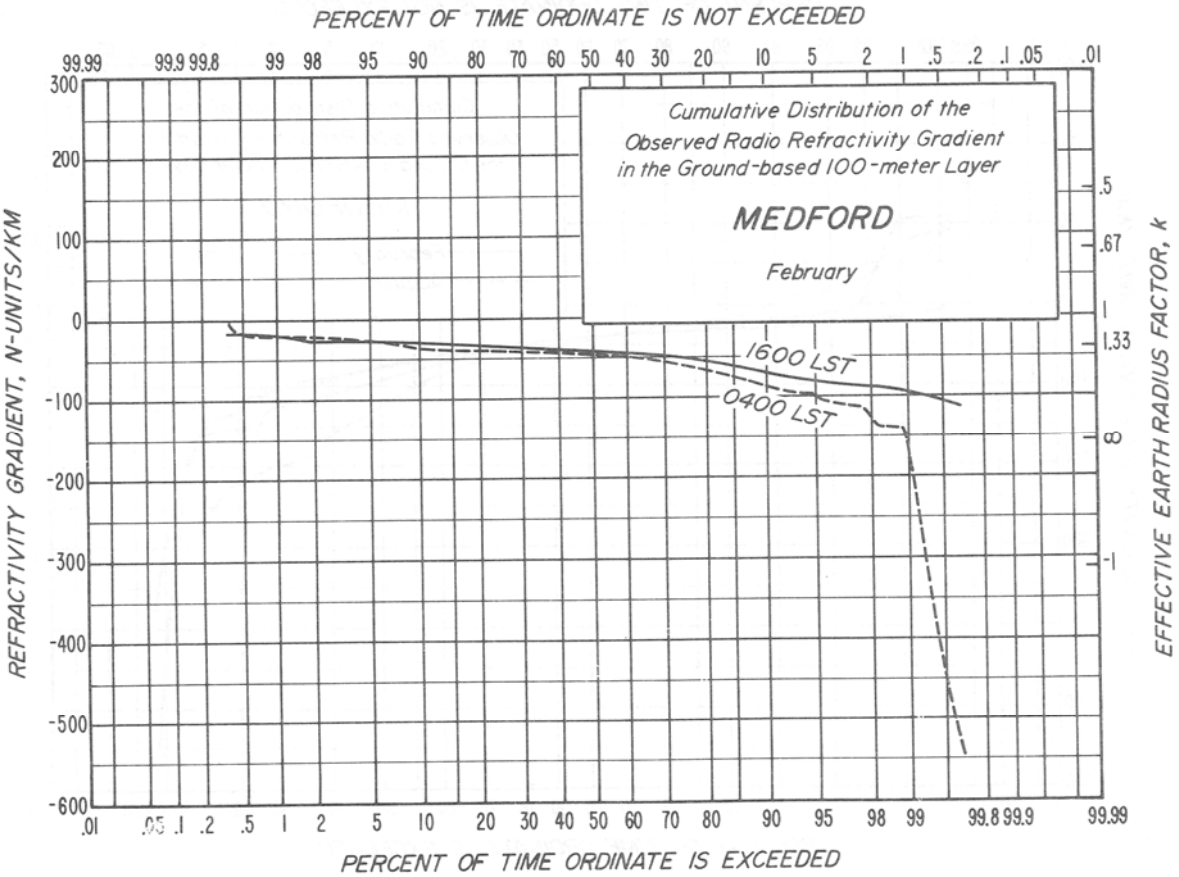
Data: Radiosonde. 0000 and 1200Z (1600 and 0400 LST): 11/57 - 8/62

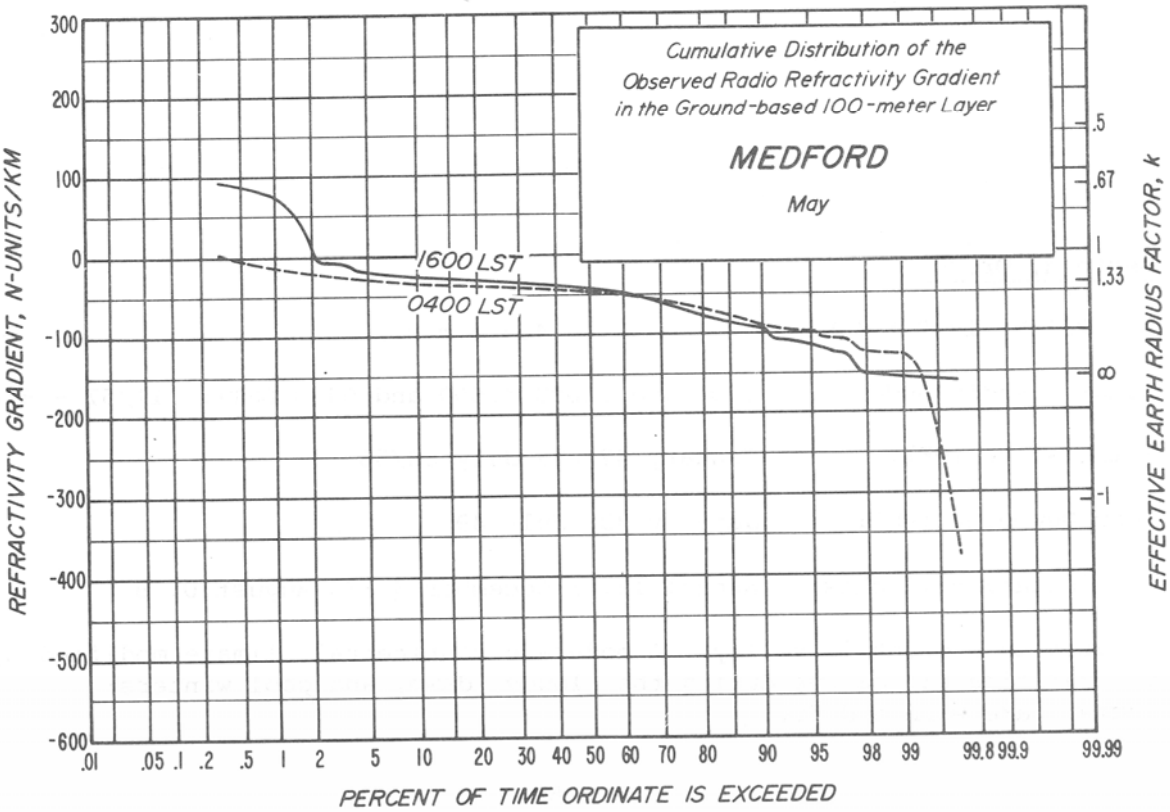
Temperature (°F): January 42/28; July 88/56

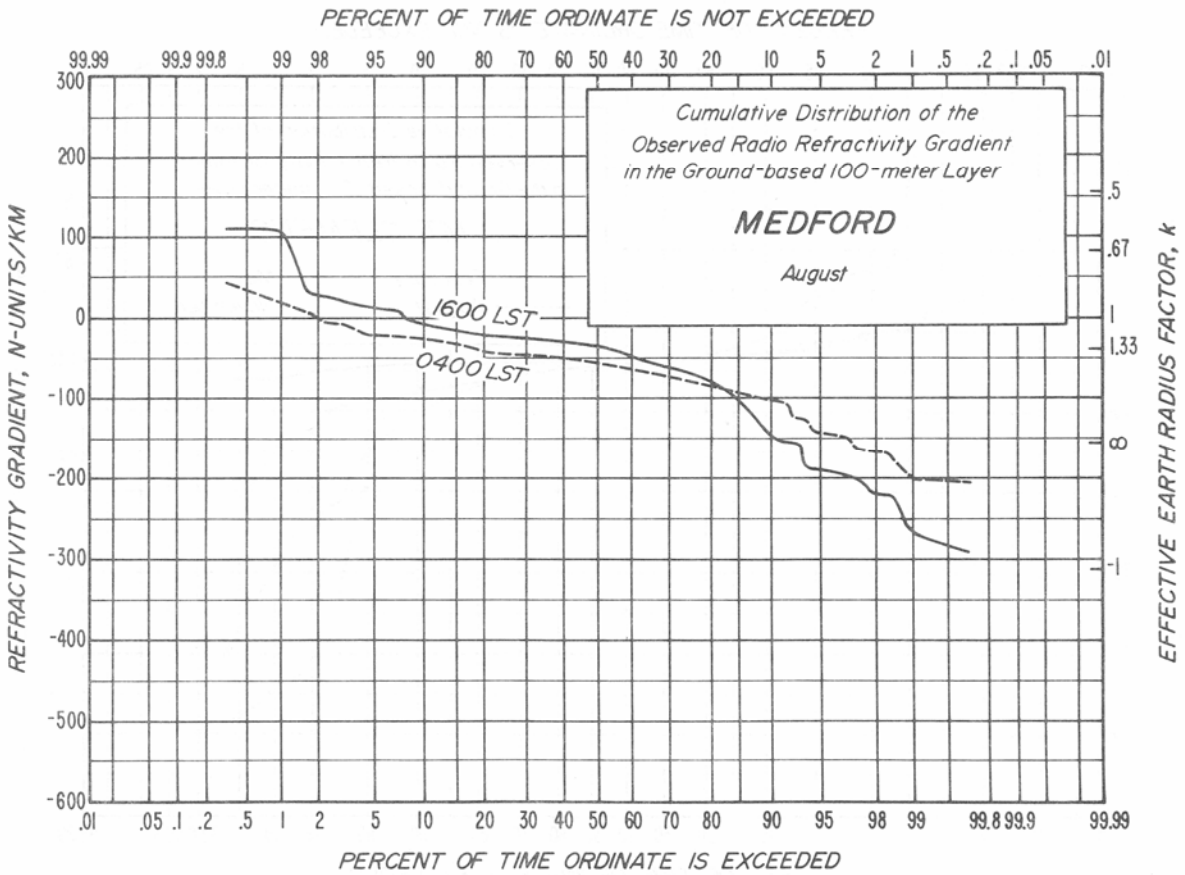
Mean Dewpoint (°F): January 33; July 49

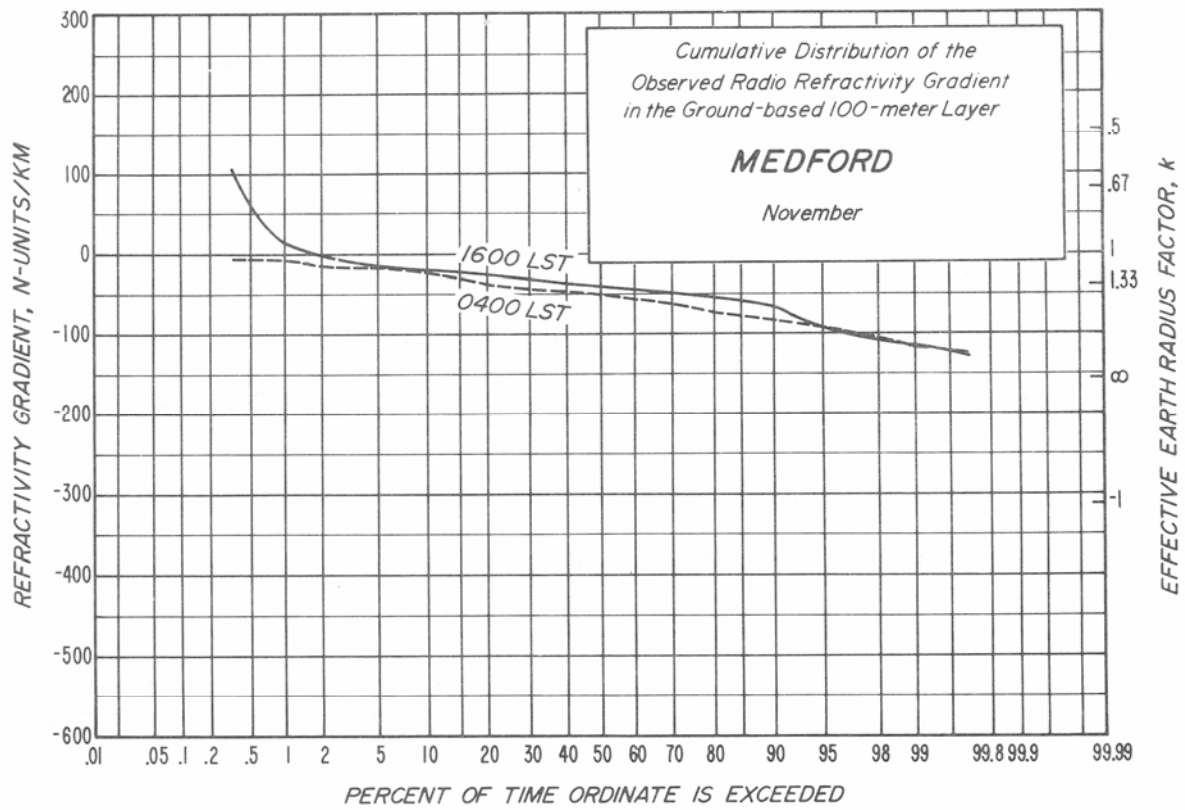
Precipitation (inches): Annual 19.8; December 3.38; August 0.18

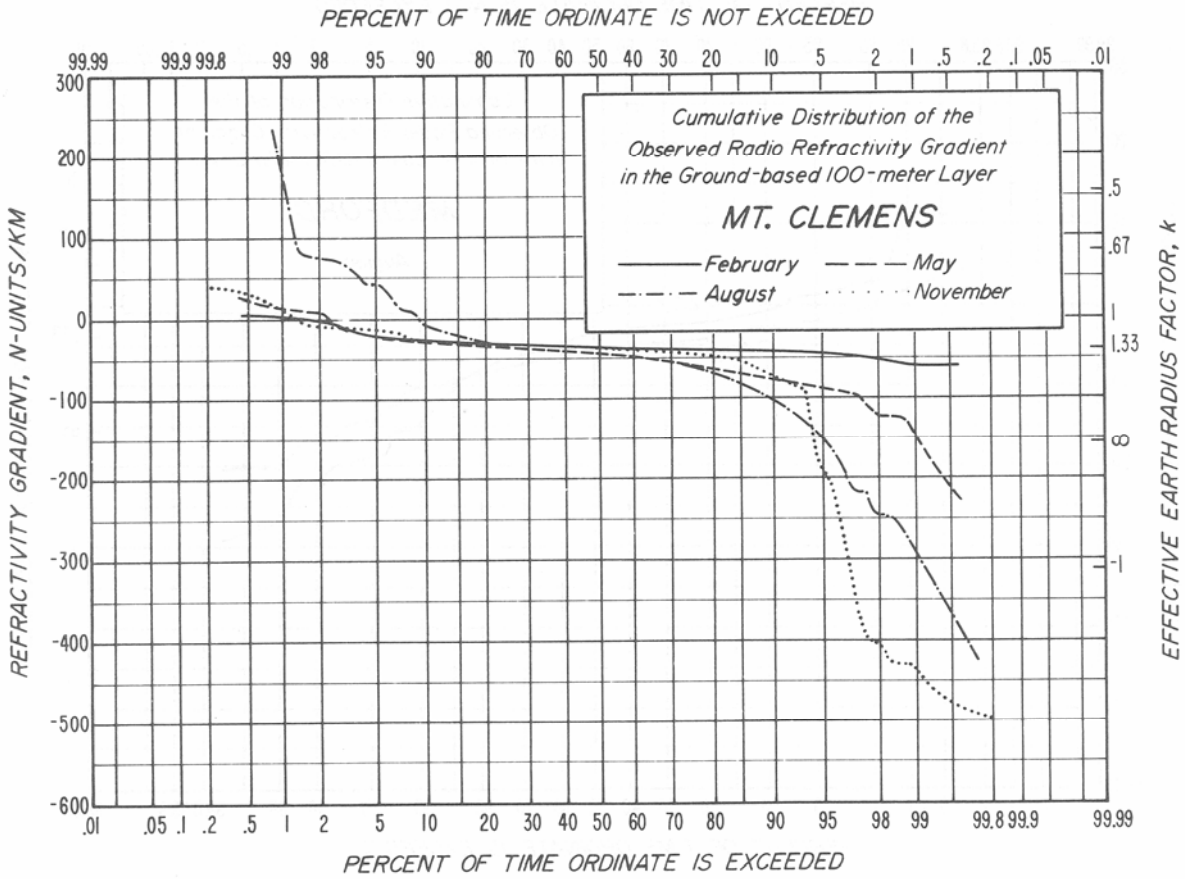
Located in a mountain valley. A moderate continental climate modified by the maritime air masses during the cloudy, damp, and cool winters; summers are warm and dry.


PERCENT OF TIME ORDINATE IS NOT EXCEEDED
99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 .5 .2 .1 .05 .01
Cumulative Distribution of the
Observed Radio Refractivity Gradient
in the Ground-based 100-meter Layer
MEDFORD
February
1600 LST
0400 LST
REFRACTIVITY GRADIENT, N-UNITS/KM
300 200 100 0 -100 -200 -300 -400 -500 -600
EFFECTIVE EARTH RADIUS FACTOR, k
.5 .67 1 1.33 ∞ -1
.01 .05 .1 .2 .5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
PERCENT OF TIME ORDINATE IS EXCEEDED


Cumulative Distribution of the
Observed Radio Refractivity Gradient
in the Ground-based 100-meter Layer
MEDFORD
May
1600 LST
0400 LST
REFRACTIVITY GRADIENT, N-UNITS/KM
300 200 100 0 -100 -200 -300 -400 -500 -600
EFFECTIVE EARTH RADIUS FACTOR, k
.5 .67 1 1.33 ∞ -1
.01 .05 .1 .2 .5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
PERCENT OF TIME ORDINATE IS EXCEEDED


PERCENT OF TIME ORDINATE IS NOT EXCEEDED
99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 .5 .2 .1 .05 .01
Cumulative Distribution of the
Observed Radio Refractivity Gradient
in the Ground-based 100-meter Layer
MEDFORD
August
1600 LST
0400 LST
REFRACTIVITY GRADIENT, N-UNITS/KM
300 200 100 0 -100 -200 -300 -400 -500 -600
EFFECTIVE EARTH RADIUS FACTOR, k
.5 .67 1 1.33 ∞ -1
.01 .05 .1 .2 .5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
PERCENT OF TIME ORDINATE IS EXCEEDED


Cumulative Distribution of the
Observed Radio Refractivity Gradient
in the Ground-based 100-meter Layer
MEDFORD
November
1600 LST
0400 LST
REFRACTIVITY GRADIENT, N-UNITS/KM
300 200 100 0 -100 -200 -300 -400 -500 -600
EFFECTIVE EARTH RADIUS FACTOR, k
.5 .67 1 1.33 ∞ -1
.01 .05 .1 .2 .5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
PERCENT OF TIME ORDINATE IS EXCEEDED



Mt. Clemens, Michigan

42° 36' N, 82° 49' W 178 m m.s.l.

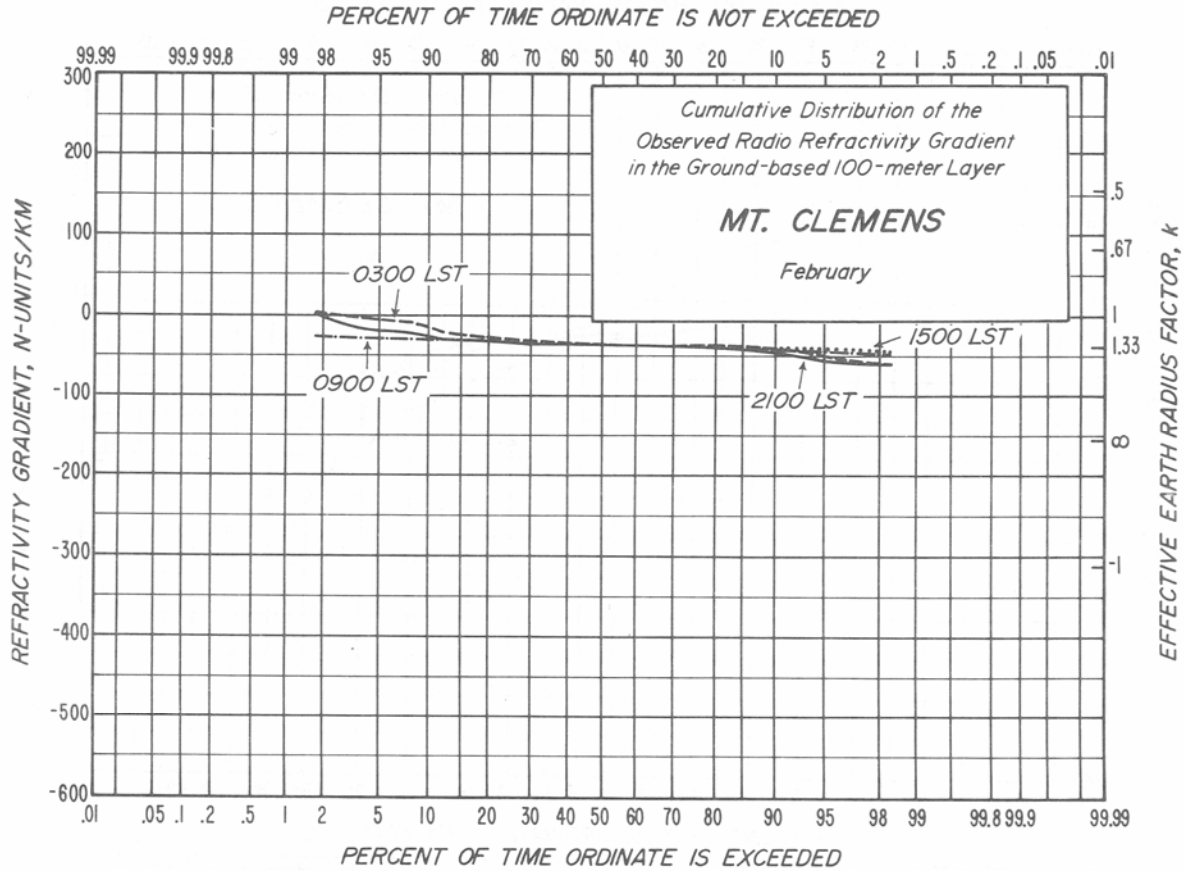
Data: Radiosonde. 0300, 0900, 1500, 2100Z (2100, 0300, 0900, 1500 LST): 7/51 - 1/53

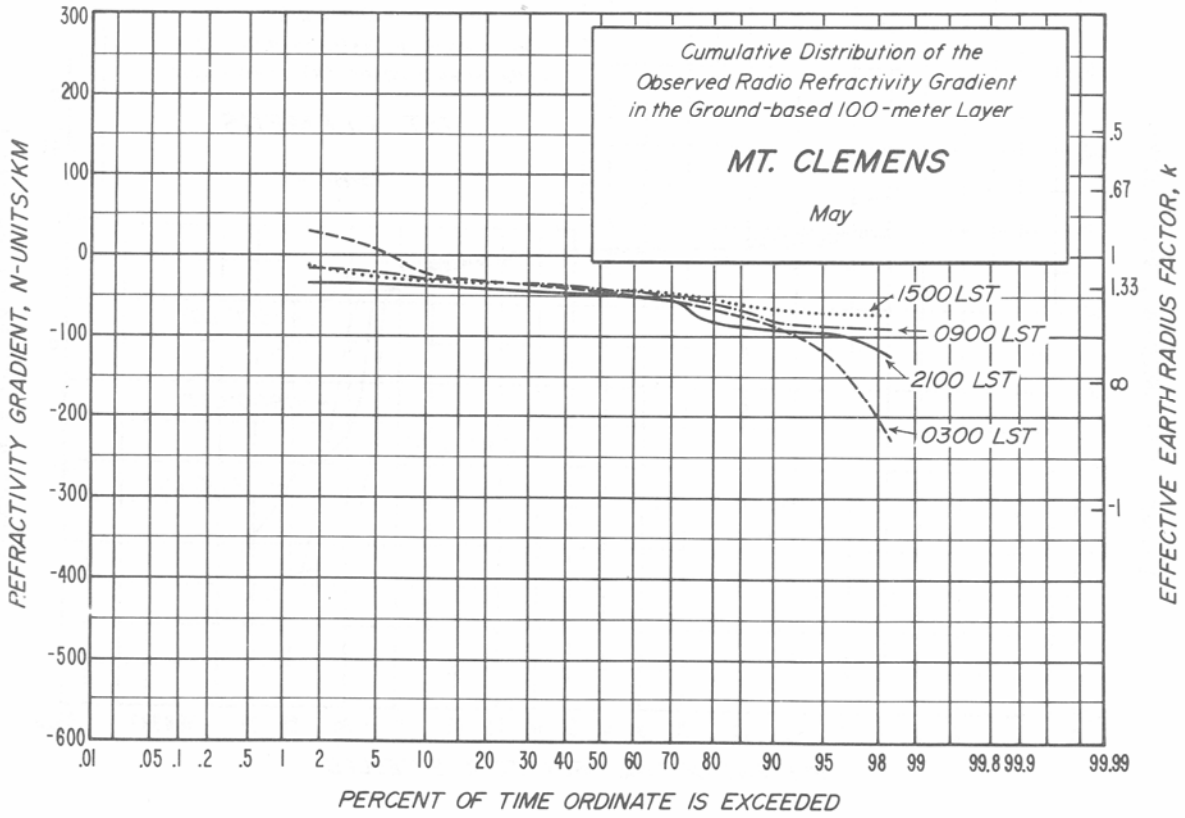
Temperature (°F): January 32/17; July 83/61

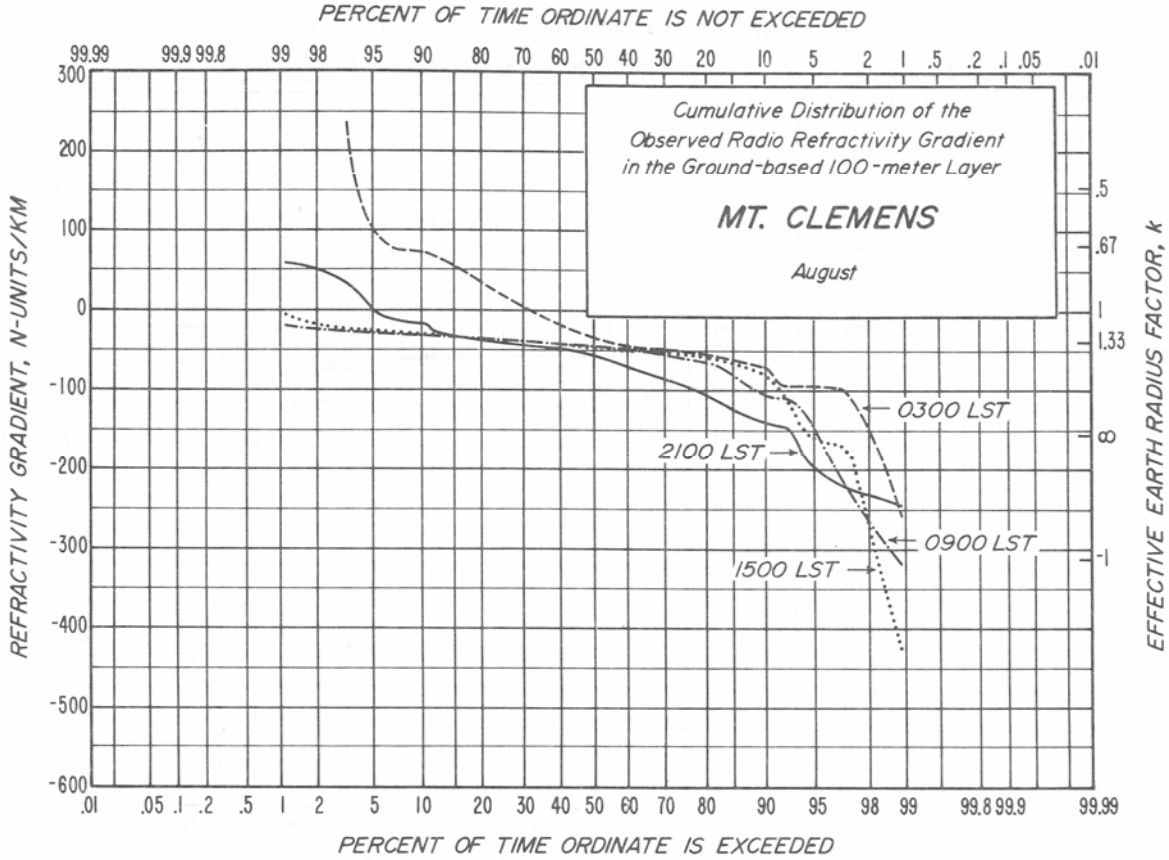
Mean Dewpoint (°F): January 19; July 61

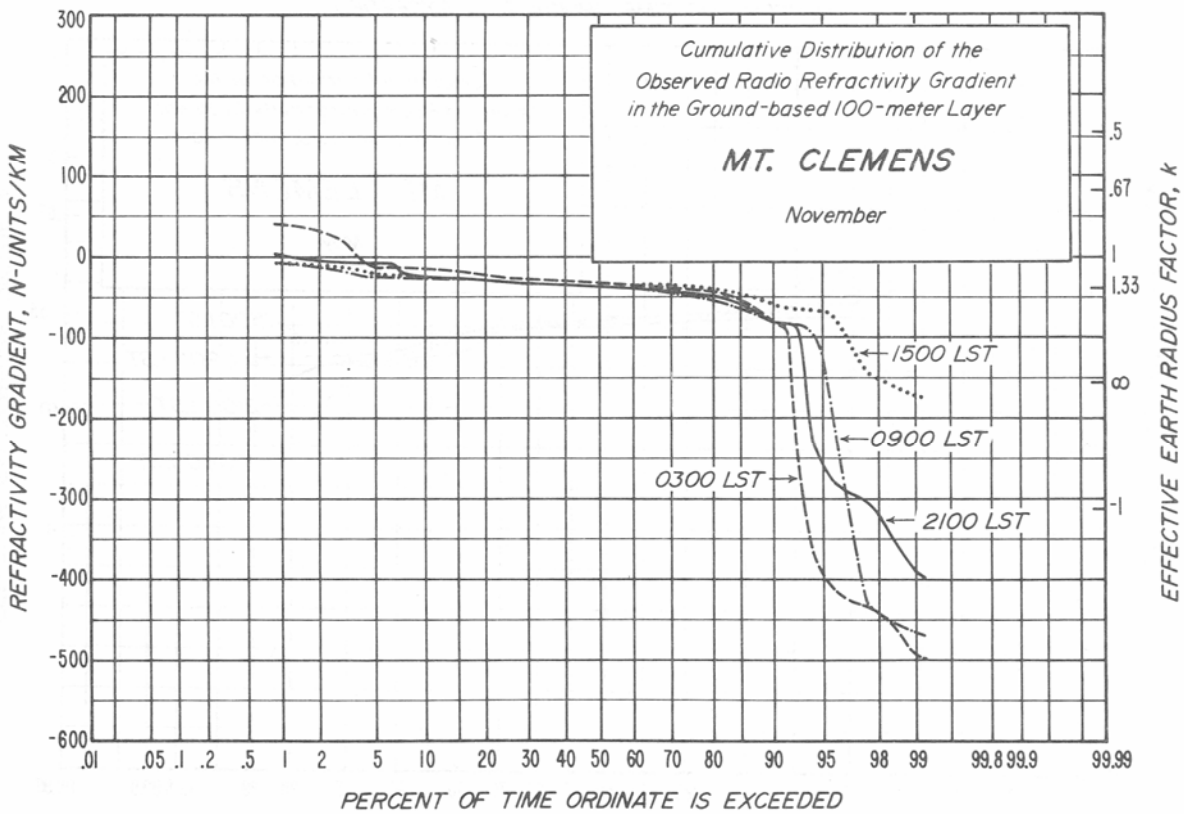
Precipitation (inches): Annual 28.2; May 3.05; January 1.74

Located on flat land on the west side of Lake St. Clair just northeast of Detroit. A continental climate modified by the influence of the Great Lakes. Cold, cloudy winters and warm, sunny summers.


PERCENT OF TIME ORDINATE IS NOT EXCEEDED
99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 .5 .2 .1 .05 .01
Cumulative Distribution of the
Observed Radio Refractivity Gradient
in the Ground-based 100-meter Layer
MT. CLEMENS
February
0300 LST
0900 LST
1500 LST
2100 LST
REFRACTIVITY GRADIENT, N-UNITS/KM
300 200 100 0 -100 -200 -300 -400 -500 -600
EFFECTIVE EARTH RADIUS FACTOR, k
.5 .67 1 1.33 ∞ -1
.01 .05 .1 .2 .5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
PERCENT OF TIME ORDINATE IS EXCEEDED


Cumulative Distribution of the
Observed Radio Refractivity Gradient
in the Ground-based 100-meter Layer
MT. CLEMENS
May
1500 LST
0900 LST
2100 LST
0300 LST
REFRACTIVITY GRADIENT, N-UNITS/KM
300 200 100 0 -100 -200 -300 -400 -500 -600
EFFECTIVE EARTH RADIUS FACTOR, k
.5 .67 1 1.33 ∞ -1
.01 .05 .1 .2 .5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
PERCENT OF TIME ORDINATE IS EXCEEDED


PERCENT OF TIME ORDINATE IS NOT EXCEEDED
99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 .5 .2 .1 .05 .01
Cumulative Distribution of the
Observed Radio Refractivity Gradient
in the Ground-based 100-meter Layer
MT. CLEMENS
August
0300 LST
2100 LST
0900 LST
1500 LST
REFRACTIVITY GRADIENT, N-UNITS/KM
300 200 100 0 -100 -200 -300 -400 -500 -600
EFFECTIVE EARTH RADIUS FACTOR, k
.5 .67 1 1.33 ∞ -1
.01 .05 .1 .2 .5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
PERCENT OF TIME ORDINATE IS EXCEEDED


Cumulative Distribution of the
Observed Radio Refractivity Gradient
in the Ground-based 100-meter Layer
MT. CLEMENS
November
1500 LST
0900 LST
0300 LST
2100 LST
REFRACTIVITY GRADIENT, N-UNITS/KM
300 200 100 0 -100 -200 -300 -400 -500 -600
EFFECTIVE EARTH RADIUS FACTOR, k
.5 .67 1 1.33 ∞ -1
.01 .05 .1 .2 .5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
PERCENT OF TIME ORDINATE IS EXCEEDED