

Study of Microclimatology of Washington Metropolitan Area

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Copy for R.C. Schmidt, 11-14-63

Transcript of Preface.

Note: Some sections or single words are [illegible]:

This study was conceived in the fall of 1958 and several approaches were made in an effort to find some answers without expending the effort and time acquired to search through various sources of substation data over the period 1946-1960. Finally, the determination was made to collect, tabulate, and where necessary compute data for all substations. Since the urban heat island was of primary interest, and since the minimum temperature value accentuated these phenomena, only this value of temperature was collected and tabulated. The concurrent interest in the distribution of precipitation over the network resulted in these data being collected and tabulated.

During the fall, winter, and spring of 1962 – 1963, every known source of data had been exploited and the average monthly minimum temperatures and monthly precipitation amounts had been tabulated for three 5-year periods, 1946-1950, 1951-1955, and 1956-1960 with provisions made on tally sheets to continue for a fourth 5-year period, 1961-1965. The charts, graphs, and data tabulations presented in this study were completed during summer and fall of 1963. Literature brought to my attention early in 1963 helped very significantly to inspire further study. Also interest evidenced by my immediate supervisor R. C. Schmidt, and others in and out of Weather Bureau, including Jerome Namias, Dr. Landsberg, and Roger Allen, encouraged further work on this study.

Some of the literature I found most interesting and appropriate to this study is listed below:

1. T.J. Chandler, University College, London

a) Diurnal, Seasonal and Annual Changes in the Intensity of London's Heat Island – Meteorological Magazine, no. 1079, vol. 91, June 1962.

b) Surface Breeze Effects of Leicester's Heat Island – Reprint in: Weather Bureau Library.

c) Temperature and Humidity Traverses across London – Royal Meteorological Society, Weather, vol. XVII, no. 7, July 1962.

2. Dr. Helmut Landsberg, Weather Bureau

- a) The Weather in the Streets – Reprint from Landscape, vol. 9, no.1.
- b) The Climate of Towns – University of Chicago Press, 1956, Reprint from Man's Role in Changing the Face of the Earth.

3. J. Murray Mitchell, Weather Bureau

- a) The Temperature of Cities – Weatherwise, vol. 14, no. 6, December 1961.
- b) Link Warmer Climate to City Growth – Heating, Piping, and Air Conditioning, August 1956.

[Illegible section]

In much of the trying and [illegible] of data [illegible] received a good measure of assistance from the [illegible] [Washington] National Airport, [illegible]

The typing was done by Mrs. Joyce Pugh whose contribution to the [illegible] gratefully acknowledged. Not all of this work could be [illegible] and no doubt some errors will be discovered. The work has been done [with] considerable care and for those errors which may exist [author alone accounts] full blame.

[Transcript prepared by Staff
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February 24, 2011]