EVAP MEMO NUMBER 11

PROGRAMS TO ANALYSE AERODYNAMIC TERM
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INTRODUCTION

Program E6 calculates daily values of the Aerodynamic Term

$$E_a = (U + 100/21) (e_a - e_d)$$

where U is the wind speed in kt at 33 feet,
e_d is the vapour pressure, and e_a is the saturation vapour pressure calculated
from the temperature as described in Memo 3.   The arbitrary multiplying constant
is omitted.

DATA

The data used so far have been:

(1) daily magtape data for London Airport for 1965, contained on tape number
+MAD772AC311266A on TSN Ø62S.   The format is shown on annex A.

(2) hourly magtape data for London Airport for 1965, contained on tape
number +MAH772CM311268C on TSN 254M.   Format on annex B.

Similar data are available (enquire of Met O 12) for other years and for other
stations.   The only alterations necessary to the program will be the magtape
number and/or the block numbers to be read.

RESULTS

1a   Daily values of wind term, VP term, mean of hourly evals of Term, daily eval
of Term.

1b   Daily values of wind term, difference, mean of hourly evals of Term, daily
eval of Term.

1c   Daily values of wind term, VP term, daily eval of Term.

1d   Daily eval of Term.

2   Monthly means of daily values of T, VP, wind term.

3.   Monthly evaluations of SVP, VP term, Term.

4.   Statistics of daily values for 12 30-day periods and for 365-day period.

/DIFFERENT

DIFFERENT VERSIONS

E61   Does 1 day.
      Uses hourly T, VP, U.
      Results 1a (see Annex 3).

E63. Does 365 days.
      Uses hourly T, VP, U.
      Results 1b, 4 (see Annex 4).
      Puts daily means of hourly evals on Magblock.
      Puts daily evals on next Magblock.

E64   Does 365 days.
      Uses 09 VP, T_x, T_n, mean daily U.
      Gives evidence that it has got the right day from both tapes.
      Results 1c, 4.
      Puts daily evals on Magblock.

E65. Does 365 days.
      Uses hourly T, VP, U.
      Results 1b, 2, 3, 4.

E66. Does 365 days.
      Uses 09 VP, T_x, T_n, mean daily U.
      Results 1c, 2, 3, 4.

E67. Does 365 days.
      Uses T, VP and instantaneous U at 03, 09, 15, 21 h.
      Results 1d, 2, 3, 4 for each of 12 different combinations of hours (see
         Annex 5).

Met O 8
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