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11-1

UNCLASSIFIED

6/25/66

INTER-OFFICE MEMORANDUM

DATE June 21, 1945

TO: Mr. J. R. Oppenheimer

~~CONFIDENTIAL~~

FROM J. M. Hubbard

SUBJECT: Long Range Weather Schedule

PUBLICLY RELEASABLE  
LANL Classification Group  
4/27/81, 3/4/88

The following is the continuation of the long range forecast originally set up April 23 and continued in the memorandum of May 19. The activity dates are indicated in the following schedule which is set up to take care of three influences--namely, polar, sub-tropical (Pacific) and tropical. Upon these dates unusual occurrences such as frontal passages with or without precipitation, unusual winds, thunder storms may occur. However, the activity produced is caused by trough passages in the upper and lower atmosphere and these dates are a means of timing the passage of these troughs across this particular meridian. The activity produced by these trough passages is a function of an independent north-south movement of warm and cold air. It is expected with the change of season during June that the polar influence will diminish and may become nonexistent whereas the tropical influence will exert an increasing influence. The effect upon this schedule will be little or no activity on some of the dates and increasing violence upon others.

West-to-East Troughs Crossing This Meridian

*June 13	1800 M	(0 point)	July 20	1000 M
*June 19	1800 M		*July 25	1800 M
June 21	0200 M		July 27	1800 M
*June 25	1800 M		*July 31	1800 M
June 28	1000 M		August 4	0200 M
*July 1	1800 M		*August 6	1800 M
July 5	1800 M		August 11	1000 M
*July 7	1800 M		*August 12	1800 M
July 13	0200 M**		*August 18	1800 M (0 point)
*July 13	1800 M		*August 24	1800 M
*July 19	1800 M		August 26	0200 M

CLASSIFICATION CANCELLED

Per Mrs dated 6/24/77  
By Leo Redman / Henry K. Lee

\*\*Analogous to May 8 troughs

The asterisk (\*) indicates the upper air trough passages which usually arrive on schedule as they have a fairly uniform angular velocity. The other dates indicate the arrival of troughs associated with lower atmospheric disturbances during the summer season; many of these wash out and do not appear.

North-South Perturbation

Tropical <sup>influences</sup> or an influx of warm air into both hemispheres are considered to be the perturbing factor which sets up the polar cycle. These perturbations are not of regular nature but do follow trends. The last fourteen pushes have been recorded and the time intervals graphed and extrapolated. The maximum northerly

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FINAL DETERMINATION  
UNCLASSIFIED  
L. M. Redman  
OCT 24, 1980  
Mark in force 6/25/86

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222  
262  
232

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INTER-OFFICE MEMORANDUM

FINAL DETERMINATION  
UNCLASSIFIED  
L. M. Redman  
OCT 24, 1980

DATE

TO:

~~CONFIDENTIAL~~

FROM:

SUBJECT:

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position of this tropical influence was expected on May 5 and June 12. This was verified. The next intrusions are expected about July 18 and August 30.

Polar influences may be timed from lag correlation and were expected on May 15, June 21 and sometime between July 25 and 29. The May 15 date verified.

Analysis - July Weather

The trough passages of July 13 are analogous to the trough passages of May 8. Therefore the date of July 12 would correspond to May 7, which was ideal for such an operation. The north-south movement for the July 12 date is not analogous, and it is expected that the intrusion of tropical air will begin on the date of July 13 and should be accompanied by thunder storms along the leading edge of the warm air mass.

On July 18 the tropical air should reach its most northerly displacement and will be deep over this area. Any frontal passages occurring on the dates of July 19 and 20 will not appear at the surface due to the depth of the warm air mass. The first frontal passage which may produce surface activity beyond July 20 is July 25. This means that the mornings of July 18 and 19 will be analogous in both air mass and trough locations and should be favorable days for operation.

The date of July 25 should be active, therefore unfavorable, for operations between the 24 and morning of the 26. The day of the 27 shows a weak surface influence and proper trough location. The mornings of the 27 and 28 may be considered as days favorable for operation, with a period of 96 hours between this trough and the next trough on the 31 which may again be active.

The choice between these two favorable periods appears to rest upon the 18 and 19 as the 27 and 28 lie within the expected polar influence which may release the energy of tropical air and thunder storm activity between the 27 and 31.

It is expected by August 1 the energy in the warm air mass will be released; however, behind the trough passage of the 31 of July the winds will be north of west during August 1 and 2, becoming south of west August 3 in advance of the weak disturbance of August 4. August 3 may be considered another favorable date. Little activity should occur between August 3 and August 6, and on August 6 a secondary intrusion of warm air may occur with thunder storms along the leading edge.

*J. M. Hubbard*

J. M. HUBBARD

JMH/bsa  
cc - K.T.Bainbridge  
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