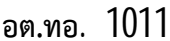


## TEMPERATURE IN DEGREES CELSIUS



EXPLANATION

ISOBARS are straight horizontal brown lines. The heights in feet of the pressure surfaces in the U.S. Standard atmosphere are in parenthesis ( ) below the pressure values on the left.

ISOTHERMS ( $^{\circ}\text{C}$ ) are the straight, equidistant brown lines running diagonally upward from the left to right.

DRY ADIABATS are the slightly curved brown lines that intersect the 1000 mb. isobar at intervals of  $2^{\circ}\text{C}$ , and run diagonally upward from right to left. The Dry Adiabats for the folded portion of the pressure range are labeled with two (2) values. (See below).

SATURATED ADIABATS are the curved green lines that intersect the 1000 mb. isobar at intervals of  $2^{\circ}\text{C}$ , diverging upward and tending to become parallel to the dry adiabats.

SATURATION MIXING RATIO (in gm. per kg.) is represented by dashed green lines. Their values appear at the bottom of diagram.

THICKNESS (in hundreds of geopotential meters) of the layers between the levels 1000, 700, 500, 300, 200, 150, and 100 mb. is represented by numbers and a graduation along the middle of each layer. The thickness are obtained from the virtual temperature curve by the equal-area method, using any straight line as a dividing line.

HEIGHT in geopotential meters above mean sea level, or station level, of the 100 kPa surface is obtained from the nomogram in the upper left-hand corner by drawing a straight line from the point on the temperature scale ( $^{\circ}\text{C}$ ) through the point p (mean sea level or station pressure) on the pressure scale, and reading the height on the height scale.

U.S. STANDARD ATMOSPHERE SOUNDING is indicated by a thick brown line.

The saturated adiabats and isopleths of saturation mixing ratio are computed by use of vapor pressure over a plane water surface at all temperatures.

Extensions of chart to 50 mb. has been accomplished by overlap with pressure indicated in brackets, [200] at 400 mb., and [50] at 100 mb. Dry adiabats for the overlap are labeled in parenthesis. ( ).

APPROXIMATE VIRTUAL TEMPERATURE may be obtained from the formula  $T = T + \frac{w}{16}$  where  $T$  is virtual temperature in °C,  $T$  is free air temperature in °C, and  $w$  is the mixing ratio in grams/kilogram. For purposes of thickness computation, use the mean temperature of the layer for  $T$  and use the mean mixing ratio of the layer for  $w$ .

Black dots • along wind scale lines indicate the levels for which wind data is reported and plotted. The open circles ○ indicate the mandatory pressure level at which wind data is also entered.

SKEW T ANALYSIS									
TIME					TIME				
AIRMASS ANALYSIS									
TYPE BOUNDARY _____		M.			_____			M.	
TYPE BOUNDARY _____		M.			_____			M.	
FREEZING LEVEL(S)									
INVERSIONS									
FRONTAL									
RADIATION									
SUBSIDENCE									
TROPOPAUSE									
L.C.L.									
C.C.L.									
L.F.C.									
SIGNIFICANT WIND									
MAX.									
MIN.									
LEVELS OF SHEAR									
STABILITY									
INDEX					INDEX				
TO					TO				
TO					TO				
TO					TO				
CLOUDS									
TYPE									
AMOUNT									
BASES									
TOPS									
ICING									
TYPE									
SEVERITY									
BOUNDARIES									
CONTRAILS									
PERSISTENCE									
HEIGHT									
TURBULENCE									
DEGREE									
HEIGHT(S)									
MAX. WIND GUSTS									
HAL SIZE									
TEMPERATURES									
MAX.									
MIN.									
CUMULUS CLOUD FORMATION AT TEMP _____					TIME _____				
DISSEMPATION OF LOW LEVEL INVERSION AT _____					TIME _____				

REMARKS

<u>STATION ID</u>	<u>STATION NAME</u>
<u>TIME (GMT)</u>	<u>DATE (GMT)</u>