# The Experiments of Weather Instruments & Observations lab.

## (First Semester) ASD / 2<sup>nd</sup> Stage 2021 - 2022

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#### Standard level 500 (hpa):

#### $50h_4h_4h_4$ $T_4T_4T_{a4}D_4D_4$ $d_4d_4d_4f_4f_4$

The standard altitude for this level is (5576 gpm), and its average temperature is (-21.2  $^{\circ}\text{C}).$ 

To calculate the value of the *real height*, the number **0** is added to **the right**, and in the case of the drawing, it is written as on the station as it is in the code.

 $50569 \implies 5690 \text{ real height} \implies 569 \text{ drown}$   $TTAA 73121 \qquad TTAA 16061$ 

40580 50577 18947 30017	40375 50531 17120 20015
17240 50581 16963 15025	62414 50557 10183 33006

#### Standard level 300 (hpa):

30h6h6h6 T6T6Ta6D6D6 d6d6d6f6f6

This axis is important in the study of the jet stream, the record height of this level (9168 gpm), and its average temperature (-44.6  $^{\circ}$ C).

To find the value of the *real height*, the number **0** is added to **the right**, and in the case of the drawing, it is written as on the station as it is in the code.

30923 > 9230 real height	$\implies$ 923 drown
TTAA 73121	TTAA 16061
40580 30906 50143 31035	40375 30953 51723 34013
17240 30928 44172 25040	62414 30919 35966 18520

### Standard level 200 (hpa):

#### $20h_8h_8h_8$ $T_8T_8T_{as}D_8D_8$ $d_8d_8d_8f_8f_8$

This level is characterized by high values of wind speed, which makes it a place for the axis of the jet stream. It is also of special importance in military aviation. The record height of this level is (11777 gpm), and its average temperature is (-61.5 °C). To find the value of the <u>real height</u> we add number 1 to the left of the number and number 0 to the right of the number and when drawing it is drawn as it is in the code hhh.

20214	$\Longrightarrow$	12140	real height	$\Box$	214	drown
20194	$\Box$	11940	real height	$\Longrightarrow$	194	drown
TTAA	73121			TTAA	16061	
40580	20189	59731	16070	40375	20160	58362 31035
17240	20211	57743	05040	62414	20221	56982 29016

## Standard level 100 (hpa):

 $10 h_{10} h_{10} h_{10} T_{10} T_{10} T_{10} D_{10} D_{10} d_{10} d_{10} d_{10} f_{10} f_{10}$ 

This level represents the top of the troposphere and sometimes it enters the stratosphere according to weather conditions, the record height of this level is (15802 gpm), and its average temperature is (-87.7  $^{\circ}$ C).

To find the value of the <u>real height</u> we add the number 1 to **the left** of the number and the number 0 to **the right** of the number and when drawing the values are written as they are in the code hhh.

10650	$\square >$	16500	real height	$\square >$	650	drown
10588	$\square >$	15880	real height		588	drown

←

TTAA 73121	TTAA 16061
40580 10597 70157 29055	40375 10630 53961 30120
17240 10616 64976 34010	62414 10589 60938 25715