

# **The Experiments of Weather Instruments & Observations lab.**

**(First Semester)**

**ASD / 2<sup>nd</sup> Stage**

**2023 – 2024**

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**Standard level 500 (hpa):**

50h<sub>4</sub>h<sub>4</sub>h<sub>4</sub> T<sub>4</sub>T<sub>4</sub>T<sub>4</sub>a<sub>4</sub>D<sub>4</sub>D<sub>4</sub> d<sub>4</sub>d<sub>4</sub>d<sub>4</sub>f<sub>4</sub>f<sub>4</sub>



The standard altitude for this level is (5576 gpm), and its average temperature is (-21.2 °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  $\Rightarrow$  5690 real height  $\Rightarrow$  569 down

TTAA 65121	TTAA 16061
40580 50577 18947 30017	40375 50531 17120 20015
17240 50581 16963 15125	62414 50557 10183 33606

### Standard level 300 (hpa):

30h<sub>6</sub>h<sub>6</sub>h<sub>6</sub> T<sub>6</sub>T<sub>6</sub>T<sub>6</sub>a<sub>6</sub>D<sub>6</sub>D<sub>6</sub> d<sub>6</sub>d<sub>6</sub>d<sub>6</sub>f<sub>6</sub>f<sub>6</sub>



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 °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  $\Rightarrow$  9230 real height  $\Rightarrow$  923 down

TTAA 65121	TTAA 20063
40580 30906 50143 31235	40375 30953 51723 34013
17240 30928 44172 25540	62414 30919 35966 18520

### Standard level 200 (hpa):

20h<sub>8</sub>h<sub>8</sub>h<sub>8</sub> T<sub>8</sub>T<sub>8</sub>T<sub>8</sub>D<sub>8</sub>D<sub>8</sub> d<sub>8</sub>d<sub>8</sub>d<sub>8</sub>f<sub>8</sub>f<sub>8</sub> ←

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 real height 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 ⇒ 12140 real height ⇒ 214 down

20194 ⇒ 11940 real height ⇒ 194 down

TTAA 80121	TTAA 25063
40580 20189 59731 16170	40375 20160 58362 31035
17240 20211 57743 05040	62414 20221 56982 29516

### Standard level 100 (hpa):

10h<sub>10</sub>h<sub>10</sub>h<sub>10</sub> T<sub>10</sub>T<sub>10</sub>T<sub>10</sub>D<sub>10</sub>D<sub>10</sub> d<sub>10</sub>d<sub>10</sub>d<sub>10</sub>f<sub>10</sub>f<sub>10</sub> ←

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 °C).

To find the value of the real height 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 ⇒ 16500 real height ⇒ 650 down

10588 ⇒ 15880 real height ⇒ 588 down

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