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Litteris et Virtuti

PRACTICAL METEOROLOGY FOR
SAILING

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SEPTEMBER 2013



Lets focus on the following sentences :

“ Low 998, Iceland, swinging eastwards, deepening. High 1028 west of Biscay, stationary, strengthening. Ridge 1015 northern Germany, swinging, south somewhat, weakening. Extensive low 983 east of Lofoten, stationary, little change. Secondary depression eastern Baltic... Peripheral low 1010, southern Sweden, deepening...”



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- ▶ **Main idea:** there are many important points which affect the weather conditions, such as:
- ▶ Wind , visibility , atmospheric pressure, weather fronts, and the lows which are based on the laws of physics can be considered as main points in the weather conditions.





Topics:

1. Atmospheric conditions

1.1. Wind rule

1.2. Visibility rule

1.2.1. Changes in Sun and Moon



Topics:

Atmospheric pressure

- 2.1. Barometer
- 2.2. Depression
- 2.3. Anticyclones
- 2.4. High pressure
- 2.5. Rules for wind and rain
- 2.6. Displacement of Lows
- 2.7. Occluded front.



1. Atmospheric conditions

Atmospheric conditions which are influenced by the air mass are :

- ▶ ‘ zone flow type‘ ,
- ▶ ‘meridional flow type ‘and
- ▶ ‘mixed flow type’.



1.1. Wind rules

Weather rules are different from the weather reports.





1.2. Visibility rule

- ❖ **'Visibility Rule'** has an important place. In this rule, highs and lows transport huge air masses and send these air masses from where they were appeared to the zones too far.



1.2.1. Changes in Sun and Moon





Moon Aureole.



1. How can appear?
2. What it is?



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- ❖ **Before the aureole**, coloured rings around the moon occur. These coloured rings are generated by cirrus. Aureole and rings around the moon mean a swift worsening of the weather.
- ❖ **As for the colour of the sun**, there is a common misconception that the Sun is yellow, or orange or even red. However, the Sun is essentially all colors mixed together, which appear to our eyes as white.





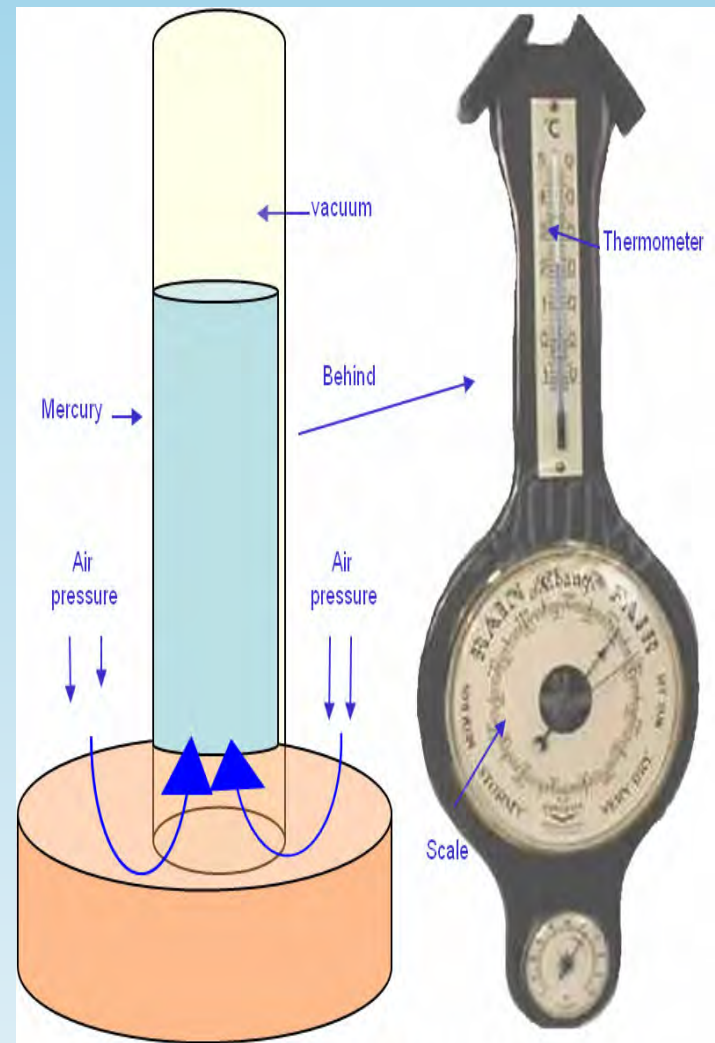
2. Atmospheric Pressure

- Atmospheric pressure is effective in terms of changing the weather conditions. The air in the atmosphere is made up of a number of gases. These gases press down on the Earth's surface, exerting a force that we call atmospheric pressure or air pressure.



2.1. Barometer

Changes in air pressure are measured on an instrument called a barometer.

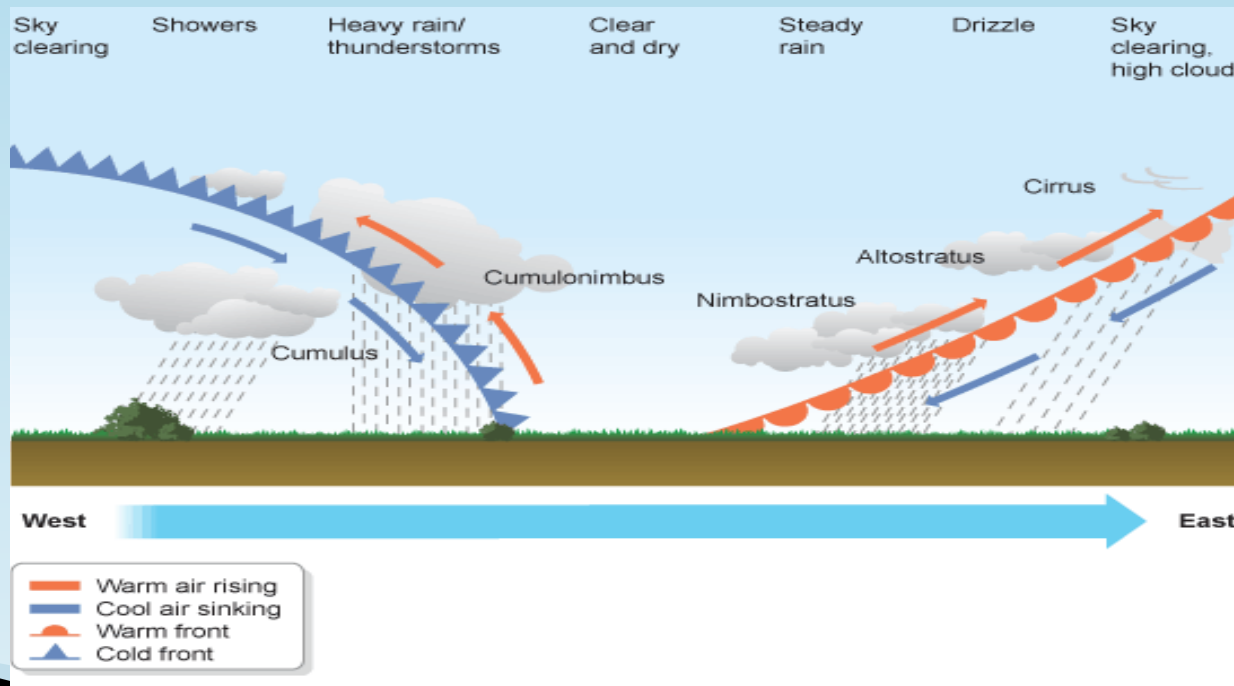


BAROMETER



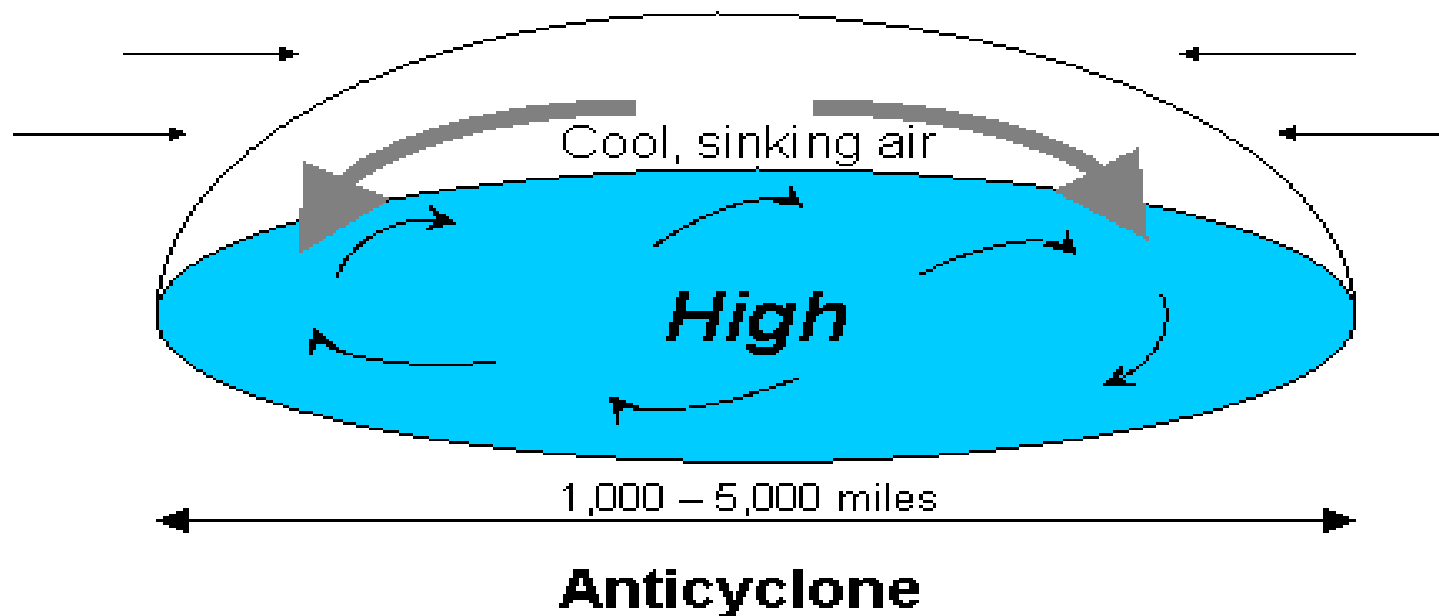
2.2. Depressions

Areas of low pressure are known as depressions.





2.3. Anticyclones

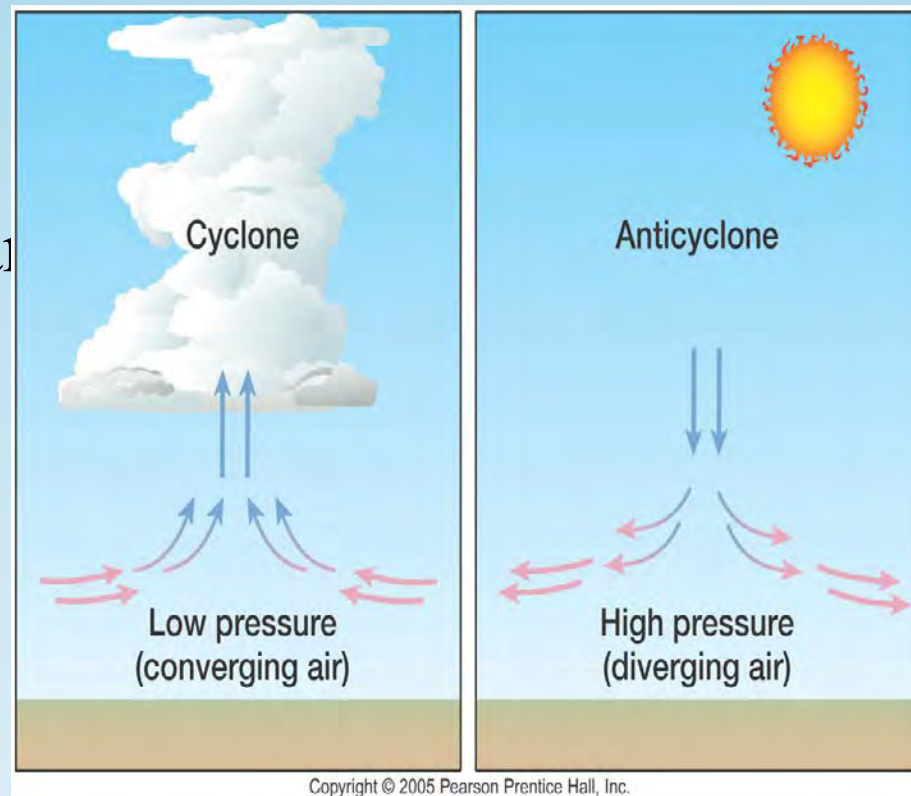


Areas with above average pressure are called anticyclone



2.4. High pressure

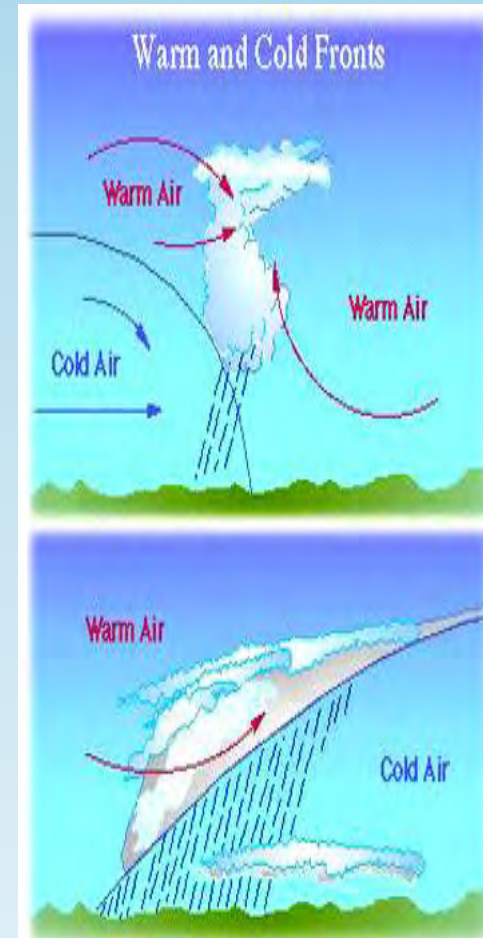
- High pressure situations are generally associated with fair, sunny weather.





2.5. Rules for wind and rain

Rules for wind and rain have significant points related to the weather conditions.





2.6. Displacement of Lows

- The last significant point is the rules for the ‘Displacement of Lows’.



2.7. Occluded front



- ▶ An occluded front is formed during the process of cyclogenesis when a cold front overtakes a warm front.



▶ Thank you for your attention!

Questions?