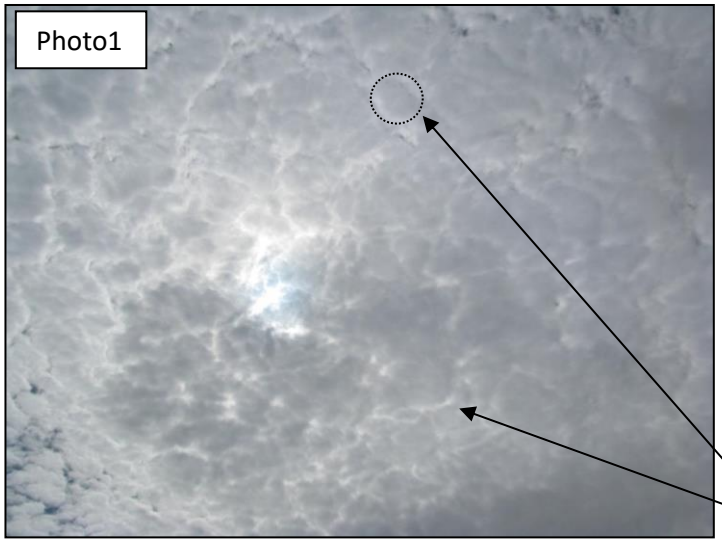
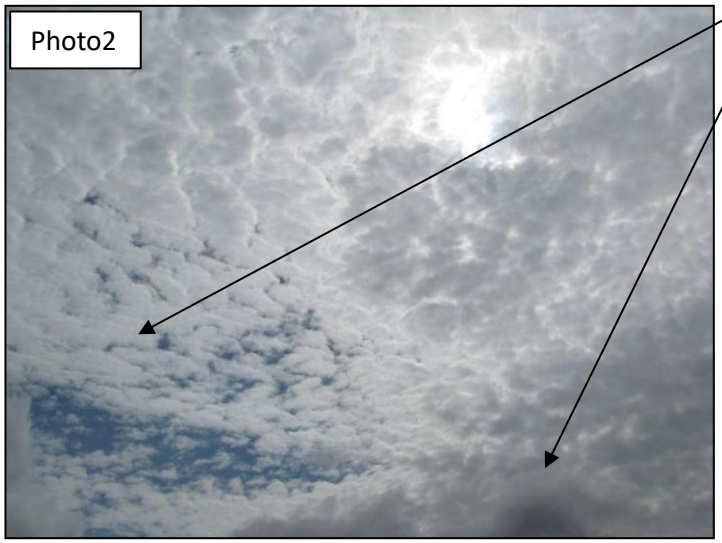
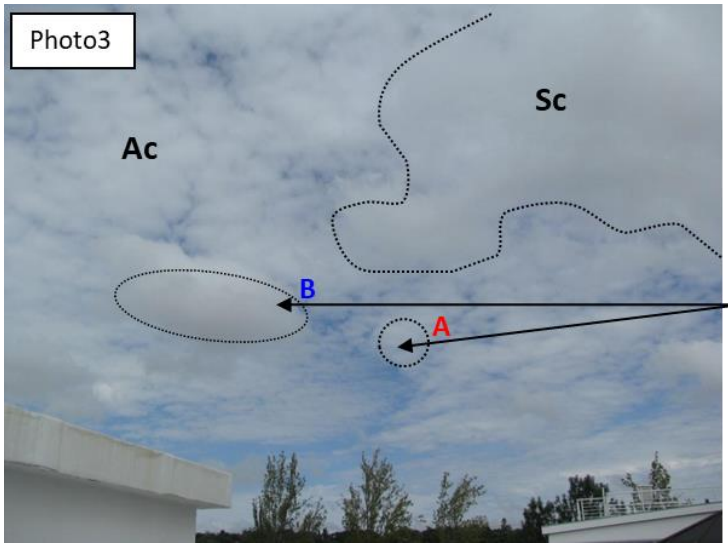


C_M5
Altocumulus translucidus
- Thin enough to reveal the position of the sun or the moon

Generally invading the sky

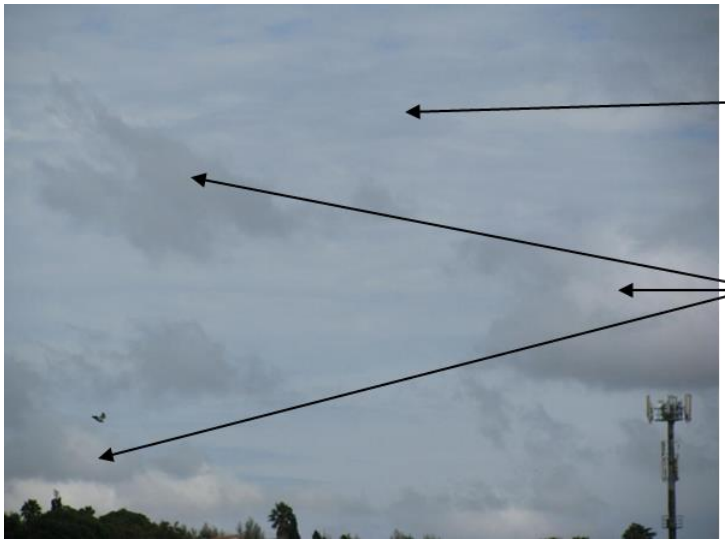


Notice that the size of each rounded mass is much smaller than the rounded mass of a Sc cloud as seen in Photo3



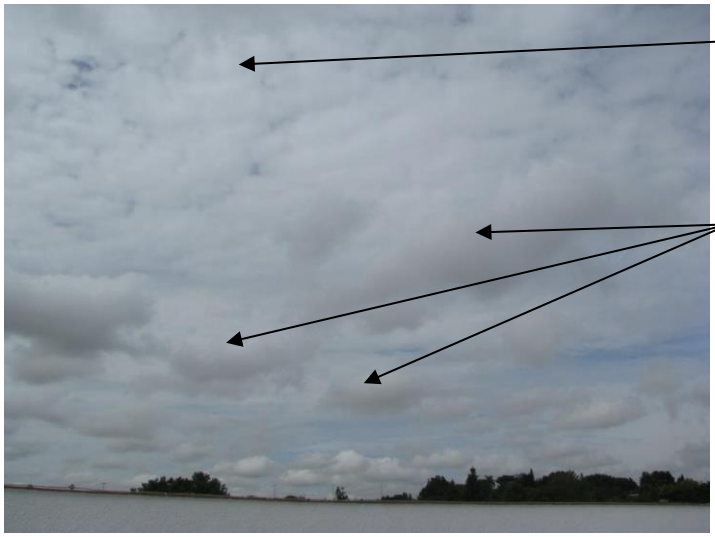
Notice that the size of the rounded mass of Ac cloud at "A" is much smaller than the rounded mass of Sc cloud "B" as seen in Photo3

Notice that the size of the rounded mass of Ac cloud at "**A**" is much smaller than the rounded mass of Sc cloud "**B**" as seen in Photo3

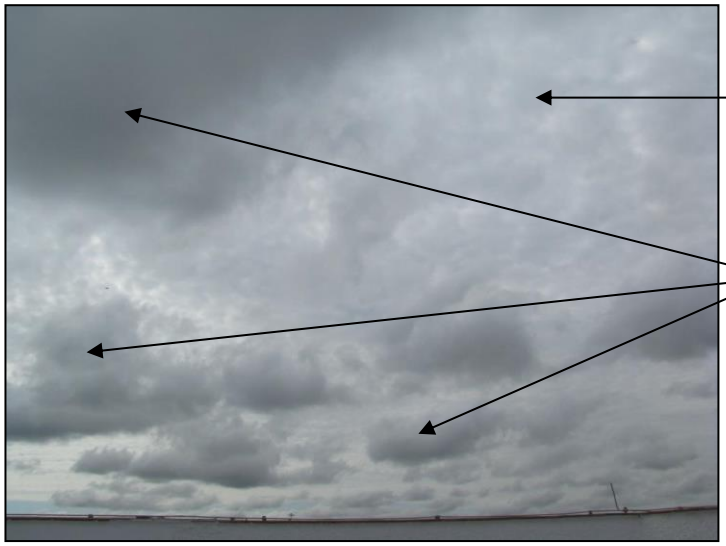


Notice that the size of the rounded mass of Ac cloud is much smaller than the rounded mass of Sc cloud

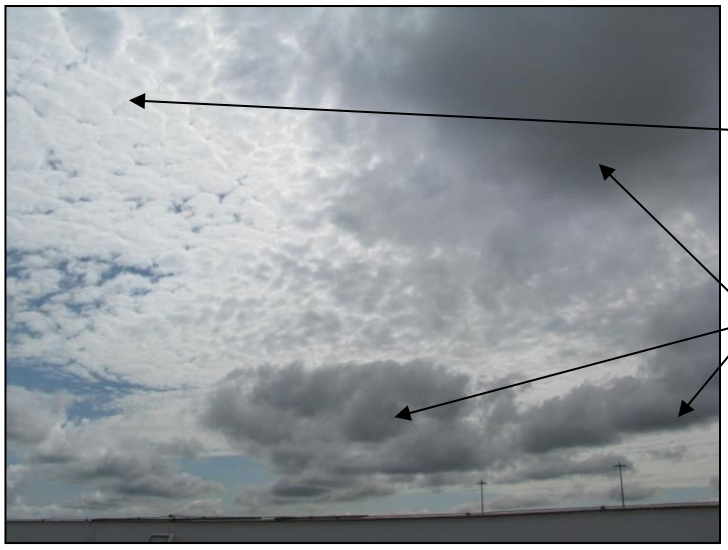
Notice that the size of the rounded mass of Ac cloud is much smaller than the rounded mass of Sc cloud



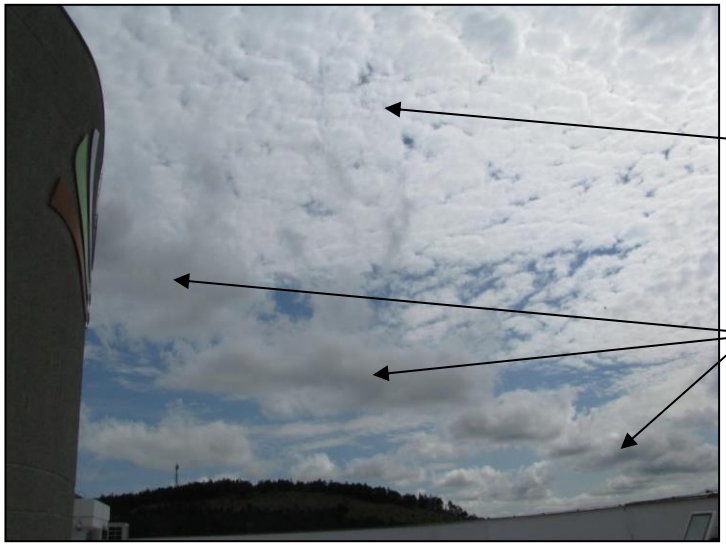
Notice that the size of the rounded mass of Ac cloud is much smaller than the rounded mass of Sc cloud



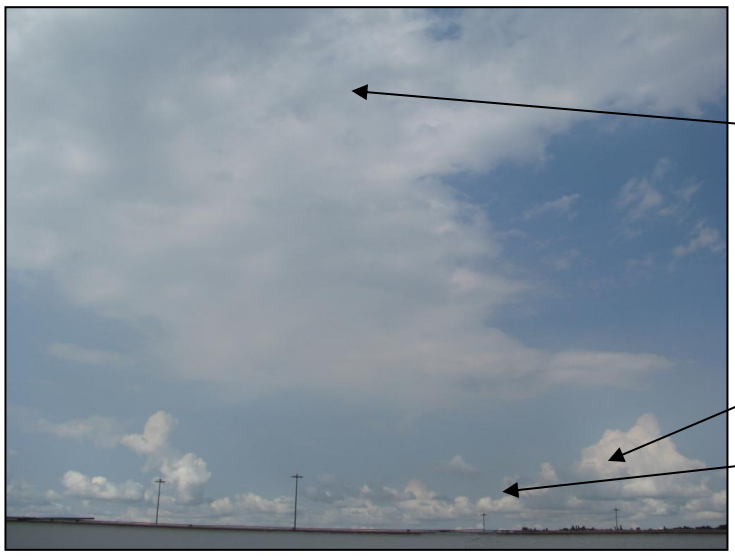
Notice that the size of the rounded mass of Ac cloud is much smaller than the rounded mass of Sc cloud



Notice that the size of the rounded mass of Ac cloud is much smaller than the rounded mass of Sc cloud



Notice that the size of the rounded mass of Ac cloud is much smaller than the rounded mass of Sc cloud



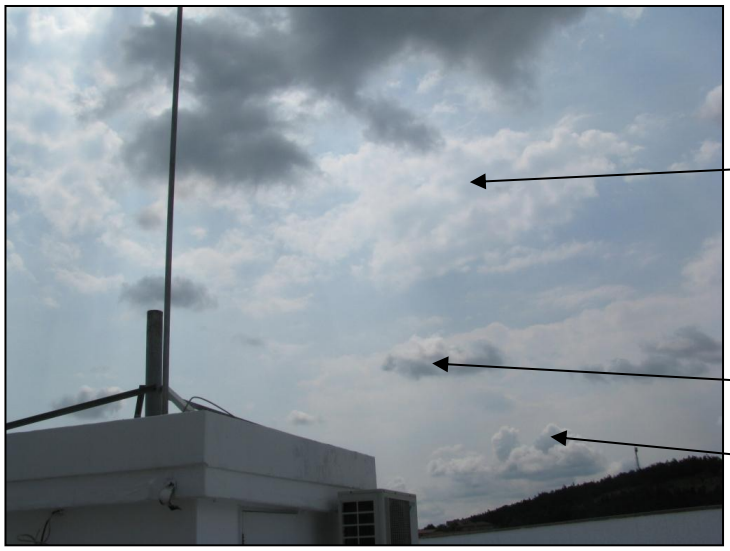
Ac

C_M7
Altocumulus opacus
- Thick enough to conceal the position of the sun or the moon.

The rounded masses or roll shapes result in grey and white shaded areas

Cu

C_L2
Cumulus mediocris
C_L1
Cumulus humilus



Ac

C_M7
Altocumulus opacus
- Thick enough to conceal the position of the sun or the moon

The rounded masses or roll shapes result in grey and white shaded areas

Cu

C_L1
Cumulus humilus
C_L2
Cumulus mediocris

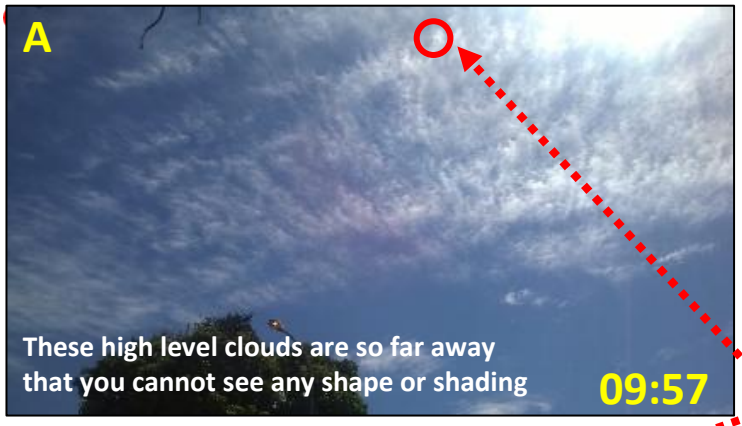
As

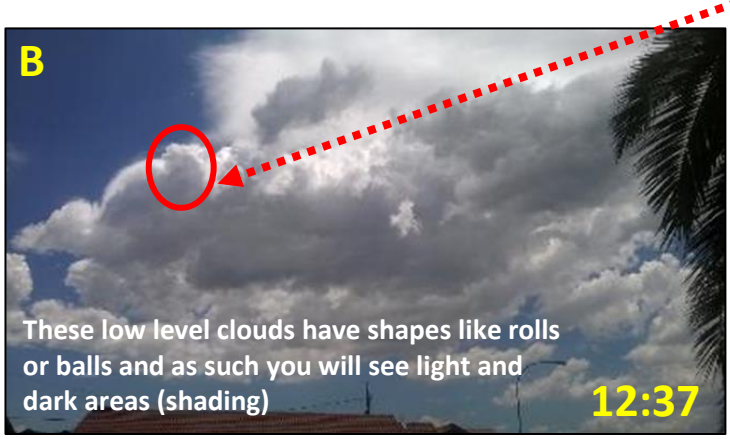
C_M2
Altostratus opacus
- Thick enough to conceal the position of the sun or the moon

Smooth, uniform appearance. The rounded masses or roll shapes result in grey and white shaded areas.

Sc

C_L5
Stratocumulus stratiformis



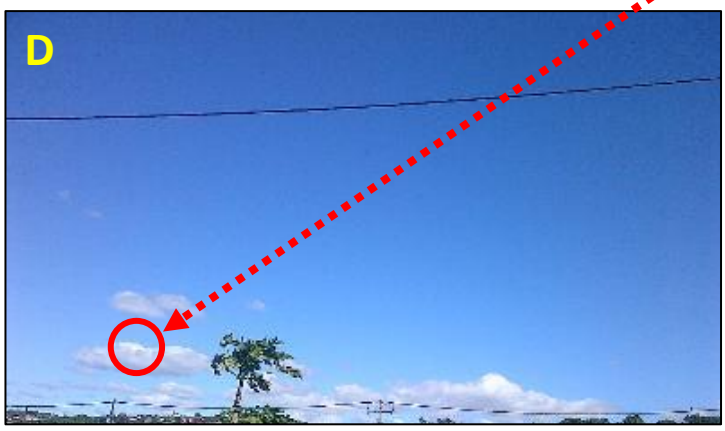


Comparing photo A to B

- A These are high level clouds
- B These are low level clouds

How to tell –

- ✓ Look at the cloud element size.
- ✓ B is significantly larger than A.
- ✓ This is because something further away from you will appear a lot smaller than something closer.

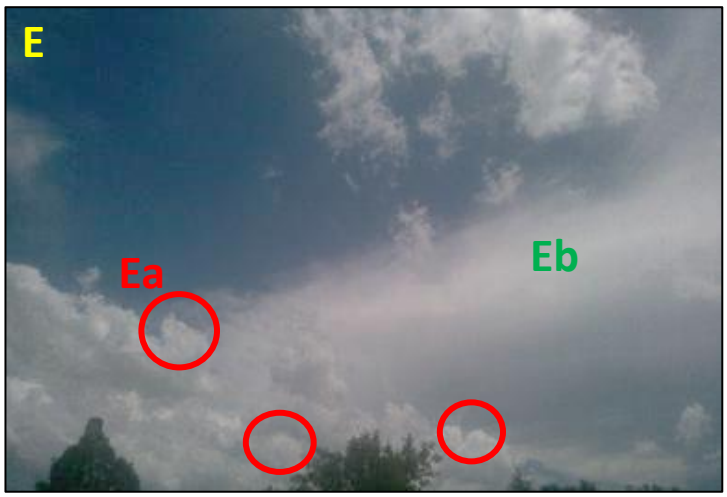


Comparing photo C to D

- C These are clouds occurring in the Middle levels
- D These are low level clouds

How to tell –

- ✓ Look at the cloud element size.
- ✓ D is significantly larger than C.
- ✓ This is because something further away from you will appear a lot smaller than something closer – even when it is on the horizon.



Comparing photo Ea to Eb

- E These clouds are both in the low levels – although **Ea** appears to be below **Eb.**
- **Ea** is a low-level cumulus cloud of small vertical height.
- **Eb** is a low-level cumulonimbus cloud of extensive vertical height.
- What you are seeing at **Eb** is actually the upper part of the cumulonimbus cloud which can be around 13-15 km
- The base of this cumulonimbus cloud will be very close to the base of the cumulus cloud at **Ea**.
- The cloud shapes are also large and well defined at **Ea**
- The cloud at **Eb** though appears smooth –see the difference?

Photo F

- Notice the protrusions at the bottom of the cloud - these are called mamma
- They do not occur all the time, but when they do it is usually an extension downwards of **Eb**

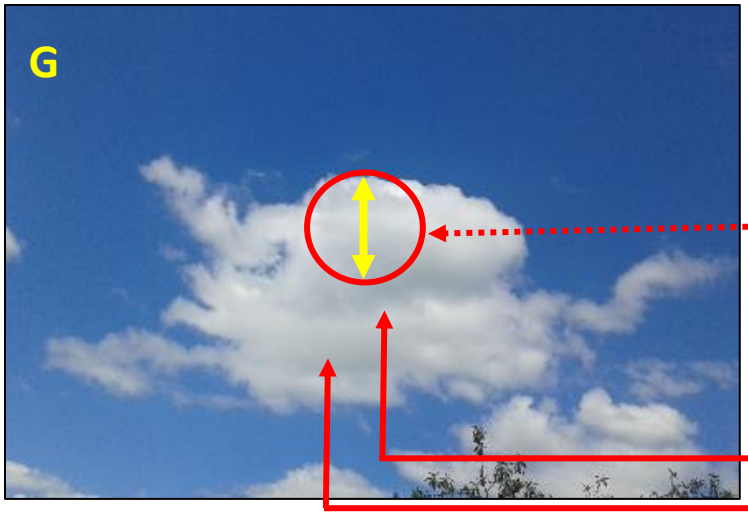


Photo G

- G These are low levels clouds

How to tell –

- ✓ Look at the size of the cloud elements.
- ✓ Can you see that they are large.
- ✓ They also have shapes in the form of rolls as you can see light and dark areas (light at the top and dark at the bottom).

Photo H

- H These are low levels clouds

How to tell –

- ✓ Look at the size of the cloud elements.
- ✓ Can you see that they are large.
- ✓ They also have shapes in the form of rolls as you can see light grey and dark grey areas (light at the top and dark at the bottom).
- ✓ They are appearing darker than the other low-level clouds with rounded shapes as the source of light is at a different angle to the other photos.
- ✓ It is also not clear if there was another layer of cloud above these dark clouds.

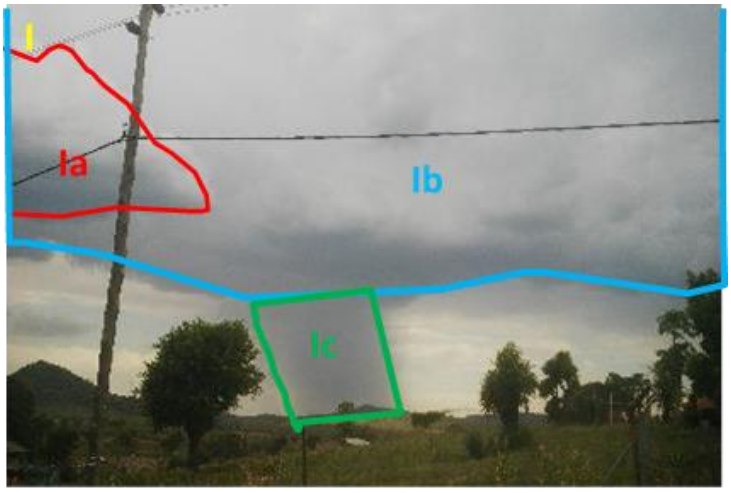
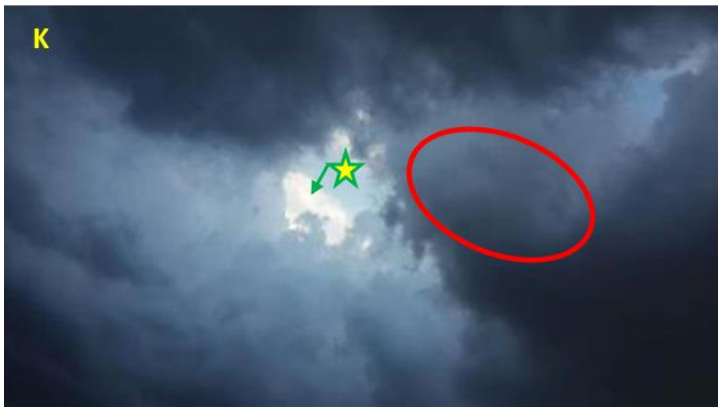


Photo I

- I These are low levels clouds
  Cumulus (**Ia**) and
  Cumulonimbus (**Ib**)

How to tell –

- ✓ **Ia** is smaller than **Ib**
- ✓ The **green** area **Ic** is where some form of precipitation is falling.
- ✓ You can see that the precipitation is falling from a part of the cloud **NOT** from the entire base.
- ✓ When this happens it is easy to identify the cloud as a Convective cloud (Cumulus (**Ia**) and Cumulonimbus (**Ib**)



Photos J and K

- These clouds are low level clouds – you can see the size of the cloud elements are large.
- The angle of photos **J** and **K** is looking up at the base of the clouds –
- Look at the centre of the photos (see) – see the top of the cloud peaking through the gap in the clouds.
- If you look closely, you will see that the top of the cloud is white and has a defined shape cauliflower type shape.

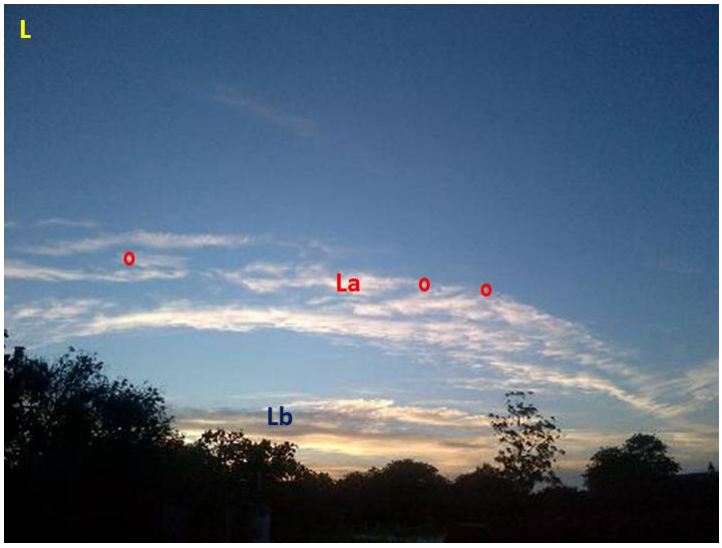
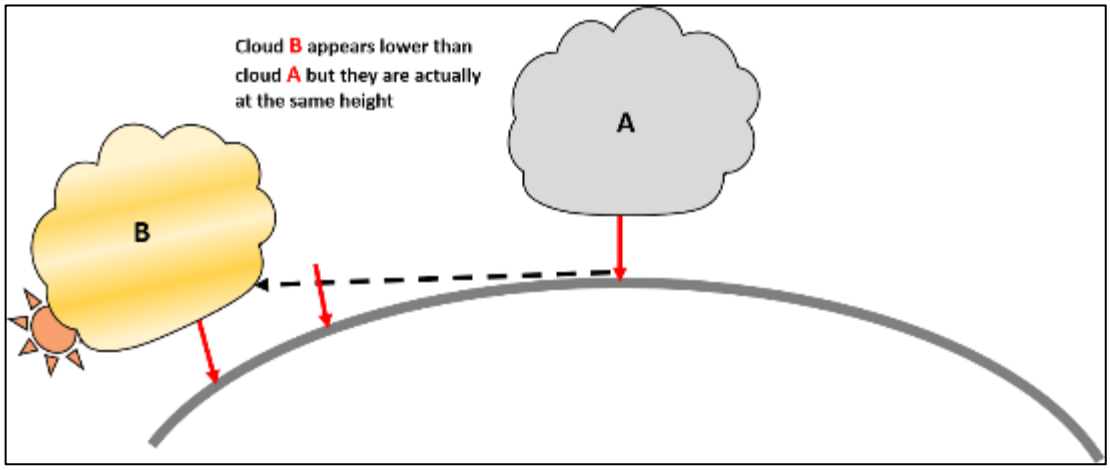


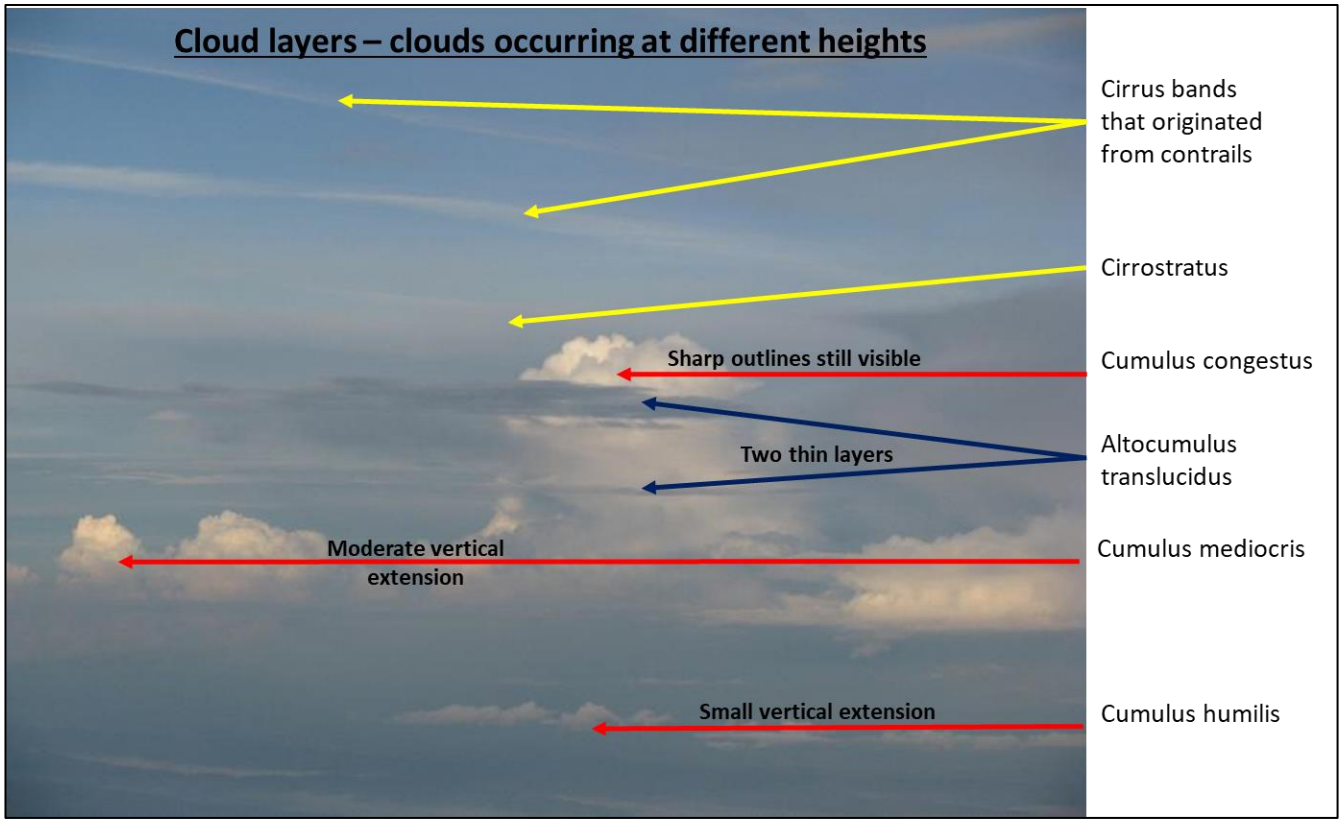
Photo L

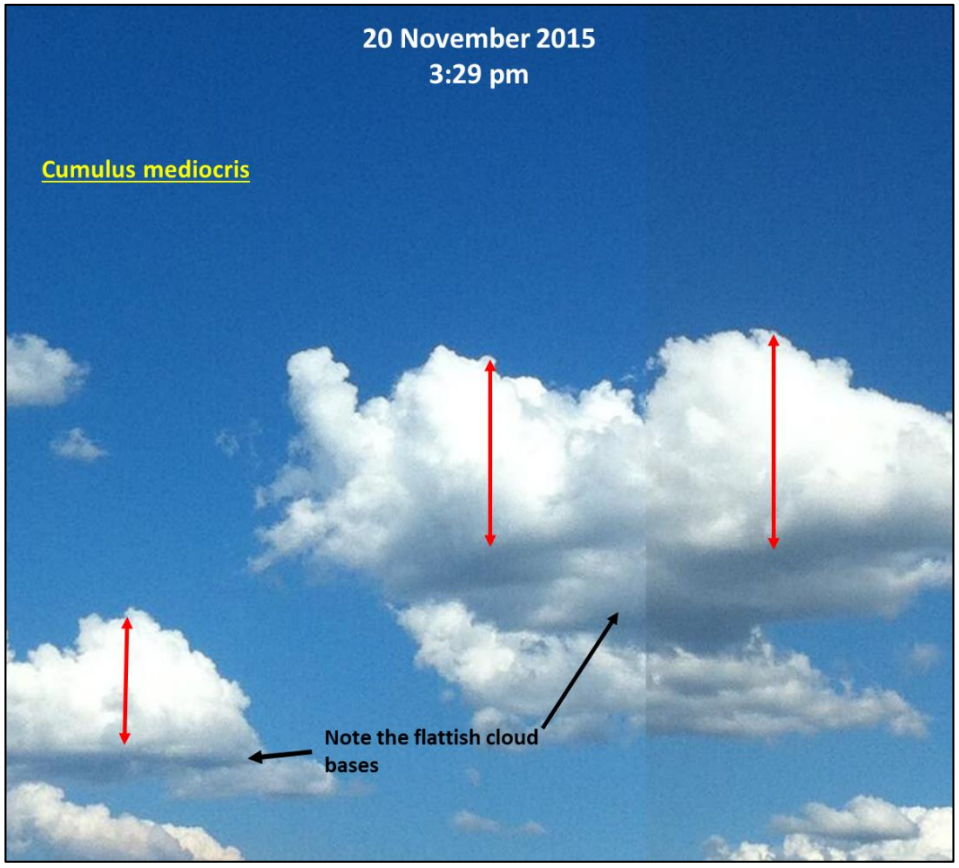
- In this photo we are looking at high and middle level clouds.
- **La** – these are the high level clouds – you can see the size of the cloud elements are very small … they are also white with no evidence of any shading.
- **Lb** – These clouds are middle level clouds – the size of the elements small big bigger than at **La** … they are also showing **dark** and **light** parts (evidence of shading) which implies a shape – in this case the clouds are in a roll shape.

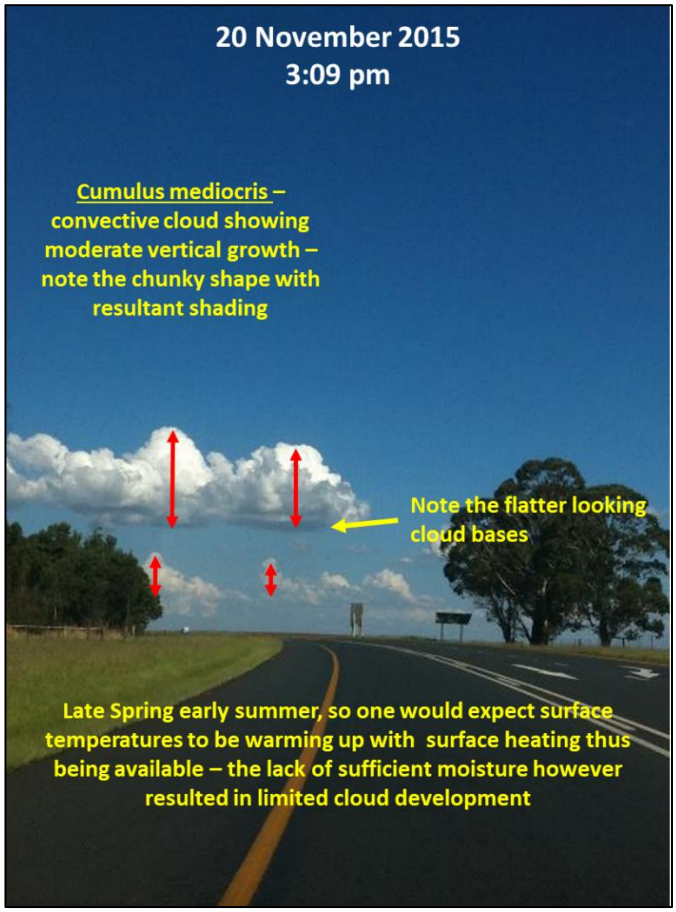
Photo M

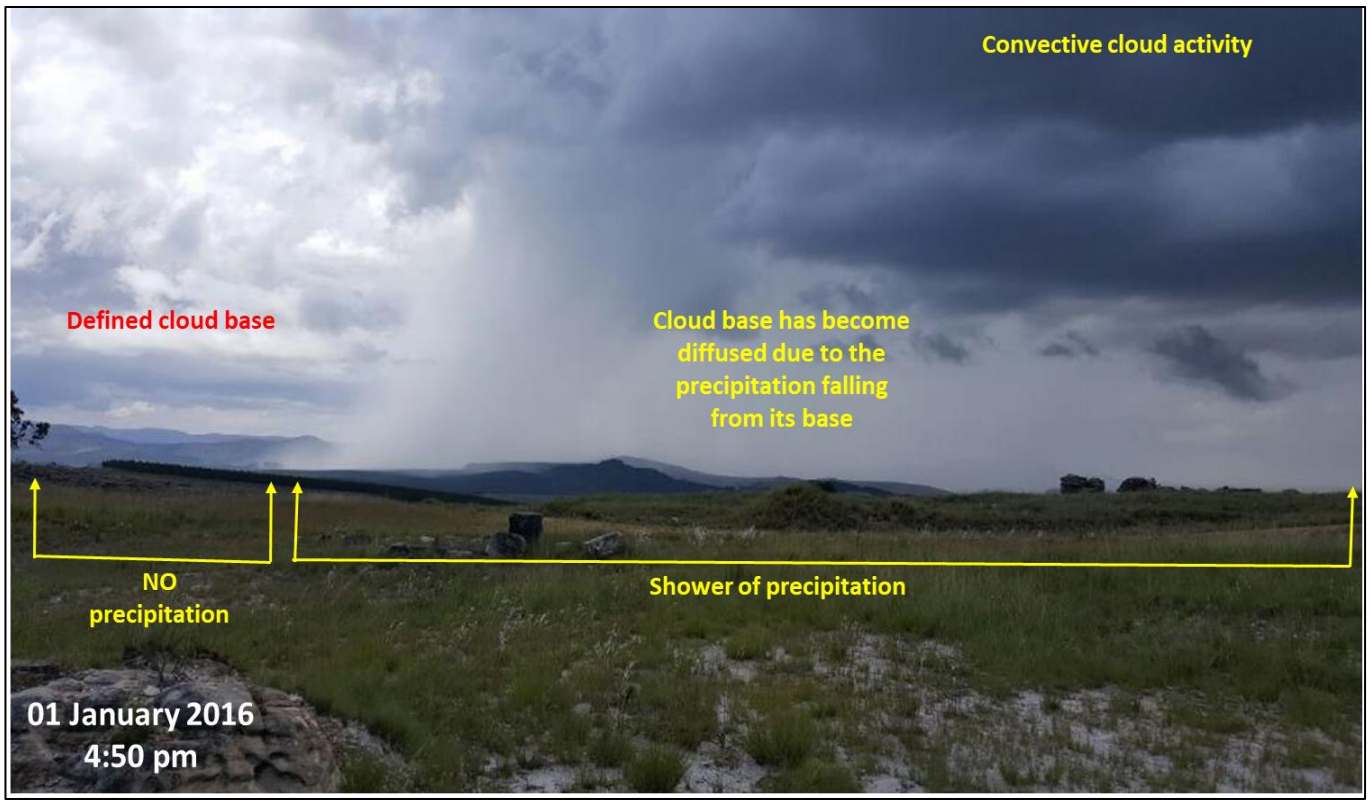
- In this photo we are looking at low level cloud**S**.
- The dark grey cloud (★) is actually the base of a Cumulonimbus cloud.
- It is a dark colour because the position of the sun is preventing any reflection off the bottom of the cloud.
- On the horizon at the bottom of the photo (⊗) one can clearly see other clouds.
- These are white and orange (indicating shading because of the cloud shape) and showing orange because the sun is setting and also on the horizon.
- This cloud is also a Cumulonimbus cloud.
- Both Cumulonimbus clouds ★ and ⊗ are approximately at the same height above the ground – the one on the horizon only appears "lower" because of the impact of the curvature of the earth's surface.

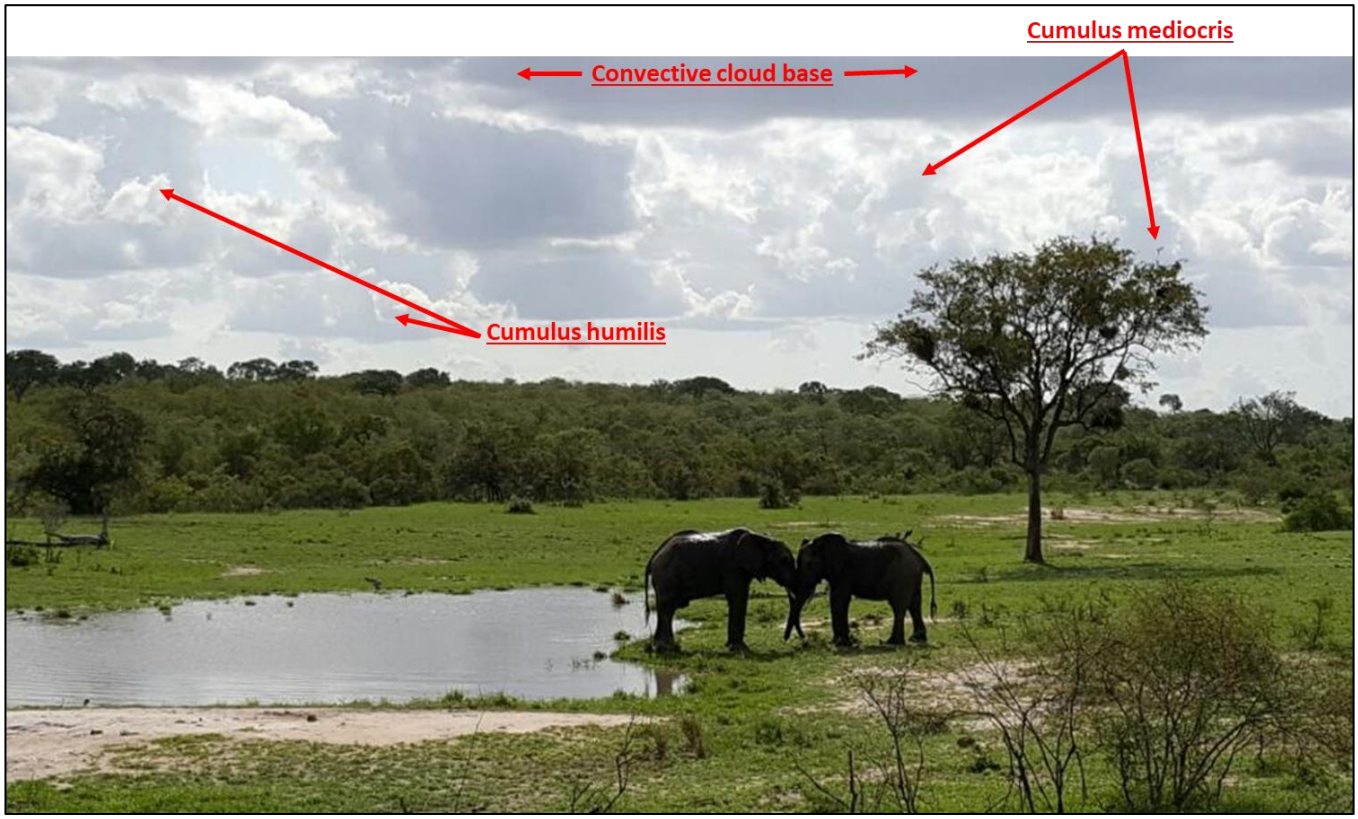


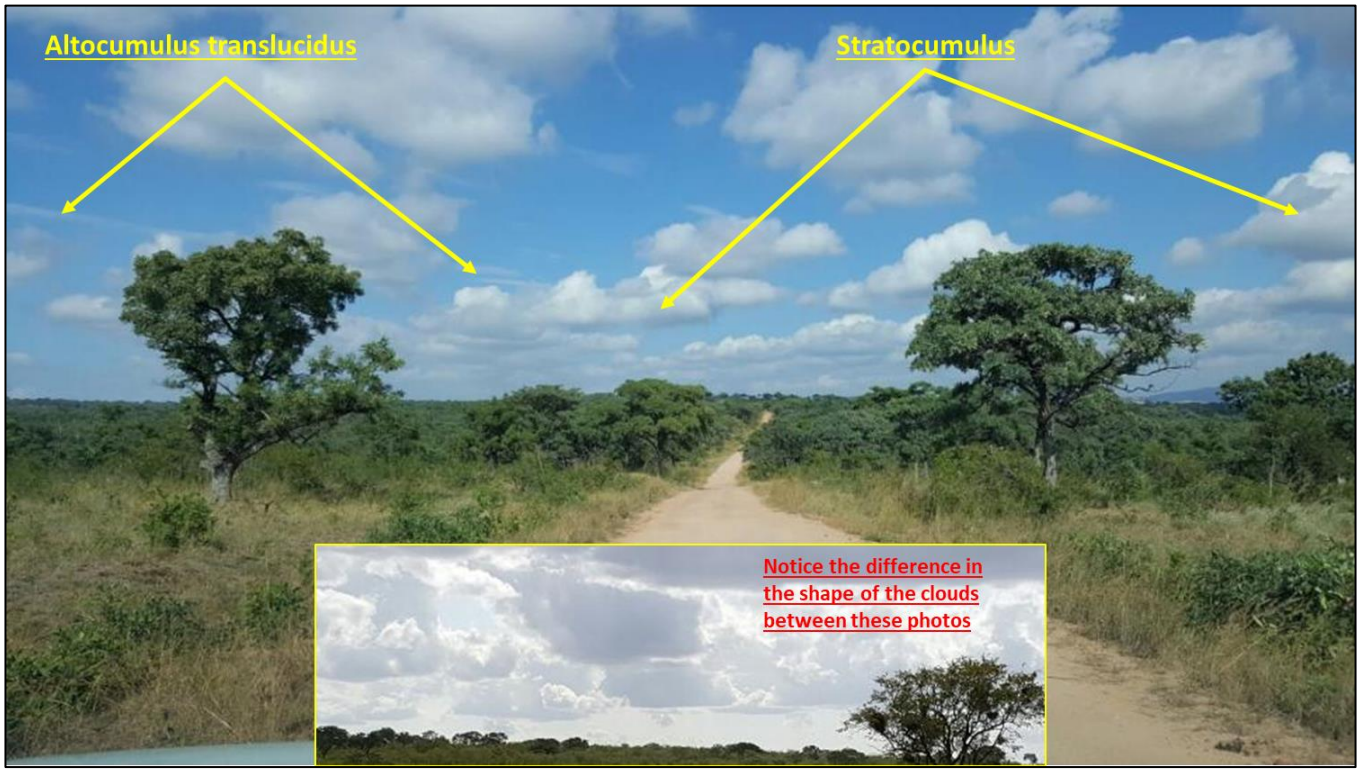

Cloud layers – clouds occurring at different heights
Cirrus bands that originated from contrails
Cirrostratus
Sharp outlines still visible
Cumulus congestus
Two thin layers
Altocumulus translucidus
Moderate vertical extension
Cumulus mediocris
Small vertical extension
Cumulus humilis


20 November 2015
3:29 pm
Cumulus mediocris
Note the flattish cloud bases


20 November 2015
3:09 pm
Cumulus mediocris – convective cloud showing moderate vertical growth – note the chunky shape with resultant shading
Note the flatter looking cloud bases
Late Spring early summer, so one would expect surface temperatures to be warming up with surface heating thus being available – the lack of sufficient moisture however resulted in limited cloud development


Convective cloud activity
Defined cloud base
Cloud base has become diffused due to the precipitation falling from its base
NO precipitation
Shower of precipitation
01 January 2016
4:50 pm


Cumulus mediocris
Convective cloud base
Cumulus humilis


Altocumulus translucidus
Stratocumulus
Notice the difference in the shape of the clouds between these photos


Stratocumulus
Altocumulus translucidus
Notice the difference in the shape of the clouds between these photos