

Fog

Fog is made up of a large amount of tiny suspended water droplets near the ground. In Hong Kong, fog is common in springtime and may greatly affect shipping and aviation.

What is fog?

Under light wind, stable and humid conditions, if the air near the ground cools down sufficiently, water vapour in the air may condense into tiny water droplets. These droplets reduce the visibility near ground level. The phenomenon is called fog. In Hong Kong, fog is common in springtime between February and April.

What is the difference between fog and mist?

According to the World Meteorological Organization, fog is said to have occurred when the visibility is reduced to less than 1 km by water droplets suspended in the air. For mist, there is no uniform definition at present. Different places in the world use slightly different definitions. In Hong Kong, mist is said to have formed when the visibility falls between 1 to 5 km.

What causes the fog commonly seen in springtime?

In springtime, Hong Kong and neighbour areas are affected by alternate cold and warm air. As cold air from the north recedes, warm and humid air comes in from the sea. During this time, as the water near the coast is still rather cold, the warm and humid air may be cooled sufficiently by the underlying cold water. This results in condensation of water vapour into droplets and hence formation of fog.

What is the relationship between atmospheric stability and fog?

When the air near the ground is colder than the air aloft, the denser air near the ground will not rise and will remain in its original position. The atmosphere is said to be stable. Stable atmosphere is favorable for fog formation. The atmosphere is usually more stable in spring, and is relatively unstable in summer. In the same way, under stable and dry conditions, dust particles suspended in the air are not easily dispersed, resulting in haze.

What are the effects of fog on our daily life?

Fog has a great effect on traffic. In Hong Kong, dense fog has led to marine crashes and aircraft delays, resulting in injuries and economic losses. On the highway, traffic accidents have also resulted because of dense fog.