

City Talk



AIRCRAFT LIGHT UP WHEN ON THE GO

How lighting works at airports was a recent topic, and now we advance on the illuminations. For while there are airport lights to help with safe and smooth operation of aircraft there are also lights on planes for similar purposes.

Large commercial aircraft usually have a sophisticated system of lights installed for warning and for checking wing and engine conditions and also for identification and for guiding a plane along runways and taxiways.

To alert others, aircraft have beacon lights and strobe lights.

Anti-collision red beacon lights are fitted on the bottom and also the top of the fuselage of some planes.

They are turned on whenever engines are running to warn others not to come near.

High-intensity strobe lights at wing-tips and the end of fuselages shine as a strong white double flash every second to warn others while flying, but they are turned off as soon as an aircraft leaves a runway after landing to avoid blinding pilots taxiing planes nearby.

Also located at the wing tips and the end of the fuselage are navigation lights.

From the pilot's perspective, it is red on the left, green on the right and white at the end of the fuselage.

Borrowed from sea navigation conventions, they enable pilots of nearby aircraft to know whether a plane is flying toward or away from them just by seeing the relative position of these colored lights.

As navigation lights are so important to avoid air collisions some planes have backup lights to ensure they continue to perform should any of these lights fail.

For easy identification, the tail fin of a plane, which normally carries the logo of the airline, is lit up by a logo light to allow



Nuts and bolts

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others to clearly see it, both on the ground and in flight.

Also lit up are the wings and the engines by the wing and engine scan lights installed on both sides of the fuselage.

Apart from helping others see a plane they also assist a cabin crew to support a pilot to check if there are any ice deposits on the wings that might affect flying and landing as well as the running conditions of the engines.

When a plane is being taxied to the runway, the taxiing lights at the front of the plane illuminate the pavement ahead to give clear visibility for safe movement.

As a plane approaches for landing the landing lights are lit from the bottom of the wings as soon as the landing gear is lowered, ready to light up the runway to help a pilot see some vital details of the surface of the runway pavement.

Once a plane decelerates on touching down runway turnoff lights help to light up the exit from the runway to a taxiway.

Finally, takeoff lights provide a bright vision of a pavement ahead to facilitate a takeoff. These lights are a lot brighter than taxiing lights and have a wider beam to give good vision to a pilot during adverse weather conditions and at night.

These different sets of lights, working at different times, not only help pilots see their way ahead during takeoffs and landings but also ensure that other flight and airport personnel can see an aircraft.

Altogether, this system of lights ensures an extremely high level of safety for flight personnel and passengers.

Veteran engineer Edmund Leung Kwong-ho casts an expert eye over features of modern life