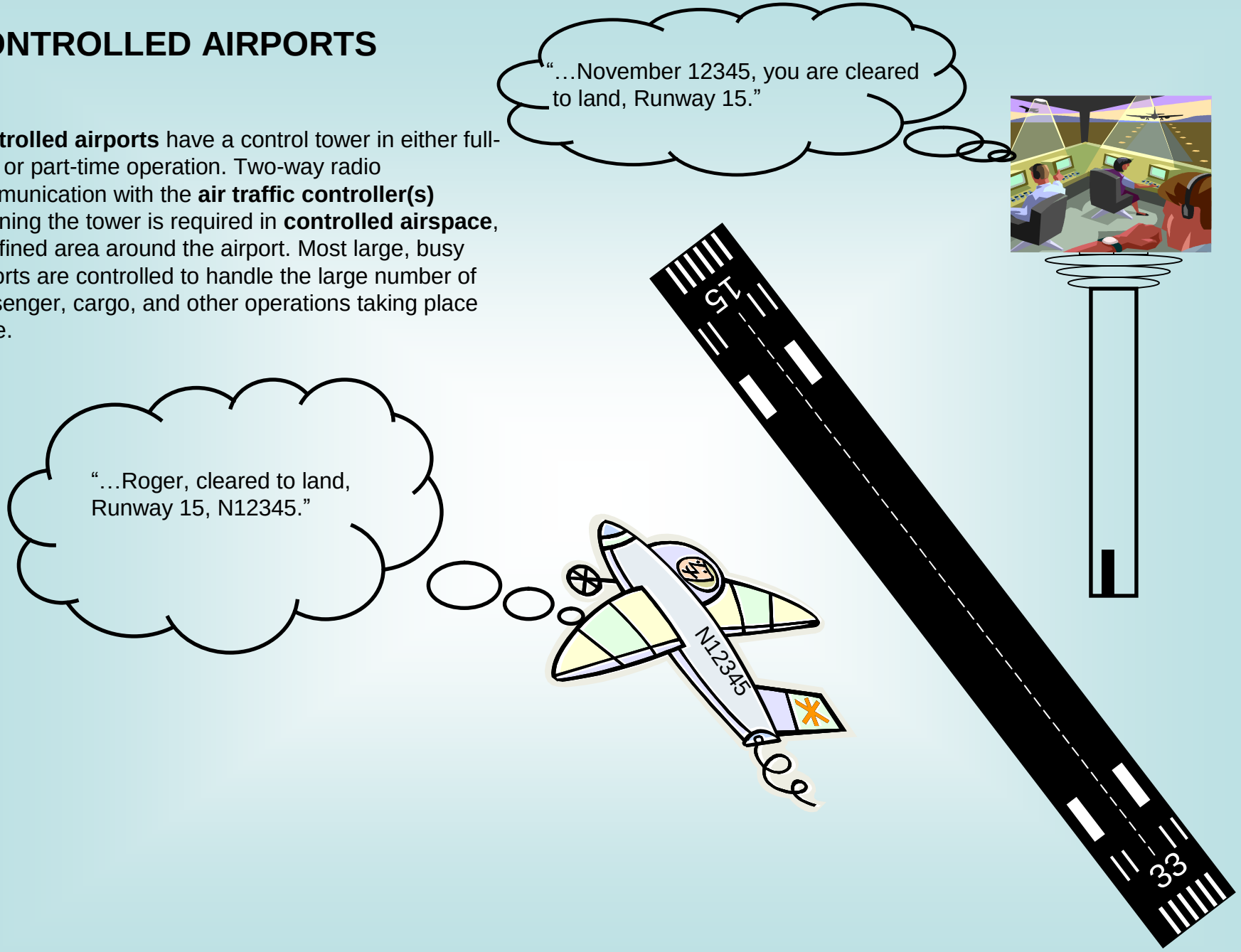
AIRPORTS

There are two types of airport environments: **controlled** and **uncontrolled.** A **controlled** airport has an operating control tower, staffed by either Federal or privately-contracted air traffic controllers. An **uncontrolled** airport is one that does not have an operating control tower, but certain rules and procedures still apply.

CONTROLLED AIRPORTS

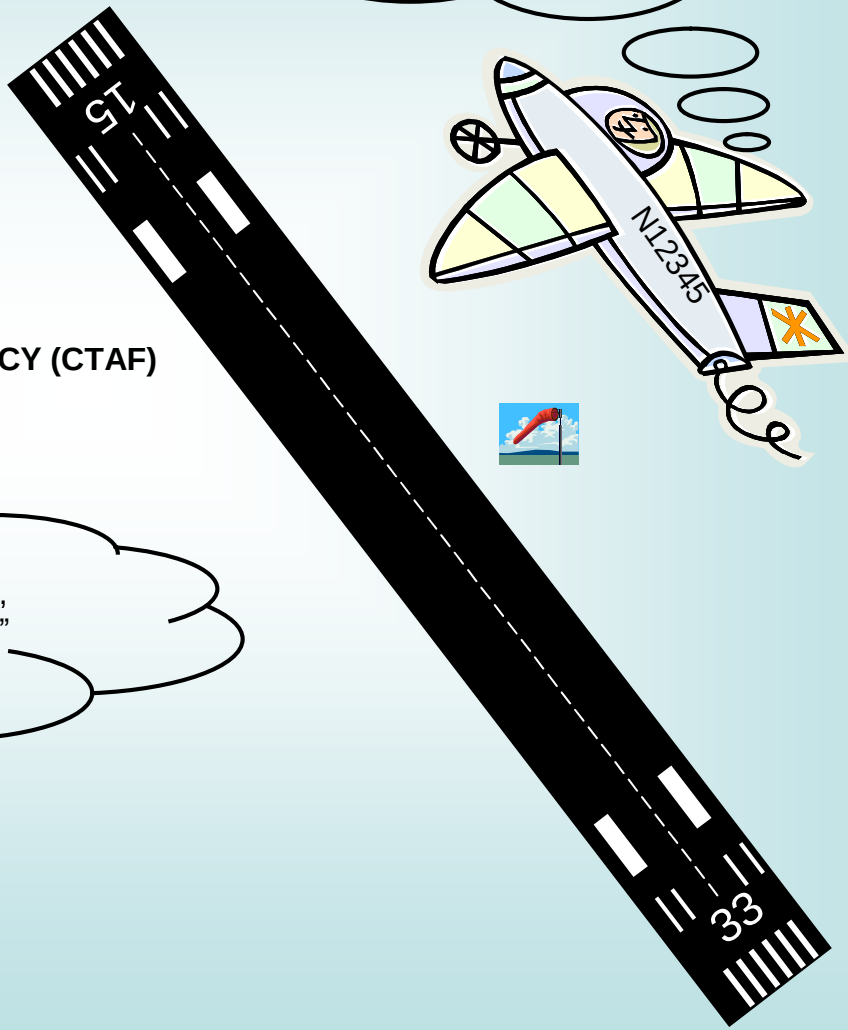
Controlled airports have a control tower in either full-time or part-time operation. Two-way radio communication with the **air traffic controller(s)** manning the tower is required in **controlled airspace**, a defined area around the airport. Most large, busy airports are controlled to handle the large number of passenger, cargo, and other operations taking place there.



UNCONTROLLED AIRPORTS

Uncontrolled airports have no control tower, but certain procedures are followed to help ensure safe operations. Most pilots operating to and from uncontrolled airports use two-way radios to transmit their intentions to other pilots operating in the area. Each airport has a radio frequency (CTAF) designated for this purpose.
Pilots using uncontrolled airports are responsible for determining the active runway and how to enter and exit the traffic pattern.

"…Oxford / Henderson traffic, N12345, mid-field downwind, Runway 15, full stop, Oxford / Henderson."

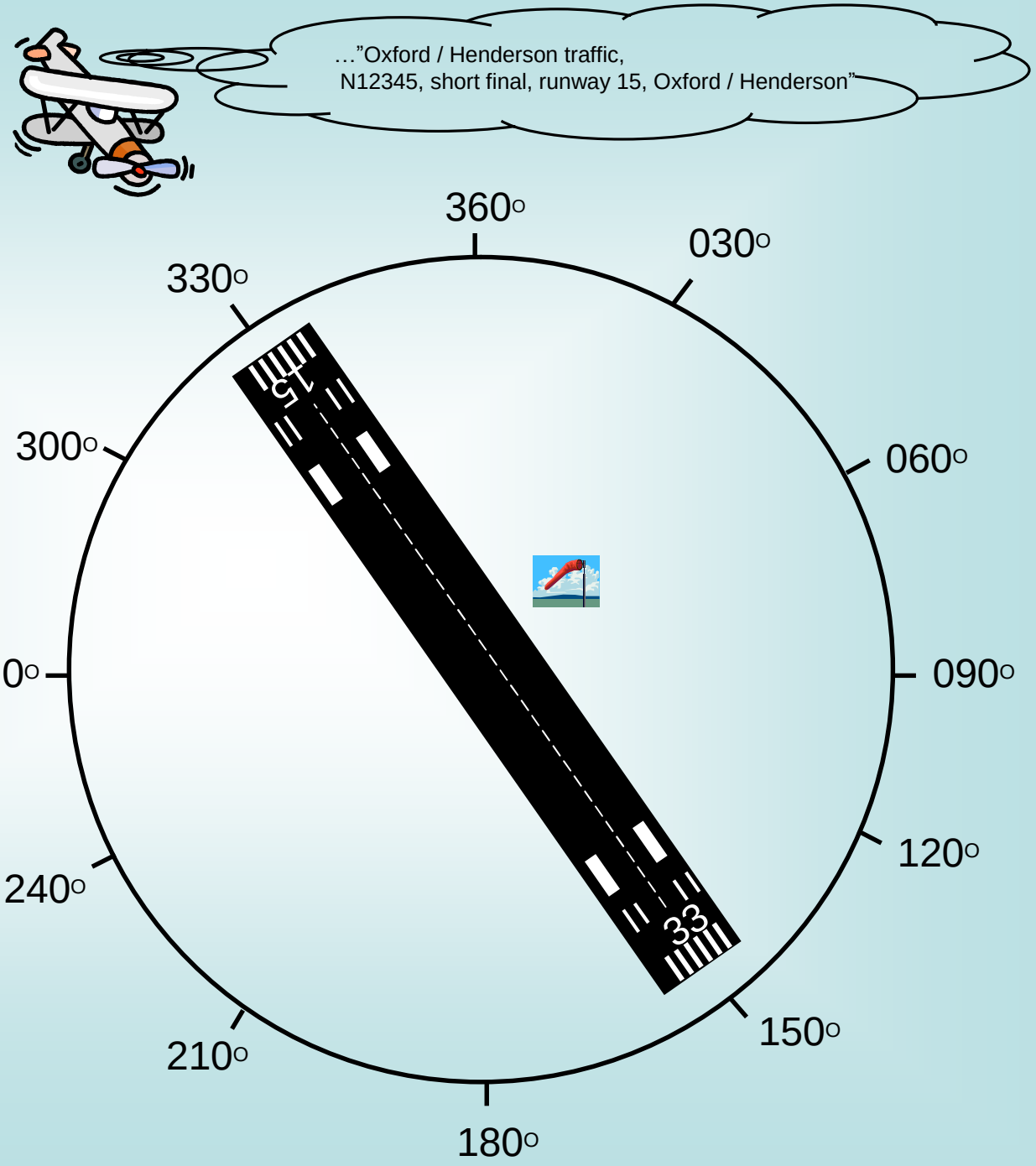


KLHZ – OXFORD / HENDERSON AIRPORT
DESIGNATED COMMON TRAFFIC ADVISORY FREQEUNCY (CTAF)
122.8

...”Oxford / Henderson traffic, N56789, 10 miles west, inbound for landing, Runway 15, Oxford / Henderson”

RUNWAY LAYOUT

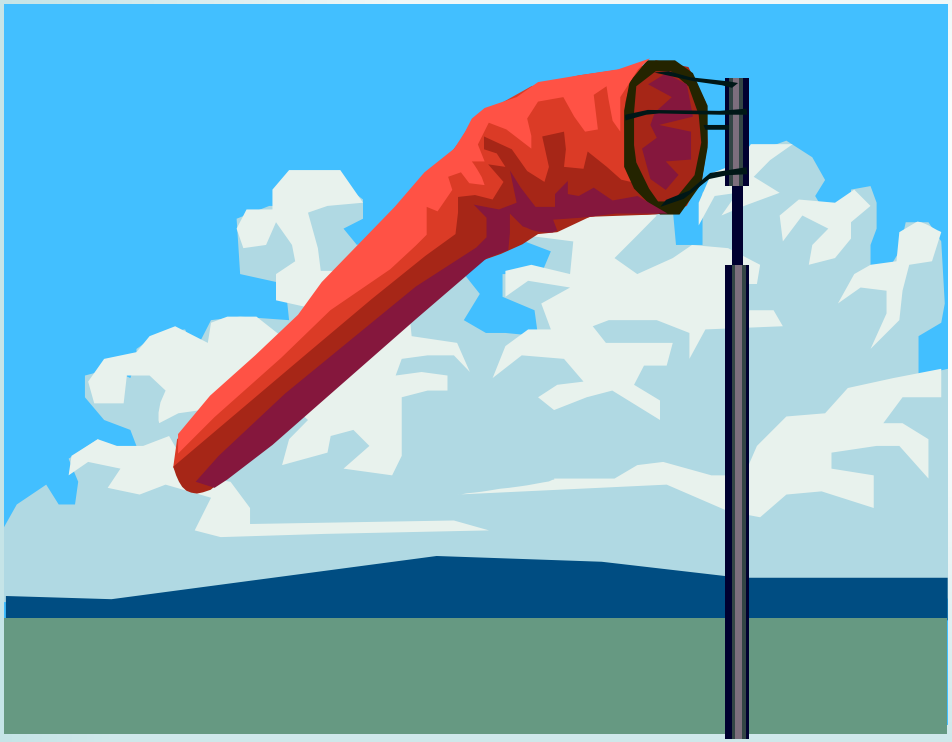
Since it is always advisable to take off and land into the wind, runways are normally positioned with the prevailing winds at that location in mind.
The numbers on the runway correspond to the magnetic direction the aircraft is headed, rounded off to the nearest 10^{o}, with the zero left off.

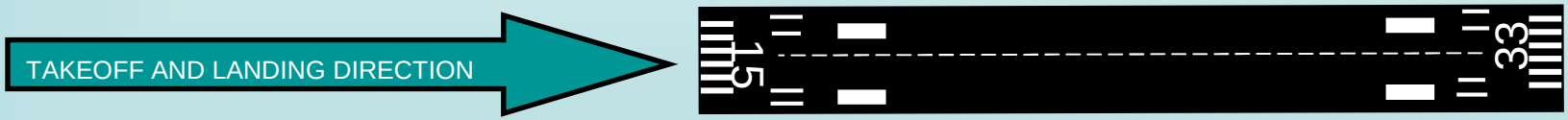


WIND DIRECTION INDICATORS

At controlled airports, the controller will assign the takeoff and landing runway. This will be the runway aligned with the wind on any given day.
At uncontrolled fields, the choice of runway is up to the pilot. **Wind socks** are the most common wind directions indicator in use at most general-aviation airfields.
Other methods of determining the direction of the surface winds are by radio, using various automated weather reporting systems, if available, and requesting an **airport advisory** from the operator of the ground facility at the airport.

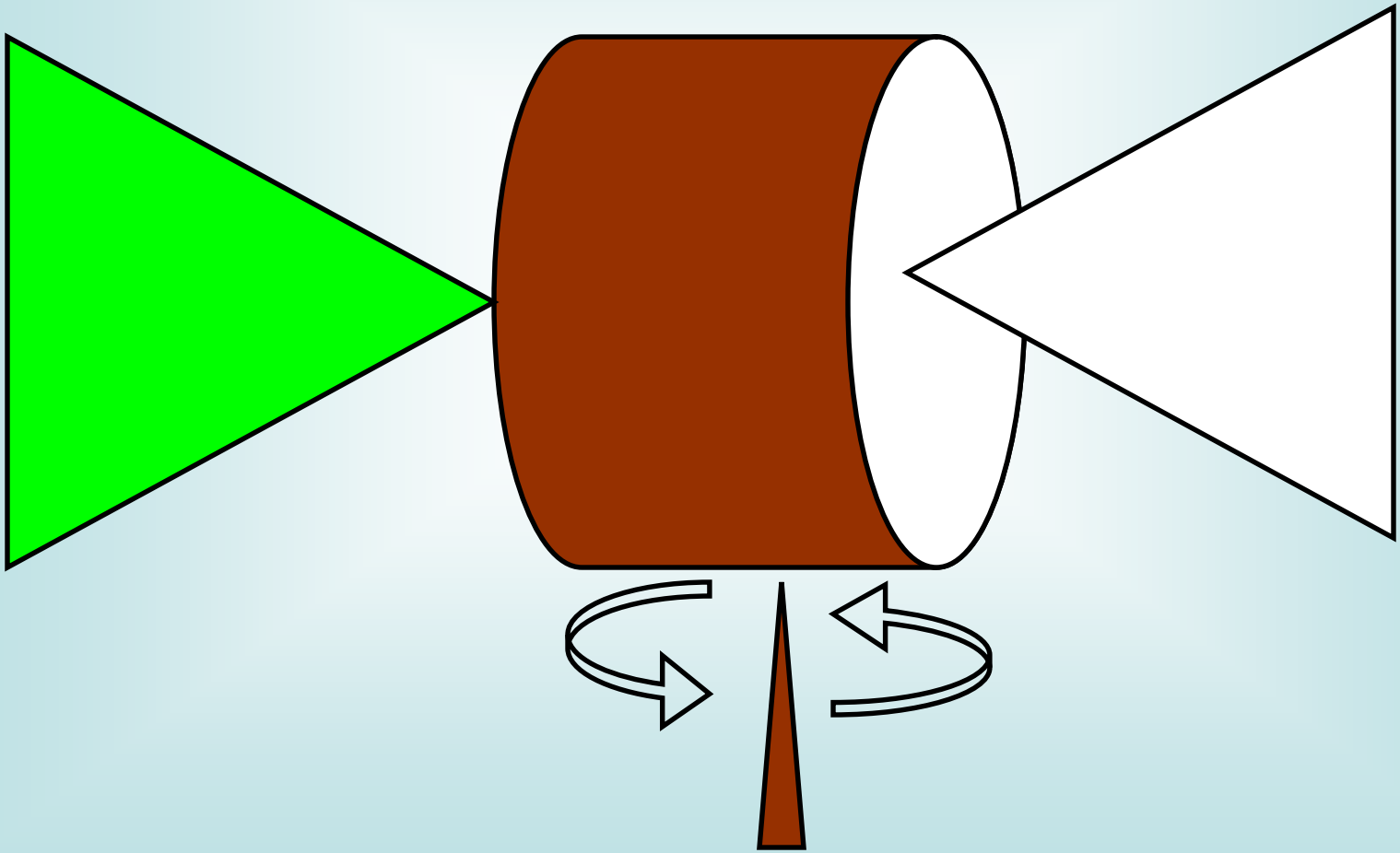
WINDSOCK





AIRPORT LIGHTING

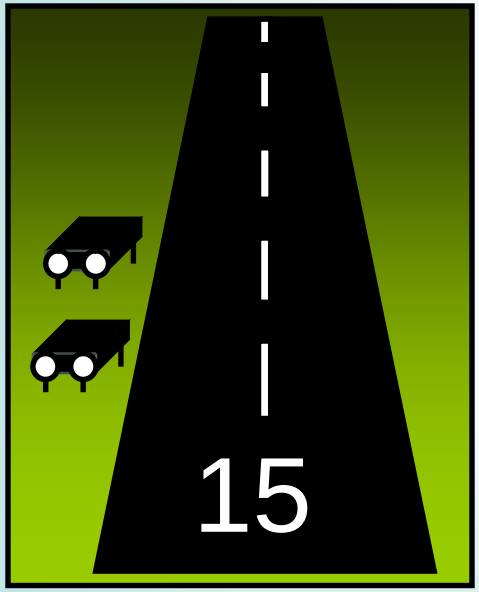
Most general-aviation airports are lighted for nighttime operations, using FAA-approved lighting systems and colors. The **airport beacon** guides pilots to lighted airports. They can be seen from great distances in good visibility.
Civilian airports use alternating white and green lights.
Military airports have two white flashes that alternate with a single green light.



VISUAL GLIDESLOPE INDICATORS

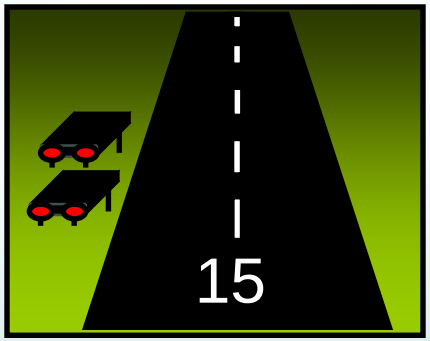
Visual glideslope indicators are light systems that indicate your position relative to the desired approach glideslope. The diagram represents one of the more common installations, the **visual approach slope indicator (VASI).** The light system is constructed so that the color of the light you see depends on the angle of your approach.

Above Glide Path



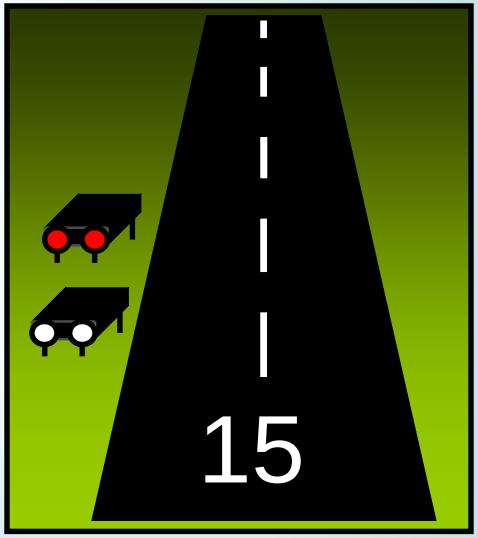
Two white lights indicate that you are too high

Below Glide Path



‘Red over red’ indicates that you are too low

On Glide Path



‘Red over white, you’re all right!’

AIRPORT TRAFFIC PATTERN

Traffic patterns are established to and orderly flow of arrival and departure traffic at the airport. A standard rectangular pattern with five named legs is used at most airports. Adhering to rectangular pattern procedures at uncontrolled airports enhances safety by reducing the possibility of conflict between aircraft.

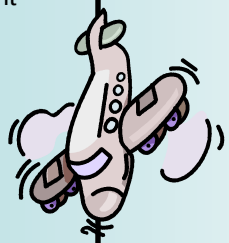
Entering the pattern at a 45º angle to the midpoint of the downwind leg at pattern altitude (usually, 1000' above ground level (AGL) gives the pilot the best chance to see and avoid other aircraft operating at the airport.

Downwind Leg

The downwind leg is flown parallel to the runway, 1-1.5 miles away, in a direction opposite to the intended landing direction

Base Leg

The base leg is the segment prior to the final approach segment

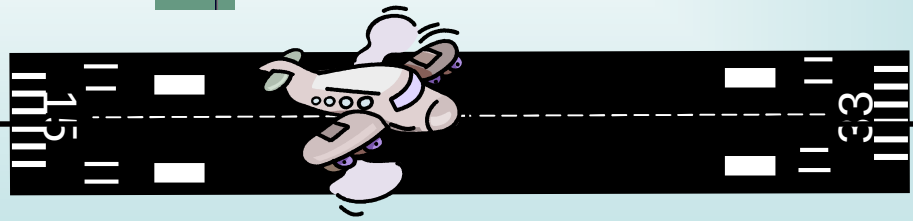


Crosswind Leg – normally a left-hand turn from the departure leg

WIND

Final Approach

This is the last leg of the pattern



Departure or Upwind Leg – a straight course aligned with the runway centerline