



PRECIP HAPPENS

Flying in moist air produces some of its own special challenges, whether mere haze, a light rain all the way through to heavy precip—hard, but not IMC-creating. Remember these natural deceptions and their influence:

HAZE

Haze gives us a visual sense that the runway is further away than it actually is; our mental reaction to that sense is often to shallow up our glide path and the change in arrival point causes us to go long.

LIGHT RAIN

Light to moderate rain render softer and less distinct all the runway features we use for visual cues, in large part due to a halo effect created by the precipitation. So tricked we risk misinterpreting any vertical or horizontal in-flight deviation in those seconds after we turn our eyes from using the cockpit instrument for attitude reference and switching to visual cueing off the runway end and a visually fuzzy horizon.

HEAVY RAIN

The visual issues when flying in heavy rain should encourage a decision to sit out the conditions because as rain gets heavier it denigrates our perception of both depth and distance.

Rain, droplets or sheeting, on the windshield refracts the light to the point that you see an image of an aircraft high on final; respond by lowering the nose and you accelerate to a higher airspeed and, without a corresponding increase in power, risk dropping below the needed glide path and an early, unanticipated arrival.

APPROACH LIGHTING SYSTEM (ALS) IMPACT

Haze and precip work bad magic day and night; during daylight rain diminishes approach-light intensity, making the runway appear to be farther away than in reality, tempting us to shallow the flight path.

Flip off the light to night flight and rain magnifies the apparent brightness of the ALS promoting an illusion of a runway closer than it really is, increasing the risk of touching down short of the runway.

NIGHT AND DAY

Before we quit, we offer one last rain-related caution: Beware of the black hole of the wet runway at night; heck, beware of wet runways during the day.

Since wet pavement doesn't reflect light back to us, a wet runway can appear to be farther way than in reality—day or night. Combine a night arrival with a wet runway reflecting back little to no light can have you seeing the runway as farther away than it is, contributing to the risk of landing longer than you want—or longer than wise—with the prospect of a late flare or an unprepared hard landing.