

32 entries — every glossary entry under this letter, no curation. Reproduced verbatim from the Pilot's Handbook of Aeronautical Knowledge (FAA-H-8083-25C (July 2023)), Glossary.

## 100-hour inspection

An inspection identical in scope to an annual inspection. Conducted every 100 hours of flight on aircraft of under 12,500 pounds that are used to carry passengers for hire.

## HAA

See height above airport.

FAA definition of **Height above airport (HAA)**:

The height of the MDA above the published airport elevation.

## HAL

See height above landing.

FAA definition of **Height above landing (HAL)**:

The height above a designated helicopter landing area used for helicopter instrument approach procedures.

## HAT

See height above touchdown elevation.

FAA definition of **Height above touchdown elevation (HAT)**:

The DA/DH or MDA above the highest runway elevation in the touchdown zone (first 3,000 feet of the runway).

## Hazardous attitudes

Five aeronautical decision-making attitudes that may contribute to poor pilot judgment: antiauthority, impulsivity, invulnerability, machismo, and resignation. Hazardous Inflight Weather Advisory Service (HIWAS). An en route FSS service providing continuously updated automated of hazardous weather within 150 nautical miles of selected VORs, available only in the conterminous 48 states.

## Head-up display (HUD)

A special type of flight viewing screen that allows the pilot to watch the flight instruments and other data while looking through the windshield of the aircraft for other traffic, the approach lights, or the runway.

## Heading

The direction in which the nose of the aircraft is pointing during flight.

## Heading indicator

An instrument which senses airplane movement and displays heading based on a 360° azimuth, with the final zero omitted. The heading indicator, also called a directional gyro (DG), is fundamentally a mechanical instrument designed to facilitate the use of the magnetic compass. The heading indicator is not affected by the forces that make the magnetic compass difficult to interpret.

## Headwork

Required to accomplish a conscious, rational thought process when making decisions. Good decisionmaking involves risk identification and assessment, information processing, and problem solving.

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## HF

High frequency.

## Hg

Abbreviation for mercury, from the Latin hydrargyrum.

## High performance aircraft

An aircraft with an engine of more than 200 horsepower.

## Histotoxic hypoxia

The inability of cells to effectively use oxygen. Plenty of oxygen is being transported to the cells that need it, but they are unable to use it.

## HIWAS

See Hazardous Inflight Weather Advisory Service.

## Holding

A predetermined maneuver that keeps aircraft within a specified airspace while awaiting further clearance from ATC.

## Holding pattern

A racetrack pattern, involving two turns and two legs, used to keep an aircraft within a prescribed airspace with respect to a

geographic fix. A standard pattern uses right turns; nonstandard patterns use left turns.

## Homing

Flying the aircraft on any heading required to keep the needle pointing to the 0° relative bearing position.

## Horizontal situation indicator (HSI)

A flight navigation instrument that combines the heading indicator with a CDI, in order to provide the pilot with better situational awareness of location with respect to the courseline.

## Horsepower

The term, originated by inventor James Watt, means the amount of work a horse could do in one second. One horsepower equals 550 foot-pounds per second, or 33,000 foot-pounds per minute.

## Hot start

In gas turbine engines, a start which occurs with normal engine rotation, but exhaust temperature exceeds prescribed limits. This is usually caused by an excessively rich mixture in the combustor. The fuel to the engine must be terminated immediately to prevent engine damage.

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## Human factors

A multidisciplinary field encompassing the behavioral and social sciences, engineering, and physiology, to consider the variables that influence individual and crew performance for the purpose of optimizing human performance and reducing errors.

## Hung start

In gas turbine engines, a condition of normal light off but with rpm remaining at some low value rather than increasing to the normal idle rpm. This is often the result of insufficient power to the engine from the starter. In the event of a hung start, the engine should be shut down.

## Hydroplaning

A condition that exists when landing on a surface with standing water deeper than the tread depth of the tires. When the brakes are applied, there is a possibility that the brake will lock up and the tire will ride on the surface of the water, much like a water ski. When the tires are hydroplaning, directional control and braking action are virtually impossible. An effective anti-skid system can minimize the effects of hydroplaning.

## Hypemic hypoxia

A type of hypoxia that is a result of oxygen deficiency in the blood, rather than a lack of inhaled oxygen. It can be caused by a variety of factors. Hypemic means "not enough blood."

## Hyperventilation

Occurs when an individual is experiencing emotional stress, fright, or pain, and the breathing rate and depth increase, although the carbon dioxide level in the blood is already at a reduced level. The result is an excessive loss of carbon dioxide from the body, which can lead to unconsciousness due to the respiratory system's overriding mechanism to regain control of breathing.

## Hypoxia

A state of oxygen deficiency in the body sufficient to impair functions of the brain and other organs.

## Hypoxic hypoxia

This type of hypoxia is a result of insufficient oxygen available to the lungs. A decrease of oxygen molecules at sufficient pressure can lead to hypoxic hypoxia.