

GROUND DISTANCE - A measured distance not yet reduced to sea level (geodetic) distance.

GROUND RESOLUTION - The minimum distance between two objects on the ground (or size of object on the ground) that can be detected.

GROUND SPEED - The velocity of an aircraft along a track with relation to the ground; the resultant of the heading and airspeed of an aircraft and the direction and velocity of the wind.

GROUND SURVEY - A survey made by measurement on the surface of the earth as distinguished from aerial survey.

GROUND SWING - An error condition in microwave distance measurement caused by reflected waves from water, pavement or other smooth surface. The reflected wave combines with the direct wave causing error which can be eliminated by frequency changes.

GROUND TRUTH - Term coined for information obtained on surface or subsurface features to aid in interpretation of remotely sensed data. A vague, misleading term suggesting that the truth may be found on the ground. Ground data and ground information are preferred terms.

GULCH - A small ravine; a small, shallow canyon with inclined slopes and steep sides.

GULF - A portion of the sea partially enclosed by a more or less extensive sweep of the coast. The distinction between gulf and bay is not always clearly marked, but in general a bay is wider in proportion to its amount of recession than a gulf; the latter term is applied to long landlocked portions of sea opening through a strait, which are never called bays.

GUYOT - See TABLEMOUNT.

GYROCOMPASS - A north seeking device consisting of a gimballed rotating wheel which aligns itself to the earth's rotation. Some aircraft magnetic compasses are gyroscopically stabilized and are also called gyrocompasses.

GYRO THEODOLITE - A theodolite with a gyrocompass attached.

H

HI - Height of instrument. See HI*.

HACHURES - A series of lines used on a map to indicate the general direction and steepness of slopes. The lines are short, heavy, and close together for steep slopes; longer, lighter, and more widely spaced for gentle slopes.

HALATION - Reflection during exposure from a film base from a bright area to an adjacent area of the emulsion giving the appearance of a halo upon development.

HANGING VALLEY - The valley of a tributary which enters a main river valley from a considerable height above the bed of the latter, and so forms rapids or waterfalls down the slope.

HARBOR - A stretch of water on the coast which affords shelter to seagoing vessels; it may have been formed naturally, or artificially, or by artificial improvement of a natural feature.

HAZE - Interference with visibility or photographic resolution caused by particles in the atmosphere scattering or reflecting light.

HEAD - A comparatively high promontory with either a cliff or steep face. It extends into a large body of water, such as a sea or lake. An unnamed head is usually called a headland.

HEADLAND - A steep crag or cliff jutting out into the sea.

HEAVY PLOTTER - An obsolescent term indicating a precise photogrammetric instrument such as the Stereoplanigraph or Wild A7.

HEIGHT DISPLACEMENT - Displacement of images radially inward or outward with respect to the photograph nadir, according as the ground objects are, respectively, below or above the elevation of the ground nadir.

HEIGHT OF INSTRUMENT (HI) - 1) The height of the center of the telescope (horizontal axis) above the ground or station mark. 2) The height of the line of sight of the leveling instrument above the adopted datum.

HERTZ (Hz) - Unit of frequency, cycles per second, in the International System.

HIATUS - A gap in aerial photo coverage. See GAP and HIATUS*.

HIDDEN GROUND - An area which cannot be observed in a photograph because of interference from topographic features.

HIGHLIGHTS - 1) Those portions of a subject from which the greatest amounts of light are reflected. 2) The densest parts of a negative and the lightest parts of a print or transparency.

HIGH-OBLIQUE PHOTOGRAPH - A photograph taken with the camera axis intentionally tilted so as to include the apparent horizon.

HIGH WATER - The maximum elevation reached by rising water. See HIGH WATER MARK*.

HIGHWAY - An undivided road, usually paved, having a built-up driving surface with shoulders. See JEEP TRAIL and ROAD.

HIGHWAY CURVES - Templates for drawing circular curves from their tangents.

HILL - A small portion of the earth's surface elevated above the surroundings, of lower altitude than a *Mountain*. In general, an eminence is not considered a mountain unless its elevation, from foot to summit, is well over 1,000 ft.

HINTERLAND - 1) That zone containing the beach flanks and the area inland from the coast line to a distance of five miles. 2) The region lying behind the coast district.

HISTORIC COAST LINE*.

HOLOGRAPHY - The process of recording and reproducing an image using two emulsion coated surfaces and a laser beam which scans the object. No lens is used. The viewer "*sees*" the object in three dimensions and the "*object*" can be turned to view it from different angles.

HOOK - A *Spit* which is curved at one end; the curvature may be caused by the action of the waves in rolling material to the sheltered side of the spit

HORIZON - A plane normal to the plumbline at the observers station. See APPARENT HORIZON and ARTIFICIAL HORIZON.

HORIZON CAMERA - A camera used in conjunction with an aerial surveying camera in vertical photography to photograph the horizon simultaneously with the vertical photographs. The horizon photographs indicate the tilts of the vertical photographs.

HORIZON CLOSURE - The amount by which the sum of a series of adjacent measured horizontal angles around a point fails to equal exactly 360°, the theoretical sum. See CLOSING THE HORIZON.

HORIZONTAL - A plane perpendicular to the plumbline at the point of consideration or origin.

HORIZONTAL CONTROL - Survey information which provides position information used for locating subordinate surveys or mapping.

HORIZONTAL GEODETIC DATUM - An ellipsoid of reference, defined by two dimensions or constants, an initial point on the reference ellipsoid (defined by latitude and longitude) and an azimuth from the initial point to another point. See NORTH AMERICAN DATUM OF 1927.

HORIZONTAL PARALLAX - See ABSOLUTE STEREOSCOPIIC PARALLAX.

HORIZONTAL REFRACTION - The lateral effect of terrestrial refraction on an observed direction

HOVERSIGHT - A basic component of an Airborne Surveys System developed by the U.S. Geologic Survey. It consists of a silicone-damped pendulum with a self-contained light source for projecting a beam of collimated light through a semitransparent mirror. The helicopter pilot can see the light-source image superimposed upon the image of the ground below.

HYDRODIST - A brand of electronic distance measurement device.

HYDROGRAPHIC CHART - A chart showing water features such as; depth, channels, islands, and other aids to navigation.

HYDROGRAPHY - Topography along shore lines, depths of water and submerged features of bodies of water. Also the science or study of bodies of water and related phenomena.

HYPERFOCAL DISTANCE - If an object at a great distance (infinity) be sharply focused, it is found that, without altering the position of the lens, a comparatively near object is still "*in focus*;" that is, it is rendered without perceptible unsharpness. The distance to this near point is the hyperfocal distance.

HYPERPANCHROMATIC - Films and plates which have a high red sensitivity.

HYPERSENSITIZING - Applied to various methods of increasing the sensitivity of an emulsion; for example, fuming of bathing with ammonia, fuming with mercury, etc.

HYPO - Slang term for sodium hyposulphite, a common fixing agent in photo developing and printing.

HYPISOGRAPHY - See TOPOGRAPHY.

I

IMC - Image Motion Compensation.

IR - Infrared.

ICONOMETRY - The process of conducting a plan and elevation from the perspective is termed iconometry. It is the reverse of drawing a perspective from plan and elevation. As applied to photographic surveying, iconometry is the process of making a map from photographs.