

ISOBATH - Line on a marine map or chart joining points of equal depth usually in fathoms below mean sea level.

ISOCENTER - The point on a photograph intersected by the bisector of the angle of tilt which is midway between the plumbline and the photograph perpendicular and through the principal point.

ISODIFF - One of a series of lines on a map or chart connecting points of equal correction or difference in datum, especially useful in readjustment of surveys from one datum to another. See ISOLAT and ISOLONG.

ISOGONIC CHART - A chart showing isogonic lines properly labeled with their magnetic declinations. Lines of equal annual change in the declinations are also generally shown.

ISOGONIC LINE - A line joining points on the earth's surface having equal magnetic declination as of a given date.

ISOLAT - An isodiff connecting points of equal latitude correction.

ISOLINE (USGS) - A line of common scale at the intersection of the planes of two overlapping aerial photographs having common perspective center and equal principal distances, applied generally in Geological Survey to the line of intersection between two components of a set of convergent photographs or the intersection of either wing component with the nominal vertical of trimetrogon photography. In the latter case the isoline becomes an isometric parallel when the nominal vertical is truly vertical.

ISOLONG - An isodiff connecting points of equal longitude correction.

ISOMETRIC PARALLEL - The intersecting line between the plane of a tilted photograph and a horizontal plane having an equal perpendicular distance from the same perspective center. A line parallel to the horizon through the isocenter.

ISTHMUS - A narrow strip of land, bordered on both sides by water, that connects two larger bodies of land.

J

JEEP TRAIL - A primitive road, usually passable by all-wheel-drive vehicles only.

JUNCTION - The immediate locality in which two or more highway routes meet. See INTERSECTION.

JUNCTION CLOSURE (USGS) - The amount by which a new survey line into a junction point fails to give the previously determined position or elevation for the junction points.

JUNCTION POINT - A survey point common to two or more survey lines.

K

K - Kelvin.

K FACTOR The B/H ratio. See BASE-HEIGHT RATIO.

KELSH PLOTTER - A brand of stereoscopic plotting instrument of the double-projection type, characterized by the use of contact-size diapositives and a moving illumination system that concentrates light on the portion of the image that is projected to the tracing table.

KELVIN - Thermometer scale equal to the Celsius (formerly called "*Centigrade*") degrees plus 273°, thru 0°C = 273°K, 100°C = 373°K.

L

LAKE - An extensive sheet of water enclosed by land, occupying a hollow in the earth's surface. The name is sometimes loosely applied, too, to the widened part of a river, or to a sheet of water lying along a coast, even when it is connected with the sea; there are many gradations, in fact, between bays and lagoons which are almost enclosed and coastal lakes.

LAMBERT CONFORMAL CONIC MAP PROJECTION - A map plotting system in which points on the ellipsoid are mathematically projected onto a cone with its axis identical with the polar axis. The cone surface may be tangent to the ellipsoid or it may cut below the surface (secant) creating two parallels where the scale is exact. The secant form of this projection is the basis of State Plane Coordinate Systems where the zone extends more east-west than north-south.

LAMBERT GRID - An information designation of a plane coordinate system based on a Lambert conformal map projection.

LANDFORM - The shape into which a part of the earth's surface is sculptured by natural forms.

LAND LINE ADJUSTMENT (USGS) - Positioning the public land lines on the topographic map to indicate their theoretical, or approximate location relative to the adjacent terrain and culture, by reconciling the information shown on BLM Plats with the ground evidence of the location of the lines.

LINEAR PARALLAX - See preferred ABSOLUTE STEREOSCOPIC PARALLAX.

LIST OF DIRECTIONS - A tabulation of points or objects observed during triangulation with the horizontal directions referred to an initial.

LITHOGRAPHY - A printing process in which the image to be printed is ink-receptive and all other areas are ink-repellent. See OFFSET PRINTING.

LITTORAL - Of or pertaining to, a shore, especially a seashore. More specifically applied to the depth zone of the sea floor lying between tide levels.

LOBE - The tongue of land within a meander. When the lobe lies between two stream meanders and is connected with the mainland by a narrow passage, the narrow passage is the neck. The cutting action of the river narrows the neck until finally the river breaks through and forms a new channel or a cutoff.

LOCATION SURVEY - 1) The establishment on the ground of points and lines which have been previously been determined by computation, or by graphical methods, or by description obtained from deeds and maps or other records. 2) In private practice of surveying, survey of a lode mining claim.

LOGICAL CONTOURING - Sketching contours on a map using spot elevations taken at breaks in slope.

LONGITUDE - The dihedral angle between the observer's meridian and an arbitrary initial meridian (usually Greenwich). See ASTRONOMIC LONGITUDE, GEODETIC LONGITUDE, GREENWICH MERIDIAN and WASHINGTON MERIDIAN*.

LOW-OBLIQUE PHOTOGRAPH - An oblique aerial photograph that does not include the apparent horizon.

LOXODROME - See RHUMB LINE.

M

m - Meter.

MAP/MYP - Management Action Plan/Multi Year Program (A BLM Planning System-not a mapping term).

M & P FACTORS - Tables used for computing arcs on the meridians and parallels. See M & P FACTOR*.

MSL - Mean Sea Level.

MSS - Multispectral Scanner Subsystem.

MAGAZINE - A container for rolled film or photographic plates attached to the camera body.

MAGNETIC AZIMUTH (OR BEARING) - Azimuth (or bearing) referred to magnetic north or south.

MAGNETIC DECLINATION - The bearing of magnetic-north at a particular date. See MAGNETIC VARIATION and MAGNETIC DECLINATION*.

MAGNETIC NORTH - The direction indicated by the north end of a magnetized needle under influence of the earth's magnetic field and free of local magnetic disturbance.

MAGNETIC VARIATION - Regular or erratic change in magnetic declination. Not interchangeable with magnetic declination. See MAGNETIC VARIATION*.

MAIN SCHEME STATION - 1) (USGS) One of the principal stations of a triangulation arc or net, observed, computed, and adjusted in accordance with the general specifications for the project, and contributing to the overall strength of the system. 2) (NGS) A station through which basic data are carried for the continued extension of a survey system.

MAKELINE - A scale line (or one of a corresponding pair of lines) furnished to a process camera operator with instructions for a ratio of enlargement or reduction.

MANUSCRIPT MAP - The original drawing of a map as compiled or constructed from various data, such as ground surveys and photographs. Usually place and feature names are not included.

MAP - A representation on a plane surface, at an established scale, of the physical features (natural, artificial, or both) of a part or whole of the earth (or any celestial body) by means of symbols and labels and with the means of orientation indicated. A map may emphasize, generalize, or omit the representation of certain features to satisfy specific requirements. The type of information which a map is designed primarily to convey is frequently used, in adjective form, to distinguish it from maps of other types. See BASE MAP, COMPILED MAP, ENGINEERING MAP, GENERAL PURPOSE MAP, PLANETABLE MAP, PLANIMETRIC MAP, PLAINMETRIC BASE MAP, QUADRANGLE MAP, RECONNAISSANCE MAP, SHADED RELIEF MAP, SPECIAL PRINTING MAP, SPECIAL PURPOSE MAP and TOPOGRAPHIC MAP.

MAP OF STANDARD FORMAT - A map with dimensions, layout, lettering, and symbolization in accordance with the specifications for the series.

MAPPING ANGLE - The correction to be applied to geodetic azimuth before plotting an azimuth on a map projection.

LANDMARK - 1) An object of enough interest or prominence in relation to its surroundings to make it outstanding or to make it useful in determining a location or a direction. 2) Any monument or material mark or fixed object used to designate the location of a land boundary on the ground. See **LANDMARK***.

LANDSCAPE MAP - A topographic map made to a relatively large scale and showing all details. Such maps are required by architects and landscape gardeners for use in planning buildings to fit the natural topographic features and for landscaping parks, playgrounds, and private estates. These are generally maps of small areas, and a scale is used of 1 inch equals 20 feet to 1 foot equals 50 feet, depending on the amount of detail.

LAND SURVEY - The process of determining land boundaries and areas. See **CADASTRAL SURVEY*** and **LAND SURVEY***.

LAPLACE AZIMUTH - A geodetic azimuth derived from an astronomic azimuth by use of the Laplace equation which correlates geodetic and astronomic azimuths using observed longitude and known geodetic position.

LAPLACE STATION - One of several stations selected at intervals in a large system of geodetic triangulation or traverse where both astronomic azimuth and longitude observations are made for the purpose of determining the Laplace correction.

LARGE SCALE MAP - A detailed map at scales of 1" = 1000 ft., or even 1" = 100 ft. See **SMALL SCALE MAP**.

LASER - An acronym for "*light amplification by stimulated emission of radiation.*" A device producing coherent energy beams in the spectrum of light or near-light frequencies.

LATITUDE - 1) The angle between the plane of the earth's equator and a normal to surface at the point. 2) The north-south component of a traverse course. See **GEODETIC LATITUDE** and **ASTRONOMIC LATITUDE**.

LEAGUE - See **MARINE LEAGUE**.

LEAST SQUARES - A mathematical method for the adjustment of observations, based on the theory of probability. In this method, the sum of the squares of all the computed corrections is made a minimum.

LEFT-READING - A descriptive term for a reverted or mirror image.

LEGEND - A description, explanation, table of symbols, and other information, which is printed on a map or chart for a better understanding and interpretation of it.

LEGENDRE'S THEOREM - The lengths of the sides of a spherical triangle (very short by comparison with the radius of the sphere) are equal to the lengths of the corresponding sides of a plane triangle in which the plane angles are derived by reducing each of the spherical angles by approximately one-third of the spherical excess.

LENS, COLOR CORRECTED - A camera lens specially designed for taking color photographs. Chromatic aberration has been corrected to provide substantially optimum resolution for all visible and near infrared wavelengths on the same focal plane.

LENS DISTORTION - An aberration affecting the position of images of the optical axis. The radial component is measured from the principal point. The tangential component is measured normal to a radial line from the principal point.

LENS ELEMENT - One lens of a complex lens system.

LEVEL - 1) Horizontal. 2) A leveling instrument. 3) An attachment (such as a spirit level) to indicate when an instrument or other device is level. See **AUTOMATIC LEVEL**, **CIRCULAR LEVEL**, **DUMPY LEVEL**, **ENGINEER'S LEVEL** and **TILTING LEVEL**.

LEVEL CIRCUIT - The measurement of bench mark elevations by spirit leveling in two different directions from one end of the circuit to another. Different turning points are used in each of the two different directions.

LEVEL DATUM - A surface used as a reference for elevation or depth measurements. It may consist only of an assumed elevation value for a given benchmark or may be based on mean sea level.

LEVELING (OR LEVELING) - 1) The process of measuring the difference of elevation between any two points, usually by spirit leveling. 2) The process of orienting the photogrammetric model to a level surface during absolute orientation. See **FLY LEVELING**, **GEODETIC LEVELING**, **RECIPROCAL LEVELING**, **SPIRIT LEVELING**, **TRIGONOMETRIC LEVELING** and **WATER LEVELING**.

LEVEL SURFACE - A surface which at every point is perpendicular to the plumbline or the direction in which gravity acts.

LIGHT - That form of radiation that is capable of detection by the human eye. Visible radiation (about 0.4 to 0.7 micron in length).

LIGHT SCATTER - Breaking up of light rays by refraction and reflection from particles of moisture or solid matter suspended in the atmosphere.

LIGHT, TRANSMITTED - Light that has traveled through a medium without being absorbed or scattered.

LIMITED REVISION (USGS) - The correction of specified map deficiencies only. Usually this will be confined to the updating of certain major features which would be specified for each project, or it might be limited to certain types of features within portions of a total project area. See **MAP REVISION**.