

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.

MAPPING CAMERA - A camera specifically designed for use in surveying. Generally the term indicates a high precision camera although camera requirements for aerotriangulation may exceed the capability of a mapping camera.

MAP PROJECTION - A system of lines on a plane representing a corresponding system of imagery lines on an adopted terrestrial or celestial datum surface; also, the mathematical concept of such a system. For maps of the earth, a projection consists of (a) a graticule of lines representing parallels of latitude and meridians of longitude, or (2) a grid. A map projection may be derived by geometric construction or by mathematical analysis. Projections derived by mathematical analysis are generally used for maps constructed with survey data. See ALBERS CONICAL EQUAL AREA PROJECTION, LAMBERT CONFORMAL CONIC PROJECTION, MERCATOR PROJECTION, OBLIQUE MERCATOR PROJECTION, ORTHOGRAPHIC PROJECTION, POLYCONIC PROJECTION, STEREOGRAPHIC PROJECTION, TRANSVERSE MERCATOR PROJECTOR, UNIVERSAL TRANSVERSE MERCATOR PROJECTION and POLAR STEREOGRAPHIC PROJECTION.

MAP REVISION (USGS) - Updating, improving, and/or correcting map content at the same scale. A complete revision consists of the correction of all deficiencies in planimetry and relief features, including improvement of accuracy, vertical and/or horizontal, to result in a class 1 map which meets current specifications in all respects. See also STANDARD REVISION, LIMITED REVISION and INTERIM REVISION.

MAP SCALE - The relationship between a distance on a map and the corresponding distance on the earth. Map scale may be expressed as an equivalence, usually by different units (1/63,360 or 1:63,360); or graphically, as a bar scale. See FRACTIONAL SCALE and REPRESENTATIVE FRACTION.

MAP SERIES - (USGS) A family of maps conforming generally to the same specifications or having some common unifying characteristics. The term "*National Topographic Map Series*" is used to designate collectively the several quadrangle and other map series of the United States and its dependencies. The individual series are 7.5 Minute Series - Covers 7.5 minutes of latitude and 7.5 minutes of longitude.

Puerto Rico - 7.5 Minute Series - Bilingual & Metric. 15 Minute Series - Covers 15 minutes of Lat. & Longitude.

Alaska 1:63,360 series covers 15 minutes in latitude. 1:250,000 series generally covers 1° in latitude and 2° in longitude.

Metropolitan Area Series - Selected cities

National Park Series

State Series - Available as base maps

Topographic and shaded

United States Series -

International Map of the World Series - U.S. portion

30 minute series - now being superseded

1° degree series - now superseded by the 1:250,000 series.

Alaska Reconnaissance Series now being superseded by the 1:250,000 series.

MARGINAL, DATA - Information on the margin of maps, explaining symbols, geographic coordinates, and other data portrayed by the map.

MARGINAL TICK - See GRID TICK.

MARINE LEAGUE - A measure of distance commonly employed at sea, being equal to one-twentieth part of a degree of latitude, or three geographical or nautical miles.

MARK - 1) A definite object (such as an imprinted metal disk) used to designate a survey point. Usually used with qualifying term such as a station mark, reference mark, azimuth mark, or bench mark. Sometimes refers to the entire survey monument. 2) A call used to indicate the instant of observation. 3) A call sometimes used by the rear chainman to indicate he is on the correct reading.

MARSH - Low-lying wet ground ordinarily covered with water. See SALT MARSH* and SWAMP.

MATCH LINE - 1) The edge of an individual photograph in a mosaic. 2) The line at the edge of a mapped area.

MEANDER LINE - A traverse along the approximate mean high water line of a permanent natural body of water. See MEANDER LINE*.

MEAN ERROR - An ambiguous term sometimes used to denote average error, error of the mean, or root-mean-square error.

MEAN REFRACTION - The average refraction effect on vertical angles in stated conditions of temperature, humidity, and barometric pressure.

MEAN SEA LEVEL (USGS) - The average height of the sea for all stages of the tide. It is obtained, at any particular coastal location, by averaging the hourly tide heights over a long period. The theoretical tide cycle is 19 years. See MEAN SEA LEVEL*.

MEDIAN - See MEDIAN LINE*.

MERCATOR PROJECTION - A map making system in which points on the ellipsoid are projected onto a cylinder whose axis is in the plane of the central meridian of the map and through the earth's center. The meridians appear as parallel lines and parallels are at right angles to them. The scale at any point is the same north and south which is achieved by mathematical calculation of parallel spacing. Generally used for maritime purposes.

MERCATOR TRACK See RHUMB LINE.

MERIDIAN - A north-south line; a line of constant longitude; a plane through the earth's axis.

MERIDIAN CONVERGENCE - See CONVERGENCE OF MERIDIANS.

MERIDIAN, GRID - A line on a grid that is parallel to the central meridian or y axis of the grid system.

MERIDIONAL OFFSETS - Small distances applied to the meridional differences in order to create the curves of the latitudes on a map projection.

MESA - A tableland; a flat-topped mountain or other elevation bounded on at least one side by a steep cliff.

METER - The new (1952) International Standard Meter is defined as 1,650,763.73 times the wavelength of krypton light where one foot equals 0.3048 meters.
The American Survey Foot retains the old definition of the meter which is 39.37 inches.

METES AND BOUNDS SURVEY*.

MICRODENSITOMETER - Scanning optical machine which measures image densities. See DENSITOMETER.

MICROMETER - 1) Unit of length equal to 10^{-6} meter. 2) Reading device on a theodolite.

MICRON (SYMBOL) - Unit of length exactly to 10^{-6} meter, 10^{-4} centimeter, (the term is now replaced by micrometer).

MICROWAVE - Of, or pertaining to, radiation in the microwave region.

MICROWAVE REGION - Commonly, that region of the radio spectrum between approximately 1000 and 300,000 megahertz. Corresponding wavelengths are 30 centimeters to 1 millimeter.

MID-LATITUDE - 1) The latitude of the midpoint of a survey line. 2) The average of the latitude values for the end points of a straight line or a geodesic.

MILITARY GRID - A rectangular grid, coordinate, or reference system placed on a map projection to facilitate location and identification of map data for military purposes. The Universal Transverse Mercator (UTM) grid is used on maps at scales of 1:250,000 and larger between 80° north and 80° south. Beyond the 80° parallels the Universal Polar Stereographic (UPS) grid is used.

MINE SURVEY - A survey to determine the position and dimensions of underground workings and the associated improvements and boundaries. See MINE SURVEY* and MINERAL SURVEY*.

MINERAL MANAGEMENT MAP SERIES - A BLM compilation of planimetric and Land Status Data consisting of SURFACE MANAGEMENT MAPS and SURFACE-MINERALS MANAGEMENT MAPS.

MISCLOSURE*.

MISMATCH - The condition of map detail displacement along neatlines.

MODEL - A 3-dimensional image of the terrain seen when a pair of overlapping photographs is viewed stereoscopically. When the model is correctly oriented to the horizontal and vertical datums, the terrain is accurately represented in miniature.

MODEL SCALE - The relationship between a distance measured in a model and the corresponding distance on the terrain.

MONOCOMPARATOR - An optical instrument for measurement of coordinates on a photograph which employs one eyepiece (rather than stereo viewing). See COMPARATOR.

MOSAIC - An assembly of aerial photographs whose edges have been feathered and matched to form a continuous photographic representation of a portion of the earth's surface. Maps can be mosaiced for compilation purposes. See CONTROLLED MOSAIC, UNCONTROLLED MOSAIC, and FILM MOSAIC.

MOSAICKING - The process of making composite photographs or maps.

MOUNTAIN - A mass of land considerably higher than its surroundings, and of greater altitude than a hill; an eminence is often considered a mountain rather than a hill when its elevation from the foot to summit is well over 1,000 ft., but the distinction is arbitrary. The summit area of a mountain is small in proportion to the area of its base; in this respect it differs from a plateau.

MOUNTAIN GROUP - A group made up of several or many mountain peaks, or of short mountain ridges. The Catskill Mountains and the Black Hill are examples.

MOUTH - The exit or point of discharge of a stream into another stream or a lake or sea.

MUD LUMPS - Swellings of bluish-gray clay forming small islands of an acre or more, with the height of 5 to 10 feet above sea level, found at the mouths of the Mississippi; apparently caused by pressure of surface deposits upon buried clays.

MULTIBAND - Simultaneous use of two or more sensors to obtain imagery from different portions of the reflectance portion of the electromagnetic spectrum (most commonly used in connection with black and white photography).

MULTIPLE BAND - Images formed usually simultaneously in more than one portion of the photographic region of the electromagnetic spectrum and analyzed jointly.

MULTIPLEX PLOTTER - A stereoscopic plotting instrument of the double-projection anaglyphic type which uses reduced-scale diapositives, stationary lamphouses with condensing lenses, and projectors designed for an optimum projection distance of 360 mm.

MULTISPECTRAL - Designates imagery formed, usually simultaneously, in more than one spectral region and analyzed jointly. The simultaneous use of two or more sensors to obtain imagery from different portions of the electromagnetic spectrum.

MULTISPECTRAL SCANNER SUBSYSTEM (MSS) - The ERTS 1 equipment which oscillates a flat mirror between the field of view and the telescope and which gathers data on four bands simultaneously.

MUSKEG - Arctic alluvial areas with insufficient drainage over which moss has accumulated to a considerable depth. These swamps are usually covered with tamarack and fir trees. In places the surface is broken by tall hummocks.

N

NMAS - United States National Map Accuracy Standards.

NADIR - 1) That point on the celestial sphere intersected by the plumbline extended downward; that point, directly opposite the zenith. 2) The point on the ground or at sea level datum vertically beneath the perspective center of the aerial camera lens, or the photographic image of that point.

NADIRSCOPE - A device for locating the nadir point of each exposure of a stereomodel when absolutely oriented in a direct-projection plotter. The plotted nadir point on the base sheet can be used to facilitate the orientation of succeeding stereomodels or to assist in the rectification of photographs for mosaicking.

NANOMETER - Unit of measure equal to one millimicron or one millionth of a millimeter.

NARROW ANGLE LENS - A lens having an angle of coverage up to 60°.

NATIONAL ATLAS OF THE UNITED STATES - A collection of maps and charts, with descriptive and bibliographic text, arranged to present an accurate graphic concept of the salient physical, historical, political, economic, social, and cultural features of the country.

NATIONAL MAP ACCURACY STANDARDS - See UNITED STATES NATIONAL MAP ACCURACY STANDARDS.

NATIONAL TOPOGRAPHIC MAP SERIES - See MAP SERIES.

NATURAL SCALE - 1) True scale as it exists in nature, without magnification or reduction. Some map projection tables are published at natural scale to permit easy conversion to a variety of map scales. 2) Map scale expressed as a fraction or ratio, independent of linear units of measure. See (preferred) FRACTIONAL SCALE.

NEAR INFRARED - That portion of the electromagnetic spectrum between visible light and thermal infrared with wavelengths from .7 to 4 microns.

NEATLINE - The line on a map at the boundary of the mapped area. Also called sheetline.

NEAT MODEL - The portion of the gross overlap of a pair of photographs that is actually used in photogrammetric procedures. Generally the neat model approximates a rectangle whose width equals the air base and whose length equals the width between flights.

NEGATIVE - In black-and-white photography, imagery in which the light and dark tones of the object are reversed. In color photography, imagery in which the light and dark tones of the object are reversed and the colors are complementary to those of the object.

NEGATIVE ENGRAVING - The operation of making a negative by removing portions of a coating applied to a scale-stable medium. See SCRIBING.

NEGATIVE TITLING - Information recorded on the negative for identification.

NERITIC - 1) Related to shallow water on the margins of the sea, generally that overlying the continental shelf. 2) Related to the shallow sea bottom, generally that of the continental shelf.