

LONGITUDE – The distance on the earth’s surface, east or west of a defined meridian, usually the meridian of Greenwich (0° Longitude), expressed in either angular measure, such as 90° West Longitude, or in time, such as 6 hours West of Greenwich. See WASHINGTON MERIDIAN.

LOST CORNER – A corner whose position cannot be determined, beyond reasonable doubt, either from traces of the original marks or from acceptable evidence or testimony that bears on the original position, and whose location can be restored only by reference to one or more interdependent corners.

LOT – A subdivision of a section which is not described as an aliquot part of the section, but which is designated by number, e.g., LOT 2. A lot may be regular or irregular in shape and its acreage varies from that of regular subdivisions. The term “*Government Lot*” is commonly used by persons outside the Bureau of Land Management in referring to such a subdivision of a section. “*Lot*” is also the name given individual parcels of recorded subdivisions of private tracts. See TOWN LOT, TRACT and URBAN SUBDIVISION.

LOUISIANA MERIDIAN – The principal meridian governing surveys in the greater part of Louisiana; it was adopted in 1807.

LOUISIANA PURCHASE – The territory purchased from France in 1803. It was the earliest acquisition by the United States of territory claimed by a European power. It resulted in the acquisition of more than 500 million acres of public lands west of the Mississippi River.

LOUISIANA SWAMP LAND ACT OF 1849 – The Act of March 2, 1849 (9 Stat. 352), granted to the State of Louisiana all the swamp and overflowed lands within the limits of the State for the purpose of aiding in the reclamation of said lands. See SWAMP LANDS ACT OF 1850 and SWAMP LANDS ACT OF 1860.

LOW-WATER MARK – The stage to which a river or other inland body of water recedes, under ordinary conditions, as its lowest stage or elevation. Low-water mark should not be used in reference to tidal waters. See MEAN LOW WATER and HIGH-WATER MARK.

LOXODROME – See RHUMB LINE*.

LUDLOW’S MERIDIAN – See FIRST PRINCIPAL MERIDIAN.

M

M – Mile, as marked on monuments and/or accessories.

m – Meter.

MA – Massachusetts.

MAT S (Land Status Records) – Material site.

M&B (Land Status Records) – Metes and Bounds.

MC – Meander Corner.

MC (Land Status Records) – Mineral Certificate; Also Min Cert.

MCOA or MOA (Land Status Records) – Mining Claim Occupancy Act.

MD – Maryland.

MD MER (Land Status Records) – Mount Diablo Meridian.

ME – Maine.

ME (Land Status Records) – Mineral Entry.

MER (Land Status Records) – Meridian.

MES – Mineral Entry Survey.

MGMT (Land Status Records) – Management.

MI – Michigan.

MICH. – Michigan.

MICH MER (Land Status Records) – Michigan Meridian.

MIL PUR (Land Status Records) – Military Purpose.

MIL RES (Land Status Records) – Military Reservation.

MIL RG (Land Status Records) – Military Road Grant.

MIL WRG (Land Status Records) – Military Wagon Road Grant.

MILL S (Land Status Records) – Millsite.

MIN (Land Status Records) – Mineral.

MIN CERT or MC (Land Status Records) – Mineral certificate.

MINN. – Minnesota.

MISC (Land Status Records) – Miscellaneous.

MISS. – Mississippi.

ML (Land Status Records) – Mineral location.

MLCI (Land Status Records) – Mineral Location and Contest Index.

MM (Land Status Records) – Mineral Monument.

MN – Minnesota.

MO – Missouri.

MOA (Land Status Records) – Mining Claim Occupancy Act.

MOD (Land Status Records) – Modification.

MON (Land Status Records) – Monument.

MONT. – Montana.

MONT PRIN MER (Land Status Records) – Montana Principal Meridian. See PRINCIPAL MERIDIAN, MONTANA.

M&P FACTOR – Meridian and Parallel Factors. See M and P Factor (below).

M.S. – Mineral Survey. As used in field notes.

MS – Mississippi.

MS (Land Status Records) – Mineral Survey.

MT – Montana.

MTN (Land Status Records) – Mountain.

MTP (Land Status Records) – Master Title Plat.

MULT USE (Land Status Records) – Multiple Use.

MAGNETIC DECLINATION – The bearing on a given date (reckoned east or west from the north branch of the celestial meridian plane) of magnetic north as determined by the positive pole of a freely suspended magnetic needle which is subject to no transient artificial disturbance.

MAGNETIC VARIATION – Regular or erratic change in magnetic declination. Not interchangeable with declination but old field notes use Var. as the declination of the compass.

MAIN CHANNEL – See CHANNEL, MAIN.

MANAGER – Under Reorganization Plan No. 3, which created the Bureau of Land Management in July 1946, the functions and powers of a “*Register*” were to become those of a “*Manager*” of a district land office. See REGISTER.

M AND P FACTORS – Tables used to convert short distances expressed in seconds of latitude (Meridional) and seconds of longitude (Parallel) into feet, or chains, at various latitudes.

MANUAL OF INSTRUCTIONS FOR THE SURVEY OF THE PUBLIC LANDS OF THE UNITED STATES, 1973. – Short title: “*Manual of Surveying Instructions, 1973.*” Also referred to as “*The 1973 Manual,*” “*The BLM Manual,*” “*The 1973 BLM Manual,*” “*The Manual*” and slang, the Blue Book.

MAP – A representation on a plane surface, at an established scale, of the physical features (natural, artificial, or both) of a part or the whole of the earth’s surface, by means of signs and symbols, and with the means of orientation indicated. See QUADRANGLE MAPS, MAP* and MAP PROJECTION*.

MAPPING ANGLE*.

MARGINAL DATA – A memorandum in the margin of a cadastral survey plat. The memorandum is intended to correlate and consolidate information regarding the record of surveys as shown on the plat. Under the General land Office, the practice was to show this data in box-tabulated form on plats of original surveys.

MARKETABILITY TEST – Used in determining whether or not a discovered mineral deposit is “*valuable*” under the meaning of the law, it is the test of whether or not the mineral can be extracted and marketed at a profit. It is a complement to and refinement of the “*prudent man test.*” See MINERAL, VALUABLE and PRUDENT MAN TEST.

MARSH – An area of low-lying, wet ground subject to frequent or regular flooding or ordinarily covered with water. Marsh vegetation is composed chiefly of reeds, grasses and grasslike plants. In Cadastral Survey usage the word “*marsh*” has usually been used to refer to coastal “*salt marshes.*” See BOG, SWAMP and SALT MARSH.

MASTER TITLE PLAT – A composite of the survey plats of a township on which is shown the ownership and land status. See SUPPLEMENTAL MASTER TITLE PLAT and USE PLAT.

MEAN BEARING – 1) The average (mean) of the forward and the back bearing of a straight line. 2) The average of the bearings of an irregular boundary whose courses are nearly equal in length. 3) The weighted average of the azimuths of an irregular boundary after conversion to an equivalent bearing. 4) The average of the bearings of opposite subdivision lines. 5) The mean of a series of bearings obtained by measurement. See BACK BEARING.

MEANDER CORNER – A corner established at the intersection of standard, township or section lines with the meander line near banks of navigable streams or any meanderable body of water.

MEANDER FIELD BOOK – Page 24 of the Manual of Surveying Instructions, 1851, states: “Both banks of navigable streams are to be meandered by taking the courses and distances of their sinuosities and the same are to be entered in the meander field book.”

MEANDER LINE – the traverse run at the line of mean highwater of a permanent natural body of water. In original surveys, meander lines are not run as boundary lines. They are run to generally define the sinuosities of the bank or shore line and for determining the quantity of land in the fractional sections remaining after segregation of the water area.

MEAN HIGH WATER – 1) The elevation of the water at the margin of the area occupied by the water for the greater portion of each average year, as determined by vegetative, on topographic changes. 2) As applied by NOS, the mean of all high waters are a considerable period of time, usually 18.6 or 19 years.

MEAN LOW WATER (USC & GS. S.P. 242) – The mean height of all low waters at a particular point or station over a considerable period of time. For tidal waters, the cycle of change covers a period of about 18.6 years, and the mean low water is the mean of all low waters for that period. For any body of water, it is the mean of all low waters over a period of time of such length that increasing its length does not appreciably change the mean.

MEAN SEA LEVEL – The average height of the surface of the sea for all stages of the tide over a 19-year period, usually determined from hourly height readings.

MEAN TIDE LEVEL – (Also called half-tide level) a plane midway between mean high water and mean low water. Because of the lack of symmetry of the tidal curve this is not the same as mean sea level. See MEAN SEA LEVEL.

MECHANICAL PHOTOTRIANGULATION – This method (also known as the analogue or instrumental method) of phototriangulation establishes positions and elevations by use of an instrument viewing a spatial model. Precise connections are made between successive models which in turn are tied to vertical and horizontal control. This method which, after adjustment, allows an accurately scaled representation of the project area to be depicted, has been used for several successful cadastral survey projects. However, due to the fact that the accuracy of the data obtained by use of the analytical process is usually of a higher order than that obtained by the mechanical methods, the Bureau of Land Management has adopted analytical phototriangulation for use in photogrammetric cadastral surveys. See ANALYTICAL PHOTOTRIANGULATION.

MEDIAL – Situated in or pertaining to the middle; intermediate. See MEDIAL LINE.

MEDIAL LINE – In surveying, the term refers to a particular line which must be determined by the consideration of various factors, or the weighing of evidence, as well as the use of measurement and/or calculation. An example would be the determination of the center of the main channel of a river as distinguished from the measurement or calculation of a line midway between its banks. Occasionally used as though synonymous with “median line.” See MEDIAN LINE, CHANNEL and MAIN AND GRADIENT BOUNDARY.

MEDIAN – Noting or pertaining to a plane dividing something into two equal parts, especially one dividing a thing into left and right halves. In geometry, a straight line from the vertex of a triangle to midpoint on the opposite side. See MEDIAN LINE.

MEDIAN LINE – The “median line” of a body of water is a line, every point of which is equidistant from the nearest point on opposite banks or other reference lines. The median is a continuous line formed by intersecting straight line or curve segments. “Median line” may also refer to the average of the distances between non-parallel lines. See MEDIAL LINE and MEDIUM FILUM ACQUAE.

MEDIATION – The act of a third person who comes between two opposing parties in order to persuade them to compromise, adjust or settle their dispute.

MEDIATOR – A third person who tries to get two opposing parties to reach a compromise or otherwise settle their dispute.

MEDIUM FILUM ACQUAE – The geographic middle of a river supposed to divide it into two equal parts, without considering the channel or channels of the river. Identical with a median line, every point of which is equidistant from the nearest points of the baseline on the opposite shores. See THALWEG.

MEMORIAL – A durable article deposited in the ground at the position of a corner to perpetuate that position should the monument be removed or destroyed. The memorial is usually deposited at the base of the monument and may consist of anything durable, such as glass or stoneware, a marked stone, charred stake or a quantity of charcoal.

MERIDIAN – 1) A north-south line from which longitudes (or departures) and azimuths are reckoned; or a plane, normal to the geoid or spheroid, defining such a line. 2) A flag or sight near a survey camp used to test solar transit for adjustment. See PRINCIPAL MERIDIAN, GUIDE MERIDIAN, AUXILIARY GUIDE MERIDIAN, GREENWICH MERIDIAN and WASHINGTON MERIDIAN.

MERIDIONAL LINE – A north-south line or a line along a meridian of longitude.

MESNE CONVEYANCE – Pronounced “mean.” An intermediate conveyance, one occupying an intermediate position in a chain of title between the first grantee and the present holder.

METER*.

METES AND BOUNDS – A method of describing a parcel of land by citing the owners of abutting lands and describing the length of each course of a boundary as “*along*” some apparent line, such as, “*along a stream*” or “*along the road.*” In modern usage, a metes and bounds description includes the bearings and distances of each course.

METES-AND-BOUNDS SURVEY – A survey of an irregularly shaped tract of land, not conforming to the rectangular system of surveys.

MEXICAN CESSION – Territory included approximately within the present limits of California, Nevada, Utah, and parts of Colorado, New Mexico and Arizona, ceded to the United States in 1848 under the terms of the Treaty of Guadalupe Hidalgo. See TREATY OF GUADALUPE HIDALGO.

MICHIGAN MERIDIAN – The principal meridian governing surveys in Michigan and in the extreme northwestern part of Ohio.

MICRONESIA – See TRUST TERRITORY OF THE PACIFIC ISLANDS.

MILE CORNER – The “*mile corner*” of a state, reservation or grant boundary does not mark a point of a subdivision; it is a station along the line. Long usage has given acceptance to the term. Sometimes called “*mile posts.*”

MILE POST – See MILE CORNER.

MILITARY BOUNTY LAND WARRANT – Authorization to obtain public lands as a reward for military service. It was issued in the form of scrip which could be exchanged for specified amounts of land in designated areas.

MILITARY RESERVATION – Federal lands which have been dedicated for military purposes of the Department of the Army. See NAVAL RESERVE.

MILITARY WAGON ROAD GRANT – See WAGON ROAD GRANT.

MILL SITE – Up to 5 acres of public land may be claimed for the purpose of processing minerals. Mill sites are limited to lands that do not contain valuable minerals.

MILL SITE ENTRY – A cash entry of nonmineral public lands which are to be used as a mill site for the reduction of ore in the development of a lode claim.

MINERAL EXAMINER – An employee of the Bureau of Land Management who, prior to patent, conducts a field examination to determine the validity, under the law, of a mining claim. To be a bona fide claim, for example, the discovered mineral deposit must be valuable. See MINERAL, VALUABLE; PRUDENT MAN TEST and MARKETABILITY TEST.

MINERAL LOCATION AND CONTEST INDEX – A component of the land status records; it is a listing by township and range of mineral location notices filed under special mining claim recording laws, abandonments and relinquishments of mining claims secured by the Government, and of actions initiated to determine the validity of mineral, agricultural and other claims on national resource lands. See LAND STATUS RECORDS.

MINERAL ADVERSE CLAIM – A notice of protest filed by a rival claimant against the approval of a mineral application.

MINERAL APPLICATION – An application to purchase public lands which are held as a mining claim or which are desired as a mill site. See MINERAL LAND ENTRY.

MINERAL CLASSIFICATION – Classification of public lands as being valuable for a specified mineral (or minerals); also, the public lands so classified.

MINERAL DISCOVERY – See DISCOVERY.

MINERAL DISTRICT – A general designation sometimes used in acts of Congress in reference to regions of the country where valuable minerals are mostly found, or where the business of mining is chiefly carried on. It carries no precise meaning and is not a legally recognized term. See ORGANIZED MINING DISTRICT and UNORGANIZED MINING DISTRICT.

MINERAL INVESTIGATION – Synonymous with field examination.

MINERAL LAND ENTRY – Filing a claim to hold or purchase lands belonging to the public domain and valuable for the minerals they contain, implying a prior discovery of ore and the opening of a mine.

MINERAL LANDS – Public lands which have been classified as containing, or are known to contain, valuable minerals.

MINERAL LEASE – A lease under the Act of Feb. 25, 1920 (The Mineral Leasing Act), as amended and supplemented. It authorizes the development and production of certain leasable minerals from public lands. See LEASABLE MINERALS and PLACER LAW OF 1897.

MINERAL LOCATION – A mining claim.

MINERAL MONUMENT – A term formerly used; it has been discontinued. See UNITED STATES LOCATION MONUMENT.

MINERAL RESERVATION – A clause in a patent which retains minerals in Federal ownership.

MINERAL RIGHTS – Rights which attach only to mineral deposits. See SURFACE RIGHTS.

MINERAL SEGREGATION SURVEY – The measurements and corner restorations needed to define the boundaries between a mineral claim and other public lands for administrative purposes. Even though it also defines the boundaries of the mineral claim, in whole or in part, that is merely incidental and does not confer any rights to the mineral claimant.

MINERAL SURVEY – A cadastral survey of a lode claim, placer claim or millsite with all its notes and plats. This type of survey is executed by a U.S. Mineral Surveyor for the purpose of marking the legal boundaries of mining claims on the public domain. The location and estimated value of mining improvements are returned by the survey but no reference is made to mineral deposits. See APPROVED SURVEY.

MINERAL, VALUABLE – A deposit of a mineral ore or substance which is useful in commerce or the arts, occurring in quantity and quality sufficient to justify its mining and removal for sale; also, any quantity of such ore or substance in a vein or lode, the size and continuity of which are such as to justify an ordinarily prudent man in the expenditure of his labor and means in an effort to develop a paying mine.

MINERAL WITHDRAWAL FOR CLASSIFICATION – A withdrawal of public lands which are potentially valuable for leasable minerals. The withdrawal precludes the disposal of the lands except with a mineral reservation clause unless the lands are found, upon examination or by other competent evidence, not to contain a valuable deposit of minerals.

MINE SURVEY – A survey to determine the positions and dimensions of underground passages of a mine; also of the natural and artificial features – surface and underground – relating to the mine. As cadastral surveys, they are made to detect, or determine the extent of, underground trespass. See MINERAL SURVEY.

MINING ACT OF 1866 – The 1866 bill known as H.R. 365 was, most emphatically, a lode mining bill. It became mining law on July 26, 1866, under the astonishing title: *“An act granting the Right of Way to Ditch and Canal Owners over the Public Lands, and for other purposes.”* See PLACER ACT OF 1870 and MINING LAW OF 1872.

MINING CLAIM – A parcel of land probably containing valuable mineral in its soil or rock, and appropriated by an individual, according to established rules, by the process of *“location.”*

MINING CLAIM OCCUPANCY ACT – The Act of October 23, 1962 as amended (76 Stat. 1127; 30 U.S.C. 701-704), authorized the Secretary of the Interior to convey to qualified applicants, under its provisions and requirements, maximum tenure consistent with the public interest in the lands which they occupy. This law expired June 30, 1971.

MINING DISTRICT – See ORGANIZED MINING DISTRICT and UNORGANIZED MINING DISTRICT.

MINING LAW, STATES EXEMPT FROM – See States Exempt From Federal Mining law.

MINING LOCATION – See LOCATION and MINING CLAIM.

MINOR SUBDIVISIONS – A quarter-quarter section subdivided into quarter-quarter-quarter sections (1/64 or 10 acre units), or aliquot parts as small as 1/256 (2.5 acres).

MISCELLANEOUS CONTROL – A mathematical recovery of a lost corner by allowing every known corner within a reasonable radius which was tied to the missing corner to enter into the control, each control corner being given a weight inversely proportional to its distance from the missing corner.

MISCELLANEOUS DOCUMENT INDEX – A list, by State, or those documents which apply to lands not specifically described on which conditions may exist that would restrict disposition or use of the lands. See LAND STATUS RECORDS.

MISCLOSURE – 1) The amount by which a series of survey measurements fail to yield a theoretical or previously determined value for a survey quantity; hence a measure of the accumulated errors and blunders in the work. Also termed *“closing error,”* or *“error of closure.”* 2) An error of closure in excess of specified limits, as in *“out of limits.”* See RESIDUAL ERROR.

MISSION-SITE ENTRY – A grant, to a religious society, of public lands which it occupies as a missionary station in Alaska.

MONTANA PRINCIPLE MERIDIAN or MONT. PRIN. MER. – As shown on some MT plats. Technically Principal Meridian, Montana, NOT Montana Principal Meridian. Principal Meridian governs surveys in Montana. It was adopted in 1867.

MONUMENT – A physical structure, such as an iron post, marked stone or tree in place, which marks the location of a corner point established by a Cadastral Survey. Objects, to be ranked as monuments, should have certain physical properties such as visibility, durability and stability, and they must define location without resorting to measurements. *“Monument”* and *“corner”* are not synonymous, although the two terms are often used largely in the same sense. See CORNER.

MONUMENT, LEGAL – The courts and the general public refer to “*monument*” as if the term includes such things as reference to an adjoining title, a plat, or physical evidence of a boundary, such as a fence. Occasional reference will be made to natural monuments which would more precisely be classed as topography. See **MONUMENT**.

MORE OR LESS – When used in connection with quantity or distance in a conveyance of land are considered words of safety or precaution, intended to cover some slight or unimportant inaccuracy. The same applies to the use of the word “about.”

MOUNDS AND PITS – A system of witnessing corner stakes in prairie country.

MOUNT DIABLO MERIDIAN – The principal meridian governing surveys in much of California and all of Nevada; it was adopted in 1851.

MOVE – A correction in position to be applied to a temporary stake so that the resulting point will be located at its proper position. Usually calculated as a distance north or south as well as a distance east or west, the plural is common, i.e.; the moves are 6.5 lks. south and 2.1 lks. east. See **CORNER MOVE**.

MUNICIPAL RESERVES – Areas within a townsite which are reserved for the town. Areas within a townsite which are surveyed and set aside for the purposes of the legally incorporated or duly authorized association of the inhabitants of this town. See **TOWNSITE**.

N

N (Land Status Records) – North.

NA (Land Status Records) – Native Allotment.

NAV MER (Land Status Records) – Navajo Meridian.

NB – Nebraska.

NC – North Carolina.

nc (Land Status Records) – Noncompetitive.

ND – North Dakota.

N. DAK. – North Dakota.

NE (Land Status Records) – Northeast.

NEB. – Nebraska.

N.E.P.A. – National Environmental Policy Act of 1969.
The Act of Congress of January 1, 1970, Public Law 91-190, 83 Stat. 852, 42 U.S.C. 4321, et seq.

NEV. – Nevada.

NF (Land Status Records) – National Forest.

NGS – National Geodetic Survey.

NG SEL (Land Status Records) – Native Group Selection.

NH – New Hampshire.

NIT (Land Status Records) – Nitrate.

NJ – New Jersey.

NM – New Mexico.

N. MEX. – New Mexico.

N MEX PRIN MER (Land Status Records) – New Mexico Principal Meridian.

N MON (Land Status Records) – National Monument.

N.M.P.M. (Private Practice of Surveying) – New Mexico Principle Meridian.

NOAA – National Oceanic and Atmospheric Administration.

NOE (Land Status Records) – Not Open to Entry.

NOL (Land Status Records) – Not Open to Lease.

NOM (Land Status Records) – Not Open to Mining.

NOS – National Ocean Survey.

NP (Land Status Records) – National Park.

NPPR (Land Status Records) – Native Primary Place of Residence.

N.P.S., NPS – National Park Service.

NRL (Land Status Records) – National Resource lands.

NV – Nevada.

NW (Land Status Records) – Northwest.

NWR (Land Status Records) – National Wildlife Refuge.

NY – New York.