



### Common Language Definitions of Everyday Terms

Term	Definition	Examples
<b>Aerotriangulation</b>	A photogrammetric method of intensifying a ground control network. Involves measuring all known points along with additional points marked on the photography. Positions of the unknowns are computed treating all the photographs as one large block.	
<b>Analytical Stereoplotter</b>	A photogrammetric instrument which uses electronics, motors, and lenses to view two overlapping aerial photos in 3-D. The stereoplotter corrects for distortions caused by rotations in the camera and relief displacement. This allows the operator to view the stereo model in a binocular viewing system and make measurements based on the ground coordinate system.	At M.A.N.: Zeiss P1 Zeiss P3
<b>Breakline</b>	Linear features in a vector which define breaks in the terrain. Very important in the creation of the TIN.	For example: Ditch lines, edge of pavement, top of bank.
<b>Contact print</b>	9" x 9" paper photographic print of an aerial photo used for marking control and mapping limits, and general reference purposes.	
<b>Compilation</b>	Term used to describe the process of a technician collecting data using a stereoplotter.	
<b>Contour</b>	Lines of equal elevation on a map that graphically display the shape of the ground. Formerly traced by the technician using a stereo instrument, most contours are now generated from a digital terrain model.	
<b>DEM</b>	Digital Elevation Model, one of many names used to describe a file that describes terrain shape. Usually used to describe a raster file created for further processing.	For example: 3D-viewing or orthorectification processing, or terrain analysis.
<b>Diapositive</b>	9" x 9" film positive of an aerial photo, used in the stereo plotter for making measurements. Used because light can be transmitted through it into the viewing system.	
<b>Distortion</b>	Anything that moves an object from its true position in an aerial photo. Can be caused by the rotation of the camera about the XYZ axis, elevation changes, and even the distance away from the center of the photo.	

<b>DTM</b>	Digital Terrain Model, one of many names used to describe a file describing terrain shape. Usually used to describe the raw data as collected by field or photogrammetric methods. Typically digitized as a combination of breaklines and random (or grid) spot readings	
<b>Fault line</b>	See breakline	
<b>Georeference</b>	The process of adding a real world coordinate system to a digital image. Accomplished in varying ways by viewing, CAD, or GIS systems.	
<b>GIS</b>	Geographic Information System, a system of data and software used to store, manipulate, and analyze geographic data.	
<b>GSD</b>	Ground Sample Distance, the size of a pixel in a digital image expressed in ground units. For example, if an ortho was created with a .25' GSD then each pixel of the image would represent a square on the ground 3 inches per side.	
<b>JPEG</b>	Popular format of raster file, very efficient but lossy compression make it more suitable for snapshots than precision aerial photographs.	
<b>LIDAR</b>	A form of airborne radar used to collect terrain data.	
<b>Mosaic</b>	A process of combining multiple photographs by cutting them so as to hide the cuts and pasting them together in one large photo. What was once nearly an art form has been moved to the computer as photos are merged digitally.	
<b>MrSid</b>	Popular format of raster file using a very efficient, though not lossless, compression technique developed for aerial imagery by LizardTech and International Land Systems.	
<b>Orthorectification</b>	The process of correcting a photograph for the rotations around the X, Y, and Z axis of the camera, and the removal of the effects of relief displacement. This process places the elements of the photograph which are at ground level in their true ground position.	
<b>Orthophoto</b>	A photograph, either digital or hardcopy, that has undergone the orthorectification process.	
<b>Panel</b>	See signal.	
<b>Photo ID</b>	Ground control points collected at well defined, visible, recoverable locations.	For example: walk corners, manholes, paint stripes.
<b>Photo enlargement</b>	Large paper or mylar reproduction of aerial negatives.	
<b>Pixel</b>	Term used for the Row / Column units that make up a raster file or digital image.	
<b>PUG point</b>	Small point drilled into the surface of a diapositive used as a derived control point in the aerotriangulation process.	
<b>Raster</b>	Computer files made up of rows and columns of values. These values are usually greyscale or colors stored in such a way that when they are read by a viewing program they form a digital photograph.	

<b>Relief displacement</b>	The distortion caused in an aerial photograph by objects being displaced away from the center as their elevation changes.	For example: The top of a pole appears farther from the center of a photo than the base, even though it is vertical in nature.
<b>Signal</b>	Pre-fabricated or "made in place" markers for control points. Usually a cross or "T" centered over a pin or hub to make the location visible from the air.	
<b>Softcopy</b>	A term given to photogrammetric instruments in which the electronics, lenses, and motors of the analytical instrument have been replaced by a 3-Dimensional view of the ground displayed and measured on a computer screen.	At M.A.N.: Cardinal SystemsVrTwo
<b>Stereomodel</b>	Two overlapping aerial photographs viewed in 3-D. The basis for all measurements made by photogrammetric methods.	
<b>Target</b>	See signal.	
<b>TIFF</b>	Popular format of raster file. When used for aerial photos it is delivered uncompressed and georeferenced with a world file. Because it is uncompressed, it is as perfect a copy of the original photo as is possible.	
<b>TIN</b>	Triangular Irregular Network, one of many names used to describe a file that describes terrain shape. Usually used to describe the data as processed for computations by an engineering or analysis software.	
<b>Vector</b>	Computer files made up of lines and points which are digitized in a known coordinate system. Entities usually have multiple attributes	For example: layer, linetype, symbology, color, etc.
<b>World file</b>	A very small standardized support file that some softwares use to geo-reference a digital photograph to a coordinate system.	

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