

PARALLAX DEFINITIONS FOR LAND SURVEYORS

parallax⁻¹ The apparent displacement of the position of any point with respect to a reference point or system, caused by a shift in the station of observation. The parallax of one point in space in respect to a reference point is the angle of convergence of the rays from two observation stations to the reference point, minus the angle of convergence of the rays from the same two observation stations to the second point. ²On a pair of photographs of the points in space taken from two observation stations, the parallax is measured by distances on the photographs, rather than by angles.

parallax, absolute stereoscopic—Considering a pair of aerial vertical photographs of equal principal distance, the absolute stereoscopic parallax of a point is the algebraic difference of the distances of the two images of the point from their respective photograph nadirs, measured on the photograph and parallel to the airbase. The difference in the absolute stereoscopic parallaxes of two points imaged on a pair of photographs is the parallax difference. Generally, absolute stereoscopic parallax is used to denote similar measurements when the theoretical conditions of truly vertical photographs are not attained, as, for example, when measuring parallax on unrectified aerial photographs.

parallax, instrumental—A change in the apparent position of an object with respect to the reference marks of an instrument, which is due to an imperfect adjustment of the instrument, or to a change in the position of the observer, or both.

parallax, y [PHOTOGRAMMETRY] The difference between the perpendicular distances of two images of a point from the vertical plane containing the air base. The existence of y parallax is an indication of tilt in either or both photographs and/or a difference in flight height; it interferes with stereoscopic examination of the pair. Also called “want of correspondence.” See also [correspondence](https://learnkst.com/correspondence-definition/) (<https://learnkst.com/correspondence-definition/>).

parallax bar—See [stereometer](https://learnkst.com/stereo-definitions/) (<https://learnkst.com/stereo-definitions/>).

parallax difference—The parallax difference of a point in space with respect to the reference point is the distance between the images of the reference point minus the distance between the images of the point. The distance between the principal points of the photographs, as oriented on the flight line, minus the distance between the images of a point in space, equals absolute stereoscopic parallax.

Source: NSPS “[Definitions of Surveying and Related Terms](https://www.nsps.us.com/store/ViewProduct.aspx?id=3895782&hhSearchTerms+%2522definitions+and+terms%2522%22) (<https://www.nsps.us.com/store/ViewProduct.aspx?id=3895782&hhSearchTerms+%2522definitions+and+terms%2522%22>)”, used with permission.

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