

MILITARY HELIOGRAPH

Note & Bibliography of MHI Sources

Modern heliographic signaling was developed chiefly by the British during the first half of the 19th century. Not until nearly a decade after the Civil War did the US Army operate such devices. The Signal Corps first tested heliographic systems in 1878, after Gen William T. Sherman had reported on British heliographic practices in India. Subsequent experimentation and development led to the creation of an American instrument and fixed-flash method of signaling which underwent further field testing. The first notable use of this military heliograph occurred in 1886 during the Apache campaign of Gen Nelson A. Miles, who credited his accompanying heliographic detachment with decisively bringing about the surrender of the elusive Geronimo. Thereafter a heliographic system operated in the military district of Arizona (including New Mexico) for several years.

Various experimental stations existed temporarily during this period. At least two such stations existed in Utah. Finley (cited below, pp. 63-64) provides extracts of a signal lieutenant's report of 17 Aug 1887 that noted heliographic communications had commenced from Ft. Lewis, Colorado, to Captain Irvine's camp, Soldiers' Springs, on North Montezuma Creek, southeastern Utah. The 1895 report of the Chief Signal Officer (cited below, Vol. I, pp. 583-85) indicates a heliograph station on Mount Ellen, Utah, communicated with another located on Mount Uncompahgre, CO, in 1894.

SOURCES:

Blakesley, Thomas H. "A New Heliograph." Journal of the Royal United Service Institute (RUSI) (1887): pp. 593-94. Per.

Carr, D.J. Manual of Visual Signaling of U.S. Signal Corps: US Army Signal Corps Manual No 6. Wash, DC: 1905. pp. 63-88. UJ200.M36.

Coe, Lewis. Great Days of the Heliograph. Crown Point, IN: Author, 1987. 69 p. UJ200.22.H3.C63.

Farrow, Edward S. "Heliography." Farrow's Military Encyclopedia. Vol. II. NY: Mil-Naval Pub, 1895. pp. 22-25. U24.F241

Finley, John P. Recent Improvements in the Art of Signaling for Military and Commercial Purposes. Wash, DC: American Helio-Telegraph & Signal Light, 1888. 207 p. UJ153.F56.
Historical coverage, pp. 17-29; remainder promotional and technical.

Greely, A.W. "Instructions for Using the Heliograph of the United States Signal Corps." US Army Signal Corps Pamphlet, 1897. 10 p. In Military Pamphlets No 99. E173.P18no99.
Technical explanation.

"The Heliograph." Cavalry Journal (1890): p. 111. Per.

Miles, Nelson A. Personal Recollections and Observations.... NY: Werner, 1896. E83.866.M64.
Attributes a heliograph demonstration with influencing Geronimo to surrender (pp. 523-25). See also his papers, Arch.

Reedstrom, E. Lisle. Apache Wars: An Illustrated Battle History. NY: Sterling, 1990. 256 p. E99.A6.R43.
Captures in photos & documents the Apaches & the soldiers. See Chaps 16-17.

Robbins, Rebecca. "Some Reflections on the Heliograph." Periodical (Aug 1983): pp. 24-31. Per.

Rolak, Bruno J. "The Heliograph in the Geronimo Campaign of 1886." In Military History of the Spanish-American Southwest: A Seminar. Ft Huachuca, AZ, 1976. pp. 167-79. F786.M5.
Analyzes Gen Miles' claim that the heliograph decisively caused Geronimo's surrender, finding it overdrawn. See Miles, Recollections, cited above.

Shipp, W.E. "Use of the Heliograph." Cavalry Journal (Mar/Dec 1889): p. 424. Per.

U.S. Army. Signal Corps. Historical Sketch of the Signal Corps (1860-1928): Signal School Pamphlet No. 32. Ft Monmouth, NJ: 1929. 129 p. UJ23.A552.

_____. Instructions for Using the Heliograph of the Signal Corps, U.S. Army. Wash, DC: GPO, 1897. 16 p. UJ200.22.H3.I57.

U.S. War Dept. Annual Reports of the Chief Signal Officer, 1878-1900. UJ23.A1.
Especially notable-reports of 1878, 1895 & 1897.

_____. Report of Secretary of War, 1886. Vol. I. Wash, DC: GPO, 1886. UA24.
Gen Miles' official version of the heliograph factor in Geronimo's surrender on p. 173.

Military Heliograph

p.3

Volkmar, William J. Report of the General Practice of the Heliograph System, Department of Arizona in May 1890. Los Angeles, CA: Office, Chief Signal Officer, 31 May 1890. 32 p. UG582.H4.U5.
See also UG571.3.A21.

White, James A. Military Signal Corps Manual. NY: Wireless, 1918. pp. 431-55. UJ153.M54.

See also:

-Several pertinent collections in Arch, the Order of Indian Wars, Bruno Rolak, the Signal Corps, and Nelson Miles Collections; General Orders 125 (1884) & 99 (1888)