

MARCHING RATES (Foot and Vehicle)

Notes & MHI Sources

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ANCIENT GREECE

Engels, Donald W. Alexander the Great and the Logistics of the Macedonian Army. Berkeley, CA:
U CA, 1978. 194 p. U168E53.

See Table 7 and accompanying notes for data on march rates, pp. 153-156.

ANCIENT ROME

According to Vegetius:

"The first thing the soldiers are to be taught is the military step, which can only be acquired by constant practice of quick and collective marching.

It was a constant custom among the old Romans, confirmed by the ordinances of Augustus and Hadrian, to exercise both cavalry and infantry three times a month by marches of a certain length. The foot were obliged to march completely armed a distance of ten miles from the camp and return, in the most exact order and with the military step which they changed and quickened on some part of the march."

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The Roman foot = 0.9708 Englishfoot and the Roman mile = 1,000 paces of five feet each. The Roman mile is thus calculated to be $0.9708 \times 5 \times 1,000 = 4854$ English feet. Therefore, the Roman mile was 92% or, roughly, 9/10's of an English mile.(Encyclopaedia Britannica).

Flavius Vegetius Renatus. Military Institutions of the Romans. [Ed by Thomas Phillips] Harrisburg, PA: Stackpole, 1944 & 1960, pp. 18 & 31. U101V4.

The normal rate of march for the Roman foot soldier was 100 steps per minute. Their usual day's march of seven hours covered 15-20 miles. See:

Judson, Harry P. Caesar's Army. NY: Biblo & Tannen, 1888. p. 63. U35J93

Watson, G.R. The Roman Soldier. Ithaca, NY: Cornell, 1969. pp. 54-55. U35W352.

18TH CENTURY

Frederick the Great warned that an army traveled effectively but fifteen miles per day.

Luvaas, Jay. Frederick the Great on the Art of War. NY: Free Press, 1966. pp. 129-30. U102F838.

See also:

-Bibliographies on von Steuben and William Duane in Biographies.

NAPOLEONIC ERA

French infantry under Napoleon marched at the ordinary rate of 3 mph, 10-12 miles per day. Forced marches -- which were frequent --doubled and tripled the usual day's rate.

Rothenberg, Gunther E. The Art of Warfare in the Age of Napoleon. Bloomington, IN: IN U, 1978. pp. 84 & 139-40. U39R65.

AMERICAN CIVIL WAR

In route marching on roads Civil War troops averaged 15 to 20 miles per day. In forced marching, 20 to 25 or, if roads were favorable, perhaps 30 miles. Marches by mixed forces beyond 30 miles were considered extraordinary. Infantry columns marched at the rate of 2-1/2 miles per hour and cavalry alone at six miles per hour. See:

Craighill, William P. The Army Officers Pocket Companion.... NY: Van Nostrand, 1862. pp. 114-16. U130C7.

Halleck, Henry W.. Elements of Military Art and Science.... NY: Appleton, 1862. pp. 97-103. U102H18.

Scott, H.L. Military Dictionary.... NY: Van Nostrand, 1864. U24A5S422.

MODERN RATES OF ADVANCE-GEN/MISC

Andrews, Marshall. Rates of Advance in Land Attack against Unprepared Forces. Study, ORO, Bethesda, MD, 1960. 42 p. U166.1A52.
Examples including Sherman in GA (1864), WWI, WWII & KW.

Helmbold, Robert L. A Compilation of Data on Rates of Advance in Land Combat Operations. Report, US Army Concepts Analysis Agency, Feb 1990. ca 400 p. U166H44.
Includes anecdotal info on 26 various campaigns (App B, 40 p.), but mostly tabular data from other studies

_____. A Survey of Past Work on Rates of Advance in Land Combat Operations. Report, US Army Concepts Analysis Agency, Feb 1990. ca 150 p. U168H44.

_____. Rates of Advance in Historical Land Combat Operations. Study, US Army Concepts Analysis Agency, Jun 1990. ca 200 p. U166.13H45.
Quantitative analysis of computerized data.

Smith, Thomas T. "Blitzkrieg: The Myth of Blitz." Infantry (Jul/Aug 90): pp. 28-30. Per.
How fast was fast he asks and charts the actual speed of past fast-paced operations.

See also:

-Bibliographies on Tactics; Roads; Transportation; Blitzkrieg in Germany-WWII; and Trucks in Vehicles.

MODERN INFANTRY

On the French Foreign Legion's hard marching pace of 5 km per hr, see:

Kanitz, Walter. The White Kepi: A Casual History of the French Foreign Legion. Chicago: Regnery, 1956. pp. 174-88. UA703L5K36.

Martin, A.L. "Recruit Training in the Foreign Legion." Army Quarterly (Jan 1934): pp. 289-96. Per.

Mercer, Charles. Legion of Strangers: The Vivid History of a Unique Military Tradition -The French Foreign Legion. NY: Holt, Rinehart & Winston, 1964. pp. 37-40. UA703L5M4.

While Italian infantry in 1913 marched at an ordinary rate of 4 kilometers an hour (2-1/2 mph), the elite Bersaglieri moved more rapidly at a normal 5 kph (3-1/8 mph). Their special rate of marching was 7 kph (4-3/8 mph). See:

Fea, Pietro. Storia dei Bersaglierie. Firenze: Tipografia Della Gazzetta D' Italia, 1879. 317 p. UA746B4F4.

Great Britain. General Staff. Handbook of the Italian Army, 1913. London: HMSO, 1913. p. 165. UA742H36.

According to modern US Army doctrine, the average rate of march for trained infantry under favorable weather conditions is 2-1/2 mph over roads and 1 mph cross country. A normal foot march covers 20 miles per day.

The normal pace is 30 inches (76 cm), 106 steps per minute, for a rate of 4 kph. In a 24 hour period, with 5-8 hours of marching, the normal distance traveled is 20-32 kilometers. More than 32 kms is a forced march.

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An infantry div on the march averages 12-15 miles per day, an armored div 100 miles per day. See:

U.S. Dept of Army. Staff Officers' Field Manual: Organization, Technical, and Logistical Data, Part I: Field Manual 101-10, dated Oct 1961. pp. 123-24. MilPub-FM.

_____. Foot Marches: FM 21-18, dated Jan 1971. p. 11. MilPub-FM.