

PROJECT				FIELD SHEET, MICRO-CHAIN DATA ENTRIES														
				For use of this form, see FM 3-34.331; the proponent agency is TRADOC.														
ORGANIZATION				DATE (YYYYMMDD)				APPROX. DISTANCE										
AZ. OF LINE		MEAN LATITUDE		CALIBRATION DATE		OBSERVER				RECORDER								
MASTER STATION				H. I.		ELEV.		ELEV. INST.		ECCENTRICITY		INSTR. NO.						
REMOTE STATION				H. I.		ELEV.		ELEV. INST.		ECCENTRICITY		INSTR. NO.						
METEOROLOGICAL READINGS						CHANNEL												
	TIME	PRESS. ALT.	TEMPERATURE		6	5	4	3	2	1	2-1	FREQ.						
			DRY (t)	WET (t')														
MASTER INITIAL												1 HI						
REMOTE INITIAL												2 HI						
MASTER FINAL												3 HI						
REMOTE FINAL												4 HI						
SUM					1. INDICATE ° C OR ° F TEMPERATURE. 2. RECORD CORRECTED ALTIMETER READING IF USED. 3. ALWAYS ZERO THE NULL INDICATOR WITH A CLOCKWISE ROTATION OF THE DIAL.								5 HI					
MEAN																		
BAROMETRIC PRESSURE (P)				"HG	6. RECORD CORRECTED ALTIMETER READING IF USED. 7. ALWAYS ZERO THE NULL INDICATOR WITH A CLOCKWISE ROTATION OF THE DIAL.													
B	A			"HG														
e'			"HG															5 LO
Δe			"HG															6 LO
e			"HG															7 LO
N		η	1,000															8 LO
PRESET REFRACTIVE INDEX		1.000325			6	5	4	3				9 LO						
REFRACTIVE INDEX DEVIATION																		
DIFF. OF ELEV.				FEET METERS								SUM						
MEAN ELEV.				FEET METERS								MEAN M2						
MEAN RADIUS OF CURVATURE				METERS								SUM						
M6					M6	M5	M4	M3				MEAN						
M5																		
M4																		
M3																		
M2																		
UNCORRECTED DISTANCE (UD)												METERS						
ZERO CORRECTION* (Z)												METERS						
REFRACTIVE INDEX CORR. (RC)												METERS						
SLOPE DISTANCE (T)												METERS						
HORIZONTAL DISTANCE (H)												METERS						
ECCENTRIC CORRECTION												METERS						
CHORD-ARC CORRECTION (K)												METERS						
SEA-LEVEL REDUCTION (C)												METERS						
GEODETIC DISTANCE (S)												METERS						

$$B = \frac{4730}{459.688 + t} \quad A = \frac{8540}{459.688 + t} \quad X = \frac{4730}{459.688 + t}$$

$$e = e' \Delta e \quad N = BP + \quad \eta = 1 + \frac{-6N}{1000000}$$

$$RD = 1.000325 \cdot \eta \quad RC = UD \times RD$$

$$T = UD \pm Z \pm RC \quad H = \sqrt{(T^2) - (d^2)}$$

$$K = \frac{H^3}{24 \rho^2} \quad C = -H \frac{h}{\rho} + H \frac{h^2}{\rho^2}$$

or

$$K = 1.027 H^3 \times 10^{-15} \quad S = H + K + C$$

* Obtained from Instrument Calibration.

NOTE: Apply eccentric correction to H before computing K and