

HIGH BURST (MEAN POINT OF IMPACT) REGISTRATION
 For use of this form, see TC 3-09.81; the proponent agency is TRADOC.
COMPUTATION OF HB (MPI) LOCATION

Message to Observers					Dis 01 → 02	Az 01 → 02		3200
						+ -		
						Az 02 → 01		
Data Fired		Chg		Df		FS		QE
Observer Readings				Interior Angles				
Rd	01		02		01 on Left		01 on Right	
No	Az	VA	Az					
1				Az 01 → HB (MPI)		Az 02 → HB (MPI)		
2				+6400 if necessary		+6400 if necessary		
3				Total		Total		
4				-Az 02 → HB (MPI)		-Az 01 → HB (MPI)		
5				APEX \angle		APEX \angle		
6				Az 02 → HB (MPI)		Az 02 → 01		
7				+6400 if necessary		+6400 if necessary		
8				Total		Total		
9				-Az 02 → 01		-Az 02 → HB (MPI)		
10				\angle at 02		\angle at 02		
				Total	Bearing = 6400 - Az	Bearing = Az	Az 01 → HB (MPI) → Bearing	
				A verage	dE - dN +	dE + dN +		
Distance 01 HB (MPI)								
Log base 01 → 02								
+ log sin \angle at 02								
Sum								
- Log sin Apex Angle								Bearing
diff = Log dist 01 hb (MPI)								
Dist 01 → HB (MPI)				dE - dN -		dE + dN -		
				Bearing = Az - 3200		Bearing = 3200 - Az		
Log of dE, dN, and dH								
Log dist 01 → HB (MPI)			Log dist 01 → HB (MPI)			Log dist 01 → HB (MPI)		
Log sin Bearing			Log cos Bearing			Log Tan Vert \angle		
Sum = Log dE			Sum = Log dN			Sum = Log dH		
Coordinates of 01		E		N		H		
		+ - dE		+ - dN		+ - dH		
Location of HB (MPI)		E		N		H		
COMPUTATION OF GFT SETTING								
Alt HB (MPI)		QE fired		Chart data to HB (MPI) location				Df corr
- Alt Btry		- Site VI/HB (MPI) Rg		Deflection _____ m Range _____ M				
VI	+ -	Adj Elev		GFT " _____ " Charge _____ Lot _____				
				Range _____ Elevation _____ Time _____				

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TC 3-09.81

COMPUTATION OF HB (MPI) LOCATION

Message to Observers					Dis 01 → 02	Az 01 → 02	
						+	3200
						-	
						Az 02 → 01	
Data Fired	Chg	Df	FS	QE			
Observer Readings			Interior Angles				
Rd	01		02	01 on Left		01 on Right	
No	Az	VA	Az				
1				Az 01 → HB (MPI)		Az 02 → HB (MPI)	
2				+6400 if necessary		+6400 if necessary	
3				Total		Total	
4				-Az 02 → HB (MPI)		-Az 01 → HB (MPI)	
5				APEX \angle		APEX \angle	
6				Az 02 → HB (MPI)		Az 02 → 01	
7				+6400 if necessary		+6400 if necessary	
8				Total		Total	
9				-Az 02 → 01		-Az 02 → HB (MPI)	
10				\angle at 02		\angle at 02	
				Total	Bearing = $\frac{6400 - Az}{dE - dN +}$	Bearing = Az	Az 01 → HB (MPI) → Bearing
				Average		dE + dN +	
Distance 01 HB (MPI)							
Log base 01 → 02							
+ log sin \angle at 02				IV I III II			
Sum							
- Log sin Apex Angle							
diff = Log dist 01 hb (MPI)				dE - dN -		dE + dN -	
Dist 01 → HB (MPI)				Bearing = Az - 3200		Bearing = 3200 - Az	
Log of dE, dN, and dH							
Log dist 01 → HB (MPI)				Log dist 01 → HB (MPI)		Log dist 01 → HB (MPI)	
Log sin Bearing				Log cos Bearing		Log Tan Vert \angle	
Sum = Log dE				Sum = Log dN		Sum = Log dH	
Coordinates of 01		E		N		H	
		+ - dE		+ - dN		+ - dH	
Location of HB (MPI)		E		N		H	
COMPUTATION OF GFT SETTING							
Alt HB (MPI)		QE fired		Chart data to HB (MPI) location			Df corr
- Alt Btry		- Site VI/HB (MPI) Rg		Deflection _____ m	Range _____ M		
VI	+ -	Adj Elev		GFT " _____ " Charge _____ Lot _____			
				Range _____ Elevation _____ Time _____			