

ILLINOIS ARMY NATIONAL GUARD

Sparta Training Area
1803 Hillcrest Drive
Sparta, IL 62286

105 Land Navigation Course

Ph. (618) 443-9618

INDEX

Chapter 1	GENERAL	
	Guidance for OIC/Test Administrator	<u>Page</u> 2-4
	STUDENT INSTRUCTION SHEET (course requirements, course description, course point identification, pace counts, safety, injuries, pre-mature termination, test conduct, panic azimuth)	
Chapter 2	STA MAP/ 105 LN POINTS MAP	5-6
Chapter 3	PRE-MADE TEST SHEETS DAY LAND NAVIGATION	7-11
Chapter 4	PRE-MADE TEST SHEETS NIGHT LAND NAVIGATION	12-16
Chapter 5	ANSWER SHEETS	17-19
Chapter 6	POINT TO POINT DISTANCE AND DIRECTION FOR COURSE CREATION	20-26
Chapter 7	COMMON TASK LIST	27

SPARTA TRAINING AREA

INTERMEDIATE LAND NAVIGATION COURSE

105 COURSE

GUIDANCE FOR COURSE OIC/TEST ADMINISTRATOR

I. Materials needed for Intermediate Land Navigation Course:

- a. _____ STA 1:25000 scale map
- b. _____ lensatic compass
- c. _____ protractors
- d. _____ pencils
- e. _____ pre-made test sheets
- f. _____ answer sheet matrixes

II. Instructions for conducting the intermediate land navigation course:

There are several pre-made test sheets included in the course binder.

This course is designed to run several relays of students through in a minimal amount of time.

There are also answer sheet matrixes included for easy grading. To use them, simply determine which test sheet the student is using, locate the test answer sheet, and compare the answers to the students test sheet.

It is also important that students have an opportunity to determine their pace counts prior to beginning the course.

Finally, the students should be briefed on, or have the opportunity to read, the contents of the student instruction sheet provided.

SPARTA TRAINING AREA

INTERMEDIATE LAND NAVIGATION COURSE

105 COURSE

STUDENT INSTRUCTION SHEET

COURSE REQUIREMENTS:

TASK: Navigate over hilly grassland between points while dismounted.

CONDITION: Given a 1:25000 scale topographic map of Sparta Training Area, compass, protractor, pencil, and either: (1) an eight digit grid coordinate of the next point or (2) a distance and/or azimuth to the next point.

STANDARD: Correctly determine the identification or eight-digit coordinate of all points to which you are directed.

COURSE DESCRIPTION:

This is a four-leg course over hilly grassland.

COURSE POINT IDENTIFICATION:

Start points are identified as SP1 through SP5. All other course stakes are identified with an alphanumeric designation containing one letter and one number. Identifications are posted on 1' by 1' signs painted half white and half international orange and are between 5' and 7' above ground level.

PACE COUNT:

An individual soldiers pace count may be identified utilizing the start points. These stakes are each 50 meters apart.

SAFETY:

The panic azimuth is 180 degrees. Following this azimuth will lead you to a gravel road. The M203 Range will become visible. If not comfortable with your present location once on the gravel road, remain in place to be picked up by your unit or range control personnel.

INJURIES:

If you are injured and unable to follow the panic azimuth to the road, call for help. If you come upon someone who is injured, or respond to someone's call for assistance, render required first aid within your capabilities and knowledge. If you are the only person with the injured person, try calling for assistance. If a second person arrives, one of you should stay with the injured person while the other person follows the panic azimuth and gets help. If no one responds within a reasonable period of time, you must judge whether to wait with the person or to get help. If you leave REMEMBER THE INJURED PERSON'S LOCATION and mark if necessary so you can find it again. DO NOT IGNORE SOMEONE'S CALL FOR ASSISTANCE – the safety of your fellow soldiers is more important than completing the course.

PREMATURE TERMINATION:

If for any reason it is determined that conditions are no longer safe for the conduct of the land navigation course, a horn will sound three times in succession. IMMEDIATELY follow the panic azimuth to the road and wait for further instructions.

SAFETY CONT...

TEST CONDUCT:

Determine your pace count.

You should be able to perform to standard all skill level 1-4 navigation tasks listed in the Soldier's Manual of Common Tasks.

You will be provided with a STA 1:25,000 scale map, a compass, protractor, pencil, and test sheet. The test sheet will direct you from one course point to the next by giving you either an eight digit grid coordinate (day), or distance and azimuth (night). You will be asked to record the identification number of the point you have been directed to. Record this information in the appropriate space on the test sheet.

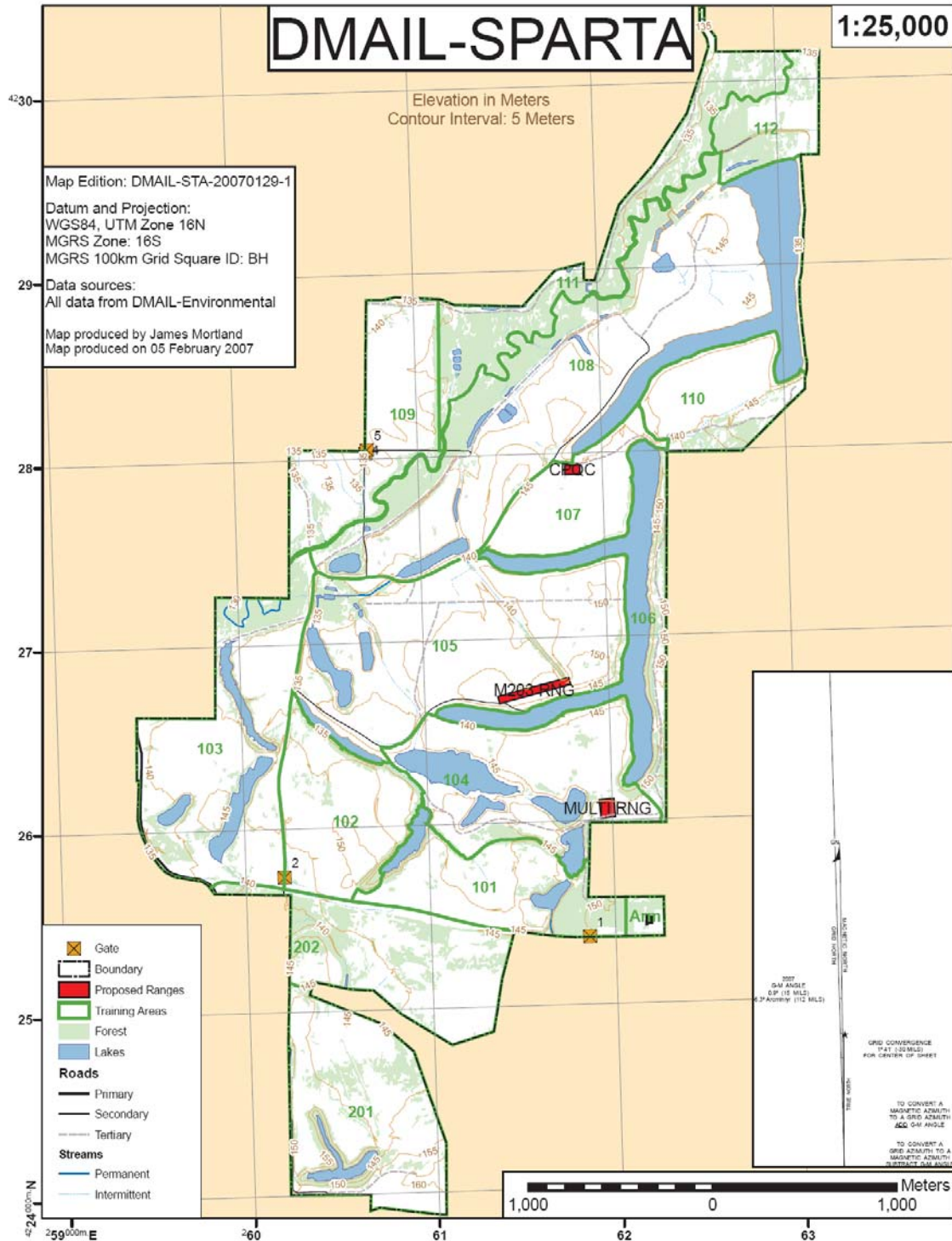
Once you have reached and recorded the final point, return to assembly area within allotted time and turn in test sheet for grading.

You will have _____ minutes (hours) to complete the course. At the end of this time, a horn will sound three times. Immediately return to the road along the panic azimuth.

Do you know the panic azimuth?

Do you have any questions?

Sparta Training Area 1:25,000 General Map



105 Land Navigation Course Stake Locations

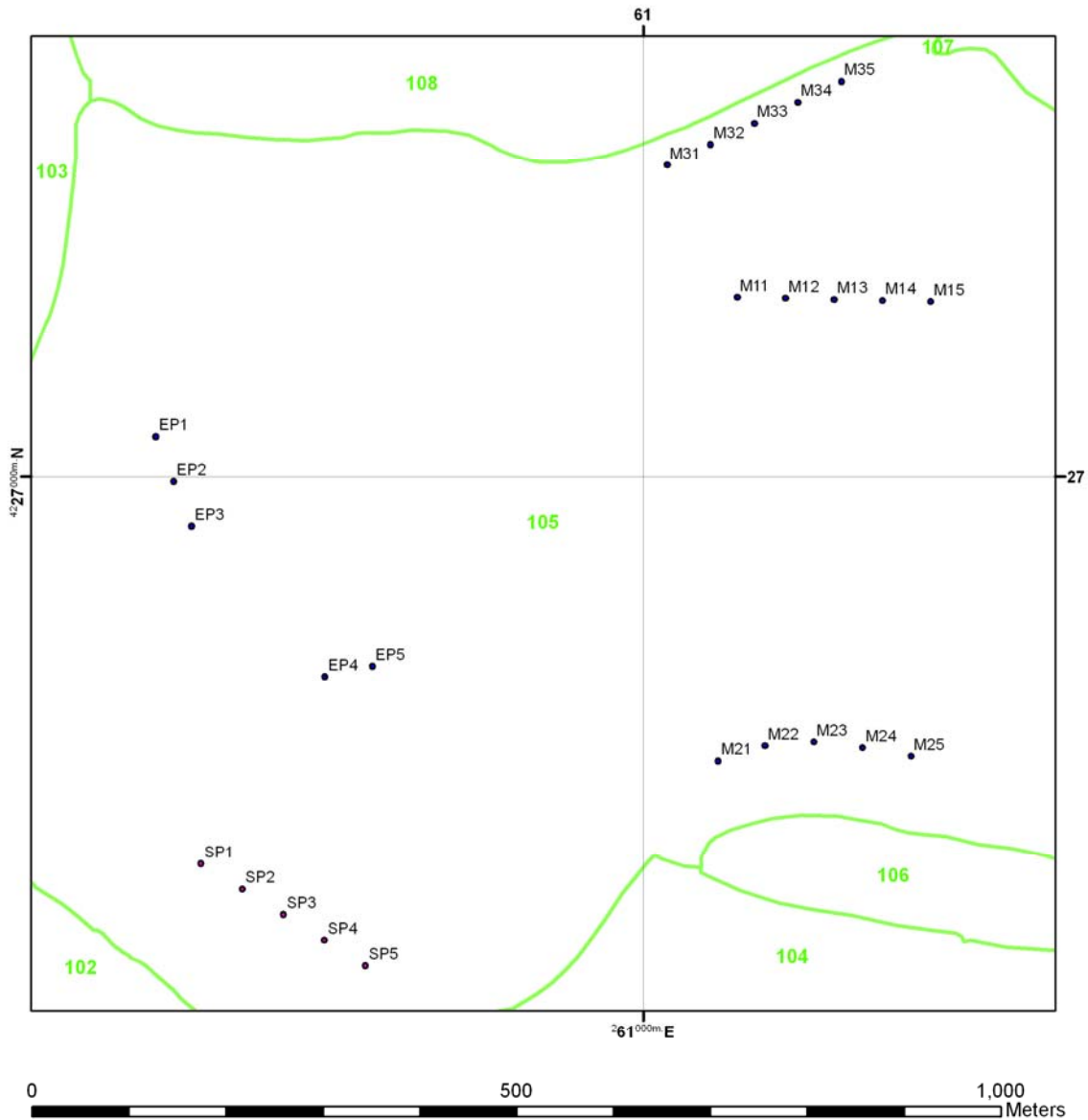
105 Land Nav Sign Locations

Legend

105 Land Nav TYPE

- Start Points
- Other Points

Datum and Projection: WGS84, UTM Zone 16N
100km GSI: BH
All data from DMAIL-Environmental
Map created by James Mortland
Map created on 18 DEC 07



**SCORESHEET FOR 105 DAY LAND NAVIGATION COURSE
SPARTA TRAINING AREA**

SOLDIERS' NAME(S): _____ & _____

UNIT: _____ **DATE TAKEN:** _____

START TIME: _____ **FINISH TIME:** _____

**TO MEET STANDARD, YOU MUST CORRECTLY IDENTIFY 3 OF 4 POINTS
IN LESS THAN 3 HOURS.**

YOU ARE ASSIGNED TO THE DAY RED LANE

**NOTE: WHEN DETERMINING AZIMUTHS, REMEMBER TO CONVERT
YOUR AZIMUTH USING YOUR GRID-AZIMUTH (G-M) ANGLE. [To convert a
grid azimuth to a magnetic azimuth, subtract the G-M angle (0.9 degrees)]**

YOU ARE AT BH 60543 26598 (SP1).

1. Go to BH 61146 27185 to find your first point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

2. Go to BH 61226 26718 to find your second point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

3. Go to BH 61024 27324 to find your third point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

4. Go to BH 60514 26995 to find your fourth point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

Return to scoring station within designated time

**SOLDIER(S) CORRECTLY IDENTIFIED _____ OF 4 POINTS
IN _____ HOUR(S) _____ MINUTES.**

SCORE AS: GO NO GO (circle one)

REVIEWED AND GRADED BY: _____

**SCORESHEET FOR 105 DAY LAND NAVIGATION COURSE
SPARTA TRAINING AREA**

SOLDIERS' NAME(S): _____ & _____

UNIT: _____ **DATE TAKEN:** _____

START TIME: _____ **FINISH TIME:** _____

**TO MEET STANDARD, YOU MUST CORRECTLY IDENTIFY 3 OF 4 POINTS
IN LESS THAN 3 HOURS.**

YOU ARE ASSIGNED TO THE DAY BLUE LANE

**NOTE: WHEN DETERMINING AZIMUTHS, REMEMBER TO CONVERT
YOUR AZIMUTH USING YOUR GRID-AZIMUTH (G-M) ANGLE. [To convert a
grid azimuth to a magnetic azimuth, subtract the G-M angle (0.9 degrees)]**

YOU ARE AT BH 60585 26571 (SP2).

1. Go to BH 61296 27182 to find your first point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

2. Go to BH 61077 26705 to find your second point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

3. Go to BH 61159 27389 to find your third point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

4. Go to BH 60496 27041 to find your fourth point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

Return to scoring station within designated time

**SOLDIER(S) CORRECTLY IDENTIFIED _____ OF 4 POINTS
IN _____ HOUR(S) _____ MINUTES.**

SCORE AS: GO NO GO (circle one)

REVIEWED AND GRADED BY: _____

**SCORESHEET FOR 105 DAY LAND NAVIGATION COURSE
SPARTA TRAINING AREA**

SOLDIERS' NAME(S): _____ & _____

UNIT: _____ **DATE TAKEN:** _____

START TIME: _____ **FINISH TIME:** _____

**TO MEET STANDARD, YOU MUST CORRECTLY IDENTIFY 3 OF 4 POINTS
IN LESS THAN 3 HOURS.**

YOU ARE ASSIGNED TO THE DAY YELLOW LANE

**NOTE: WHEN DETERMINING AZIMUTHS, REMEMBER TO CONVERT
YOUR AZIMUTH USING YOUR GRID-AZIMUTH (G-M) ANGLE. [To convert a
grid azimuth to a magnetic azimuth, subtract the G-M angle (0.9 degrees)]**

YOU ARE AT BH 60628 26545 (SP3).

1. **Go to BH 61096 27186 to find your first point.**
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

2. **Go to BH 61077 26705 to find your second point.**
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

3. **Go to BH 61204 27411 to find your third point.**
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

4. **Go to BH 60671 26792 to find your fourth point.**
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

Return to scoring station within designated time

**SOLDIER(S) CORRECTLY IDENTIFIED _____ OF 4 POINTS
IN _____ HOUR(S) _____ MINUTES.**

SCORE AS: GO NO GO (circle one)

REVIEWED AND GRADED BY: _____

**SCORESHEET FOR 105 DAY LAND NAVIGATION COURSE
SPARTA TRAINING AREA**

SOLDIERS' NAME(S): _____ & _____

UNIT: _____ **DATE TAKEN:** _____

START TIME: _____ **FINISH TIME:** _____

**TO MEET STANDARD, YOU MUST CORRECTLY IDENTIFY 3 OF 4 POINTS
IN LESS THAN 3 HOURS.**

YOU ARE ASSIGNED TO THE DAY GREEN LANE

**NOTE: WHEN DETERMINING AZIMUTHS, REMEMBER TO CONVERT
YOUR AZIMUTH USING YOUR GRID-AZIMUTH (G-M) ANGLE. [To convert a
grid azimuth to a magnetic azimuth, subtract the G-M angle (0.9 degrees)]**

YOU ARE AT BH 60670 26518 (SP4).

5. Go to BH 61196 27184 to find your first point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

6. Go to BH 61276 26709 to find your second point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

7. Go to BH 61069 27345 to find your third point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

8. Go to BH 60533 26949 to find your fourth point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

Return to scoring station within designated time

**SOLDIERS CORRECTLY IDENTIFIED _____ OF 4 POINTS
IN _____ HOUR(S) _____ MINUTES.**

SCORE AS: GO NO GO (circle one)

REVIEWED AND GRADED BY: _____

**SCORESHEET FOR 105 DAY LAND NAVIGATION COURSE
SPARTA TRAINING AREA**

SOLDIERS' NAME(S): _____ & _____

UNIT: _____ **DATE TAKEN:** _____

START TIME: _____ **FINISH TIME:** _____

**TO MEET STANDARD, YOU MUST CORRECTLY IDENTIFY 3 OF 4 POINTS
IN LESS THAN 3 HOURS.**

YOU ARE ASSIGNED TO THE DAY ORANGE LANE

**NOTE: WHEN DETERMINING AZIMUTHS, REMEMBER TO CONVERT
YOUR AZIMUTH USING YOUR GRID-AZIMUTH (G-M) ANGLE. [To convert a
grid azimuth to a magnetic azimuth, subtract the G-M angle (0.9 degrees)]**

YOU ARE AT BH 60713 26492 (SP5).

1. Go to BH 61246 27183 to find your first point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

2. Go to BH 61176 26724 to find your second point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

3. Go to BH 61069 27345 to find your third point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

4. Go to BH 60720 26803 to find your fourth point.
_____ Meters _____ degrees (grid) _____ degrees (mag)

Record marking on point here _____

Return to scoring station within designated time

**SOLDIER(S) CORRECTLY IDENTIFIED _____ OF 4 POINTS
IN _____ HOUR(S) _____ MINUTES.**

SCORE AS: GO NO GO (circle one)

REVIEWED AND GRADED BY: _____

**SCORESHEET FOR 105 NIGHT LAND NAVIGATION COURSE
SPARTA TRAINING AREA**

SOLDIERS' NAME(S): _____ & _____

UNIT: _____ **DATE TAKEN:** _____

START TIME: _____ **FINISH TIME:** _____

**TO MEET STANDARD, YOU MUST CORRECTLY IDENTIFY 2 OF 3 POINTS
IN LESS THAN 3 HOURS.**

YOU ARE ASSIGNED TO THE NIGHT RED LANE

**NOTE: WHEN DETERMINING AZIMUTHS, REMEMBER TO CONVERT
YOUR AZIMUTH USING YOUR GRID-AZIMUTH (G-M) ANGLE. [To convert a
grid azimuth to a magnetic azimuth, subtract the G-M angle (.9 degrees)]**

YOU ARE AT BH 60543 26598 (SP1).

1. Move from your present location
915 meters 50 degrees (grid)

Record marking on point here _____

2. Move from your present location
479 meters 195 degrees (grid)

Record marking on point here _____

3. Move from your present location
695 meters 7 degrees (grid)

Record marking on point here _____

Return to scoring station within designated time

**SOLDIER(S) CORRECTLY IDENTIFIED _____ OF 3 POINTS
IN _____ HOUR(S) _____ MINUTES.**

SCORE AS: GO NO GO (circle one)

REVIEWED AND GRADED BY: _____

**SCORESHEET FOR 105 NIGHT LAND NAVIGATION COURSE
SPARTA TRAINING AREA**

SOLDIERS' NAME(S): _____ & _____

UNIT: _____ **DATE TAKEN:** _____

START TIME: _____ **FINISH TIME:** _____

**TO MEET STANDARD, YOU MUST CORRECTLY IDENTIFY 2 OF 3 POINTS
IN LESS THAN 3 HOURS.**

YOU ARE ASSIGNED TO THE NIGHT BLUE LANE

**NOTE: WHEN DETERMINING AZIMUTHS, REMEMBER TO CONVERT
YOUR AZIMUTH USING YOUR GRID-AZIMUTH (G-M) ANGLE. [To convert a
grid azimuth to a magnetic azimuth, subtract the G-M angle (.9 degrees)]**

YOU ARE AT BH 60585 26571 (SP2).

1. Move from your present location
866 meters 45 degrees (grid)

Record marking on point here _____

2. Move from your present location
494 meters 194 degrees (grid)

Record marking on point here _____

3. Move from your present location
641 meters 359 degrees (grid)

Record marking on point here _____

Return to scoring station within designated time

**SOLDIER(S) CORRECTLY IDENTIFIED _____ OF 3 POINTS
IN _____ HOUR(S) _____ MINUTES.**

SCORE AS: GO NO GO (circle one)

REVIEWED AND GRADED BY: _____

**SCORESHEET FOR 105 NIGHT LAND NAVIGATION COURSE
SPARTA TRAINING AREA**

SOLDIERS' NAME(S): _____ **&** _____

UNIT: _____ **DATE TAKEN:** _____

START TIME: _____ **FINISH TIME:** _____

**TO MEET STANDARD, YOU MUST CORRECTLY IDENTIFY 2 OF 3 POINTS
IN LESS THAN 3 HOURS.**

YOU ARE ASSIGNED TO THE NIGHT YELLOW LANE

**NOTE: WHEN DETERMINING AZIMUTHS, REMEMBER TO CONVERT
YOUR AZIMUTH USING YOUR GRID-AZIMUTH (G-M) ANGLE. [To convert a
grid azimuth to a magnetic azimuth, subtract the G-M angle (.9 degrees)]**

YOU ARE AT BH 60628 26545 (SP3).

1. Move from your present location
924 meters 46 degrees (grid)

Record marking on point here _____

2. Move from your present location
474 meters 195 degrees (grid)

Record marking on point here _____

3. Move from your present location
665 meters 359 degrees (grid)

Record marking on point here _____

Return to scoring station within designated time

**SOLDIER(S) CORRECTLY IDENTIFIED _____ OF 3 POINTS
IN _____ HOUR(S) _____ MINUTES.**

SCORE AS: GO NO GO (circle one)

REVIEWED AND GRADED BY: _____

**SCORESHEET FOR 105 NIGHT LAND NAVIGATION COURSE
SPARTA TRAINING AREA**

SOLDIERS' NAME(S): _____ **&** _____

UNIT: _____ **DATE TAKEN:** _____

START TIME: _____ **FINISH TIME:** _____

**TO MEET STANDARD, YOU MUST CORRECTLY IDENTIFY 2 OF 3 POINTS
IN LESS THAN 3 HOURS.**

YOU ARE ASSIGNED TO THE NIGHT GREEN LANE

**NOTE: WHEN DETERMINING AZIMUTHS, REMEMBER TO CONVERT
YOUR AZIMUTH USING YOUR GRID-AZIMUTH (G-M) ANGLE. [To convert a
grid azimuth to a magnetic azimuth, subtract the G-M angle (.9 degrees)]**

YOU ARE AT BH 60670 26518 (SP4).

1. Move from your present location
792 meters 33 degrees (grid)

Record marking on point here _____

2. Move from your present location
510 meters 159 degrees (grid)

Record marking on point here _____

3. Move from your present location
664 meters 338 degrees (grid)

Record marking on point here _____

Return to scoring station within designated time

**SOLDIER(S) CORRECTLY IDENTIFIED _____ OF 3 POINTS
IN _____ HOUR(S) _____ MINUTES.**

SCORE AS: GO NO GO (circle one)

REVIEWED AND GRADED BY: _____

**SCORESHEET FOR 105 NIGHT LAND NAVIGATION COURSE
SPARTA TRAINING AREA**

SOLDIERS' NAME(S): _____ **&** _____

UNIT: _____ **DATE TAKEN:** _____

START TIME: _____ **FINISH TIME:** _____

**TO MEET STANDARD, YOU MUST CORRECTLY IDENTIFY 2 OF 3 POINTS
IN LESS THAN 3 HOURS.**

YOU ARE ASSIGNED TO THE NIGHT ORANGE LANE

**NOTE: WHEN DETERMINING AZIMUTHS, REMEMBER TO CONVERT
YOUR AZIMUTH USING YOUR GRID-AZIMUTH (G-M) ANGLE. [To convert a
grid azimuth to a magnetic azimuth, subtract the G-M angle (.9 degrees)]**

YOU ARE AT BH 60713 26492 (SP5).

- 1. Move from your present location
818 meters 32 degrees (grid)**

Record marking on point here _____

- 2. Move from your present location
474 meters 170 degrees (grid)**

Record marking on point here _____

- 3. Move from your present location
659 meters 350 degrees (grid)**

Record marking on point here _____

Return to scoring station within designated time

**SOLDIER(S) CORRECTLY IDENTIFIED _____ OF 3 POINTS
IN _____ HOUR(S) _____ MINUTES.**

SCORE AS: GO NO GO (circle one)

REVIEWED AND GRADED BY: _____

ANSWER SHEET
105 DAY LAND NAVIGATION COURSE

SP1: M3

M7

B4

E9

SP2: L6

D6

N9

J1

SP3: P5

D6

O2

E9

SP4: T4

F8

F6

G4

SP5: S1

A2

F6

A3

ANSWER SHEET
105 NIGHT LAND NAVIGATION COURSE

SP 1: S1
 R9
 O2

SP 2: T4
 D6
 F6

SP 3: L6
 A2
 N9

SP 4: P5
 F8
 B4

SP 5: M3
 M7
 K7

ANSWER SHEET

ALL POINTS WITH IDENTIFICATION NUMBERS

105 Land Nav Sign Codes

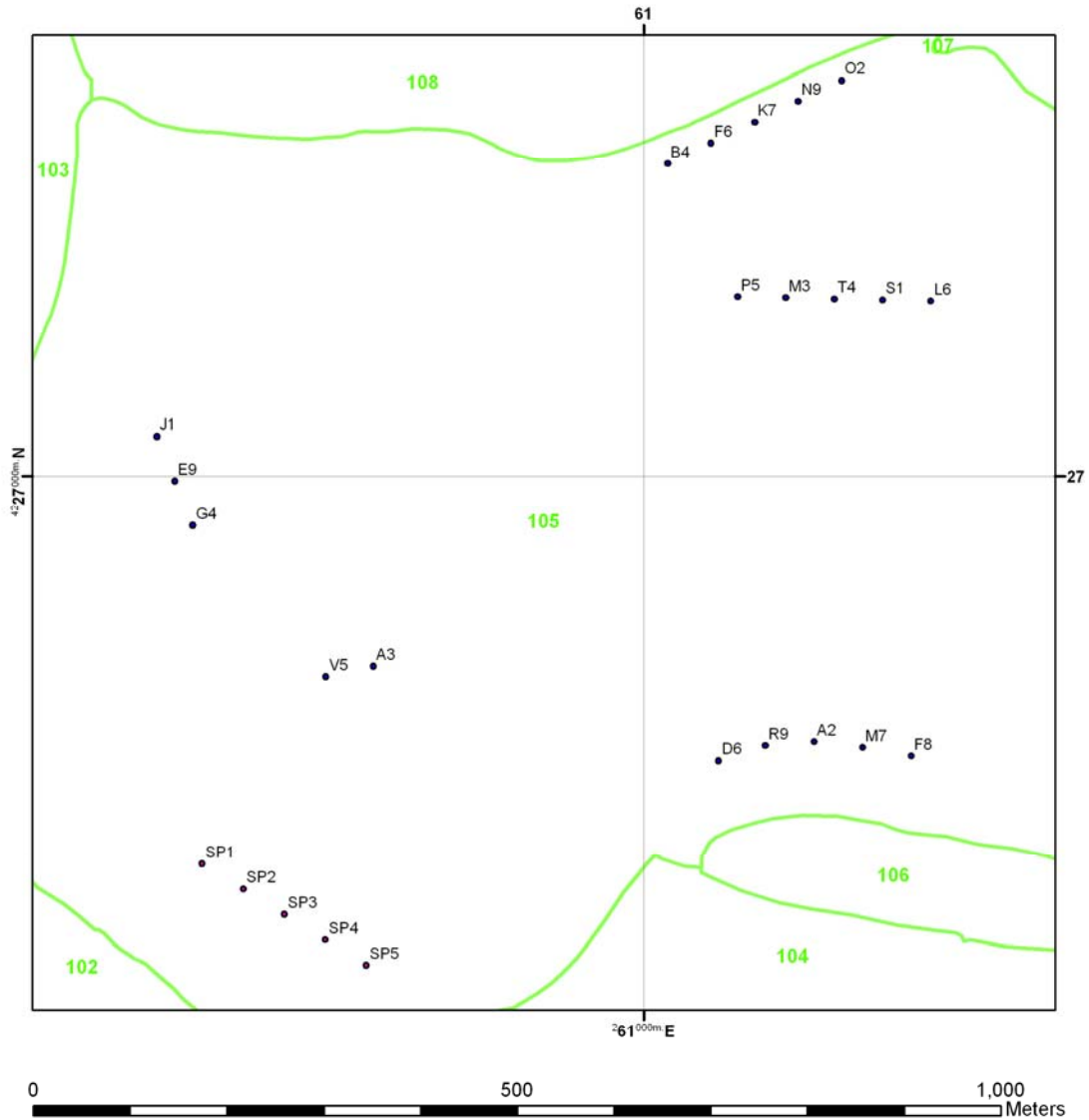
Legend

105 Land Nav

TYPE

- Start Points
- Other Points

Datum and Projection: WGS84, UTM Zone 16N
100km GSI: BH
All data from DMAIL-Environmental
Map created by James Mortland
Map created on 18 DEC 07



**POINT TO POINT DISTANCE AND DIRECTION FOR THE
CREATION OF ALTERNATE COURSES**

FROM_PT	TO_PT	DIST_M	AZ_FT	AZ_TF
SP1	EP1	446.267	353.957	173.957
SP1	EP2	398.377	355.908	175.908
SP1	EP3	351.076	358.390	178.390
SP1	EP4	233.057	33.320	213.320
SP1	EP5	271.173	40.696	220.696
SP1	M31	871.139	33.530	213.530
SP1	M32	914.469	35.134	215.134
SP1	M33	958.450	36.591	216.591
SP1	M34	1002.995	37.916	217.916
SP1	M35	1048.031	39.125	219.125
SP1	M11	808.092	43.250	223.250
SP1	M12	842.399	45.770	225.770
SP1	M13	878.214	48.101	228.101
SP1	M14	915.360	50.227	230.227
SP1	M15	953.681	52.206	232.206
SP1	M21	544.609	78.667	258.667
SP1	M22	595.106	78.122	258.122
SP1	M23	645.276	78.721	258.721
SP1	M24	693.769	79.971	259.971
SP1	M25	741.689	81.323	261.323
SP1	SP2	50.000	121.876	301.876
SP1	SP3	100.000	121.876	301.876
SP1	SP4	150.000	121.876	301.876
SP1	SP5	200.000	121.876	301.876
SP2	EP1	478.627	349.230	169.230
SP2	EP2	429.657	350.503	170.503
SP2	EP3	380.954	352.109	172.109
SP2	EP4	237.137	21.151	201.151
SP2	EP5	268.107	30.077	210.077
SP2	M31	871.136	30.230	210.230
SP2	M32	913.002	31.984	211.984
SP2	M33	955.649	33.607	213.607
SP2	M34	998.979	35.057	215.057
SP2	M35	1042.906	36.408	216.408
SP2	M11	799.744	39.723	219.723
SP2	M12	831.813	42.410	222.410
SP2	M13	865.585	44.929	224.929
SP2	M14	900.867	47.228	227.228

SP2	M15	937.488	49.323	229.323
SP2	M21	509.318	74.828	254.828
SP2	M22	560.061	74.606	254.606
SP2	M23	609.776	75.491	255.491
SP2	M24	657.398	77.084	257.084
SP2	M25	704.439	78.721	258.721
SP2	SP3	50.000	121.876	301.876
SP2	SP4	100.000	121.876	301.876
SP2	SP5	150.000	121.876	301.876
SP3	EP1	513.822	345.128	165.128
SP3	EP2	464.226	345.865	165.865
SP3	EP3	414.727	346.786	166.786
SP3	EP4	251.302	9.867	189.867
SP3	EP5	274.278	19.566	199.566
SP3	M31	873.999	26.962	206.962
SP3	M32	914.270	28.869	208.869
SP3	M33	955.461	30.604	210.604
SP3	M34	997.457	32.182	212.182
SP3	M35	1040.161	33.647	213.647
SP3	M11	794.460	36.155	216.155
SP3	M12	824.130	39.019	219.019
SP3	M13	855.695	41.663	221.663
SP3	M14	888.953	44.106	224.106
SP3	M15	923.721	46.369	226.369
SP3	M21	476.666	70.411	250.411
SP3	M22	527.432	70.582	250.582
SP3	M23	576.430	71.878	251.878
SP3	M24	622.919	73.832	253.832
SP3	M25	668.855	75.767	255.767
SP3	SP4	50.000	121.876	301.876
SP3	SP5	100.000	121.876	301.876
SP4	EP3	451.520	342.307	162.307
SP4	EP2	501.404	341.903	161.903
SP4	EP1	551.309	341.569	161.569
SP4	EP4	273.991	0.128	180.128
SP4	EP5	289.093	9.843	189.843
SP4	M31	879.699	23.716	203.716
SP4	M32	918.263	25.748	205.748
SP4	M33	957.885	27.619	207.619
SP4	M34	998.439	29.324	209.324
SP4	M35	1039.816	30.908	210.908
SP4	M11	792.303	32.551	212.551
SP4	M12	819.431	35.528	215.528
SP4	M13	848.641	38.337	218.337
SP4	M14	879.724	40.932	220.932

SP4	M15	912.490	43.335	223.335
SP4	M21	447.232	65.398	245.398
SP4	M22	497.696	66.100	246.100
SP4	M23	545.634	67.843	247.843
SP4	M24	590.664	70.239	250.239
SP4	M25	635.215	72.495	252.495
SP4	SP5	50.000	121.876	301.876
SP5	EP3	490.655	338.515	158.515
SP5	EP2	540.654	338.488	158.488
SP5	EP1	590.653	338.468	158.468
SP5	EP4	303.298	352.067	172.067
SP5	EP5	311.323	1.283	181.283
SP5	M31	888.182	20.512	200.512
SP5	M32	924.946	22.659	202.659
SP5	M33	962.904	24.638	204.638
SP5	M34	1001.919	26.468	206.468
SP5	M35	1041.874	28.141	208.141
SP5	M11	793.297	28.928	208.928
SP5	M12	817.768	32.044	212.044
SP5	M13	844.493	34.954	214.954
SP5	M14	873.265	37.673	217.673
SP5	M15	903.889	40.221	220.221
SP5	M21	421.690	59.740	239.740
SP5	M22	471.400	61.040	241.040
SP5	M23	517.843	63.385	243.385
SP5	M24	561.016	66.218	246.218
SP5	M25	603.846	68.929	248.929
EP1	M31	598.925	61.880	241.880
EP1	M32	648.884	62.063	242.063
EP1	M33	698.850	62.192	242.192
EP1	M34	748.820	62.363	242.363
EP1	M35	798.793	62.484	242.484
EP1	M11	617.856	76.427	256.427
EP1	M12	666.329	77.523	257.523
EP1	M13	715.012	78.503	258.503
EP1	M14	763.866	79.319	259.319
EP1	M15	812.859	80.025	260.025
EP1	M21	671.560	120.124	300.124
EP1	M22	706.643	117.035	297.035
EP1	M23	750.205	115.015	295.015
EP1	M24	798.520	113.895	293.895
EP1	M25	848.003	113.081	293.081
EP1	EP5	326.817	136.764	316.764
EP1	EP2	50.000	158.200	338.200
EP1	EP3	100.000	158.200	338.200

EP1	EP4	304.351	144.919	324.919
EP2	M31	606.479	57.175	237.175
EP2	M32	656.125	57.691	237.691
EP2	M33	705.820	58.184	238.184
EP2	M34	755.556	58.566	238.566
EP2	M35	805.324	58.935	238.935
EP2	M11	612.690	71.819	251.819
EP2	M12	660.063	73.273	253.273
EP2	M13	707.798	74.497	254.497
EP2	M14	755.826	75.601	255.601
EP2	M15	804.094	76.537	256.537
EP2	M21	632.964	117.326	297.326
EP2	M22	669.803	114.246	294.246
EP2	M23	714.559	112.276	292.276
EP2	M24	763.550	111.242	291.242
EP2	M25	813.505	110.556	290.556
EP2	EP3	50.000	158.200	338.200
EP2	EP4	255.949	142.332	322.332
EP2	EP5	280.863	133.054	313.054
EP3	M31	617.999	52.611	232.611
EP3	M32	667.044	53.479	233.479
EP3	M33	716.221	54.214	234.214
EP3	M34	765.505	54.868	234.868
EP3	M35	814.876	55.449	235.449
EP3	M11	611.581	67.144	247.144
EP3	M12	657.550	68.928	248.928
EP3	M13	704.069	70.465	250.465
EP3	M14	751.036	71.819	251.819
EP3	M15	798.371	72.996	252.996
EP3	M21	596.066	114.137	294.137
EP3	M22	634.767	111.072	291.072
EP3	M23	680.722	109.251	289.251
EP3	M24	730.332	108.402	288.402
EP3	M25	780.687	107.844	287.844
EP3	EP5	236.557	127.918	307.918
EP3	EP4	208.304	138.566	318.566
EP4	M31	638.084	33.615	213.615
EP4	M32	681.570	35.764	215.764
EP4	M33	725.896	37.645	217.645
EP4	M34	770.916	39.298	219.298
EP4	M35	816.516	40.784	220.784
EP4	M11	579.926	47.231	227.231
EP4	M12	616.886	50.437	230.437
EP4	M13	655.577	53.287	233.287
EP4	M14	695.712	55.834	235.834

EP4	M15	737.055	58.067	238.067
EP4	EP5	50.000	77.468	257.468
EP4	M21	415.392	102.205	282.205
EP4	M22	460.096	99.055	279.055
EP4	M23	509.390	97.707	277.707
EP4	M24	560.146	97.600	277.600
EP4	M25	610.939	97.815	277.815
EP5	M31	603.031	30.311	210.311
EP5	M32	645.109	32.783	212.783
EP5	M33	688.247	34.965	214.965
EP5	M34	732.259	36.878	216.878
EP5	M35	776.995	38.593	218.593
EP5	M11	537.325	44.548	224.548
EP5	M12	572.796	48.176	228.176
EP5	M13	610.304	51.387	231.387
EP5	M14	649.498	54.205	234.205
EP5	M15	690.090	56.723	236.723
EP5	M21	370.568	105.447	285.447
EP5	M22	414.005	101.604	281.604
EP5	M23	462.801	99.867	279.867
EP5	M24	513.491	99.542	279.542
EP5	M25	564.328	99.596	279.596
M31	M32	50.000	64.277	244.277
M31	M33	100.000	64.277	244.277
M31	M34	150.000	64.277	244.277
M31	M35	200.000	64.277	244.277
M31	M11	155.482	152.218	332.218
M31	M12	184.953	138.549	318.549
M31	M13	221.902	129.011	309.011
M31	M14	263.198	122.315	302.315
M31	M15	307.093	117.507	297.507
M31	M25	664.267	157.690	337.690
M31	M24	638.398	161.558	341.558
M31	M23	618.645	165.815	345.815
M31	M22	612.151	170.483	350.483
M31	M21	621.466	175.124	355.124
M32	M33	50.000	64.277	244.277
M32	M34	100.000	64.277	244.277
M32	M35	150.000	64.277	244.277
M32	M15	280.031	125.720	305.720
M32	M14	240.504	132.471	312.471
M32	M13	205.590	141.714	321.714
M32	M12	178.024	154.224	334.224
M32	M11	161.609	170.226	350.226
M32	M21	640.970	179.303	359.303

M32	M22	627.950	174.867	354.867
M32	M23	630.556	170.267	350.267
M32	M24	646.638	165.954	345.954
M32	M25	669.121	161.976	341.976
M33	M34	50.000	64.277	244.277
M33	M35	100.000	64.277	244.277
M33	M15	259.862	135.436	315.436
M33	M14	226.740	144.292	324.292
M33	M13	200.734	155.770	335.770
M33	M12	184.871	169.911	349.911
M33	M11	181.825	185.557	5.557
M33	M21	663.675	183.218	3.218
M33	M22	647.235	179.016	359.016
M33	M23	646.128	174.536	354.536
M33	M24	658.582	170.211	350.211
M33	M25	677.639	166.174	346.174
M34	M35	50.000	64.277	244.277
M34	M15	248.272	146.437	326.437
M34	M14	223.562	157.002	337.002
M34	M13	208.137	169.666	349.666
M34	M12	204.113	183.556	3.556
M34	M11	212.139	197.176	17.176
M34	M25	689.686	170.236	350.236
M34	M24	674.032	174.300	354.300
M34	M23	665.103	178.580	358.580
M34	M22	669.706	182.904	2.904
M34	M21	689.266	186.857	6.857
M35	M11	248.890	205.640	25.640
M35	M12	232.695	194.361	14.361
M35	M13	226.601	181.952	1.952
M35	M14	231.407	169.477	349.477
M35	M15	246.475	158.023	338.023
M35	M25	705.081	174.146	354.146
M35	M24	692.755	178.190	358.190
M35	M23	687.199	182.382	2.382
M35	M22	695.053	186.523	6.523
M35	M21	717.432	190.220	10.220
M11	M12	50.000	91.174	271.174
M11	M13	100.000	91.174	271.174
M11	M14	150.000	91.174	271.174
M11	M15	200.000	91.174	271.174
M11	M21	482.059	182.335	2.335
M11	M22	467.054	176.474	356.474
M11	M23	468.948	170.282	350.282
M11	M24	485.630	164.529	344.529

M11	M25	509.713	159.371	339.371
M12	M13	50.000	91.174	271.174
M12	M14	100.000	91.174	271.174
M12	M15	150.000	91.174	271.174
M12	M21	485.633	188.240	8.240
M12	M22	465.612	182.616	2.616
M12	M23	462.099	176.385	356.385
M12	M24	473.715	170.325	350.325
M12	M25	493.311	164.767	344.767
M13	M14	50.000	91.174	271.174
M13	M15	100.000	91.174	271.174
M13	M21	494.265	194.002	14.002
M13	M22	469.520	188.731	8.731
M13	M23	460.608	182.593	2.593
M13	M24	466.878	176.369	356.369
M13	M25	481.564	170.483	350.483
M14	M15	50.000	91.174	271.174
M14	M21	507.697	199.518	19.518
M14	M22	478.648	194.669	14.669
M14	M23	464.525	188.772	8.772
M14	M24	465.344	182.511	2.511
M14	M25	474.817	176.422	356.422
M15	M21	525.562	204.688	24.688
M15	M22	492.706	200.333	20.333
M15	M23	473.716	194.781	14.781
M15	M24	469.163	188.625	8.625
M15	M25	473.286	182.465	2.465
M21	M22	50.789	72.267	252.267
M21	M23	100.668	78.884	258.884
M21	M24	149.827	84.763	264.763
M21	M25	199.298	88.666	268.666
M22	M23	50.558	85.513	265.513
M22	M24	100.853	91.067	271.067
M22	M25	151.264	94.112	274.112
M23	M24	50.765	96.578	276.578
M23	M25	101.555	98.354	278.354
M24	M25	50.840	100.192	280.192

SPARTA TRAINING AREA
105 LAND NAVIGATION COURSE

COMMON TASKS REQUIRED

- #071-329-1000 Identify topographic symbols on a military map.....
- #071-329-1001 Identify terrain features on a map.....
- #071-329-1012 Orient a map to the ground by map-terrain association.....
- #071-329-1002 Determine the grid coordinates of a point on a military map using the
military grid reference system.....
- #071-329-1005 Determine a location on the ground by terrain association.....
- #071-329-1003 Determine a magnetic azimuth using a lensatic compass.....
- #071-329-1018 Determine direction using field-expedient methods.....
- #071-329-1008 Measure distance on a map.....
- #071-326-0515 Select a movement route using a map.....
- #071-329-1006 Navigate from one point on the ground to another point while dismounted.....
- #071-329-1009 Convert azimuths.....
- #071-329-1011 Orient a map using a lensatic compass.....
- #071-329-1019 Use a map overlay.....
- #071-329-1004 Determine the elevation of a point on the ground using a map.....
- #071-329-1014 Locate an unknown point on a map and on the ground by intersection.....
- #071-329-1015 Locate an unknown point on a map and on the ground by resection.....
- #071-510-0001 Determine azimuth using a protractor.....
- #071-510-0002 Compute back azimuths.....