

# **TRAIL INVENTORY PROJECT**

**OREGON-CALIFORNIA TRAILS ASSOCIATION**

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**2014 PNTS Historic Trails Workshop**

**Salt Lake City, Utah**

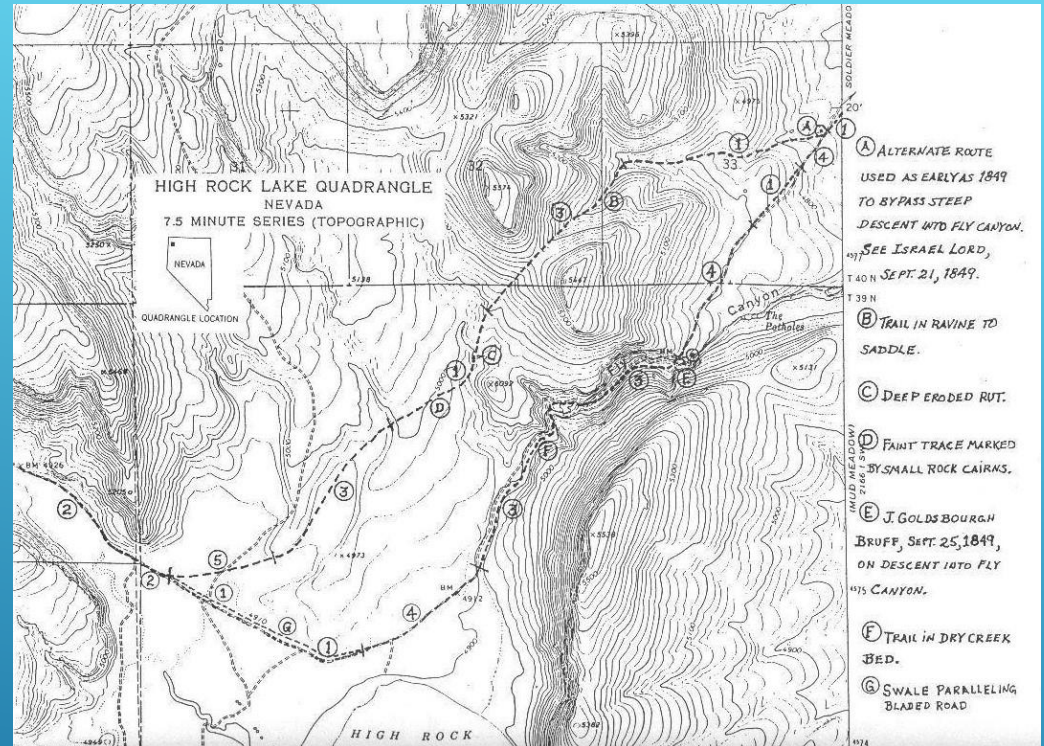
**October 30, 2014**

# MAPPING EMIGRANT TRAILS (MET) MANUAL, 5<sup>TH</sup> EDITION

- ▶ Part A: “Investigative Procedures and Trail Classifications”
  - ▶ Refined definition of trail classifications
  - ▶ **Addition** of Class 6 – Reconstructed Trail
- ▶ New material:
  - ▶ Part B: “Overview of GPS and Mapping Software”
  - ▶ Part C: “Planning and Executing a Mapping Project”
  - ▶ Part D: “Setting Classifications”
  - ▶ Part E: “Photo Documentation of Trails”
  - ▶ 13 appendices on mapping-related topics
- ▶ Download at OCTA website ([octa-trails.org](http://octa-trails.org)); each section and appendix is a separate PDF
- ▶ Complete, field-ready document may be purchased from OCTA for \$20 (\$10 for OCTA members).

# OCTA MET-STANDARD MAPPING

- ▶ Trail classification (1 through 6); similar to NTDS
- ▶ Permits very detailed (yard-by-yard) classification
- ▶ One section (one mile) can be a project in itself

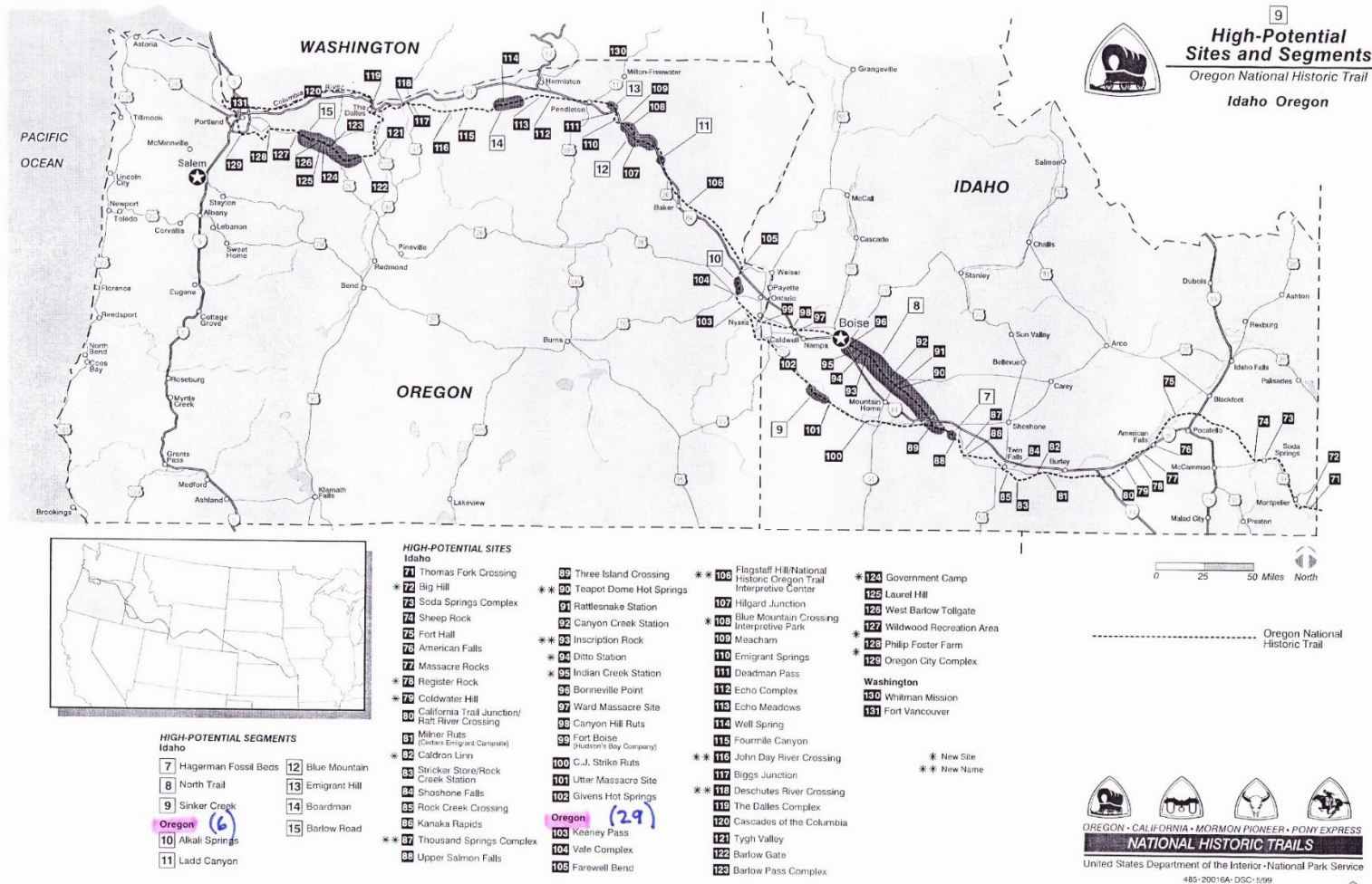


# PURPOSE: INVENTORY OF OREGON TRAIL RESOURCES IN OREGON

- ▶ Obtain snapshot of entire trail in Oregon as of Summer 2014 from crossings of the Snake River (Idaho-Oregon border) to Oregon City
- ▶ Document trail and setting condition
- ▶ Collect geo-referenced photos
- ▶ Organize by township, range and section
- ▶ Involve volunteers

Sponsored by the National Park Service, National Trails Intermountain Region

# HIGH POTENTIAL SITES AND SEGMENTS





# HIGH POTENTIAL SEGMENTS

- 10 - Alkali Springs (Vale Team)
- 11 - Ladd Canyon (LaGrande Team)
- 12 - Blue Mountain (LaGrande Team)
- 13 - Emigrant Hill (Pendleton Team)
- 14 – Boardman (Pendleton Team)
- 15 - Barlow Road (Barlow Team)

See CMUP for full description.

# HIGH POTENTIAL SITES

HP Site	HP Site	HP Site
103 Keeney Pass (V)	113 Echo Meadows (P)	123 Barlow Pass Complex (B)
104 Vale Complex (V)	114 Well Spring * (P)	124 Government Camp (B)
105 Farewell Bend (V)	115 Fourmile Canyon (P)	125 Laurel Hill (B)
106 Flagstaff Hill * (L)	116 John Day River Xing (P)	126 West Barlow Toll Gate (B)
107 Hilgard Junction (L)	117 Biggs Junction (P)	127 Wildwood Rec Area (B)
108 Blue Mtn Crossing * (L)	118 Deschutes River Xing *(P)	128 Phillip Foster Farm (B)
109 Meacham (L)	119 The Dalles Complex (P)	129 Oregon City Complex (B)
110 Emigrant Springs (L)	120 Cascades of the Columbia (B)	130 Whitman Mission (P)
111 Deadman Pass (L)	121 Tygh Valley (B)	131 Fort Vancouver (P)
112 Echo Complex (P)	122 Barlow Gate (B)	

See CMUP for full description. \* Nomination prepared for the National Register.  
 V – Vale Team L – LaGrande Team P – Pendleton Team B – Barlow Team

# TRAIL INVENTORY PROJECT (TIP) DATA COLLECTION

- ▶ Four teams of 4 to 10 people
- ▶ Survey forms
  - ▶ General classification of trail in a section
  - ▶ General classification of the setting in a section
  - ▶ Site characteristics
- ▶ Digital photo database
- ▶ Portion of travel expenses paid by NPS; volunteer labor and equipment



# SURVEY FORMS

- ▶ TIP1 – Trail Segments including High Potential Segments
- ▶ TIP2 – High Potential Sites and Others
- ▶ TIP3 – Setting evaluation
- ▶ TIP4 – Kiosk Survey



# TIP1 TRAIL SEGMENT SURVEY FORM



## TIP1 REPORT - TRAIL SEGMENT

Sequence No	27		Team Leader	Gail Carbiener	
	TWP	20S	RNG	46E	SEC 5
Survey Date	5/20/2014		County/State	Malheur, OR	
USGS Quad Name	Mitchell Butte				
NPS High Potential Seg?	<input type="checkbox"/>		NPS Segment Name		
			NPS Segment No.		
Reference Map	Haines, Franzwa				
General Description	Pristine view, one road sign 1/4 mile out going north.				
Trail Classification	Percent MET 1 or 2	100	Percent MET 3 or 4		MET 5
	Percent MET 6		Percent Undetermined		
GPS Brand and Model	Garmin 62S				
KOP1 Description	KOP1				
	KOP1 Latitude	43.86086	KOP1 Longitude	117.12146	
KOP2 Description					
	KOP2 Latitude		KOP2 Longitude		
KOP3 Description					
	KOP3 Latitude		KOP3 Longitude		
KOP4 Description					
	KOP4 Latitude		KOP4 Longitude		
Photo 1 ID Description	TIPT1(1).jpg				
Photo 2 ID Description	TIPT1(2).jpg				
Photo 3 ID Description	TIPT1(3).jpg				
Photo 4 ID Description	TIPT1(4).jpg				
Photo 5 ID Description	TIPT1(5).jpg				
Photo 6 ID Description	TIPT1(6).jpg				
Photo 7 ID Description	TIPT1(7).jpg				
Photo 8 ID Description	TIPT1(8).jpg				
Photo 9 ID Description					
Photo 10 ID Description					
Notes	BLM property to the north, private land to the south.				
Setting Evaluated?	<input checked="" type="checkbox"/>				

# TIP3 SETTING SURVEY FORM

SETTING CLASSIFICATION FORM - TIP3 (CON'T.) 27

T020S-R046E-5-1

Distance in miles

Notes:  
Horizon 2 1/2 mi to North - Hill close on both sides  
of trail - Populated area to South - NO TRAIL  
VISIBLE TO SOUTH

## TIP3 REPORT

Sequence No	27	TWP	020S	RNG	046E	SEC	5
Team Leader	Marley Shurtleff						
Evaluators	Jim & Sallie Riehl						
Survey Date	5/20/2014		Related TIP1 or TIP2		<input checked="" type="checkbox"/>		
High Potential Site	<input type="checkbox"/>						
High Potential Segment	<input type="checkbox"/>						
Other Point	<input checked="" type="checkbox"/>						
GPS Brand Model	Garmin 62S						
Key Observation Point KOP	Start of BLM property on Lytle Blvd in Cow Hollow						
KOP Latitude	43.86086N						
KOP Longitude	117.12146W						
Intrusions NW Quad	Powerline, livestock shed, farm buildings, corral and gravel road						
Intrusions NE Quad	Road sign 1/4 mile, paved and dirt roads						
Intrusions SE Quad	Haybarn, gravel road, farm machinery, Russian olive trees, deadman fence, pav						
Intrusions SW Quad	Paved road, farm buildings, sprinkler system						
Setting Classification	V						
Photographs	TIPT1(0) though TIPT1(8),						
Diagram Included?	<input checked="" type="checkbox"/>						

# TIP5 SURVEY FORM - SUMMARY

Oregon Trail Inventory Project					TIP5	Team 3 - Pendleton to The Dalles		
No.	TWP	RNG	SEC	HPS/S?	APA	Comments	V?	Photos
1	T002N	R034E	35	Yes	T	Emigrant Hill Segment; tribal/BIA land	X	None
2	T002N	R034E	26	Yes	T	Emigrant Hill Segment		None
3	T002N	R034E	23	Yes	T	Emigrant Hill Segment		None
4	T002N	R034E	22	Yes	T	Emigrant Hill Segment		TIPT3(1), TIPT3(2),TIPT3(3),
5	T002N	R034E	15	Yes	T	Emigrant Hill Segment		TIPT3(6), TIPT3(7)
6	T002N	R034E	16	Yes	T	Emigrant Hill Segment; base of hill; Cayuse post office	X	TIPT3(8), TIPT3(9),TIPT3(10)
7	T002N	R034E	17		P	Ag		None
8	T002N	R034E	8		P	Ag		None
9	T002N	R034E	7		P	Ag		None
10	T002N	R033E	12		P	Ag		None
11	T002N	R033E	11		P	Ag		None
12	T002N	R033E	10		P	Ag		None
13	T002N	R033E	9		P	Suburban		None
14	T002N	R033E	8		P	Suburban		None
15	T002N	R033E	7		P	Suburban		None



# DIGITAL PHOTOGRAPHY

- ▶ High quality (4 to 6 MB) individual photos and panorama
- ▶ Includes GPS reference in properties file
- ▶ Recorded by township, range and section

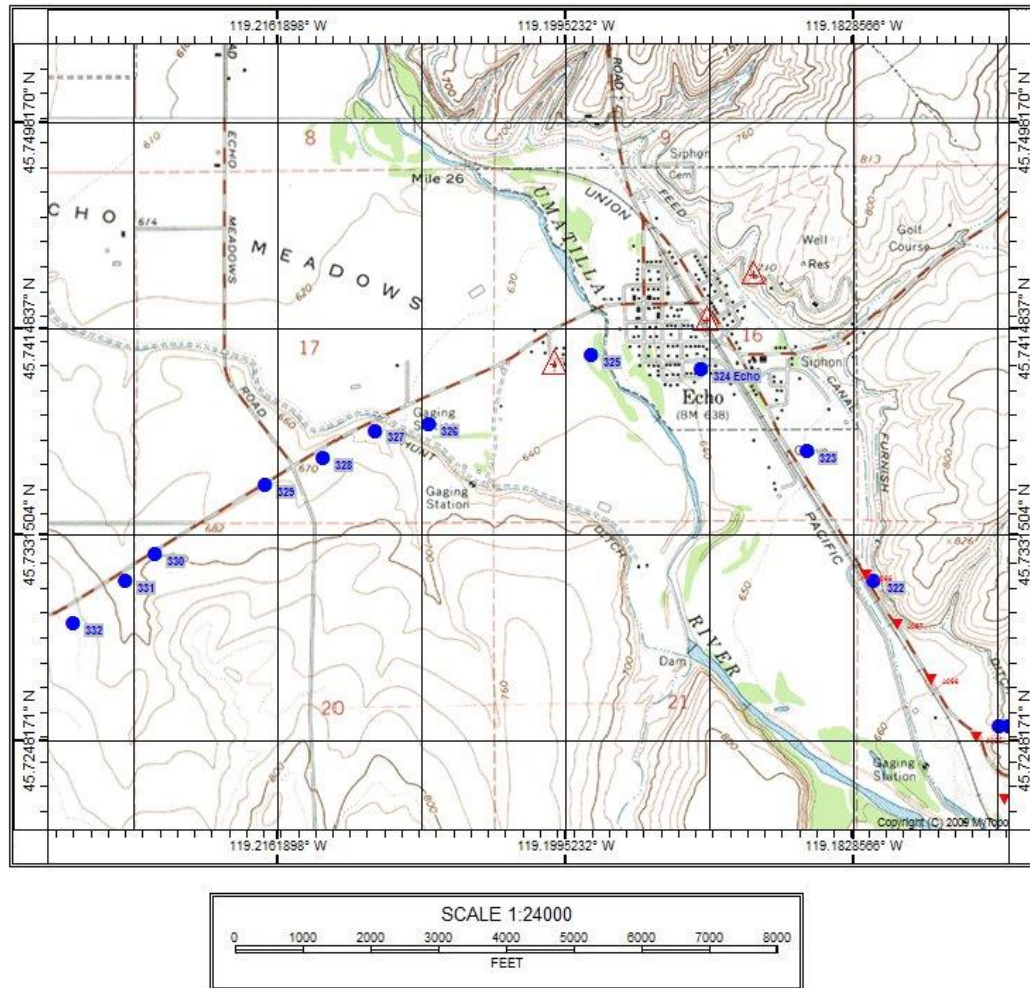


# MAPS

- ▶ Base maps
  - ▶ USGS 24K quads
  - ▶ Terrain Navigator Pro computer-based maps
  - ▶ In-field GPS link to maps to validate position
- ▶ Historic maps
  - ▶ Aubrey Haines (1979)
  - ▶ Greg Franzwa, "Maps of the Oregon Trail," 1982
  - ▶ Oregon Department of Highways (1958)



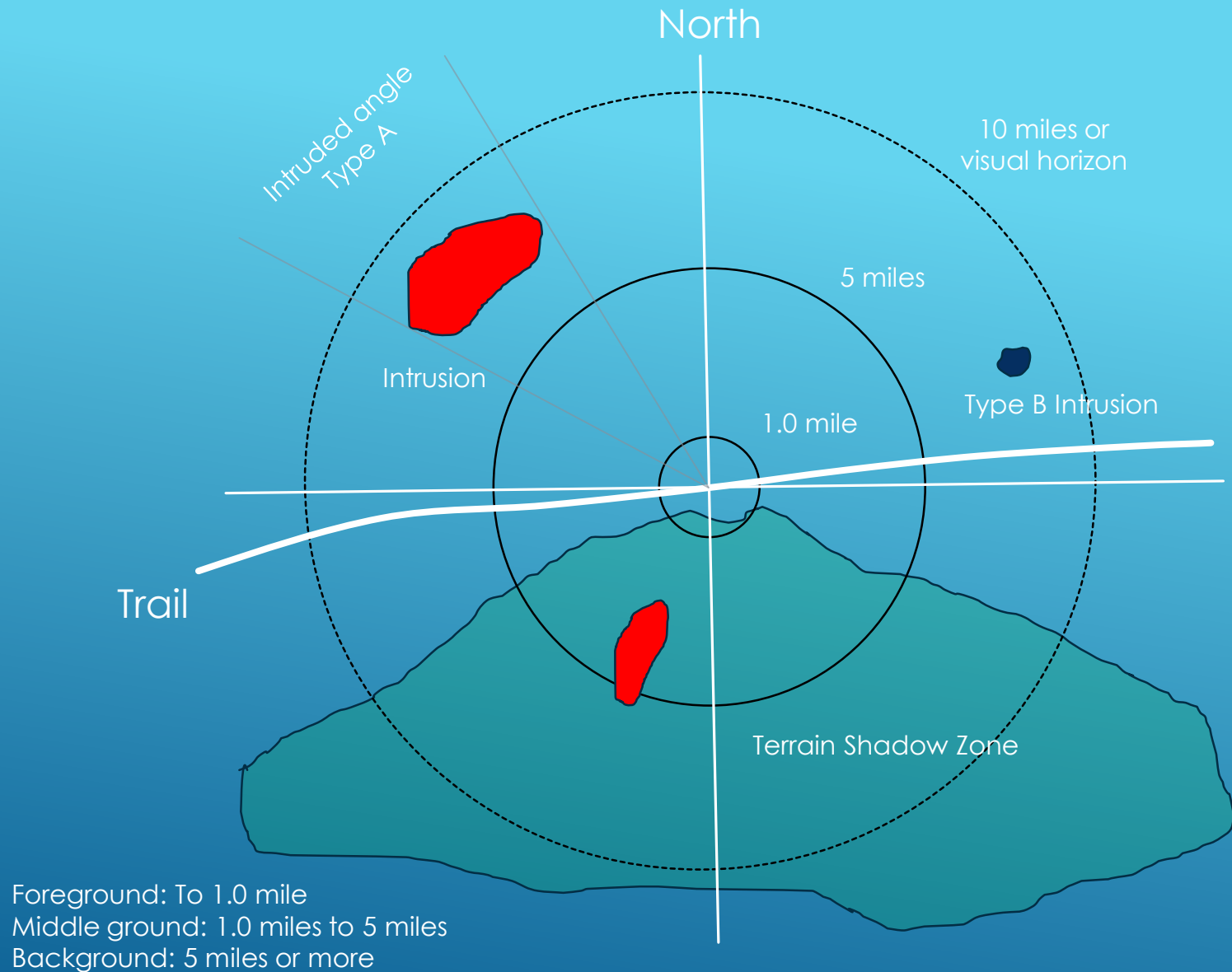
# TERRAIN NAVIGATOR PRO MAP PRODUCT



# SETTING EVALUATIONS

- ▶ New OCTA MET methodology
  - ▶ Identify and assess intrusions
  - ▶ What is the magnitude of the visual impact?
- ▶ Does it work?
  - ▶ Work in progress
  - ▶ Challenge: Diversity of settings

# SETTING DIAGRAM



Intrusion Types	At zero to 1 mile	At 1 to 5 miles	At greater than 5 miles
Energy facilities			
Well heads (at less than one mile)	A	A	B
Wind turbines	A	A	A
Storage tanks	A	A	B
Above ground pipelines	A	A or B*	B
High voltage transmission lines	A	A	A
Utility Lines (small pole)	A	B	B
Generating plants	A	A	A
Solar arrays	A	A	A
Commercial structures	A	A	A or B*
Mining operations	A	A	A
Chain link fencing	A	A	B
Paved highways and associated infrastructure	A	A	A
Urban developments	A	A	A
Railroad beds and infrastructure	A	A	B
Large non-native vegetation	A	B	C
Small, low contrast ranch complexes	A	A or B*	C
Historic structures	B	B	C
Graded roads (crown and ditch)	A	B	C
Class 4 trail	B	B	C
Muliple graded or paved roads	A	B	C
Interpretive signs	C	C	C
Other two-track roads (ungraded, unpaved)	C	C	C
Low visibility fencing	C	C	C
* Dependent upon size and contrast			10/20/2014 14:10

# SETTING CLASSIFICATIONS

- ▶ Class I – Intruded angle less than 30 degrees; Type A intrusions are in background; Type B intrusions in the middle and backgrounds.
- ▶ Class II - Intruded angle less than 90 degrees; Type A intrusions are in background; Type B intrusions in the middle and background.
- ▶ Class III - Intruded angle less than 180 degrees; Type A intrusions are in background; Type B intrusions in the middle ground and background.
- ▶ Class IV - Intruded angle less than 180 degrees; Type A intrusions are in middle ground; Type B intrusions in the middle and background ground
- ▶ Class V - Intruded angle near 360 degrees; Type A intrusions are in middle ground

**Type C intrusions allowed in all classes**

# PRODUCTS & SCHEDULE

- ▶ PDFs all of all survey forms
- ▶ Microsoft Access-based database from survey forms
- ▶ Summaries and analysis from the database
- ▶ Online photo database and survey forms to be accessible at OCTA website
- ▶ Preliminary results January 15, 2015
- ▶ Completion August 1, 2015



# CONTACTS

- ▶ Dave Welch ([welchdj@comcast.net](mailto:welchdj@comcast.net))
- ▶ OCTA website ([www.octa-trails.org](http://www.octa-trails.org)) preservation pages