

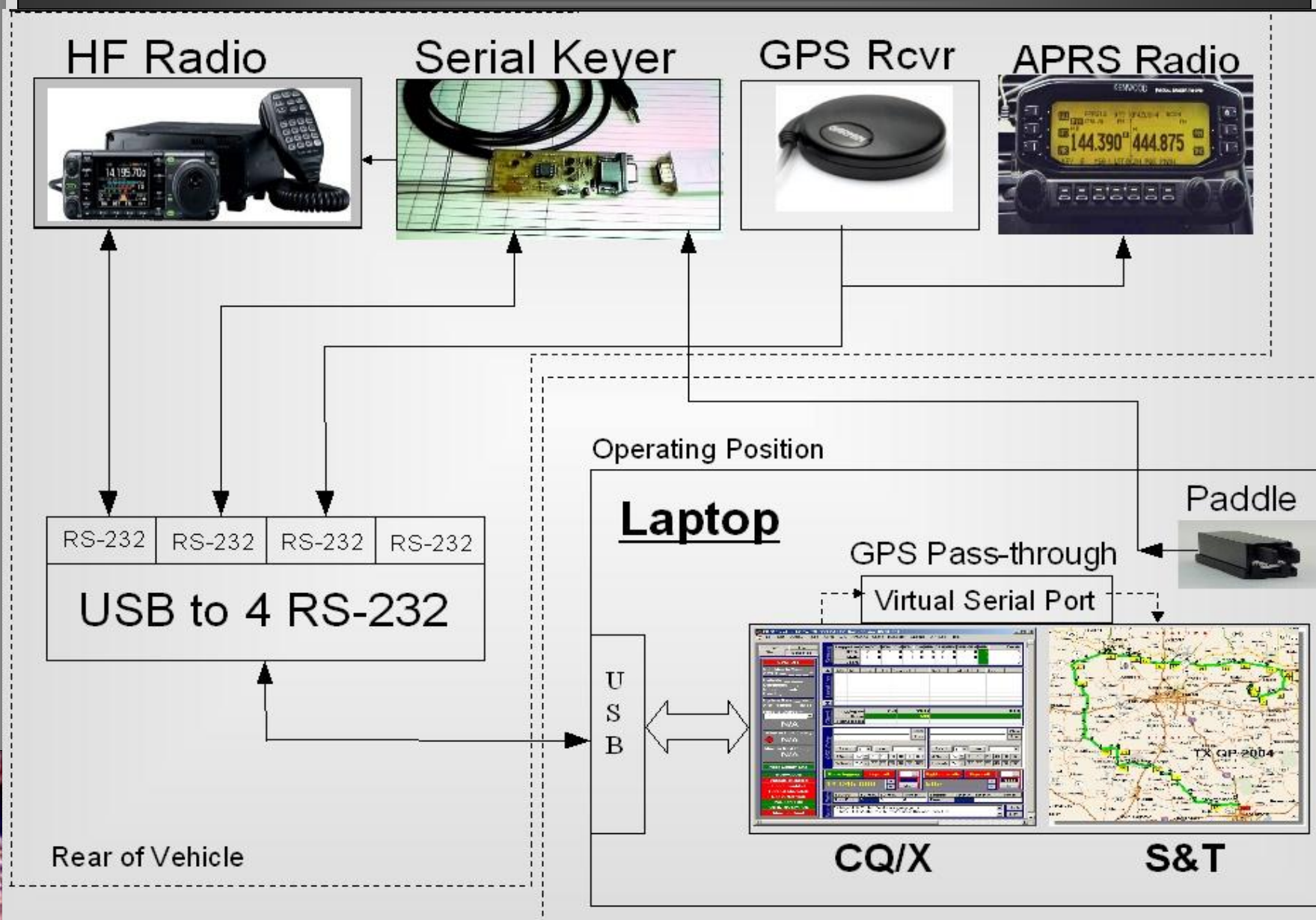
A Quick Demo of CQ/X

GPS-Enabled Software for Mobile Operating/Contesting



Station Diagram Integrating GPS

County Hunter Forum Dayton 2013



How GPS Data Is Useful in Mobile Operating

- The presence of real-time lat/lon data from a GPS enables some useful features including
 - Automatic detection of your current county
 - Calculation of distance and time to next county along a planned route
 - Calculation of distance to next highway change along a planned route
 - Logging of lat/lon of each QSO for presentation on the web as a “log on a map” or on a QSL
- Each of these features is available in CQ/X and will be demonstrated – time permitting.

CQ/X Demo Planning Operating Reporting



Planning: What You Might Want to Know About a Route

- What counties will be crossed along the route?
- How far apart will the county lines be along the route?
- What will be the lat/lon of the points where each county line is crossed?
- Will there be enough time to execute the route while spending at least the desired minutes in each county?
 - Allowing for gas/pit stops
 - Assuming a given driving speed
 - Allowing for lunch/dinner breaks

The functionality described in the fourth bullet is supported by CQ/X but the demo will include only the first three bullets.

Why you need to know distance to next county

- A pileup is raging and you see you're only one mile from the next county and the driver is going 70mph
- You've been calling CQ for three minutes with no callers and you've already tried 15m and SSB
- You're working a station and you notice you're only 1-2 miles from the next county where you can work him again. You can alert him to be waiting.
- You're operating solo (w/o driver) and looking for a stopping point in each county. You need to know how much longer you will be able to look.

How is distance to next county determined?

- The user provides a Crossing File listing the county lines he is going to cross and the lat/lon of each crossing point. For example

```
St.Tammany-Washington LA450 30.70674896 -90.22531128 5.79
Washington-Tangipahoa LA16 30.75700760 -90.26448059 10.85
Tangipahoa-Livingston LA40 30.64310074 -90.56719208 35.71
Livingston-St.Helena LA43 30.64984131 -90.62203217 39.58
St.Helena-EastFeliciana LA10 30.88854027 -90.84573364 67.17
EastFeliciana-WestFeliciana LA10 30.84005547 -91.22669983 91.00
WestFeliciana-PointeCoupee LA10 30.72001648 -91.35255432 111.04
PointeCoupee-WestBatonRouge LA415 30.63688469 -91.31735229 119.71
WestBatonRouge-EastBatonRouge I10 30.43937302 -91.19590759 140.42
EastBatonRouge-Ascension I10 30.33004951 -91.01412201 154.40
Ascension-St.James I10 30.14356232 -90.75949097 176.16
St.James-St.JohntheBaptist I10 30.12036133 -90.64974976 182.97
St.JohntheBaptist-St.Charles I10 30.07910347 -90.40928650 197.77
St.Charles-Jefferson I10 30.00644302 -90.28008270 207.20
Jefferson-Orleans I10 29.99568558 -90.12312317 216.80
Orleans-Jefferson CCC 29.93770027 -90.05800629 222.83
Jefferson-Orleans CCC 29.93777466 -90.05100250 223.25
Orleans-Plaquemines LA407 29.90423965 -89.98480988 228.29
Plaquemines-Orleans LA407 29.90213966 -89.97827911 228.77
Orleans-Plaquemines LA407 29.90282059 -89.98055267 229.08
Plaquemines-Orleans LA407 29.90278053 -89.98042297 230.43
Orleans-Plaquemines LA407 29.90216637 -89.97837830 230.69
Plaquemines-Orleans LA407 29.90417099 -89.98459625 231.15
Orleans-Jefferson CCC 29.93893051 -90.05232239 236.15
Jefferson-Orleans CCC 29.93886948 -90.05805206 236.49
Orleans-St.Bernard LA39 29.96325111 -90.00533295 244.15
St.Bernard-Orleans LA47 29.98173904 -89.94538116 250.13
Orleans-St.Tammany I10 30.18279839 -89.82317352 266.62
```

- Not to worry - its not necessary to enter all that data!!

Planning: Using CQ/X to Analyze a Route

1. Draw your route on a Google Map and download lat/lon

Collaborate **EDIT**

New! Get advanced features with Maps Engine Lite

Demo Route Dayton 2013
 Demo route for County Hunter Forum at 2013 Dayton Hamvention
 Public - 0 views
 Created on Apr 10 · By Chuck · Updated Apr 10
 Rate this map · Write a comment · KML

To: Dayton, OH
 Driving directions to Dayton, OH
 859 mi - about 12 hours 30 mins
 From: 5426 Constance St, New Orleans, LA

KML: Link to download a file of lat/lon of the route

New Orleans-Dayton Demo Route

2. Then use CQ/X to compute the county line crossings

CQ/X Demo

Planning: Analyze Route
Operating
Reporting



County Hunter Forum Dayton 2013



1. Select lat/lon source file
2. Specify where to capture crossings
3. Click on Process button



Last County Line Crossing Found

WarrenOH-MontgomeryOH HWYx 39.58652605 -84.24299094 849.34

00:45

From County		To County	HWY	ID	Latitude		Longitude		Miles To Next*
BarrenKY	↕	HartKY	HWYx	32	37.15588021	+/-	-85.97059955	+/-	20.91
HartKY	↕	LarueKY	HWYx	33	37.43972847	+/-	-85.88385697	+/-	4.04
LarueKY	↕	HardinKY	HWYx	34	37.49711323	+/-	-85.88372311	+/-	24.75
HardinKY	↕	BullittKY	HWYx	35	37.81323533	+/-	-85.73902525	+/-	20.04

HamiltonOH	↕	ButlerOH	HWYx	45	39.29979038	+/-	-84.43954164	+/-	11.28
ButlerOH	↕	WarrenOH	HWYx	46	39.43439883	+/-	-84.33909402	+/-	12.29
WarrenOH	↕	MontgomeryOH	HWYx	47	39.58652605	+/-	-84.24299094	+/-	

*Miles To Next is the actual driving distance to the next county line along the specified path

Minimum distance 0

Average distance 18

Maximum distance 47

Export As KML

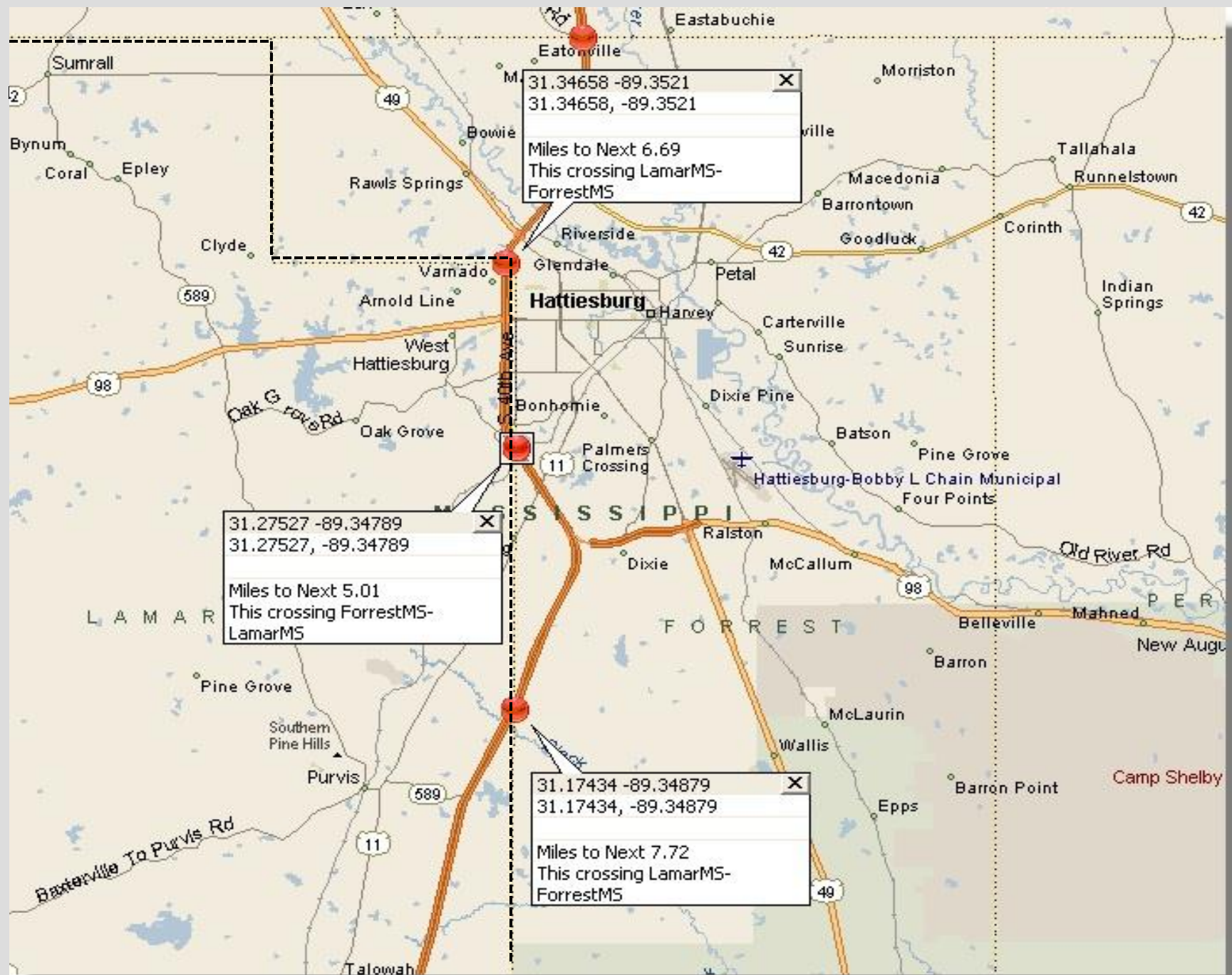
Export As CSV Text

Apply

Close

For publishing on a website

For import into Streets & Trips



CQ/X Demo

Planning

Operating:

County Detection

Miles to Next County

Miles to Next Turn

Reporting

Operating CQ/X: GPS Panel

GPS: ON(Local)

Sats In View: 08
GPS Time: 16:38:48Z

Latitude: 27.7057N
Longitude: 97.7281W
Speed: 57.5 MPH
Heading: -146 (SW)

Update Rate: 10 secs
Alert Range: 2 miles

Miles to Waypoint:
Goliad-Victoria US59

77.6

Miles to Next County
● 11.14

Time (In Cty/To Next)
20:11/11:52

Closing MPH = 56.3

NUEC-KLEB-US77

GPS Advisory: AUTO

You are in/near

Cty	In/O	Ratio
NUEC	IN	▲ 0.52
JWEL	OUT	▼ 0.57
KLEB	OUT	▼ 0.67
SPAT	OUT	▲ 0.96

Directly from the GPS receiver

Specified by the operator

Determined by CQ/X

Next county line crossing

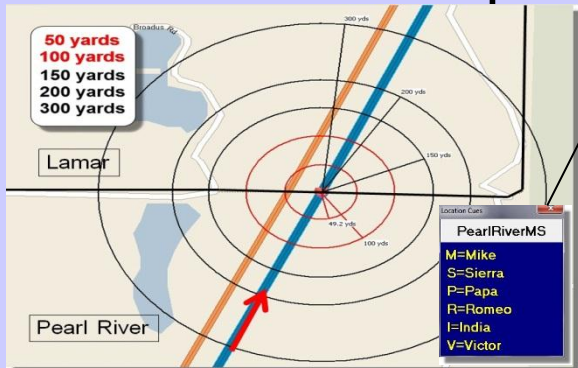
- Determined by CQ/X
- Based on defined route

Operating: County Detection Demo

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Performance Evaluator

MS Streets & Trips



50 yards
100 yards
150 yards
200 yards
300 yards

Lamar

Pearl River

Location Cues

PearlRiverMS

M=Mike
S=Sierra
P=Papa
R=Romeo
I=India
V=Victor

Location
Cues from
CQ/X

VSP

Location Cues

PearlRiverMS

M=Mike
S=Sierra
P=Papa
R=Romeo
I=India
V=Victor

CQ/X: GPS-Enabled Logger

CQ/X Client de N05W: TX-QSO-PARTY [Built: 03-Apr-05 01:29]

File Edit Display Radio Keyer GPS Antenna Spots Recorder Options QP Tools Help

Score Test
Status Band Map

GPS: OFF

Satellites In View: 0
GPS Time: 00:00:00

Latitude: 00.0000
Longitude: 00.0000
Speed: 0.0 mph
Heading: 0.0
Update Rate: 1.0 sec
Alert Range: 1.0 miles
Miles to Wapoint: 0.0

N/A

Miles to Next County: 0.0
Mins to Next County: 0.0

Next County Line

N05W LOG
Backup Disabled
Spots disabled
Contest Mismatch
Not in Network
Position() OK
Op ID(N05W) OK
Mins on Band

Logging on: 14.045.000
Call: 14.045.000
RST: 599
QTH: 14.045.000

Search: 4 10 15 20 40 80 160
M-Needs: CW 10 15 20 40 80 160
Q-Needs: CW 10 15 20 40 80 160

Radio logging: 14.045.000
Keyer off: 14.045.000
Right radio idle: 14.045.000
Idle ...

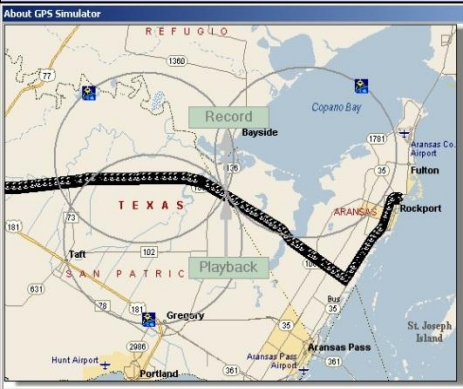
Source: 10 Min. 60 Min. This Hr.
This Pos. 0 0 0

Source: 10 Min. 60 Min. This Hr.
Team

12-May-04 02:25 N05W: How it going guys?
12-May-04 02:26 N05W: SJ you're going like mad keep it up

VSP

GPS Simulator



Record
Bayside
Copano Bay
Fulton
Rockport
St. Joseph Island
Gregory
Portland
Hunt Airport
Anansas Pass
Anansas Co. Airport

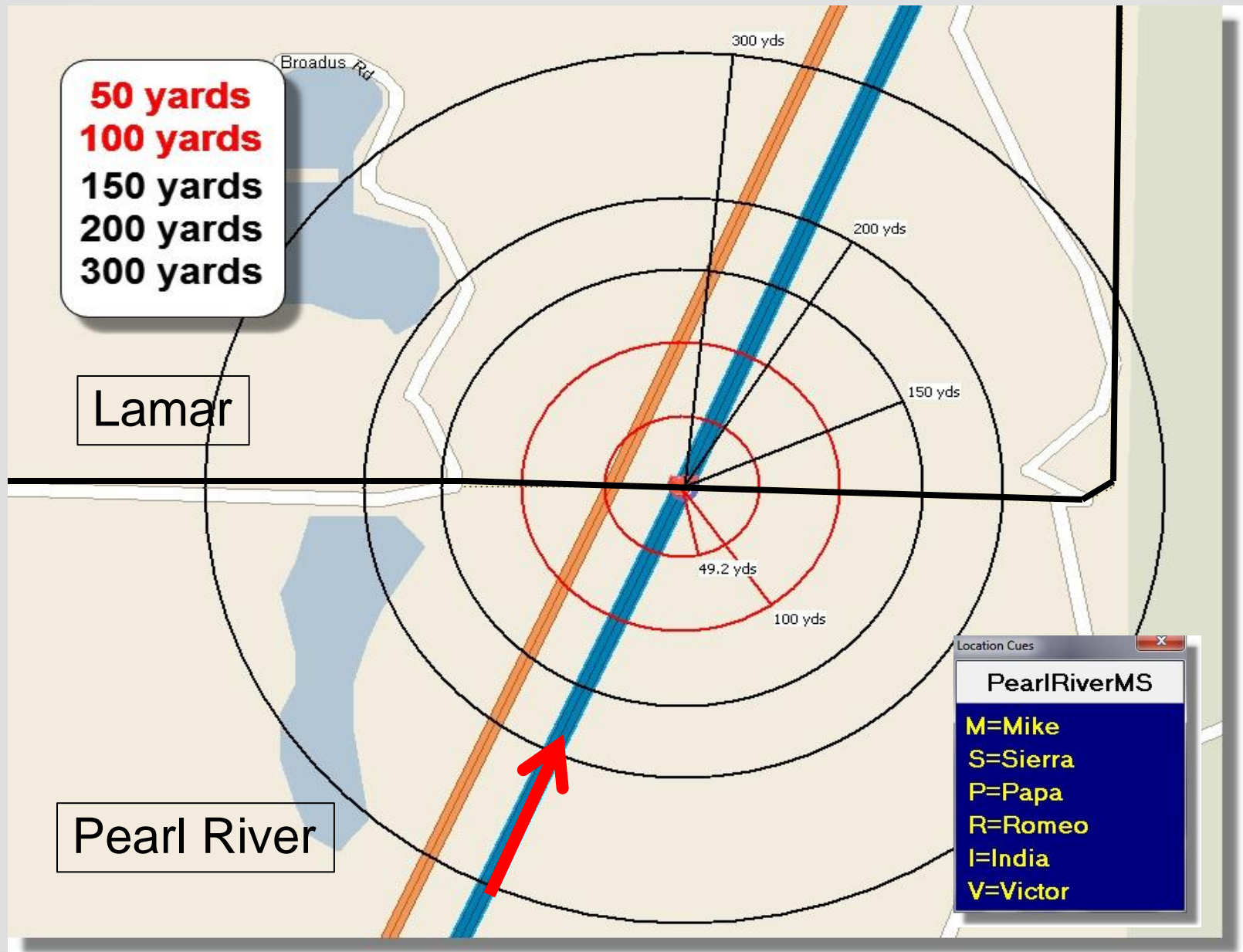
Developed
November 2005
by
C.W. Sanders, N05W
Using C++ Builder 5.0

GPS Simulator Version 1.1

VSP=Virtual Serial Port

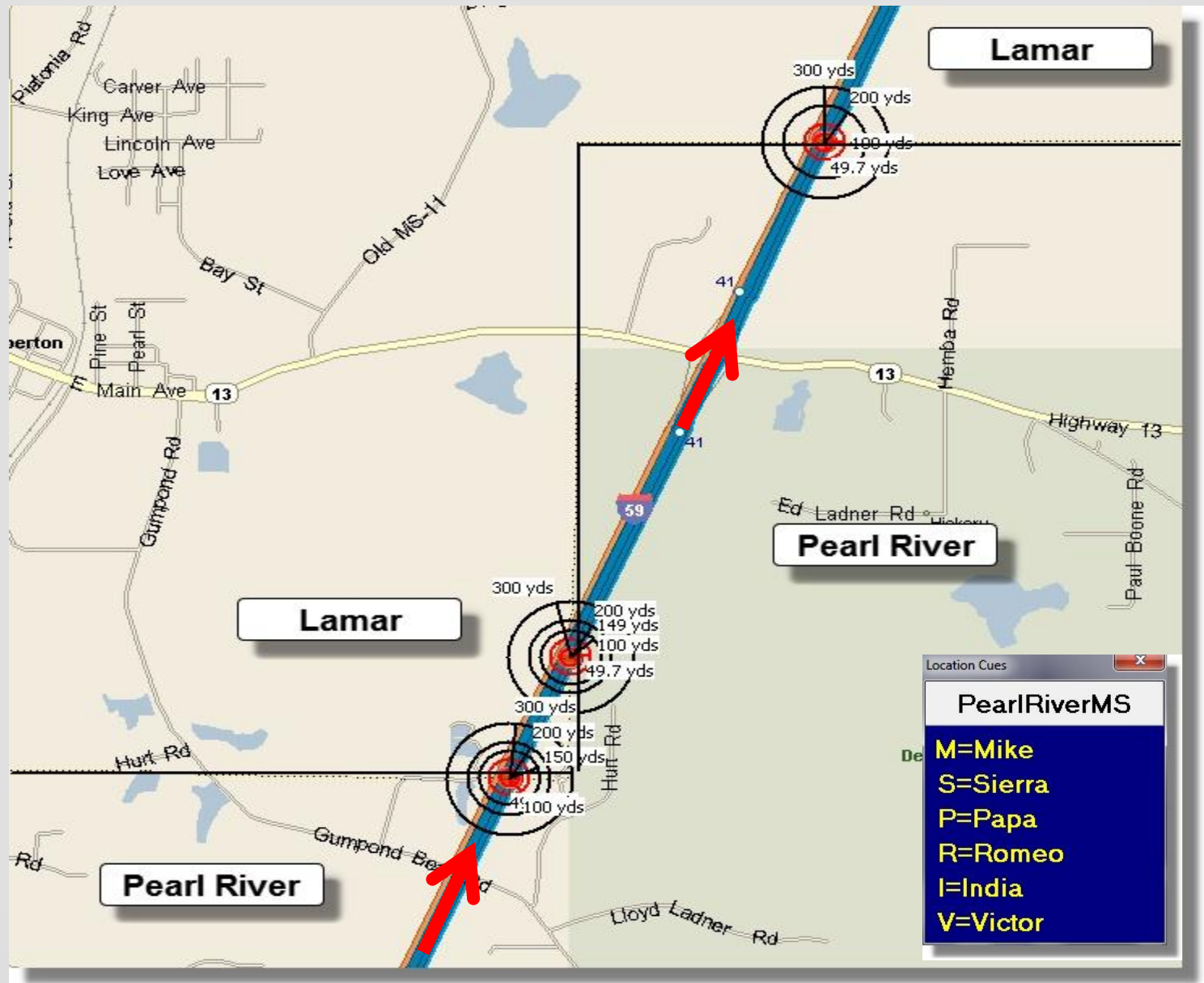
Demo C/L: Pearl River-Lamar US59

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Pearl River-Lamar-Pearl River-Lamar US59

County Hunter Forum Dayton 2013



1. Start SimGPS
2. Select Dayton Demo Trip
3. Start 1 mile before first
Pearl River-Lamar C/L

Operating: Multi-Way Point Tracker Demo

Right Turn
From I65
To I40 East
In 2.1 miles



Waypoint Tracking

Waypoint Selection

☒ Closest 5 ☐ All Within 25 miles

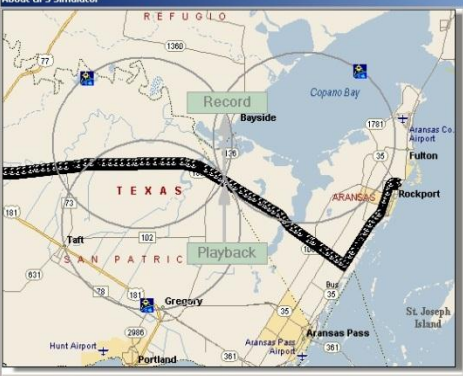
☐ Enable Waypoint Filtering

Waypoint	Distance
RT-I65-I40E	2.1
LT-I40-I24N	3.9
KRT-I24-I65N	8.6
RT-I65-I264E	173.0
RT-I264-I71N	183.8

Increasing  Decreasing 

Select waypoint press Enter or Dbl Click to put it on the GPS panel

GPS Simulator



Developed
November 2005
by
C.W. Sanders, N05W
Using C++ Builder 5.0

GPS Simulator Version 1.1

VSP

CQ/X: GPS-Enabled Logger

CQ/X Client de N05W: TX-QSO-PARTY [Built: 03-Apr-05 01:29]

Score Status Test Band Map

GPS: OFF

Satellites In View: 12

GPS Time: 12:00:00

Latitude: 30.0000

Longitude: -95.0000

Speed: 0.0 mph

Heading: 0.0 deg

Update Rate: 1.0 sec

Alert Range: 10.0 miles

Miles to Waypoint: N/A

Miles to Next County: N/A

Mins to Next County: N/A

Next County Line

N05W LOG

Backup Disabled

Spots disabled

Contest Mismatch

Not in Network

Position OK

Op ID: N05W OK

Mine on Band

Logging on: Call: RST: QTH

Left Radio: 599

Right Radio: QTH

Search: 4 7

M-Needs: CW 10 15 20 40 80 160

Q-Needs: CW 10 15 20 40 80 160

Radio logging: Keyer off

14,045,000

Right radio idle: Keyer off

Idle

Source: 10 Min. 60 Min. This Hr.

This Pos: 0 0

Source: 10 Min. 60 Min. This Hr.

Team

Notes: 12-May-04 02:25<N05W>How it going guys?
12-May-04 02:26<N05W>Sd you're going like mad keep it up

CQ/X Demo

Planning
Operating
Reporting



Reporting: Log On A Map

Here's a unique mobile-oriented way to put your log on the web

QSO Party:

2012 Kansas

Available Calls:

AA3OI

AA4GT

AA8IA

AB5ZA

AB5ZA/7

AB7RW

AC0BH

AC5O

AD0H

AD1B

AD1C

AE0G

AE7F

AI4SV

AI4VE

AK2U

DK2OY

DL3GA

DL3IAC

DL3USA

DL6KVA

DL8USA

ES1TU

F5NKX

IN3NJB

JH8JYV

JO7WXN

K0CA

K0CCM

K0DEQ

DL3GA QSOs

QSO:0 ELK 20M CW

QSO:1 GRE 20M CW

QSO:2 WIL 20M CW

QSO:3 NEO 20M CW

QSO:4 ALL 20M CW

QSO:5 WOO 20M CW

QSO:6 BUT 20M CW

QSO:7 SED 20M CW

QSO:8 HVY 20M CW

QSO:9 MRN 20M CW

QSO:10 MCP 20M CW

QSO:11 MCP 20M CW

QSO:12 SAL 20M CW

QSO:13 OTT 20M CW

QSO:14 CLO 20M CW

QSO:15 CLY 20M CW

QSO:16 LIN 20M CW

QSO:17 BOU 20M CW

QSO:18 CRA 20M CW

Map

Satellite

CQ/X de NO5W

Street View

Map View

Reporting: Map-based QSLs

Here's a unique mobile-oriented way to respond to QSL requests



For more info and
to download CQ/X

<http://www.no5w.com>



Look for NO5W/m

Kansas QSO Party in August
Texas QSO Party in September

Ya'll call!



Thanks for listening.

