

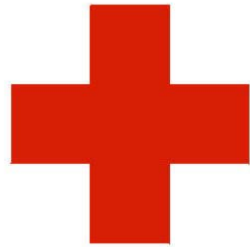
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# Radio Operators Class

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ARES**



## American Red Cross

### Yolo County Chapter



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**Berryessa Amateur  
Radio Klub- BARK**



**Yolo Amateur  
Radio Society**



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# Class Overview

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- Part 1 Getting started
- Part 2 Hands on stations
- Part 3 Mentor Assignments & Course Evaluation





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# Getting started

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- Introductions
- Getting your first radio
- Understanding the lingo of the manuals..
- Groups in the area: ARES, BARK, YARS



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# Getting Your First Radio

- HT, Mobile, or Base station?
- Features to look for...





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# Understanding the Lingo in the Manual

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Learning the *Lingo* to program your radio

- Simplex & Repeater Operation
- VFO & Memory Operation
- Frequency Selection
- Squelch
- Repeater offset
- Setting the PL or CTCSS Tone



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# A Tower of Babel!

## RADIO PROGRAMMING LINGO





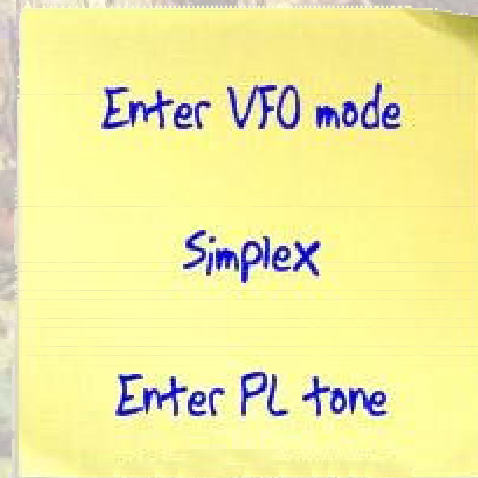
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# Getting started

- Make a copy of your manual or download a copy
- Use a highlighter
- Use Post-it Notes





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# Repeaters & Simplex

## ■ Repeaters



## ■ Simplex







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# Variable Frequency Oscillator mode

- VFO — Pick your frequency!





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# Repeater Shift / Offset

On the Two Meter Band the standard repeater offset is 600kHz.

*Minus - Offset*

146.000

- .600

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145.200

*Plus + Offset*

146.000

+ .600

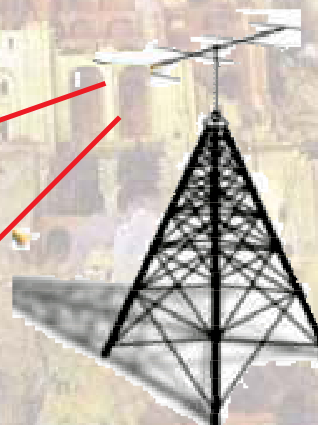
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146.600

Input

Output

146.000





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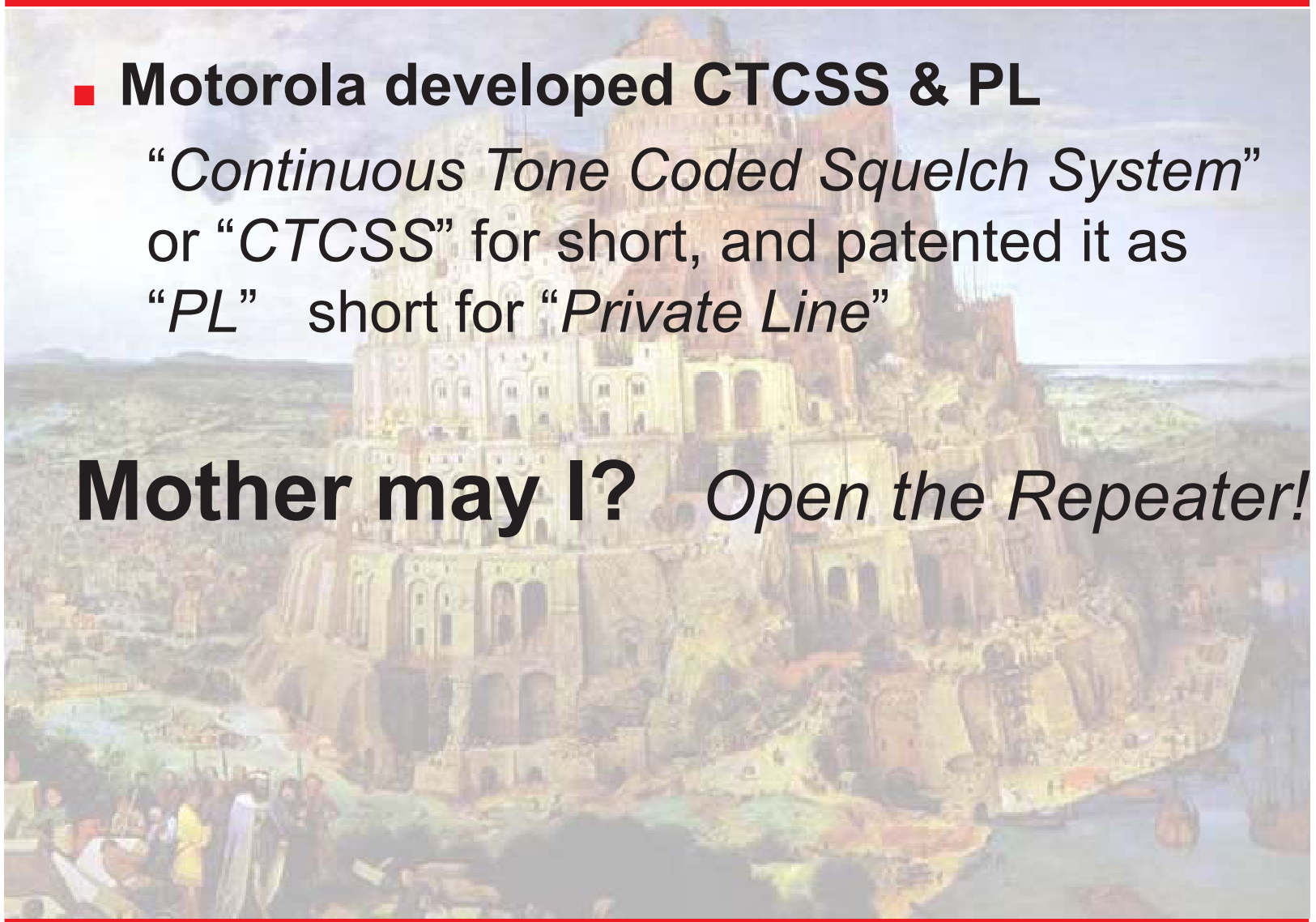
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## CTCSS and PL tones

- Motorola developed CTCSS & PL

*“Continuous Tone Coded Squelch System”*  
or *“CTCSS”* for short, and patented it as  
*“PL”* short for *“Private Line”*

**Mother may I?** *Open the Repeater!*





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## Program a Repeater Frequency...

**BARK Repeater: 146.970 *Minus* PL 123.0**

- **Enter VFO**  
*Variable Frequency Oscillator mode*
- Enter frequency- use key pad **146.970**
- Turn **ON “Repeater Offset”** set to “-”  
*a function / menu choice*
- Turn **ON “CTCSS or PL”**
- Select Tone **“123.0”**



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# Program a Simplex Frequency...

## ARES Simplex: 147.510

- **Enter VFO**  
*Variable Frequency Oscillator mode*
- Enter **frequency**- use key pad **147.510**
- Turn **OFF "Repeater Offset"**  
*a function / menu choice*
- Turn **OFF "CTCSS or PL"**



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# If using a HT, find the LOCK key...





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## Berryessa Amateur Radio Klub - BARK

- Web site: [www.bark2m.com](http://www.bark2m.com)
- Net: Every TUESDAY at 07:30 PM,  
146.97MHz, negative offset, PL 123.0Hz



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# BARK

## BERRYESSA AMATEUR RADIO KLUB

REPEATER

2 METER 146.970 MHz

MINUS OFFSET (146.370 MHz)

PL 123.0

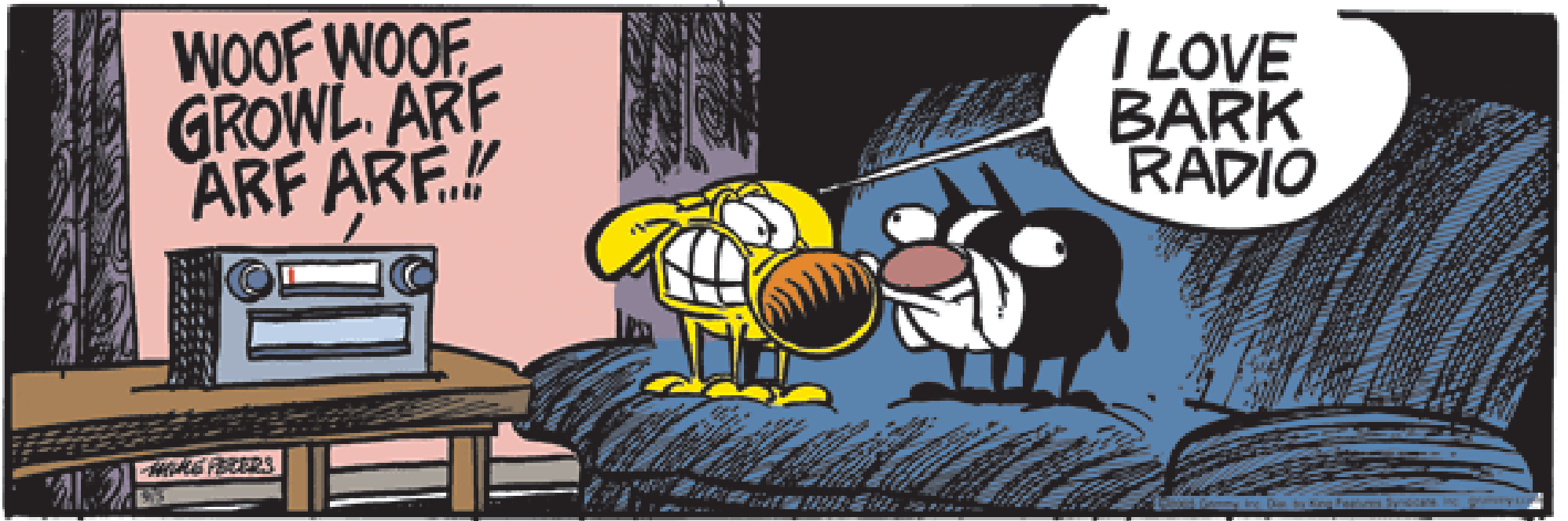
NET: Every **Tuesday** Night at 1930 hours.





WOOF WOOF,  
GROWL, ARF  
ARF ARF...!!

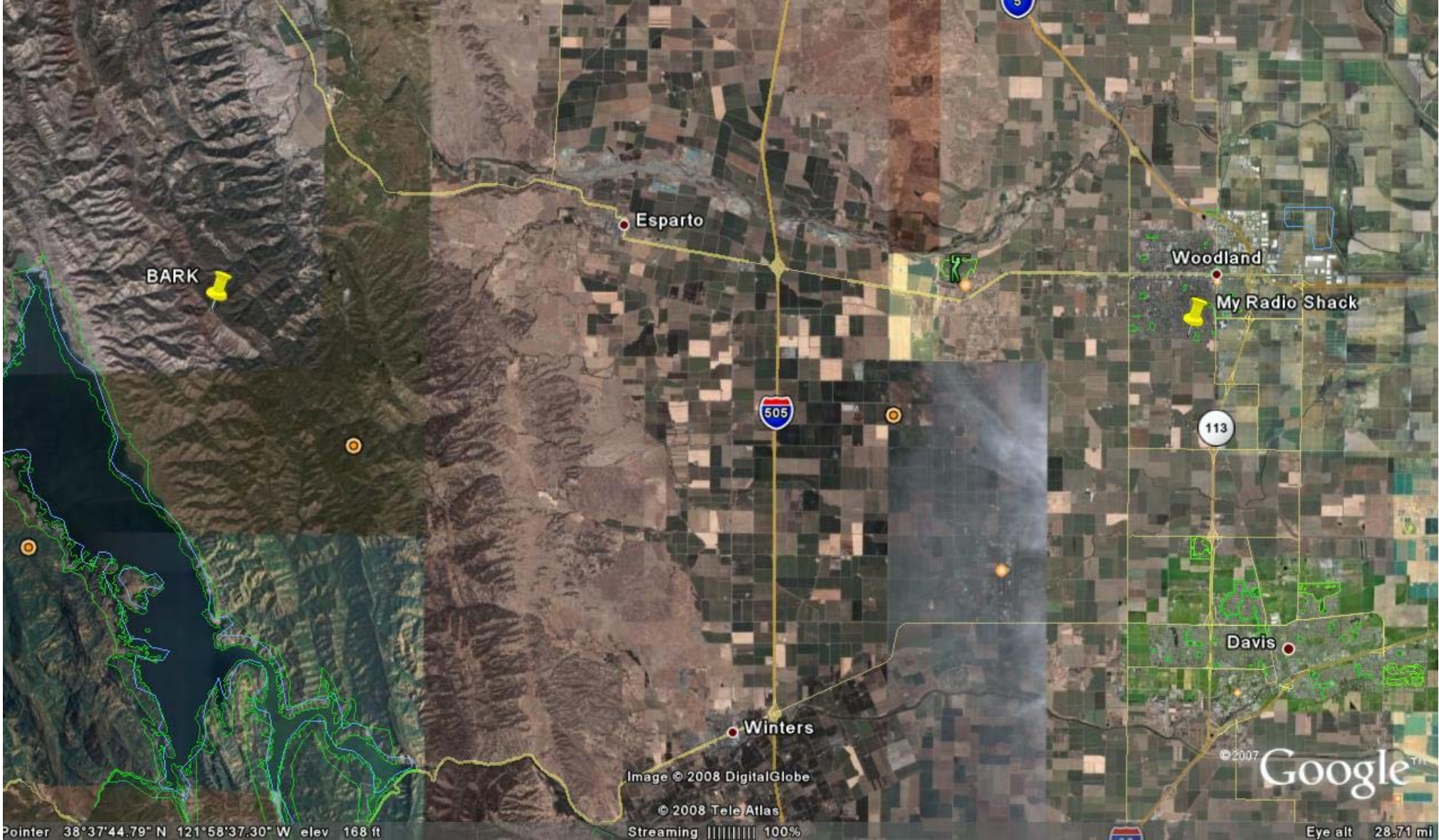
I LOVE  
BARK  
RADIO



WAGGERS

513

© 1995 by The National Aeronautics and Space Administration



BARK

Esparto

Woodland

My Radio Shack

505

113

Winters

Davis

© 2007 Google™

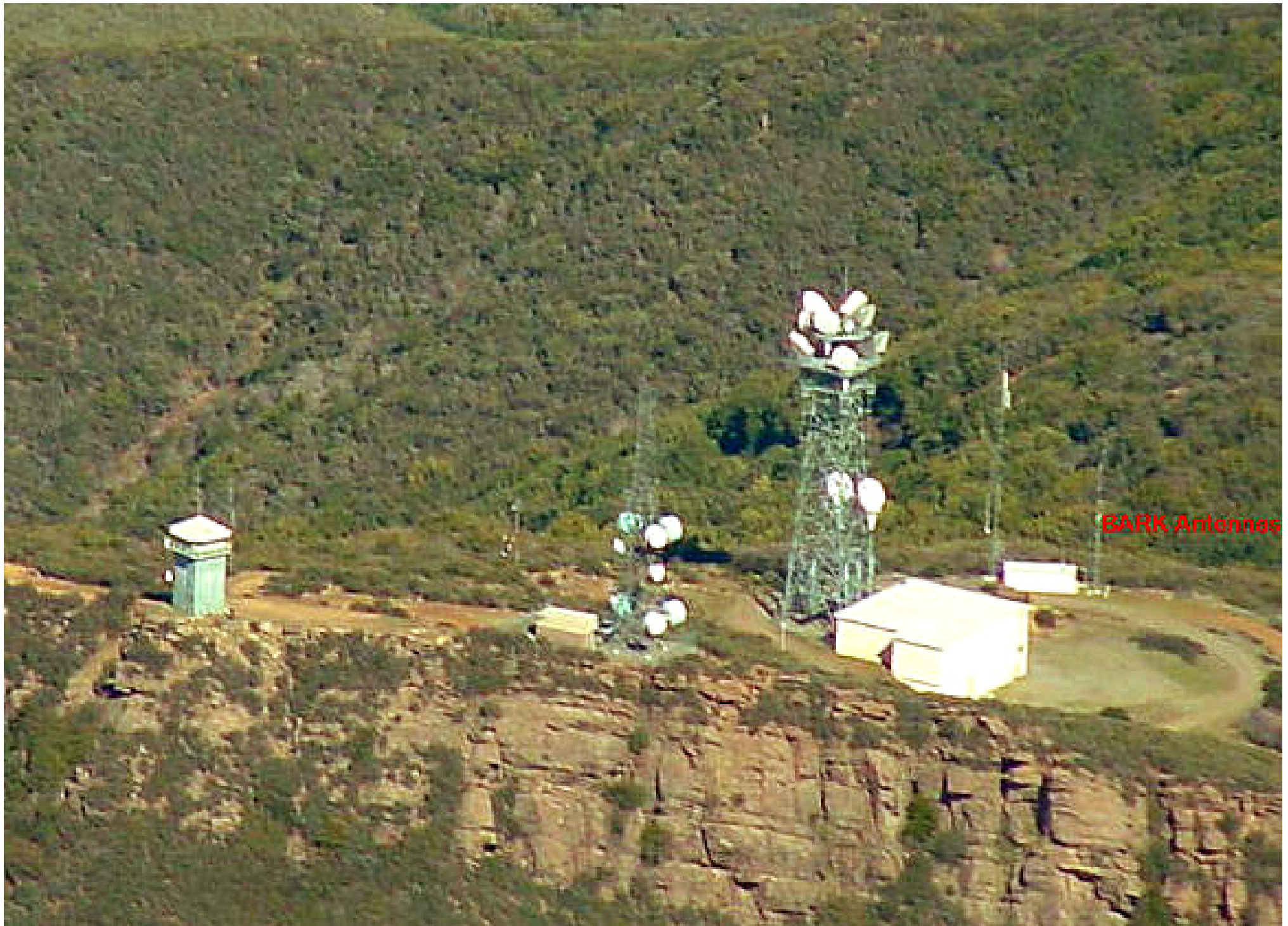
Pointer 38°37'44.79" N 121°58'37.30" W elev 168 ft

Image © 2008 DigitalGlobe

© 2008 Tele Atlas

Streaming ||||| 100%

Eye alt 28.71 mi



BARK Antennas















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# Radio Groups in Yolo County

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## Yolo Amateur Radio Society



- Web site: [www.yars.org](http://www.yars.org)
- Net: Every Monday at 8:30 PM,  
147.000 MHz, negative offset, PL 136.5 Hz



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# Yolo Amateur Radio Society

Mt. Vaca K6MVR Repeater  
147:000, Tone 136.5 hz  
Net: Monday 2030 hours

Club Meeting @ Explorit  
Center, Davis 1<sup>st</sup> Tuesday  
1830 hours















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# Radio Groups in Yolo County

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## Yolo County ARES



- Web site: [www.yoloares.org](http://www.yoloares.org)
- Net: Every Monday at 8:00 PM,  
146.97MHz, negative offset, PL 123.0Hz





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# Hands-on stations...

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Each station will have a 15 minute presentation, with a five minute break between stations.

- Station #1- Powerpoles Batteries, and Power Supplies
- Station #2- Setting up a mobile Rig and assembling a "Go Kit"
- Station #3- Antennas: J-pole, Vertical antenna, Coax & Mag Mounts
- Station #4- Talk on the RADIO!  
Overview of Net Control Functions and a visit to the ARC-RRT/ ARES Radio Room
- Station #5- Show and Tell  
*Red Cross Emergency Communications Response Vehicle- ECRV*



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# Finishing up...

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- **Mentor Assignments**
- **Course Evaluation**