



Southwestern REACTer



NOVEMBER 2024

WAIT YOUR
TURN,
FAT BOY





**SOUTHWESTERN
REACT, Inc.**

PO Box 632955
San Diego, CA 92163-2955

kk6sle@arrl.net

www.swreact.com

OFFICERS

President: Roger McCollough
SWR 098

Vice-President: John Wright
SWR 042

Secretary: Vacant

Treasurer: June McCollough
SWR 054

Director-At-Large:
George Reeves
SWR 081

SWR's mission is to prepare for communications during emergencies and disasters. This preparation is accomplished through working community events such as: The Lakeside Western Days, and North Park Toyland parades, the Midnight Madness Bicycle Ride and Fiesta Island Time Trials, the Silver Strand Half-Marathon, the San Diego International Triathlon and the Descanso Endurance Horse Ride

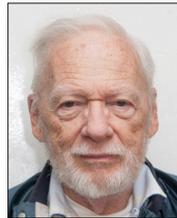
The Southwestern REACT board meeting is held the second Thursday of the month at 7 PM at the Mission Valley iHop restaurant. Any member is welcome to attend. Contact us for the address.

The Southwestern REACT General Meeting is held the third Thursday of the month at 6:30 PM on the Zoom application. Contact us for the meeting link.

Reactive Team Net

See the website for net information.

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A Few "Whys" You Need To Answer

Roger McCollough, SWR 098, President

WHY did you join REACT?

Each of us has a different but similar answer. Each of us had a general answer when we joined, that were based on our expectations. Over time, as you gained experience, your answer has been refined by events and reality.

Your answer today should indicate your desire to participate in selected events. It should indicate that your Board has heard your voice on the direction of the Team. Your Board is determined to:

- Direct the team's efforts to respond to the needs of the community.
- Recommend events that work toward improving or refreshing Team experience and training.
- Provide events that are diversified in methods and needs to provide members a broad base of knowledge.
- To challenge the Team to provide safety and leadership to those that request Team support.
- To guide the team in such a way that promotes recognition in the communications and agency communities.

Why do I draw attention to the Board? I am pointing that out to show there are people working on your Team business besides at events.

WHY do we invite Non-members to events?

Part of our commitment to the communication community is to provide any amateur an opportunity to gain or sharpen their skills in use of their radio, working with our members, under various situations.

WHY are each event request submitted to the Team for approval?

Each request comes to the Board for

calendar and service coordination. If it meets the scope of the type of communications requested, it is passed on to the Team for "Approval to Work". Then comes the opportunity for the membership to step up and support their Team; after all, they voted for it.

SO NOW COMES THE BIG QUESTION: WHY DO WE HAVE TOO FEW SIGN-UPS?

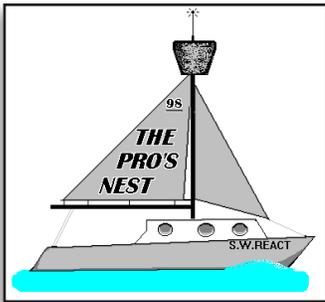
So every proposed up-coming event is presented at a General Meeting for approval. This is your first opportunity to volunteer. This is followed by announcing on the REACTER Event calendar and on every General Meeting, on our website (with a page where you can sign-up), and our bi-monthly net, reminding to mark your calendar, EVEN IF YOU DON'T PLAN TO PARTICIPATE. Why did we fall short? I CANNOT ANSWER THIS – ONLY YOU CAN.

Let's pose some questions you need to consider.

- Do you mark your calendar with event dates?
- What priority do you put on working events?
- Are you an Active or Inactive member? (Not an official title – yet.)
- Do you have any ideas to strengthen your Team? Have you shared them with the Board or...
- The Teams reputation has been formed by the work of past and current members. What will you do for it? How about checking the list of events found elsewhere in this issue.

Feedback requested to me and/or the Board. Thanks for listening.

Let's GIT ER DONE!!! ✈



The Pro's Nest

Roger McCollough, SWR 098

How Much Stuff Could A Woodchuck Stuff...

INTRODUCTION: This is the first of my discussion on digital communications as it applies to radio. **FACT:** Digital radio is not new. The first radio communication WAS DIGITAL! Think about that.

How do we communicate? What methods do we use? What is the most accurate? What is easiest to use? Let's take a single word, "Hello" and plug then in to different methods. First is a simple hand wave, smile or nod IF both parties can see each other. But let's say, they can't see or hear each other without some sort of device. So along came the written message, which took many forms. "Hello" is not much of a message but, for now, let's stick with it.

DIGITAL CODES

Written:	H	E	L	L	O	Remarks
MORSE:-..	.-..	---	
Boudot (teletype)	11000	10000	01100	01100	11100	1=Mark 0=space
Asci	72	101	108	108	111	
BINARY (8 bit 0s & 1s):	01001000	01100101	01101100	01101100	01101111	

This leads to the Information/Communications Theory which ask how much stuff (information) can you get into the smallest space of time and resource (frequency and bandwidth). Probably the best example we all see is the change of television from analog to digital. Why? Well when television was first assigned each channel's frequency and bandwidth, it was decided that six Megahertz would be needed. Now, with the use of digital modulation, we can get up to four sub-channels in the same bandwidth, in other words, more stuff in the same space (bandwidth). The alternate view is you can get the same stuff in less bandwidth.

Next thing is reliability of understanding what is transmitted. So let's look back in history to early radio. The first radio signals were created by simple bursts of RF (CW), making dots and dashes, a digital code, similar to 0's and 1's of today's binary code. Binary simply means two states or conditions, such as off or on, yes or no, etc.

Now, to the real plus of digital in communications is Noise, or rather the lack of it. Did we discover a way to scrape off the noise? No. Step back a bit to the simple stuff of radio. Tune to a quiet spot on your home radio (no signal heard), and turn the volume up to hear noise. That noise is made up of RANDOM bits of RF energy from many sources, including outer space. Digital is made up of a TIMED PATTERN of RF bits, ignoring bits that don't fit the pattern. Your cell phone is digital. Do you hear any noise and is it not very clear (except for the person on the other end)?

Well, there you have it. Everything is becoming digital. I am not saying the old is going away, at least not yet. But what works best becomes the choice, sooner or later. FM did no replace AM, FM is more common in the commercial radio world, digital TV is the standard, and cellphones were FM but now are digital; so what will be next?

You may have to read this article several times to fully understand Basic Digital 101, so maybe if you save it to review later, it may become clearer. Sometime soon I'll take a further look into the subject. It's tough to make a decision while uninformed. Please let me know if you have any thoughts or questions on this or other matters. ✨

Communications Report

John Wright, SWR 042, Communications Officer

Fiesta Island Issues Follow-Up

After doing paths studies for the usual REACT positions for the Fiesta Island Time Trials, the conclusion was reached that the algorithm on the website being used was in error as one position was indicated to be below Sea Level in altitude and this is just not true.

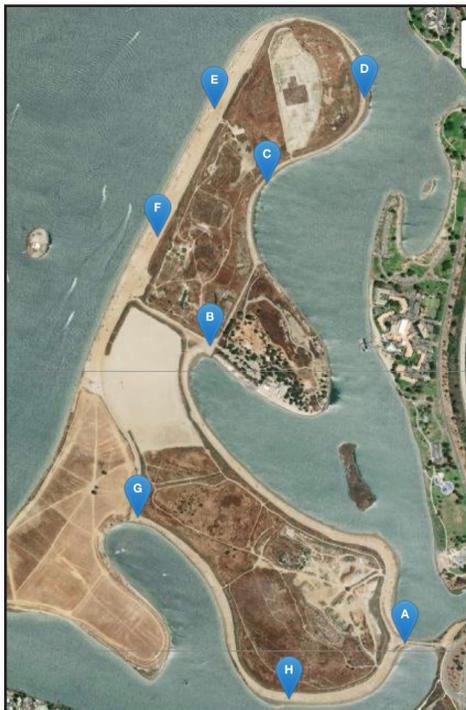
Therefore, personal altitude measurements were undertaken using an actual GPS unit rather than relying on Google Maps figures. The GPS unit used was built into a Yaesu FTM-500DR mobile radio installed in a vehicle. A complete circumnavigation of the island was made while recording the GPS track to a MicroSD card installed in the radio.

Once returning home, the tracks were downloaded into the computer, converted to a readable format and opened in Garmin software. Each position usually manned at a FITT event was then read and the altitude determined from the track data. The result was the following table.

Assignment	GPS Altitude	GPS Position
Position A:	43 ft	N32 46.152 W117 12.672
Position B:	50 ft	N32 46.738 W117 13.124
Position C:	45 ft	N32 47.095 W117 12.956
Position D:	44 ft	N32 47.226 W117 12.763
Position E:	61 ft	N32 47.179 W117 13.103
Position F1:	37 ft	N32 46.908 W117 13.277
Position F2:	22 ft	N32 46.775 W117 13.342
Position G:	30 ft	N32 46.400 W117 13.293
Position H:	30 ft	N32 46.041 W117 12.921

NOTES:

1. Assignments correspond to the locations shown on the below map.



2. Readings taken on the paved roadway
3. GPS unit approx. 3ft above ground level.

Conclusions:

The conclusions reached after this test mirror the ones laid out in the previous article (October 2024 Southwestern REACTER.)

1. A cross-band repeater set up on the highest point on the island would measurably improve communications.
2. Net Control and the cross band repeater should be co-located.
3. Team members should refrain from attempting to work this event (or any other event) with only a hand-held radio, even when using a mag mount antenna. An HT just doesn't have the power. Obviously, there are situations where use of an HT is unavoidable.
4. More study and experimentation is required. This should include more accurate position and altitude measurements. Researching topographic maps online has proven to be inaccurate.

Recommendations

1. At the next FITT event, place the cross-band repeater with its mast mounted antenna at the Youth Camp location.
2. Co-locate net control at the Youth camp (same operator.)
3. Encourage the use of mobile radios or higher power go-kits for all events and keep HT traffic to necessary traffic only. ✍

Southwestern REACT Board Meeting, October 10, 2024

June McCollough, SWR 054, acting Secretary

The meeting was called to order by President Roger McCollough at 7:00pm.

Quorum Check – Three (3) Board Members. George Reeves excused. Visitor – Heather Wright.

Special Motion – None

Board Meeting Minutes – Motion to accepted and filed; Moved by John Wright, Seconded by June McCollough. Motion carried.

Correspondence List – Reviewed

Treasurer's Report – June McCollough reported an ending balance as of September 30, 2024 of \$3,923.80.

REACT Editor – Latest issue is out – **Webmaster** – Website is up to date

Unfinished Business:

TEAM Go-Box – Dismember completed. Pick up cases at Harbor Freight to start construction. The following is a list of parts reused from old Go Kit: Radio (body, control head and microphone), External Speaker, Battery, Power distribution block, power cables. Items part of kit but carried separately: Antenna (including mounts), Tripod, Mast, Coaxial Cable, Guy ropes, Headset & foot switch and Battery Charge. Items to be disposed of or stored: Programming Software & cable (available for reprogramming), Separation Cables (control Head & audio –*Store*), Solar controller (*Store*), Rolling Tool Box (discard), Team Flag (*Store*) Battery hold-down (discard), Spare power cable (*Store*). Estimated cost breakdown: Comet CP-45 Telescoping Mast \$134.95, Comet YS-45 Tripod (matching for mast) \$119.95, Apache Case, Medium, X2 \$59.98, West Mountain Rig Runner 4005 \$79.99. Total \$394.87

Budget Committee – Has not met yet, working on it will have by General Meeting.

New Business:

Thank you card – Acting secretary will send a thank you card to Cindy and Craig for hosting the September meeting at their home.

Next Training Moment - After Go Kit complete in person training on use and set up.

Post Events:

FITT – 9/29/2024 Communication was poor even with cross-band repeater. There were enough members to cover the event. Work on bettering communications.

Upcoming Events:

[See SWReact.com/events](https://www.swreact.com/events)

Good of the Team:

Old equipment – Need to consider getting rid of old CB radios, Spector Frequency Monitor.

Meeting Adjourned at 8:04pm.

Southwestern REACT General Meeting, October 17, 2024

June McCollough, SWR 054, Acting Secretary

The meeting was called to order by President Roger McCollough at 6:36 pm.

Quorum Check – 8 members present.

Special Motions - None.

General Meeting Minutes – Motion made to approve September Minutes Moved by Mike Bailey and George Reeves; Motion Carried.

Correspondence List – Reviewed

Treasurer's Report – June McCollough reported an ending balance as of September 30, 2024 of \$3,923.80.

REACTer Editor – REACTer was out. **Webmaster** – Updated.

Unfinished Business

Team Go-Box – Little progress, don't know how to get into smaller box. Battery is in box working on distribution.

Budget Committee -- June McCollough chair, Budget was emailed out to team with REACT International dues of \$50.00 including Insurance. There were concerns that REACT International is not doing anything for the individual Teams. Insurance is the only thing we get beside the ID Cards. Also concerns that there is a lack of transparency. The team wants a Letter to REACT International expressing concerns. Moved by Per Martin, seconded by Mike Bailey to accept budget; motion carried (6 for; 1 abstention).

New Business

Miscellaneous discussion - No members on last net. Do some kind of discussion on the net to make interesting. Need members to step up and get more involved. Try to get new members involved.

December General Meeting – Face to Face – Looking for ideas for the December meeting.

Nomination Committee – Carl Jensen to head committee. Roger McCollough, June McCollough and John Wright will run for same team officers.

Next Training Moment – Teach members “**How to use Cross Band Radio**”: **Winlink** – radio email- introduction; **Emergency coordinator** for events if coordinator is not available.

Post Events

FITT - 9/29/2024 Communication was poor even with cross band radio. Need to work on better communication.

Upcoming Events*

***See SWReact.com for complete list**

Good of the Team:

Travis Colleado traveling to Hawaii, mother is ill and he will be there until mid-November. Keep family in your thoughts and prayers.

Meeting Adjourned at 8:11 pm ✍