The March 2021

Propagator

The Monthly Newsletter of the South Orange County Amateur Radio Association

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General Meeting

March 15, 2021
6:30 PM
via Zoom

Presidents Message – March 2021

Director Elections Next Month

As required by the SOARA Constitution and By-laws, we hold elections for the folks who keep the club running in April. Elections for the Constitutional Officers (President, Vice President, Secretary, and Treasurer) are held in even numbered years, elections for the Directors (In alphabetical order, Communications, Education, Membership, Publications, Repeater, and Technical), are held in the odd numbered years. 2021 being an odd numbered year, we will be voting for the Directors this year. Also, the Constitution and By-laws call for the Board of Directors to present a recommended slate of candidates at the March General Membership meeting. Election results are to be announced at the April General membership Meeting.

So here we are, in March 2021, with the Board recommended slate of Director candidates for next month's election: Fortunately, all 6 current elected directors have agreed to continue in their current positions, if they are re-elected by the General Membership: The SOARA BOD recommended slate of Directors for 2021 Is:

Communications: Heiko, AD6OI
Education: Steve, K6UVR
Membership: Ed, WA6ED
Publications: Dale, W6EDT
Repeater: Brian, NJ6N
Technical: Tom, AE6SH

We also will be calling for other nominations for any or all of the above positions at the Virtual Meeting this coming Monday evening, Feel free to nominate any club member you believe would do a good job in any of the above positions, including yourself! Please just be certain that anyone you nominate will agree to serve.

Ballots will be sent out electronically to all SOARA members in good standing as of April 1, 2021. This means that in order to receive a

ballot your dues for 2021 must be current. If you have a question about your dues status, please contact Ed, WA6ED, at <membership@ soara.org>. All non current members will be moved to the inactive list on April 1, and therefor ineligible to vote. There are also security provisions in our electronic ballot system to prevent duplicate voting, etc.

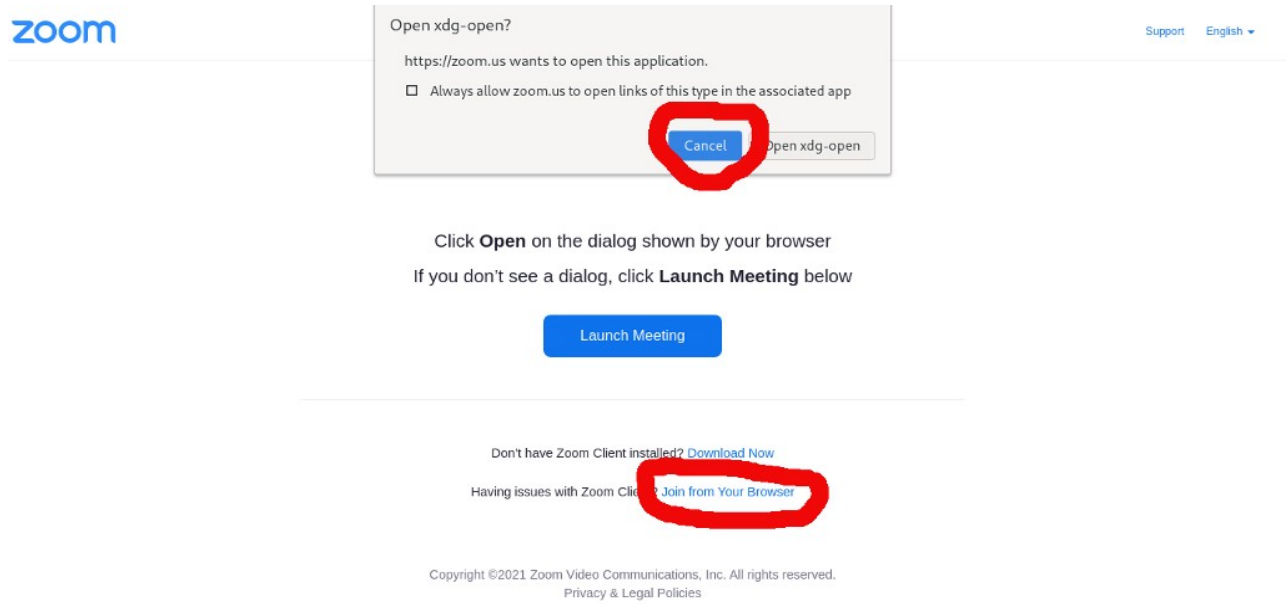
Please participate in the SOARA election process by, making sue your dues are current, making any nominations you would like, and of course casting your electronic vote when you receive your SOARA ballot shortly after April 1. The results will be announced at the April meeting!

Vote! and 73 de Ray, AE6H

Monday, March 15 at 6:30pm. General Meeting with Guest Speaker Clint Bradford K6LCS, AMSAT Ambassador

Please join us online for our March 2021 General Membership Meeting to be held on the Zoom platform at the request of our speaker. This month's presentation will be hosted by: Clint Bradford K6LCS, AMSAT Ambassador, ARRL instructor. He will speak to us on How to Work Amateur Satellites with Your HT.

Use this link to join the **Zoom** meeting at **6:30 p.m.** - one half hour earlier then normal to allow for connection setup. You can access Zoom on Windows, but **you must install the Zoom client on your Windows machine** or you can call in by telephone and listen. If you use **Linux**, you can join the meeting with Chrome. Press 'cancel' when you are prompted to install the driver/app and use 'join this meeting using your browser' option at the bottom of the launch page.



Linux – Using Chrome

Contacting Soara: Questions about SOARA? Postal mail: P.O. Box 2545, Mission Viejo, CA 92690
Send e-mail to membership@soara.org or leave a message at 949-667-0173
Facebook: K6SOA Twitter: @K6SOA

You may also call in my telephone using one of the following numbers and enter the meeting ID of **851 4063 9918** when prompted:
One tap mobile
+16699009128,,85140639918# US (San Jose)
+12532158782,,85140639918# US (Tacoma)
Dial by your location
+1 669 900 9128 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)
+1 301 715 8592 US (Washington DC)
+1 312 626 6799 US (Chicago)
+1 646 558 8656 US (New York)
Meeting ID: 851 4063 9918

Please plan to join at 6:30 p.m. since this is different than the meeting platform we have used for our other meetings.

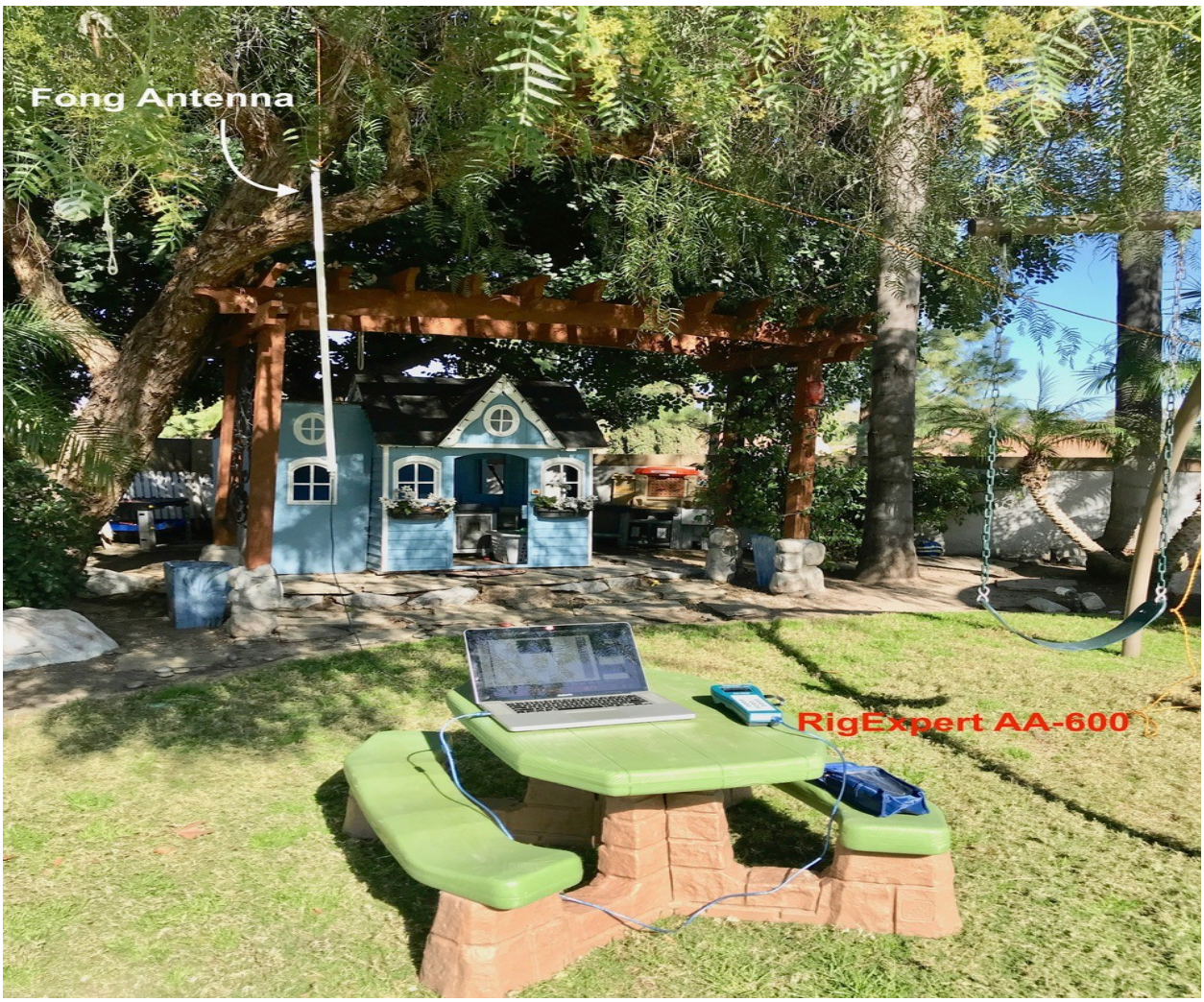
Out General Meetings have always been open to the public and our online platform using GoToMeeting is also open to anyone that wants to join in. You can join our GoToMeeting using either the GTM plug-in or access it via the Chrome web browser.

This is the link to joining the meeting or you may call in by phone **(872) 240-3212** using this Access Code: **838-364-685**

Dale, W6EDT

Ed Fong Portable Antenna

At a SOARA meeting on the Ed Fong antennas, I purchased the TBJ-1 Triband VHF/UHF antenna. I got a chance to tie the antenna to a rope and hang it from a tree limb and run a SWR test using my RigExpert AA-600 and got some good results, pictured here. I also attached the TBJ-1 antenna to an inside room wall in my house on the second floor. I have gotten good reception and transmission reports using my ICOM ID-51 and Kenwood TH-D74A radios. Happy customer. :-)



73,
Dave KS6RFI

Building an Ardunino Based Keyer

I needed a practice keyer and the MFJ and other alternatives are a bit expensive and I like to build stuff so I looked in my Arduino for Ham Radio book I bought at HRO: https://www.hamradio.com/detail.cfm?pid=H0-013635

It has an Arduino Uno3 microcontroller, a Nokia LCD, a potentiometer to control speed and the WPM speed is displayed on the LCD. A switch to select Iambic A, B or straight key, speaker, a power on/off push button and a 3D printed case I made for it that pulls apart for changing the 9V battery. The cost was about $30.

Here is the schematic I printed out and since I didn't use the circuitry to have this device act as the keyer and connect to a radio [my radio has a built in keyer] the top right section is not used. Also the power supply circuit is not used [bottom left] as the Arduino Uno3 can be powered by a 9v battery with a barrel connector.

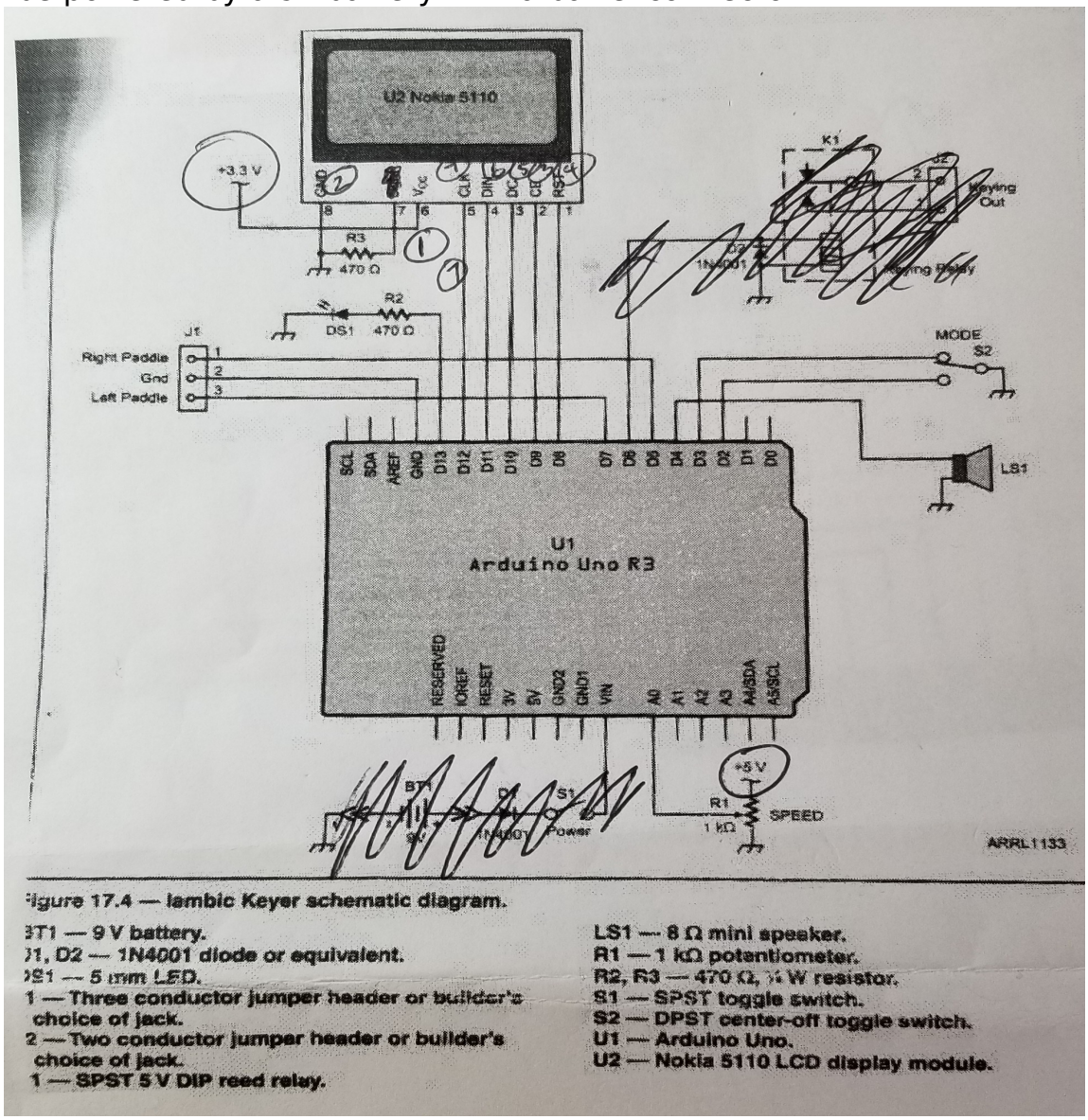


Figure 17.4 — Iambic Keyer schematic diagram.

BT1 — 9 V battery.
D1, D2 — 1N4001 diode or equivalent.
DS1 — 5 mm LED.
J1 — Three conductor jumper header or builder's choice of jack.
J2 — Two conductor jumper header or builder's choice of jack.
K1 — SPST 5 V DIP reed relay.
LS1 — 8 Ω mini speaker.
R1 — 1 kΩ potentiometer.
R2, R3 — 470 Ω, ¼ W resistor.
S1 — SPST toggle switch.
S2 — DPST center-off toggle switch.
U1 — Arduino Uno.
U2 — Nokia 5110 LCD display module.

The parts list is at the bottom of the sheet.

For the arduino programming, the authors site is no longer in existance but the ARRL has a site for the book here: http://www.arrl.org/arduino
and a zip file containing all the code for all projects in the book is here:
http://www.arrl.org/files/file/Pubs/PopielArduino/Project Files.zip

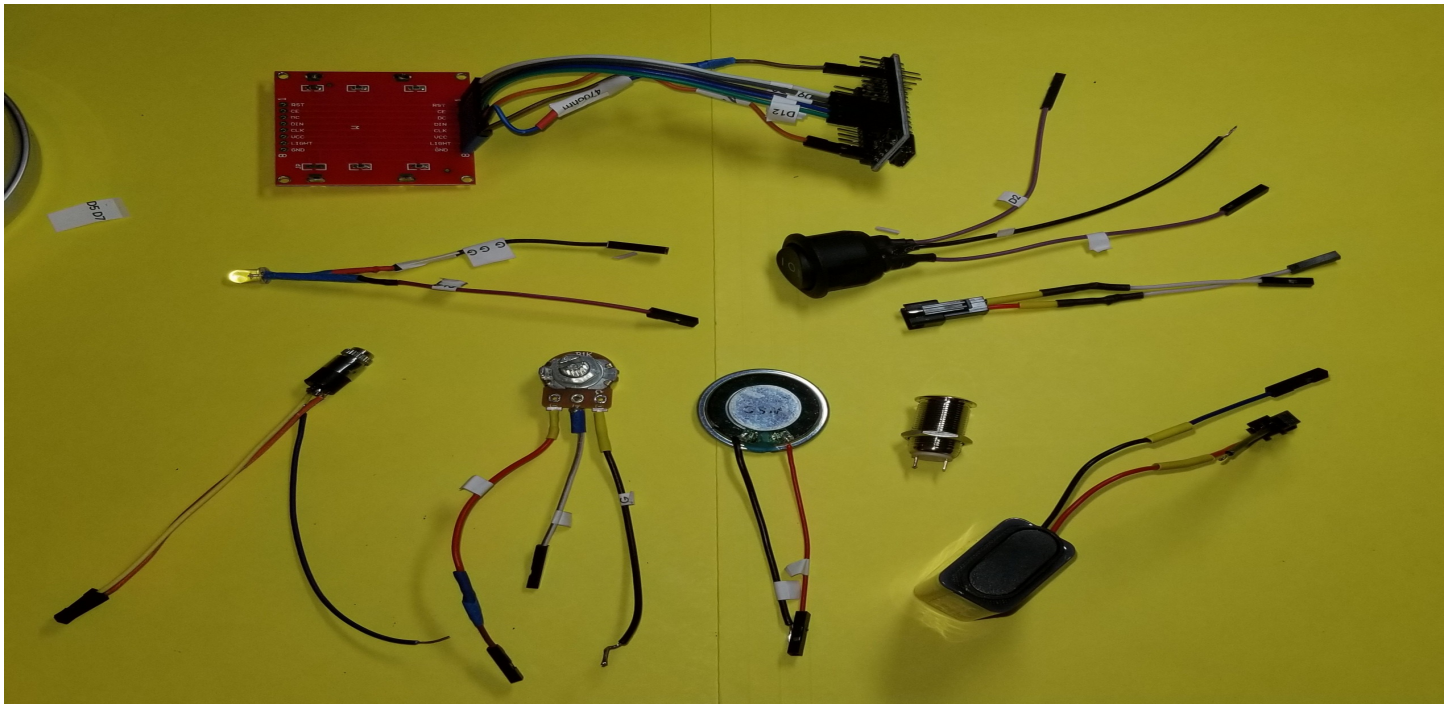
The cheap $5 nano clone I bought on amazon uses a unofficial ftdi chip so the driver has to be the driver from wch.ch and in the Arduino editor I had to select ATMega328P(OldBootLoader) which is in the Arduino drop down menu.

I had problems with compiling the code as it was complaining about missing libraries. I contacted the author and he told me to use the Nokia 5110 library from: http://www.rinkydinkelectronics.com/library.php?id=48 and that fixed the issue. In the code I changed the callsign to mine by simply editing the text in the code. I also changed the pitch of the keyer in the code with the same method,

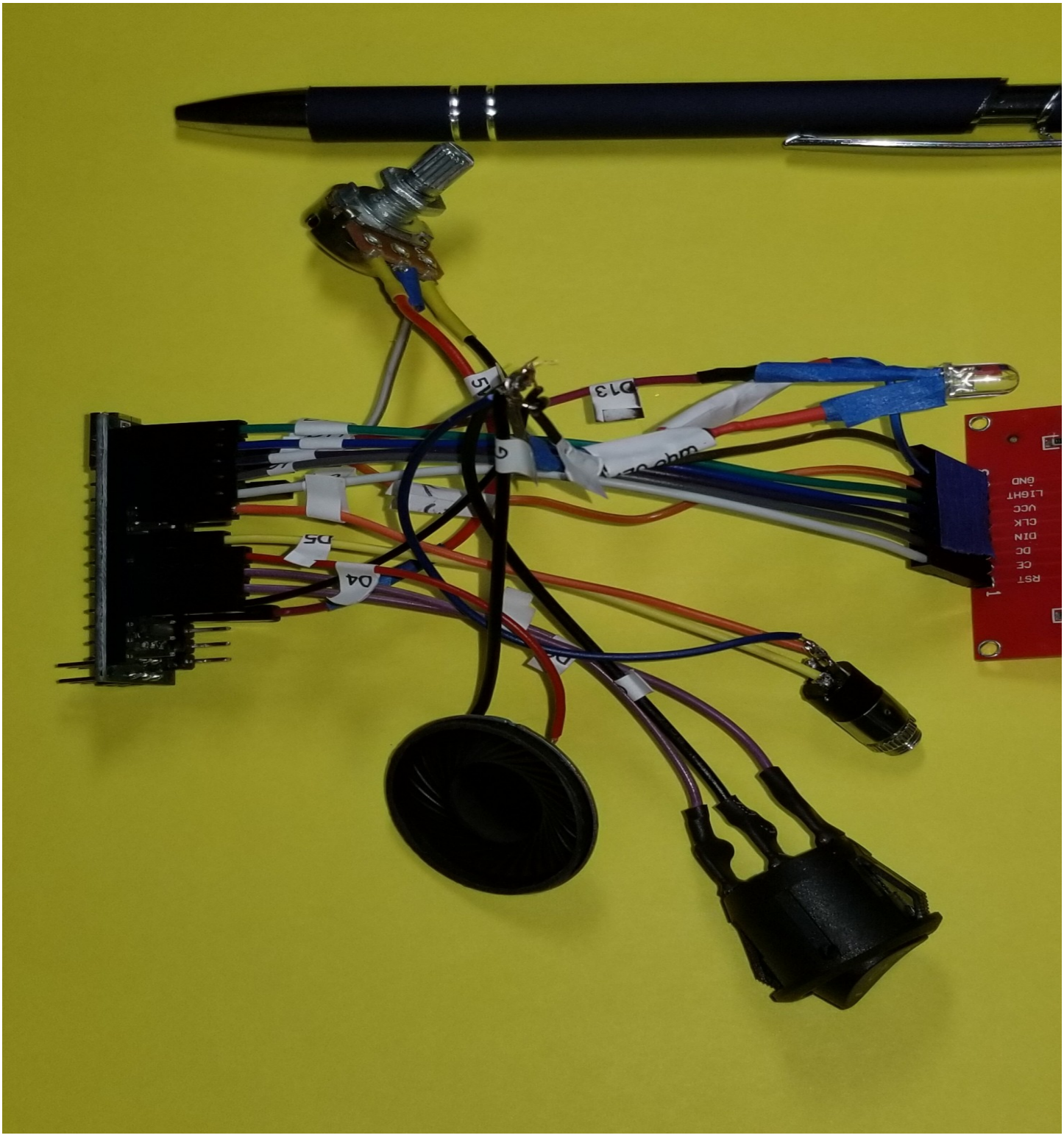
My Nokia screen had different pin numbers than the books diagram [ground is 2 on the screen not 8, Vcc is 1 on the screen not 6 etc]. Since the arduino runs on 5v but the screen needs 3.3v, be sure to connect it to the 3.3v pin not the 5v pin. Don't let the magic smoke out :)

Once I breadboarded it and it worked, I designed a 3d printed case which is on my GitHub page. There are pictures as well: https://github.com/AJ6EE/Arduino-Keyer-KW5GP

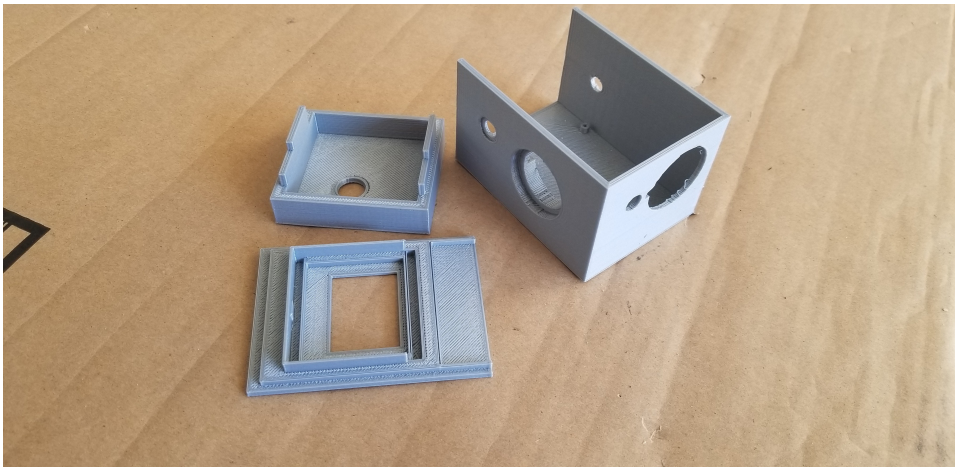
I enjoyed making the project and it's one of those 'work in process' things. I have made 3 of them with UNO3 and gifted one to a CW mentor. I also made on with an Arduino Nano which cuts the cost and has the same specs as the UNO3.



Parts wired and labeled for each element, Input jack, left, screen, switch etc.



Connected to the arduino nano and all the grounds are tied together. I'd like to make a ground rail and have an idea to do that. Basically I follow the schematic and as my Dupont wires are longer than I want, I have to cut , strip, solder and shrink tube them. I want to avoid any short circuits. The screen and speaker get a couple of blobs of hot glue to mount them



3D Printed Enclosure Ready for finishing

Primed

The one I'm making is for a fellow CWAcademy student who is from Scotland.
I painted the case as a Scottish flag as best I could.
73 de AJ6EE
Kevin Brouelette

High Altitude Balloon Launch – February 20

A number of SOARA members, including Erik W6INE, Dana KM6LZG, Ray AE6H, Dave KG6QCI, Rob KE6BLR, April WA6PRL and other hams Ramona KM6TZL, Brad KN6NDV, Fredric KK6NOW - Chase Team and Dale W6EDT - Net Control helped Science Heads recover a helium filled balloon (HAB6) launched from Lake Forest. HAB6 flew to an altitude of 109,297 feet (20.7 miles), a maximum speed over ground of more than 125 mph and traveled 134 miles. The flight took 2 hours. HAB6 landed in the infield of a racetrack near Desert Center, CA while a race event was underway. The entire flight was live streamed from assembly to recovery. We used the SOARA 440 repeater on Santiago and the Papa linked repeater system. Pictures and other details can be found here.

I acted as Net Control and made periodic announcements about the progress of the flight and recovery operations. Those listening in on the radio seemed interested in what was going on and we were able to supply details that allowed real time tracking of HAB6 using aprs.fi. Overall, a fun day and an experience that I would recommend to anyone.

Launch Site

Near space 100,000+ feet

Landing Location – Chuckwalla Valley Raceway

Contacting Soara: Questions about SOARA? Postal mail: P.O. Box 2545, Mission Viejo, CA 92690
Send e-mail to membership@soara.org or leave a message at 949-667-0173
Facebook: K6SOA Twitter: @K6SOA

SOARA Elmer Saturday/Tech Net

We have fun at SOARA Saturday events talking about all types of topics.

Since we can't meet in larger numbers at the Murray center or Gilleran park, we are having virus free radioactive technical nets. The log is here: https://www.soara.org/soara-saturday-log/ I try to post useful on-topic links in the log. Worth a look..

Join us Saturdays 9am, on Laguna Beach 147.645 or Santiago Peak 447.180 repeaters. Bring your questions, be there to help others, or listen in. Try having some radio fun!

If you need an Elmer go to Elmer's corner tab on SOARA's main page.

73,
Ed, WA6ED
wa6ed@soara.org
SOARA Elmer Saturday Coordinator

SOARA Membership Report

We are now at 236 active members. Two new memberships pending the board meeting.

If You know someone that wants to join SOARA, the application signatures have been temporally waived by the board. Applications are available on www.soara.org. The process is: fill out the application, email it to membership@soara.org, pay your new member dues & initiation fee $90, when the board meets we will review and vote on your application.

73,
Ed, WA6ED
SOARA Membership Director

SOARA Library/Nets

As some of you have already heard the AD6OI/SOARA Library is now up and running at our house. (Please see attached picture for details). This library contains ARRL Handbooks, Repeater location guides, Tech modification books, radio and electrical books and a wealth of radio related information. For now the library will be open from 1pm to 4pm on Saturdays, and other times by appointment, if you call first, either by radio or telephone. E-mail will also work but allow at least 24 hours for a reply.

Extra Class License Manual
General Class License Manual
Technician Class
MONITOR AMERICA
The National Communications Guide
THIRD EDITION
ARRL 1995-1996 REPEATER DIRECTORY
ARRL 2000-2001 REPEATER DIRECTORY
Police Call • 1995 • Southern California
Police Call • 2001 • Volume 9
THE ARRL OPERATING MANUAL
Radio Handbook
73 Vertical, Beam, and Triangle Antennas
RADIO TRANSMITTERS
THE RADIO AMATEUR'S HANDBOOK
THE A R R L ANTENNA BOOK
MANUAL OF AVIONICS
STEALTH AMATEUR RADIO
Hints & Kinks for the Radio Amateur
ON4UN's Low-Band DXing
THE ARRL HANDBOOK
THE CALLBOOK—UNITED STATES LISTINGS
THE CALLBOOK—INTERNATIONAL LISTINGS
THE CALLBOOK—NORTH AMERICAN LISTINGS
including Hawaii & U.S. possessions
creator

In other news, when using SOARA repeaters the are some thing that it might interest you to know.

It is always good to key down for several seconds when first waking up your favorite repeater, otherwise the beginning of your announcement won't be repeated.

Also if you are in an extended conversation please leave room for others to break with their call sign.

If is never good form to interrupt a conversation with a comment. Using you call sign to identify yourself is usually sufficient to get the attention of the individuals involved in a conversation (aka QSO). When recognized feel free to go ahead with your comment.

You can find a summary of all of our nets at SOARA Net Schedule

Thank you
Heiko AD6OI
Director of Communications for SOARA

SOARA Equipment For Sale Online Site

Based on numerous requests from SOARA members for a place to post Ham Radio related items for sale to other club members, we have set up an opt-in based Mailman mailing list on our server. Interested SOARA members are invited to join the mailing list. The SOARA organization and Board of Directors do not provide any warranty or guarantee for the items being advertised, buyer beware!
To subscribe, navigate to:
https://soara.org/mailman/listinfo/forsale
Enter your "real" email address, not your at "soara dot org" alias. You must be able to send and receive email from the address you provide.

Once subscribed, you will receive email when other members post items for sale. When posting to the list, you should provide an accurate description of the item for sale, its condition, and asking price. Replies to postings should be sent to the poster of the item, and not the list.

The archives of postings are publicly available on the web here:
https://soara.org/pipermail/forsale/

This mailing list may be suspended or discontinued at the discretion of the SOARA Board of Directors should that become necessary.

Brian, NJ6N

GotoMeeting Information

WHAT TO EXPECT MONDAY EVENING

When you join Monday's meeting, it is highly recommended you use Google Chrome if you plan on entering via browser. It is also recommended to use a headset or earbuds with a mic. Avoid a laptop mic as the speakers that sit right next to the mic tend to produce echo and feedback. Your webcams will be disabled.

The meeting will be locked in order for Soara Board members and our Presenter to arrive first. Please email me if you would like to make an announcement to the other members so I'll know in advance to call on you. You will be in a waiting room until 7pm when I'll open up the meeting. Please keep your microphones muted when not talking. I will Mute all attendees if there is an unmuted mic disrupting the meeting.

You can use the Chat feature to request to ask a question. When, acknowledged, you can ummute your mic and ask away. You may ask the question in the chat if you prefer and we'll ask the question for you. You may comment as well if you like, just keep it clean. You can also chat with a specific individual privately. Just be sure of what you are saying and where it is going.

As this meeting is open to the public and announced as such on the website, we expect a smooth meeting. If we, by chance, get a disruptive guest they will be Dismissed from the room by the Moderator and the meeting room will then be locked to prevent re-entry.

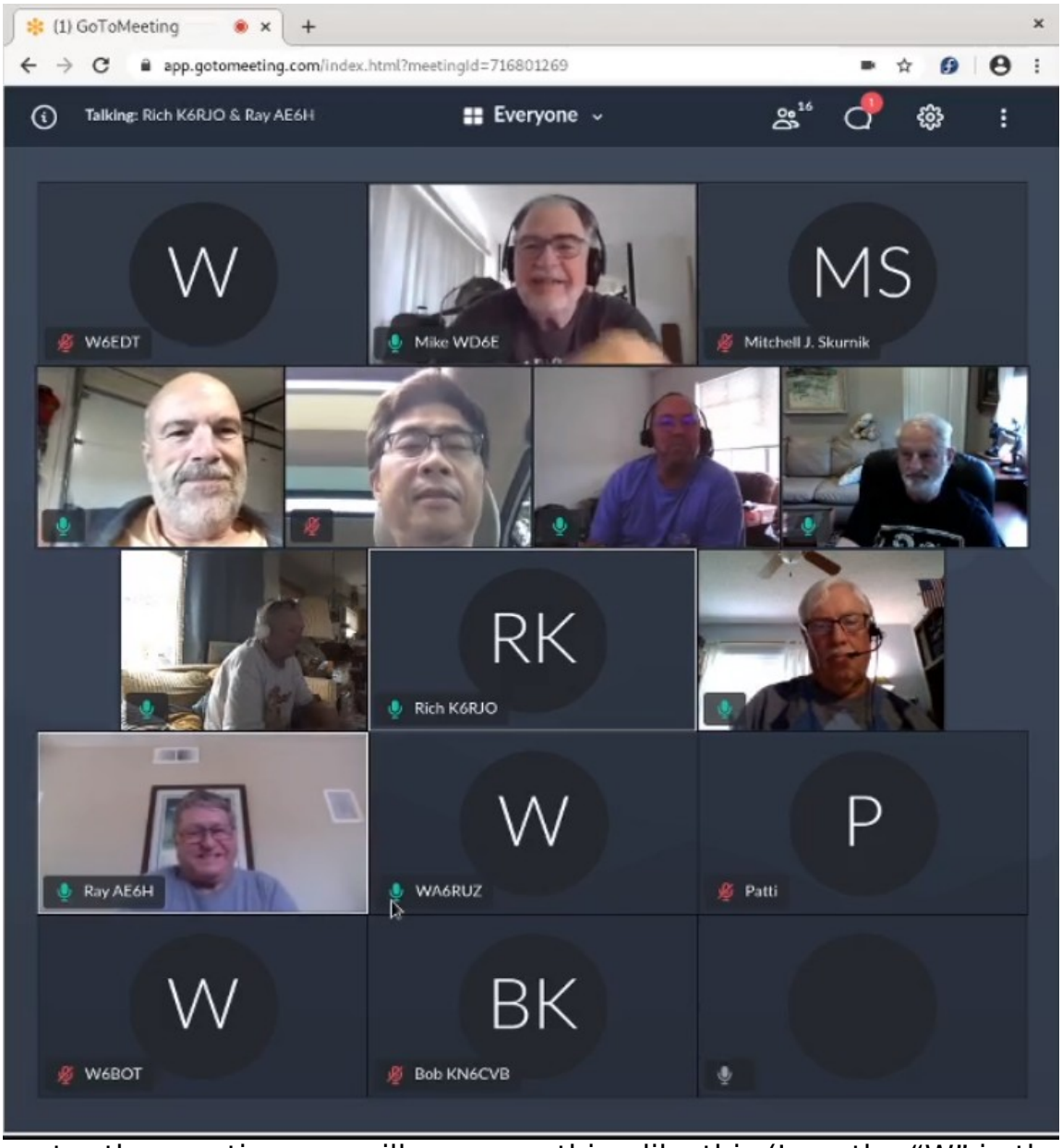
Let's have a great online meeting!

Erik, W6INE

Some additional notes from Dale Tyler. Meeting details and links, etc. will be sent out Monday afternoon and will also be available on the soara.org website.

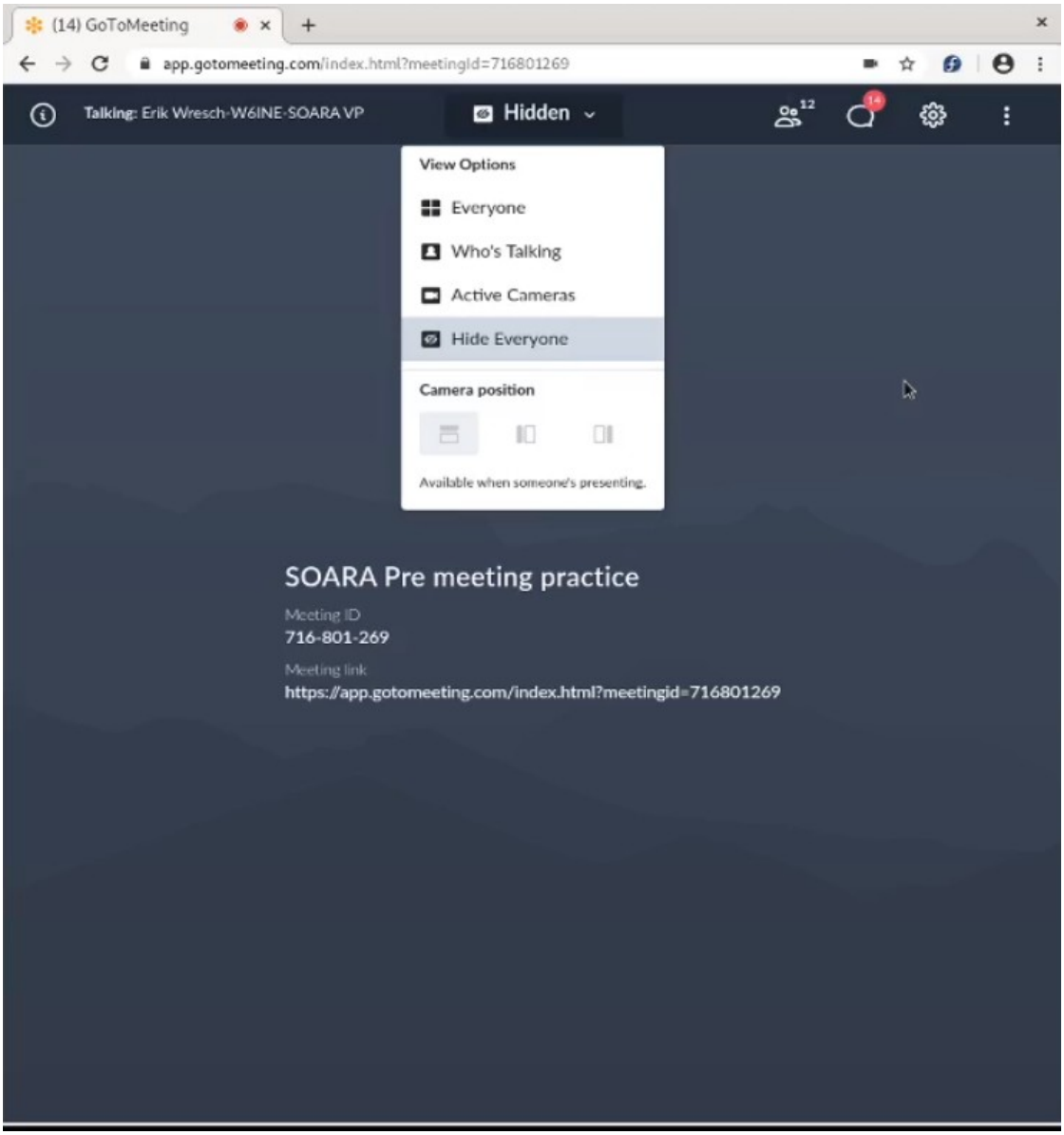
So far, the only browser that I have seen work is Chrome. The meeting link will look something like SoaraMeeting **subject to change – check email or soara.org)**. When you follow the link you will see a screen similar to this
Be sure to choose “Join Meeting in Browser”. Next you will have an opportunity to enter your name and ID. Please use your callsign for your ID. For example, I used W6EDT and my name was Dale. If you have previously used GotoMeeting, your name and ID will be stored in cookies associated with the site. You may or may not want to change them,

As was mentioned above, a headphone is best, but as long as you do not unmute your mike, the PC speakers will also work.

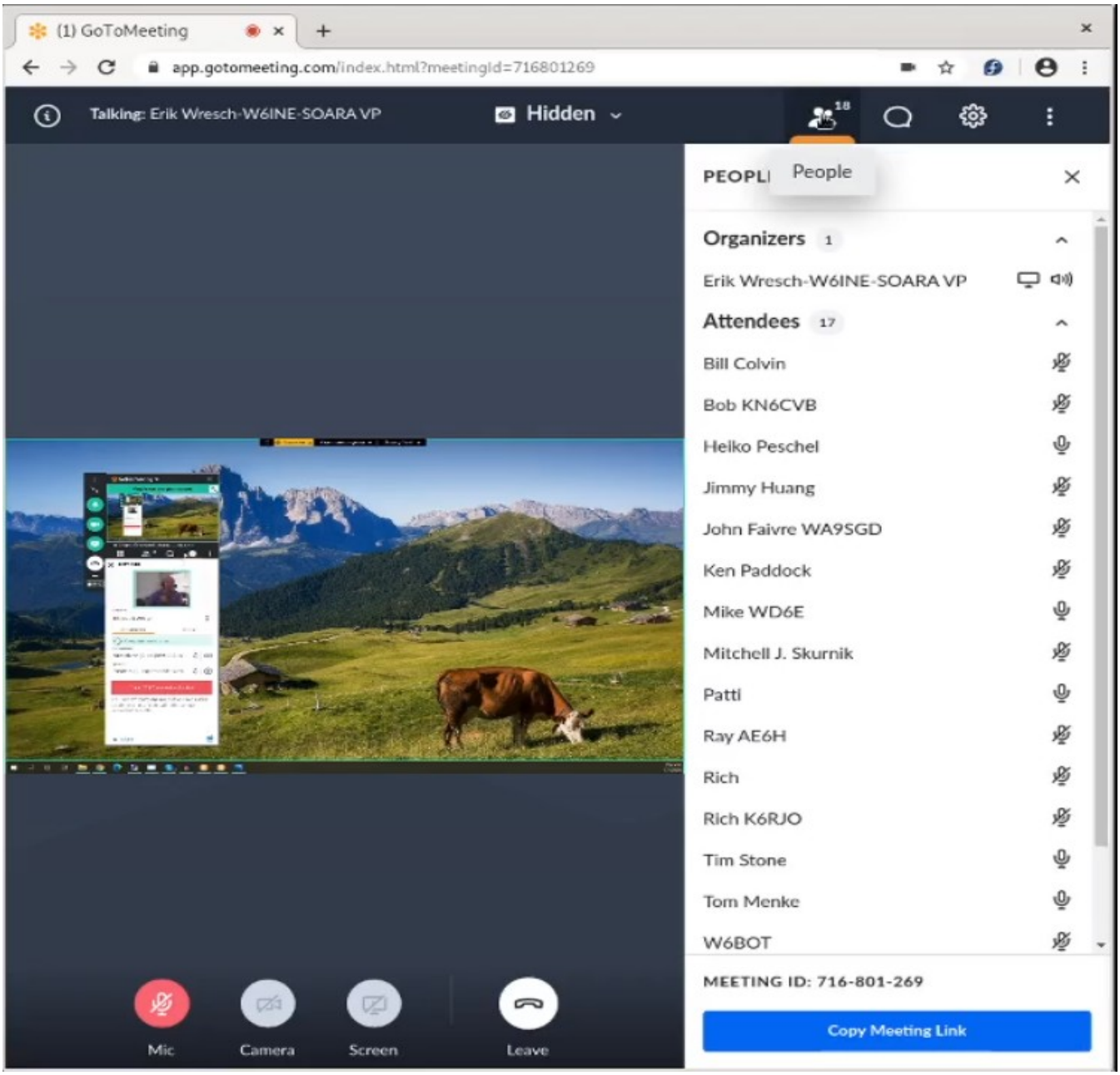


Once you enter the meeting you will see something like this (I am the “W” in the upper left:

I would suggest you click on 'Everyone' at the top of the screen and change the display to 'Hide Everyone'. This will make the presentation, larger and easier to see.


(14) GoToMeeting
app.gotomeeting.com/index.html?meetingId=716801269
Talking: Erik Wresch-W6INE-SOARA VP
Hidden
View Options
Everyone
Who's Talking
Active Cameras
Hide Everyone
Camera position
Available when someone's presenting.
SOARA Pre meeting practice
Meeting ID
716-801-269
Meeting link
https://app.gotomeeting.com/index.html?meetingid=716801269

Finally, if you need to update your name or simply want to see who is logged in, use the people icon at the top right of your screen. To update your name or ID, click on your name and press “Edit” in the drop down menu.



Please leave your Mic icon as shown (muted RED), which prevents noise at your location from disrupting the meeting.

There will also be a telephone number you can call on a telephone and an access code to allow you to listen to the presentation, if a computer is not available. Please be sure you have unlimited long distance, as the number will not be toll-free.

If you wish to join the meeting on a phone or tablet, either Android or Iphone, you will need to install the GotoMeeting App from you phone vendors approved 'store' The App is free, but may require certain permissions to function.

If you need help getting connected, please place a call on the Santiago repeater and I'll try to help you.

Also, if you would prefer to watch a live stream on YouTube, the link will be announced on the soara.org web site. The meeting will be available for playback later on YouTube as well.

This is a great way to participate in our club's meetings even when staying home to be safe.

73,
Dale, W6EDT

2021 SOARA Calendar

Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
General Meeting 7:00 PM	18	15	15	19	17	21	19	16	20	19	15	-
Program	-	-	-	-	Spring Auction	Field Day Prep	-	SOARA Fair	-	-		-
FCC Ham Exam 6:00 PM			15	19	17	21	19	16	20	19	15	-
Education Classes 8:00 AM			13	17	15	19-	17-	14	18	16-	13	-
SOARA Elmer Saturday 9:00 AM	Net Every Sat	Net Every Sat	20	24	22	FD	24	21	25	23	20	-
SOARA T-Hunt 1:00 pm	updates	updates	Updates	Updates	Updates	Updates	Updates	Updates	Updates	Updates	Updates	updates
Board Meeting	25	22	22	26	24	FD-	26	23	27	25	22	-
Special Events	Quartz-fest 17-23	Palm Springs Yuma		Visalia DX	Dayton Ham-vention	ARRL Field Day 25-27	HRO Ham Jam	SOARA Picnic		JOTA 16-18		SOARA Holiday Party
Major HF Contests		ARRL DX-CW 20-21	ARRL DX-SSB 6-7 CQWPX SSB 27-28		CQWPX CW 29-30	ARRL Field Day 25-27			CQWW RTTY	CQWW SSB	CQWW SSB	
Volunteer Events	OC Chili Run	Paws Fur Pink OC Chili Run	OC Chili Run Baker to Vegas	Dessert Storm Rally Ride for Rwanda	HD Trails OC Mara-thon LH Mara-thon	ARRL Field Day 25-27	MV Fire-works 4				Vision Quest	

Dates subject to Change – Check the SOARA Web Site (http://www.soara.org) to verify locations and times or click on the live links in the table

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Send e-mail to membership@soara.org or leave a message at 949-667-0173
Facebook: K6SOA Twitter: @K6SOA

SOARA Information

SOARA meets at the Norman P. Murray Center, 24932 Veterans Way, Mission Viejo, CA on the third Monday of every month at 7:00 PM. For the months of January and February the third Monday is a holiday and the meeting is held on the fourth Monday.

License Exams: Amateur License Exams are given prior to SOARA meetings, except June. Exams are at 6pm. Prior registration is not required and walk-in applicants are welcome. For June, exams are held at Field Day. For further information, email Sean Reigle, AJ6B, at aj6b@soara.org.

SOARA Library: SOARA has many amateur radio related books such as hand books, books about electrical theory, etc. available to lend out to club members. Contact Heiko Peschel ad6oi@soara.org for more info.

Web Site: SOARA maintains a web site with current club information. The URL is: http://www.soara.org/

Repeaters: The Laguna Beach, San Clemente, and Trabuco repeaters are open. The Santiago Peak repeaters are closed. For details or questions on the repeaters contact the repeater director, or repeater@soara.org.

	2m	— 147.645 – (110.9)	Laguna Beach
	2m	— 146.025 + (110.9)	San Clemente
	2m	— 145.240 – (110.9)	Trabuco
D-STAR	2m	— 146.115 + (K6SOA C)	Laguna Beach
	220	— 224.100 – (110.9)	Laguna Beach
	220	— 224.640 – (pvt)	Santiago Peak. (C)
	440	— 445.660 – (110.9)	Laguna Beach
D-STAR	440	— 445.705 – (K6SOA B)	Laguna Beach
	440	— 447.180 – (pvt)	Santiago Peak. (C)
D-STAR	1.2G	1282.600 – (K6SOA A)	Laguna Beach

Nets:

- 40 meter HF (7.200 MHz +/- , Sundays @ 8 AM
- 10 meter HF (Technicians Welcome) (28.415 +/-) Sundays @ 9 AM
- General Membership Net - UHF/VHF (447.180, 147.645 & 224.640): Tuesdays @ 8 PM
- Astronomy – VHF 147.645: Wednesdays @7 PM
- D-STAR (146.115 C module): Wednesdays @ 8 PM
- Dinner Net – 147.645, 224.640, 447.180: Fridays at 7 PM
- Tech Net - 147.645, 224.640, 447.180: Saturdays @ 9 AM

- California Rescue Communications (Gordo Net) HF (7.250 MHz +/– for QRM): Weekdays @ 8:30AM
- MVRACES – 447.180: Tuesdays @ 7PM
- Tri-Cities RACES – 146.025: Wednesdays @ 7:15PM
- LNACS – 147.645: Thursdays @ 7 PM
- OC Parks Fire Watch – 447.180: Thursdays @ 8 PM

SOARA OFFICERS

President: Ray Hutchinson, AE6H 949-322-8468
ae6h@soara.org

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w6ine@soara.org

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wi6x@soara.org

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nj6n@soara.org

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wa6ed@soara.org

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k6uvr@soara.org

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ae6sh@soara.org

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ad6oi@soara.org

SOARA APPOINTMENTS

Past President: Tom Hobbs, AE6SH 949-830-8131
ae6sh@soara.org

Activities Coordinator: *Vacant*
@soara.org

S. Saturdays: Ed Barnes, WA6ED 949-468-7706
wa6ed@soara.org

Raffle: Bill Colvin KM6FOY km6foy@soara.org

Testing: Steve Kuver K6UVR *k6uvr@soara.org*

Website: Vacant
@soara.org

Ambassador: Spencer Ammermon, NG6K
ng6k@soara.org

Contacting Soara: Questions about SOARA? Postal mail: P.O. Box 2545, Mission Viejo, CA 92690
Send e-mail to membership@soara.org or leave a message at 949-667-0173
Facebook: K6SOA Twitter: @K6SOA