Our Speaker: Fried Heyn, WA6WZO, ARRL SW Division Director on WARC-92 the World Administrative Radio Conference

Friday, March 20th
7:30 PM
is the next meeting!

See "Speaker Notes" on page 2

FRIDAY, MARCH 27th, 7:30 pm
SQUARE DANCE

FRIDAY, SATURDAY, SUNDAY
APRIL 24, 25, 26 - CAMPOUT
Joshua Tree Nat'l Monument
Black Rock Campground
FIELD DAY - SAT - SUN, JUNE 27, 28

Prez Sez
by Frank Smith, WA6VKZ

Come one, come all to the SQUARE DANCE March 27th (map on front page.)

Thanks to ICOM for their generous donation proceeds of which will be be used to offset much of our April campout. During the April campout we hope to test antennas for use at Field Day.

Congratulations to Carmine, KC6WTY, for his upgrade to Extra class.

Get your thoughts and ideas together for Field Day.

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Only those members who have renewed by the end of the March Club Meeting can expect to receive their April RF - a current roster will be mailed in April.

Dues STILL only $12/year!!!
Activities Update
by Bob Schnabel, KC6WWP (with help from Anita, KD6BWQ)

We have a lot of things happening as far as activities. First our ICOM dual band handheld radio raffle is doing really well. We are about half way to the big drawing. Good luck to all! The next special prize drawing, which we would like to get rolling by May, will be the AEA PK-232 with a certificate good for a copy of PacketGold software.

Don't forget the Club campout at Joshua Tree National Monument on April 24, 25 and 26. There has been a change in the campsite location. Instead of Indian Cove we will be at Black Rock Campgrounds (Indian Cove does not allow campers and trailers). There will be testing with Nancy, N6XQR's VE team, a beginning code class taught by Bob Gregg, AB6CH and lots of encouragement from everybody else. Skipper, KC6WJJ, is giving a desert survival talk and Mel, KM6BT, is going to conduct a nature walk. There will be lots of food and fun and relaxation for those still recovering from the Square Dance. Also, night time star-gazing with a great telescope. There are still positions available for volunteers. We need help with Saturday night's hamburger and hot dog BBQ and Sunday morning's sausage and pancake breakfast. Restroom facilities are 3 stall flush toilets and running water on each side. The wild flowers should be beautiful with all the rain we've had, too.

Sign up sheets for Field Day captains and workers and loggers and duffers and helpers and kibitzers will be available in April. Field Day is a nationwide ARRL contest to be held on Saturday June 27th and Sunday June 28th. Antenna setup on Friday afternoon, June 26th.

Check out the square dance on the front of the RF.
73, Bob, KC6WWP

FRIEND, WA6WZO, TO TALK ON WARC-92 AT MARCH MEETING

Have you ever wondered who is responsible for the ham bands we use today? Have you ever wondered where the requirement originated that amateurs know the morse code to operate on frequencies below 30 MHz? No, it is not the FCC. They have jurisdiction, to some extent, on which modes can be used where on the bands, but many of the FCC regulations we obey daily are determined by treaty. This treaty is reviewed periodically at a World Administrative Radio Council (WARC) meeting.

The most recent WARC meeting is occurring now. You may have heard some reports about WARC on the Westlink reports broadcast as part of our 2 meter net. The last major WARC occurred in 1979. That meeting was responsible for the loss of major frequency spectrum in the UHF region. It was also responsible for radio amateurs around the world receiving some new low frequency bands including the 30, 17 and 12 meter bands. What will be the outcome of the current WARC?

Fried Heyn, WA6WZO, the ARRL Southwestern Director will be our guest speaker at the March meeting and will bring us up to date on what's happening at WARC 1992 as it relates to Amateur Radio. Fried is a former member and past president of the OCARC. He and his wife Sandi first came to a club meeting in the early 1970s with a real enthusiasm for amateur radio. They both soon received their licenses and became very active in the hobby. For many years Fried was SCM of the Orange Section, and Sandi acted as his assistant. When the position of Southwestern Division Director became available, Fried moved naturally to fill it.

While Fried will mainly be discussing WARC, I'm sure he will be willing to field any general ARRL questions after his talk.

de AF6C

MONDAYS - 8:00 PM
144.330 simplex
BEGINNER'S NET
CODE PRACTICE & TECH TALK

1992 CLUB BOARD of DIRECTORS

President .............. Frank Smith ...... WA6VKZ ...... 838-3180
Vice President ....... Bob Eckweiler .... AF6C ...... 639-5074
Secretary .............. Jane Breller ...... KC6TAM ...... 213/866-2077
Treasurer ................ Carmine Fiorello ...... KC6WQY ...... 837-5133
Activities ............. Bob Schnabel ...... KC6WWP ...... 776-8486
Membership ............ Bob Buss ........... KD6BWH ...... 534-2995
Public Relations ....... Cindy Hughes ...... KC6OPI ...... 971-3448
T.V.I. Chairman ....... Clark Turner ...... WA3JPG ...... 856-2131
Member at Large ...... Ken Konechy ...... W6HHC ...... 541-6249
Member at Large ...... Mike Abreu ...... K6KAA ...... 832-8503

CLUB APPOINTMENTS

Club Historian .......... Bob Evans ...... WB6IXN ...... 543-9111
W6ZE Trustee .......... Bob Eckweiler ...... AF6C ...... 639-5074
RF Editor ............... Nancy Bucher ...... N6XQR ...... 537-8728
RF Printer ............... Jerry Dahlin ...... AA6BU ...... 527-2779
Refreshments .......... Cindy Hughes ...... KC6OPI ...... 971-3448

DUES

Regular Member .......... $12.00 Additional Family Members .... 6.00 each
Teens Members (under 20) .... 6.00 Optional Club Badge ........ 5.00

Dues for new members are prorated quarterly from January of each year. Family members must reside at the address of a Regular Member. One RF is sent per household.

March, 1992 - RF / 2
On the Nets - February, 1992 - by Bob Evans, WB6IXN

2/5 15m Phone net - W6ZE/AF6C checks in NGO, RND, IXN, ESD, and XTJ. RND revamps grounding in the shack & gets good rpts frm all OPs! NGO says that RND’s distortion is solved. And Kei replaces a leaking oil seal in the Club generator. A small event rumbles thru Crystal Set Navigator shortly after IXN checks in, and detective AF6C tracks down Chris Buckley for a future Club program. ESD, wid plugged-up allergy nose, loses 2 teeth to the dentist, but manages to hear Nepal & Pakistan on 20m! And XTJ eyeballs wid RND abt John’s ground problem, garnering txn frm John over the results!

2/5 25m phone net - W6ZE/IXN checks in BFP, NG7D, XTJ, VPP, RND, RE, ESD, WTY, QW, FHN, ZH & TAM, XQR, VDP, DNR, OPL & WWP. Rain...Rain everywhere...as BFP plans to check the rain gauge tomorrow! NG7D checks in on the HT via 440 remote located on Easter Hill in Orange. XTJ plans HF mobile as he places a rig in the auto for the upcoming trip to the Canadian Rockies. VPP experiences difficulties with the ATV amplifier, so Budi is now 1 watt QRP on ATV! RND requests phone numbers for Heathkit as he searches for parts for the SB-104A! IXN refers him to N6ZNC on 145.46. And ESD comes up wid two numbers: 1-800-253-0370, and 1-616-982-3571. RE informs OPs of OPs aboard the upcoming Shuttle launch in March. And Alex tells VPP that he used to walk to meetings ‘many moons ago!‘ Newslime also mentions OPs aboard Shuttle. WTY sits back & enjoys the rain! And Carmine concentrates on Japanese DX thru the 80m Remote base, while thinking abt a ‘water tank’ location for the new 440 Mission Viejo Races Repeater? QW, wid too much snow at Big Bear, only thinks abt a new 35 ft. tower, as he garneres a VA15 Canadian commemorative QSL, & picks up some new packet gear at the Swap Meet. FHN, recovering frm recent shoulder surgery, has therapy 3 times a week, as he Elmers another OP wid bowling. TAM comes up on packet to deliver Board meeting minutes to XQR. And ZH gets QSLs frm Sri Lanka, Moldavia, and an FK8, working toward the DXCC. Congratas to WPP on passing General at XQR’s VE test session last Sun. And XQR requests info. on ‘QLS via the Bureau!’ VDP comes bk wid the needed info: Contact ARRl for a sheet describing QSL Bureau procedures. In meantime, the Adr is: 6th District DX QSL Bureau, P.O. Box 1460, Sun Valley, CA. 91352. DNR will attempt to eyeball wid OPs at he E.O.C. in Anaheim at next Club meeting! And OPI/M tells OPs that Patrick still awaits the Tech ticket as he attacks the code for future upgrade!

2/6 15m CW net - W6ZE/RND checks in IXN, XQR & NT, while VKZ copies on the side at XQR’s shack. All OPs have gut sigs tonite as John asks Nancy how “RF” is coming along. XQR has trouble downloading TAM’s Board meeting minutes frm the LA BBS! NT gives OPs their sig rpts, & Ray is glad he doesn’t have to use his ‘frog’ voice as he battles the flu on a soggy Goat Hill! IXN, facing the intolerable situation of only one ‘Bob’ on the CW net, implores ESD & WWP to jump on board! XQR works the puddle & not the strict key tonight, but, NT has a lil trouble wid his strict key!

2/12 15m phone net - W6ZE/AF6C checks in NGO, IXN, RND, XTJ, XQR, & VKZ. AF6C asks all OPs abt ‘rain’ adventures at their QTHs! NGO ventures to HHc’s QTH where they tear down a patio roof. Then Kei returns home to work some DX on 15m. Rain drives the crowd frm the freeways, & AF6C & XTJ find freeway driving enjoyable! RND remains glued to the sobbing tubes, watching reports of luckless flood victims, and damage, frm falling rains! VKZ, busy wid freeway problems & TV media, jumps in to say hello & goodbye. IXN gives OPs more gud news...3 storms approaching! XQR asks if anyone had ant. damage frm morning winds, then hastens off to the kitchen!

2/12 25m phone net - W6ZE/IXN has largest check-in ever...NG7D, BFX, ZH & TAM, JSV, RE, XTJ, RND, HHc, FHN, VDP, DNR, FLP, OPI, WTY, QW, KAA, BWH, FBU, BFF, TWF, & VKZ. BFX continues to add up inches of rain in GG, and listens to tales of a neighbor’s leaking roof! NG7D hasn’t seen so much water since 1984...John can’t go shopping and he missed a contact on 15m to Aranica. ZH & TAM, both ill-feeling, take the day off. They will travel to IBP & EBP’s QTH to work the horse event at San Jacinto. JSV’s backyard fountain floweth over, but no leaking roofs! Bad computer sensors, a hum catalytic converter, no brakes & 500 bucks later, all JSV’s auto problems are solved! RE has collected more ARRL bulletins than he has puddles in the backyard! Alex airs Newsletter, & receives a call frm Tustin PD abt RVS’s trailer break-in! The 1968 floods were worst for XTJ & IXN! Neither live suffered any damage frm present storms. RND avidly watches flood damage rpts & txs RE for a tape, as he listens to rain pounding on the new roof. HHc has last checkin frm the present QTH...He’s moving! The ant. comes down Sat. FHN announces that OPs can live their gear checked for proper operation Sat. frm 9am - 1 pm, at the Anaheim EOC. VDP’s 2 yr. old roof is doing fine, however, a block wall that suffered wind damage needs repaired! VDP makes note of XTJ’s Logic Keyer written up in World Radio, & tucks away an NH7 during a 6m opening! And Larry announces the ‘IBM Computer Virus!’ If you’ve got it, your computer will ‘get sick & die’ on Mar. 6! XQR is ‘high & dry’ in her shack as Nancy listens to OPI frm the Red Cross Communications room. ONZ went home to take care of ‘QTH’ matters...Patrick’s school may soon form a ham club! WTY gets bk at the rig in time to tell OPs abt Mission Viejo’s 440ume soon to be installed on a municipal water tank. & Carmine still contnues to garner rare DX through the TWF Remote system. KAA, in frm ‘repeater gossiping’, tells OPs the major topic on the repeater is...RAIN!! BWH just logged 2.45 in. of rain frm this last storm at the QTH! FHU, Dewitt, has no water damage, & he will get a card to Carmine! TWF announces OP radio checks at Anaheim EOC on Sat. morning, plus the lunch at Tony Rona’s in Fullerton. For info. on the above, or David’s Remote System, call David at 535-5528. VKZ just got in frm the rain-swollen freeways and Cal-trans problems...Franck kicks back & happily joins the conversation!

Continued on Page 4
On the Nets - February, 1992 (Continued)

2/19 15m phone net - W6ZE/AF6C checks in DXN, RND, XTI, YZG, and ESD. DXN reports 2 small earthquakes near Ridgecrest this A.M. RND backs off on the mike gains & removes his audio distortion, as John continues to work on the shack's ground system. Commuters & the Olympics don't quite mix, says AF6C. And IXN hears XTI after Jim 'tunes up' a bit. YZG still has some paralysis from a light stroke, & Lu entertains himself 'playing computer'! ESD tunes up for CW net last week, & not hearing any OPs, discovers it's Friday!

2/19 2m phone net - W6ZE/IXN checks in ZH & TAM, BPX, XTI, RE, RND, VDP, AF6C, ONZ, ESD, FZE, XQR, OPI, FHN, BWH, WTY, YFY, DBY, & FHU. We certainly do appreciate RE's dedication to providing 'Newsvine' for OPs! Tnx, Alex! ZH & TAM journey off to San Jacinto last Sunday for the Carriage event...You guessed it! Emergency traffic & medical assistance...this time an auto accident! IBR was NC for the Carriage event. BPX logs 14' of rain in the gauges for the season, & wants OPs to tell CJH to 'hold the garlic' until the Club breakfast! XTI tells IXN that there was CW sigs & QRM on his 15m emissions, & Jim tells OPs abt a recent & very interesting T-Hunt! RE 'wringing the water out of the grass' & 'whacks it', including the weeds! Alex also tells OPs that amateur interests are well represented at the WARC conference! RND asks IXN to assume NC for tomorrow's 15m CW net. W6NT asks VDP abt Quarter Century Wireless Assoc. IXN asks AF6C abt QGWA, but gets the wrong 'Bob'! AF6C wams OPs of a new computer virus that will 'wipe their hard disks clean' on Mar. 6! IXN finds the right 'Bob', ESD, who enlightens VDP abt Chapt. 7 of the QCWA in Long Beach. VDP also says that Club OP, Carlos Fuentes, hasn't been receiving RF! IXN moves ESD back to Costa Mesa frm Garden Grove...Sorry abt that, Bob! XQR says Indian Cave NO, Black Rock Canyon YES, for the upcoming Club campout!...More at meeting! OPI checks in frm Red Cross Communications...wanders the class on the side...great PR, Cindy! BWH is also at the Red Cross, & Bob (SPN) hadn't heard abt the 2 small EQs near Ridgecrest this A.M. WTY works both ends of Canada, with a JA in the middle, on 80m; informs VDP of Carlos Fuentes' club status; & is glad to have his ailing computer well agin! DBY, Doug, is working on the 5 WPM CW! And FHU is working on 10 WPM. 15m CW net eagerly awaits Doug & DeWitt's check-ins! FHN & YFY 'fly in & fly out'. IXN welcomes FZE, Patrick, in Junior High, on the net! Congrats on the new ticket, Patrick! ONZ says Hi to all & stands by on Patrick's QSO.

2/20 15m CW net - W6ZE/IXN checks in ESD, NT, XQR, & KD6BCH. XQR experiences QRM at the QTH & doesn't hear ESD or NT. NT will call ESD landline rite after net, & IXN tells OPs abt 2 or 3 tiny tennibgers that went thru our area beginning at 5:01 A.M. We welcome Byon, BCH, on board, & we all hope to hve Byon wid us as a regular on CW! XQR proposes we change the net freq. to 10m. It's OK wid ESD & IXN. IXN landlines XQR after net, wid VKZ on the side on another handline! The way Frank, come on freq. & talk wid us CW sometime.

2/26 15m phone net - W6ZE/AF6C checks in ESD, IXN, RND, N4UIF, & VDP. AF6C relays some info. to IXN. RND tries the rig speech processor wid great success. UHF is heard by all 'round Charleston, Kentucky, & ESD gives RND gud rpt on the speech processor. VDP looks for vacational XTI in Colorado, & jumps over to WTY on 2m. AF6C also checks in OPs 13m Fla. Louisiana after IXN leaves the net for 2m.

2/27 2m phone net - W6ZE/IXN checks in WWP, VKZ, NG7D, WTY, ZH & TAM, RE, XQR, VDP, EDK, FHN, ESD, DQW, AF6C, & OPI. WWP, tnx the following doctors to Club raffle: WTY for the SWR meter, BWH for the digital clock, VDP for the Repeater Directory. & Bob tells OPs to reserve their campsites for the April campout soon! Contact BWH or WWP. VKZ's vertical bows to the SA winds! Horizontally polarized, Frank turns on the amp, so ZH & TAM can hear him in Ballislaw! NG7D stays put at last Club meeting wid all the 'bads' crowded round him! However, John 'wheelchairs' back to the Communications room to admire all the great gear at the Anaheim EOC. WTY ventures out to look at the stars last eve. Being so quiet, Caminé thinks of 'earthquake WX'. (Hrm...Whole lot of shakin' goin' on up Lake Crowley way, Caminé!) ZH & TAM give VKZ an S9 wid the amp, on, as Chris & Jane rack up 97 countries toward the DXCC! AF6C, forced to work late, misses the excellent EOC presentation on EQ preparedness, & RE & IXN wish the SA winds wud blow the oxalis out of their yards! Alex alerts OPs of the Cambodian refugee ham rescue story listed in Mar. issue of Reader's Digest, before airing Newsline. Congrats to all OPs who upgraded at XQR's VE session! Nancy certainly deserves 'honor, praise, & glory' for her efforts in the ham community. The 'cold bug' catches up wid VDP as Larry searches for vacational XTI somewhere in Colorado. Undaunted, Larry picks up 2 more grid squares on 6m, & asks ESD when CA first received the District 6 call! EDK attends his 1st Club meeting, enjoys the presentation, & walks off wid Carmine's SWR meter at the raffle! FHU, after 34 yrs as a fireman, really enjoyed the presentation at the Anaheim EOC! DeWitt also installs a new 2m ant. on the QTH, & a Larson ant. on the motorcycle for contact wid FHN & FLP. RND informs the CW OPs that we will meet on 21.175 on Thurs. as usual, then QSY to 28.150 for test purposes. KAA motors to San Luis Obispo to hear the harmonic's choir in concert, & ZUP works on the handheld as he tells OPs the 741 rig has been installed. HHC, using a 1/2 wave magmutator upstair...in the new QTH, exposes his new toy: a 1.2 GHz module in the 741! ESD, busy wid the dentist, manages a 2hm SSB contact to an H8K in the Galapagos Is. QW, in bed wid a cold yesterday, manages to pay payroll taxes today, & survives a media interview abt the invasion of street people, cardboard sharks & all, in his industrial area! FZE is already in bed as OPI prepares for the SAREX program at Patrick's school, for the Mar. 23rd launch of Shuttle.
Minutes of OCARC General Meeting  
February 21, 1992

The meeting was called to order at 7:30 PM by Frank Smith, WA6VKZ. Board member absent was Bob Eckweiler, AF6C.

The speaker was Bob Berg, KB6ZDB, Disaster Coordinator for the City of Anaheim, who talked about the problems involved during the 1989 Loma Prieta earthquake and presented a very interesting slide show that highlighted the damage done during this earthquake. He also showed what is needed in the emergency pack that we should be carrying in our cars at all times.

Treasurer’s Report: There is $873.00 in checking and $1,154.68 in savings. Cash on hand is $145.00. The Club has received a $40.00 donation from the Gordon West Radio School.

Minutes were approved as published in the RF.

OLD BUSINESS

Amateur Radio Awareness Day - Skipper is still coordinating the project with the City of Orange.

Raffle - A dual band handheld from ICOM is the prize. OCARC is sending a card to ICOM that is being signed by all club members attending the February meeting.

Campout - Maps and campsties are available. The first 30 people to sign up will have the first night paid for by OCARC. The meals will be $5.00 per person. See Bob Schmabel, KC6WWP, for more information.

NEW BUSINESS

Activities - The Club is having a square dance on 3/27/92 at the City of Orange Police/Fire Substation on Fort St. It will start at 7:30 PM and the caller will be Bob Evans, WB61XN. Come and join us!!!

Cindy, KC6OPI, stated that the Club needs a new coffee pot. She will get cost by March breakfast.

Meeting was adjourned at 10:05 PM
Respectfully submitted, Jane Breller, KC6TAM, Secretary

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Minutes of OCARC Board Meeting  
March 7, 1992

Called to order at 8:45 am by Frank Smith, WA6VKZ. Board member absent was Bob Schmabel, KC6WWP.

NEW BUSINESS

Cindy, KC6OPI - The Red Cross is having a raffle to benefit their Communications Center. The prize is a fantasy weekend for two, and the cost is $5.00 per ticket.

Dave Hollander, WA6COJ - He has found a place that will print up decals and cloth patches that will bear the OCARC logo. There is a minimum order of 1000 items and will cost approximately $450.00. The board requested that Dave investigate this further and report information at the next breakfast.

OLD BUSINESS

Campout - It was moved by Jane, KC6TAM, that the club spend $300.00 for the campsite deposit and $200.00 for food. Motion was seconded by Cindy, KC6OPI. Motion was approved by the Board.

Square Dance - There will be a map on the front page of the RF. Everyone is encouraged to come. John Roberts, WA6IAB, advised the Board that the Kenwood 520 that belongs to OCARC is not working. Board advised John to give the rig to Larry, K6YDP, for him to look at the equipment and see if it can be repaired. Larry will tell the Board how much it will cost.

Nancy, N6XQR, advised the Board that she still has not received the audit statement to publish in the RF. The audit committee will meet with the treasurer before the next meeting and review the books. The audit statement will be published in the April RF.

GOOD OF THE CLUB

It was brought up that Bob Tegel, KD6XO, is in Hogue Memorial Hospital. He suffered a heart attack on 3/2/92. Bob, AF6C, is arranging to send a plant and card to Bob. Bob is in the Intensive Care Unit and there is no information as to his condition at this time.

Treasurer’s Report - There is currently $1,154.86 in the savings account, approximately $800.00 in the checking account and cash on hand is $400.00.

Membership - there are currently 84 paid members in the club. Bob, KD6BWH, advised the Board that more badges are needed. It will cost about $150.00 for 100 badges. Motion was made by KC6TAM to allot the $150.00 for badges, and was seconded by Ken, W6HHC. Motion was approved by the Board.

Cindy, KC6OPI, is the new PUBLIC INFORMATION OFFICER for the Orange Section of the Southwest Division of ARRL.

Meeting was adjourned at 9:15 am.
Respectfully submitted, Jane Breller, KC6TAM, Secretary

[Ed. Note: Cards may be sent to: Bob Tegel, KD6XO at 14561 Benchley Circle, Westminster, CA 92683]
The Investment Aspects of Amateur Radio
by Alan Churchill, AA7CV

Many of us who love ham radio have experienced difficulty explaining our "investment strategies" to our non ham friends and family. For those of you who need some help with this complex and multifaceted topic, here are a few tips I have picked up from other hams over the years.

Ham radio equipment, meetings, labor and parts can be broken into several definitions so as to make the analysis easier. Since most of us have a limited amount of investment capital available and since most of us want to maximize the return on our invested capital, here are some definitions to use in your analysis:

INITIAL INVESTMENT (or EARNEST MONEY): Most investments have some amount of money that must be put down to get started. Its purpose is to demonstrate your true level of interest. In ham radio, this amount is $5.95 which is for the Novice test manual. This is the total amount of initial investment required and no further initial investment will ever be required.

FIXED INVESTMENT: Unlike other investments, only 20% of the total amount of money spent on ham radio is really "invested capital". How can this be? This is because 80% on the money spent on ham radio belongs in the Educational category.

EDUCATIONAL ENHANCEMENT: 80% of the money spent on ham radio gear, computers, manuals, classes, antennas, feedline and all other radio products belongs in this category. This is because as we go through life, we are constantly learning, learning, learning. Many people spend tens of thousands of dollars on a college education and leave school with just a few books that will never be opened again. Ham radio gives you more in that the education comes with lots of things to play with afterward.

DEPRECIATION: All ham gear has a very long life because we all remember "way back when". This means that a person who gets started at age 10 will have a 70 year depreciation (assuming he lives to age 80). To calculate your depreciation, take the total amount of your investment and divide it by 70.

INVESTMENT RECAPTURE: This is the amount of money you collect from selling ham gear at swap meets or to friends. 100% of this money should be applied to the Fixed Investment because the educational component is obviously fully used up.

Now lets work out an example so we can accurately calculate the "true cost" of being involved in ham radio. This example will assume an initial investment of zero because the manual was borrowed. The ham spend a total of $10,000 to build the station. He also sold $4,000 of ham gear over the years. The net cost then is $10,000 less the $4,000 of Recaptured Investment leaving a net of $6,000. Of this amount, $4,800 is Educational so it can not be considered as a "cost".

So, our actual investment in ham radio is really $6,000 times 20% = $1,200. We divide this amount by 70 years of active use and this gives us $17.14 per year of Fixed Investment. This gives us a monthly total of under $1.50.

Now you know why we don't smoke at our club meetings. We all gave up one pack a month to be able to afford our hobby.

[Ed Note: This article was passed along to us by Phil Andersen, K6QE from the February, 1992 issue of Oregon Tualatin Valley ARC Newsletter.]

Mobile Installations
by Linda Davis, KC6VHY

Installing your VHF/UHF radio in your car can be quite an experience. It sounds easy enough, but there really is more to it than it looks. Sure you can throw it under your dash on a mobile mounting bracket with a couple of screws and use your cigarette adapter for power and a mag mount antenna..... BUT, the question is: will you be able to transmit with a clear signal, i.e., without an alternator whine or some type of engine noise? Well, read on and see what is really involved in installing your equipment properly and neatly under the dash and hood of our vehicle.

This month, we will discuss how to install your dual-band or tri-band mobile radio, antenna, an antenna mount, and a duplexer or triplexer. An external speaker is optional.

Here are the most popular types of antenna mounts:

* MAG MOUNT - temporary: You can remove your mag mount antenna from the car and run the coax into the car thru the top of the car door.

* TRUNK / HATCH LIP MOUNT - permanent: No holes are drilled. This mount is usually tightened down with an allen wrench. (Can be removed when you sell your vehicle.)

* ROOF MOUNT - permanent: Yes, a hole MUST be drilled in your vehicle either on the roof or on the trunk. BUT your signal is transmitted much further since the metal of the car is a great ground plane.

Now that you know which antenna mount you will need to accomplish your mission, let's go ahead and go through the check list.

1. Location to mount your radio. (Make sure radio will physically fit in the space.)

2. Accessibility for running power cord to the battery.

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Mobile Installations, Continued

Continued from Page 6

3. Location for antenna mount. (Make sure there’s enough cable to run from antenna to radio.)

4. Connect your antenna cable to your duplexer or triplexer, and that to the radio. Again, hide the connections from view.

5. Make sure all of your connections are correct and tightened to minimize any problems.

6. Check SWR to make sure that you are operating at full power.

7. Turn power on, get on frequency and transmit. HAVE FUN!

Mobile installations can be very simple to very complicated (custom installations) depending on the vehicle. Do not hurry through the installation. Take your time and you will amaze yourself! Take it from a YL!!

73, Linda, KC6VHY

P.S. Watch for next month’s issue for an article on HF mobile installation.

UPGRADE AND NEW LICENSE CLASS/TEST SCHEDULE

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<th>DATES</th>
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<td></td>
<td></td>
<td>AB6CH</td>
<td>29TH, 5:00 PM</td>
</tr>
<tr>
<td>APRIL</td>
<td>4,5</td>
<td></td>
<td>F.V.</td>
<td></td>
<td></td>
<td></td>
<td>AB6CH</td>
<td>5TH, 4:00 PM</td>
</tr>
<tr>
<td>10,11,12</td>
<td>F.V.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>AB6CH</td>
<td>12TH, 5:00 PM</td>
</tr>
<tr>
<td>25,26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CAMPOUT</td>
<td>OCARC ONLY</td>
</tr>
<tr>
<td>MAY</td>
<td>9,10</td>
<td></td>
<td></td>
<td>IRVINE</td>
<td></td>
<td></td>
<td>AA6LM</td>
<td>TBA</td>
</tr>
<tr>
<td>15,16,17</td>
<td>F.V.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>AB6CH</td>
<td>17TH, 5:00 PM</td>
</tr>
</tbody>
</table>

Pre-register for all classes. For F.V. (Fountain Valley) call AB6CH ROB GREGG at (714) 375-0387. For Irvine locations (classes taught by WB6NOA, GORDON WEST and AA6LM, DAN FORT), call GORDON WEST RADIO SCHOOL (714) 549-5000. Bring ORIGINAL and COPY of LICENSE and ORIGINAL and COPY of any CSCS’S, ID and $5.40 (NOTE PRICE INCREASE FOR 1992.) ALL TESTS ARE WSTI ACCREDITED, LEAD VE: NANCY RUCHER N6XRQ (714) 537-8728. BE SURE TO PRE-REGISTER WITH SITE SPONSOR IF YOU WISH TO WALK-IN TEST. Walk-ins will be tested after class testing. Multiple versions of all elements are available.
MONTHLY MEETING:
March 20th - 7:30 PM
April 17th - 7:30 PM
May 15th - 7:30 PM

CLUB BREAKFAST:
April 4th
May 2nd (Second bldg. west of the 55 Freeway)

CLUB NETS

<table>
<thead>
<tr>
<th>BAND</th>
<th>MODE</th>
<th>DAY</th>
<th>LOCAL TIME</th>
<th>FREQ MHz</th>
<th>SPLIT</th>
<th>PL</th>
<th>OPERATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Meters</td>
<td>FM</td>
<td>Wed</td>
<td>2030 hrs.</td>
<td>146.350</td>
<td>smplx</td>
<td>na</td>
<td>WB6IXN</td>
</tr>
<tr>
<td>15 Meters</td>
<td>SSB</td>
<td>Wed</td>
<td>2000 hrs.</td>
<td>21.375*</td>
<td>smplx</td>
<td>na</td>
<td>AF6C</td>
</tr>
<tr>
<td>15 Meters</td>
<td>CW</td>
<td>Thu</td>
<td>2000 hrs.</td>
<td>21.175*</td>
<td>smplx</td>
<td>na</td>
<td>WA6RND</td>
</tr>
</tbody>
</table>

(Listen for W6ZE, net control) *Plus or minus QRM

ARES DISTRICT NETS

<table>
<thead>
<tr>
<th>BAND</th>
<th>MODE</th>
<th>DAY</th>
<th>LOCAL TIME</th>
<th>FREQ MHz</th>
<th>SPLIT</th>
<th>PL</th>
<th>OPERATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Meters</td>
<td>FM</td>
<td>Mon</td>
<td>1900 hrs.</td>
<td>145.220</td>
<td>-600</td>
<td>1A</td>
<td>N6HQI 1</td>
</tr>
<tr>
<td>2 Meters</td>
<td>FM</td>
<td>Mon</td>
<td>~1915 hrs.</td>
<td>145.340</td>
<td>-600</td>
<td>4Z</td>
<td>K6KAA 2</td>
</tr>
<tr>
<td>2 Meters</td>
<td>FM</td>
<td>Mon</td>
<td>1930 hrs.</td>
<td>noted</td>
<td>smplx</td>
<td>na</td>
<td>noted 3</td>
</tr>
</tbody>
</table>

1 - ARES Info net.
2 - ARES District 3 net starts after info net is completed (Usually about 1915 hrs).
3 - City Nets: Orange - 146.535 WB6FCP; Tustin - 146.505 KK6QE; Santa Ana - 147.585 W6HHC

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ORANGE COUNTY AMATEUR RADIO CLUB, INC.
P.O. Box 3454
TUSTIN, CA 92681

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First Class Mail

Time-Dated Material. Please Rush!!