

# WESTERN INTERTIE NETWORK

Thank you for your interest in the WIN System. There are a lot of fine repeater groups out there, and we appreciate your interest in our group. We hope this "WIN System Package" helps clarify our aims and goals as they stand right now. I say right now because the WIN System continues to evolve as the needs, desires, and personalities of its membership change, so we constantly change.

To begin with, the WIN System is a non-profit, membership supported, linked repeater system. We invite any licensed amateur radio operator to join. Our main interests on the WIN System are:

1. To have a dependable, top quality, wide-area coverage System to communicate with other System members, with the best, clearest sounding audio possible;
2. Wide Area Linking, using dedicated full-duplex radio links, again with crystal clear audio;
3. Operating and enjoying our Remote Bases, IRLP, and other WIN System "Toys."

The WIN System strives to be a very friendly and helpful group. We encourage family participation and plan socials and events so that non-amateur family members will feel welcome. To endorse that philosophy, other family members can be included for "free" under the primary membership, if they decide to obtain a license. Many wives and kids are included on our System roster.

We believe in enjoying our hobby to the fullest, and the WIN System is our way of doing just that. To us, the WIN System is literally our "extended family." You will find folks of all ages, in all sorts of professions, with an enormous variety of interests and hobbies. You will also hear a lot of laughing and good-natured teasing in the group. We do have a lot of fun on the WIN System. However, that is not to say that we don't have our serious technical discussions, because we often do, and we encourage participation and questions in those discussions, and at all levels on the WIN System.

Probably the best way for you to find out more about the WIN System is to just begin using it! Get on one of the repeaters, identify yourself, and get to know some of us. We call it "Window Shopping," and we hope that by using the System for a while, and getting to know us, you can determine if the WIN System is a good "fit" for you. We all know that no one system can possibly meet the needs of every amateur. You may find that the WIN System just won't work for you, and your operating style. On the other hand, you may find that you really enjoy the WIN System, and our open, friendly atmosphere, and find that you'll want to join us and help support what we're trying to build. Your dues help to defray the Site rents, insurance and system maintenance. Every penny, and then some, is put back into maintaining our high-quality system, with as little down-time as possible.

So, please feel welcome to "Window Shop" the WIN System, and/or join us for our monthly "**System Breakfast**" on the Second Saturday of each month. We hope that these venues, and the additional information will help you determine if you'd like to become a WIN System member. (Please know that some WIN System members belong to more than one group, and this is not a problem.)

If you'd like to get more information, please don't hesitate to contact me or just ask a member for help, or go to our webpage at [www.winsystem.org](http://www.winsystem.org). We hope to hear you on the WIN System, and look forward to talking with you soon.

Sincerely,

Jeff (Shorty) Stouffer, K6JSI

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**The following are some Frequently Asked Questions about the WIN System.**

## **WHAT IS THE WIN SYSTEM?**

The WIN System is a "Membership System" of hams enjoying a wide area linked (or Intertied) UHF repeater system covering a great deal of California. The WIN System was designed and built by Shorty, K6JSI, with a lot of help from the WIN System membership! Shorty owns all the repeaters and equipment that carry his call sign. The WIN System has crystal clear audio, which is probably one of the first things you noticed when you began listening to the WIN System.

The membership is what makes the WIN System great! We are honored to have a very diverse cross-section of the ham radio community on our System. It makes for some very interesting conversation. Everything from technical talks to comedy can be heard on the WIN System.

The WIN System started in the San Diego area in 1990, and moved into the Imperial Valley/South-West Arizona area, then the Los Angeles area, and then the Southern/Central San Joaquin Valley area. Our current goal is to complete our full-duplex link to Northern California. Shorty used to live in the San Francisco Bay Area, where he owned and operated several UHF repeaters and remote bases in the Bay Area in the 1960's and 1970's. Our goal is to get the Northern California Link up and running very soon. We are linking with Bill, WA6BZS, and his "Bovine Ridge" System covering Northern California. When the link is completed, it will be on full-time 24/7, hopefully stimulating conversations from many "teckies" in the Silicon Valley, and other conversations in surrounding areas. See the California Map for Site locations.

## **IS THE WIN SYSTEM A PRIVATE SYSTEM?**

No, the WIN System is not a "Private" or "Closed" System. It is also not a "Club." We like to think of it as a "Membership System" where the members support and help maintain the System. The System maintenance, Site rentals, and Site insurance, are where your dues go. They literally keep the WIN System "on-the-air." If a repeater breaks down, you will find that Shorty, and his volunteer maintenance supporters, will get it back on the air almost immediately. Everything wears out and breaks down once in a while, but things don't stay broken for long around the WIN System.

## **HOW MUCH ARE THE SYSTEM DUES?**

The WIN System dues are \$10 a month per family, or \$120 a year. We prefer that the dues be paid a year in advance, simply because we are not set up with a billing program to bill everyone every month. Plus, the deposit slips and trips to the bank would get way out of hand.

If you need some special provisions due to a hardship, we can most likely work something out. We have with other System members from time to time. It's not so much about the money as it is about the positive relationships we develop with one another through the WIN System. Of course, we must have

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the dues to keep the Site rents paid, and pay the other bills and expenses required for a state-of-the-art system of our size, and the dues is how we accomplish that.

## WHERE ARE THE WIN SYSTEM REPEATERS LOCATED?

The following is a listing of the WIN System repeaters, their mountaintops, their call signs, frequencies, and locations, elevations above sea level, and the nearest town or city.

### WIN SYSTEM REPEATERS

<u>Site Name</u>	<u>Call</u>	<u>Freq. (Offset) (PL)</u>	<u>Location (Near) Elevation + Tower Height</u>
Vista	K6JSI	448.80 (-) (127.3)	San Marcos Mtn (Vista), 1,671 ft + 133 feet
Palomar	K6JSI	449.08 (-) (127.3)	Palomar Mtn (Escondido), 5,550 ft + 50 feet
Otay	K6JSI	447.64 (-) (127.3)	Mt Otay (San Diego), 3,500 Ft + 120 feet
Santiago	K6JSI	448.06 (-) (127.3)	Santiago Peak (L.A.), 5,687 ft + 120 feet
Frazier	K6JSI	447.64 (-) (123.0)	Frazier Mtn (Bakersfield), 8,013 ft + 124 feet
Santa Rosa	K6JSI	448.90 (-) (100.0)	Santa Rosa (Palm Springs), 8,046 ft + 20 feet
Oat Mtn	K6JSI	445.88 (-) (100.0)	Oat Mtn (San Fernando Valley) 3,747 ft + 100 ft
Sunset Ridge	K6JSI	449.16 (-) (100.0)	(Pomona) 5,796 ft + 100 feet
*Toro Peak	K6JSI	To Be Coordinated	Toro Peak, (Palm Springs) 8,716 ft + 100 feet
*Monument Peak	K6JSI	447.02 (-) (127.3)	Monument Peak, 6,272 ft + 100 ft
*Elsinore Peak	K6JSI	To Be Coordinated	(Temecula) 3,575 ft + 100 feet
*Mt. Helix	K6JSI	To Be Coordinated	(La Mesa) 816 ft + 50 feet
*Black Mountain	K6JSI	To Be Coordinated	(Poway) 8,716 ft + 100 feet
*Mt. Rodman	K6JSI	To Be Coordinated	(Barstow-Baker)) 6,700 ft + 100 feet
*Tehachapi	K6JSI	448.80 (-) (100.0)	Tehachapi Mtns, about 6,500 ft

### AFFILIATED REPEATERS

Mt. Wilson	WA6ZSG	448.90 (-) (127.3)	Mt. Wilson (L.A.), 5,710 ft + 100 feet
Temecula	N6KZB	445.30 (-) (127.3)	Temecula Fire Station, 1,000 ft
Victorville	K6PNG	447.02 (-) (162.2)	Quartzite Mtn (Victorville) 4,622 ft
*High Potosi	TBD	ToBe Determined	Hi Potosi (Las Vegas) 8,500 ft
Joaquin Ridge	WA6BZS	441.625 (+) (127.3)	Joaquin Ridge (Coalinga, Fresno), 3,600 ft
Mt. Bullion	K6IXA	443.075 (+) (107.2)	Mt. Bullion, (Modesto, Yosemite) 4,500 ft
Mt. Vaca	WA6BZS	441.600 (+) (100.0)	Mt. Vaca (Sacramento), 2,650 ft
Vollmer Peak	WA6BZS	443.325 (+) (100.0)	Vollmer Pk (Oakland, San Francisco), 2,013 ft

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Loma Prieta	WA6BZS	441.625 (+) (100.0)	Loma Prieta (San Jose, Santa Cruz), 3,380 ft
Pine Hill	WA6BZS	441.625 (+) (94.8)	Pine Hill (East Sacramento), 2,037 ft
*St. Helena	WA6BZS	443.325 (+) (114.8)	Mt. St. Helena (Santa Rosa, Napa), 4,344 ft

## OPEN REPEATERS – NOT INTERTIED

Palomar (Zebra)	K6JSI	449.12 (-) (107.2)	Zebra, Open Repeater, <u>not</u> InterTied to System
*Palomar	K6JSI	145.28 (-) (123.0)	These three repeaters will be OPEN to all hams to use freely, and will be tied together 24/7, and they will also have their own IRLP Node, #349
*Palomar	K6JSI	224.44 (-) (123.0)	
*Palomar	K6JSI	445.30 (-) (123.0)	

\* = Planned soon

## Approximate Site Coverage's

**Vista:** Medium Level North County Site: 3 miles East of Vista: covers North San Diego County, including Vista, Oceanside, San Marcos, Escondido, Bonsall, Fallbrook, Rainbow, Carlsbad, Leucadia, Encinitas, Cardiff by the Sea, Solana Beach, Del Mar and parts of San Diego.

**Palomar:** High Level San Diego Site: 16 miles North-East of Escondido: covers most of San Diego County, especially North County. Our Major San Diego Site.

**Otay:** High Level San Diego Site: 19 miles South-East of downtown, 2½ miles North of Mexico: covers Downtown San Diego & the South Bay very well, and out east on I-8, and on the coast up thru Orange and L.A. Counties, and the coastal Ventura and Santa Barbara areas. It also covers well into Mexico, at least 2 hours drive time into the interior. Great Metropolitan San Diego Site.

**Santiago Peak:** High Level Los Angeles Site: 19 miles East of Santa Ana: covers most of Five Counties: Los Angeles, Orange, San Bernardino, Riverside and San Diego Counties. Our Major L.A. Site. This site covers more population than any other site in the State of California. It's awesome.

**Frazier Mtn:** Very High Level South San Joaquin & L.A. Site: 40 miles South of Bakersfield: this Site is amazing, it links L.A. with Northern California, and covers most of the high desert, Barstow, Victorville, Palmdale, Lancaster, Mojave and Tehachapi. It also covers I-5 and Hwy 99 north from Bakersfield, through Delano, Tulare, Visalia, Kingsburg, Selma, Fresno and beyond! ***It talks!***

**Santa Rosa:** Very High Level Desert Site: 14 miles South of Palm Desert, covers most of the desert, Palm Springs, Rancho Mirage, Thousand Palms, Indio, Twenty Nine Palms, out I-10 into Blythe and the Colorado River, and beyond into Arizona. It also covers some of the high desert areas of Victorville, Barstow, Baker, and most importantly, it will link us to Las Vegas.

**Oat Mtn:** Medium Level North-West L.A Site: 8 miles North of Canoga Park, this site is directly North of the San Fernando Valley, and has excellent coverage into Santa Clarita / Newhall, Simi Valley, Thousand Oaks, Ventura, Oxnard, and a lot of Ventura County.

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**Sunset Ridge:** High Level San Bernardino Area Site: 11 miles North of Pomona: covers most of Los Angeles, the San Fernando Valley, Orange County, South San Bernardino County and West Riverside County. Great suburban Los Angeles Site.

**Toro Peak:** Very High Level Desert Site: 14 miles South of Palm Desert, 2½ miles East-South-East of Santa Rosa, and 670 feet higher than Santa Rosa. Toro blocks Santa Rosa's coverage East to Yuma, AZ, El Centro, Brawley, Westmorland, and the Salton Sea areas, which will now be covered.

**Monument Peak:** High Level East San Diego Site: 2 miles North of Mt. Laguna, 48 miles West of El Centro, and 105 miles West of Yuma, Arizona: covers east San Diego County, Imperial County, El Centro, Brawley, the Salton Sea, Blythe, Yuma, AZ and the Anza-Borrego desert area.

**Elsinore Peak:** Medium Level Riverside County Site: 3 miles South of Lake Elsinore, covers out to Corona on the North, Temecula on the South, and Hemet on the East. Great Santiago Fill-In Site.

**Mt. Helix:** Low Level San Diego County Site: 11 miles East of downtown San Diego, a great Fill-In Site, covering San Diego, La Mesa, Spring Valley, El Cajon, Lemon Grove and the South-East areas.

**Black Mountain:** Medium Level San Diego County Site: 18 miles North of San Diego, covers Rancho Santa Fe, Escondido, Rancho Bernardo, Poway, Mira Mesa, Miramar, and San Diego.

**Mt. Rodman:** High Level Desert Area Site: 28 miles South-East of Barstow, covers I-15 between Victorville and Mountain Pass on the drive between San Bernardino and Las Vegas. Good coverage into Victorville, Barstow, Baker and Mountain Pass.

## **Other systems the K6JSI System is (or will be) linked with**

**WA6ZSG**, Charles Krinke WA6LWB, and the Southern California UHF Society, is linked with us most of the time. Their box has been on Mt. Wilson for over 30 years. They inter-tie back to Santiago.

**Mt. Wilson:** High Level Los Angeles Site: 16 miles North-East of L.A., covers most of Los Angeles, Orange, San Bernardino and Riverside Counties, and it is where virtually all of the L.A. TV & FM broadcast stations are located. It is the best coverage site for L.A, period!

**To Be Determined Affiliate:** We are working with an affiliate to cover the Las Vegas area.

**High Potosi:** Very High Level Desert Site: 27 miles South-West of Las Vegas, covers I-15 from Barstow to just before St. George, Utah, including Las Vegas, Pahrump, Henderson, Boulder City and parts of Lake Mead.

**K6PNG**, Ray Retzlaff in Victorville is the owner of the Quartzite repeater, which is linked in full-time to the WIN System. It is the first repeater in the new link going up to Las Vegas.

**Quartzite:** Medium Level High Desert Site: 6 miles North of Victorville, this Site provides excellent coverage throughout the High Desert and up I-15 through Barstow.

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**WA6BZS**, Bill Hudson, Sacramento, California. Bill owns the Mt. Vaca, Joaquin Ridge, Vollmer Peak and Loma Prieta Systems. Bill is also extending his Northern California System to Lake Tahoe. We are also putting up a repeater on Mt. St. Helena, near Santa Rosa, where Shorty started with his first UHF repeater and remote base he built in 1965. That was before repeaters were “cool.”

**Joaquin Ridge:** High Level Central San Joaquin Valley Site; 43 Miles West-South-West of Fresno, covers Buttonwillow, Delano, Earlimart, Pixley, Porterville, Kettleman City, Corcoran, Tulare, Visalia, Hanford, Lemoore, Coalinga, Dinuba, Selma, Sanger, Fresno, Clovis, Madera, Chowchilla, Los Banos, and Merced.

**Mt. Bullion:** High Level North-Central Valley Site; 30 Miles East-North-East of Merced, near the entrance to Yosemite National Park, covers Visalia, Fresno, Madera, Merced, Atwater, Turlock, Modesto, Tracy, Stockton, Lodi, Galt and South Sacramento.

**Mt. Vaca:** Medium Level Sacramento Site; 35 Miles West-South-West of Sacramento, covers Sacramento, Lodi, Stockton, Modesto, Santa Rosa, Napa, San Francisco, Concord, Marysville, Yuba City, and Placerville.

**Vollmer Peak:** Medium Level East Bay Site; 5 Miles East of Oakland / Berkeley, covers all of the East Bay (Oakland, Berkeley, San Leandro, Alameda, Richmond, etc.) as well as San Francisco, San Rafael, San Bruno, Millbrae, Burlingame, Hillsborough, Foster City, San Mateo, Belmont, San Carlos, Redwood City, Palo Alto, Atherton and the West Bay.

**Loma Prieta:** High Level San Jose / Santa Cruz Site; 13 Miles North-East of Santa Cruz, covers the San Francisco Bay Area, San Jose, Sunnyvale, Santa Clara, Cupertino, Los Altos, Campbell, Milpitas, as well as Santa Cruz, Monterey, Carmel, Salinas and King City.

**Pine Hill:** Medium Level Sierra Mtn Site; covers Roseville, Auburn, Sacramento, Davis, Woodland, Vacaville, Fairfield, Lodi, Stockton, Manteca, Tracy and most of Modesto.

**Mt. St. Helena:** High Level North Bay Area Site; 15 Miles North-East-North of Santa Rosa, (between Santa Rosa and Clear Lake). St. Helena routinely talks to Napa, Healdsburg, Cloverdale, Ukiah, Chico, Redding, Eureka and Southern Oregon.

## **CAN I TRY THE WIN SYSTEM BEFORE JOINING?**

Yes! We encourage folks to get on the WIN System, and try us on for size. We call it “Window Shopping.” While many Closed UHF repeaters literally kick new folks off, we don’t. Also, instead of requiring you to pay your dues first, before you can talk on the System, we feel that you can’t tell if you even want to be involved with a group before you use it, and see if it makes a good “fit” for you. We welcome all licensed amateurs to join in and have some fun on the WIN System. Get to know us by Window Shopping for a while. After a few weeks, if you like what you hear, we’ll go on from there. A System like ours must be supported by its members to exist. Without you, it simply won’t work.

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## WHAT TYPE OF EQUIPMENT IS THE WIN SYSTEM USING?

The WIN System is using state-of-the-art, completely solid-state equipment. Most of the repeaters are commercial GE and Motorola units. Our average UHF repeater power output is 50 watts out of the cabinet. All of our repeaters use two antennas (not duplexers), one antenna for receive at the top of the tower, and another for transmit mounted lower on the tower. All of our repeaters use dual-stage ferrite isolators and pass cavities on the repeater output, so we can be good neighbors to other users on our mountaintop communications sites. Most of our Sites have stand-by power. We have removed our auto-patches, because with cell-phones, our auto-patches are not really used.

Shorty built the WIN System with portable radios in mind. Getting a repeater to talk is not a difficult thing to do on a high-level mountaintop location. Getting a repeater to **HEAR** is the trick. That is why the WIN System has spent the extra money to run two antennas and feed lines at every Site. It gives the repeater the maximum possible ability to hear. It is the way virtually all commercial and cellular repeater Sites operate. You will find that you can usually "get into" the WIN System! It hears!

## ARE THERE CLUB MEETINGS OR NETS?

The WIN System does not have any Club Meetings, because we're not a Club. We've never been comfortable with Nets either. We simply enjoy one another. We do have a System Breakfast every month, which is on the second Saturday of the month. We meet at the Sizzler Family Steakhouse on Escondido Blvd, just North of Valley Parkway, in Escondido. Our Breakfast begins at about 9:00 AM. It is an all you can eat Buffet, and they serve until about 11:00 AM. At that time, Shorty usually gets up and gives a "State of the WIN System" report. Then we generally go out to the parking lot, and ratchet-jaw for another hour or so. You do not have to be a WIN System member to attend. We usually have between 40 and 60 folks in attendance each month, but we have had well over 100 in attendance. It's a great social event, and not strictly "Ham related," so please feel free to bring other family members, most of us do.

We also have a WIN System Summer "Pool Party or Picnic at the Beach" every July, and a special "Christmas Breakfast" every December. Finally, we have an "End of Summer Camp Out" in late September, alternating between the Bay Area and San Diego. Up North, we go to Tower Park Marina, on the Sacramento Delta, and boat the weekend away. Down South, we go to Campland on the Bay at Mission Bay in San Diego. There is great boating and water sports there as well. If you enjoy family camping, this event is for you. Great camaraderie and fellowship for the whole family.

## HOW DO THE COURTESY TONES WORK?

There are many telemetry tones used on the WIN System, and they all have a purpose.

When you (or someone else) keys up your local repeater you will normally hear a two-tone "Be-Bop" (high pitch tone followed by a low pitch tone) as a courtesy tone, about two seconds after the un-key. This telemetry tells you that you are making your local repeater.

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As in above, when you hear the "Be-Bop" courtesy tone after someone else un-keys, you know the source was the *same repeater* in the InterTie System that you are listening to.

When you hear no telemetry tones at all after a signal un-keys, you know that the signal originated somewhere else in the InterTied System, and not from the repeater you are listening to, and the possibilities are: 1) another repeater down the link, not your repeater; 2) from a Remote Base on the repeater you are listening to if your repeater has a Remote Base; 3) from a Remote Base down the link, followed by a squelch tale with a double click; 4) from the IRLP. On Remote Base's not on the repeater you are listening to, notice the squelch tail on the Remote Base signal, it kind of has a double click to it. On the UHF repeaters, you usually don't hear a squelch tail, or the double click, unless the station is less than 20dB of quieting into the repeater.

## **HOW DO THE LINKS WORK?**

The WIN System uses radio links to connect the individual repeaters together (Intertie, or Link them together). The radio links are full duplex, meaning you can transmit and receive at the same time. Also, see the attached WIN System Map, which shows how the repeaters are tied together.

Because the links are full duplex, the audios will mix between repeaters. One of the fun things we do on the WIN System is to "Duplex" with each other, which means we use a second radio (a handheld usually) to listen to ourselves on the output of the repeater. That way, we can hear if someone is talking behind our back, or underneath us. It is a lot of fun, and creates many stimulating conversations, and a lot of good-natured comedic situations, especially if someone is not duplexing.

## **DOES THE WIN SYSTEM HAVE TIME-OUT TIMERS?**

Yes we do. They are set for 60 minutes, or one hour (thanks to Myron, WB6TUG). You don't have to worry about getting caught by the timer. Unless you're REALLY long winded.

## **IS THERE PL ON REPEATER OUTPUTS?**

None of the WIN System repeaters transmit PL on the repeater output. However, the Controllers do pass the PL tone from the repeater user through the repeater, but not down the links. So, if you hear another member come up on the same repeater you are listening to, you will hear their PL come through the repeater. But, the PL tone you hear is coming from the other member, not from the WIN System repeater transmitter. We don't re-generate PL on the repeater outputs.

## **WHAT KIND OF "TOYS" DOES THE WIN SYSTEM HAVE?**

The WIN System has many "Toys." And we enjoy them all to the fullest.

It should be stated here that the Toys are second in priority to the intertie WIN System traffic. We don't want the Toys to interfere with the regular WIN System use by its members. The priority is WIN System UHF repeater traffic first, and then the Toys traffic second.

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If one of our Remote Base's is up you can usually "talk over" the Remote Base that is up. Please be courteous when talking over one of the Remote Bases, but understand that the UHF System traffic is the top priority on the WIN System. The member who is using the Remote should know this too.

Quite often you will hear a member "pulling away" a repeater site, in order to play with one of the Toys, without tying up the entire WIN System. This means that whatever is done with the Toy will be heard only on that local repeater, and not through the entire WIN System. When the member is finished playing, they will return the repeater to the WIN System grid. Now, on to our "Toys."

**First, our Remote Bases.** At this time we have Remote's at two Sites, with a third coming on line soon.

**Palomar Mountain and Frazier Mountain Remote Bases.** We have six (6) Remote Base radios on the following bands at both Palomar and Frazier:

10 Meters (28.000 to 29.995 MHz)	220 MHz (222.000 to 224.995 MHz)
6 Meters (50.000 to 53.995 MHz)	440 MHz (440.000 to 449.995 MHz)
2 Meters (144.000 to 147.995 MHz)	1200 MHz (1240.000 to 1299.995 MHz)

All Remote Base Radios are FM (Frequency Modulation) radios.

All Remote Base Radios are frequency synthesized, and can go to any frequency in 5 KHz steps.

All Remote Base Radios have the normal transmitter offsets if we want to use a repeater.

All Remote Base Radios can also generate all the normal PL tones to access a repeater.

**Monument Peak Remote Base.** When we re-install our Monument Peak repeater, we are planning to install a Remote Base there as well. It will be the same as the above two Remote Bases, with the exception of the 1200 MHz band. Because of the high-power 1200 MHz radar station co-located with us on Monument Peak, we will not be able to run the 1200 MHz Remote Base radio.

**Next, is our IRLP Link.** IRLP stands for the Internet Radio Linking Project. VE6RGP, Ron, in San Diego, has prepared our IRLP System, and a LINUX based computer, to work on the Cable Modem High-Speed Internet connection at my house, which allows us to connect to the IRLP System.

This IRLP System is a computer-linked network allowing the WIN System to connect our San Diego IRLP Node, in real-time audio, to any other IRLP Node (over 437 Nodes now). Then, all other IRLP Nodes are then connected to amateur radio repeaters. There are IRLP Nodes all across Canada, from Vancouver on the West Coast, to Newfoundland on the East Coast (The Father/Inventor of the IRLP is VE7LTD, Dave Cameron, who lives in Vancouver, BC, Canada)

In addition, there are new Nodes popping up all over. Besides the WIN System Node in San Diego, there are Nodes in Alabama, Alaska, Arizona, California, Colorado, Connecticut, Washington, D.C., Florida, Georgia, Hawaii, Iowa, Idaho, Illinois, Indiana, Kentucky, Louisiana, Massachusetts, Maryland,

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Maine, Michigan, Missouri, Montana, North Carolina, Nebraska, Nevada, New Hampshire, New Jersey, New York, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, and Wisconsin. There are also Nodes in Antarctica, Australia, Barbados, Dominica, Ecuador, England, Japan, Netherlands, New Zealand, Scotland, South Africa, Sweden, and Trinidad, Whew! And, the list is growing every day with new Nodes. There have been inquiries about the IRLP from the Honduras, Philippines, Hong Kong, and Finland. This is an exciting part of the WIN Systems activity. If you haven't heard our WIN System IRLP in operation yet, you're in for a real treat.

## WHAT RULES, OR GUIDELINES, SHOULD I FOLLOW?

There are very few "Rules" on the WIN System. As you will no doubt find out, we're a pretty "laid back" and "come as you are" group. We do, however, want folks to follow these general guidelines:

1. Treat others as you would like them to treat you.
2. Be courteous to others, even if you're right and they're wrong.
3. Don't say negative things about other folks, or other groups.
4. At **no time** will profanity, lewd language or distasteful behavior be permitted on the System.
5. If you hear jamming, or in-appropriate activity on the System . . . **Don't talk about it on the air!** That's just what jammers want . . . **recognition!** The accepted way of dealing with jammers is to **ignore them!** Sign clear and go away. Without recognition, they'll tire and stop soon, and you can continue.

## ARE THERE TRAINING CLASSES?

Yes. Every three months, or every Calendar Quarter, Shorty holds a "Controller Class" to instruct members how to use and control the WIN System. Controller Classes are held on the third Saturday of the first month of every Quarter. That means they are held on the third Saturday of January, April, July and October. They are held alternately between Orange County and North County San Diego.

The Controller Class usually begins at 9:00 AM and runs through 1:00 PM. It is an intense four hours of instruction. Coffee, Orange Juice, Danish & Breakfast Rolls and Fruit are provided (as well as the famous "infamous" Blueberry Muffins). Afterwards, if there is time, Shorty usually takes those who have an interest to a WIN System repeater site, to see first hand what a repeater looks like, and how it operates.

One of the things Shorty goes over is how the WIN System achieves the incredibly clear audio throughout the System. When Shorty designed and built the WIN System, one of the driving forces was (and still is) having the clearest audio possible. The WIN System takes great effort to keep all the audio perfectly flat across the audio passband, which keeps the WIN System sounding great!

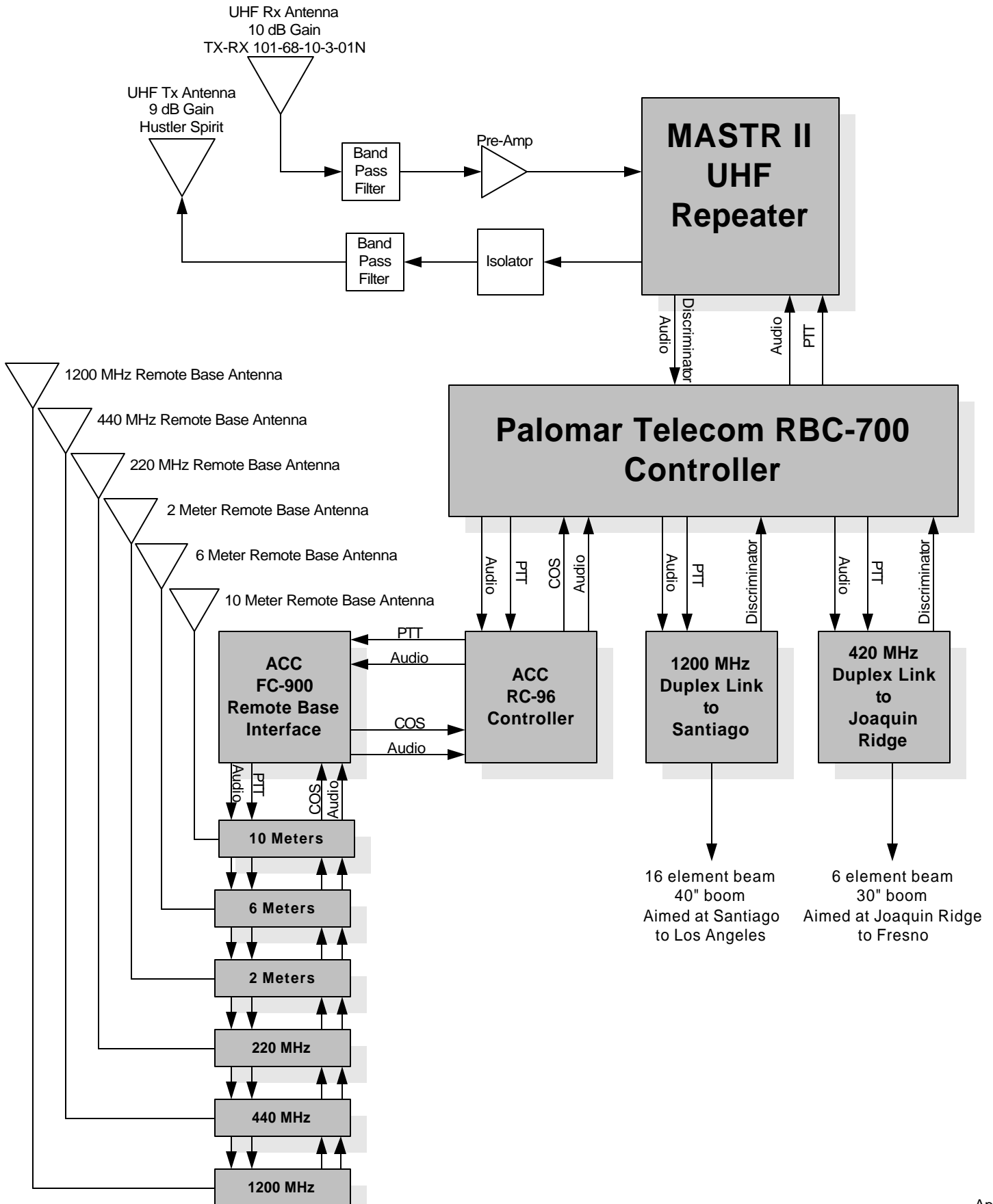
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At the Controller Class Shorty usually discusses an extra topic of interest to System members. He will also answer any technical or operational questions you may have about the WIN System, or radio in general, at the class. Attendance usually ranges from 25 to 60 folks. The Controller Class is attended by many repeat attendees, as the subject matter is constantly changing on the WIN System, as we add more and more goodies to the System. Most folks who have attended say that if you make the effort to attend one of the Controller Classes, you will be vary happy you did.

# WESTERN INTERTIE NETWORK

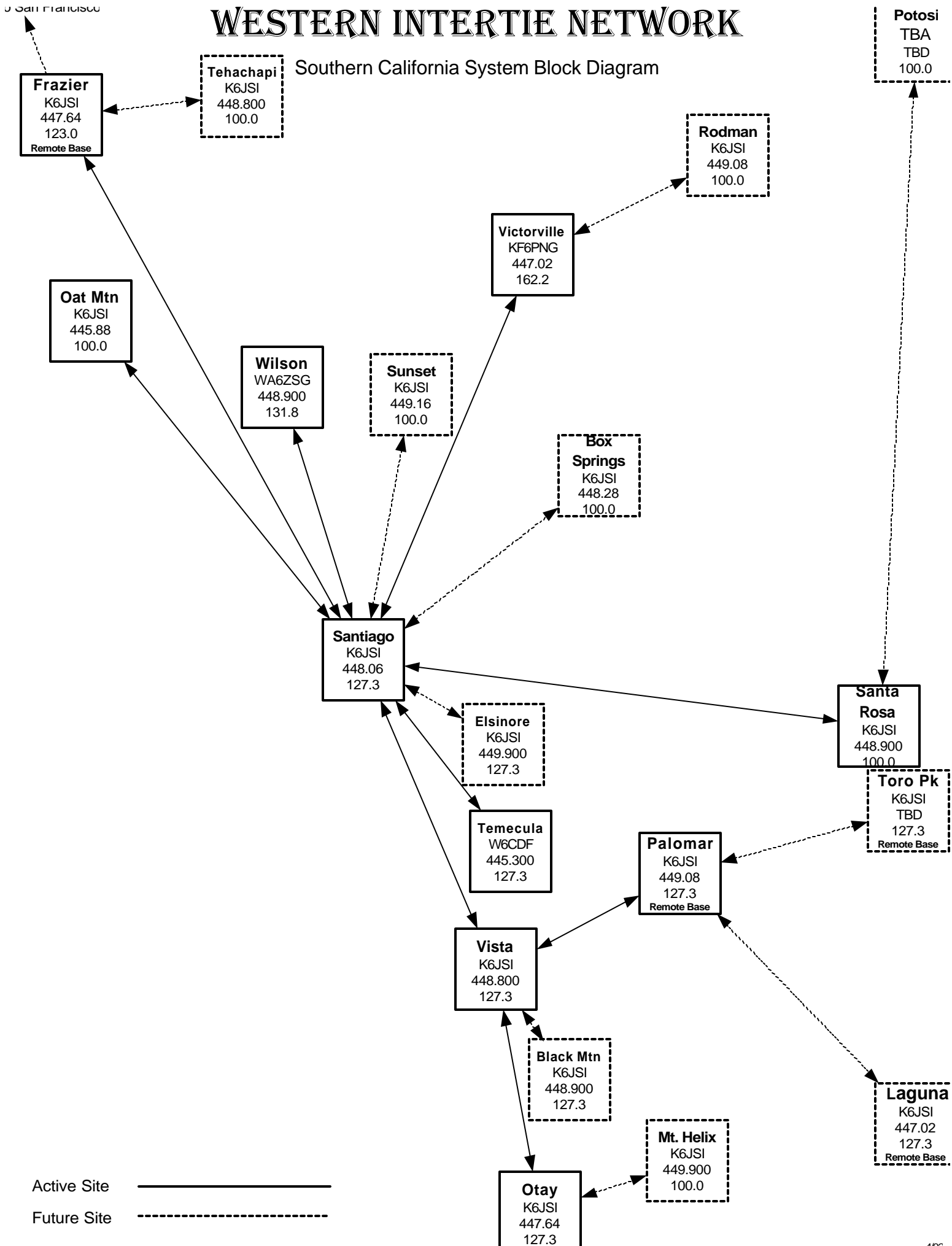
2040 Hawley Drive, Vista, CA 92084 760/ 724-4020

## System Block Diagram Frazier Peak



# WESTERN INTERTIE NETWORK

Southern California System Block Diagram





# *Roster Cover Page as of Thursday, June 13, 2002*

<b>A</b>		<b>N6DG</b>	Fred - Del Mar	<b>KG6GUM</b>	Scott - San Diego
<b>KG6ACJ</b>	Bill - Huntington Beach	<b>KG6DKV</b>	Evelyn - Chula Vista	<b>KG6GVF</b>	Tom - Juniper Hills
<b>KD6ACV</b>	John - Chula Vista	<b>WA6DNT</b>	Bruce - San Diego	<b>K6GVG</b>	Dr. Roy - Bonsall
<b>AD8AD</b>	Ron - Moorpark	<b>K6DRH</b>	Doan - San Diego	<b>K6GVM</b>	Lyell - Rancho Santa Fe
<b>KC6AFE</b>	Johnna - San Diego	<b>KE6DWH</b>	Barbara - Wildomar	<b>H</b>	
<b>KE6AFI</b>	Cindy - Lake Elsinore	<b>NA6DX</b>	Roger - San Diego	<b>KG6HBG</b>	Ken - San Marcos
<b>NH6AG</b>	Sally - Simi Valley	<b>N6DZL</b>	Lee - Santa Ana	<b>KF6HBM</b>	Rich - Oceanside
<b>KC9AJY</b>	Bob - San Diego	<b>KD6DZQ</b>	Mike - Rancho Cucamonga	<b>KF6HBU</b>	Roger - San Diego
<b>N6ALA</b>	Kenny - Escondido	<b>E</b>		<b>KG6HCF</b>	Jake - Riverside
<b>W6AMH</b>	Alan - California City	<b>KF6ECP</b>	Robert - Los Alamitos	<b>W6HIM</b>	Bob - San Juan Capistrano
<b>KG6ANX</b>	Rod - Aguanga	<b>KF6EFN</b>	Carol - Escondido	<b>K6HMY</b>	Jay - Orange
<b>KG6APU</b>	Delisa - Long Beach	<b>KG6EGD</b>	Pat - Victorville	<b>K6HPD</b>	Bob - Encino
<b>N6AQH</b>	Ray - Frazier Park	<b>WB6EGR</b>	Kirk - Santa Clarita	<b>N6HPP</b>	Chris - Tehachapi
<b>KG6ARV</b>	Phil - Vista	<b>KD6EJY</b>	Kevin - San Juan Capistrano	<b>KG6HSS</b>	Tom - San Diego
<b>KN6AV</b>	Phillip - Anza	<b>W6EMS</b>	Jun - Buena Park	<b>KG6HWQ</b>	Ian - Lake Elsinore
<b>KF6AVQ</b>	Sherwood - Los Angeles	<b>KC6ENB</b>	Matt - Costa Mesa	<b>WA6HWW</b>	Bob - Long Beach
<b>KG6AZT</b>	John - Crestline	<b>K6EO</b>	Elliot - Tehachapi	<b>I</b>	
<b>B</b>		<b>KG6EPF</b>	Brent - Encino	<b>KS6I</b>	Irene - Tehachapi
<b>NA6B</b>	Mike - Buena Park	<b>N6EQ</b>	Chuck - Corona	<b>WA6ILQ</b>	Mike - Arcadia
<b>KG6BAO</b>	Kerry-Lake Elsinore	<b>KG6EQK</b>	Charlie - Victorville	<b>KG6INK</b>	David - Seal Beach
<b>KF6BBL</b>	Bill - La Mesa	<b>KE6EQW</b>	Mason - Temecula	<b>WA6IPZ</b>	Allen - Chula Vista
<b>KG6BJD</b>	Ken - Bakersfield	<b>N6EVE</b>	Evelyn - National City	<b>KG6IST</b>	Scott - Desert Hot Springs
<b>W6BK</b>	David - Murrieta	<b>KF6EWT</b>	Bill - Poway	<b>KE6IYM</b>	Bobbi - Costa Mesa
<b>WBOBMY</b>	Karl - Vista	<b>KA6EXG</b>	Linda - San Marcos	<b>J</b>	
<b>KG6BNE</b>	Pat - Chula Vista	<b>WB6EZH</b>	Roland - San Luis Obispo	<b>WA6JAA</b>	Robert - San Diego
<b>WB6BOD</b>	Glenn - Escondido	<b>F</b>		<b>WB6JAR</b>	Bill - Wildomar
<b>KG6BRC</b>	Larry - North Hollywood	<b>KC3FH</b>	Glen - Campbell	<b>KG6JCW</b>	Mike - San Diego
<b>K6BWL</b>	Brett - Bakersfield	<b>KE6FHR</b>	Rich - Vista	<b>KF6JEE</b>	"Perk" - Riverside
<b>C</b>		<b>KG6FIV</b>	Craig - San Diego	<b>W6JFD</b>	John - Carlsbad
<b>K6CEG</b>	Chuck - Oceanside	<b>WA0FMB</b>	Jim - Los Angeles	<b>KG6JJI</b>	Nancy - San Diego
<b>KE6CGR</b>	Sway - Costa Mesa	<b>KD6FNJ</b>	Joyce - Buena Park	<b>KG6JJM</b>	June - San Diego
<b>WB9COY</b>	Gene - Temecula	<b>KG6FOS</b>	Bruce - Bakersfield	<b>KD6JJO</b>	Tony - Long Beach
<b>WH6CPT</b>	Chris - Simi Valley	<b>KG6FOT</b>	Linda - Frazier Park	<b>KC6JNH</b>	Hughes - North Hollywood
<b>KG6CTP</b>	Mike - Valley Center	<b>KD6FPJ</b>	Brandi - Frazier Park	<b>KE6JPJ</b>	Steve - Murrieta
<b>KC4CUX</b>	Jerry - Menifee	<b>ND6FPK</b>	Billie - Frazier Park	<b>K6JSI</b>	Shorty - Vista
<b>KF6CUZ</b>	Kenny - Upland	<b>KG6FST</b>	Jim - Santa Ana	<b>N6JVJ</b>	Carol - Encino
<b>KG6CVP</b>	Anne - Murrieta	<b>KG6FWO</b>	Randy - Escondido	<b>K</b>	
<b>KG6CXP</b>	Dick - Bonsall	<b>KD6FY</b>	Scott - San Diego	<b>K4KCL</b>	Don - Riverside
<b>KG6CXQ</b>	Mike - Cardiff By The Sea	<b>G</b>		<b>KD6KJF</b>	Thomby - Buena Park
<b>N1CY</b>	Hassan - Santa Ana	<b>KE6GNB</b>	Scott - Riverside	<b>KG6KRG</b>	Sherry - Venice
<b>D</b>		<b>KF6GOA</b>	Jay - Chula Vista	<b>W6KRG</b>	Jason - Mission Viejo
<b>KG6DA</b>	Mike - Fresno	<b>K6GSG</b>	Rich - El Cajon	<b>N9KSP</b>	Ken - San Jacinto
<b>KD6DCF</b>	Dan - San Diego	<b>WB6GSN</b>	Gary - Poway	<b>KD6KTX</b>	Paola - Anza
<b>WA6DET</b>	Howard - Palos Verdes	<b>N6GSO</b>	Russ - Orange	<b>KG6KYS</b>	Edmond - Westminster
<b>KB6DEX</b>	Lisa - Temecula	<b>KG6GUL</b>	Nathan - San Diego	<b>N6KZB</b>	Mike - Temecula

<b>KG6KGN</b>	Caren - Desert Hot Springs	<b>N6QVE</b>	Steve - Riverside	<b>N6UFX</b>	Marc - Winnetka
<b>L</b>		<b>KF6QZY</b>	Paige - Upland	<b>KE6URR</b>	Dwight - San Diego
<b>N6LGT</b>	Kent - Temecula	<b>R</b>		<b>KF6USK</b>	Gus - Pasadena
<b>WA6LWB</b>	Charles - Irvine	<b>W0RDG</b>	Reed - Riverside	<b>N6UYL</b>	Dennis - El Cajon
<b>WB6LYY</b>	Marty - San Jacinto	<b>KF6REV</b>	Betty - Ramona	<b>V</b>	
<b>KF6LZN</b>	Don - Hesperia	<b>NORFX</b>	David - San Diego	<b>WQ6V</b>	Larry - Hidden Meadows
<b>M</b>		<b>VE6RGP</b>	Ron - San Diego	<b>KF6VGZ</b>	Craig - Escondido
<b>W6MFE</b>	Jim - Fontana	<b>NGRGZ</b>	Greg - Carlsbad	<b>KF6VHA</b>	Curt - San Marcos
<b>KA6MOE</b>	John - Bakersfield	<b>WB9RKN</b>	Roy - San Diego	<b>KF6VIJ</b>	Kathryn - Valley Center
<b>N6MOM</b>	Christine - Mission Viejo	<b>K6RKW</b>	Ron - West Hollywood	<b>NA6VMS</b>	Ricky - Simi Valley
<b>KE6MRX</b>	Jim - Valley Center	<b>KF6RNG</b>	Cesar - Wilmington	<b>AC6VN</b>	Harm - Temecula
<b>N</b>		<b>KA6RUV</b>	Sam - Mission Viejo	<b>N6VS</b>	Leon - Escondido
<b>KC6NDC</b>	Steve - Englewood	<b>K6RVR</b>	Frank - San Diego	<b>KD6VTP</b>	Walt - Riverside
<b>KF6NFZ</b>	Christopher - Poway	<b>K6RYA</b>	Howard - San Diego	<b>W</b>	
<b>K8NG</b>	Mac - Canyon Lake	<b>KF6RYT</b>	Mike - San Clemente	<b>KD6WDM</b>	Linda - Vista
<b>KF6NGX</b>	Dawn - Laguna Niguel	<b>KF6RYU</b>	Jeff - San Clemente	<b>K8WEN</b>	Jack - San Diego
<b>W6NIT</b>	Ron - Laguna Niguel	<b>S</b>		<b>N6WI</b>	Terry - La Habra
<b>KC7NP</b>	Rob - Riverside	<b>KF6SAA</b>	Mary - North Hollywood	<b>W6WJD</b>	Chris - San Diego
<b>KJ7NT</b>	Jim - Lake Elsinore	<b>KF6SIX</b>	Chuck - Long Beach	<b>N6WJQ</b>	Craig - Fallbrook
<b>KE6NTM</b>	Pat - La Habra	<b>KB9SMF</b>	Sue - San Jacinto	<b>KE6WKU</b>	Young Jerry - Sprng Vly
<b>KA6NVY</b>	Jon - San Diego	<b>WB6SUB</b>	Trevor - Pine Mtn. Club	<b>KF6WTO</b>	Michelle - Carlsbad
<b>W6NXS</b>	Hank - San Diego	<b>KF6SXY</b>	Nanette - San Rafael	<b>KF6WZU</b>	Tricia - Phoenix
<b>KE6NXY</b>	Tom - San Diego	<b>T</b>		<b>X</b>	
<b>O</b>		<b>NZ6T</b>	Tuck - National City	<b>AC6X</b>	Richard - LaHabra
<b>KF6OOK</b>	Rick - Bellflower	<b>K6TAV</b>	Tom - Fountain Valley	<b>N6XT</b>	Ron - Hemet
<b>KF6OOL</b>	Shawn - Long Beach	<b>N6TAZ</b>	Justin - Mission Viejo	<b>Y</b>	
<b>KQ6OS</b>	Norm - Wildomar	<b>KE6TBO</b>	Michelle - Bakersfield	<b>KF6YB</b>	Oscar - La Mesa
<b>N0OVS</b>	Rick - Simi Valley	<b>KE6TBS</b>	Pat - Bakersfield	<b>W6YLZ</b>	Mike - Winnetka
<b>P</b>		<b>KB6TEQ</b>	Dr. Jerry - Spring Valley	<b>N6YPT</b>	Dr. David - Spring Valley
<b>W6PC</b>	Mark - Vista	<b>KA1TGW</b>	John - San Diego	<b>KQ6YR</b>	Rich - Culver City
<b>K6PCW</b>	Pete - Newbury Park	<b>N6TIL</b>	Kevin - Canyon Country	<b>KE6YRU</b>	Bobby - Oceanside
<b>KH6PD</b>	Bob - Encino	<b>AC6TK</b>	Jim - Yucaipa	<b>WB6YSW</b>	Ward - Wildomar
<b>KA6PEG</b>	Peggy - Escondido	<b>KF6TMZ</b>	Pattie - Spring Valley	<b>Z</b>	
<b>KF6PJE</b>	Dorothy - Riverside	<b>N6TTI</b>	Cheri - Orange	<b>KF6ZKO</b>	James - La Habra
<b>KQ6PK</b>	Troy - Valley Center	<b>KF6TTT</b>	Brandon - Cardiff	<b>KF6ZKP</b>	Isabell - La Habra
<b>W6PL</b>	Rich - San Rafael	<b>N6TTY</b>	Don - Orange	<b>WA6ZMK</b>	Tim - Escondido
<b>KF6PNG</b>	Ray - Victorville	<b>WB6TUG</b>	Myron - Ramona	<b>KC6ZRV</b>	Ted - San Diego
<b>KF6POI</b>	Lee - Vista	<b>KE6TYC</b>	Lyla - Menifee	<b>K7ZYA</b>	Tom - La Habra
<b>N6POP</b>	Rick - Culver City	<b>WA6TYX</b>	Barbara - Riverside	<b>KF6ZYH</b>	Larry - San Diego
<b>KG6PZW</b>	Bruce - Long Beach	<b>KE6TZR</b>	Clay - Midway City	<b>K5ZYX</b>	Steve - Dallas, TX
<b>Q</b>		<b>K6TZR</b>	Bill - San Diego	<b>No License Yet</b>	George - El Cajon
<b>KF6QBW</b>	Jim - Phoenix	<b>U</b>			
<b>WB6QHD</b>	Gary - Tehachapi	<b>KF6UFX</b>	Steve - Oceanside		
<b>KF6QHR</b>	Ed - Point Loma	<b>K6UGS</b>	Ian - Palmdale		
<b>KB6QJK</b>	Virginia - Buena Park	<b>KC6UHZ</b>	Debra - San Luis Obispo		
<b>WA6QQT</b>	Jim - Chula Vista	<b>KE6UNI</b>	Ron - Simi Calley		

# WESTERN INTERTIE NETWORK

2040 Hawley Drive, Vista, CA 92084

Phone: Day: 760/ 724-7833 Eve: 760/ 724-4020 Fax: 760/ 758-7914

## MEMBERSHIP APPLICATION

Name \_\_\_\_\_ Call Sign \_\_\_\_\_

Spouse \_\_\_\_\_ Call Sign \_\_\_\_\_ Relative \_\_\_\_\_ Call Sign \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ ZIP \_\_\_\_\_

Phone (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ E-Mail \_\_\_\_\_ Occupation \_\_\_\_\_

Work Name \_\_\_\_\_

Work Address \_\_\_\_\_ City \_\_\_\_\_ Phone \_\_\_\_\_

Family application? List other family Hams \_\_\_\_\_

How long have you been listening to System \_\_\_\_\_ Which Sites \_\_\_\_\_

System members who know you \_\_\_\_\_

Approximate age \_\_\_\_\_ Year licensed and Class \_\_\_\_\_, \_\_\_\_\_

Other Systems you belong to, or frequent regularly \_\_\_\_\_

System help you're willing to perform \_\_\_\_\_

Your UHF equipment \_\_\_\_\_

Do you work any of the bands on the Remote Bases? If so, which bands \_\_\_\_\_

Brief Bio of your ham radio background/experience \_\_\_\_\_

Comments \_\_\_\_\_

Submitted by: \_\_\_\_\_ Call Sign: \_\_\_\_\_ Date \_\_\_\_\_

The information submitted above will be included in the WIN SYSTEM Roster, which is distributed to all WIN SYSTEM Members. If you do not want specific information included in the WIN SYSTEM Roster, leave the appropriate line blank. This info does not go to anyone outside the WIN System.

Submit with the first years dues (\$120) to: The WIN System, c/o: Jeff (Shorty) Stouffer, K6JSI  
2040 Hawley Drive, Vista, CA 92084