

# SUNSPOTS

REDWOOD EMPIRE DX ASSOCIATION

P.O. Box 750834, Petaluma, CA 94975

A DX and Contest-minded Amateur Radio Club serving the California coast north of the Golden Gate Bridge

Volume 39

Number 4

April 2018

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Visit our Web Site at <http://www.redxa.com/>

## MEETING ANNOUNCEMENT

Wednesday, April 14 at Boulevard Café & Grill, Petaluma. If you need directions please call one of the club Officers

6pm— Social Hour in the Lounge  
7pm — Dinner and Meeting  
8pm -- Program

Program: a mixture of videos, awards (from the recent NCCC awards meeting) and brainstorming future presentations.



## REDXA President's Commentary

This month's presentation is pretty much TBA. People are getting ready for Visalia, and after that for Dayton. Come anyhow. You'll have a good time.



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**More historical QSLs** **KV4AA (sk)** was the DX editor for CQ Magazine . I was in the 8th grade at Edna Maguire School in Mill Valley when I made this QSO. **W6KG (sk)** was Colonel Lloyd Colvin who, along with XYL Iris , **W6QL (ks)** activated many DXCC counters. The Colvins had a real estate business in the East Bay.

Traveling east on I-580, just before the Golden Gate Fields race track, you can look off to the east and see one of the Colvins' antennas—a full-sized 20 M yagi —on a rotating tower (rusted and frozen in place.).

**ST. THOMAS, VIRGIN ISLANDS U.S.A., BOX 403**  
 DXCC - FOC      DX EDITOR CQ MAGAZINE      EX-K4AN '27-41

# KV4AA

TO RADIO *K6SRZ*      ON 1.8-3.5-7      Your Card Rec'd  
 CONFIRMING OUR CW      (14) 21-27-28 MCS      Thanks and 73's  
 RADIO CONTACT OF      AT      AST      *Dick*  
 RST *579*      *5.31 1957*      1909      GMT      DICK SPENCELEY  
 YOUR TIME

Dick Spencely operated from the U.S. Virgin Islands from 1927 until 1982 when he became a silent key. At one point, KV4AA sat at the top of the DXCC Honor Roll.

RADIO *K6AYA*      P.O. BOX 30  
 This confirms our QSO of *2 Apr 1958*      **ALAMEDA, CALIFORNIA**  
*0615* GMT, on *14* MC.      **U.S.A.**

RST *569*      Phone - *CW*

PREVIOUS CALLS	AWARDS	MEMBER	VISITED
W6TG	WAC (19 MINS)	MARS	ALL 48 W STATES, ALL 8 VE DISTRICTS,
F8JD	WAS (40 HOURS)	AIEE	VS9, KL7, FA, ON, EA, 457, GC, EL,
W6ANS	DIPLOMA ESPANA	AFCEA	SM, HP, PX, SV6, C, LX, HB, IT,
DL4ZB	WAZ (NO. 89)	ARRL	HA, TA, OZ, GRV, EK, YU, CT,
W6IFF	DXCC (NO. 193)	BPL	SV, SU, XE, 3V8, 3A2, VP6, YN, G,
KL7KG	WAF (NO. 1 ASIA)	PEARL	CN, HV, FC, CT3, YV, F, KA 0,
W4ZEW	DUF 1, 2, 3, 4	DARC	GW, AG, PY, GD, FFB, EA9, VS1,
JA2KG	WAE 2, 3	IRE	DM, VP4, DL, PA, SA2, OH, FY7,
W6KFD	WASM 1, 2	ORS	KG6, GI, VS2, LA, PZ, VS6, KR6, BV,
DL4ZBD	WAA	RCC	HE, VP3, EI, DU, CM, 354, HK, I,
K2CC	CAA	OTC	HZ, VP7, EA6, TI, JA, GM, MD5, MI,
J2AHI	WBE	OCWA	YS, HL, HS, KZ5, IS, TG.
W2USA	WAVE	ALQPR	
K6WAB	BERTA	ORC	
W7YA	WAUD	CAZ	
J2USA	K2-25	SAARC	
W6AHI	CDM	W/CALIF DX CLUB	

73 from the ham family that has QSOed  
 Half the active amateurs of the world  
 (66,000 QSO's since 1929 with amateurs  
 in 252 countries)

*Ins Ins Pat - 73 + Pz*

*Lc* Lloyd Colvin  
 Lt. Colonel Signal Corps (OM)  
 Iris Colvin (YF)  
 Joy Colvin (YL)

The ARRL's Colvin Award is granted to amateur radio projects that promote international goodwill in the field of DX. The award is funded by an endowment from Col. Colvin

Col. Colvin's cards had extensive lists of everywhere he'd been and every award he's won. This mentions "WAC" in 19 m[inute]s"

Treasurer's Report March. 2018  
Prepared by Bill Zaner, W6IYS, Treasurer

Bal. Brt. Fwd.	3/1/2018		<u>\$3,579.91</u>
Receipts			
	Raffle (net to Club)	\$32.00	
	Dues	\$310.00	
	Total Receipts		<u>\$342.00</u>
Disbursements			
	Badge	\$ 19.35	
	Total Disbursements		<u>\$19.35</u>
Cash Flow			<u>\$322.65</u>
Balance 3/31/18			<u>\$3,902.56</u>

## March Minutes

We had 20 attendees for our PI DAY (3/14) meeting this evening.

Jim Selmi, N6JS, was our acting president as Gabe was out sick.

The Treasurers Report was approved by acclamation

Our treasurer reports that 30 members have yet to pay their dues for 2018.

REDXA has reserved two 2 banquet tables so far for Visalia. If you plan to attend and are not already on the banquet list, send an email to Jim, N6JS, with your registration number, name, and call sign.

Our Current Roster as an ARRL affiliated club has been updated with grid squares and appears on the REDXA website. Use the Club Call is the login.

Alan, K6SRZ again appealed for photos, articles, and any relevant news for future issues of “Sunspots”. Do you have anything to share regarding FT8, and especially the FT8 DXpedition mode? Please send it in.

The link for the HF ship is— [http://www.jrfarc.org/hf-voyager/?utm\\_source=fark&utm\\_medium=website&utm\\_content=link&ICID=ref\\_fark](http://www.jrfarc.org/hf-voyager/?utm_source=fark&utm_medium=website&utm_content=link&ICID=ref_fark)

Jim, N6JS, presented a map of recent and current DXpeditions

Our presentation for the evening was via Skype — a VERY good Skype connection — Presented by Cory, W3CDG, production manager at DX Engineering. He spoke about the utility of NVIC antennas and communications, which can be useful for emergency work and for close-in contesting work as, for example, CQP.

The Raffle had \$63.00 total divided to the club and to the winner, 31 to the winner - K6QXY.

Respectively submitted,

Saraj, [KU6F@arrl.org](mailto:KU6F@arrl.org)

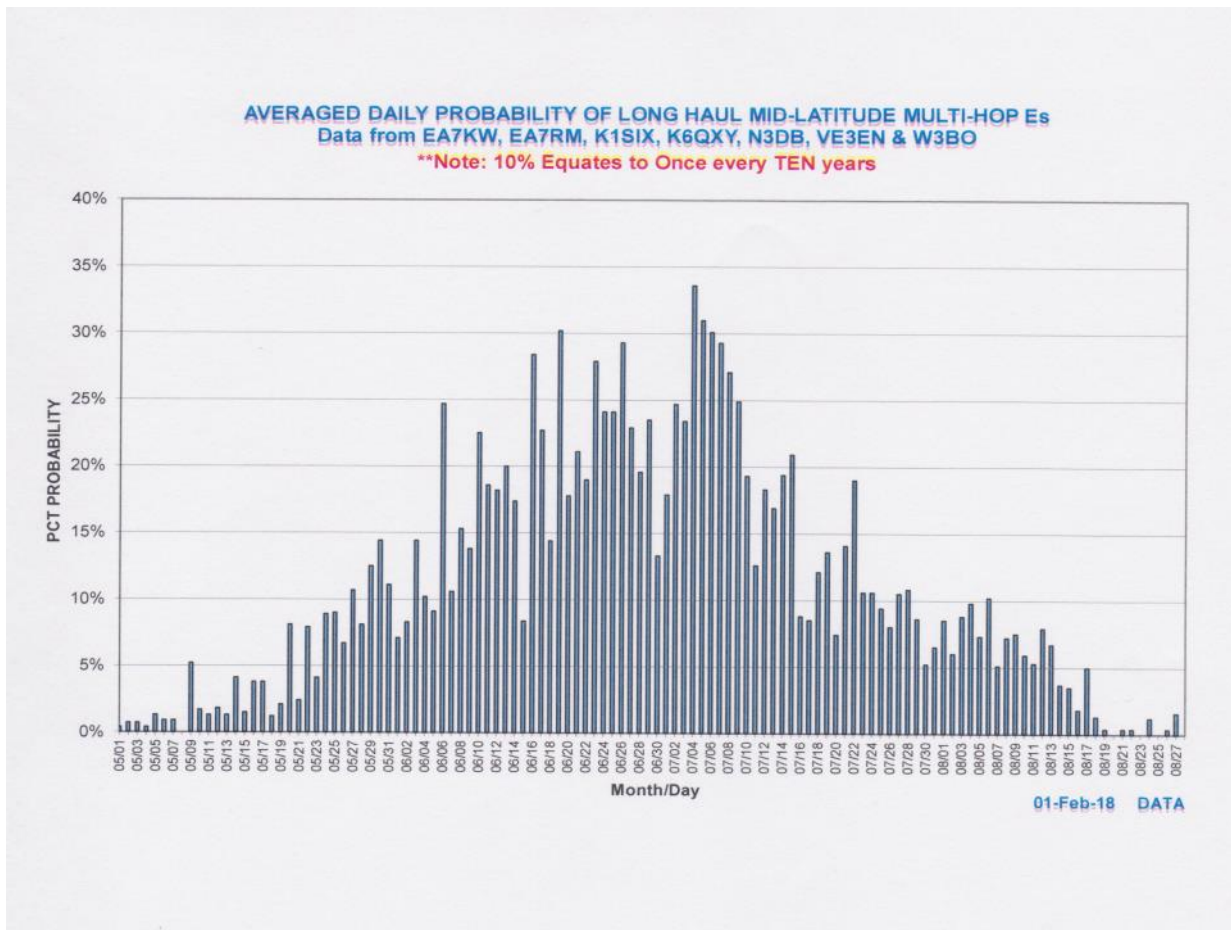
Run long

## Working DX on 6 meters

The following graphs come courtesy of Bob, K6QXY. Most 6 meter DX is achieved by multi-hop E-skip, and most multi-hop E-skip occurs during late spring to early summer.

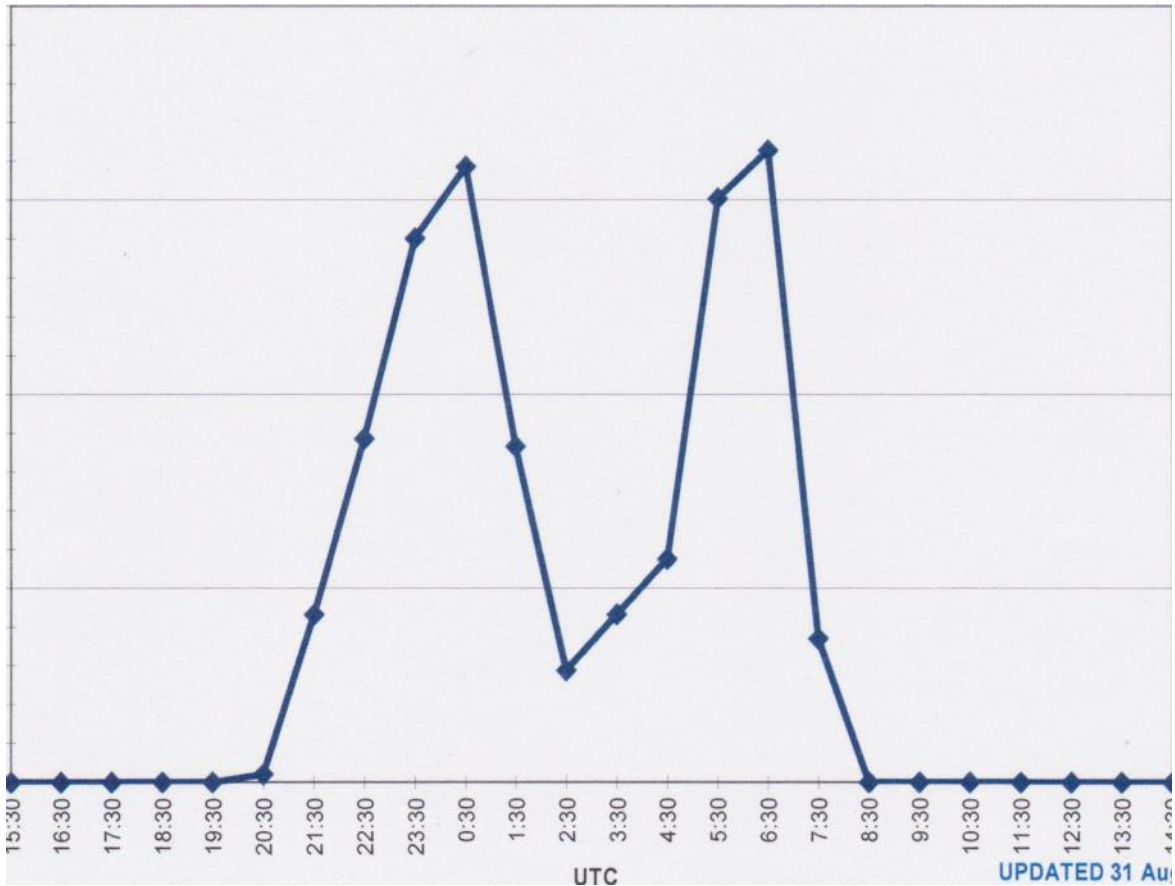
The first graph shows the probabilities of long haul E-skip contacts during the period May through August. The greatest probabilities are between June and July.

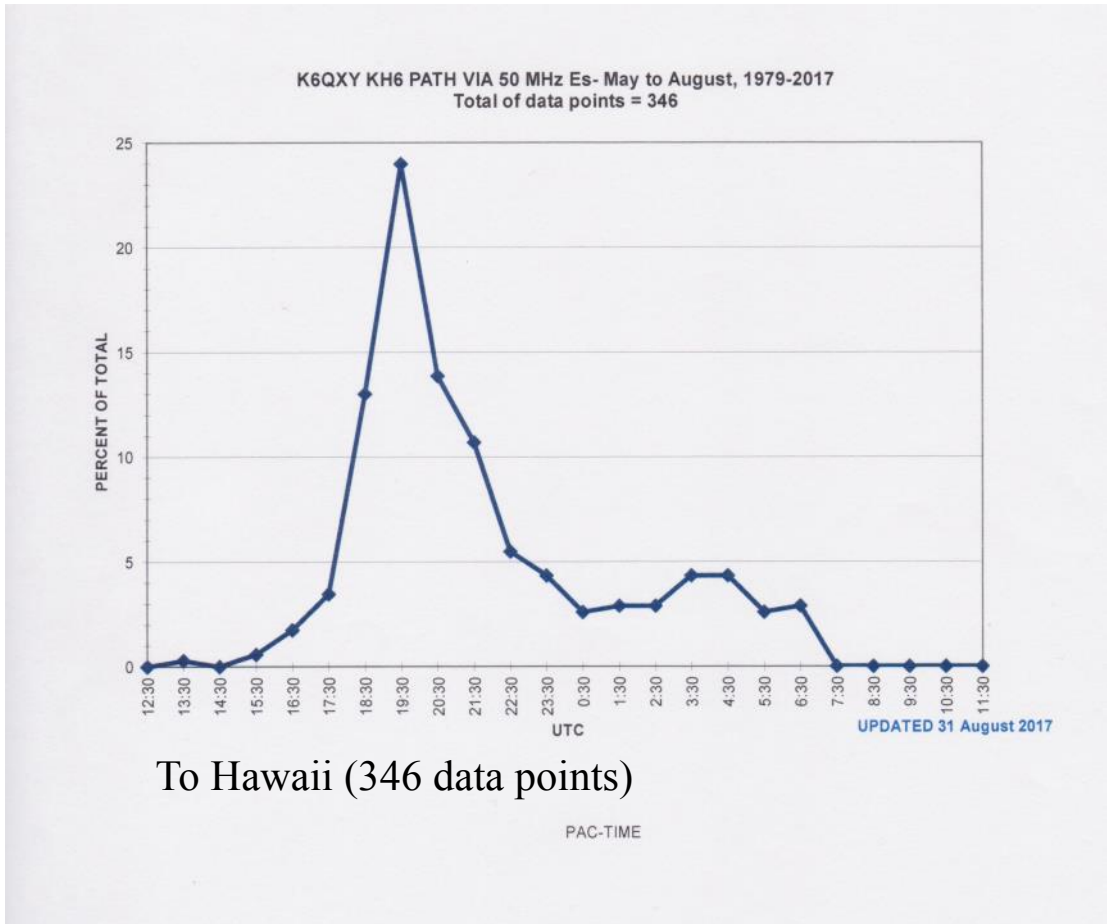
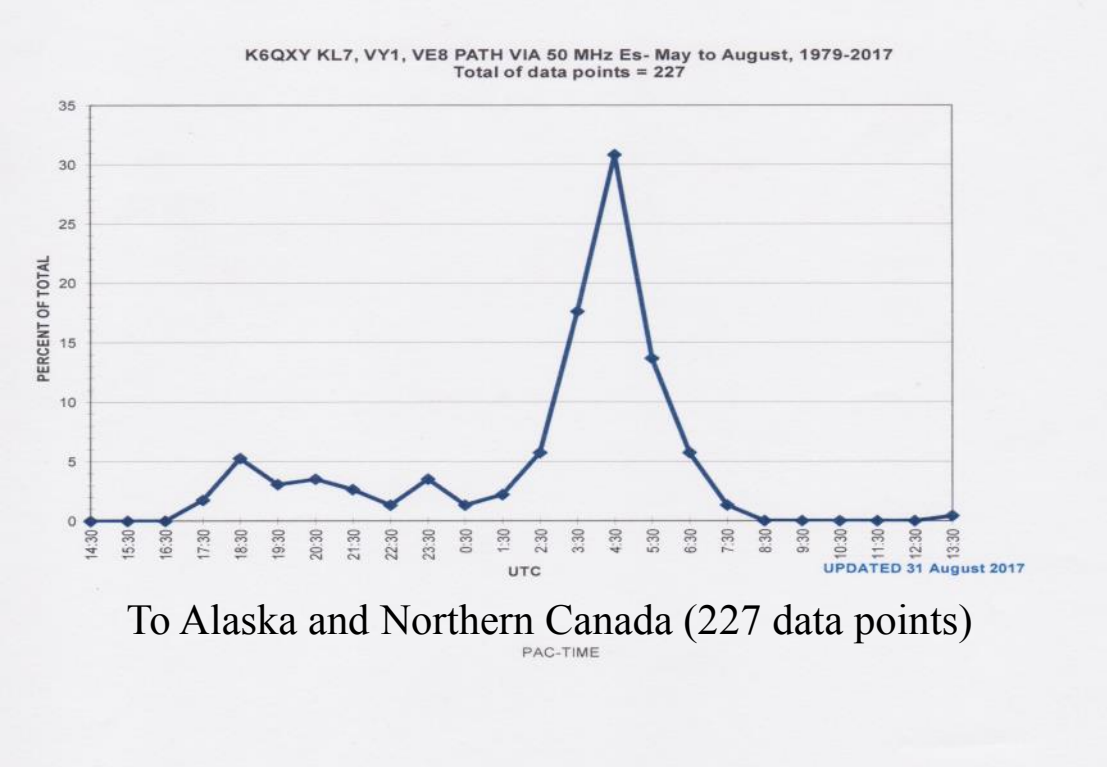
There will likely be many opportunities to work 6 meter DX during the upcoming E-skip season. FT-8, I suspect, will be the most popular modes, but CW and SSB are also possible.



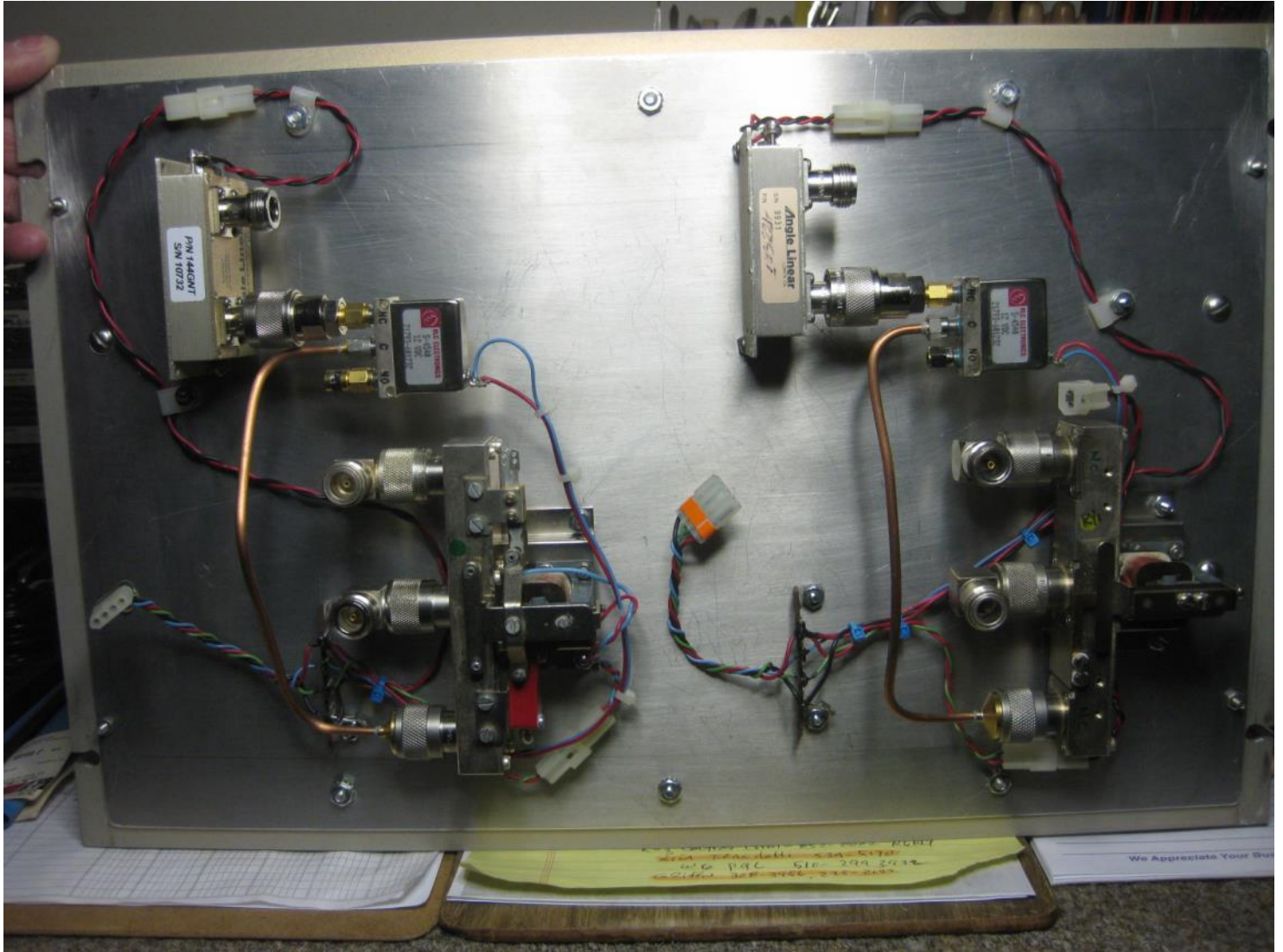


When 6 meters is open by E-skip, there appears to be a diurnal pattern in openings to Japan and other areas in East Asia and the Western Pacific. The following graph represents K6QXY's observations of propagation to Japan and the Far East based on 485 data points collected between 1979 and 2017.





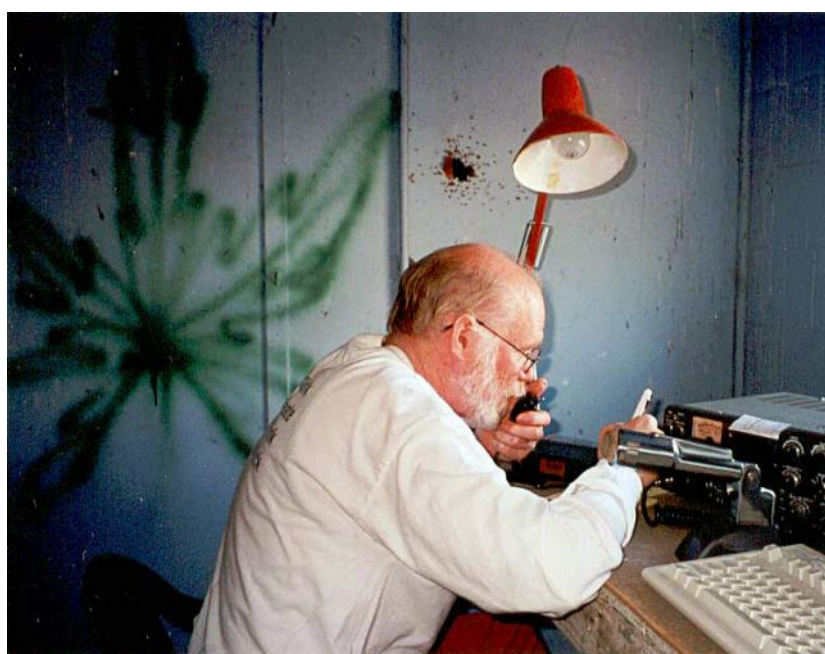
While we're on the subject of the World  
Above 30 MHz



This is K6QXY's preamp and H/P relay panel for switching between 144 and 432 MHz. Every thing is sequenced to avoid hot switching (a good thing to avoid when running a kilowatt on two meters!)



Field Day is coming. And this year we're back at the Marin Rod and Gun Club. Ron, N6IE, is helping coordinate the event and we should be joined by members of the Marin Amateur Radio Society. Save the dates: June 23-24, 2018



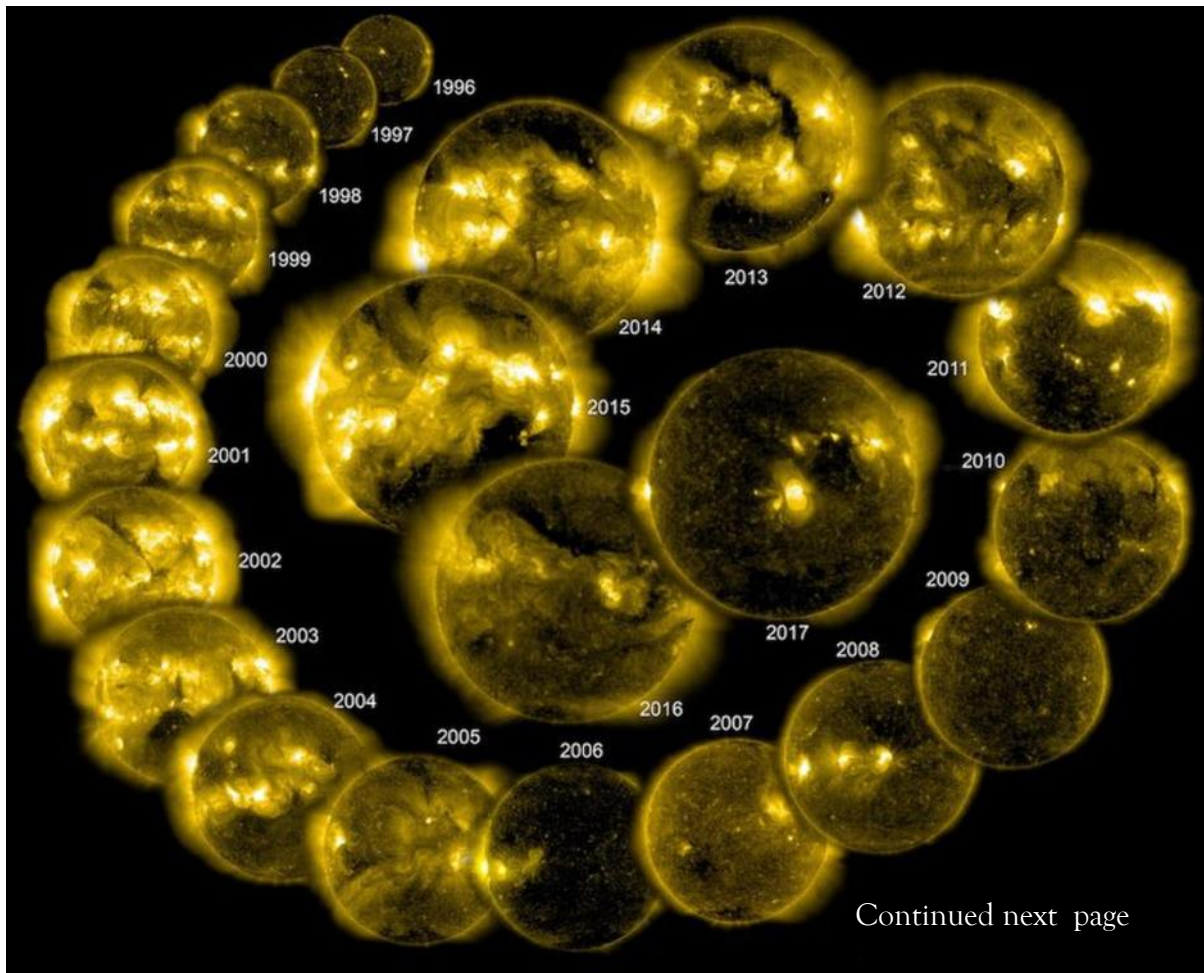
**Jim Robinson, KE6UAR, SK.  
Jim was a mainstay of REDXA  
Field Day efforts. We miss you  
Jim.**

From NASA and the European Space Agency's Solar and Heliospheric Observatory (SOHO)

## The 22-Year Solar Cycle

Out of billions of stars in the Milky Way galaxy, there's one in particular, orbiting 25,000 light-years from the galactic core, that affects Earth day by day, moment by moment. That star, of course, is the sun. While the sun's activity cycle has been tracked for about two and a half centuries, the use of space-based telescopes offers a new and unique perspective of our nearest star.

The [Solar and Heliospheric Observatory](#) (SOHO), a collaboration between NASA and the European Space Agency (ESA), has been in space for more than 22 years – the average length of one completed solar magnetic cycle, according to [an image caption](#) from ESA. In the new image, SOHO researchers pulled together 22 images of the sun, taken each spring over the course of a full [solar cycle](#). When the sun is at its most active, strong magnetic fields show up as bright spots in the sun's outer atmosphere, called the corona; black sunspots appear as concentrations of magnetic fields reduce the sun's surface temperature during active



Continued next page

periods as well. How up as bright spots in the sun's outer atmosphere, called the corona; black sunspots appear as concentrations of magnetic fields reduce the sun's surface temperature during active periods as well.

Throughout the sun's magnetic cycles, the polarity of the sun's magnetic field [gradually flips](#). This initial phase takes 11 years, and after another 11 years, the magnetic field's orientation returns to where it began. Monitoring the entire 22-year cycle provided significant data regarding the interaction between the sun's activity and Earth, improved space-weather forecasting capabilities and more, ESA officials said in the caption. SOHO has revealed much about the sun itself, capturing "sunquakes," discovering waves traveling through the corona and collecting details about the charged particles it propels into space, called the [solar wind](#).

Thanks to Steve Koster, W6SFK for sharing

## **REDXA Calendar of Upcoming Events**

by Doug WW6D

*Apr 11 \* REDXA Monthly Meeting*

*Apr 20-22 VISALIA DX Convention*

*Apr 28 Valley of the Moon ARC Hamfest*

May 5-6 7<sup>th</sup> Call Area QSO Party

*May 9 \* REDXA Monthly Meeting*

May 26-27 CQ WPX Contest CW

*Jun 13 \* REDXA Monthly Meeting*

Jun 16-17 All Asian DX CW

Jun 23-24 CQ WPX Contest CW

*Jul 11 \* REDXA Monthly Meeting*

Jun 12-16 WRTC Team Championship 2018

Jun 14-15 IARU HF Championship

Do you have an event for the calendar? Let Doug know





Bill Haddon, N6ZFO, is this year's winner of the second annual #1 Kick Butt Award of the Northern California Contest Club. The award is determined by a points formula that looks at 39 different contests and awards based on (1) participation (2) score and (3) a handicapping figure that assigns different values to different contests. K6SRZ was last year's winner, making it two-for-two for REDXA



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**Valley of the Moon Amateur Radio Club**  
presents

# **HAMFEST 2018**

**Saturday, April 28th,  
8 am to 12 noon**

**Featuring**

- Swap Meet (indoor and outdoor spaces)
- Breakfast
- VE Testing Session
- Station Demos
- Fox Hunt

**PLUS:** special exhibit of vehicles that support  
emergency communications  
Radio Control helicopter using 70cm.  
On the air demo of FreeDV digital voice on HF



Sonoma Veterans Memorial Building  
126 First Street West  
Sonoma  
For info: 707-935-7441

Admission: FREE  
Breakfast: \$8.00  
Talk-in on 145.350 MHz (88.5 pl)  
for flyer and map: [www.vomarc.org](http://www.vomarc.org)

## The AB577

Sometime before the 100<sup>th</sup> Anniversary of the U.S. Army Signal Corps in June 1960 the Corps commissioned a new piece of equipment: a 50 foot field deployable antenna tower designated AB577. We know this because the June 21, 1960 official program of 100<sup>th</sup> anniversary festivities at Ft. Monmouth [Signal Corps Hq. until 1965 when headquarters shifted to Ft. Gordon, Georgia] lists the AB 577 as one of the exhibits on view from the Engineering design division.

The AB 577 went on to support US troops in Vietnam and in the Desert Storm campaign before finally being rendered obsolete and surplus. Most AB577s are painted Army olive drab, though my own AB577 sports Desert Storm desert camouflage. It is as a surplus item that the AB577 has enjoyed widespread adoption by radio amateurs.

Often dubbed the “rocket launcher” tower, the AB577 consists of interlocking sections of five-foot aluminum tubes that are inserted at the the tube above, and then cranked winch. The tower is stainless steel guy wires. On can erect an AB577, though ter to have a crew of four or perfect solution for a field club, (the Redwood Empire three AB577s that on Field and a 2-element 40 M yagi.

Who designed the AB577 constructed so far remain librarian at Ft. Gordon was nal Corps anniversary pro- nces to the tower at any ear- ble for the design of the munication and Electronic The Army’s purpose for the microwave dish antenna. *Antenna Support AB 857/ wave antennas (a pair)] for F- band (10-20 GHz) communi-*



base of the tower, connected to raised into place by a hand-held in place by three sets of a windless day a single person this is dangerous. It’s much bet- five. The AB577 is an almost day tower. My own local radio DX Association), has a set of Day support a pair of tribanders

and when the first prototype was mysteries. The Signal Corps kind enough to supply the Sig- gram, but could find no refer- lier date. The agency responsi- AB577 was the US Army Com- Command (USACECOM). tower was to support the 1425 [Extension kit: MK 806/GRC GRC AT 903/G horn type micro- band (90 – 140 GHz) and J- cation.

To acquire an AB577 today, a ham needs either to find a used unit at a hamfest or swap meet or purchase one from Ontario Surplus (that’s Ontario New York). Ben Brown, owner of Ontario Surplus told me that he has

seen drawings for components of the AB577 with the stamps of both the U.S. Army Signal Material Support Agency and the Brooks and Perkins Company of Detroit dated October 1961. Brooks and Perkins may have been the first company to produce the AB 577 in quantity, but other manufacturers also produced the unit.

The most recent supplier of AB 577s was the J&H Smith Company of Lamar SC, which won a competitive bid to produce the AB 577 and manufactured approximately 2,200 units until the late 1980s. J&H Smith also manufactured 800 AB 621 towers, a taller “big brother” version of the AB 577 and an extension kit for the AB 577 that allowed it to reach a height of 73 feet. I have one of these extension kits, but not the courage to try it out. The AB577 sold to the Army for about \$2,200.

According to one of the original partners in the AB 577 was for replacement of the original J&H Smith, designated and the Signal Corps requests for a proposal to develop a prototype erect antenna mast which could be erected by two men in less than 15 minutes. Smith and his two brothers developed a car mast that was accepted by the Army but never went into mass production and eventually their design was dropped. The now resides in Bill Smith's garage. The



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QEAM project appears to have survived however. A Web search of “QEAM” reveals QEAMs of various sizes, from 15 feet to well over 100 feet are still being produced.

The AB577 is much more than a Field Day tower. The structure is strong enough to easily support a full-sized tribband yagi and, using the supplied lever arm, can be “arm strong” rotated a full 360 degrees. Many AB577s are being used in semi-permanent installations, avoiding the need to pour a massive concrete base for the tower. And because the tower is classified as a temporary structure, the AB 577 has allowed some hams to avoid needing the building permits required for permanent, in-ground installations.

I welcome receiving any further historical information about the tower. Perhaps there's a veteran out there who knows a little more about this wonderful machine.

—Alan Eshleman, K6SRZ





Come to Field Day and learn the safe installation and operation of the AB 577



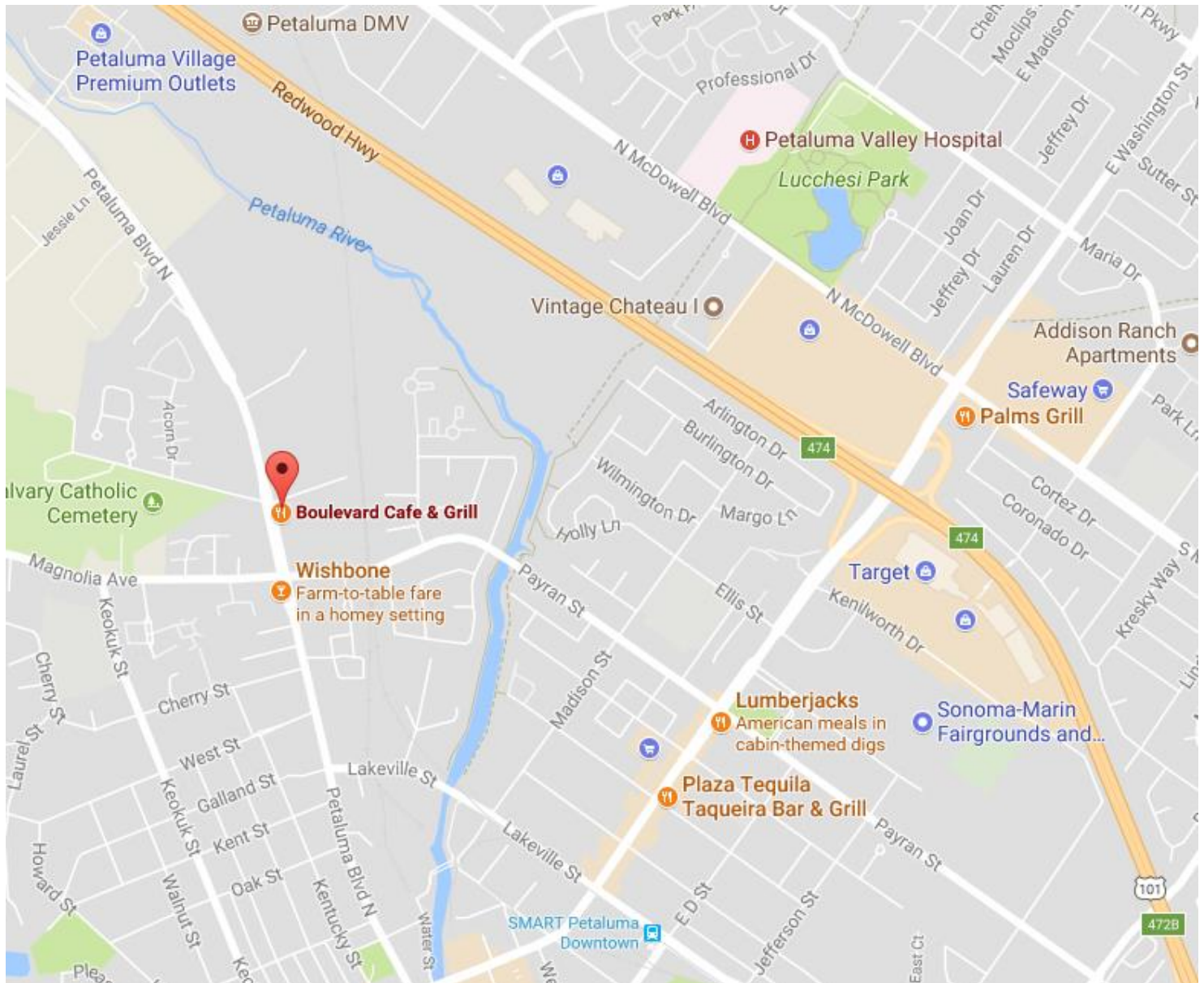
Rich, W6UDS checking the mast atop the AB 577





## Boulevard Café & Grill

1096 Petaluma Blvd. North,  
Petaluma, CA



Redwood Empire DX Association meets the second Wednesday of each months at the Boulevard Café and Grill at 1096 Petaluma Blvd. North. Petaluma, CA.