--- 1975 CLUB OFFICERS ---

PRESIDENT       ART SHELDON       WA6LJB       832-9676
VICE PRESIDENT  MARTIN RAYMOND   WB6PEX       532-4090
TREASURER       TED GLICK         K6LJA        542-1390
SECRETARY       HAROLD RICHARDS   WA6BJO       544-0033
ACTIVITIES      BOB MALLER        WB6AVJ       832-6170
MEMBERSHIP      TINA MCCARTHY     WB6WFV       538-6072
PUBLICITY       ROGER DENTY       WB6ARK       894-0416
TVI             BOB ECKWEILLER    WB6QNU        639-5074
M.A.L.           KEI YAMACHIKI    W6NGO        538-8942
                 KEN KONECHY       W6HHC        541-6249

EDITOR          NEIL VADNAIS      WA6TZA       839-7378

OCARC ACTIVITIES

MEETING: 3rd Friday of each month, 7:30 PM at:
Mercury Savings and Loan
1095 Irvine Blvd. (4th Avenue)
Tustin, California

GUESTS ARE ALWAYS WELCOME!!!!!

BREAKFAST: 1st Saturday of each month, 8:30 AM at:
Barnaby's Coffee Shop
144 South Tustin Avenue
(just South of Chapman and Tustin Avenues)
Orange, California

15M NET: Club Station W6ZE meets every Wednesday at 8:00 PM on 21.375 mhz. All amateurs are welcome to check in. Club and ARRL bulletins read.

15M CW NET: Club Station W6ZE meets every Wednesday evening from 7 PM to 8 PM on 21.175 mhz. All amateurs are welcome to check in. Lots of CW practice for everyone.

CALLBOOK SERVICE

The club has copies of the latest U.S. and foreign callbooks which are available at each meeting. Also you can contact Bob Maller-WB6AVJ at home (832-6170) on Monday and Thursday evenings between 7 PM and 9 PM if you need addresses. If you have more than one call for Bob to check, he'll get them all and call you back the same night. Also, you can usually catch Bob on the air after the Wednesday evening club net.
THE PREZ SEZ:

The first thing I would like to say is I wish everyone a VERY HAPPY NEW YEAR for 1975. I would like to thank everyone for their help and support last year and hope you will continue your support this year.

All who missed the ANNUAL CHRISTMAS DINNER missed a fine event. Everyone enjoyed themselves from the comments heard. We had an enjoyable dinner, had many singing in the sing-alongs, and to top off the evening a visit from Santa which the little ones enjoyed very much. Thanks to all who attended and made this a gala event. A special thanks to Henry Bormann.

The YEARLY DOOR PRIZE was won by Bill Weise, our SCM. No word yet on weather he will take the 2 meter transceiver or the cash.

It will be greatly appreciated if the questionnaire that was mailed in the December "RF" was completed by each member and returned to Bob Kaller, WB6AVY. By completing this questionnaire you will let your voice be heard about what goes on in your club.

One other thing I would like to mention is Club Dues are now due. Please see Ted, K6LJA and renew your club membership.

See you at the January meeting.

Art WA6LMB

ABOUT THE COVER:

After the great program at the planetarium last year many members wanted to see more. This month our program is entitled, "WHITE HOLES, BLACK HOLES, AND CREATION" presented by Bob Evans, WB6IXN. The program will be presented at our regular meeting place. Looks like a good one.

OPERATING EVENTS: TAKEN FROM DECEMBER CST

| JAN 15-16 | DX-YL to Stateside YL Contest CW | FEB 2 | 2 Meter RTTY Contest |
| JAN 17-18 | ARKANSAS QSO Party | FEB 5 | West Coast Qualifying Run |
| JAN 18-19 | CD Party Phone | FEB 9 | Frequency Measuring Test |
| JAN 25-26 | SIMULATED EMERGENCY TEST FRENCH CONTEST CW | FEB 13 | W1AW Qualifying Run |
| JAN 29-30 | DX-YL to Stateside YL CONTEST Phone | FEB 15-16 | DX Competition CW |
| FEB 1-2 | DX Competition Phone | FEB 22-23 | YL-OM Contest Phone |

French Contest Phone
Vermont QSO Party
III FOR SALE III!

50’ Spalding self-support sectional tower.
3 - EL Hy-Gain 20 Meter Beam.
Prop-Pitch Motor with Selsyn’s.

for more information, contact:

George Campbell W6JC
Days - Work Phone: 540-7640
After 6:00 PM - Home Phone: 633-1254

<table>
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<tr>
<th>Item</th>
<th>Price</th>
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<tbody>
<tr>
<td>Variable Frequency Oscillator</td>
<td>$25.00</td>
</tr>
<tr>
<td>D.S.B. 10 thru 80 Transmitter</td>
<td>$90.00</td>
</tr>
<tr>
<td>Globe Side Bander Receiver</td>
<td>$100.00</td>
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<tr>
<td>Linear 6 thru 80</td>
<td>$150.00</td>
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<tr>
<td>V.H.F. Converter</td>
<td>$10.00</td>
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<tr>
<td>Globe Signal Clipper</td>
<td>$5.00</td>
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<tr>
<td>Two transformers 115 in – 2300 out</td>
<td>$25.00 each</td>
</tr>
<tr>
<td>Steel Cabinet 22&quot; x 22&quot; x 5'6&quot;</td>
<td>$25.00</td>
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<tr>
<td>Home Brew Signal Monitor</td>
<td>$5.00</td>
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<tr>
<td>Johnson Signal Monitor</td>
<td>$10.00</td>
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<tr>
<td>1 - 8 circuit breaker cabinet</td>
<td>$10.00</td>
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<tr>
<td>90’ Tower - Make an offer</td>
<td>$10.00</td>
</tr>
<tr>
<td>2 Gasoline Engines</td>
<td>$10.00</td>
</tr>
<tr>
<td>400’ # 20 / 2 Conductor shielded wire</td>
<td>$10.00</td>
</tr>
<tr>
<td>2 24&quot; x 24&quot; x 24&quot; Wood cabinets used for end supports of radio operating desk.</td>
<td>$15.00</td>
</tr>
</tbody>
</table>

for information, contact: Henry Bormann W6 FOR
2767 West First Street, Sp., #14
Santa Ana, California 92703
Phone: 543-7300

Possessions, outward success, publicity, luxury — to me these have always been contemptible. I believe that a simple and unassuming manner of life is best for every one, best both for the body and the mind.

— Albert Einstein
SIMPLE INTERFACE BETWEEN TTL AND STATIC SWITCH

In development of a movie sound sync system, this simple circuit was worked out which will actuate a static switch by any logic circuit which will turn on an LED.

In my application, the movie projector is started (and stopped) by a TTL logic circuit. Any time the LED is turned on, the projector will run. When the LED is turned off, the projector stops.

You may find other uses for this circuit, such as control of lights, control of your transmitter with timeout logic circuit, etc.

In operation, the photo resistor's resistance is about 100K dark and 1K light. (In tests it was found that a resistance as high as 15K light is OK.) The voltage divider provides an AC voltage, which drives enough current through photoresistor and the gate of the triac to turn it on only when the LED is light. The triac is turned on if current flows through the gate in either direction.

Therefore, in this circuit, the voltage across a resistive load looks like a full sine wave with only about 10% distortion at the zero voltage point.

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**Diagram**

![Circuit Diagram](image)

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**Components**

- L-1 - PHOTO RESISTOR (UNMARKED)
  
  SEE TEXT FOR CHARACTERISTICS $5.00

- Q-1 - TRIAC (HEP R-1723) $1.90
  
  8A/200V

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Bill - WB6HOO
SANTA ANA COLLEGE

Electronics Courses

Spring Semester 1974-75

THIS LIST OF ELECTRONICS CLASSES AVAILABLE AT SANTA ANA COLLEGE IS PUBLISHED IN "RF" FOR THE BENEFIT OF ANY INTERESTED MEMBERS.

10:00-12:50
T-Th

ELECTRONICS 028, Fundamentals of electronic assembly and basic theory for students wishing immediate employment or for non-electronics majors. 4.0 units. Prerequisite: None.

18:00-19:30
T-Th

ELECTRONICS 046, Direct Current Theory, 3.0 units. Basic concepts of direct current as used in present electrical and electronic industries. Prerequisite: 1 semester high school shop math or equivalent.

08:00-08:50
MWF

ELECTRONICS 047, Alternating Current Theory, 3.0 units. Basic concepts of alternating current theory including the study of resonant and filter circuits. Prerequisite: 1 semester high school shop math or equivalent.

19:30-21:00
T-Th

ELECTRONICS 048, Direct Current Laboratory, 1.0 unit. A bilingual laboratory course designed to accompany the work in Electronics 046. Prerequisite: Electronics 046 or concurrent enrollment.

08:00-08:50
T-Th

ELECTRONICS 049, Alternating Current Laboratory, 1.0 unit. A bilingual laboratory course designed to accompany the work in Electronics 047. Prerequisite: Electronics 047 or concurrent enrollment.

10:00-10:50
MWF

ELECTRONICS 050, Electronic Devices, 3.0 units. An introductory course covering the structure and operating principles of the most frequently encountered electronic devices. Prerequisite: Electronics 046.

08:00-09:30
MWF

ELECTRONICS 052, Electronic Network Analysis, 3.0 units. An introductory course in the analytical techniques used by industry to predict the behavior of circuitry. Prerequisite: Electronics 033, 048.

09:00-09:50
MWF

ELECTRONICS 054, Electronic Circuits, 3.0 units. The use of solid state and tube devices operated in standard electronic circuits. Prerequisite: Electronics 047, 051.

09:00-09:50
MWF

ELECTRONICS 055, Electronic Circuits, 3.0 units. A continuation of Electronics 050 covering selected digital and communications circuits. Prerequisite: Electronics 056.

09:30-12:20
T-Th

ELECTRONICS 059, Electronic Circuits Laboratory, 2.0 units. Designed to accompany the work in circuit theory of Electronics 056. Prerequisite: Electronics 018, 056 (may be taken concurrently).
09:30 - **ELECTRONICS 052**, Electronic Circuits Laboratory, 2.0 units. Designed to accompany the work in advanced circuit theory of Electronics 057.

- **Prerequisite:** Electronics 018, 057 (may be taken concurrently).

10:00 - **ELECTRONICS 063**, Color Television, 4.0 units. Theory of operation and methods of repair and servicing a color television receiver. Prerequisite: Electronics 069 or equivalent, and permission of instructor.

19:00 - **ELECTRONICS 073**, F.C.C. License, 3.0 units. Prepares the student to pass the examinations for various classes of F.C.C. radio-telephone operator licenses. Prerequisite: Electronics 056.

12:00 - **ELECTRONICS 076**, Beginning Electronic Communication, 5.0 units. Prepares students to work in various branches of the electronic communications field. Prerequisite: Electronics 047, 049, and 051.

13:00 - **ELECTRONICS 083**, Introduction to Digital and Analog Computers, 3.0 units. Working knowledge of terminology, basic circuitry, system operation, and applications of modern digital and analog computers. Prerequisite: Electronics 046.

18:00 - **ELECTRONICS 086**, Digital Circuity, 4.0 units. Provides a background in digital circuitry for applications in computing, counting, read-out, and control. Prerequisite: Electronics 047, 049, and 051.

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THANKS TO HENRY BORMANN - W6PR FOR SUBMITTING THIS INFORMATION.

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**THIS IS A BRIEF REVIEW OF F.C.C. DOCKET #20282, "NOTICE OF PROPOSED RULEMAKING," RELEASED DECEMBER 16, 1974.**

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**Licenses:** Licenses would be divided into two series, Series A (below 29 MHz) and B (above 29 MHz) plus the Extra Class, which will carry full privileges on all frequencies. Two new VHF-only licenses would be offered, Experiment (VHF equivalent of Advanced) and Communicator (no-code FM-only). Present holders of General and Advanced Class licenses would receive their additional VHF equivalents simply by applying for them, but future applicants would have to take separate tests. Extra Class operator licenses would become lifetime, though an Extra’s station license would still have to be renewed. Novice license terms would change to five years, renewable, while Conditional licenses (except those issued for physical disability) would become non-renewable.

**Frequencies:** Below 29 MHz, an Advanced Class licensee would gain the phone privileges now enjoyed by the Extras, who in turn would retain their present exclusive CW slots. General Class licensees would see no change. Above 29 MHz, the Experiment Class would have everything. Techs gain everything above 50 MHz, while Communicators would be permitted all above 144 MHz.

**Emissions:** Extra, Experiment and Advanced would have all modes permitted on the appropriate frequencies. General and Tech would be permitted A1, A3 and F3 only, while the Novices would use A1 only and Communicators F3 only.

**Power:** Extra, Experiment and Advanced licenses would be permitted to run two kW PEP output; General and Tech, 500 W PEP output; Communicator and Novice 250 W input.

**Amateur-Administered Exams:** The presence of two licensed amateurs would be required when a "mail" exam is being given, and holders of Conditional licenses because of distance from a regular examining point would have to be re-examined at a regular examination point some time during the five years of their license in order to keep it. Disabled Conditionals would not be affected.
THIS MONTH'S MEETING

JANUARY OCARC CLUB MEETING HAS AS ITS GUEST SPEAKER, BOB EVANS, – WB6IXN, WHO IS GIVING AN INTERESTING TALK ON "WHITE HOLES, BLACK HOLES, & CREATION." FOR MORE INFO REGARDING THIS MOST FASCINATING TALK, SEE PREZ SEZ COLUMN.

***** THIS WILL BE AT OUR REGULAR MEETING SPOT *****