

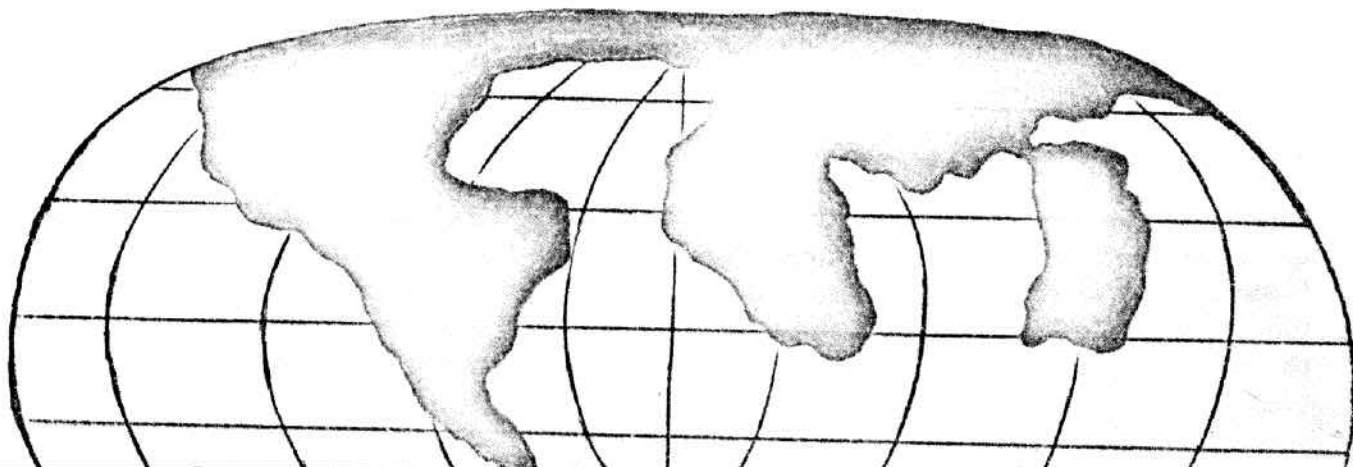
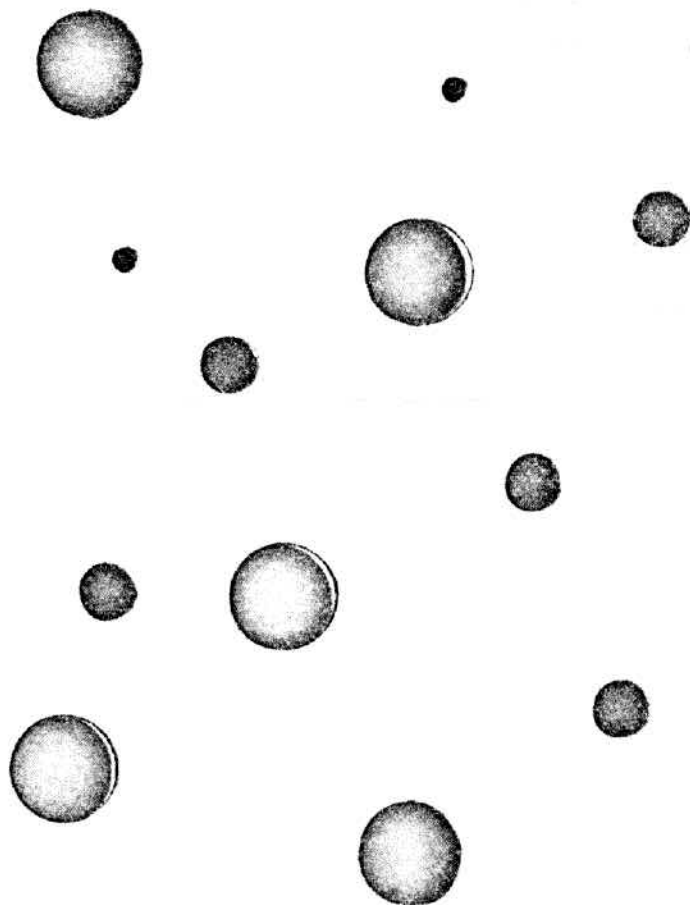
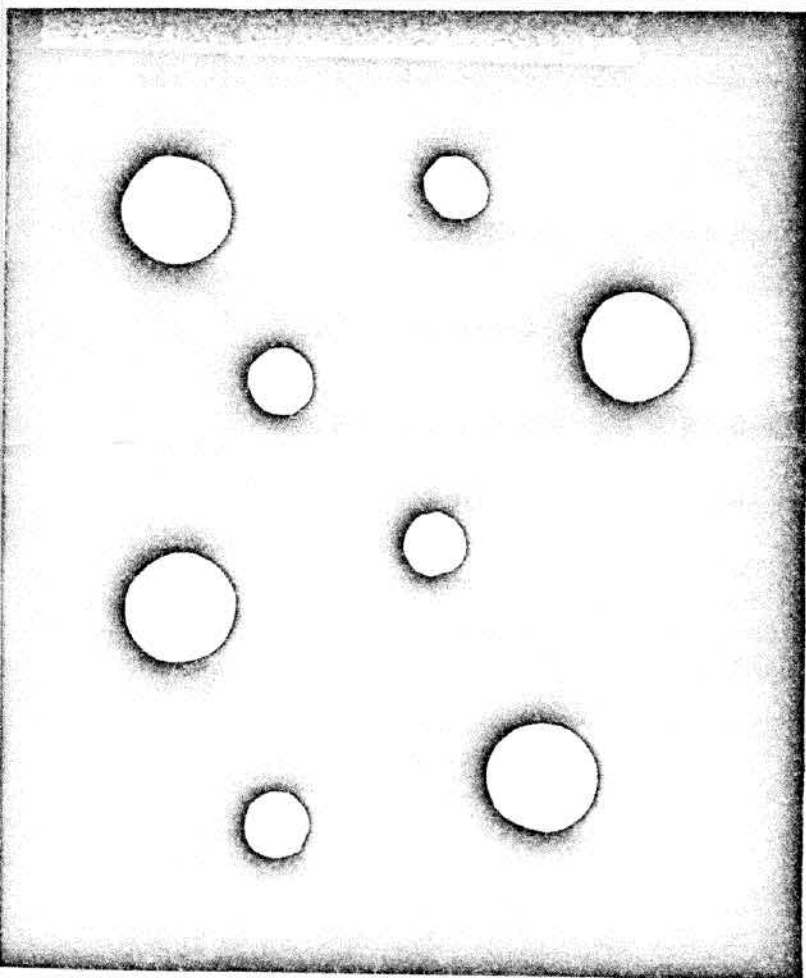


ORANGE COUNTY AMATEUR RADIO CLUB

VOL. XVI, NO. 1

P.O. BOX 95, ORANGE, CALIF. 92668

JANUARY 1975



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— 1975 CLUB OFFICERS —

PRESIDENT	ART SHELDON	WA6LHB	832-9676
VICE PRESIDENT	MARTIN RAYMOND	WB6PEX	532-4090
TREASURER	TED GLICK	K6LJA	542-1390
SECRETARY	HAROLD RICHARDS	WA6BJO	544-0033
ACTIVITIES	BOB MALLER	WB6AJV	832-6170
MEMBERSHIP	TINA MCCARTHY	WB6WV	538-6072
PUBLICITY	ROGER DENNY	WB6ARK	894-0416
TVI	BOB ECKWEILER	WB6QNU	639-5074
M.A.L.	KEI YAMACHIKA	W6NGO	538-8942
	KEN KONECHY	W6HHC	541-6249

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EDITOR	NEIL VADNAIS	WA6TZA	839-7378
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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 7PM to 8PM on 21.175 mhz. All amateurs are welcome to check in. Lots of CW practice for everyone.

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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-WB6AJV 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.

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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 Maller, WB6AJV. 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 WA6LHB

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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.

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OPERATING EVENTS: TAKEN FROM DECEMBER QST

- |           |                                     |           |                           |
|-----------|-------------------------------------|-----------|---------------------------|
| 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            | FEB 13    | W1AW Qualifying Run       |
|           | FRENCH CONTEST CW                   | FEB 15-16 | DX Competition CW         |
| JAN 29-30 | DX-YL to Stateside YL CONTEST Phone | FEB 22-23 | YL-OM Contest Phone       |
| FEB 1-2   | DX Competition Phone                |           | French Contest Phone      |
|           |                                     |           | Vermont QSO Party         |

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!!! FOR SALE !!!

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

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

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

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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

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SIMPLE INTERFACE BETWEEN TTL AND STATIC SWITCH

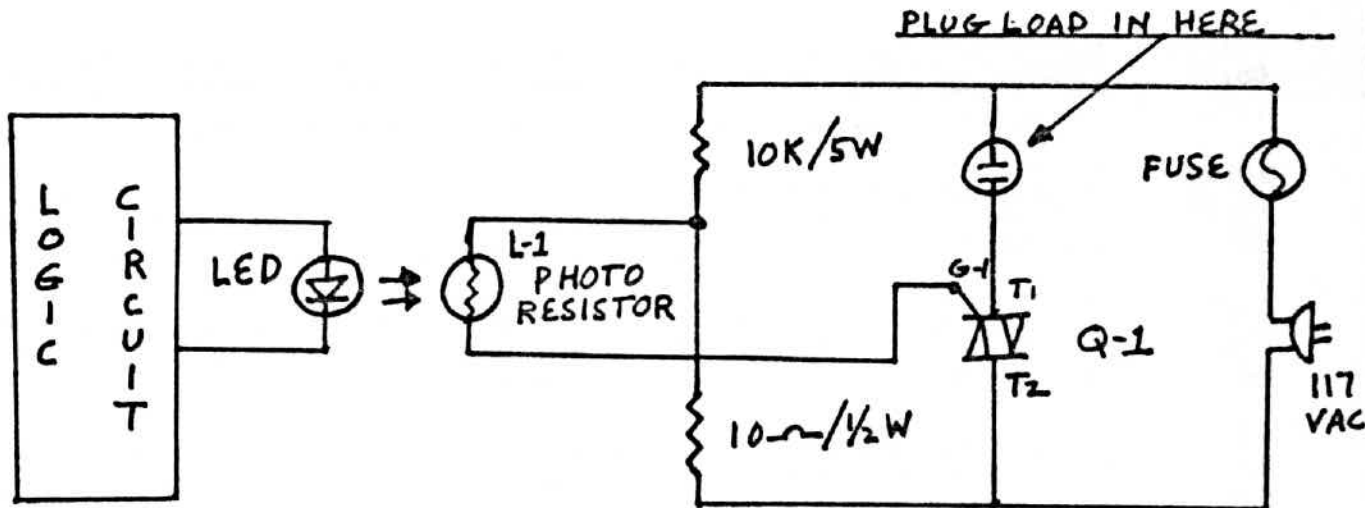
In development of a movie sound sync system, this simple circuit was worked out which will actuate a static switch by any logic circuit which will turn on an LED.

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.



- L-1 - PHOTO RESISTOR (UNMARKED)  
SEE TEXT FOR CHARACTERISTICS 50¢
- Q-1 - TRIAC (HEP R-1723) \$1.90  
8a/200V

## 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 051, 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  
MW  
ELECTRONICS 053, 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 056, 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 057, Electronic Circuits, 3.0 units. A continuation of Electronics 056 covering selected digital and communications circuits. Prerequisite: Electronics 056.
- 09:30-  
12:20  
T-Th  
ELECTRONICS 058, 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).

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- 09:30- ELECTRONICS 059, Electronic Circuits Laboratory, 2.0 units. Designed to  
12:20 accompany the work in advanced circuit theory of Electronics 057.  
T-Th Prerequisite: Electronics 018, 057 (may be taken concurrently).
  
- 10:00- ELECTRONICS 063, Color Television, 4.0 units. Theory of operation and methods  
11:50 of repair and servicing a color television receiver. Prerequisite:  
MWF Electronics 069 or equivalent, and permission of instructor.

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- 19:00- ELECTRONICS 073, F. C. C. License, 3.0 units. Prepares the student to  
22:00 pass the examinations for various classes of F.C.C. radio-telephone  
M operator licenses. Prerequisite: Electronics 056.

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- 12:00- ELECTRONICS 076, Beginning Electronic Communication, 5.0 units. Prepares  
14:50 students to work in various branches of the electronic communications  
MWF field. Prerequisite: Electronics 047, 049, and 051.
  
- 13:00- ELECTRONICS 083, Introduction to Digital and Analog Computers, 3.0 units.  
14:20 Working knowledge of terminology, basic circuitry, system operation, and  
T-Th applications of modern digital and analog computers. Prerequisite: Electronics 046.
  
- 18:00- ELECTRONICS 086, Digital Circuitry, 4.0 units. Provides a background in  
21:00 digital circuitry for applications in computing, counting, read-out, and  
MW control. Prerequisite: Electronics 047, 049, and 051.

THANKS TO HENRY BORMANN - W6POR 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.

**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, *Experimenter* (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 Experimenter Class would have everything. Techs gain everything above 50 MHz; while Communicators would be permitted all above 144 MHz.

**Emissions:** Extra, Experimenter 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, Experimenter and Advanced licensees 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.

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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 FACINATING TALK, SEE PREZ SEZ COLUMN.

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



ORANGE COUNTY AMATEUR RADIO CLUB, INC.  
POST OFFICE BOX 95  
ORANGE, CALIFORNIA 92668

VOL. XVI, NO. 1 - JAN. 1975

FIRST CLASS MAIL !!!!!

DATED MATERIAL !!!!!