



Is That So!

# Ozone Subdues Harmful Violet Rays

By EUGENE BURNS  
Ranger-Naturalist



Ever notice the winey taste of air after a passing thunderstorm? Or gotten a good whiff of the tart "electric" air around a dynamo? That's ozone, a deep-blue gas. In moderate amounts it is bracing; in stronger concentrations it irritates the nose and eyes and can be downright poisonous.

Percentage-wise, ozone is infinitesimal. Roughly, it consists of but one part to every ten million or so of the earth's atmosphere. Gathered and subjected to the pressure and temperature of the earth's surface, it would occupy about one-tenth of one inch in thickness!

Yet this tiny fraction of our atmosphere has an effect upon our life altogether out of proportion to its bulk, which varies. In fact, it makes life on earth possible and it is so well proportioned in volume that should it be halved, life on earth would disappear; doubled, life could not continue.

At the very bottom of the deep ocean of air in which we walk and breathe, precious little of this beneficent gas exists. Most of it is concentrated in a shell-like protective layer about 25 miles above the earth's crust—although from there on up, another 400 miles or so of atmosphere remain.

To appreciate ozone's value to life, one must first consider the sun's light. The sun, which has an area 12,000 times that of our earth, has a temperature of over 6,000 degrees—so hot that solids or liquids cannot exist upon it—and the amount of energy it radiates is fantastic. Within 16.6 minutes, it could melt a sphere of ice the size of our earth.

Because we whirl some 93 million miles away from this tremendous source of energy, we intercept only an infinitesimal portion of it but still it is claimed that the average amount received at our earth's surface is 646,000 horsepower per square mile.

Light, a form of this tremendous solar energy, bombards our earth constantly—and light is made up of rays which are both beneficial and harmful—harmful, that is, unless gentled. And this "gentling" is the life-saving property of ozone.

Most of the harmful rays seem

electric smell after a thunderstorm). In ozone, however, the third atom is embraced rather loosely by the other two and when the U-V bombardment ceases the two let the third go off and once again oxygen results.

Should you be thinking of making a space trip to Mars better take heed of the hazardous ultraviolet waves beyond the 25-mile ozone layer! A heavy coat of tan, of course, would help screen out some of the damaging rays but not nearly enough of them. After all, your tissues have developed beneath a sheltering air blanket and would probably not be able to take it—and there, poof, would go your return trip!

The amount of ozone fluctuates from season to season and from latitude to latitude. That is because it is produced through the absorption of ultraviolet sunlight by oxygen and hence the heavier the bombardment, the greater the concentration of ozone.

Thus when the sun's position is directly overhead (summer), and bombarding us with a maximum of rays, there is a deeper protective layer of ozone; and when the sun's rays slant down upon us and we get a smaller proportion of them, the ozone is less, as in winter. Also, as to be expected, the ozone is more massively concentrated over the equator than over the poles which get a smaller U-V bombardment.

The working-principle is this: Ozone consists of three atoms of oxygen which make up one molecule whereas oxygen consists of only two. Now, in this ozone layer, the air absorbs most of the U-V radiations and in doing so, it heats up to about 170 degrees. The bombardment together with the heat converts much of the two-atom oxygen molecules into three-atom ozone molecules. (Flashes of lightning, too, convert some oxygen into ozone—that is why the air often has that fresh

smell after a thunderstorm.)

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## Church Directory For Town and Country

By MARGARET BENSTON

- BLACHLY MEMORIAL (NON-DENOMINATIONAL) CHURCH**—9:45 a.m., (S.S.); 11 a.m.
- CAMP CREEK COMMUNITY (NON-DENOMINATIONAL)**—Ph. 6-1938. 10 a.m., (S.S.); 11 a.m. and 7:30 p.m.
- COBURG CHURCH OF CHRIST**—Ph. 5-7016. 10 a.m., (S.S.); 11 a.m. and 7:30 p.m.
- FULL GOSPEL TABERNACLE**—Ph. 3-2937. 9:45 a.m., (S.S.); 11 a.m. and 7:30 p.m.
- METHODIST**—Ph. 4-2979. 9:45 a.m., (S.S.); 11 a.m.
- COTTAGE GROVE ASSEMBLY OF GOD**—B Street at 7th. Ph. 6-1291. 9:45 a.m., (S.S.); 11 a.m. and 7:30 p.m.
- FIRST BAPTIST (3th & Jefferson)**—Ph. 1014. 9:45 a.m., (S.S.); 11 a.m. and 7:30 p.m.
- WALVARY BAPTIST**—9:45 a.m., (S.S.); 11 a.m.
- CATHOLIC**—Ph. 105-L. Usual Masses.
- CHRISTIAN SCIENCE**—343 Second St. 9:45 a.m. (S.S.) 11 a.m.
- CHURCH OF CHRIST—Gibbs at 6th.** Ph. 893-L. 9:45 a.m., (S.S.); 11 a.m. and 7:30 p.m.
- CHURCH OF GOD—Adams at 7th.** 9:45 a.m., (S.S.); 11 a.m.
- FREE METHODIST**—915 South 6th. Ph. 669-L. 9:45 a.m., (S.S.); 11 a.m.
- METHODIST**—334 Washington. St. Ph. 108. 9:45 a.m., (S.S.); 11 a.m.
- REORGANIZED LATTER DAY SAINTS**—Meets in the Eagles Hall, 711 Main. Ph. 361-J. 10 a.m., (S.S.); 11 a.m.
- PRESBYTERIAN**—Ph. 928. 9:45 a.m., (S.S.); 11 a.m.
- ST. ANDREW'S EPISCOPAL**—Main St. at M. Ph. 815-L. 9:45 a.m., (S.S.); 11 a.m.
- SEVENTH DAY ADVENTIST**—Ph. Eugene 6-3793. 9:45 a.m., (S.S.); 11 a.m.
- TRINITY LUTHERAN**—Quincy and 7th Sts. Ph. 1271. 9:45 a.m., (S.S.); 11 a.m.
- CRESWELL ASSEMBLY OF GOD**—10 a.m., (S.S.); 11 a.m. and 7:30 p.m.
- CHURCH OF CHRIST**—9:45 a.m., (S.S.); 11 a.m. and 7:30 p.m.
- METHODIST**—Ph. Creswell 536. 10 a.m., (S.S.); 11 a.m. and 7:30 p.m.
- PRESBYTERIAN**—Ph. Creswell 397. 9:45 a.m., (S.S.); 11 a.m.
- DRAIN CHRISTIAN SCIENCE**—Meets in music room, Drain Grade School. 11 a.m.
- ELMIRA CHURCH OF CHRIST**—Ph. Veneta 2384. 9:45 a.m., (S.S.); 11 a.m.
- OPEN BIBLE STANDARD**—Ph. Eugene 3-5584. 10 a.m., (S.S.); 11 a.m.
- FALL CREEK CHRISTIAN**—Ph. Eugene 5-1711. 10 a.m., (S.S.); 11 a.m. and 8 p.m.
- FINN ROCK UNION SUNDAY SCHOOL**—For information write Mrs. Alva White, Finn Rock, Ore. 10 a.m., (S.S.).
- GOSHEN UNDENOMINATIONAL**—Ph. 7-7767. 9:45 a.m., (S.S.); 11 a.m.
- FLORENCE ASSEMBLY OF GOD**—10 a.m., (S.S.); 11 a.m., 7:45 p.m.
- CHRISTIAN SCIENCE**—Garginer and 2th. 9:45 a.m., (S.S.); 11 a.m.
- JUNCTION CITY ASSEMBLY OF GOD**—9:45 a.m., (S.S.); 11 a.m. and 7:30 p.m.
- BAPTIST**—9:45 a.m., (S.S.); 11 a.m. and 7:30 p.m.
- CHRISTIAN**—9:45 a.m., (S.S.); 11 a.m. and 7:30 p.m.
- CHURCH OF GOD**—9:45 a.m., (S.S.); 11 a.m.
- LATTER DAY SAINTS**—Church meets in Greenwood Hall. 10:30 a.m., (S.S.); 7:30 p.m.
- LUTHERAN**—9:45 a.m., (S.S.); 11 a.m.
- METHODIST**—9:45 a.m., (S.S.); 11 a.m.
- SEVENTH DAY ADVENTIST**—Ph. Corvallis 3-3894. 9:30 a.m., (S.S.); 11 a.m.
- IRVING CHURCH OF CHRIST**—Ph. Eugene 3-9477. 10 a.m., (S.S.); 11 a.m.
- LAKE CREEK COMMUNITY (NON-DENOMINATIONAL) CHURCH**—10 a.m., (S.S.); 11 a.m.
- LEABURG PRESBYTERIAN**—Ph. 7-7763. Church at 9:45 a.m., S.S. at 11.
- LONDON CHURCH OF CHRIST**—Ph. CG1214. 3-5X. 10 a.m., (S.S.); 10:50 a.m.
- LORANE CHURCH OF CHRIST**—Ph. 324-M. 10 a.m., (S.S.); 11 a.m.
- LOWELL BIBLE STANDARD**—Ph. Lowell 298. 9:45 a.m., (S.S.); 11 a.m.
- CHURCH OF CHRIST**—Ph. 4-9076. 10 a.m., (S.S.); 11 a.m.
- CATHOLIC**—Church meets in the U. S. Engineers Recreation Room in Lowell. Ph. Oakridge 2-0761. Mass 9:15 a.m.
- MAPLETON CHURCH OF CHRIST**—Ph. JCR-2615. Church meets in the Masonic-Odd Fellows Hall. 10 a.m., (S.S.); 11 a.m.
- EVANGELICAL UNITED BROTHERS**—9:45 a.m., (S.S.); 11 a.m.
- MARCOLA CHURCH OF CHRIST**—Ph. Eugene 5-2392. 10 a.m., (S.S.); 11 a.m.
- OPEN BIBLE STANDARD**—Ph. Eugene 4-0702. 10 a.m., (S.S.); 11 a.m.
- COMMUNITY (NON-DENOMINATIONAL) CHURCH**—Ph. Eugene 3-3008. 10 a.m., (S.S.); 11 a.m.
- MORAWK COMMUNITY (NON-DENOMINATIONAL) CHURCH**—Ph. Eugene 4-1817. 10 a.m., (S.S.); 11 a.m.
- MONROE CHURCH OF CHRIST**—10 a.m., (S.S.); 11 a.m. and 7 p.m.
- FREE METHODIST**—10 a.m., (S.S.); 11 a.m. and 7:30 p.m.
- METHODIST**—Ph. 3135. 10 a.m., (S.S.); 11 a.m.
- ST. ROSE CATHOLIC**—Mass is at 8:30 a.m. on the first, third, fifth Sundays; at 10:30 a.m. on the second and fourth.
- THURSTON CHRISTIAN**—9:45 a.m., (S.S.); 11 a.m. and 7:30 p.m.
- TRENT CHURCH OF CHRIST**—Ph. 6-3097. 10 a.m., (S.S.); 11 a.m., 7:30 p.m.
- VENETA GOSPEL MISSION**—Ph. Veneta 2271. 10 a.m., (S.S.); 11 a.m.
- OLIVET BAPTIST**—Ph. Eugene 4-0955. 10 a.m., (S.S.); 11 a.m.
- PENTECOSTAL CHURCH OF GOD**—Ph. Veneta 2203. 9:45 a.m., (S.S.); 11 a.m.
- SEVENTH DAY ADVENTIST**—Ph. Eugene 3-3092. 9:30 a.m., (S.S.); 11 a.m.
- WALTIERVILLE PRESBYTERIAN**—Ph. 7-7783. 10 a.m., (S.S.); 11:15 a.m.
- WESTPIR COMMUNITY (UNDENOMINATIONAL)**—(Sponsored by the Willamette Presbytery of the Presby. (Evangelical Church). 9:45 a.m., (S.S.); 11 a.m.
- WESTPIR-OAKRIDGE ST. LUKE'S LUTHERAN**—Ph. Oakridge 2-0831. 9 a.m., (S.S.); 10 a.m.
- NOTI CHURCH OF CHRIST**—Ph. Veneta 2293. 10 a.m., (S.S.); 11 a.m.
- OAKRIDGE ASSEMBLY OF GOD**—Ph. 2-1254. 9:45 a.m., (S.S.); 11 a.m.
- ST. MICHAEL'S CATHOLIC**—Ph. 2-0761. 7:30 and 11 a.m.
- OPEN BIBLE STANDARD**—9:45 a.m., (S.S.); 11 a.m.
- BAPTIST**—Ph. 2-1896. 9:45 a.m., (S.S.); 11 a.m.
- CHRISTIAN**—Ph. 2-1255. 9:45 a.m., (S.S.); 11 a.m.
- CHURCH OF CHRIST**—10 a.m., (S.S.); 11 a.m.
- CHURCH OF GOD**—9:45 a.m., (S.S.); 11 a.m.
- METHODIST**—Ph. 2-0172. 9:45 a.m., (S.S.); 11 a.m.
- CHURCH OF THE NAZARENE**—Ph. 2-0232. 9:45 a.m., (S.S.); 11 a.m.
- PLEASANT HILL CHRISTIAN**—Ph. Eugene 3-9477. 10 a.m., (S.S.); 11 a.m., 8:30 p.m., 7:30 p.m.
- SERVICES CREEK LUTHERAN**—Route 3, Eugene. Ph. 4-5933. 9:45 a.m., (S.S.); 11 a.m.

## Town Adopts 'Traf-o-teria'; Now Parking Fines Are Paid

NORMAN, Okla. (AP)—Fuming drivers who wouldn't be caught dead—no less alive—in the police station to pay a parking fine have found salvation at last in the "Traf-o-teria".

The little device, installed recently on all parking meters here as an experiment, turns potential nonpayers of parking tickets into law-abiding citizens. Indications are it's going over big with the paying customers.

A motorist here receives a parking ticket and an envelope. If he puts the ticket and 50 cents into the envelope and places it in the Traf-o-teria, an aluminum box attached to the parking meter, the fine is considered paid. Wait 48 hours and the ante goes up to \$1.

Police Chief Albert Dodd thinks the pay-as-you-drive boxes will be a bonanza in enforcement of the city's traffic codes.

"Used to be," reflected Dodd, "women were pretty reluctant to come to the station, and they'd give the tickets to their husbands, who chances are, would forget to pay them. Now the women pay better than men."

Overtime parking fines collected in the boxes during the first month of "Operation Traf-o-teria" totaled \$400, Dodd said, a 135 per cent increase over the previous month's take.

Conceding that a few nasty notes crop up along with the ticket envelopes, chewing gum, match covers, and assorted loot when the collecting officers empty the boxes, the chief insisted that so far public reaction has been "quite favorable."

## New Instrument Makes Minute Measurements

CHICAGO (AP)—An instrument developed at the Illinois Institute of Technology has made it possible to analyze minute samples of substances ranging from chemicals to metallic alloys.

The instrument, developed at the Institute's Armour Research Foundation, is known as a nuclear spectrometer.

A spokesman said it enables scientists to detect and measure materials in amounts far below the limits of other methods.

Dr. Leonard Reiffel, supervisor of the foundation's nuclear physics section, said the instrument makes it possible to measure the amount of arsenic in oil down to as little as two parts per billion.

The instrument is based on various radiation detectors, he added.

## NAME'S THE SAME

NEWBURGH, N.Y. (AP)—Daniel Boone, 25, was cleared by an Orange County grand jury of first degree grand larceny charges. The grand jury, however, indicted Jesse James Bivens, also 25, on a charge of second degree arson for allegedly setting his car on fire to collect insurance.

## TV Schedule

KOIN-TV—CHANNEL 6

This schedule is compiled in advance by KOIN-TV. It is subject to change without notice.

SATURDAY, MARCH 13, 1954

- 6:00 PM This Show Business
- 6:30 PM Beat the Clock
- 7:00 PM Medalion Theatre
- 7:30 PM Life with Father
- 8:00 PM Jackie Gleason Show
- 9:30 PM Two for the Money
- 9:30 PM My Favorite Husband
- 10:30 PM Pepsi-Cola Playhouse
- 10:30 PM TV Theatre
- 11:00 PM Showtime on Sox