

Sun Spots Interfere With Communications on Earth

By **FAY BENTLEY**

"I'm having a pretty rough time," recently remarked a man often called upon to repair TV sets, radios, and other forms of electrical equipment.

"People in our town (state of Washington) complain that television and radio programs suffer constant interference and are sometimes completely blacked out for no apparent reason. They call me to remedy the trouble, but usually, nothing is wrong with either the radio or TV. When I suggested that activity on the sun might be responsible for poor reception most of my patrons seemed to think I was a bit 'queer'."

Disturbances from Sun

Disturbances on the face of the sun known as sun spots and solar prominences interfere with earthly communications of all kinds; especially those involving long distance.

"What are sun spots and solar prominences? Isn't the sun 93 million miles away from us? How could anything so far distant cause a TV program to black out?" someone may be wondering.

Sun spots are great swirling cyclones of electrified particles coming from the interior of the sun, which appear as dark patches on the sun's surface. They resemble tornadoes or hurricanes, but are much more violent than any earth-born storm. The whirling masses of gases may be any size from just visible up to 100 thousand miles or more in diameter, and may last for a few days or for months.

Solar prominences are great, long streamers of gases shooting out thousands of miles into space from the surface of the sun. They are found near sunspots and around the edge of the sun and are very likely present all over the solar surface.

Electrified Particles

During sun spot and solar prominence activity, huge masses of electrified particles are shot into space, and quickly reach the earth, producing a magnetic disturbance, called a magnetic storm, in the upper portion of the atmosphere.

At such times, radio and television are often blacked out and telegraphic communications hampered. Police radios may be disrupted for hours. And don't be surprised if voices and pictures from foreign countries come in on your TV set!

Sun spots, and the type of solar prominences found near sun spots, follow an 11 year cycle from minimum to maximum. When sun spots are absent there is usually a complete absence of solar prominences. At the time of minimum spottedness the sun's surface may be unspotted for months at a time, while at maximum it is almost never without spots. The average daily number of sun spots for August, 1956, was a little more than 155.

Approaching Maximum

We are now approaching the maximum of the 11 year cycle, but do not expect to reach the peak till sometime in 1958. As it is impossible for mere mortals to control Old Sol, we will just have to "run with patience the race that is set before us!"

Sun spots caused trouble for Galileo as far back as 1610. But not with his radio or TV set. After looking through the little telescope which he had ground for himself and discovering dark patches on the sun, he announced his discovery to the city officials. He was severely reprimanded for saying that the purity of the sun was marred by blemishes!



A REAL THANKSGIVING—Happy Hungarian refugees walk to waiting buses after arriving in America at Fort Dix, N. J. They are on their way to Camp Kilmer for processing.

Campaign Expenses Are Listed For City, County Candidates

Candidate for mayor, Paul Selby, had the largest campaign expenditure among candidates seeking city offices in the general election, according to records in the city treasurer's office.

Selby spent \$351 for his campaign while John Snider, who was elected mayor, spent \$99.20. Highest campaign expenditure among candidates running for the city council was made by Jack Fitzgerald, candidate for reelection from ward IV. Fitzgerald listed his campaign expenses as \$99.36. A committee for his reelection also spent \$80 in his behalf. He was defeated by Jimmy Dunlevy, who listed expenses as \$39.60.

In the race to represent ward I, Councilman-elect Frank Edward Hall listed his expenses as \$90.15. He defeated Bob McIntyre who spent \$67.95 and Granvil Brittsan, who listed no expenses.

Councilman-elect Al Bradford, from ward II, spent \$52.20. He defeated Tony Manno, who spent \$98.15. Robert Van Sickle, who defeated Mrs. Marina Gates in the ward III race, listed no expenses. Mrs. Gates spent \$38.50.

Great amount expended on a city measure was listed by Mrs. Otto Frohnmayer, treasurer of the Better Health committee for fluoridation. The committee spent \$2,007.80.

Contributions to the committee as listed by Mrs. Frohnmayer included individual contributors donating less than \$5 through coffee hours, \$126.85; unsolicited individual contributions of less than \$5, \$9; Robert Taylor, \$20; Sparrow Memorial clinic, \$1,500; Crater Lions, \$100; Jackson County Medical society, \$100; Medford dentists

Air Force Needs GOC Volunteers, AF Says

The Air Force said last week that it needs "thousands of additional civilian volunteers" to man its Operation Skywatch posts, regardless of recent published reports.

The reports said nearly 400,000 ground observers will be gradually demobilized as more radar detection is installed.

Col. Owen F. Clark, Ground Observer Corps project officer for Air Force headquarters, said a million volunteers are needed to strengthen the present system, radar and all.

He said the confusion regarding the future of Air Force plans for the GOC stemmed from the fact that the Air Force is considering putting eight midwest and eastern filter centers and their plane spotter posts in "ready reserve" status. Col. Clark emphasized that even if these centers are changed from a 24-hour operation to a reserve status, the Air Force wants to keep all of those volunteers enlisted in its plane spotter program.

Col. Clark added the Air Force is spending \$15,000,000 annually to keep Skywatch personnel and equipment in operation and plans call for continued spending on the same level.

Prices of Diesel Fuel, Heating Oil Increase

Standard Oil company of California will increase diesel fuel and heating oil prices .006 and .005 cents per gallon, according to H. R. Edwards, district manager.

Price of heavy fuel oil was increased 45 cents per barrel, he said, with an additional .05 cents on the lighter grade. The company gasoline prices will remain unchanged, Edwards added.

He explained that product-price increases were necessitated by crude prices, and also to protect west coast supplies of fuel which have been in danger of being drained off to other areas where higher prices prevail.

making contributions less than \$5, \$160; doctors' wives making contributions less than \$5, \$18.50.

Expenses of the anti-fluoridation committee as listed by J. Verne Shangle totalled \$479. Individual donations contributed, according to Shangle, totalled \$380.50. None of the contributions were less than 25 cents or exceeded \$25, according to the records.

Don McNeil, acting in the capacity of executive for the citizen's committee for off-street

Applegate 4-H Club Members Receive Achievement Pins

Forty-six Applegate 4-H club members received awards Wednesday at the annual club achievement night program at Applegate school.

National awards and county medals were presented to six club members, including Dona Brown, achievement medal; Philip Krouse and Truman Elmore, boys' agricultural awards; Sonja Smith, style review; and Charles Elmore and Francis Krouse, meat animal awards.

First year membership awards went to Dixie Wood, Alberta Erwin, Fay Erwin, Ronny Gibson, Terry Langley, David Prowell, Mike Harris, Rena Cooper, Leland Cooper, Billy Piets, Jeffrey Wood, Peter Wood, Margaret Sue Goodwin, Jack Decker, Mike Hanson and Philip Dahl.

Second year membership awards went to Mary Sue Freeman, Jean Rowden, Sally Herriott, Bonnie Freeman, Karen Newman, Marthanne Goodwin, James Christensen, Michael Elmore, Vincent Freeman, Tommy Herriott and David Pittock.

Other awards presentations included, third year, LaVerne Guches and Jim Sims; fourth year, David Christensen and Stanley Smith; fifth year, Russell Elmore and Miriam Gopen; sixth year, Philip Krouse and Gary Smith; seventh year, Dona Brown, Gwen Krouse, Sonja Smith, Truman Elmore and Gary Krouse; eighth year, Charles Elmore; and ninth year, Francis Krouse.

The awards were presented by Gene McCurley and Chester Irish of the First National bank. Refreshments were served and Miss Marjorie Hattan, county 4-H agent, showed slides of her trip to Norway as an International Farm Youth Exchange.

parking, was listed as having spent \$1,393.25 for off-street parking. George Goodman, of the anti-off-street parking committee, spent \$38.

City Treasurer Darell Huson pointed out that for campaign expense records to be legal names of contributors donating more than \$5 should be listed.

Greatest campaign expenditure of candidates seeking county offices in the general election was made by L. G. (Shy) Morthland, Republican, running for reelection as county commissioner.

Records in the county clerk's office show Morthland spent \$505.69 for his campaign and Jack Williams spent \$21.20 on Morthland's behalf. Morthland, a Republican, was defeated by Democrat Ralph James, who listed his campaign expenses as \$182.50.

Mrs. Anna Scott, Republican candidate for treasurer, spent \$364.10. Democrat Karl Janouch, who was elected to the post, spent \$177.75.

Republican Ray Schumacher, who was elected county assessor, listed his expenses as \$201.33, while his Democratic opponent, Allen D. Curry, listed his expenses as \$178.77.

L. Peers Wilmet, who was elected justice of the peace for the Ashland district, spent \$243.90, while his opponent, incumbent Nelle W. Burns, spent \$132.89. Only expense listed by Rawles Moore, who was unopposed and reelected as district judge, was \$1.76 for gasoline mileage.

Listing no expense were Alf Mckvold, unopposed and reelected as school superintendent, and Paul Rynning, Republican, who was unopposed and reelected as county surveyor.

Deadline for candidates to file expenses was Nov. 21.

Pope Addresses Italian Villagers

Vatican City—(U.P.)—Pope Pius XII, looking in remarkable health for a man of 80, addressed 400 representatives of Italian mountain villagers in a mass audience here Friday.

Persons who attended the audience said they saw no basis for reports that the pope had a cold or a touch of influenza. Vatican sources said the reports were incorrect.

The report of the Pope's indisposition originated with a private news agency specializing in Vatican coverage. It said that influenza was slight, and did not affect his daily working schedule.

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