

Scientific Year Attains Biggest Earth Checkup

By ALTON BLAKESLEE

Associated Press Science Writer
NEW YORK (AP)—IGY brought the greatest physical checkup in all history.

The patient—our planet earth. For 18 months, scientists probed and poked at the earth with diagnostic instruments ranging from

thermometers to orbiting satellites. They found high altitude titanic winds of 200 to 300 miles an hour, and places where the earth's skin or crust is only 2 1/2 miles thick. They charted great rivers of electricity flowing through earth crust and upper air. These are but some early re-

sults. It may take 25 years or more to make the most significant diagnoses from the hundreds of millions of facts gathered. IGY—the International Geophysical Year—is formally ended. This world scientific effort cost about 750 million dollars, and twice that if you include ships, planes and other support.

But its work continues in most major aspects under the title IGC-39, meaning International Geophysical Cooperation in 1959, to extend man's knowledge of his planet.

A great ocean of air is earth's lung for human life. Rockets indicated winds of several hundred miles per hour up where the air is terribly thin and highly electrified.

By night, earth wears a halo of dim light, the airglow, which is mostly pale green. It seems to occur in patches or cells, moving with average speed of 200 miles an hour at a 60-mile height, reports Dr. Franklin E. Roach of the National Bureau of Standards at Boulder, Colo.

Green airglow comes from oxygen atoms, with some yellow glow from sodium atoms. IGY scientists also detected unexpected atoms of lithium—presumably shot up by nuclear tests.

Radiation streaming from the sun, or from particles trapped magnetically above the earth, cause the Northern and Southern Lights, or auroras.

But a man-made aurora was detected with one Pacific nuclear test. Scientists theorize a blast could alter the earth's magnetic field enough to allow some trapped particles to stream down upon the earth.

Catching a great solar flare in action last Feb. 10-11, many scientists measured its varied, powerful effects upon earth.

Great currents of electricity flowed through the earth's crust as the earth's horizontal magnetic field strengthened. This was apparently induced by electrical currents in the atmosphere. Balloons detected X-rays within some 20 miles of the earth's surface.

Through chains of magnetic stations, some IGY scientists concentrated on tracing local and surface magnetic variations induced from electro-magnetic events in the upper air, seeking clearer understanding of air-earth interactions.

IGY men confirmed the existence of the equatorial electrojet, a powerful electric current flowing in daylight hours only above the earth's magnetic equator. Similar currents presumably circle both Poles. They offer new insight upon solar effects on magnetic fields.

Probing the sky with radio fingers, scientists found the ionization or electrification of the upper air persists over the South Pole even during the long polar night when the sun is down. Apparently, great clouds of electrons drift in slowly from lower latitudes. Simple absence of sunshine does not remove the ionosphere.

Radio studies of the ionosphere, and the discovery that radio signals can be received from earth

satellites at unexpectedly long distances, offer clues to new methods of radio communication. Aground, seismologists used man-made explosions and the shock signals from natural earthquakes to fill in their understanding of the earth's interior and its crust. Shocks from underground A-bomb tests offered a new tool for doing this.

Seismic soundings detected the thinnest crust of the earth yet discovered under the seas—2 1/2 miles—and also the thickest undersea crust—9 miles deep.

The pull of gravity was measured over 75 per cent of the sea surface, and over vast distances on land—adding up ultimately to a far more accurate picture of the earth's gravity, and from that a better conception of the real shape of the earth.

The moon and the sun, through gravity, cause tides not only on the oceans, but also on the land—actually creating wavy bulges in the earth's crust ranging up to eight to 15 inches. One IGY goal was to learn how much the earth and sea tides may be in phase.

Glaciologists from 28 nations checked all the earth's ice areas. They sampled down through layers of ancient ice for clues to past and present climatic changes, to

learn whether glaciers are advancing or retreating, and where, and hoped to help pinpoint causes of ice ages and glacier growth.

The thirst for knowledge launched by IGY is not satisfied. Organizations of scientists have formed special new committees to push on, especially in cooperative studies on the oceans, Antarctica, and space science. The watching of the sun will continue, and so will most of the other searchings, though at less intensified effort.

IGY is helping to satisfy man's curiosity about his world, and stimulates his curiosity the more. It promises to confer great benefits, not only material, but far beyond.

For as Harvard astronomer Dr. Fred Whipple remarked: "Securing a better concept of what life means in the universe might lead humans to settle their differences."

REGISTER NOW FOR J. W. KERNS WHISKERINO BIG PRIZES FOR THE BEST WHISKERS




"Yes, sir, times have changed. Used to be I could pay my taxes with what I made off of chewing tobacco."

Business, Finance World Watches Tax Legislation

By ELMER C. WALZER

UPI Financial Editor
NEW YORK (UPI)—With Congress again in session the financial and business world is watching to see what will happen on business and tax legislation together with a series of expected investigations.

None expects an income tax rise or decline but there will be modifications, attempts to close loop holes and attempts to carve down the oil depletion allowance of 27 1/2 per cent.

Here is what the tax experts at Prentice-Hall anticipate could happen in the way of tax changes:

"1. More rapid depreciation on capital investment to allow for increasing obsolescence and for inflation.

"2. Some limitation of tax treatment of capital gains and of cooperatives.

"3. Deductions for funds set aside by self-employed people for retirement—Jenkins-Keogh Bill.

"4. Revision of rules on corporate distributions and adjustments, estates and trusts and partnerships—Ways and Means tentatively plans hearings on these advisory group reports for the middle of February.

"5. A new higher tax formula for life insurance companies.

"6. Some tax incentives for private investment abroad.

"Congressional liberals of both parties will make their major tax target a substantial reduction in the 27 1/2 per cent oil and gas depletion allowance. They will probably fail, however."

It has been announced that President Eisenhower will ask for a boost in federal gasoline taxes.

Many states also plan to raise taxes on gasoline which now range from three cents a gallon in a long list of states, including Alabama, Florida, Kentucky, Louisiana, Maine, Mississippi, Nebraska, North Carolina, South Carolina, and Tennessee.

Higher state gasoline levies, it is held, would be set in many states to defray the state costs of highway construction which is to be paid for by the states and by federal grants.

New York State's gasoline tax now is four cents a gallon and is the lowest in the nation except for Missouri. The really high gasoline taxes are in Hawaii where they range from 8 1/2 cents to 11 cents a gallon.

Wall Street has been hoping for a reduction in the capital gains tax, which now is 25 per cent for long-term capital gains. Cutting this in half, market experts argue, would give the government more revenue than it gets at present rates.

The idea is that with a lower capital gains tax, many who have big stock market profits would take them by selling their stocks. This would add to the supply of

common stocks which is said to be low because so many institutions have loaded up and aren't selling. Hence when a purchase of stock is made the purchaser runs into a low supply and has to pay a high price.

Business looks for a series of investigations into almost everything.

The Wall Street Journal says "The new liberal packed Congress will put business on the defensive as it hasn't been since New Deal days."

The stock market community doesn't appear to be worried over Congress and that's a new twist. This time the financial district is convinced there'll be so much demand for spending more and more money that inflation may get a boost and if so demand for stocks would remain high as inflation hedges.

The foregoing is not universally accepted, however, and there are many who think inflation will be held down during 1959.

Common stocks which is said to be low because so many institutions have loaded up and aren't selling. Hence when a purchase of stock is made the purchaser runs into a low supply and has to pay a high price.

Business looks for a series of investigations into almost everything.

The Wall Street Journal says "The new liberal packed Congress will put business on the defensive as it hasn't been since New Deal days."

The stock market community doesn't appear to be worried over Congress and that's a new twist. This time the financial district is convinced there'll be so much demand for spending more and more money that inflation may get a boost and if so demand for stocks would remain high as inflation hedges.

The foregoing is not universally accepted, however, and there are many who think inflation will be held down during 1959.

Common stocks which is said to be low because so many institutions have loaded up and aren't selling. Hence when a purchase of stock is made the purchaser runs into a low supply and has to pay a high price.

Business looks for a series of investigations into almost everything.

The Wall Street Journal says "The new liberal packed Congress will put business on the defensive as it hasn't been since New Deal days."

The stock market community doesn't appear to be worried over Congress and that's a new twist. This time the financial district is convinced there'll be so much demand for spending more and more money that inflation may get a boost and if so demand for stocks would remain high as inflation hedges.

The foregoing is not universally accepted, however, and there are many who think inflation will be held down during 1959.

Common stocks which is said to be low because so many institutions have loaded up and aren't selling. Hence when a purchase of stock is made the purchaser runs into a low supply and has to pay a high price.

Business looks for a series of investigations into almost everything.

Business looks for a series of investigations into almost everything. The Wall Street Journal says "The new liberal packed Congress will put business on the defensive as it hasn't been since New Deal days."

VanOrman's January Clearance SHOE SALE!



pumps and straps
Values to 11.95 **\$4 - \$5 - \$6**

A good assortment of womens dress shoes . . . hi and medium heels . . . suedes and leathers . . . red, brown and black . . . colors and sizes broken, of course.



flats, oxfords, casuals
Values to 7.95 **2.99 to 4.99**

Black, brown, gray suede and black leather flats . . . white, gray, red rock-n-roll, hook-n-eye and saddle oxfords and a variety of casuals for quick clearance.

VanOrman's
Home Owned and Operated
527 MAIN STREET

PENNEY'S
ALWAYS FIRST QUALITY

Shop Penney's For The World's Finest Yardage



NOW! 500 New Prints in Penney's RONDO-GO-ROUND!

PENNEY'S "COMPARE" VALUE!

39¢ YARD

WANT MORE? Pick "Rondo," the high-count percale that goes 17,000 miles around the world each season! Toss Rondo in your washer . . . watch it emerge fresh and glowing! Sew it into children's wear, aprons, dusters, dresses, shirts for dad. Try it at your windows via pert cafes. Any way you use it, you're assured of top styling, lasting quality, unsurpassed value. Prints include every imaginable design from garden-fresh florals to pretty provincials; juveniles to jaunty stripes and plaids; abstracts and borders to novelties unlimited. Just the sight of them will send your designing talents soaring. Enjoy the greatest selection of prints at the lowest price in the world.

MORE WOMEN SEW WITH PENNEY'S "RONDO" THAN ANY OTHER FABRIC IN THE WORLD!
BALCONY

 <p>"RAMONA" CLOTH 59¢ Yard</p> <p>Crisp, firmly - woven cotton . . . Sanforized* machine washable! Superbly styled prints for cafes, draperies . . . vivid sportswear.</p> <p>*Maximum shrinkage 1% BALCONY</p>	 <p>TAFETAS AND SATINS 59¢ Yard</p> <p>Penney's romantic, rustling acetate taffeta for party skirts . . . gleaming rayon satin for blouses and dresses! Positives and brilliants. 42 inches wide.</p> <p>BALCONY</p>	 <p>WOVEN GINGHAMS 79¢ Yard</p> <p>Miniature checks, in-between checks, big 'n bold checks . . . they're all here at Penney's! Crease - resistant, machine washable. For fashions, home.</p> <p>BALCONY</p>	 <p>"NEEDLE 'N THREAD" 49¢ Yard</p> <p>Penney's machine washable, Sanforized* cottons for fashions, decorating. Enjoy quality, beauty, coupled with Penney's incomparable value! Little or no ironing!</p> <p>*Maximum shrinkage 1% BALCONY</p>	 <p>NYLON SHEERS 79¢ Yard</p> <p>So crisp, so fresh, such fun for youngsters' fashions! Soft, velvety tufting etches dainty patterns in white or pastels. Hand-wash.</p> <p>BALCONY</p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

SHOP NOW -- Take Advantage of Penney's White Good Values!