

When you become scientists you will have a special obligation to make this true character of science better understood, and to do so not by the arrogant advocacy of science and technology as the only means to increase our understanding and well-being, but by the balanced and tolerant explanation and exemplification of the scientific spirit as one of the great and powerful methods by which man can increase his knowledge and understanding and still stand humble before the wonder and majesty of what he does not understand. When thus understood and carried forward, science is a major means for present-day Athenians to make gentle the life of mankind. This benign nature of science has been eloquently personified by many of our great scientists. The late Albert Einstein possessed not only a transcendently brilliant intellect, but he also marshalled his powers and formed his personality to become a rare human being in his gentleness and his saintliness.

The concluding wish of my benison tonight is that you will couple with a resourceful career of achievement a moderating sense of the simple satisfaction of running the race. The late Gelett Burgess put into verse what I mean:

"Not the quarry, but the chase
Not the laurel, but the race
Not the hazard, but the play
Make me, Lord, enjoy always!"

In a day when mottoes are out of date and sentiments are inhibited, this verse seems good for those who, like yourselves, stand at the threshold of their professional careers.

With these sentiments of felicitation and admiration, I wish you continuing success and accomplishment.

Science News Letter, March 15, 1958

GEOPHYSICS

Explorer III Scheduled For Early Launching

➤ EXPLORER III, the third U. S. satellite, is scheduled for an early launching, Undersecretary of the Army Charles C. Finucane reported.

Work on the new satellite has been started at the Jet Propulsion Laboratory of California Institute of Technology where the two earlier satellites were made. It was also learned that Explorer III would be the first of a series of five new "moons" the Army plans to try to put into an orbit around the earth. Explorer III will carry out International Geophysical Year experiments, using two or more magnetic tape recorders to perform several experiments simultaneously.

The launching attempt will probably be made some time in early April, although no definite date was given except for "at least 10 days and probably more than a month" after the announcement on March 6.

The Army estimates that Explorer II, launched Wednesday afternoon, March 5, re-entered the earth's atmosphere and burned about 1,900 miles from Cape Canaveral at a point over the Atlantic Ocean north of the Guianas in South America. It was last heard from 20 minutes after it was launched, 530 miles beyond Antigua Island.

Science News Letter, March 15, 1958

TECHNOLOGY

New TV Tube Shown To STS Winners

➤ A NEW CATHODE-RAY tube that promises to give sharper television pictures, even in daylight, was demonstrated before the 40 winners of the Westinghouse Science Talent Search.

Dr. James H. Schulman and Robert J. Ginter of the Naval Research Laboratory, two of the scientists associated with the new development, explained that instead of using a phosphor coating on the inside face of the TV picture tube, an especially prepared glass screen is used. Because it is transparent, there are a number of reasons why the new tube would result in an improved image.

Light from the outside passes into the new transparent tube and becomes absorbed instead of being reflected back into the viewer's vision as happened with the phosphor coating of the ordinary tube.

No halo-of-light effect is produced since there are no phosphor particles. The phosphorescent light that originates in each grain of the coating had previously scattered into surrounding grains before the light emerged from the tube.

In contrast to the conventional tube, there are no grains to limit the sharpness of the image that can be produced on the transparent screen.

"Activating impurities" introduced into the pores of a high silica glass, 96% silicon dioxide, is what gives the new NRL tube its luminescence.

Glass screens that produce five different colors, deep blue, greenish-blue, green, yellow and orange-red, were shown to the visiting students. Cerium-activated glass gives the deep blue color, while the others are caused by copper, uranium, manganese and samarium.

Science News Letter, March 15, 1958

A synthetic compound, norethandrolone, causes *weight gain* in elderly persons and in other "essentially healthy individuals" who have remained thin despite taking vitamins and tonics and eating special diets.



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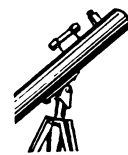
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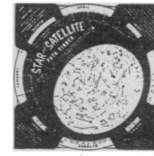
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