

GENERAL SCIENCE

Science Talent Search Washington Trip Winners

The following 9 girls and 31 boys (proportion determined by proportion of boys and girls entering the contest) are being invited on all-expense trips to Washington, D. C., July 13-15, 1942, where one boy and one girl will be awarded \$2400 Westinghouse Grand Science Scholarships and 15 boys and 3 girls will be awarded \$200 Westinghouse Science Scholarships.
(* Indicates girls)

CALIFORNIA

Glendale Calhoun, William Denman 16 Herbert Hoover High School
Kofahl, Robert Eugene 17 Herbert Hoover High School
Phillips, Robert Edward 18 Herbert Hoover High School

IDAHO

Lewiston Eastman, William Byron 16 Lewiston Senior High School

ILLINOIS

Chicago Korn, Hugo 16 Tuley High School
Freeport Ousley, Joseph Livingstone 17 Freeport High School
Oak Park *Jacobson, Janet Mary 16 Oak Park High School

INDIANA

Evansville Barthel, Paul Joseph 18 Reitz Memorial High School
*Pease, Evelyn Alice 17 Benjamin Bosse High School
Hammond *Ross, Jean Carol 17 Hammond High School

KANSAS

Kansas City Hoover, Richard M. 17 Argentine High School

MINNESOTA

St. Paul Larimore, Wayne Homer 18 Murray High School

NEW JERSEY

Boonton Winsor, Paul, III 17 Boonton High School
Salem Newell, James 18 Salem High School

NEW YORK

Camden Worthington, William Dorrance 17 Camden High School
Farmingdale *Prajmovsky, Marina 18 Farmingdale High School
Floral Park Halberstadt, Nathaniel Herbert 16 Sewanhaka High School
Frewsburg Davis, Homer Frederick 18 Frewsburg High School
Hinsdale Dehnkamp, Gilbert Christopher 16 Hinsdale Central High School
New York Avallone, Eugene Attilio 16 High School of Commerce
Greiff, Robert 16 Brooklyn Technical High School
Hollander, Lester Blessing 15 Bronx High School of Science
Linder, Seymour 16 James Monroe High School
*Meirowitz, Beatrice 16 Walton High School
*Pike, Carol Ruth 15 Walton High School
Niagara Falls Swartz, Clifford Edward 17 Niagara Falls High School
Rochester Presberg, Jack Eugene 17 Benjamin Franklin High School
Schenectady White, Donald Robertson, 17 Mont Pleasant High School
Sea Cliff Brown, Barton 17 Sea Cliff High School
Troy *Williams, Mary Ann 17 Troy High School
Utica Karo, Wolf 18 Utica Free Academy

NORTH DAKOTA

Park River Borgeson, Warren Thomas 17 Walsh County Agricultural School

OREGON

Salem Voigt, Allan Earl 17 Salem High School

PENNSYLVANIA

Mount Penn *Wien, Julia Anne 17 Mount Penn High School
Pittsburgh Michener, John William 18 Taylor Allderdice High School

WEST VIRGINIA

Weston Lynch, Robert Lee 16 Weston High School
Wheeling Smith, Harlan James 17 Wheeling High School

WISCONSIN

Lakemills Cranefield, Paul Frederic, Jr. 17 Lakemills High School
Shorewood *Jones, Betty-Jane 18 Shorewood High School
Teschan, Paul Erhard 18 Shorewood High School

● RADIO

Saturday, July 4, 1:30 p.m., EWT

"Adventures in Science," with Watson Davis, director of Science Service, over Columbia Broadcasting System.

A report on "How Science Can Help Win the War" from the Science Talent Search.

Tuesday, June 30, 7:30 p.m., EWT

Science Clubs of America programs over WRUL, Boston, on 6.04, 9.70 and 11.73 megacycles.

One in a series of regular periods over this short wave station to serve science clubs, particularly in the high schools, throughout the Americas. Have your science group listen in at this time.

ASTRONOMY

Invisible Star Discovered By Photographic Means

By C. A. FEDERER, JR.

THE well-known double star in Mu Draconis has an invisible companion besides its two visible components, Dr. K. Aa. Strand, of Sproul Observatory, Swarthmore College, reported to the American Astronomical Society meeting in New Haven.

Mu Draconis was discovered as a double star with two equally bright components by Sir William Herschel, in 1779. The motion of these two visible stars has been followed by double-star observers and, from the path the two stars have described since 1779, it can be said that they revolve around each other in about 1,500 years.

The presence of the third star was discovered by Dr. Strand from a regular fluctuation from the expected motion, having a period of three years. This fluctuation is caused by the gravitational attraction of the unseen star as it revolves around one of the visible stars, but only the accurate photographic observations made with the large Sproul telescope have revealed these fluctuations.

Mu Draconis is about 100 light-years away and has a mass about $3\frac{1}{2}$ times the sun's, while the unseen companion is a dwarf star with a mass of one-half the sun's. The two bright stars are separated by about 70 times the distance of the sun from the earth, or about 6.5 billion miles; whereas the newly-discovered companion revolves around one of the stars at only 250 million miles.

In 1940 the discovery of a similar invisible companion to the star Zeta Aquarii was reported by Dr. Strand. (See SNL, Nov. 30, 1940).

Science News Letter, June 27, 1942