

Asteroid Hunters at South Anchorage High School

During the 2006-2007 school year students from South Anchorage High School participated in a search for near earth asteroids as part of their astronomy class with Mr. Dwight Taylor. The International Astronomical Search Collaboration, led by Dr. Patrick Miller, a professor of mathematics at Hardin-Simmons University in Abilene, TX, coordinated the search. The IASC uses images from the Asteroid Research Institute based in Charleston, Illinois. The ARI used a 24" and a 32" telescope to capture images of the asteroid belt and near earth asteroids.

24" telescope



The telescopes took 40-50 1+ megabyte TIFF images at short intervals of a section of the night sky. The stars in such images appear to be stationary because they are so distant. Asteroids being much closer appear to move against the "stationary" background of stars. Students used professional astronomy software to align the stars in the image stack and then create an image by image animation of the stack. By carefully adjusting the contrast and searching the images repeatedly, asteroids can be spotted as streaks of moving light. Once the candidate asteroid is found it must be checked against the catalog of known stars and asteroids. Many known asteroids were cataloged as repeat observations. This is helpful to refine their orbital paths. During our search two new asteroids were identified. These were reported to the Minor Planets Center at Harvard. A bulletin was sent to all observatories asking for confirmation of the objects. These repeat observations are used to refine our understanding of the orbit of the object. Full recognition comes 3-5 years later. With full recognition comes the right to name the object. The suggested naming must be approved by the International Astronomical Union (IAU).

32" telescope



One of the asteroids is being named after South Anchorage High School. The asteroid discovered by Mr. Taylor is being named Wolverine 2007. A third asteroid discovered by his students is yet to be named.

Details can be found at: http://iasc.hsutx.edu/index_files/Page685.htm