

A Holiday Message from SBIG
Alan Holmes
December 16th, 2003

This last year saw exciting changes to our product line. We now have a diverse line of large format CCD cameras, our STL research series. The STL-11K with 11 million pixels can take an incredible image with its CCD as large as a 35 mm frame. For those who keep track of what things cost, our ST-4 cost 2.8 cents a pixel in 1989, and the ST-11K only 0.08 cents a pixel in 2003, 35 times less. We are now shipping these cameras (started in November 2003). They incorporate a number of improvements in our technology, including a built in filter wheel, a remoteable head, a better AR coating on the window, two stage cooling, and a smaller chamber for greater cleanliness and dessicant lifetime. We expect another dramatic leap in the quality of images posted by amateurs as a result of this new product. CCD imaging has reached a level of maturity such that I can now say that film imaging is no longer mainstream, but rather the controversial technique. Amateur images of the larger objects have now surpassed anything anyone remembers seeing from a large professional telescope using film. Mt. Palomar performance can now be achieved in an amateur's backyard for less than the price of a small automobile for the entire system. I realize that our product is on the expensive side for many of our customers, but I would like to point out that compared to many hobbies, such as owning a boat, a large motorcycle, or a sports car, CCD imaging is both less expensive and does not raise your insurance rates!

Unfortunately the ST-5C and ST-237A are now no longer in production. Both were based on through-hole electronics components that went obsolete and are no longer available. That also spelled the demise of the ST-237A based all-sky camera. In this coming year we intend to fill this lower cost void with several interesting camera choices. I vowed to myself back in 1989 that SBIG would never become a company that only sells high-end cameras to wealthy users, and I intend to keep that philosophy.

In 2004 we will fully fill out the STL product line with numerous large CCDs. We also have a few accessories in development. One is a precision camera rotator which will enable a user to precisely line up his camera with RA and Dec axes, a critical adjustment when doing TDI (drift scan) imaging. We are designing an image position correction (AO) unit for the large format cameras. And, we are working on a low cost spectrograph for those who want to try out spectroscopy but do not need the capability of our more expensive SGS. I sense that many users are interested in spectroscopy but not at SGS prices. It is truly amazing what you can learn from the spectral information.

SBIG would also like to emphasize the research aspects of CCD imaging more in 2004. There are many worthy programs that can be performed with inexpensive telescopes and a ST-7XE level camera, such as transit searches, eclipsing binary planet searches, and others, program where the stars being studied are quite bright and easy to find. Please look for the "ST-7I and -9I Observing Capabilites – Research and TDI Imaging" link under What's Hot on our web site. The ST-7XE and 9XE are capable of incredible images using TDI techniques, which are greatly under-appreciated by the amateur community. The aforementioned link under What's Hot shows a 40 megapixel image taken with an unguided \$300 telescope (unguided, uncooled, un-dark subtracted, and no flat field). While we realize one can achieve interesting results with today's

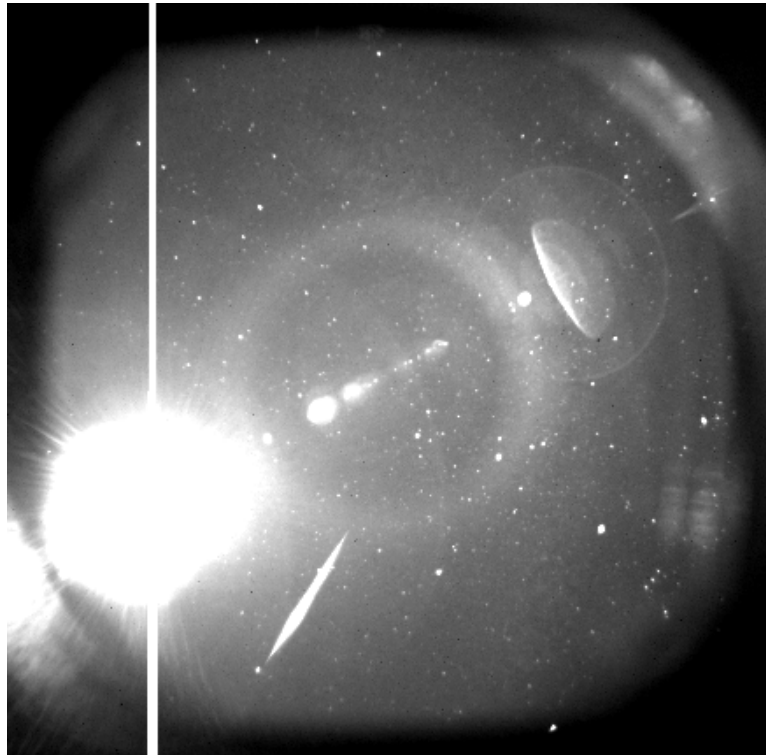
consumer oriented digital cameras and web cams, high quality images and real science are better served by a cooled camera with 16 bit data, and longer integration times.

Personally, I find myself attracted to uses of SBIG equipment that are a little out of the ordinary. I am currently working on a meteor camera, where I have an ST-9XEI in a weatherproof enclosure with a 3.6 mm focal length lens looking straight up (110 degree field of view). I wrote a Visual Basic program to collect images all night long and only save the ones that have a transient linear feature in it. Every clear night I let the equipment run, hoping to capture some bright meteors, an Iridium flare, a satellite, any kind of UFO. What I do get are lots of images of the LAX to SFO shuttles passing overhead. Maybe I'm a little bit obsessive, but I like knowing that if a fireball passes over, I will know it. If Santa Claus has his running lights on, I will see him!

Have a great holiday season!

Alan Holmes
President and CEO

A Geminid Fireball Next to the Moon, December 15th, 2:28 AM – 30 Second Exposure



(Orion can be Partially Seen to the Right. I captured 26 meteors in two nights of monitoring – this was the brightest. The moon is a problem!)