

Planets and Comets and Stars! Oh, My!



Meet Jim Hunt

... a retired Intel employee with a big hobby (think universe) and a small observatory...

Jim Hunt retired from Intel in 2011 after 30 years with Intel. He started working at Intel in 1978 as a component design engineer after graduating from Cornell University. Over the years, he worked on design teams for multiple generations of microprocessors and support chips as a design engineer, architect, and manager. He worked on all the major microprocessor projects in Oregon starting with the P6 and ending with Haswell.

Jim's sons seem to be following in their father's footsteps. He and his wife Ann have two sons, Ryan and Steven. Ryan is currently working for Intel in the PCB manufacturing facility in HF and Steven is a senior at Oregon State majoring in computer science. Another future Intel employee?

Since retiring, Jim and Ann have been spending some of their free time traveling. They just got back from Europe where they visited Venice, followed by a cruise with stops in Greece, Turkey and Croatia. They are now thinking about where they would like to go next. They have also taken on the challenge of renovating the master bathroom in their home (supervised by their miniature dachshund Sadie). Still, Jim saves just enough time to spend on his hobby – astronomy.

The Mystery of Our Amazing Universe

Jim's interest in astronomy started relatively early. He had been a science fiction and Star Trek fan from early on and his interest in astronomy grew out of that. A friend gave him an inexpensive telescope when he was in high school and he got hooked. But when he really got started was after moving to Oregon with his new position at Intel and meeting other people who had much more experience than he did and learning from them. A few years ago, one of those friends (also now an Intel retiree) and Jim decided to take their hobby to the next level by buying a remote piece of property with beautiful dark skies and building a small observatory. The property needed to be far from any lights, have generally good clear weather, with open views in all directions. They found an ideal spot near Goldendale Washington.

Jim's finished observatory. The roof rolls off via rails to allow the telescopes to view the sky. Since the property has no electricity or other utilities, Jim and his friend built a solar generator to provide power for the telescopes, lights, and computers needed to operate the telescopes.



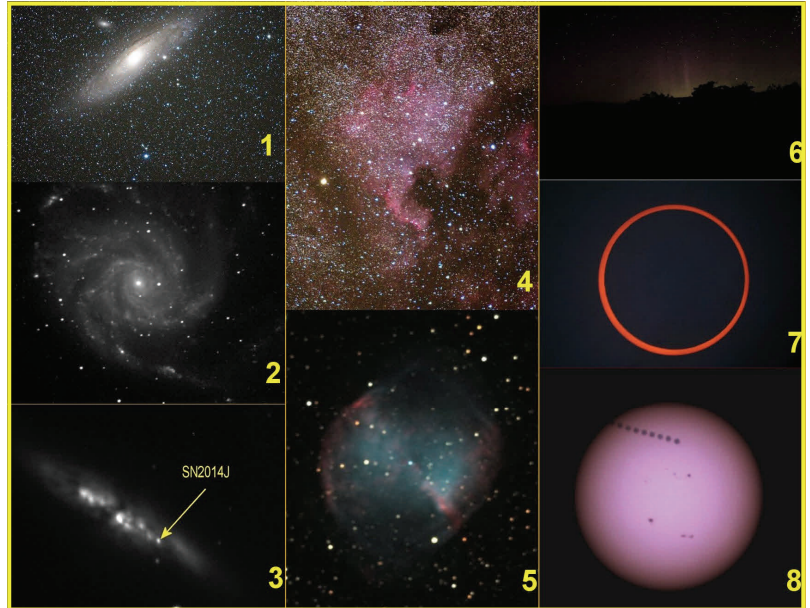


The interior of Jim's observatory with the two main telescopes. The larger telescope on the left is 11" in diameter and the smaller one on the right is 9.25" in diameter.

After acquiring the property, and with help from a number of friends, they planned and built their observatory. Now they spend several weeks each year at the observatory, pursuing both visual astronomy as well as astrophotography. Some of the pictures are amazing. Check out the collage below that Jim put together, showing various galaxies and phenomena and even observing the sun! Jim notes that viewing the sun should only be done with special filters designed specifically for that purpose. Protect your eyes!

A collage of images taken from Jim's observatory, with the exception of images 7 and 8 which were taken from other locations.

1: The Andromeda Galaxy, named after the constellation Andromeda in which it is found. Galaxies are enormous groupings of stars bound together by gravity. This galaxy is bright enough and near enough to us to be visible to the naked eye under dark skies. It spans about 3.5 degrees of arc in the sky, 7 times the size of the full moon. This galaxy and our Milky Way will pass through each other sometime in the next few billion years.



2: The Pinwheel Galaxy, a pretty face on spiral galaxy. This one is located just above the handle of the Big Dipper.

3: The Cigar Galaxy, also located near the Big Dipper. A supernova occurred in this galaxy early in 2014, which I was fortunate enough to capture in this image.

4: The North America nebula, named for the similarity of its shape to the continent of North America. It is located in the constellation Cygnus. Nebulas are clouds of gas and dust, some of which are sites of new star formation. On the right edge of the picture you can also see part of another nebula, known as the Pelican.

5: The Dumbbell Nebula, named for the similarity of its shape to a dumbbell when viewed through a telescope. It is located in the constellation Vulpecula, but is not too far from the better known constellation of Cygnus. This nebula is the remnant of an old star that ejected its outer gaseous layer late in its life. The remnant of the old star is now a white dwarf and can be seen in the image as the star in the center of the nebula.

6: A picture of the Aurora Borealis, the Northern Lights, taken with a Canon T2i DSLR by hand during an evening of imaging at the observatory. We don't see the Aurora very often this far south, even in the dark skies near our observatory.

7: Solar observing is another enjoyable part of astronomy. Observing the sun must only be done using a very special filter attached to the telescope to prevent severe damage to your eyes and even to telescopes and cameras. Here is a picture of the annular solar eclipse from a few years ago, taken using one of these special filters, which gives it the orange cast. In this eclipse, the moon was far enough away from the earth that it didn't cover the entire face of the sun, yielding this ring like image.

8: Another special event involving the sun occurred a couple of years ago when the planet Venus crossed exactly between the sun and earth, an event known as a transit. This is a time-lapse image of Venus crossing in front of the sun, again using a special solar filter to prevent damage to the eyes or to the telescopes and cameras. Sunspots can also be seen in the image. Unfortunately, the transit was still in progress when the sun set, so it was not possible to capture the full transit on camera.

If Jim has piqued your interest, there are many ways for people to get started with astronomy. If you don't know anyone who's into the hobby, there are many local astronomy clubs that hold stargazing events and love to introduce new people to the hobby. For example, in Portland, Oregon we have the [Rose City Astronomers](#). To find an astronomy club near you, NASA's Jet Propulsion Lab runs a [website](#) that will help you find local clubs. Also, *Sky and Telescope* magazine has an excellent [article](#) for beginners.

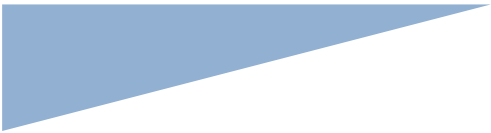
Invaluable Intel Skills

When asked what Jim misses about Intel, he indicated that he misses working on leading edge projects and technologies. "Knowing that you were using the best semiconductor technology in the world to create products that were beyond anything developed before and would make peoples' lives better was by far the best part of coming to work every day."

Like many retirees, Jim's recommendation for future retirees is to have a plan for what you would like to do after retirement. He stressed that it doesn't have to be elaborate, but you need to have some kind of a challenge or a goal to keep yourself active.

Jim has found that his engineering skills and the Intel culture of "continuous improvement" have proven invaluable in tackling new challenges outside the scope of his former work responsibilities. "Planning and building my observatory and learning new astronomy skills, particularly astrophotography, would not have been possible without the skills I took with me from Intel."

You can reach Jim with any questions, or just to connect, through the [IRO mailbox](#). He is happy to share his love of astronomy with his fellow Intel retirees.



*Exploration is in our nature.
We began as wanderers, and
we are wanderers still. We
have lingered long enough on
the shores of the cosmic
ocean. We are ready at last
to set sail for the stars.*

Carl Sagan

