Scientist Honored with Goddard's Highest Space Science Award

By Jim Sahli

An English-born NASA scientist who has been studying the Sun for 25 years has received the top space science award at Goddard. Dr. Brian Dennis, a member of the Solar Physics Branch (Code 682) in Goddard's Laboratory for Astronomy and Solar Physics, was recently awarded Goddard's annual John C. Lindsay Award for Space Science for the "successful development, construction, launch and scientific operation of the Reuven Ramaty High-Energy Solar Spectroscopic Imager (RHESSI)."

Left: Deputy Center Director, Bill Townsend and Lindsay awardee Dr. Brian Dennis

Dr. Dennis has served as Mission Scientist for RHESSI (http://hesperia.gsfc.nasa.gov/hessi) since its inception and led the Goddard RHESSI team in all phases of the project, from instrument development through testing, launch, data analysis and scientific interpretation. He has been at Goddard since 1967.

Since its launch in February 2002, the spacecraft has been very successful observing solar flares, which are capable of releasing as much energy as a billion one-megaton nuclear bombs. In its first two years on orbit, RHESSI observed over 10,000 flares. In August 2003, the NASA Senior Review Panel rated the RHESSI program as "clearly superior" with compelling science and relevance to the Sun Earth Connection program."

"I feel honored to receive this award," said Dr. Dennis. "To be recognized by my peers is great," said the solar scientist. Dr. Dennis has spoken internationally and published extensively on the RHESSI results. Previously, he was the Principal Investigator of the Hard X-Ray Burst Spectrometer aboard the Solar Maximum Mission and of the X-ray spectrometers aboard the Argentinean Satelite de Aplicaciones Cientificas-B.

"We couldn't be on orbit at a better time. The solar storm activity of last fall has given us tremendous amounts of data. I often say it is like drinking water from a hose pipe. The data are continuously flowing at a high rate. Last fall, there were an unprecedented 12 X-class flares in the space of only three weeks, including the largest flare ever recorded from space."

When asked about the significance of studying the Sun, Dr. Dennis said "studying the Sun is critical, particularly now in light of our new exploration initiative to explore the Moon, Mars and beyond. We need to understand how the Sun affects us and how we can predict solar activity that could pose a threat to astronauts in space. Plus, it is an international science so you get to travel and work with fellow scientists from all over the world."

Dr. Dennis earned a bachelor of science degree in physics from the University of Leeds, England in 1961. He got a doctorate in Cosmic Ray Physics from the same university in 1964. Over his career he has authored or co-authored over 100 papers in scientific publications.

When Dr. Dennis is not at work studying the Sun, he is reminiscing about his days playing soccer in the Goddard Soccer League. He is the father of a daughter and two sons. Another pastime is crossword puzzles. "I am addicted to crosswords. Love to do them," said Dennis.

The John C. Lindsay Award has celebrated this type of cutting-edge thinking since 1966. It was named in honor of Dr. John C. Lindsay, who contributed greatly to exploration of the Sun via satellite and rocket-borne instruments and who founded the Orbiting Solar Observatory Project. The award "recognizes the Goddard employee who best exhibits the qualities of broad scientific accomplishments in the area of Space Science."

Scientists at Goddard nominate each other, based on what they think is the best real science that was done. The nominations are judged by a panel of previous Lindsay winners. ■