



Atlantis's rest over, work resumes for return to flight

▲ **Shuttle Update:** The orbiter Atlantis is scheduled to return to the Orbiter Processing Facility today. Rollover from the VAB begins at 8 a.m. Atlantis spent 10 days in the VAB to allow work to be performed in the OPF that can only be accomplished while the bay is empty. Work included annual validation of the bay's cranes, work platforms, lifting mechanisms and jack stands. Work resumes to prepare Atlantis for launch in September 2004 on the first return-to-flight mission, STS-114.

▲ **ELV Update :** Another ELV launch scheduled in early 2004 is a NASA mission , to study the Earth's ozone, air quality and climate. Known as Aura, the mission is designed exclusively to conduct research on the composition, chemistry and dynamics of the Earth's upper and lower atmosphere employing multiple instruments on a single satellite. Aura is the third in a series of major Earth Observing System (EOS) satellites to study the environment and climate change and is part of NASA's Earth Science Enterprise. The first and second missions, Terra and Aqua, are designed to study the land, oceans, and the Earth's radiation budget. Aura's chemistry measurements will also follow up on measurements that began with NASA's Upper Atmospheric Research Satellite and continue the record of satellite ozone data collected from the TOMS missions.

◆ **Florida Space Institute schedule available** – The Florida Space Institute's Spring 2004 schedule is available from the institute's web site at <http://fsi.ucf.edu/>. Courses include Advanced Propulsion, Mechatronics, Space Science & Technology, Interdisciplinary Design II, and a new course developed for engineering technologist entitled Space Environment Technology. Also the Florida Space Institute continues to offer videotaped courses and Internet Television courses at its KSC site. To learn more about these classes and others, contact the FSI Academic

2004 EOS launch Aura to study Earth's ozone, air quality and climate

Office at (321) 452-9834 or 800-613-4889, ext. 201.

◆ **Salvation Army Christmas Stockings** – KSC employees again answered the call to help others as they filled Christmas stockings for children in need. This year, 430 were delivered, surpassing last year's 225! The drive was so successful that a portion of the items were given to the Domestic Women's Abuse Center as well as the Sharing Center! Thanks to all for your generosity.

◆ **Holiday tips for saving money and the environment**

– Share the joy of the holiday season by giving products that have earned EPA's ENERGY STAR. Computers, TVs and DVDs are just a few of the products for your home or office that meet strict efficiency criteria set by EPA and the U.S. Department of Energy. As a result, ENERGY STAR-qualified products use less energy, create less pollution and offer the same features as conventional models. You can find a store in your neighborhood that sells ENERGY STAR products by visiting the **Store Locator** and entering your ZIP code. For all your holiday gift giving remember the three "R's":

- **Reduce:** Look for products that use as little packaging as possible.
- **Reuse:** Buy rechargeable batteries and rechargers. About 40 percent of all battery sales occur during the holiday season. You can also buy an artificial tree and use it for many years.
- **Recycle:** Your holiday tree can help other plants by using it as mulch after it is taken down. Alternatively, buy a potted tree and plant it after the holidays.

◆ **Did You Know?** 2004 is a leap year, so all holidays after Feb. 29 will jump 2 days, not one.

