

Inside Wallops

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Spacecraft Features Revolutionary Real-time Imagery to Support the Warfighter *TacSat 3 to Launch from Wallops Island*

A new capability of employing a hyperspectral imager with a space-based, onboard processor to obtain and send images within minutes to the warfighter on the ground will be tested during the Tactical Satellite-3's upcoming flight.

Scheduled to launch in fiscal year 2009 from the Mid-Atlantic Regional Spaceports' Pad OB on Wallops Island, the 880-pound spacecraft, managed by the Air Force Research Laboratory's Space Vehicles Directorate, has completed the majority of pre-flight evaluations, but still has some project milestones to achieve including thermal vacuum and software trials prior to lift off.

Initiated four years ago in response to addressing the military requirements for responsive, flexible, and affordable spacecraft operating in the cosmos, TacSat-3 consists of three unique payloads: the Raytheon Company-constructed Advanced Responsive Tactically Effective Military Imaging Spectrometer hyperspectral imager, the Office of Naval Research's Satellite Communications Package, and the AFRL's Space Avionics Experiment.

Designated as the small satellite's main demonstration, the ARTEMIS HSI payload will provide, within 10 minutes of its collection, target detection and identification information, as well as battlefield preparation and combat assessment data.

"Capabilities of the ARTEMIS sensor are that it can identify characteristics by seeing through camouflage and foliage. It can also recognize physical characteristics

such as oil and paint," said Thom Davis, TacSat-3 Program Manager. "It will also demonstrate its ability to provide real-time information to the warfighter via a text message or on a laptop computer. With the data supplied by the spacecraft, the commander in the theater of interest can determine if the object is something to be concerned about or a decoy."

Employing sea-based buoys as data sites, the SCP experiment will collect information from the ocean equipment and transmit it to a ground station as another expeditious communicative tool to enhance the warfighter's ability to keep a step or two or three ahead of the adversary. The SAE

trial will involve plug-and-play avionics, which features reprogrammable parts to link the payload and the satellite structure.

In addition, the heart and soul of the spacecraft, a first generation modular bus developed by ATK Space Systems, will be evaluated for its operational adaptability for future TacSat Spacecraft

features real-time imagery capability flights.

TacSat-3 involves a partnership between the Army Space and Missile Defense Command, Air Force Space Command, the Dept. of Defense's Operationally Responsive Space office, the Office of Naval Research, the National Air and Space Intelligence Center, the National Geospatial-Intelligence Agency, and the AFRL's Sensors Directorate.

Another key project player, the Space and Missile Systems Center's Space Development and Test Wing, located at

Kirtland AFB, is providing the Orbital Science Corp.'s Minotaur 1 launch vehicle, a four-stage rocket comprised of two structures obtained from defunct Minuteman intercontinental ballistic missiles, and another two platforms from Orbital's Pegasus booster.

"The TacSat-3 program is very focused. We have a coalition of multiple agencies working together to put the mission together to make it a success," Davis said. "We have made some significant gains in the past couple of months. We are creating a new capability in a cost-effective, timely manner."

Wallops Shorts.....

On the Road

Joe Ferster, Honeywell, was the mission manager for a medical team of 8 Americans and 12 Peruvians that recently traveled to several jungle villages on the Rio Tambo in Peru. Dave Lang, Northrop Grumman, also made the trip and participated in medical assessment of patients and assisted the Peruvian doctors.

The team, that included two doctors, two dentists, and three nurses, treated more than 800 patients during the week-long visit.

The first leg of the journey (11 hours) was by bus from Lima to Satipo. The next day the team traveled in seven station wagons 2½ hours on a bumpy road to Puerto Ocopa, where supplies and personnel were loaded into a 40 ft. motorized canoe for a four hour journey down the Tambo River to the town of Poyeni. For the next three days medical attention was given to over 500 people from Poyeni and the surrounding villages.

The team then traveled downriver for one hour where they spent 1½ days providing medical attention to 300 villagers of Shevoja and surrounding towns.



August Was Dry but Otherwise Normal by Bob Steiner, Meteorologist

Temperatures during August were slightly cooler than normal. The average temperature for August was 74.7 degrees, normal is 75.5 degrees. The warmest day was August 1 when a temperature of 92 degrees was recorded. The coolest reading for the month was 56 degrees on the morning of August 21. No record high or low temperatures were set or tied.



At the beginning of October, we can expect daily highs of 73 degrees. We usually experience average highs of 64 degrees as October comes to an end.

Overnight lows average 54 degrees at the first of October and decrease to cool 45 degrees by the end of the month. The record high for October is 91 degrees recorded on Oct. 9, 2007. The record low for the month is 26 degrees recorded on the Oct. 28, 1976.

We only experienced two days with winds of 25 mph or greater. A 38 mph gust at 8:21 p.m. on the August 10 was the strongest wind recorded during the month.

Measurable precipitation fell on six days during August in contrast to the norm of ten. This left us receiving only 1.63 inches of rainfall, a shortfall of 2.0 inches. The greatest 24 hour rainfall total was on the August 10 when we recorded 0.72 inches.



Summer is coming to an end and October, the first full month of fall, will be here soon.

Expect measurable precipitation to fall on eight days during October for an average rainfall of 2.98 inches. The wettest October on record is 1971 when 8.03 inches was recorded. The driest October occurred in 2000 with only 0.01 inches being recorded. The most rainfall in 24 hours for the month was 3.64 inches on the Oct. 8, 1996.

Hurricanes are still a very real possibility in October. Continue to monitor the weather and be prepared. Also, on or about October 31 be on the look out for ghosts and goblins in the late afternoon and evening.

Energy Consumption

The following is a list of buildings on the Main Base and Wallops Island. The percentage, either a plus (+ increase) or a minus (- decrease) indicates electric consumption from July 21 to August 20, 2008, as compared to the same month last year.



After falling slightly behind Building N-161 last month and losing the lead, Building F-160 has regained the lead for the current reporting period.

Overall Rankings

1.	F-160	-31.0 %
2.	N-161	-30.6 %
3.	F-006	-25.8 %
4.	F-019	-25.3 %
5.	D-010	-25.2 %
6.	F-001	-17.0 %
7.	N-159	-10.2 %
8.	E-104	-8.5 %
9.	F-007	-7.9 %
10.	F-005	-7.3 %
11.	E-106	-7.2 %
12.	E-107	-5.8 %
13.	E-002	-2.2 %
14.	F-004	+1.4 %
15.	AEGIS	+2.1 %
16.	N-162	+3.8 %
17.	F-016	+4.1 %
18.	E-105	+4.6 %
19.	F-002	+5.1 %
20.	D-008	+5.6 %
21.	X-075	+5.9 %
22.	X-015	+6.0 %
23.	B-129	+6.2 %
24.	A-001	+6.6 %
25.	F-010	+7.2 %
26.	V-024	+13.7 %
27.	Z-040	+16.9 %
28.	F-003	+35.2 %
29.	W-020	+43.4 %
30.	D-001	+60.6 %

FOR RENT

Two bedroom apartment on Chincoteague, \$575 per month, plus electric and deposit. Call Jerry at (757) 894-5914 or 824-1100 and leave a message.

Flushing Water Distribution System

Beginning today, September 8, for a period of one week crews will be flushing the water distribution system by opening hydrants around the Wallops Main Base, Wallops Island, and Mainland.



During this time, you may experience discolored water. If so, simply run the tap until the water clears. If you are unable to effectively clear your tap of discolored water, or if you encounter any plumbing problems, contact the WICC HELP desk at x4357.

If you have any questions regarding this work, call either Paul Bull at x1168 or Josh Bundick at x2319.

Changes to Off-site Access for WebTADS

Effective September 16, all civil servants (submitters and approvers) accessing WebTADS from an off-site location (e.g. home, travel, etc.) will be required to connect to the Goddard network via virtual private network using Goddard's Remote Access (RA).

You will only need to use remote access if you are off-site.

Users connected to the Goddard internal network will be able to access WebTADS as usual.

To view the Center announcement go to: http://gdms.gsfc.nasa.gov/gdmsnew/srv/GDMSNEWDatabaseObject?document_id=10854

For questions, contact Tea Taylor at x66-2052 or Bob Freitas at x66-8461

"Laughter is the closest distance between two people"
..... Victor Borge

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