

# NOAA's NATIONAL WEATHER SERVICE Western Region Notes

October 12, 2006

## REGIONAL DIRECTOR'S OFFICE

### Leadership Corner: Emotional Intelligence

*By Alan Haynes, CNRFC Sacramento HAS Forecaster*

The role of emotions in human performance has gained significant attention over the past couple of decades. The term "Emotional Intelligence", or EI, was first introduced by Wayne Payne in 1985 and popularized by Daniel Goleman in 1995. EI is defined as the ability to perceive emotions, access and generate emotions to assist thought; to understand emotions and emotional knowledge and to reflectively regulate emotions to promote emotional and intellectual growth. However, being a relatively new area, the definition of emotional intelligence is still debated. Some prefer to distinguish emotional knowledge from emotional intelligence. Nevertheless, there is scientific research available to support using emotional information in relationships regardless of how that information might be absorbed and utilized through an individual's cognitive capacity (i.e. IQ).

Research on the concept of EI originated with Peter Salovey and John Mayer starting in the late 1980s. In 1990, they defined the concept as a measurable "intelligence". Recent neuroscientific research is increasingly highlighting the role of EI in mobilizing social capital. Michael Hammer, author of *Beyond Re-engineering*, says: "Studies reveal that emotions are essential 'activating energy' for ethical values, such as trust, integrity, empathy, resilience, and credibility...and for social capital, which represents your ability to build and sustain trusting, profitable business relationships." Furthermore, Thomas Stewart, the author of *Intellectual Capital: The New Wealth of Organizations* says: "Intelligence becomes an asset when some useful order is created out of free-floating brainpower." Organizational intellect becomes intellectual capital only when "it can be deployed to do something that could not be done if it remained scattered around like so many coins in a gutter. Intellectual capital is packaged useful knowledge." So, properly utilized and managed by its leaders, emotional intelligence or knowledge can be leveraged to the benefit of organizations such as the National Weather Service.

In order to fully appreciate the role of emotional intelligence, take a look at leaders who've had a significant impact on your life. For example, I remember teachers, coaches, professors and supervisors who stood out for the positive way they interacted with me or with others. Along with my parents, the influence of these leaders helped shape and continues to shape who I am today. While I very much appreciate the knowledge that they imparted to me, it was through their kindness, caring and passion that they were able to impact me. This perspective is helpful to consider when I think about the difference that I personally want to make in the world, either within my family, at work, or in my community.

As research continues to advance our understanding of the once murky fields of cognition and emotion, and the role these fields play in human performance, we should see increasing clarification backed by rigorous science in the field of emotional intelligence. It's a cutting edge field that leaders and aspiring leaders shouldn't ignore if they want to achieve maximum impact. You might want to assess your own emotional intelligence and consider what you can do to raise your EI. It could make the difference between being ineffective and having a profound impact on those around you.

## METEOROLOGICAL SERVICES DIVISION

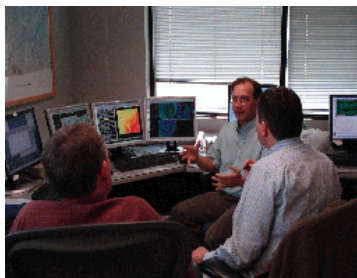
**Service of the Week:** On October 5th and 6th, a strong upper level storm system infused with tropical moisture moved over the eastern Great Basin, causing very heavy rain and multiple flood events in Utah. Along with the Grand Junction Colorado office, WFO Salt Lake City prepared the people of Utah for the event with timely products and excellent personal service. In southern Utah, briefings from Service Hydrologist Brian McInerney to National Park Service officials in the days and hours before the storm prompted them to stop issuing backcountry permits well ahead of time, keeping hikers out of harms way before flooding began. Rainfall of two to three inches was widespread, with isolated amounts of over five inches reported. Some locations received 50 to 75 percent of their normal annual rainfall in less than 30 hours. Flash flooding occurred in many slot canyons and normally dry washes, roads were washed out, and rivers flooded; the Dirty Devil River near Hanksville UT rose from 40 cfs to 14,000 cfs in a matter of four hours.

The pro-active action by WFO SLC was greatly appreciated by the parks. An email received from an official at Capitol Reef NP stated that the direct communication enabled them to "pre-close impacted roads before they were damaged, reducing the threats to visitors and park staff alike...". Park representatives also stated "the communications were very helpful, and vital for the safety of all people in the park during the rains and subsequent flooding. The advance warning gave our visitor center staff the opportunity to warn not only park visitors, but those traveling throughout the region about the anticipated and occurring weather, which resulted in the closure of State Highway 24. Our expectations of the weather event meant that patrols rangers were especially observant of potential hazards, and recognized the loss of curbing that indicated the Fremont River was undercutting Highway 24. Thanks to the National Weather Service hydrology team in Salt Lake City for their accurate and helpful information! It most definitely prevented potentially tragic incidents at Capitol Reef National Park."

Also, from Grand Staircase-Escalante National Monument: "I was very impressed with the fact that you called us and warned of the intensity of the storm that hit us on Thursday Oct 5 and Friday Oct 6. It was very helpful to be able to tell people that it was not a good idea to be heading down the Hole in the Rock road etc. Of course some of them did not listen to us and ended up being stranded for several days, but many people did listen and I think we would have had many more rescue situations if you had not taken the time and effort to inform us of the potential that this storm had. I was very impressed with your concern and thoroughness."

In northern Utah, the WFO briefed Emergency Managers twice on Friday that heavy rain later in the day may cause debris flows from burn areas. Flash flood warnings were issued as the rain began, and on Friday evening a debris flow on the Snow Canyon Burn area near Logan caused road damage and evacuations.

No deaths or injuries were reported during this large scale flood and flash flood event, due at least in part to the excellent preparation of Emergency and Park officials by WFO Salt Lake City. Excellent work by all involved in this event!



*WFO Billings ITO Virgil Middendorf and Jon Gil*

Point) and Virgil Middendorf (ITO) discussing GFE methodologies, Smart Tools, formatters, and training.

**Australian Visit:** Jon Gill (GFE Project Manager, Bureau of Meteorology, Australia) and Michael Foley (Research Meteorologist - Bureau of Meteorology, Australia) visited WFO Billings September 15 and 18 to gather insights and lessons learned with the NWS implementation of GFE, in preparation for the Bureau of Meteorology-Australia's upcoming GFE implementation in the Fall of 2007. The visit to WFO Billings by Jon and Michael was part of their much larger trip to select WFOs around the country to gather a wide range of ideas within common program areas between the two agencies. Some of the other locations visited by Jon and Michael were the Global Systems Division (GSD, formerly FSL) in Boulder, WFOs Pueblo, Boise, Miami, Tampa, Charleston (WV) and MDL. At WFO Billings, Jon and Michael spent significant time with Bill Rasch (IFPS Focal



*Eric Boldt (right) and Jayme Laber help conference attendee's*

**NWS Los Angeles/Oxnard joins other NOAA agencies at the California and the World Ocean '06 Conference in Long Beach:**

There was a clear "One NOAA" theme at the exhibit hall of the California and the World Ocean '06 Conference held in Long Beach on September 18-19. NWS Los Angeles/Oxnard shared booth space with NOAA's Coastal Services Center, and participating with several other NOAA agencies including, Office of Coast Survey, National Marine Sanctuaries, National Ocean Service, National Marine Fisheries Service, and NOAA Sea Grant. Mark Jackson - MIC, Eric Boldt - WCM, and Jayme Laber - SSH, staffed the NWS outreach booth which featured the debut of their new office display exhibit board, funded by the NOAA 200th Celebration grant. The conference attendees included many NOAA employees, ocean conservation organizations, and educators. California Governor

Arnold Schwarzenegger participated in the welcoming ceremony while NOAA VADM Lautenbacher opened the conference by presenting the NOAA vision on improving ocean and coastal protection across the nation. The VADM also visited the NWS booth and expressed his appreciation of the large "One NOAA" showing at the conference.



*Spokane WCM Kerry Jones (left) and Seattle WCM Ted Buehner (second from left) speak with two Eastern Washington Emergency Management Directors*

**Washington State Emergency Management Conference:** The 2006 Washington State Emergency Management Association conference was held in Vancouver, WA September 18-21. Seattle WCM Ted Buehner, Spokane WCM Kerry Jones, and Portland Lead Forecaster Dave Elson staffed a NWS booth offering information on NWS products and services including digital forecasts and NWR All-Hazards. The two WCMs also gave a presentation on the winter weather season outlook and what's new in NWS products and services for the coming year, including HazCollect. HazCollect drew considerable interest as an alternative to the current complex delivery of EAS messages at the local level. 163 people attended the conference, the most ever.



**Deaf Nation Expo:** WFO Seattle shared a booth with Washington State Emergency Management and the Community Service Center for the Deaf and Hard of Hearing at the 2006 Deaf Nation Expo. The event was held at the Seattle Center Exposition Center on September 16th and was one of several activities associated with Weather Radio Awareness Month in Washington. About 2,500 people from around the Pacific Northwest and British Columbia attended. The booth emphasized use of NOAA Weather Radio (NWR) with alert attachments, such as strobe lights and pillow shakers as a

warning tool for this community. The Service Center provided interpreters for Don Miller of Washington State Emergency Management and WFO Seattle WCM Ted Buehner. It was a rewarding experience for all involved to help people in this community understand that NWR can be used as a warning system for them. Once they learned NWR could help them in an emergency, their response was one of pleasant surprise and warmth.



*Lead Forecaster Mike Johnson of NWS Medford present Aviation Safety talk*

**NWS Medford Participates in an Aviation Safety Program:**

Lead Forecaster Mike Johnson and WCM Ryan Sandler participated in an aviation safety program sponsored by the Southern Oregon chapter of the Experimental Aircraft Association. Mike Johnson gave a presentation on “**Winter Flying Weather around the Medford Area**”, followed by a question and answer session. Around 80 people, mostly VFR pilots, attended the workshop. This FAA sanctioned safety seminar is part of the “WINGS” Pilot Proficiency program, which allows pilots to receive a distinctive set of wings and certificate, and encourages general aviation pilots to continue their training.



*(L to R): Tim Howard, Nina L. Jackson, Dave Soroka, Carmela Davis Wilkins, Peter H. Dutton, Ph. D., Robin Leroux*

**American Institute of Aeronautics and Astronautics Space 2006 "Education Alley":**

WFO Monterey participated in the American Institute of Aeronautics and Astronautics (AIAA) Space 2006 "Education Alley" in San Jose on September 19th-21st. Over 3500 elementary and middle school students attended the 3 day event, receiving presentations from former astronauts and representatives from NMFS and NWS.

“Education Alley” was created to educate and inspire students of all ages. Students and their teachers are given the opportunity to hear from experts in the aerospace education field and to participate in hands-on demonstrations. Everyone has an opportunity to meet astronauts, receive some free give a ways, and learn while having fun. How do satellites help us to learn more about whales and sea turtles? How does a weather satellite work? What’s it like to be a “rocket scientist?” What do astronauts eat? These are just some of the questions posed during Education Alley.





Office of Emergency Services/Homeland Security).

**San Mateo County StormReady:** San Mateo County, located in the San Francisco Bay Area, was declared StormReady in a September 21st ceremony. In the photo (left to right) are David Soroka (WCM, San Francisco Bay Area, David Reynolds (MIC, San Francisco Bay Area), Lt. John Quinlan (Sheriff's Office - Department Chief Office of Emergency Services/Homeland Security), Matt Lucett (District Coordinator - Office of Emergency Services/Homeland Security), Steve Mehali (District Coordinator - Office of Emergency Services/Homeland Security), and Bill O'Callahan (Supervising District Coordinator -



*SOO Tom Salem briefs the pilots of the Chinook Helicopter*

**Northeast Aviation and Technology Program (NEAT) on Sept 19 - 20:** Glasgow SOO Tom Salem spent the last year on a planning committee to bring the NEAT program to Glasgow, Montana. The two day program introduced approximately 700 area students from grades 4 through 12 to science and technology career fields. There were military and civilian aircraft on display for students to see, including an F-16, and a Blackhawk and Chinook helicopter. The first day included sessions on various careers that the students were able to choose such as NASA, GIS, BLM, Fish Wildlife and Parks, Corp of Engineers and two sessions from NWS Glasgow. The first was a hands on forecast of a severe weather event, including storm chaser footage that was conducted by Tom. The second was WCM Tanja Fransen discussing careers in the National

Weather Service with the students. On the second day, HMT Jim Branda, Tom and Tanja staffed a booth at the airport that had hands on weather instruments the students could learn about.

The event also brought in two helicopter crews from the Montana Air National Guard and Army National Guard to the NWS Glasgow office. The Chinook and Blackhawk crews were briefed on the weather across their flight path by SOO Tom Salem and MIC Julie Adolphson and were given a tour of the office by WCM Tanja Fransen. They were highly impressed with the technology of the NWS forecast offices and asked many questions. They even ended up delaying their flight by 18 hours due to the low clouds and precipitation occurring across the area.

**Hispanic Awareness Potluck** - WFO Medford held a Hispanic Awareness potluck lunch on September 21st. Following a game of "Name that Hispanic Country" (with Mexican candy prizes), the staff enjoyed many great dishes. These included chicken mole, chile rellenos, rice, guacamole, salsa, enchilada casserole and ceviche (raw halibut marinated in lemon juice)



**National Hispanic Heritage Month Celebrations Continue:** Leilani Fiorentini, the ASA for the California-Nevada River Forecast Center (CNRFC) in Sacramento and Jeanine Washington, with the Bureau of Reclamation, coordinated a Pot-Luck Fiesta on October 5th in celebration of National Hispanic Heritage Month. The event was held in the Joint Operations Center and was attended by about 50 people, including staff members from the Sacramento WFO, the CNRFC, the California Department of Water Resources and the Bureau of Reclamation. In addition to the pot luck, featured activities included a quiz where participants identified famous Hispanic Americans. Those with correct answers were entered into a drawing for a prize. In addition, several items were displayed

representing Hispanic culture along with photographs from ancient ruins in Guatemala and room decorations which included a picturesque Desert Southwest theme along with popular Spanish phrases posted throughout the room.

Emma Luna, a nationally known artist who lives in Davis California, was invited to speak and display her ceramic art works, but had to reschedule for October 13th. Emma is a native of the Dominican Republic and teaches art in Davis.



**Kampgrounds of America, Inc. Corporate Headquarters in Billings recognized as StormReady Supporter:** The National Weather Service (NWS) in Billings recognized Kampgrounds of America (KOA), Inc. Corporate Headquarters as a StormReady Supporter in a ceremony on October 3rd at their downtown headquarters in Billings. BGEN D.L. Johnson, the director of the NWS, was on hand to recognize the KOA team with a plaque. Congressional representatives along with members of the Montana Disaster and Emergency Services were also in attendance. As a StormReady Supporter, KOA has already added weather safety tips

to their internet homepage and they are currently completing several other potentially life-saving actions. These actions include equipping every one of their 400 plus campgrounds with NOAA Weather Radio All-Hazards, providing campgrounds with Emergency Action Plans, and adding links to local NWS forecast information on their internet and intranet homepages for access by the public and local campground managers. This effort thus far could not have been accomplished without a lot of hard work by many members of the NWS Billings staff. We look forward to continuing this relationship with KOA into the future as they continue to expand this project to the local campgrounds all across the country.

## HYDROLOGY AND CLIMATE SERVICES DIVISION



On October 3rd BG D.L. Johnson traveled to Molt, MT along with representatives from WFO Billings and WRH and presented a 75 year Family Award to Bill Linger. The Linger Family has been doing hourly precipitation reports since 1931 when Bill Linger's Great Aunt settled in the area. The ceremony was held at the Prairie Winds Café in Molt.



Alex Collie of MacKenzie, MT received a 55 year length of service award. The award was presented by Keith Meier, MIC and Sally Springer, OPL of WFO Billings. Mr. Collie has been taking precipitation measurements on the site his mother homesteaded in the early 1900's and does not have plans to retire.

## SCIENTIFIC SERVICES DIVISION

**Ken Pomeroy joins SSD:** Ken Pomeroy joined SSD on October 1. Ken will be focused on the Service Evolution/Verification project. Ken was a Lead Forecaster at the Cheyenne WFO; previously Ken worked at the Great Falls WFO. Welcome Ken!!

**Regional WES Policy:** A Western Region WES policy for the new WES PCs recently purchased will be finalized this week. This will be published along with the New National WES Implementation and Operating Plan and other regional WES policies on the Warning Decision Training Branch (WDTB) web page later this week. The national and regional policies will allow Western Region to tap into the WES national support program provided by WDTB and minimize upgrade and troubleshooting issues. ***If an office has not received their PC, please contact Mark Mollner.***

**WFO Tucson Teams up on Recent Debris Flow Outbreak:** During July 31<sup>st</sup>, an unprecedented number of debris flows occurred in southeast Arizona. WFO Tucson has teamed up with the USGS and the Arizona Geological Survey to study this event. Close to 250 debris flows of various sizes have been identified. Most of these were concentrated in the Santa Catalina Mountains which ring the north side of the Tucson valley. Particularly alarming was the fact that several debris flows exited or came close to exiting the mountain front. Furthermore, prior debris flows of this magnitude predate the historical record. Collaborative goals include producing a debris flow hazard map, determining debris flow frequency along the Santa Catalina's, and developing rainfall thresholds that would trigger future debris flows. The later will be the basis for adding site specific debris flow information and call to action statements in flash flood watches and warnings similar to the NOAA-USGS debris flow demonstration project at WFOs Oxnard and San Diego. Involved in this research includes WFO Tucson service hydrologist Mike Schaffner, forecaster Craig Shoemaker, and SOO Erik Pytlak. Kevin Werner is the WRH contact for debris flows.

**Day Burn Area is leading candidate for USGS - NOAA Debris Flow Intensive Research Area**

**(IRA):** Day Burn Area is leading candidate for USGS - NOAA Debris Flow Intensive Research Area (IRA) 2006/7 - The Day fire in Ventura County is currently being discussed as the location for the IRA for the upcoming year. The IRA will focus research efforts to improve understanding of debris flows in the west. A visit to the burn area is being planned for 10/12 for USGS, NWS, and NOAA scientists. Last year's IRA was near Burbank, CA in the Harvard burn area.

**OHD Ensemble Work Comes to CBRFC:** Retired OHD Senior Scientist Dr. John Schaake and CNRFC HIC Rob Hartman visited CBRFC 9/26 - 9/28 to set up the experimental hydrologic ensemble code at the CBRFC. The hydrologic ensemble code builds on previous work that leverages the frozen GFS archive developed at CDC. Ensembles of precipitation and temperature are created through regression equations developed on the frozen GFS archive and the calibration archive at the RFC. The current code is the product of six years of development at the CNRFC. The development work will continue by leveraging previous development work at CBRFC and by gaining more experience in the year to come. Kevin Werner is the SSD contact.

**HMT Planning:** Planning is underway for next winter's Hydro-met Test Bed activities in the Sacramento/Reno area. One important change is that Timothy Schneider of the NOAA Earth System Research Laboratory has been selected as the HMT Project Manager. Tim will also serve as Chair of the HMT Advisory Panel. Tim's has extensive experience in project management, observational fieldwork, and numerical modeling on a variety of scales. We welcome Tim Schneider and thank Dave Kingsmill for his HMT leadership during the last 18 months.

**RTMA Evaluation and Changes:** SSD has updated the RTMA evaluation web page to include more observations and lump together verification data by multiple days. Chad Kahler is the contact. The

website is: [www.wrh.noaa.gov/wrh/rtma](http://www.wrh.noaa.gov/wrh/rtma). NCEP has found some problems with the lack of influence of the Mesonet observations on the first guess analysis. Aaron Sutula is now sending the enhanced, experimental RTMA to the evaluation sites across the U.S.

**Two new Western Region Publications:** One new Technical Attachment and one new TA-lite are available for viewing on the WRH home page at; <http://www.wrh.noaa.gov/wrh/pubs.php>. The publications are:

- Characteristics of a Record Breaking Heat Wave and Monsoon Event in Southern California During the Summer of 2006 at <http://www.wrh.noaa.gov/wrh/06TAs/ta0608.pdf> **Ivory J. Small and Joseph Dandrea, WFO San Diego, CA**
- Use of MatchGuidance - Examples of the Impact of Model Background Choices and MOS Inputs on Wind Forecasts at <http://www.wrh.noaa.gov/wrh/talite0616.pdf> **Greg Martin, NWS WFO San Diego, CA**

### **Upcoming Science Workshops**

**Thirteenth Annual Workshop on Weather Prediction in the Intermountain West: Thursday November 16, 2006:** The Thirteenth Annual Workshop on Weather Prediction in the Intermountain West will be held Thursday, November 16 on the University of Utah campus. This Workshop will be hosted by the Mountain Meteorology Group in the Department of Meteorology located at <http://www.met.utah.edu/>. This year's workshop is focused on the lessons learned from field programs and operational deployments of surface meteorological equipment in the West. The Workshop is intended to be a forum to discuss the impacts of the practical limitations associated with surface instrumentation in the mountainous West on environmental records, data assimilation systems, and weather forecasts. To submit an abstract or register, you can access the on-line registration form at [http://www.met.utah.edu/jhorel/workshop2006/workshop\\_reg.html](http://www.met.utah.edu/jhorel/workshop2006/workshop_reg.html). The deadline for abstract submission is October 1. The registration deadline is November 1.

### **Training Update:**

**COMET: New Training Modules:** The COMET Program announces the release of a two new modules:

- **Introduction to Ocean Tides:** This module provides an introduction to the origin, characteristics, and prediction of tides. The module is available at [http://www.meted.ucar.edu/oceans/tides\\_intro/index.htm](http://www.meted.ucar.edu/oceans/tides_intro/index.htm) and requires approximately 45 minutes completing time.
- **Basic Terminal Forecast Strategies:** This is the first in a series of units and Warning Event Simulator (WES) cases that comprise the "Distance Learning Aviation Course 2 (DLAC 2): Producing Customer-Focused TAFs." This new unit is available at <http://www.meted.ucar.edu/dlac2/mod1/index.htm> and requires approximately two hours completing time.

**Warning Decision Branch - AWOC:** AWOC Winter Weather training is available through the LMS. Please see <http://www.wdtb.noaa.gov/courses/winterawoc/index.html> for more details on the AWWT.



**Teletraining Sessions:** The Virtual Institute for Satellite Integration Training (VISIT) calendar for October is now available. Offices can register for the teletraining sessions by sending email to: [visit@comet.ucar.edu](mailto:visit@comet.ucar.edu). The teletraining calendar is now at: <http://rammb.cira.colostate.edu/visit/ecal.asp>

The teletraining planning calendar with other sessions is at: <http://rammb.cira.colostate.edu/visit/planning.html>

The current sessions planned for October are:

- **NEW-Introduction to Gridded Model Output Statistics (MOS)** (Basic, Sep 28,29 Oct 2,3,6,9,11,13,20,23,25,27)
- Utilizing GOES Imagery within AWIPS to Forecast Winter Storms (Intermediate, Oct 25,26)
- Cyclogenesis: Analysis utilizing Geostationary Satellite Imagery (Basic, Oct 11,19)
- GOES Sounder Data and Products (Basic, Oct 20)
- GOES High Density Winds (Basic, Oct 13)
- Water Vapor Channel Satellite Imagery (Basic, Oct 6,16,24)
- Forecasting Convective Downburst Potential Using GOES Sounder Derived Products (Basic, Oct 19)

Several recorded VISIT session are available via LMS:

<http://e-learning.doc.gov/coursecatalog/index.cfm>. Then, go to National Weather Service Courses and search on VISIT.

All previous sessions including those with recorded instructor audio and annotations are available at: <http://rammb.cira.colostate.edu/visit/ts.html>.

## SYSTEMS OPERATIONS DIVISION

**Tabby Mountain Transmitter:** Joe Lachacz, Gerry Deiotte, and Ulysess Davis installed the NWR on Tabby Mountain, UT. The transmitter was purchased by Weather Service Headquarters

**ACU OAT Firmware:** Gerry Deiotte assisted the SGX ET shop with installing Ice Free wind sensors and the 2.83E version of the ACU OAT Firmware. The ACU firmware was installed at two sites.

**NWR UHF Link:** Joe Lachacz assisted Jim Beavers at the Elko NWS Office in troubleshooting a NWR UHF link problem. The NWR link was fixed and the Elko transmitter was back on line.



**Merced ASOS Moves:** The Merced, California ASOS was moved on 9/27/06. WFO San Joaquin Valley ESA Mike Brittain, ET Jim Knutson, and FET Jim MacLellan oversaw the move across the municipal airport, which is also a TAF location. The old site was impacted by the proximity of a new retention basin that, when full, resulted in low visibilities due to ground fog in the wet season. The basin also made maintenance of the wind sensors difficult. Pictured is ET Jim Knutson (in blue) monitoring part of the move by City of Merced employees. Photograph by Mike Brittain.



**Energy Awareness Month:** October is Energy Awareness Month and now is a good time for all of us to review our energy habits both at home and at work. This year's theme is "Energy Independence Depends on US - Choose Wisely, Use Wisely". More information can be found at ... [http://www1.eere.energy.gov/femp/services/energy\\_aware.htm](http://www1.eere.energy.gov/femp/services/energy_aware.htm).