



# Impact of Human Behavior



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# Agenda

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- Importance of Energy Awareness
- Navy Region Hawaii Energy Awareness Program
  - Command Support
  - Tenant involvement
  - Facility audits
  - Effective communication
- Program Accomplishments
- Additional Awareness Ideas
- Concepts of Motivation



# Importance of Energy Awareness

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- Increased awareness can generate:
  - Public support
  - Energy savings
  - Improved efficiency



# Command Support

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- **Energy Conservation Board**
  - The Board approves projects, awareness programs, and training initiatives
  - The Region Commander personally chairs monthly Energy Conservation Board meetings
  - The Energy Conservation Board provides leadership and direction to the Energy Program



# Tenant Involvement

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- **Building Energy Monitor (BEM) Program**
  - BEMs assist with the reduction/elimination of energy and water waste in their facility
  - BEMs are identified and trained for every facility in the Region

**“I believe the building energy monitor program is the single most valuable tool we have in consumption reduction and conservation.”**

**RDML T.G. Alexander, Commander, Navy Region Hawaii**

# Facility Audits



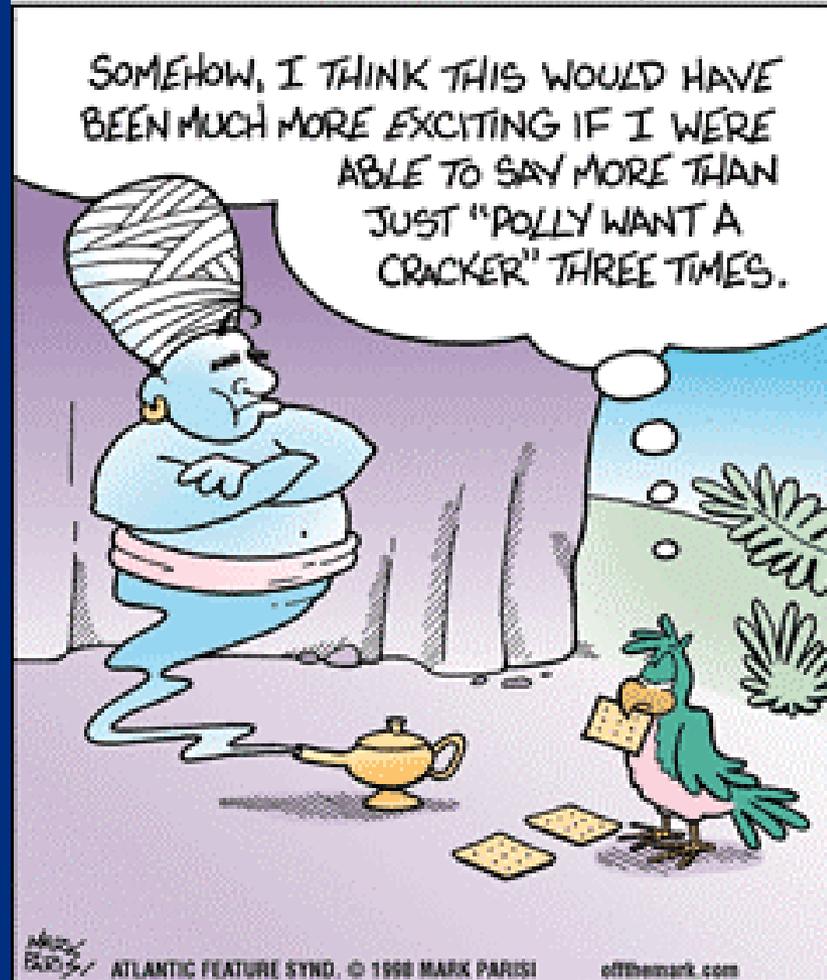
- **Take Charge Hawaii energy audits**
  - Determines energy conservation efforts in Region facilities
    - Energy Team conducts 30-60 audits per month throughout Navy Region Hawaii
    - BEMs conduct monthly audits in assigned building(s)

TAKE CHARGE HAWAII 2008		
NAVFAC HI Energy Audit Form		
Building Number:		
Building Location:		
Area Number:		
Building Energy Monitor:		
Date and Time of Audit:		
	No	Yes-Number of Infractions
AC off during mandated hours.		
ALNAVACTS Message posted in conspicuous location.		
Thermostat set to 78°F or higher.		
AC boundary secured.		
AC equipment secured in unoccupied rooms.		
Lights secured in unoccupied rooms.		
Office equipment secured at the end of the work day.		
No leaking plumbing fixtures/water waste.		
Exterior lights off during the day.		
Comments:		

# Effectively Communicating Your Message



**off the mark**.com by Mark Parisi



# Effectively Communicating Your Message

- Providing messages in various formats increases number of personnel exposed to message

– News articles

**Commander Navy Installations Command** [Close window](#) [Print this page](#)

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Navy Region Hawaii reminds personnel of air conditioning policy

Krista Stehn, Contract Resource Efficiency Manager, Naval Facilities Engineering Command Hawaii Energy Program

In an effort to achieve federal energy reduction requirements, Navy Region Hawaii has established energy conservation policy for all personnel occupying region facilities. Signed in August 2007, COMNAVFACINST 4107.10 addresses energy goals set forth by the 2009 Energy Independence and Security Act, Executive Order 13423, the Energy Policy Act of 2005, and CPMNAVIST 4100.00.

To achieve energy efficiency goals, the region requires all personnel to abide by the following air conditioning (AC) policies:

- Air conditioning hours for region facilities are between 10 a.m. to 2 p.m. and limited to weekdays only. Air conditioning shall be removed on weekends, holidays and after hours.
- Thermostats for central AC and window AC units should be set to 75 degrees Fahrenheit during the approved hours. For air conditioning units without thermostats, adjust a thermometer and set the unit's cooling settings to a maximum of 73 degrees Fahrenheit space cooling.
- Fan-cooled windows and doors shall be kept closed when a building's AC is operating.
- By following the prescribed AC policies, region personnel will significantly impact and reduce Navy Region Hawaii's energy use.
- If you are interested in additional information on the region's AC policy and/or would like AC thermostats for your facility, contact the energy team at 475-2440.
- Not doing ac@nucldcmd.mil as data file is a NativeDoc

This is an official U.S. Navy web site.

**ENVIRONMENT & ENERGY NEWS** CONCEPTS

Utilities will generate more than 7.3 million kilowatt-hours of carbon dioxide emissions, with savings nearly 1 million kilowatt-hours and an extra \$200,000 in energy bills.

The Operation Change One campaign will help achieve the operations Parameter Change (OPAC) "energizing" goals. Environmental, Energy, and Transportation Management" which directs military agencies to decrease energy intensity and increase use of renewable energy. For more information on the Operation Change One campaign, visit [www.operationchangeone.com](#).

**Integrated Solar and Wind Energy Powers Oil Refinery System**

A major environmental protection agency (EPA) facility in California has installed a solar and wind energy system, achieving greenhouse gas emissions saved by year-end of 100,000 pounds of carbon dioxide. The solar energy system, a 100-kilowatt photovoltaic (PV) system, is a green technology and a clean, renewable energy source. This facility is a model for the use of solar energy in a variety of applications. The system has received more than \$40,000 per kilowatt-hour of net energy savings.

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The Military Engineer's duty station and

**Solar window film saves energy costs**

By Krista Stehn, NAVFAC Hawaii Energy Team

... "The solar window film project is an easy way to reduce the region's energy consumption, while helping to create an even, comfortable temperature throughout a building."

... "With the increasing cost of energy, the NAVFAC Hawaii Energy Team is constantly pursuing ways to reduce energy use throughout Navy Region Hawaii," said Greg Gohlsch, energy and utilities project manager, NAVFAC Hawaii. "The solar window film project is an easy way to reduce the region's energy consumption, while helping to create an even, comfortable temperature throughout a building."

... "Completed in early May, the solar window film project was implemented in 11 Region buildings, including its own headquarters. The \$280,000 investment has a payback period of approximately 10 years. Approximately 43,500 square feet of window space in office buildings, several building-related and officer quarters, and the base police station at Pearl Harbor received the film."

... "Using solar window film on building windows is a simple solution that will really make a difference," said Gohlsch. "It's just like putting tin on your car windows. It makes the interior much more comfortable and the air conditioning doesn't have to work as hard."

... "According to the U.S. Department of Energy, approximately one-third of an average building's cooling load is due to solar heat gain through windows. When a building has a window, small amounts of solar heat is absorbed and reflected. However, most of it is transmitted through the glass. As a result, additional cooling is often needed to reduce the increased building temperature created by solar heat gain. To keep occupants comfortable, additional cooling is required and energy costs rise. One proven way to reduce solar heat gain is with solar window film."

... "In single-pane films, window films are composed of an optically clear micro-layered polyester film. A mounting adhesive layer and a protective adhesive liner are applied to the outer side of the film. When the adhesive liner is removed, the adhesive is applied to the interior surface of the window."

... "The manufacturer estimates that its solar window film project can result in 80 percent of the sun's heat," said Gohlsch. "In addition to the energy benefits, solar window film can eliminate up to 99.5 percent of ultraviolet rays, provide a uniform look to a building, and minimize damage from shattered or broken glass."

... "With air conditioning consuming approximately 35 percent of a building's energy costs in Hawaii, it is important for Navy Region Hawaii to find ways to improve its energy efficiency. Solar window film has been used in Hawaii for decades to save and is now providing the Region with a simple solution to a current energy efficiency problem."

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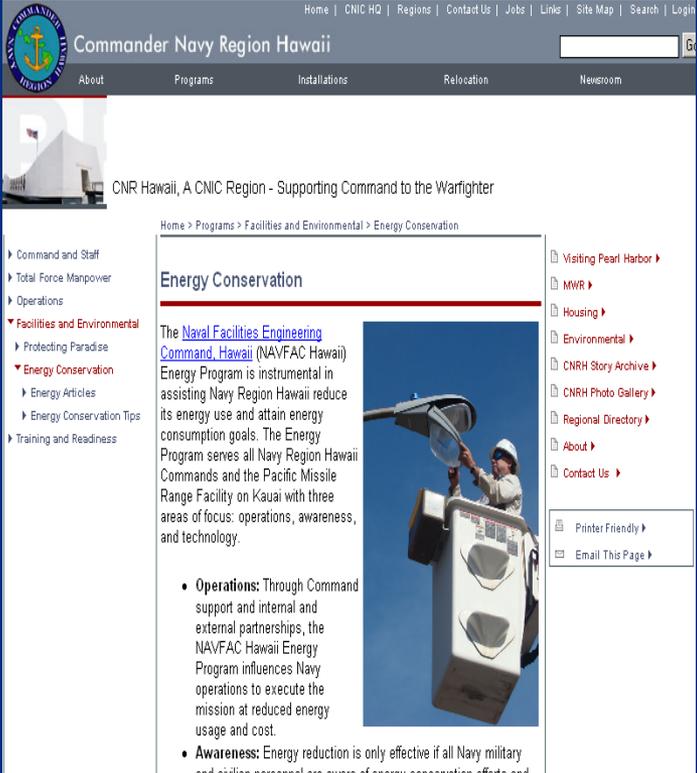
# Effectively Communicating Your Message

- Providing messages in various formats increases number of personnel exposed to message
  - News articles
  - News media coverage



# Effectively Communicating Your Message

- Providing messages in various formats increases number of personnel exposed to message
  - News articles
  - News media coverage
  - Public service announcements
  - Web page



The screenshot shows the website for the Commander Navy Region Hawaii. The page is titled "Energy Conservation" and is part of a series of articles under the "Facilities and Environmental" section. The article discusses the Naval Facilities Engineering Command, Hawaii (NAVFAC Hawaii) Energy Program, which aims to reduce energy use and consumption goals. It mentions that the program serves all Navy Region Hawaii Commands and the Pacific Missile Range Facility on Kauai, with three areas of focus: operations, awareness, and technology. The article includes a photo of a person in a hard hat and safety vest working on a large piece of equipment, possibly a washing machine or dryer, in a utility room. The website also features a navigation menu on the left and a sidebar on the right with links to various resources like "Visiting Pearl Harbor", "MWR", "Housing", "Environmental", "CNRH Story Archive", "CNRH Photo Gallery", "Regional Directory", "About", and "Contact Us".

# Effectively Communicating Your Message

- To assist with efforts, develop a good working relationship with your Public Affairs Office



NEWS RELEASE FROM THE NAVFAC HAWAII PUBLIC AFFAIRS OFFICE

FOR IMMEDIATE RELEASE September 14, 2007 Release No. 07-12

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**Fax:** 608-474-6478

**Naval Facilities Engineering Command, Hawaii**  
**400 Marshall Road**  
**Pearl Harbor, HI 96860-3130**

## Student Outreach Program Targets Tomorrow's Energy Leaders From the mouths of military children to their parent's ears

**PEARL HARBOR-** In August, the Naval Facilities Engineering Command (NAVFAC) Hawaii Energy Team kicked off its Energy Conservation School Outreach Program. Targeted towards schools with a high concentration of Navy dependents, the program provides the students with information on the importance of saving energy.

Three local schools chose to participate in the outreach program: Pearl Harbor Kai Elementary School, Lelaia Elementary School, and Alakamua Middle School. The first school, Pearl Harbor Kai Elementary, launched the program on Aug. 24.

During two assemblies, approximately 500 students learned about various sources of energy, energy use, and ways to conserve. The children were provided with energy saving tips that can easily be applied in their homes and their school, such as turning off lights and electronic equipment, securing windows and doors when air conditioning is on, recycling, and using compact fluorescent light bulbs.

"The students were overly enthusiastic and participatory in the assemblies," said Elyse Chang, principal of Pearl Harbor Kai Elementary School. "With the support of our teachers, we are encouraging maximum participation from our students in the program. It is our hope that this knowledge and awareness of energy conservation will be generalized in the homes of our families."

As part of the outreach program, students are encouraged to participate in one of two contests to demonstrate what they have learned about saving energy. Elementary school children have an opportunity to compete in a "design a bookmark" contest, while the middle school students may take part in a "create a poster" contest.

(more)

Naval Facilities Engineering Command: [www.navfac.navy.mil](http://www.navfac.navy.mil)

## 2-2-2 Student Outreach Program

Winners will be chosen from each grade of each participating school. The winning bookmarks and posters will be printed and distributed throughout the students' school and winners will receive recognition from Navy Region Hawaii senior officials. In addition, winning entries will be on public display at the Pearl Harbor Navy Exchange during Energy Conservation Month in October.

"I'm encouraged by the eagerness of the students participating in the school outreach program," said Capt. Taylor Skardon, commander, Naval Station Pearl Harbor. "The program contributes to the Navy's continuing efforts to build partnerships with the local community while also educating our youth on the value of conserving precious resources."

Following the successful launch of the Energy Conservation School Outreach Program at Pearl Harbor Kai Elementary School, the NAVFAC Hawaii Energy Team continued its effort at Alakamua Middle School in late August, and will begin the program at Lelaia Elementary School at the end of September.

It is estimated that the program will reach approximately 1,800 students and the Navy's Energy Team expects it will positively impact local schools, Navy families, and the naval community in Hawaii.

**Photo/Caption:** High resolution images available. Please contact Denise Emrick



070824-A-14835-001



070824-A-14835-002

Krista Stehn, coordinator of NAVFAC Hawaii's Energy Team Outreach Program, speaks to an excited crowd of kindergarten to second grade students at Pearl Harbor Kai Elementary on Aug. 24, about where energy comes from, and how it is used and can be conserved. Photo taken by Michael Stehn, photographer.

- USN -

For more information about NAVFAC Hawaii and/or Naval Facilities Engineering Command visit [www.navfac.navy.mil](http://www.navfac.navy.mil)

## Innovation, Leadership, Performance

The Naval Facilities Engineering Command (NAVFAC) manages the planning, design, construction, contingency engineering, real estate, environmental, and public works support for U.S. Navy shore facilities around the world. We provide the Navy's forces with the operating, exceptional, support and training bases they need. NAVFAC is a global organization with an annual volume of business in excess of \$1.1 billion. As a major Navy Systems Command and an integral member of the Navy and Marine Corps team, NAVFAC delivers timely and effective facilities engineering solutions worldwide.

Naval Facilities Engineering Command: [www.navfac.navy.mil](http://www.navfac.navy.mil)

## Eliminate Phantom Energy Loads

Many devices draw a small amount of power when they are plugged in but not in use. These "phantom" loads occur with many devices including computers, monitors, radios, printers, paper shredders, and cell phone chargers. The Department of Energy estimates that 75 percent of the electricity used to power home electronics is consumed while the products are turned off. To avoid phantom loads at work and at home, unplug devices when not in use, or use a power strip and cut all power to the devices by turning off the power strip at the end of the day or when the devices are no longer needed.



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Commander Navy Region Hawaii

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**Nominations solicited for Region Energy Awards Program**

Naval Facilities Engineering Command Hawaii

To recognize the outstanding efforts put forth by military and civilian personnel, Navy Region Hawaii has established a Region Energy Awards Program (COMNAVREGHINST 4101.1B).

On a quarterly basis, nominations will be accepted for individuals, small groups and activities who have taken action to assist the region with its energy conservation efforts. If you know of an individual, small group or activity that has taken steps to reduce energy use or improve energy efficiency, you are encouraged to complete a nomination form.

To request a nomination form, contact the Naval Facilities Engineering Command Hawaii Energy Team at 471-0440 or krista.stehn.ctc@navy.mil. Nominations for the second quarter of Fiscal Year '08 must be received by April 30.

Quick Links

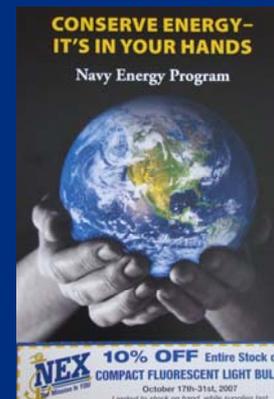
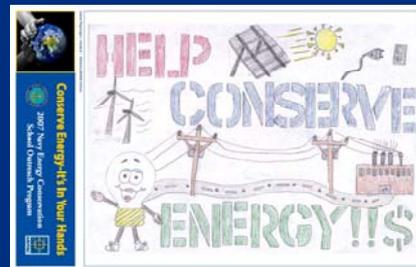
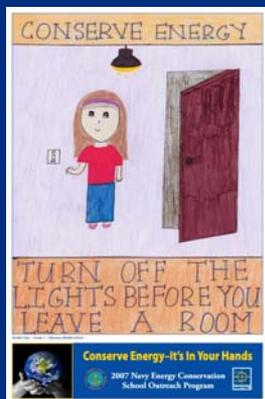
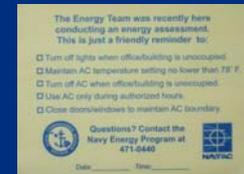
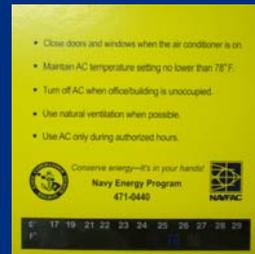
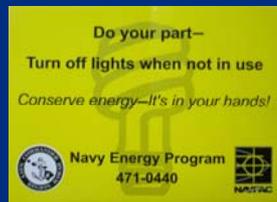
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# Effectively Communicating Your Message

- Awareness materials reinforce the message





# Navy Region Hawaii – Awareness Accomplishments

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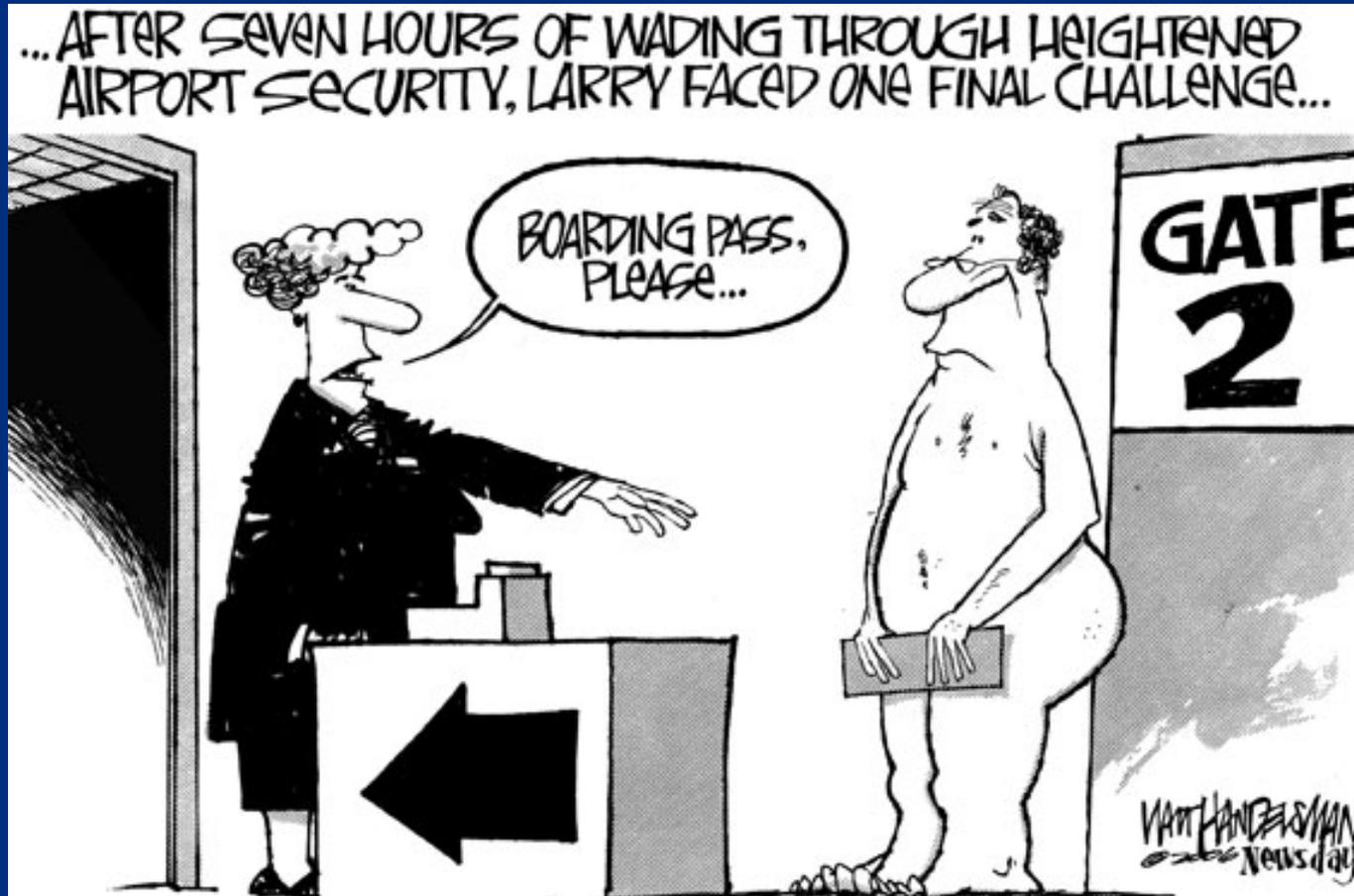
- **Continually exceed annual energy reduction goals**
- **Substantially increased the number of identified and trained BEMs**
  - Tripled the number of BEMs identified from FY07
  - Trained nearly 1300 personnel in FY08
- **Improved audit success rate from 15 to 74 percent**
- **Expanded energy awareness to Navy housing**
- **Increased media relations threefold**
- **Increased the Navy's public image as a leader in energy conservation**



# Additional Awareness Ideas

- Suggestion box
- Event displays
- School outreach
- Energy fun run/walk
- New hire briefings
- Departmental trainings
- Facility tours
- Rewards program

# How to Motivate





# How to Motivate

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- **Provide incentive**
- **Convenient**
- **Personal impact**
- **Relevant**
- **Appeal to emotion**



# How to Motivate





# Would you like to know more about this session?

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- Sain Engineering Associates
- [Krista.stehn.ctr@navy.mil](mailto:Krista.stehn.ctr@navy.mil)