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MSGID/GENADMIN/CNO WASHINGTON DC/-/APR// SUBJ/ NAVY 2009 EARTH DAY MESSAGE//
RMKS/1. ON APRIL 22 THE NAVY AND THE NATION, WILL CELEBRATE EARTH DAY. THIS YEAR'S THEME IS "PARTNERING FOR THE PLANET."
2. PARTNERING WITH OTHER MILITARY SERVICES, FEDERAL AND STATE AGENCIES, INDUSTRY, ACADEMIA AND NON-GOVERNMENTAL ORGANIZATIONS, THE NAVY IS ACHIEVING REMARKABLE SUCCESS IN PROTECTING AND ENHANCING THE ENVIRONMENT, ENERGY MANAGEMENT AND CARBON FOOTPRINT REDUCTION. LED BY TASK FORCE ENERGY, THE NAVY IS TRANSFORMING ENERGY PRODUCTION AND CONSUMPTION PRACTICES ASHORE, AFLOAT, AND IN THE AIR. MORE EFFICIENT USE OF FOSSIL FUELS, COUPLED WITH INCREASED RELIANCE ON ALTERNATIVE ENERGY, WILL MINIMIZE STRATEGIC AND TACTICAL DEPENDENCE ON VOLATILE AND VULNERABLE ENERGY SOURCES. WE WILL ALSO SIGNIFICANTLY REDUCE OUR CARBON FOOTPRINT. WHILE MUCH WORK REMAINS TO BE DONE, IMPRESSIVE ACCOMPLISHMENTS HAVE ALREADY BEEN ACHIEVED. THESE INCLUDE:
- GEOTHERMAL. NAVAL AIR WEAPONS STATION (NAWS) CHINA LAKE, CALIFORNIA, HAS A 270 MEGAWATT GEOTHERMAL PLANT. DELIVERING AN AVERAGE OF 1.4 MILLION MEGAWATT-HOURS (MWH) OF ELECTRICITY ANNUALLY TO THE CALIFORNIA ELECTRIC GRID, THIS PLANT IS THE LARGEST RENEWABLE ENERGY PRODUCER IN THE DEPARTMENT OF DEFENSE AND THE THIRD LARGEST GEOTHERMAL ELECTRICITY PRODUCER IN THE U.S.
- PHOTOVOLTAIC. THE NAVY HAS SOLAR POWER PROJECTS IN NUMEROUS LOCATIONS. COMMANDER NAVY REGION SOUTHWEST (CNRSW) PHOTOVOLTAIC SYSTEMS COLLECTIVELY PRODUCE 700 MWH OF ELECTRICITY PER YEAR. COMMANDER NAVY REGION HAWAII HAS A 309 KW SOLAR ELECTRIC ROOFTOP ON TOP OF FORD ISLAND'S BUILDING 54. THIS SYSTEM IS THE LARGEST FEDERAL PHOTOVOLTAIC ARRAY IN HAWAII, COVERING 31,000 SQUARE FEET AND PRODUCING MORE THAN 400 MWH PER YEAR. CONSTRUCTION OF SEVERAL OTHERS AT OUR EAST COAST BASES WILL BEGIN SHORTLY USING FUNDING RECEIVED FROM THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009.
- WIND. NAVAL BASE GUANTANAMO BAY, CUBA HAS FOUR WIND TURBINES WITH A COMBINED CAPACITY OF 3.8 MEGAWATTS, PRODUCING ENOUGH ELECTRICITY TO SUPPLY ABOUT 25 PERCENT OF THE PEAK POWER NEEDED TO OPERATE THE BASE. THE PROJECT REDUCES THE CONSUMPTION OF DIESEL FUEL BY 325,000 GALLONS PER YEAR, REDUCES AIR POLLUTION BY ELIMINATING SULFUR DIOXIDE, NITROUS OXIDE, AND GREENHOUSE GASES, AND SAVES THE TAXPAYERS MILLIONS IN ANNUAL ENERGY COSTS. ADDITIONALLY, THE NAVY HAS THREE WIND TURBINES ON SAN CLEMENTE ISLAND WITH A COMBINED PRODUCTION CAPABILITY OF 675 KILOWATTS.
- FUEL CONSUMPTION FOR NAVY SHIPS. THE NAVY'S INCENTIVIZED ENERGY CONSERVATION (I-ENCON) PROGRAM TAKES ADVANTAGE OF "SMART STEAMING" PRACTICES TO REDUCE SHIP'S FUEL CONSUMPTION. I-ENCON PROVIDES TRAINING AND REWARDS LEADING FUEL CONSERVERS WITH SPECIAL RECOGNITION AND CASH INCENTIVES TO COMMANDING OFFICER'S DISCRETIONARY FUNDS. IN ADDITION, NAVAL SEA SYSTEMS COMMAND (NAVSEA) HAS INSTALLED STERN FLAPS ON APPROXIMATELY 100 SURFACE COMBATANTS. STERN FLAPS CREATE AN OPTIMAL HYDRODYNAMIC PROFILE THAT REDUCES FUEL CONSUMPTION AND ENHANCES MILITARY CAPABILITY BY INCREASING THE TOP SPEED OF CRUISERS AND DESTROYERS. OTHER FUEL SAVING EXAMPLES INCLUDE HULL AND PROPELLER COATINGS THAT REDUCE DRAG, AND TRIM LOOP BOILER CONTROL SYSTEMS THAT

OPTIMIZE THE AMOUNT OF ENERGY USED TO CREATE STEAM FOR SHIPBOARD APPLICATIONS.
- TACTICAL VEHICLES. THE NAVY IS LOOKING AT WAYS TO MAKE TACTICAL VEHICLES MORE FUEL-EFFICIENT. A JOINT GOVERNMENT-INDUSTRY-ACADEMIA GROUP RECENTLY EVALUATED OVER 100 TECHNOLOGIES FOR CONCEPT VEHICLES THAT INCORPORATE LIGHTWEIGHT MATERIAL AND FUEL-EFFICIENT DESIGN. THE ACQUISITION COMMUNITY IS CONSIDERING THESE TECHNOLOGIES FOR FUTURE VEHICLE PROCUREMENTS. WE ARE ALSO EXPLORING COMPACT, MOBILE FUEL CELL SYSTEMS TO POWER CRITICAL VEHICLE EQUIPMENT SUCH AS RADIOS, COMPUTERS AND GPS SYSTEMS SILENTLY AND WITHOUT THE ENVIRONMENTAL EMISSIONS ASSOCIATED WITH CONVENTIONAL POWER SOURCES.
- SHIPBOARD AIR-CONDITIONING (AC). SHIPBOARD AC PLANTS HAVE BEEN MADE MUCH MORE ENERGY EFFICIENT. CONVERSION KITS IMPROVE THE ENERGY EFFICIENCY OF AC PLANTS UP TO 15 PERCENT AND AC PLANTS BEING INSTALLED ON NEW CONSTRUCTION SHIPS ARE 20-35 PERCENT MORE ENERGY EFFICIENT THAN THE OLDER AC PLANT DESIGNS. NAVY RECEIVED AN EPA CLIMATE PROTECTION AWARD FOR THESE EFFORTS AND CONTINUES RESEARCH INTO TECHNOLOGIES THAT WILL FURTHER IMPROVE THE ENERGY EFFICIENCY OF FUTURE SHIPBOARD AC PLANTS.
3. LOOKING TO THE FUTURE, WE WILL SOON BE USING THE AMERICAN RECOVERY AND REINVESTMENT ACT ENERGY FUNDING TO ACCELERATE THE DEVELOPMENT AND FIELDING OF SYSTEMS TO REDUCE FOSSIL FUEL CONSUMPTION AND OPERATIONAL VULNERABILITY ASSOCIATED WITH A LAND OR SEA FUEL TETHER. NEW SYSTEMS UNDER DEVELOPMENT INCLUDE: HYBRID ELECTRIC DRIVES TO POWER SURFACE COMBATANTS; A MUCH MORE EFFICIENT AND CLEANER F/A-18 ENGINE; NEW PROTOCOLS FOR FUEL ALTERNATIVES, BOTH SYNTHETIC AND BIOFUELS; OCEAN THERMAL ENERGY POWER PLANTS; SMART-GRIDS SUPPORTING OUR SHORE INFRASTRUCTURE; AND POWER EFFICIENCY MODIFICATIONS TO TACTICAL VEHICLES AND THEIR HVAC AUXILIARIES.
4. OUR NAVY CONTINUES TO BE AN ENVIRONMENTAL LEADER AND STEWARD. THE NAVY'S PREPOSITIONED OIL SPILL CLEANUP ASSETS ARE A KEY PART OF THE NATION'S RESPONSE NETWORK, PARTNERING WITH THE U.S. COAST GUARD TO RESPOND TO OIL SPILL EMERGENCIES WORLDWIDE. WE SPONSOR MORE MARINE MAMMAL RESEARCH THAN ANY OTHER ORGANIZATION IN THE WORLD, INVESTING MORE THAN $100 MILLION OVER THE PAST FIVE YEARS IN PARTNERSHIP WITH OTHER AGENCIES, ACADEMIA AND NON-GOVERNMENTAL ORGANIZATIONS. EARLIER THIS MONTH WE COMPLETED THE PHASEOUT OF CHLOROFLUOROCARBON (CFC) REFRIGERANTS, AN OZONE DEPLETING SUBSTANCE, ON AIRCRAFT CARRIERS. ON ANOTHER FRONT, NAVY REGION SOUTHWEST'S WATER CONSERVATION EFFORTS REDUCED CONSUMPTION 15 PERCENT BETWEEN OCTOBER 2007 AND SEPTEMBER 2008. FINALLY, SINCE 2005 THE NAVY HAS SUCCESSFULLY PARTNERED WITH DOD, STATES, COUNTIES, ENVIRONMENTAL ORGANIZATIONS AND LAND TRUSTS TO SECURE CONSERVATION EASEMENTS FOR NEARLY 5000 ACRES OF LAND ADJACENT TO NAVY BASES. THESE EASEMENTS NOT ONLY CONSERVE AND PROTECT NATURAL RESOURCES,
BUT ALSO ENSURE COMPATIBLE USE WITH ON-BASE ACTIVITIES. NAVY'S NON-DOD PARTNERS HAVE CONTRIBUTED $20 MILLION, OR TWO THIRDS, OF THE TOTAL COST TO OBTAIN THESE EASEMENETS.
5. ON THIS EARTH DAY, I ENCOURAGE YOUR PARTICIPATION IN LOCAL EARTH DAY EVENTS, AND THANK YOU FOR YOUR PROACTIVE DAILY ACTIONS TO PROTECT OUR ENVIRONMENT FOR FUTURE GENERATIONS WHILE WE CARRY OUT OUR PRIMARY MISSION IN DEFENSE OF THE NATION.
6. RELEASE AUTHORIZED BY VICE ADMIRAL M. K. LOOSE, N4.//
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