




















## COST/TIME SAVINGS





[Click on photos to see corresponding NAVOSH Success Stories]

ACTIVITY	CHALLENGE	IMPROVEMENT	COST SAVINGS	TIME/LABOR SAVINGS
<p>ACU-4 Little Creek, VA</p>	<p>Prolonged awkward postures, extended reaches overhead.</p> 	<p>Design of height-adjustable, rotating mobile propeller fixture for transporting LCAC propellers and working on them in the Propeller Shop.</p>	<p>Reduced risk of WMSDs of the neck, back, arms, and shoulders with resulting workers' compensation costs.</p>	<p>Return on investment of 223 days based on improvements in productivity and the statistical probability of avoidance of at least one work-related injury or WMSD.</p>
<p>COMNAVREG San Diego, CA</p>	<p>Awkward postures, extended reaches, heavy lifting</p> 	<p>Redesigned work stations, sit/stand stools, scissor lift tables</p>	<p>Reduced risk of WMSDs of the neck, back, arms, and shoulders with resulting workers' compensation costs.</p>	<p>\$41,433.00 every year for a return on investment in 519 days, or approximately one year and five months.</p>
<p>SWRMC San Diego, CA</p>	<p>Awkward postures, lifting overhead, prolonged standing in Sail Shop</p> 	<p>Larger work stations, ergonomic seating, automated storage rack, adjustable frame for sail webbing tasks</p>	<p>Reduced risk of WMSDs of the neck, back, arms, and shoulders with resulting workers' compensation costs.</p>	<p>Fabrication, storage, and retrieval task time savings. Yearly potential injury aversion and productivity cost savings are estimated to be \$306,500.00</p>
<p>PNSY Kittery, ME</p>	<p>Drydock fall protection perimeter in need of update</p> 	<p>Installed new guardrail system that is safer and easier to install and maintain than old post and chain system</p>	<p>Cost saving for manufacturing and installation was about 25%</p>	<p>Decrease in costs over operating/maintaining outdated system expected to be over 50%. Maintenance cost savings now equal over \$10,000/year</p>

ACTIVITY	CHALLENGE	IMPROVEMENT	COST SAVINGS	TIME/LABOR SAVINGS
<p>NMC San Diego, CA</p>	<p>Lifting over shoulder height in pharmacy lotion compounding station</p> 	<p>Hydraulic scissors lift table adjusts to height of technician</p>	<p>\$149,000 over ten-year life cycle of table</p>	<p>Increased efficiency and decreased downtime by reducing incidence of WMSDs among pharmacy technicians</p>
<p>NAS JRB, Willow Grove, PA</p>	<p>Deteriorated local exhaust ventilation in spray paint booth.</p> 	<p>Removal of paint residues from fans and ductwork. Establishment of formal preventive maintenance plan.</p>	<p>Extended life of paint-spray booth's local exhaust ventilation system. Reduced time ground support equipment out of service.</p>	<p>Decreased time required to remove corrosion and to repaint ground support equipment.</p>
<p>NASNI, San Diego, CA</p>	<p>Repairing number 3 doors on FA-18 aircraft using hand held power tools.</p> 	<p>Fixture to hold door in place and allow partial rotation and reduced-vibration powered hand tools.</p>	<p>\$181,300 over ten years</p>	<p>Reduced time to repair door from 15 to 11 days.</p>
<p>Public Works Center, Philadelphia, PA</p>	<p>Paint spray booth needed updated ventilation system.</p> 	<p>New exhaust system, improved lighting, installation of pressure gauge.</p>	<p>Avoidance of exposure to airborne mists, vapors, and fumes from paints and solvents with resulting workers' compensation costs.</p>	<p>Time to complete spray painting tasks cut in half.</p>
<p>SIMA San Diego, CA</p>	<p>Manual transporting of heavy, awkward portable welding equipment</p> 	<p>Developed fixture that increases maneuverability and distributes the load between two people.</p>	<p>Reduced risk of injuries and WMSDs of the back, arms, and shoulders with resulting workers' compensation costs.</p>	<p>Decreased time getting to and from jobsites. Decreased time needed to recover from fatigue before starting welding tasks. Increased welding efficiency.</p>

ACTIVITY	CHALLENGE	IMPROVEMENT	COST SAVINGS	TIME/LABOR SAVINGS
<p>Naval Hospital, NAS Rota, Spain</p>	<p>Streamline cataloging of hazardous materials.</p> 	<p>Industrial hygienists use cross-referenced databases to assess health risks associated with HM.</p>	<p>Avoidance of future HM exposure and injury with resulting workers' compensation costs.</p>	<p>Industrial hygienists complete HM risk assessments more rapidly and are available to spend time on other services.</p>
<p>PWC San Diego, CA</p>	<p>Accessing roll-offs and redistributing HW</p> 	<p>Remote control hazardous waste rake attached to forklift</p>	<p>\$5,200.00 to \$8,800.00 annually per facility</p>	<p>Reduction in time from 15 to 20 minutes to 2 to 3 minutes per HW redistribution</p>
<p>SIMA, Coronado, CA</p>	<p>Grinding with heavy, awkward, strongly vibrating conventional grinder</p> 	<p>Substitution of pneumatic grinder.</p>	<p>Decreased risk of irreversible HAVS and carpal tunnel syndrome with resulting workers' compensation costs</p>	<p>Time to complete repair projects reduced by 25%</p>
<p>NADEP, Jacksonville FL</p>	<p>Repairing flapwells on Patrol aircraft using hand held power tools</p> 	<p>Fixture to hold flapwell in place at comfortable level for performing corrosion control</p>	<p>Decreased risk of work-related musculoskeletal disorders with resultant workers' compensation costs</p>	<p>Reduced time for corrosion control by 50%</p>
<p>Branch Medical Clinic, Pearl Harbor, HI</p>	<p>Muskuloskeletal injuries account for 42% of all medical releases of active duty Navy members.</p> 	<p>Sports Medicine and Rehabilitation Therapy (SMART) Centers committed to return to readiness programs</p>	<p>Return to active duty in timely manner. Avoidance of future injuries through education.</p>	<p>Since opening in July 2002 successfully returned 78% of patients to active duty status within 30 days of visit to SMART vice prior 90 day process</p>

<b>ACTIVITY</b>	<b>CHALLENGE</b>	<b>IMPROVEMENT</b>	<b>COST SAVINGS</b>	<b>TIME/LABOR SAVINGS</b>
<p>NNSY, Norfolk, VA</p>	<p>Manually pulling electrical cable weighing 7 lbs/linear ft</p> 	<p>Mechanically assisted cable pulling process</p>	<p>Decreased risk of injuries. Cost reduction up to 50%; combined savings over \$118,000.00.</p>	<p>Labor reduction from 30 - 70 workers to 7 - 12 workers per cable pull</p>
<p>PWC, San Diego, CA</p>	<p>Manually pulling heavy tarps over dump truck beds</p> 	<p>Automatic system for covering truck beds</p>	<p>Decreased injuries and cumulative trauma disorders. Direct savings of \$74,970.00 annually</p>	<p>Increased productivity from 25 minutes/truck to 10 minutes/truck</p>
<p>Various</p>	<p>Mobile cranes collapse when load limit exceeded</p> 	<p>Load Moment Indicators or Load Indicating Devices installed on 132 mobile cranes at 28 locations</p>	<p>Avoidance of serious injuries and destruction of millions of dollars worth of equipment and materials</p>	<p>Decreased downtime by reducing the number of crane-related mishaps and personnel injuries</p>
<p>PWC, San Diego, CA</p>	<p>Manual cable cleaning and lubrication</p> 	<p>Automated cable lubrication system</p>	<p>Reduced annual cable cleaning costs by 89%, from about \$320,000.00 to about \$34,000.00</p>	<p>Increased efficiency and decreased downtime by reducing incidence of hand injuries among cable cleaners</p>
<p>NUWC, Newport, RI</p>	<p>Manually transferring towed array test cable reels weighing up to 7,000 lbs.</p> 	<p>Mechanical cable reel handler</p>	<p>Avoided approximately \$67,500.00 annually on about 225 reels/ year</p>	<p>Labor reduction from of 4 - 6 workers to 1 worker to transfer a cable reel, increasing efficiency and reducing risk of injuries</p>

<b>ACTIVITY</b>	<b>CHALLENGE</b>	<b>IMPROVEMENT</b>	<b>COST SAVINGS</b>	<b>TIME/LABOR SAVINGS</b>
NADEP, North Island, CA	Vibration from rivet guns exposed workers to serious risk of hand-arm vibration syndrome 	Remote control device reduces transmission of rivet gun vibration to user's hands, arms, and upper body	Reduced annual costs of F/A-18 maintenance by about \$29,669.00	Eliminated risk of work-related vibration injuries and reduced turn around time on F/A-18 aircraft by 20 hours/unit
SIMA, Norfolk, VA	Off-site training of new forklift operators and periodically re-qualifying experienced operators 	Developed in-house forklift operator training classes	Estimated annual direct cost avoidance of \$50,600.00	Decreased downtime by eliminating need to send forklift operators off-site for periodic forklift training
NFESC, Port Hueneme, CA	OSHA ventilation requirements for spray-paint operations costly and impractical for corrosion control and paint hangars 	Obtained revised OSHA local exhaust ventilation requirements for corrosion control and paint hangars	Initial cost savings of about \$250,000.00 per new hangar and life cycle cost avoidance of another \$250,000.00 per hangar	Improved protection of aircraft maintenance workers from fire and explosions and from inhalation hazards during aircraft maintenance operations
IH Dept., NH, Rota, Spain	Numerous respiratory illnesses and allergic reactions reported by workers in an office building. Indoor air quality investigation revealed fungus contamination in building's air handling system. 	Navy microbiologist identified fungal contaminants and recommended method for decontaminating building's air handling system and for preventing recontamination	Navy experts resolved indoor air quality incident, avoiding about \$9,000.00 in cost to bring consultants from U. S. to identify air contaminants and resolve this incident	Downtime and medical evaluation due to respiratory illnesses and allergic reactions. Building returned to normal levels after building decontaminated