



177th FIGHTER WING JERSEY DEVILS



SAFETY AND HEALTH NEWSLETTER

MAY 2003

THE ORIGINS OF ERGONOMICS

Ergonomics is a relatively new branch of science, which celebrated its 50th anniversary in 1999, but relies on research carried out in many other older, established scientific areas, such as engineering, physiology and psychology. It originated in World War 2, when scientists designed new and improved systems without fully considering the people who would be using them. It gradually became clear that systems and products would have to be designed to take account of many human and environmental factors if they are to be used safely and effectively. This awareness of people's requirements resulted in the discipline of ergonomics.

Size and shape

Some years ago, researchers compared the relative positions of the controls on a lathe with the size of an average male worker. It was found that the lathe operator would have to stoop and move from side to side to operate the lathe controls. An 'ideal' sized person to fit the lathe would be just 4.5 feet tall, 2 feet across the shoulders and have an arm span of 8 feet.

This example epitomizes the shortcoming in design when no account has been taken of the user. People come in all shapes and sizes, and the ergonomist takes this variability into account when influencing the design process.

Vision

Vision is usually the primary channel for information, yet systems are often so poorly designed that the user is unable to see the work area clearly. Many workers using computers cannot see their screens because of glare or reflections. Others, doing precise assembly tasks, have insufficient lighting and suffer eyestrain and reduced output as a result.

Sound

Sound can be a useful way to provide information, especially for warning signals. However, care must be taken not to overload this sensory channel. A recent airliner had 16 different audio warnings, far too many for a pilot to deal with in an emergency situation. A more sensible approach was to have just a few audio signals to alert the pilot to get information guidance from a visual display.

Job design

One goal of ergonomics is to design jobs to fit people. This means taking account of differences such as size, strength and ability to handle information for a wide range of users. Then the tasks, the workplace and tools are designed around these differences. The benefits are improved efficiency, quality and job satisfaction. The costs of failure include increased error rates and physical fatigue - or worse.

177th FIGHTER WING SAFETY STAFF

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If you have any safety related topics you would like to see in our publication or have any questions that we can help with, please contact the Wing Safety Office at 6013 or e-mail at Robert.Fusco@njatla.ang.af.mil

Bicycle Safety



Bicycles are a nice way to get around. You can use them for short trips to the store, for a leisurely ride to the park, and also for good exercise. Getting out in the fresh air on a bike can create a feeling of freedom and well-being as you pedal along and enjoy the day. An added bonus is the fact that a bicycle is very environmentally friendly. It does not produce the noise pollution of cars, trucks, and motorcycles, and also does not produce harmful exhaust emissions that can impact human health or damage the environment.

Biking can be a very safe way to travel if you follow a few basic precautions:

- ⇒ Start by choosing the right type of bike, or evaluating the one that you are now using. Does your bike choice match your choice of activities? Lightweight 3, 5, or 10 speed bikes allow you to shift gears and are good for distance riding and hilly areas but are not as good for carrying groceries home from the store. They also require considerably more maintenance than more sturdy middleweight bicycles. The middleweight bicycle can be a “work-house” type of bicycle - stable and strong with a coaster brake and single speed. Middleweight bicycles will also accommodate a basket which can be very useful for carrying items. A chain guard will keep your clothing from being caught, and fenders will keep road spray from flying up on you as you ride.
- ⇒ If you are inexperienced at riding a bike or are out of practice, start by riding your bike under favorable conditions in a location where there is minimal or no traffic. (i.e. a vacant parking lot or bike path).
- ⇒ Make sure that your bike has reflective material on the front, back, and sides, and that you can be seen from all directions by approaching cars. A bicycle headlight is recommended. Also, wearing reflective or light colored clothing will enable you to be better seen by drivers.
- ⇒ Do not bicycle while barefoot! Also, slip-ons and sandals may be dangerous and may slip off the brake pedals. Wear shoes or sneakers that offer good traction.
- ⇒ Take good care of your bike. Good brakes are essential. All mechanical parts, especially axle nuts, should be secure. The seat saddle should be at the right height for comfort, and tires should be in good condition and at the correct air pressure. Lubricate the chain and all bearings regularly, and keep your bike clean to be more easily seen.
- ⇒ Never ride double! Unless you are riding a tandem bicycle, your bicycle was not designed for the extra person and the extra weight could throw you off balance with painful results. A second person can also obstruct your vision or damage your bike.
- ⇒ Always watch where you are going! This may seem obvious, but many bicycle accidents occur due to hitting a rut, hole, or loose ground.
- ⇒ Carry basic tools with you on longer bike trips. These should include a wrench, screwdriver, pliers, and a tire patch kit.
- ⇒ As a general rule, do not journey further from home on a bicycle that you could walk. You may have to walk your bike home in the event of a flat tire or other malfunction.
- ⇒ At intersections, proceed with caution even with a green light. Some drivers will turn corners in front of you and others may fail to notice you at all.
- ⇒ Plan your route to avoid heavy traffic and night riding. Also, it is best for both you and your bicycle not to ride in the rain, fog, or snow.
- ⇒ Wearing a good quality bike helmet will protect your head in the event of an accident, and may save you serious injury.

DRIVING AND ALCOHOL

Alcohol Awareness

Definition of Impairment -

In New Jersey, a person is guilty of drunk driving if he/she operates a motor vehicle with a Blood Alcohol Concentration (BAC) of 0.10 percent or greater. BAC refers to the amount of alcohol in your blood. Although the law refers to a 0.10 percent BAC, you can be convicted of driving while under the influence of intoxicating liquor even when your BAC is below 0.10 percent. Consuming even small amounts of alcohol dulls the senses, decreases reaction time, and hampers judgment, vision and alertness. If you consume any amount of alcohol and your driving is affected, you can be convicted of drunk driving.

A Drink is a Drink is a Drink			
	Beer	Wine	Alcohol
			
Volume	12 oz.	5oz.	1 1/3
Percent Alcohol	4.5%	11%	40%
Amount Alcohol	.54 oz.	.55oz.	.53oz.

New law Enacted in 2000

A new provision (Public Law 99, Chapter 410) was added to New Jersey's driving under the influence laws and penalties.

A parent or guardian who is convicted and who has a minor under age 17 as a passenger in the motor vehicle is also guilty of a disorderly persons offense.

In addition the penalties otherwise prescribed by law, a person shall forfeit the right to operate a motor vehicle for period of not more than six months and shall be ordered to perform community service for a period of not more than 5 days.

Registration Revocation/Ignition Interlock

In addition to the penalties listed, judges may order the installation of an ignition interlock device or the revocation of vehicle registration (Public Law 2000, Chapter 83). The ignition interlock device, which measures the drivers blood alcohol level, may be required for up to three years following license restoration after a DUI conviction.

Consequences of Underage Drinking and Driving -

In New Jersey, you must be 21 to purchase, possess or consume alcoholic beverages. Underage drinking is illegal and can have severe consequences for young people who drink and for adults who provide alcoholic beverages to those under 21.

Buy or drink alcohol in a place with an alcohol beverage license, and you may be fined \$500 and lose your license for 6 months. If you do not have your driver's license, the suspension starts when you are first eligible to receive a license. And you may be required to participate in an alcohol education or treatment program. If you are under 21 and drive with any detectable amount of alcohol in your system (.01 BAC or above), you will be subjected to the following penalties:

- loss or postponement of driving privileges for 30 to 90 days
- 15 to 30 days of community service
- participation in a program of alcohol education and highway safety

*** If occurring within a school zone or school crossing, this penalty is increased under Public Law 99 Chapter 185.**

FIRE AT THE PUMP

1. Do not re-enter your vehicle while refueling!

You should not get back into the vehicle during refueling! This simple act can cause a buildup of static electricity and cause a spark when you touch the nozzle. If you must reenter the vehicle, make sure you discharge any static buildup upon exiting the car before going back to the pump nozzle. This can be done safely by touching a metal part of the vehicle, such as the door, or some other metal surface, with a bare hand.

2. Do not fill gas cans while they are inside a vehicle or in the bed of a vehicle.

Filling gasoline cans inside a vehicle or in the bed of a vehicle can also cause a buildup of static electricity. The bed liner, the plastic container, or other materials that separate the gasoline from the ground can result in a spark at the nozzle and ignite the gasoline vapors. To avoid this situation, gasoline containers, whether plastic or metal must not be filled while inside a vehicle or in the bed of a vehicle. Place the container on the ground before filling.

FIRE! FIRE! FIRE!

If you experience a fire while refueling your vehicle:

- ↳ Leave the nozzle in the fill pipe of your vehicle and back off!
- ↳ Shut down the pump!
 - Immediately notify the station attendant to shut off all dispensing devices and pumps with emergency controls, or
 - Use the emergency shutdown button to shut off the pump and use the emergency intercom to summon help
 - Some 24-hour self service stations will not have an attendant so you must use the emergency shutoff yourself
 - Get everyone out of the vehicle from the opposite side
 - Use available fire extinguishers
 - Call the fire department
- ↳ If you experience a fire at a portable gasoline container
 - Shut off the flow of gasoline
 - Use available fire extinguisher
 - Call the fire department

The precautions above may save you from serious injury!

Several fires have been caused by static electricity, which can be prevented by heeding the precautions listed above. To date, over 150 incidents have occurred nation-wide that have resulted in numerous injuries, property damage and one fatality.

Static electricity build-up is most likely to occur during the fall and winter months, when air is cool or cold and dry. To avoid this you should stay outside your vehicle while refueling. It may be very tempting to get back in the car during extremely cold weather, but the average fill-up only takes around two minutes and staying outside the vehicle will greatly reduce the build-up of static electricity that could be discharged at the nozzle.

Consumers can minimize these and other potential fueling hazards by following safe refueling procedures all year long. For more information on avoiding potential problems, with static electricity build-up at the pump, and other safe motor fuel refueling, storage and handling guidelines see the American Petroleum Institute website at www.api.org/consumer and the Petroleum Equipment Institute web site at www.pei.org/static.

CPSC, Fisher-Price Announce Recall of Little People® Animal Sounds Farms

WASHINGTON, D.C. - In cooperation with the U.S. Consumer Product Safety Commission, (CPSC), Fisher-Price, of East Aurora, N.Y., is voluntarily recalling about 67,000 Little People® Animal Sounds Farms manufactured from June 17, 2002 through July 31, 2002. Two small metal screws that hold the toy "stall doors" in place can come off, posing an aspiration or choking hazard to young children.



Fisher-Price has received 33 reports of the screws coming off of the toy, including four reports where a screw was found in the child's mouth and one report of a child that aspirated a screw into his lung. The latter case required the child to be hospitalized and undergo emergency surgery to remove the screw from his lung.

The recalled Little People® Animal Sounds Farms are shaped like a barn and make animal sounds when the doors of the cow or horse stall are opened. The recalled toys have a model number of 77973 or 77746 and a six-character manufacturing date code that begins with 168 through 212, followed by the number 2 as the fourth digit. Both the model number and date code can be found on the underside of the green ramp. The Fisher-Price logo appears at the top of the tallest side of the barn in red and white. The recalled toys were manufactured in Mexico.

Mass merchants and toy stores nationwide sold these toys between July 2002 and December 2002 for about \$30.

Consumers should take the toy away from young children immediately and contact Fisher-Price toll-free at (866) 259-7873 anytime to receive a free repair kit. Consumers also can log on to www.service.mattel.com to determine if their product is among the recalled models and to order the free repair kit online.

CPSC, Country Home Products, Inc. Announce Recall to Repair Cordless Electric Lawnmowers



The following product safety recall was conducted by the firm in cooperation with the CPSC. Consumers should stop using the product immediately unless otherwise instructed. For more information about recalls, visit CPSC's web site at <http://www.cpsc.gov>.

Name of product: Cordless Electric Lawnmowers
Units: 2,800
Manufacturer: Country

Home Products Inc., of Vergennes, Vt.

Hazard: Because these lawnmowers lack a safety guard, a consumer's foot could go under the plastic housing and be struck by the blade. These lawnmowers do not comply with the mandatory federal safety standard for lawnmowers under the Consumer Product Safety Act.

Incidents/Injuries: None reported.

Description: The recalled lawnmowers were sold under the NEUTON-brand name. They have model number EM 4.1 printed on one side of the deck and "NEUTON" printed on the other. The lawnmowers have a 14-inch cutting width with rear bagging capability.

Sold at: Country Home Products catalog and Web site sold these lawnmowers nationwide from January 2003 through March 2003 for about \$399.

Manufactured in: Taiwan.

Remedy: Country Home Products is sending all registered owners a repair kit. If consumers have not received a repair kit by May 31, 2003, contact Country Home Products to request a free repair kit.

Consumer Contact: Call Country Home Products at (800) 673-1225 between 8 a.m. and 7 p.m. ET Monday through Friday or visit the firm's web site at www.neutonowners.com

Media Contact: Michelle Stockmann at (802) 877-1201, Ext. 1027.

For more information on the current or any past recalls visit CPSC's homepage at <http://www.cpsc.gov/>

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