

## **RADIATION SPILL AT NIST**

ON JUNE 9, 2008, APPROXIMATELY 0.25 GRAMS OF PLUTONIUM IN AN UNSEALED FORM WAS SPILLED IN A RESEARCH LAB AT THE NIST CAMPUS IN BOULDER, COLORADO. THIS RESULTED IN EMPLOYEE EXPOSURES TO PLUTONIUM, CONTAMINATION OF A HALLWAY, LABORATORY AND A RELEASE OF PLUTONIUM INTO THE CITY SEWER SYSTEM.

THE FOLLOWING ARE THE LESSONS LEARNED WHICH NOAA EMPLOYEES/SUPERVISORS CAN TAKE AWAY FROM THIS INCIDENT:

- ⇒ REQUIRED SAFETY TRAINING FOR EMPLOYEES – ENSURE ALL EMPLOYEES ARE OFFERED APPROPRIATE SAFETY TRAINING FOR THEIR EXPOSURES TO HAZARDS AND SUPERVISORS SHALL ENSURE ALL AFFECTED EMPLOYEES ATTEND THE SAFETY TRAINING AND DOCUMENT VIA AN ATTENDANCE ROSTER.
- ⇒ RISK MANAGEMENT REVIEW – A THOROUGH RISK ASSESSMENT SHOULD BE CONDUCTED TO ENSURE PROPER SAFETY CONTROL MEASURES ARE IN PLACE TO MITIGATE HAZARDS AND REDUCE RISKS.
- ⇒ EMERGENCY PROCEDURES AND SPILL RESPONSE – WRITTEN EMERGENCY PROCEDURES SHOULD BE DEVELOPED AND REVIEWED BY ALL AFFECTED EMPLOYEES. SAFETY DRILLS SHOULD BE PLANNED AND CONDUCTED PERIODICALLY TO ENSURE EFFECTIVENESS OF THE PLAN.
- ⇒ COMPLACENCY OF SAFETY CULTURE – SUPERVISORS SHOULD LOOK OUT FOR AREAS WHERE COMPLACENT ATTITUDES EXIST THROUGH EMPLOYEES OR CULTURE OF THE WORK SPACES. SUPERVISORS SHOULD TAKE IMMEDIATE ACTION TO BUILD A PROACTIVE SAFETY CULTURE THROUGHOUT.

AS A RESULT OF THIS INCIDENT, NOAA HAS CREATED A NEW RADIATION SAFETY TEAM CHARTERED TO REVIEW RADIATION SAFETY ISSUES THROUGHOUT THE AGENCY. THE TEAM IS COMPOSED OF MEMBERS FROM VARIOUS LINE OFFICES AND SECO.

### **NOAA RADIATION TEAM**

#### **MEMBER**

ANN BYAR  
JAMES SCHELL  
RHONDA CARPENTER  
RICK MEITZLER  
KIM KULPANOWSKI  
MARK MILLER  
BRUCE ZACZYNSKI (CHAIR)

#### **LINE OFFICE**

NMFS  
OMAO  
OCAO/SECO  
NOS  
OAR  
NOS-ORR  
OCAO/SECO

#### **LOCATION**

SEATTLE, WA  
SEATTLE, WA  
BOULDER, CO  
CHARLESTON, SC  
ANN ARBOR, MI  
SEATTLE, WA  
SILVER SPRING, MD

FOR MORE INFORMATION ON THE NOAA RADIATION SAFETY PROGRAM, PLEASE CONTACT BRUCE ZACZYNSKI [BRUCE.A.ZACZYNSKI@NOAA.GOV](mailto:BRUCE.A.ZACZYNSKI@NOAA.GOV) OR WILL FREEMAN [WILL.FREEMAN@NOAA.GOV](mailto:WILL.FREEMAN@NOAA.GOV) AT 301-713-2870.

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## HOW TO KNOW IF YOUR INJURY IS WORK RELATED



Approximately 10% of all new worker compensation claims have problems which result in a delay of benefits or an outright denial of the claim itself by the Office of Workers Compensation (OWCP).

OWCP is a benefit afforded to all Federal employees in the event they incur an injury that is directly related to the work they do. Benefits begin when a medical bill is incurred from a medical practitioner. If the treatment is First Aid while at work and a medical practitioner is not visited, then a worker compensation claim need not be filed.

A claimant must be on-duty during assigned work hours for a claim to be accepted. The exceptions are when an employee is not working during breaks or lunch periods and gets injured during that time frame. Even accidents occurring just prior to starting work and just after leaving work, such as in public parking garages are not considered work related.

While on official government travel, all federal workers are covered 24 hours a day by OWCP for any injury that occurs. The main exception to that rule is when an injury occurs during a recreational event such as a hamstring pull during a pick-up basket ball game or diving during off time.

Injuries that occur during normal off times such as weekends, and are subsequently reported as injuries during the next work day will not be accepted and all supervisors should be wary of signing those reports.

The key to avoiding a delay in claim acceptance or their claim denial is: 1) Report the injury immediately and don't wait several days. A delay in reporting will cause delay of approval of the claim and approval of subsequent corrective surgery. 2) All surgery related to a work related injury MUST have prior approval by the OWCP case administrator. Several surgeries are postponed every year because the claimant went to their own physician prior to reporting it.

Employees should utilize the medical clinics provided at certain NOAA facilities as soon as an injury occurs, no matter how minor. The medical providers will evaluate the injury and begin treatment or recommend treatment to a specialist or even arrange transport to a local hospital for further observation or treatment.



Lastly, all incidents shall be reported using the [NOAA Web-based Accident/Illness Reporting System](#) in order to track and analyze these incidents as a measure to prevent them from recurring.

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## Ergonomics is more than a chair.....

By Dr. Ben Bond, PhD, P.A.

# ADJUSTING THE WORKSPACE

The work surface should be at about elbow height. For keying work, this often means the chair needs to be adjusted slightly higher as the height of the middle row of keys is the effective work surface height. For writing tasks, people lower their chair slightly to support their lower arms.

### WORK SURFACE ADJUSTABLE HEIGHT

Sit on the chair with the seat pad horizontal, or tilted comfortably forwards, and adjust the height until your feet are flat on the floor and there is no pressure under your thighs. Next move to the desk and adjust the work surface height until it is at your elbow height when sitting in the correctly adjusted chair.

### WORK SURFACE FIXED HEIGHT

Adjust the height of your chair to suit the work surface. Then, if your feet are not flat on the floor without pressure points under the thighs, you will need a footrest.

### POSTURE

Maintain your posture with back tall; hip, elbow and knee angles at 90° or greater. Alter your posture frequently and stand from the chair at least once an hour. Generally, your neck should not twist or bend to the side. Consider using a headset if you use the phone a lot. Your upper arms should be hanging freely beside your body and your shoulders should be relaxed.



### COMPUTER MONITORS/ SCREENS

The top of the computer monitor should be placed at or below your eye height. Your natural gaze angle is about 20 degrees below the horizontal. Placing a monitor on the CPU box generally lifts the top of the screen above eye height, which is not recommended. Research has found that people find the position of the screen at about 15 to 20 degrees below horizontal eye level is most comfortable.



Generally, you should look straight onto the monitor; you should not have to twist your neck to view the monitor. Ideally, the monitor should tilt away or backward so the monitor is perpendicular to the line of sight. This can reduce glare. If this is the case, a slight change in the tilt can be tried to see if it removes the glare, and does not cause other issues for you. Sometimes moving the monitor along the work surface removes the glare.

The ergonomic positioning of flat panel displays is now easier than ever with a new range of highly adjustable display arms

*Continued next page*



## EYES

Your eyes should not be neglected. Muscles control the eyes and these muscles need a change in position too! So if you have been looking at a monitor for longer than about 10 minutes you need to swivel on your chair and focus on something straight ahead of you in the distance. This relaxes your eye muscles. The object in the distance can be out the window – what kind of day is it? - or on the other side of the room. Take the opportunity to get up and stretch – this will provide a change in posture. As computer monitors are generally positioned at a greater distance than for reading paper, standard “reading” prescription glasses are often inappropriate for computer work. Discuss this with your eye specialist.

## FLICKER AND FUZZY IMAGES

Eyes can get tired and sore if they have to deal with glare, flicker, or fuzzy monitors.

Computer screens should not flicker and the image should be crisp and clear. Flickering monitors are usually caused when the monitor is not updated at a sufficiently fast refresh rate – a refresh rate of at least 70 Hz and preferably, more is recommended. Another cause of flickering screens can be power packs or mains electrical wiring nearby – moving the monitor slightly can dramatically affect this form of flicker. Lettering on the monitor should be sharp. If it is not, some of the reasons could be: the monitor is dirty, the video card may be inappropriate, the phosphor coating on the inside of the screen may be degrading, or the monitor may need adjusting - consult a computer technician.

New LCD and other thin-screen all-digital displays have the potential to offer very sharp stable images. They take up less workspace and this can be a big advantage when positioning screens and sizing workspaces and floor areas. As well as offering potential power savings and reducing the heat load, new LCD and other thin screen digital displays may reduce air conditioning costs.

## LIGHTING

Many offices use general lighting for all areas of the office. This can lead to too much lighting for computer work. CAD operators (computer draughts people) often work in rooms with lower lighting with task lighting provided for specific areas e.g. desk top for documents. Lighting design that allows some flexibility in the lighting level is recommended.

## GLARE

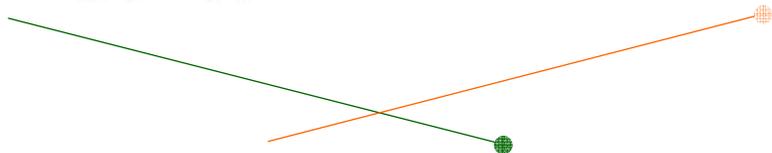
Glare can be a major problem in modern office spaces particularly open plan spaces. Glare can result not just in sore eyes and headaches but poor postures. People adopt postures to place themselves between sources of glare and the monitor thus blocking reflections.

Glare is best dealt with by finding its source and controlling it there. Some options for controlling glare are:



- Putting parabolic diffusers on lights
- Drawing blinds over windows at different times of the day
- Repositioning the monitor. Care needs to be taken that other posture problems are not introduced – it may require the work surface to be rearranged
- Using partitions.

To minimize the opportunity for glare to be an issue on monitors, the screen surface would ideally be placed perpendicular to the windows



## NOAA AVIATION SAFETY

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The mission operations of the National Oceanic and Atmospheric Administration (NOAA) are very diverse and have a global reach. Many missions such as aerial surveys, fish spotting, whale spotting, post-hurricane or tornado damage surveys and even the transportation of personnel and equipment to remote operating sites require the use of aviation assets. As in all aviation activities, NOAA's use of aircraft involves a slightly elevated risk factor and therefore a different safety policy from normal ground operations.

NOAA has the responsibility to provide a safe working environment for its workforce, and for partners who are exposed to the risks associated with aviation operations. These include flight operations on NOAA owned/ operated aircraft or those leased by NOAA.

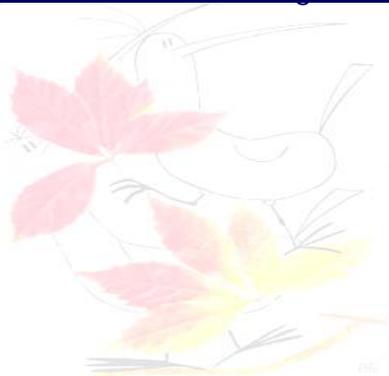
Basic NOAA aviation operating guidelines may be found in [NAO 209-124 Aviation Safety Policy](#), which became effective October 1, 2006.

NOTE: NAO 209-124 does not yet apply to bargaining unit employees where labor obligations are continuing to be fulfilled.

Use of non-NOAA owned aircraft will be restricted to those operators listed on the Department of Interior (DOI) listing. The procedures are listed on the [Non-NOAA Aircraft](#) page.

The DOI/NOAA Interagency Agreement will expire September 30, 2009. The Office of Marine and Aviation Operations (OMAO) will begin a phased transition to a NOAA supported contracting program. While most of our field elements already have established aircraft support through DOI contracting, transition to the NOAA based system will be effected in conjunction with contract renewal, unless requested earlier.

Further information on NOAA's Aviation Safety Program, training requirements and aviation life-support equipment (ALSE) requirements may be found at NOAA's Aviation Safety Program website: <http://www.oma.noaa.gov/aviationsafety/index.html>.



*"At the end of the day, the goals are simple: safety and security."*

*Jodi Rell*

## Simple Things

Screwdrivers, fish fillet knives, box cutters, hacksaws, and such, are all very basic and simple tools. No moving parts or electric motors to worry about. But lately, using these simple tools or shall we say, improperly using such simple tools, has been responsible for many of the injuries to NOAA personnel.

The old saying, "the right tool for the right job," is still very valid. Usually tools only have one purpose and use. For example, a box cutter was designed to cut lightweight materials. It was not designed to be a screwdriver or for cutting metal or glass. Using it for other work or on other materials lets the user in for a potential injury. So remember – always use the "right tool for the right job."

Situational Awareness is another simple thing. Many of the tasks NOAA employees perform have inherent dangers. When performing tasks, employees must remain focused on the task at hand and not let their minds wander to other places and things, such as vacations, family, hobbies, etc. Many of the slip, trip and fall accidents we have could have been avoided if the employees had paid attention to the surface conditions they were walking on. With cold weather, sleet, snow, and other frozen working conditions not too far off, now is the time to start thinking about cold weather situational awareness and slippery conditions.



The last simple thing here is personal protective equipment (PPE). Many of the injuries incurred by NOAA employees could have been avoided had the employees properly utilized PPE. Many lacerations from edged tools could have been prevented had the users been wearing protective gloves. Many eye injuries could have been prevented had the person been wearing the correct eye protection in the form of goggles or a face shield. All forms of PPE are available at NOAA sites. It is the employee's responsibility to always use the correct PPE for the job and the supervisor's responsibility to insure the employee uses the PPE.

Basically "Simple Things," like "the right tool for the right job," "situational awareness," and using "personal protective equipment" will help greatly in reducing injuries to NOAA personnel and make the workplace safer.

*Craig Gillis*



**"EVERYWHERE IS WITHIN WALKING DISTANCE IF YOU HAVE THE TIME."**

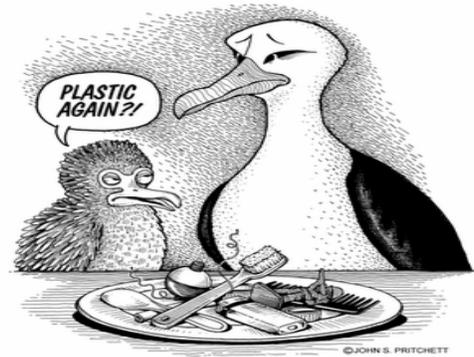
— STEVEN WRIGHT

## Die-Hard Divers



All divers from the NMFS lab in Panama City, FL participated this month in the full gamut of skills refresher training including recovering an unconscious diver. The lone diver from the NOS - Navigation Response Team 1 in Pensacola also joined in. Kudos to this team for training in drysuits in Florida's August heat ~ 93F on this day. Luckily, beautiful Vortex Springs in Ponce de Leon is a refreshing 68F. 

*Dive related articles such as the one shown above are posted on the NDC Topside Newsletter and can be viewed by visiting [http://www.ndc.noaa.gov/rp\\_topside.html](http://www.ndc.noaa.gov/rp_topside.html)*



At end of July NOAA had an incident rate of 1.25. The Goal is 1.33, so we are 6% below our goal.

We are currently 3% below last year's numbers, and 9% below last year's incident rate.

Over the last 5 years, NOAA has avoided well over \$ 1 million in new worker compensation claims.



### ABOUT THIS NEWSLETTER

This newsletter is brought to you by the staff of the Safety and Environmental Compliance Office (SECO). The issues will be produced on a quarterly basis and posted on <http://www.seco.noaa.gov/> to help increase awareness of the environmental, safety and health programs. If you have any questions or comments, please contact SECO at (301)713-2870.