



**I cat (can't) wait to start.**





## **Fleet Readiness Center East**

**Marine Corps Air Station Cherry Point, NC 28533**





## Vertical/Short Takeoff and Landing



**AV-8B HARRIER II**



**V-22 Osprey**



**F35 - Joint Strike Fighter**

## Rotary Wing



UH-1 Helicopter



CH-46 Helicopter



H-53 Helicopter





**1<sup>st</sup> MAW MAG-16 Viet Nam 1969-1970**



# Elements For Funding

1.) Know your job functions. “Ergonomics”

Don't guess– have the right training- make the right decisions!

2.) Pick your target for an ergonomic survey. (You may only have one opening to demonstrate your abilities.)

3.) It's best to pick a person that stands out front of the number one spot to showcase your ergonomic abilities: i. e. administration person outside the plant Managers office, CO office, etc.

4.) It also helps to pick someone you know, ► a person that needs your ergonomic assistance and would be willing to work with you to make improvements happen.

5.) Lets show an example of part of a PowerPoint I gave to our command.











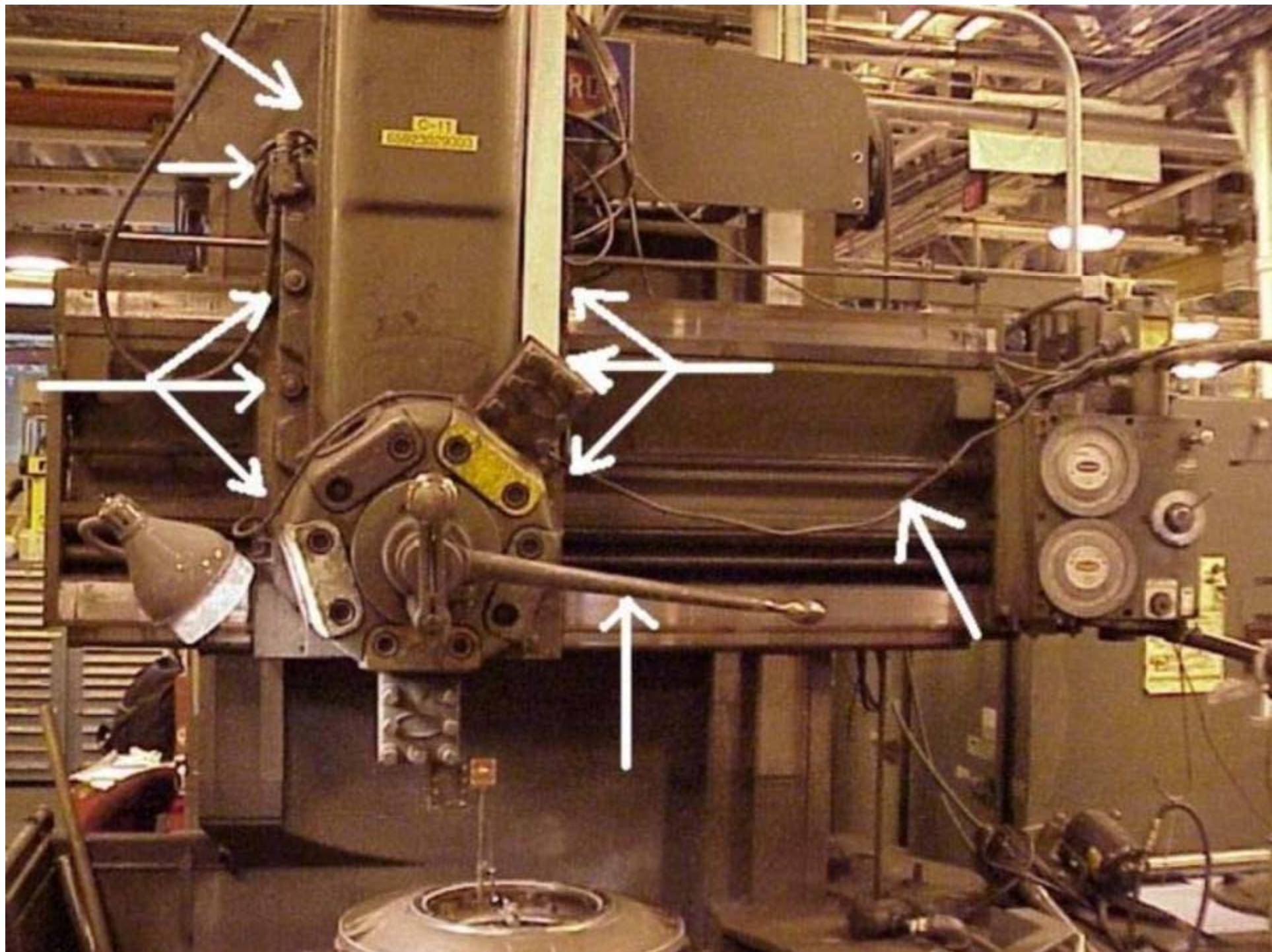






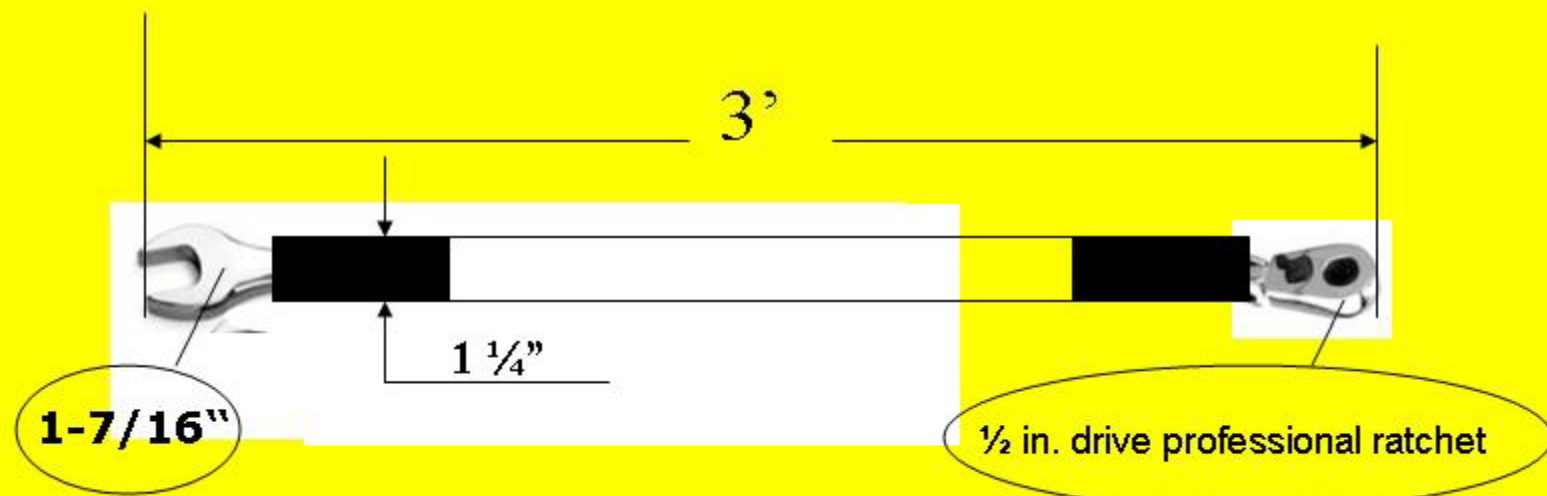








**What would you do  
to fix the problem?**



I don't have funds to make this tool for testing.





I received my funding!







**Thinking  
Outside  
the BOX  
(Fun time)**



**Do you find yourself having headaches, stiff neck and backache due to PNFR “Phone Neck File Reach” ?**





**Before**



**After** Using the wireless headsets



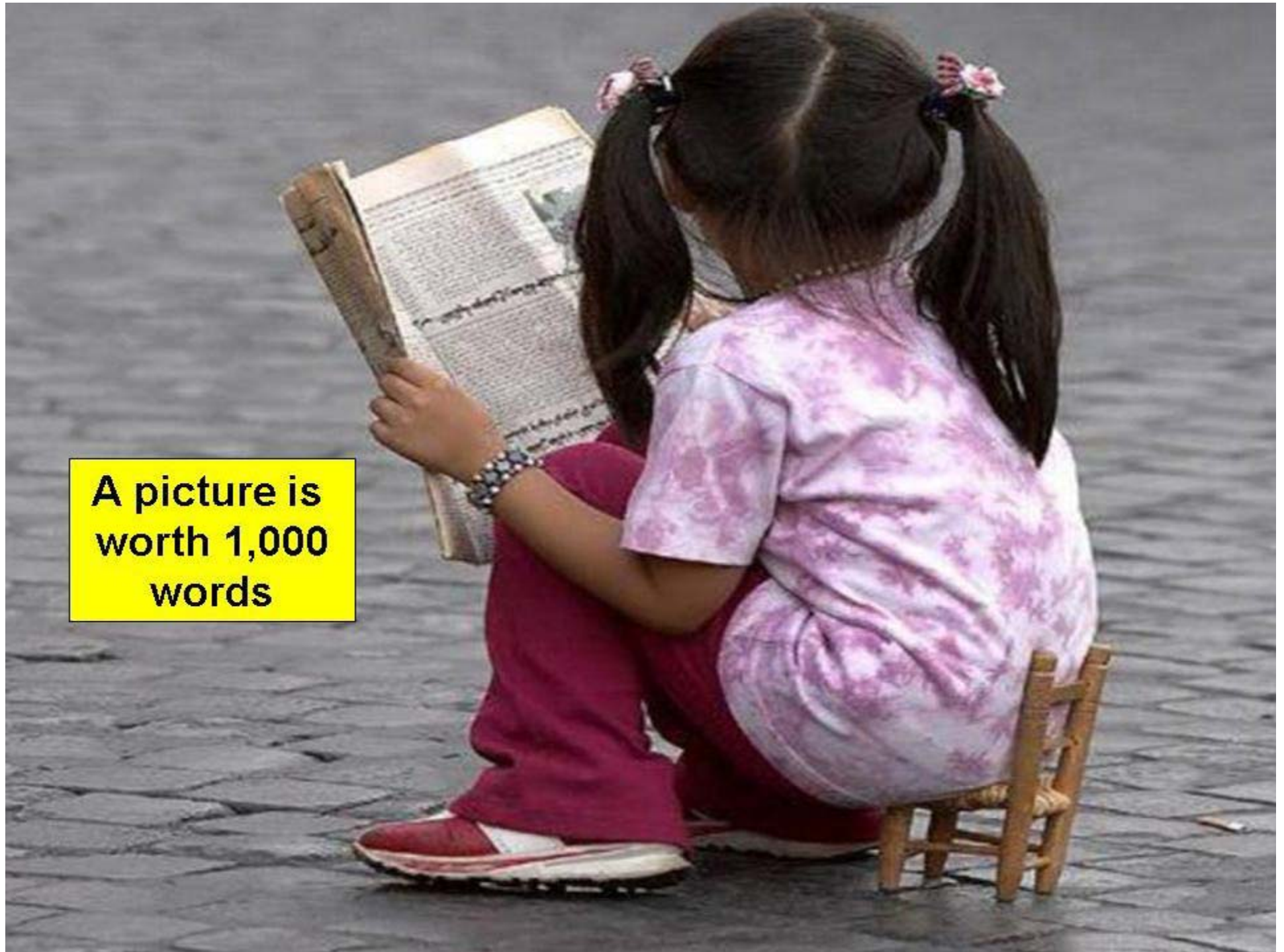
**Data**



Data can be

# Pictures

Scenario: A small lady that is sitting in a chair with poor back support.  
Do you have that picture in your mind? Lets see if your picture matches reality!



**A picture is  
worth 1,000  
words**





5S





Look with Ergonomics



**X = Ergonomic issue**

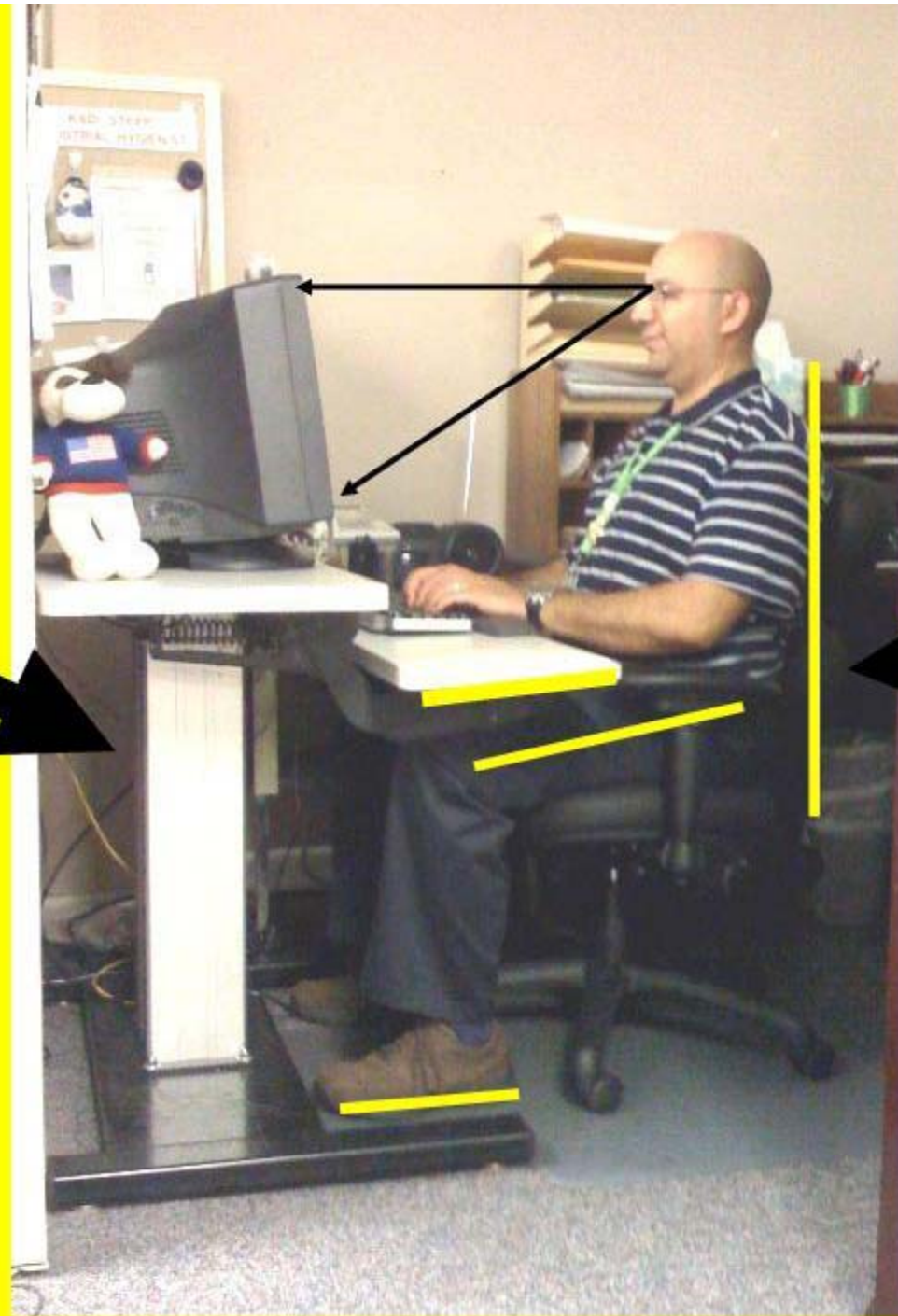




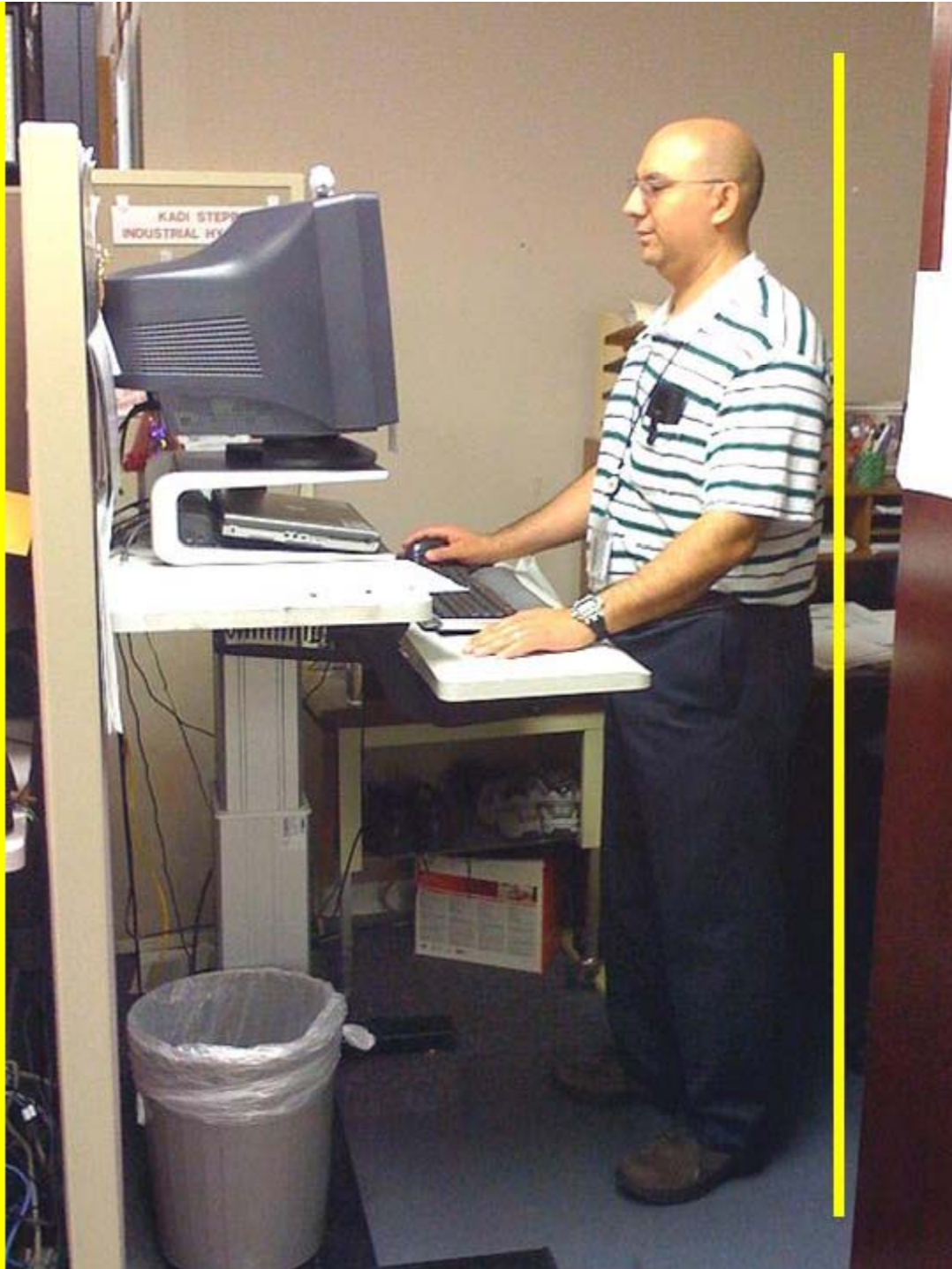
This picture is from The DoD site.



**New adjustable  
computer desk  
takes away  
ergonomic issues**

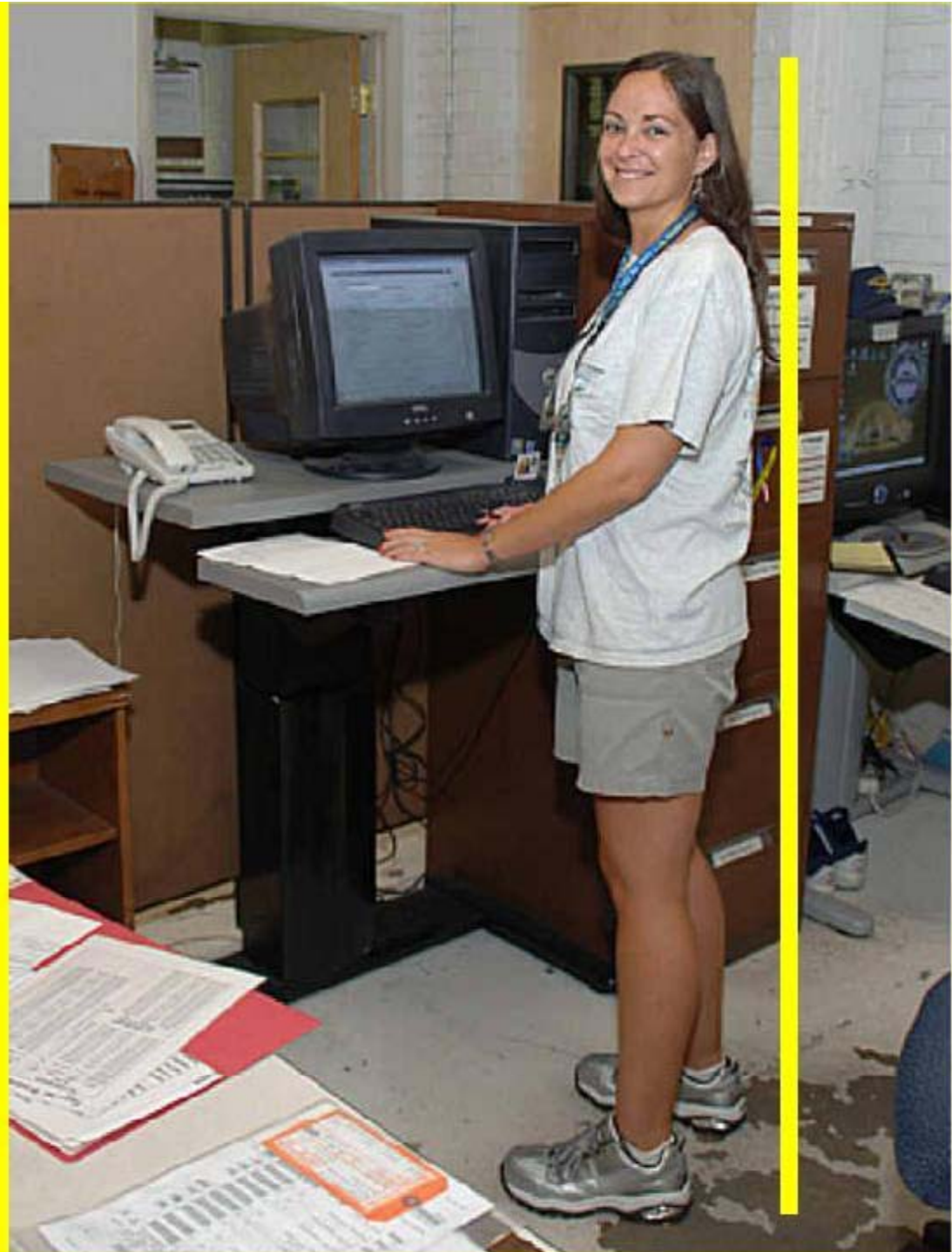


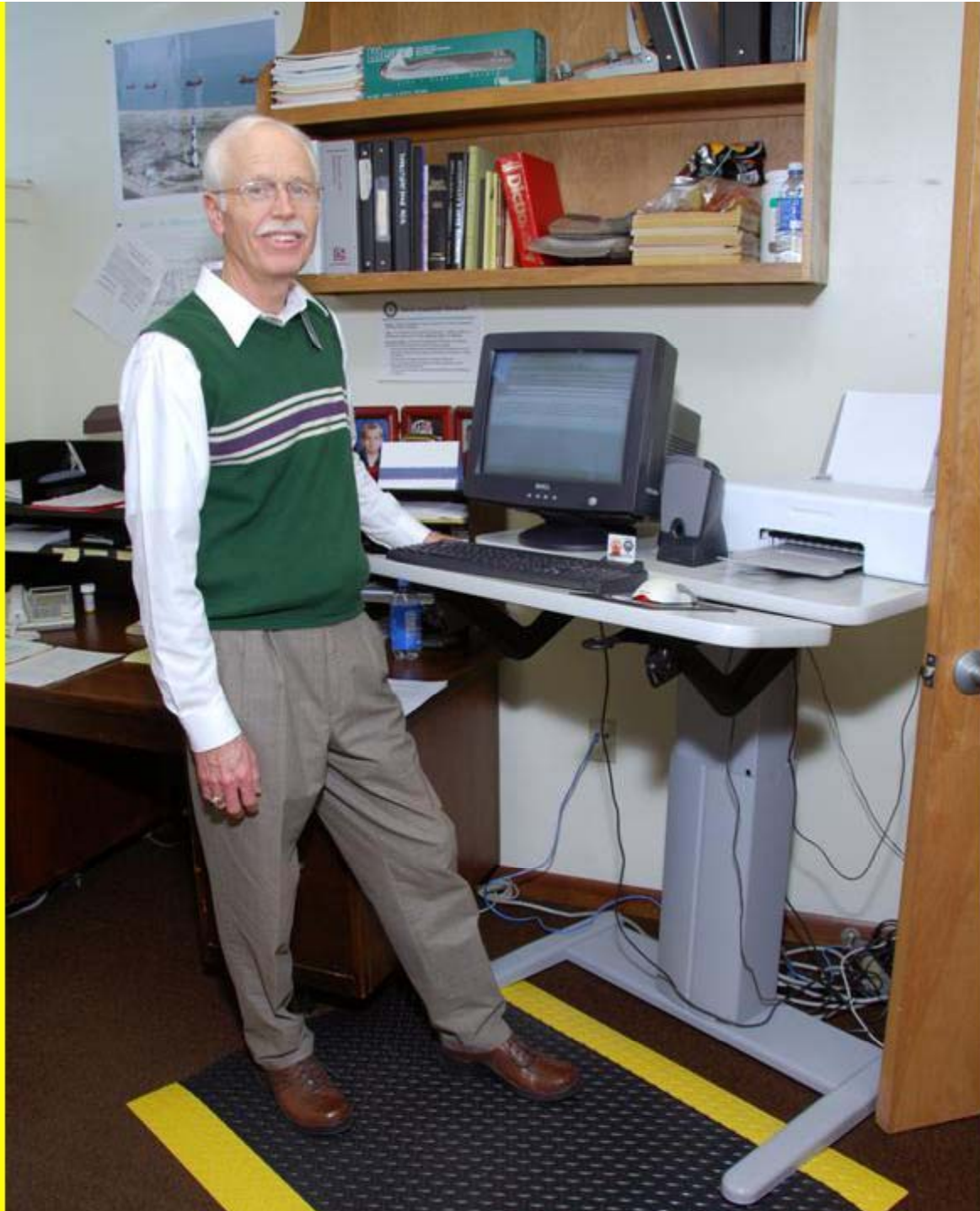
**Ergonomic chair  
gives proper  
seating.**





**When one has to be  
on the run, an  
adjustable  
workstation allows  
for faster and easier  
computer access.**













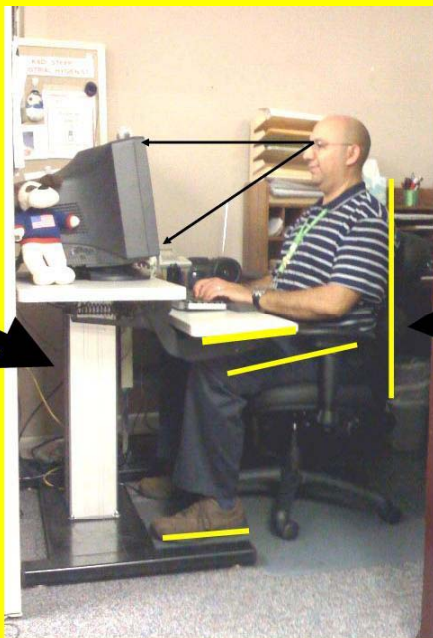




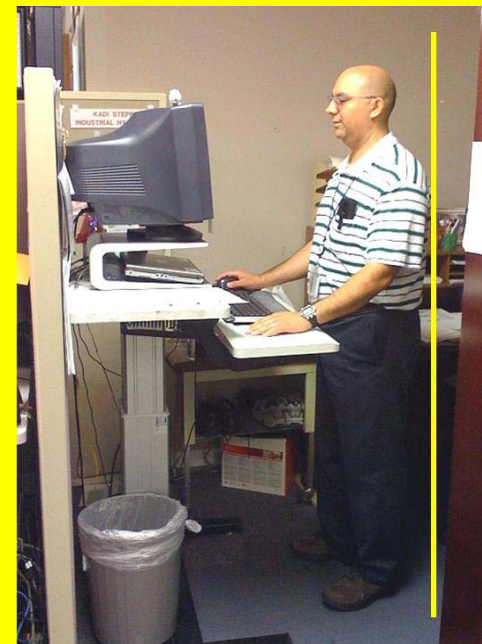
# Electrical Adjustable Computer Desk Survey. July 2009

**80 Surveys given out. 76 Surveys returned back**

New adjustable  
computer desk  
takes away  
ergonomic issues

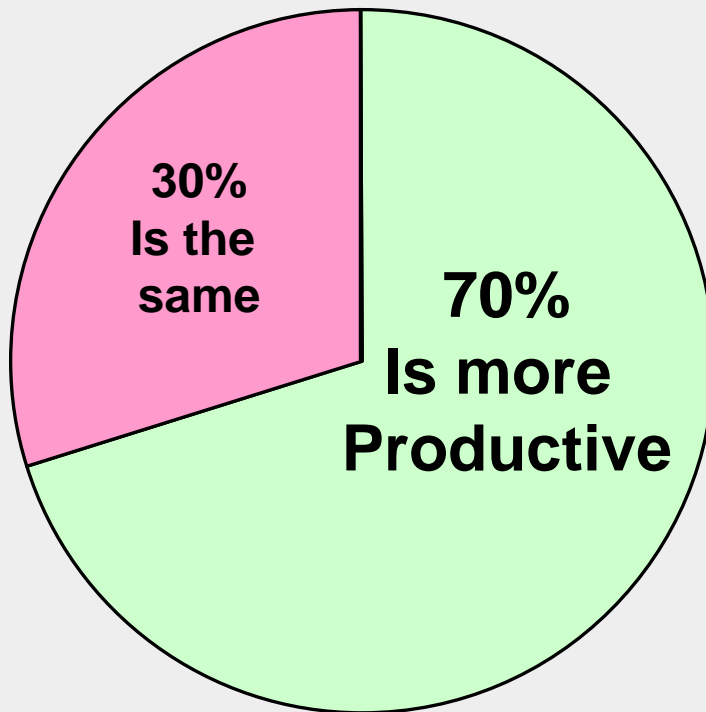


Ergonomic chair  
gives proper  
seating.





**If you adjust your workstation daily, weekly or monthly, has this feature affected your performance?**



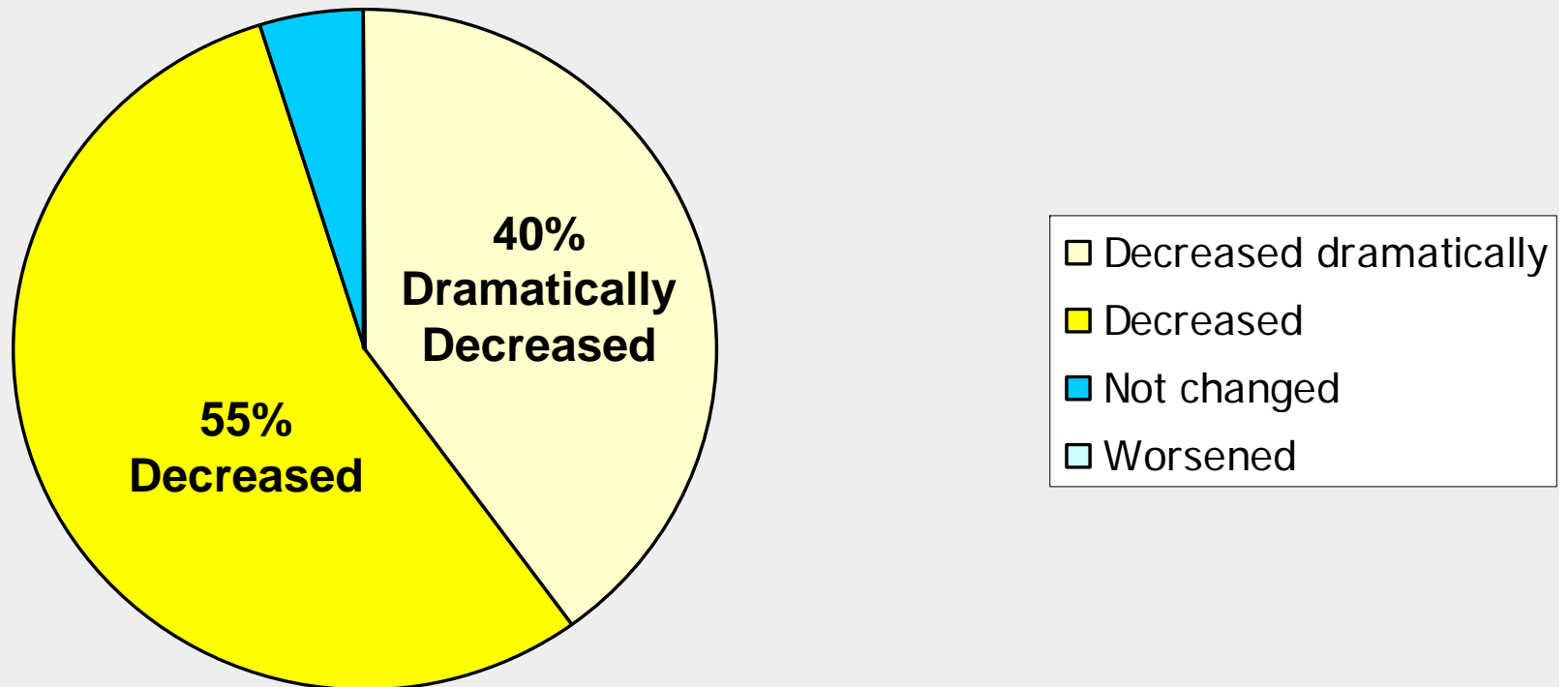
- I am more productive
- I have the same productivity
- I am slightly less productive
- I am far less productive

## **Feed back on how it effects our productivity**

- I have the same productivity but I feel better
- Allows for more controlled movements
- More productive because I can work sitting or standing up...
- No pain, all gain
- It makes work easy
- I am more relaxed so I can work better
- Makes my job easier on me. I have more energy when I go home.



**If you had pain or discomfort associated with your job previous to using the adjustable workstation, has the pain / discomfort?**



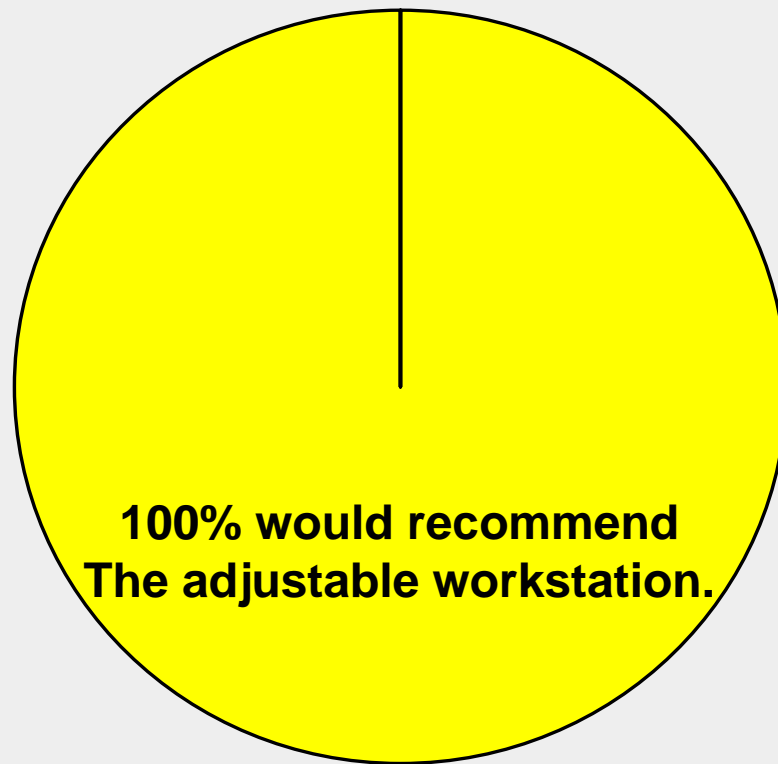
**Note: That's 95% of the people has shown a decrease in pain!**

## Feed back on how our employees feel using the desk

- "Neck pain Eliminated/Headaches decreased Arm/Wrist pain numbness decreased"
- I used to get really bad neck pain that ran into my shoulders & now I don't have any pain at ALL.
- Pain is totally gone.
- Because you don't have to stay in one spot you can move around and work and don't have to worry about getting stiff.
- I was going to have surgery but now with the use of the desk I don't need it.
- My pain went away
- I have a back injury and this desk is very helpful.
- Had lumps on my wrist and pain. All is now normal
- The workstation was a key element in my recovery.
- Pain in arm and shoulder/hand & neck has decreased



**Would you recommend an adjustable workstation to your peers?**



- Yes
- No
- Do not know



**It takes 11 men to move the AV8 Wing Stand**





Sonya

What is it that Sonya has over 11 men?





**The CartCaddy**

FRC-East Cherry Point, NC  
Richard Borcicky Ergonomist



## 80 lb Generator

Room for only one person to install the generator in the H-46.

X= Ergonomic issues



**With a use of a lift even a man walking with the use of a cane can do it.**





**Ergonomic issues  
Posture, Compression,  
Duration**









**Laying out two rows of blades is not only back breaking but can be damaging if the parts hit one another.**

**Staging table**

Start

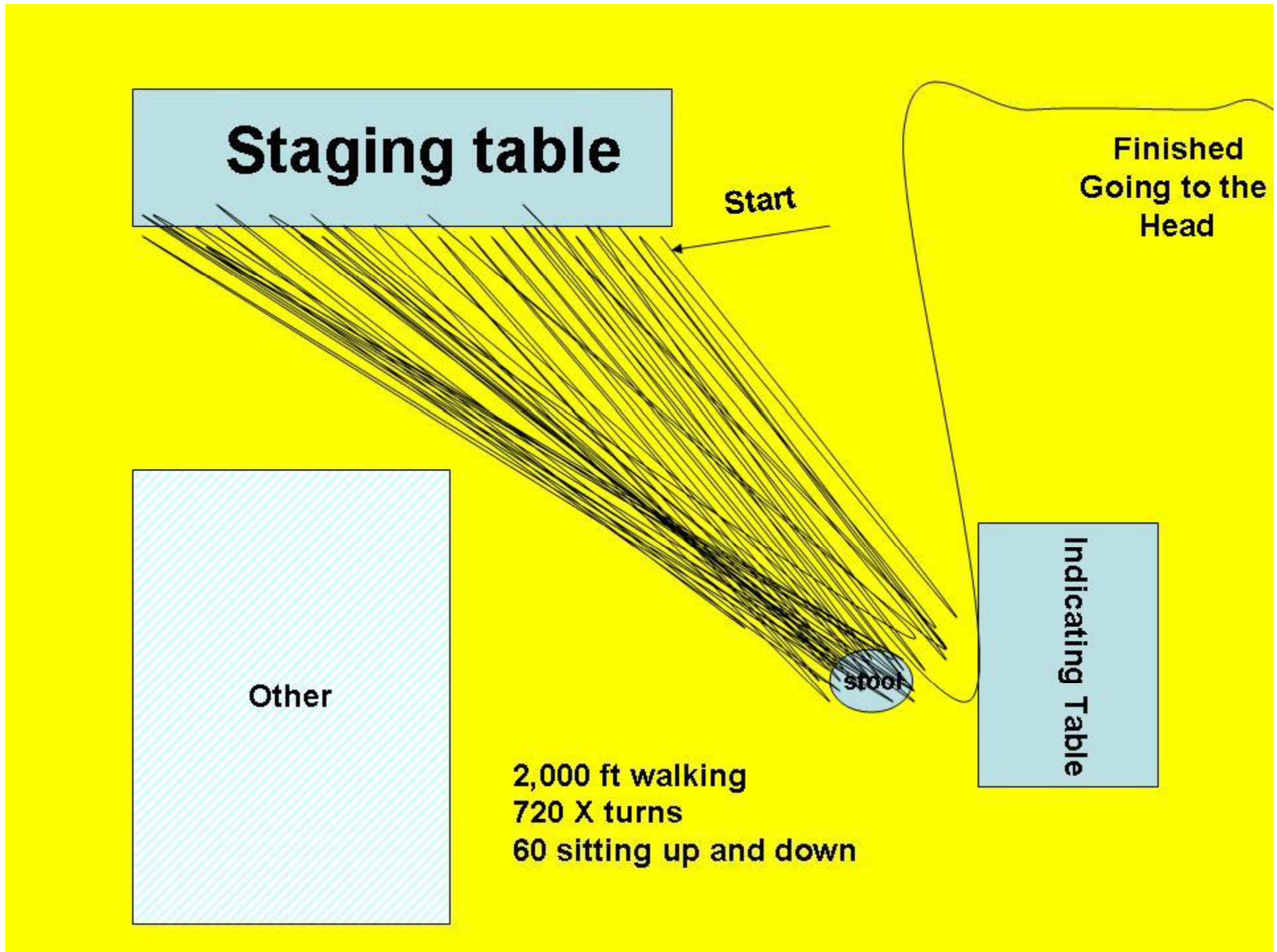
Finished  
Going to the  
Head

Other

stool

Indicating Table

2,000 ft walking  
720 X turns  
60 sitting up and down









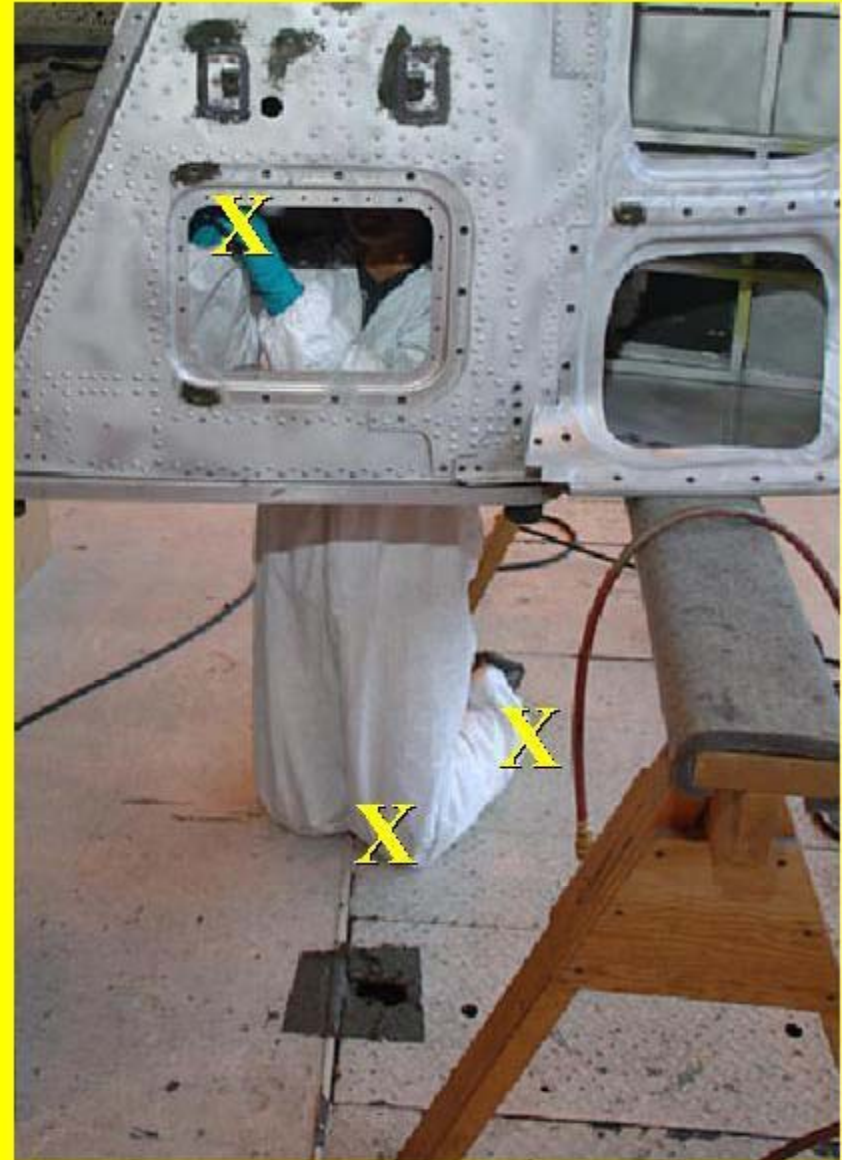




0 ft. Walking  
0 Turn round's  
1 Sitting up and down



Zero Ergonomic issues and  
Greater Productivity



**Ergonomic issues = Posture, Repetition, Compression, Duration**





**From Design**

↑  
**to Reality** →





**The adjustment takes away the Posture and Compression. At the same time reduces Repetition and Duration**



**Makes for a much happier and productive day at work.**















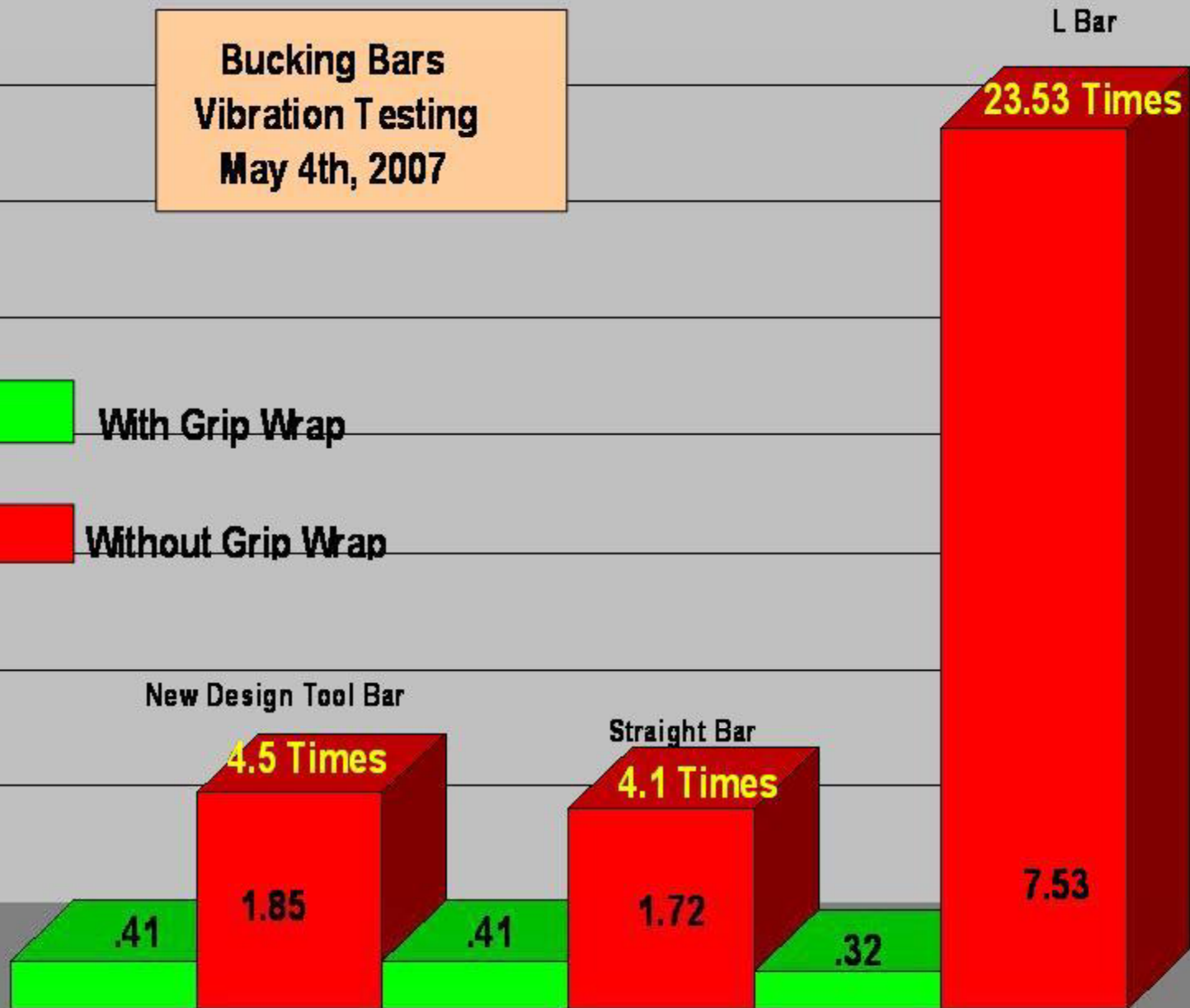




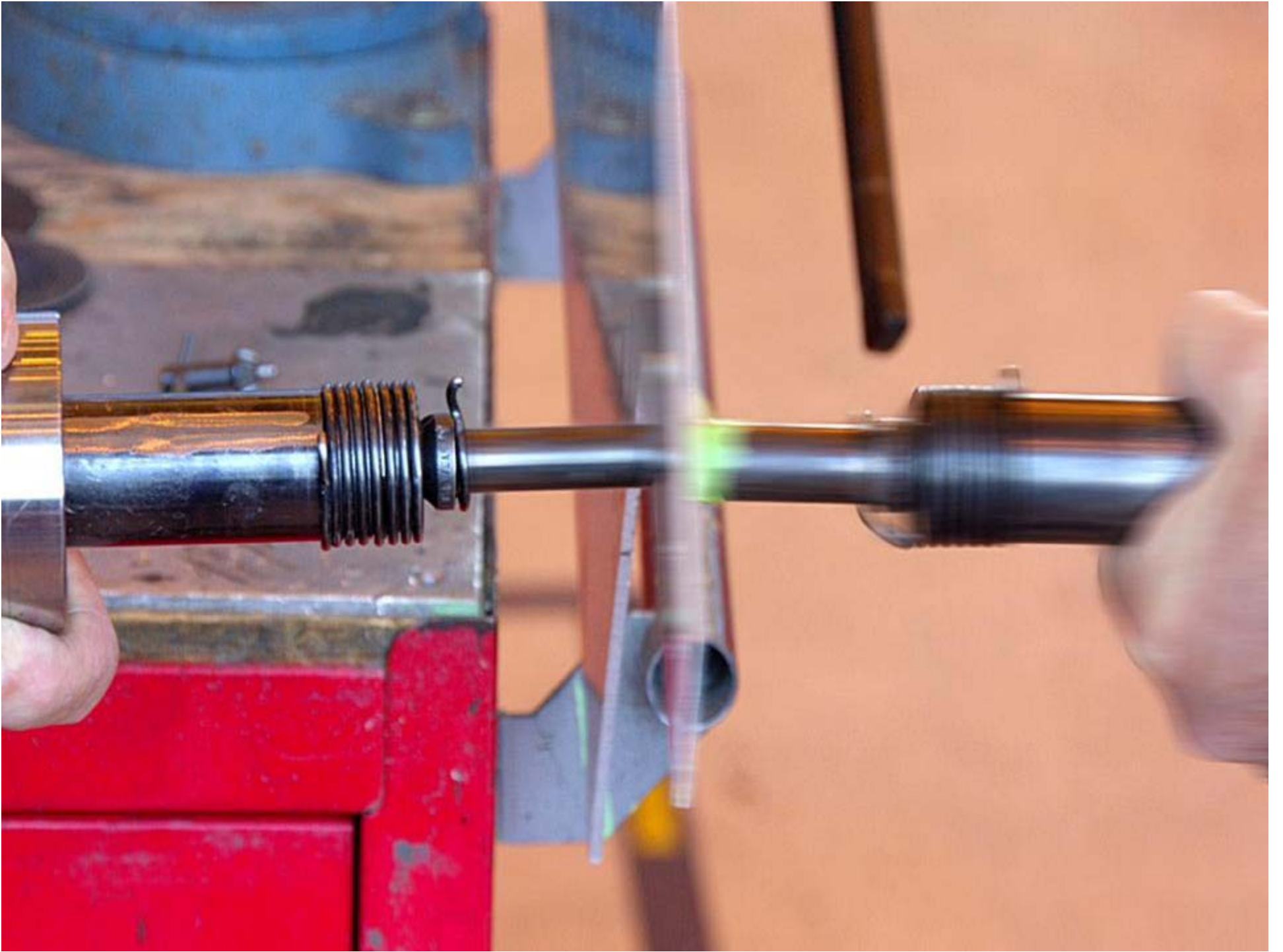


**Bucking Bars  
Vibration Testing  
May 4th, 2007**

**With Grip Wrap**  
**Without Grip Wrap**







**Ergonomic issues  
Posture, Repetition,  
Compression and Duration.**







THE STAR IN THE BACKGROUND

EMERGENCY  
EXIT  
DO NOT BLOCK

SPACE S  
WORK

CAPS

TAPE

TRASH BMS

BLUE DIAP

WATER COOLER

JAMES (AKA SHY) HOFFA

Return to ASSETS  
STAL









**Reality**



**From this**

**To this**

**In 3 seconds**







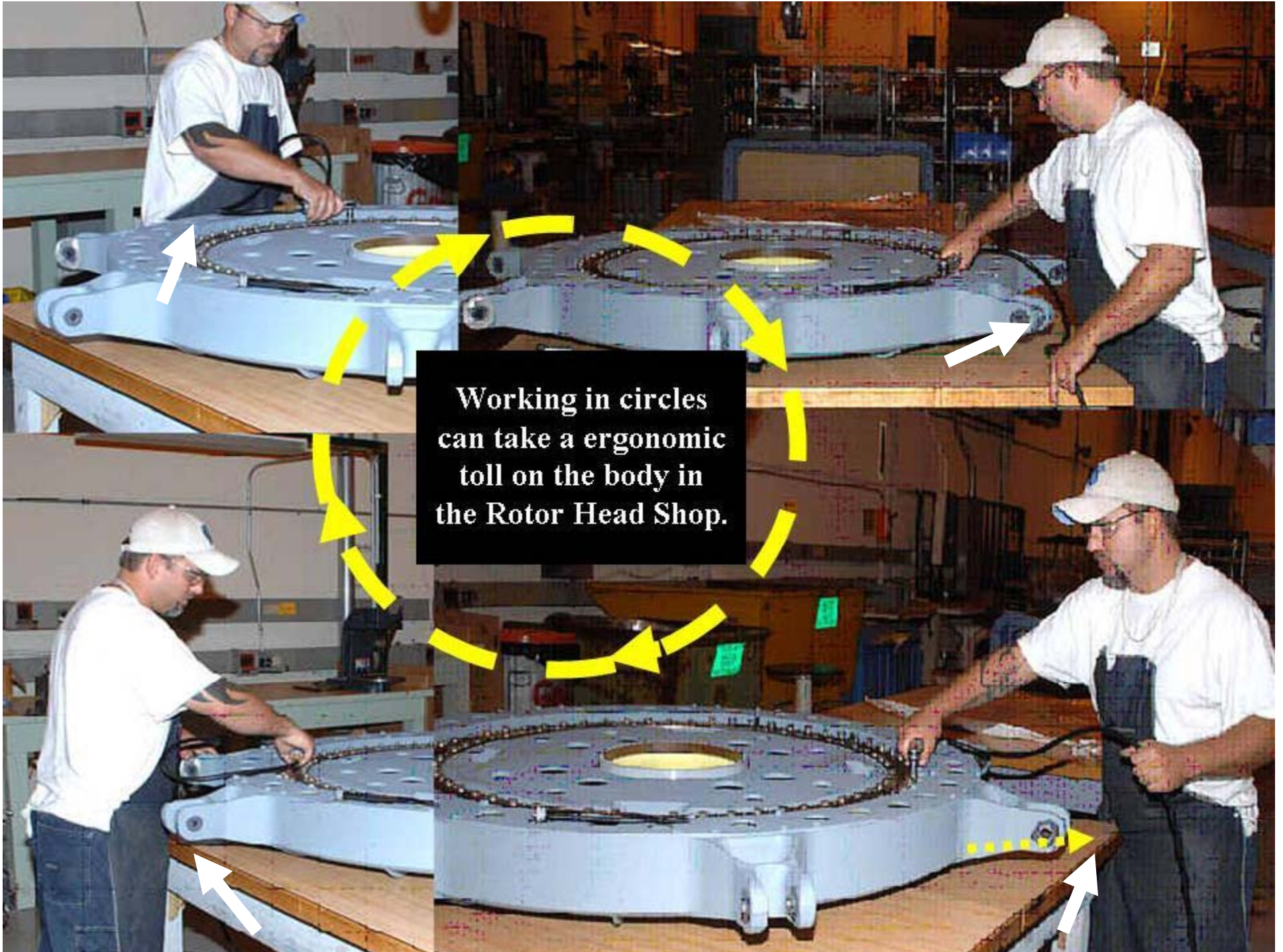
**Mobile handling scissor lift table with battery lift operation that enables the operator to place the load at a convenient working height.**



**Mobile handling scissor lift table with battery lift operation that enables the operator to place the load at a convenient working height. When completed the generator can be lifted into the paint booth using the scissor lift.**

**(Note: ergonomic stool)**





Working in circles  
can take a ergonomic  
toll on the body in  
the Rotor Head Shop.





**The new design in action,  
also note the new ergonomic stool.**









Stand



Sit

FIX







**Newly Designed**

**3-Wheel Creepers**

**“Great” addition to FRC-East**





Flat



15 degrees



30 degrees





10.20.2008

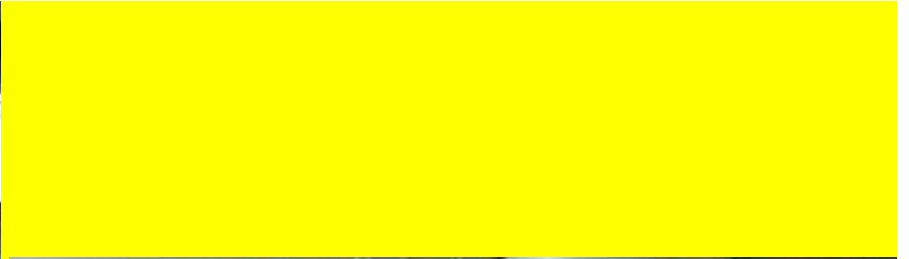
**Airlines & holes in the floor  
won't stop this creeper !**

10.20.2008

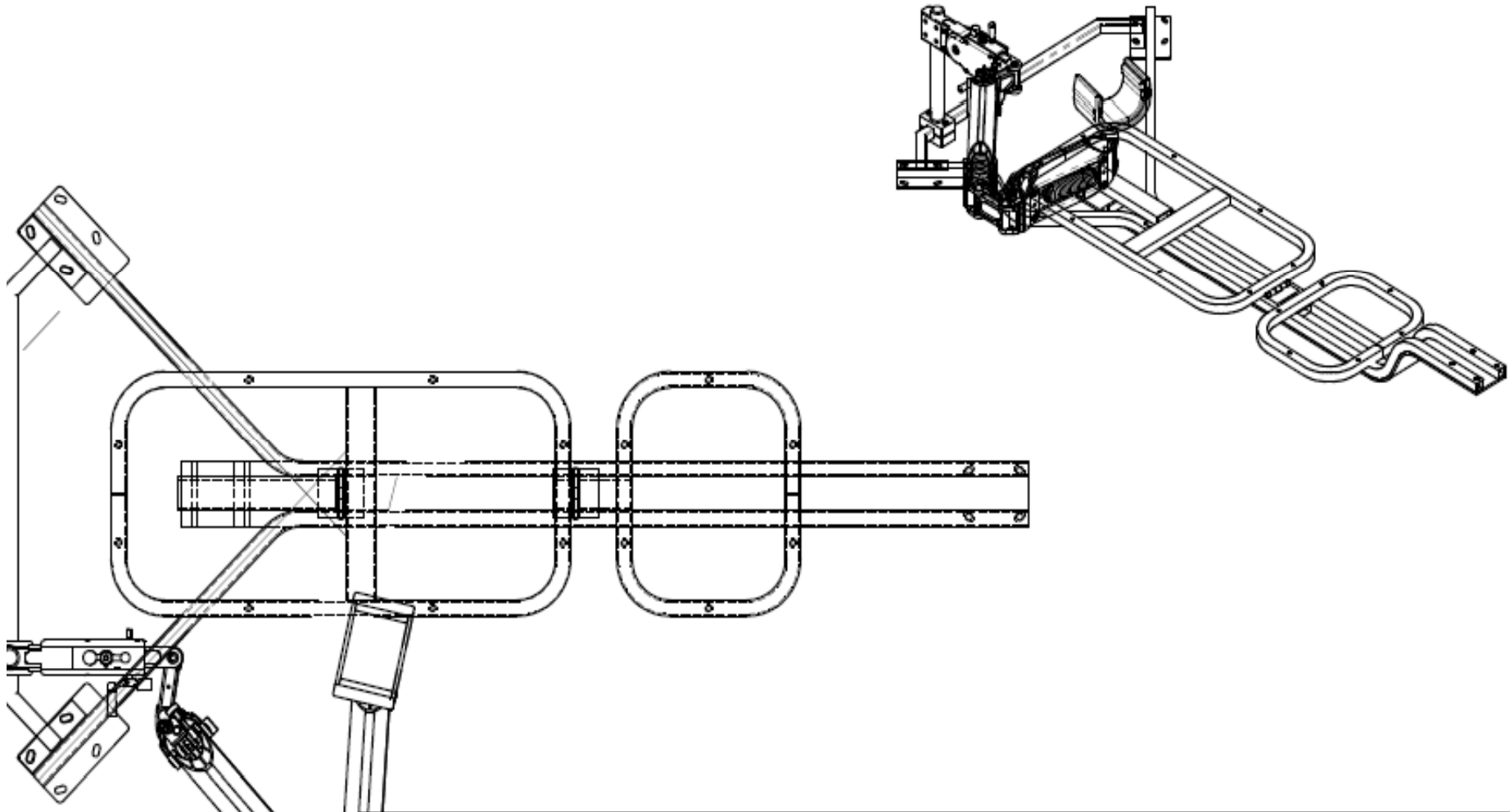



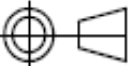










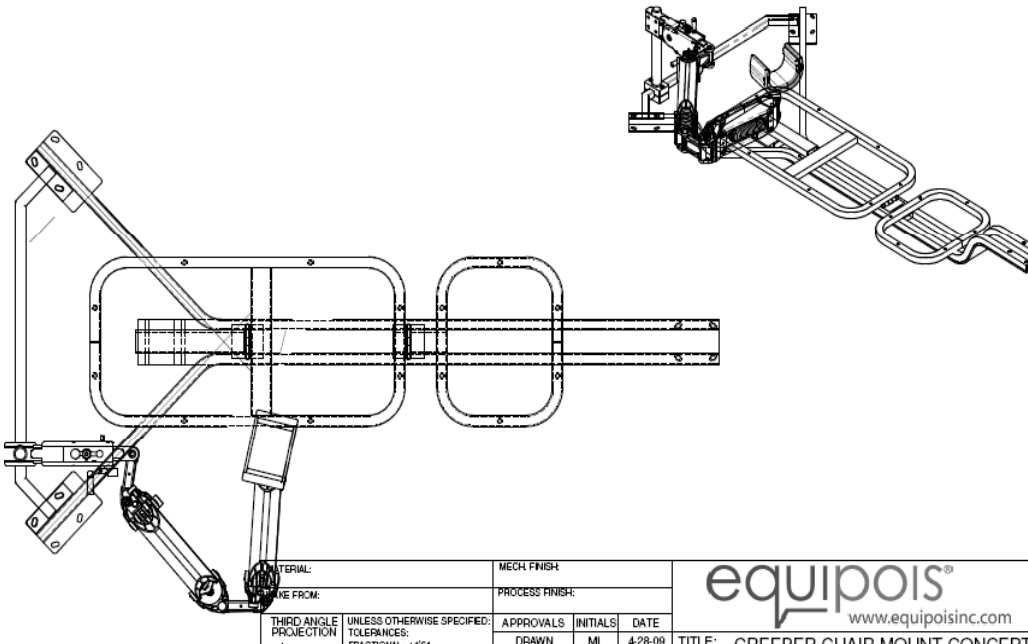
MATERIAL:		MECH FINISH:			 www.equipoisinc.com	
SOURCE FROM:		PROCESS FINISH:				
THIRD ANGLE PROJECTION  DIMENSIONS ARE IN INCHES AND APPLY AFTER PROCESS FINISH	UNLESS OTHERWISE SPECIFIED: TOLERANCES: FRACTIONAL: $\pm \sqrt[4]{64}$ ANGULAR: MACH $\pm 1'$ BEND $\pm 1'$ TWO PLACE DECIMAL: $\pm .01$ THREE PLACE DECIMAL: $\pm .005$ CONCENTRICITY: .003 TIR MACHINED FILLETS: R.005 MAX BREAK SHARP EDGES: .005 .015	APPROVALS	INITIALS	DATE	TITLE: CREEPER CHAIR MOUNT CONCEPT,	
		DRAWN	ML	4-28-09	3D MODEL: Creeper mount w 2 link and arm support	
		CHECKED	-	-	SIZE DWG. NO.	REV:
		ENG APPR.	-	-	A	CREEPER 100
		MFG APPR.	-	-		
Q.A. APPR.	-	-				
PROPRIETARY AND CONFIDENTIAL		INTERPRET GEOMETRIC TOLERANCING				









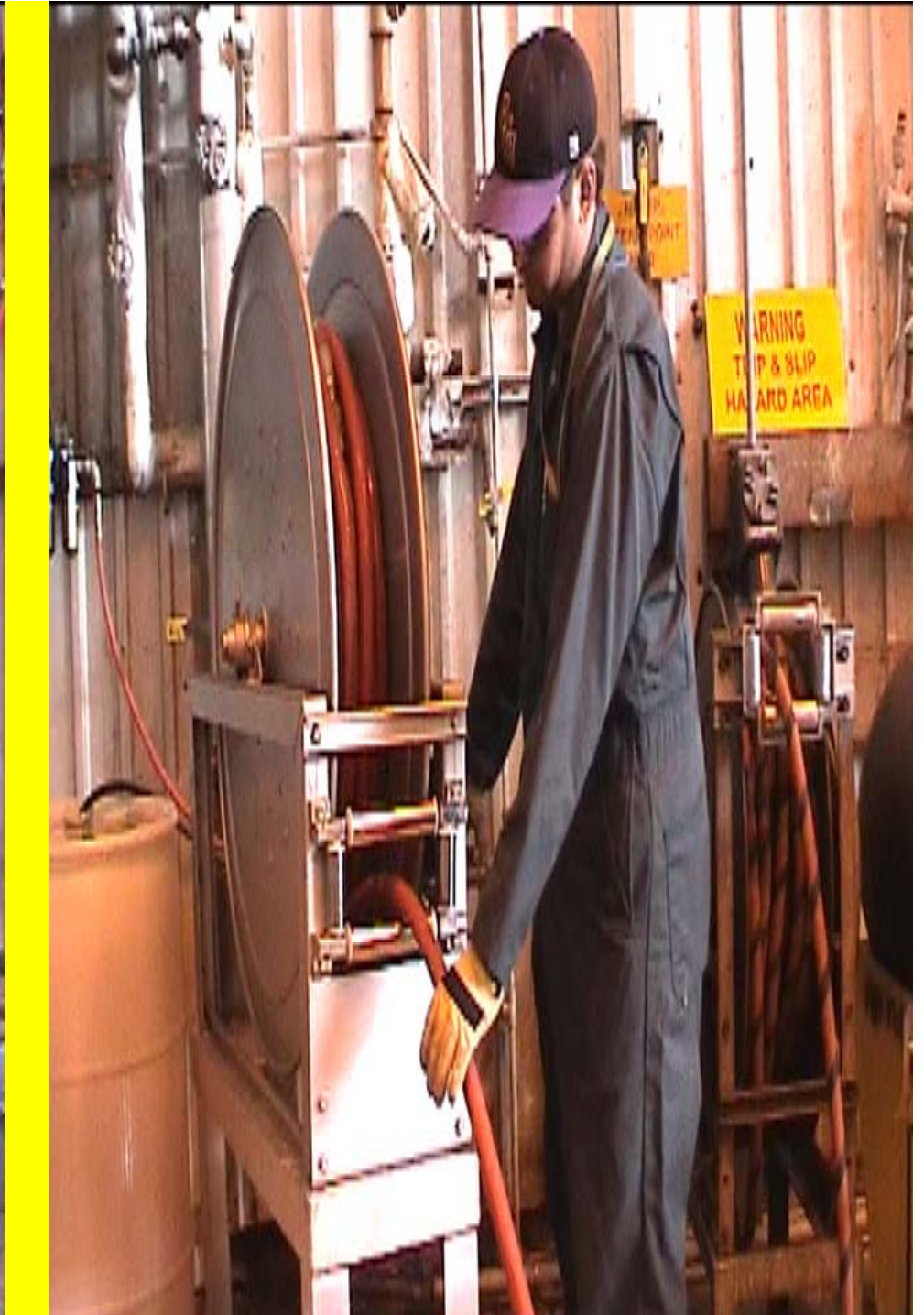








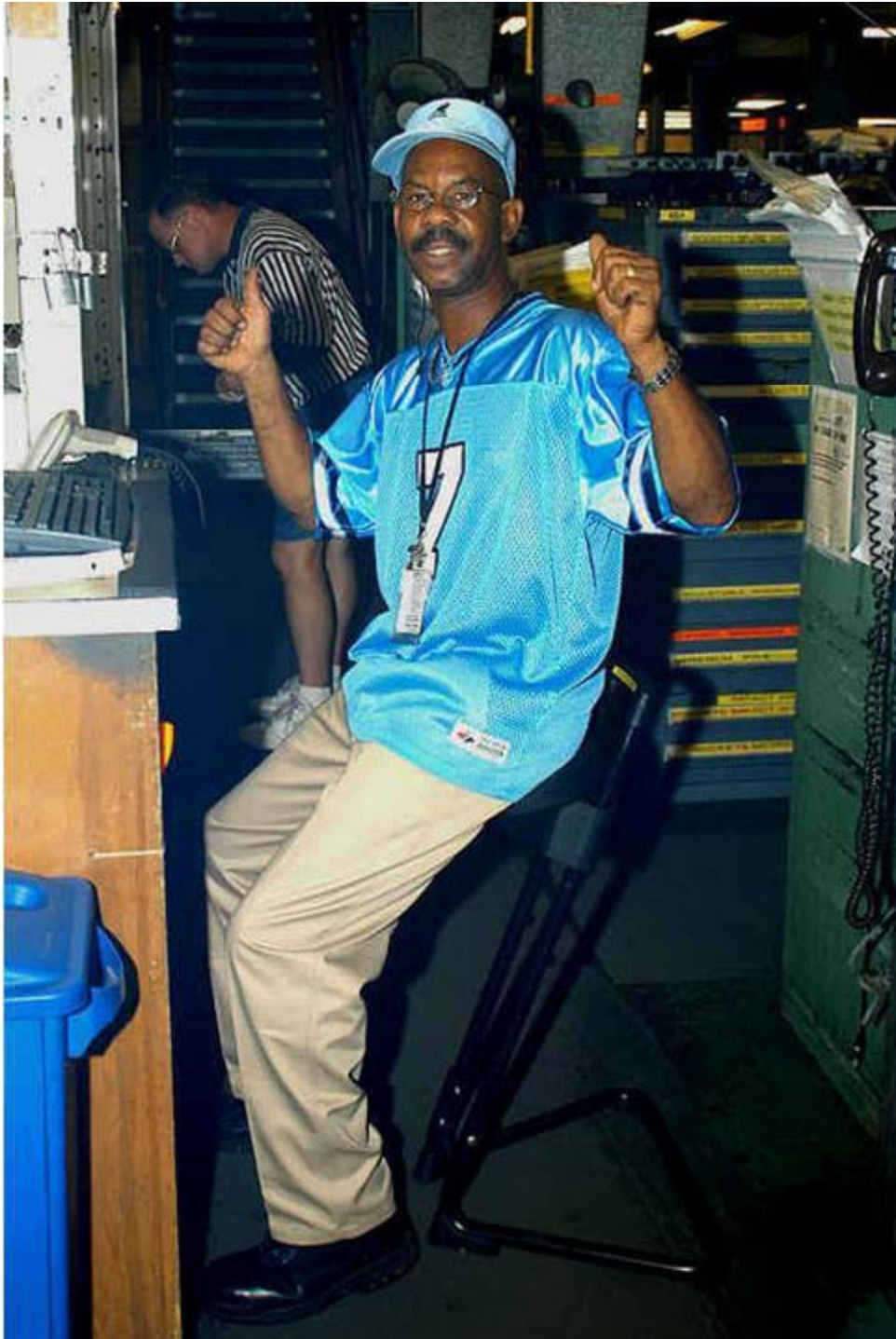












**We have 42 sit/stand stools  
throughout FRC East.**



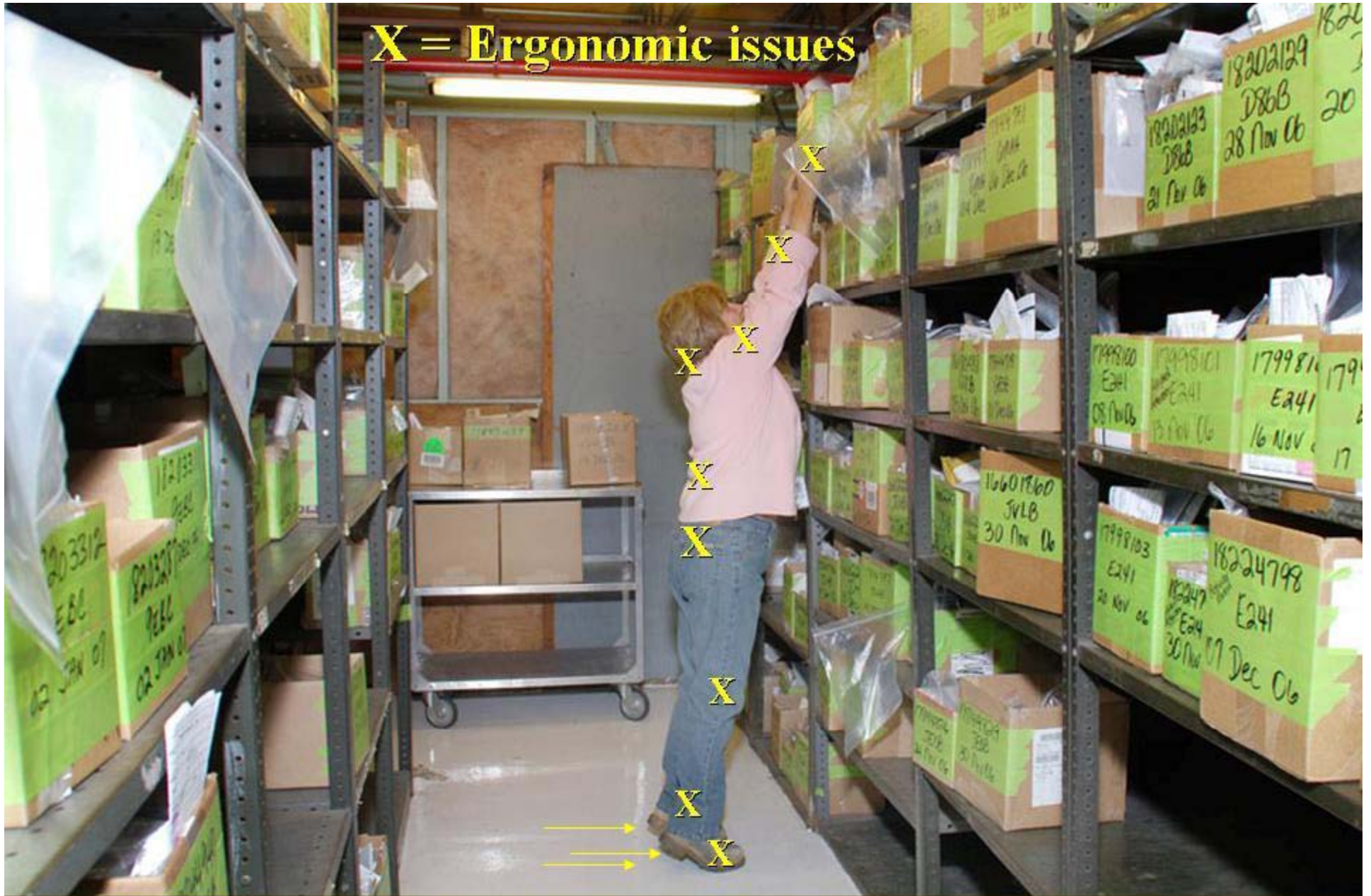


**Okay Tom on the  
Count of 3.  
One  
Two  
Three**

**Know how to use your resources!**



**X = Ergonomic issues**



Ergonomic Risk Factors:

**Force, Posture, Compression and Duration.**







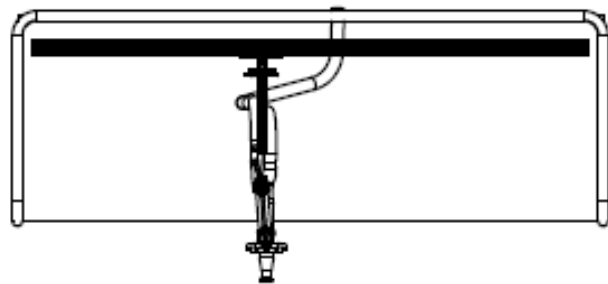






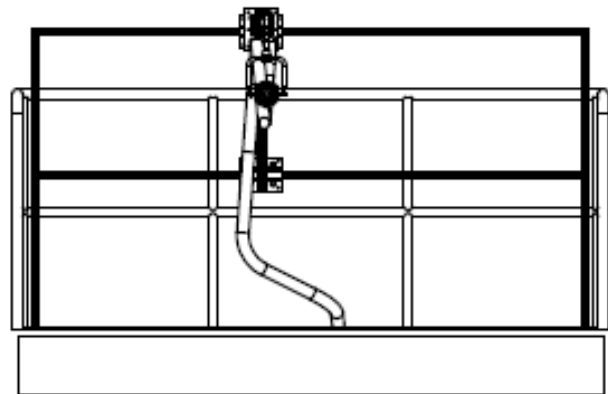




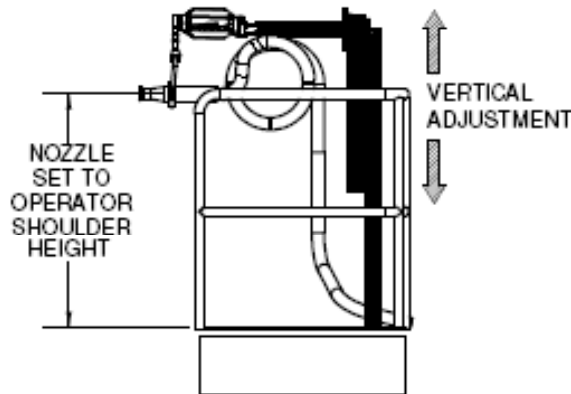


**TOP VIEW**

HORIZONTAL TRAVEL



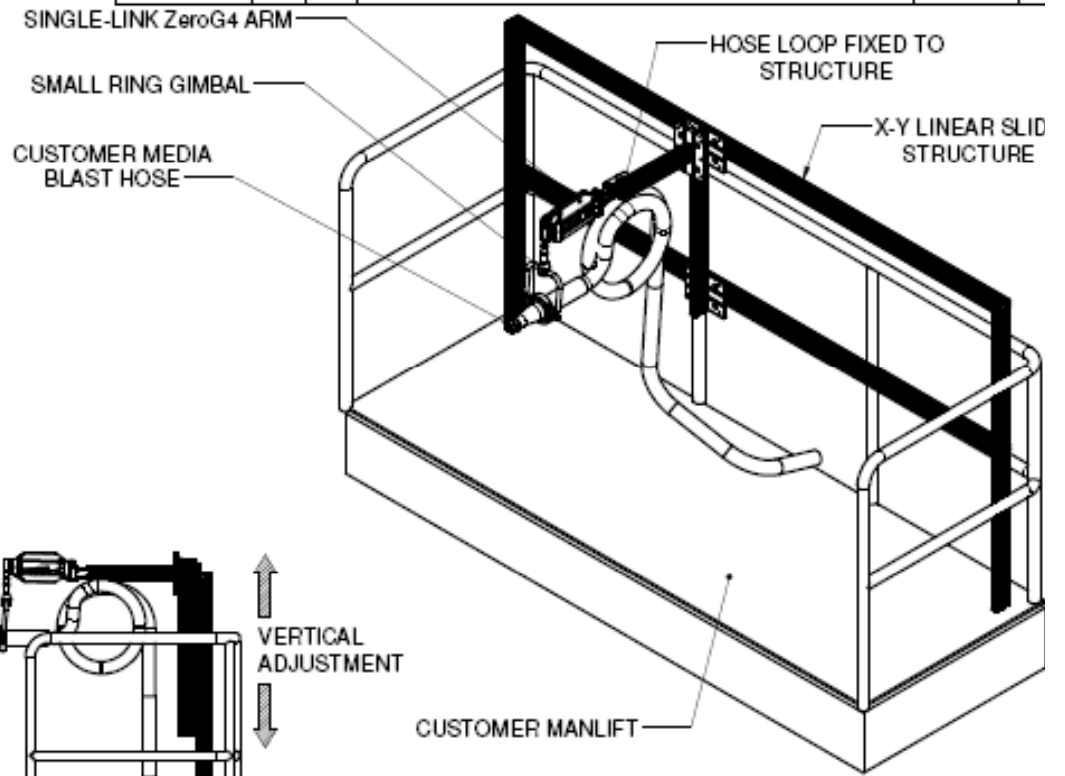
**FRONT VIEW**



**SIDE VIEW**

**[FOR CONCEPTUAL PURPOSES ONLY]**

ECO NO.				REV		BY	REVISIONS DESCRIPTION		DATE	AP
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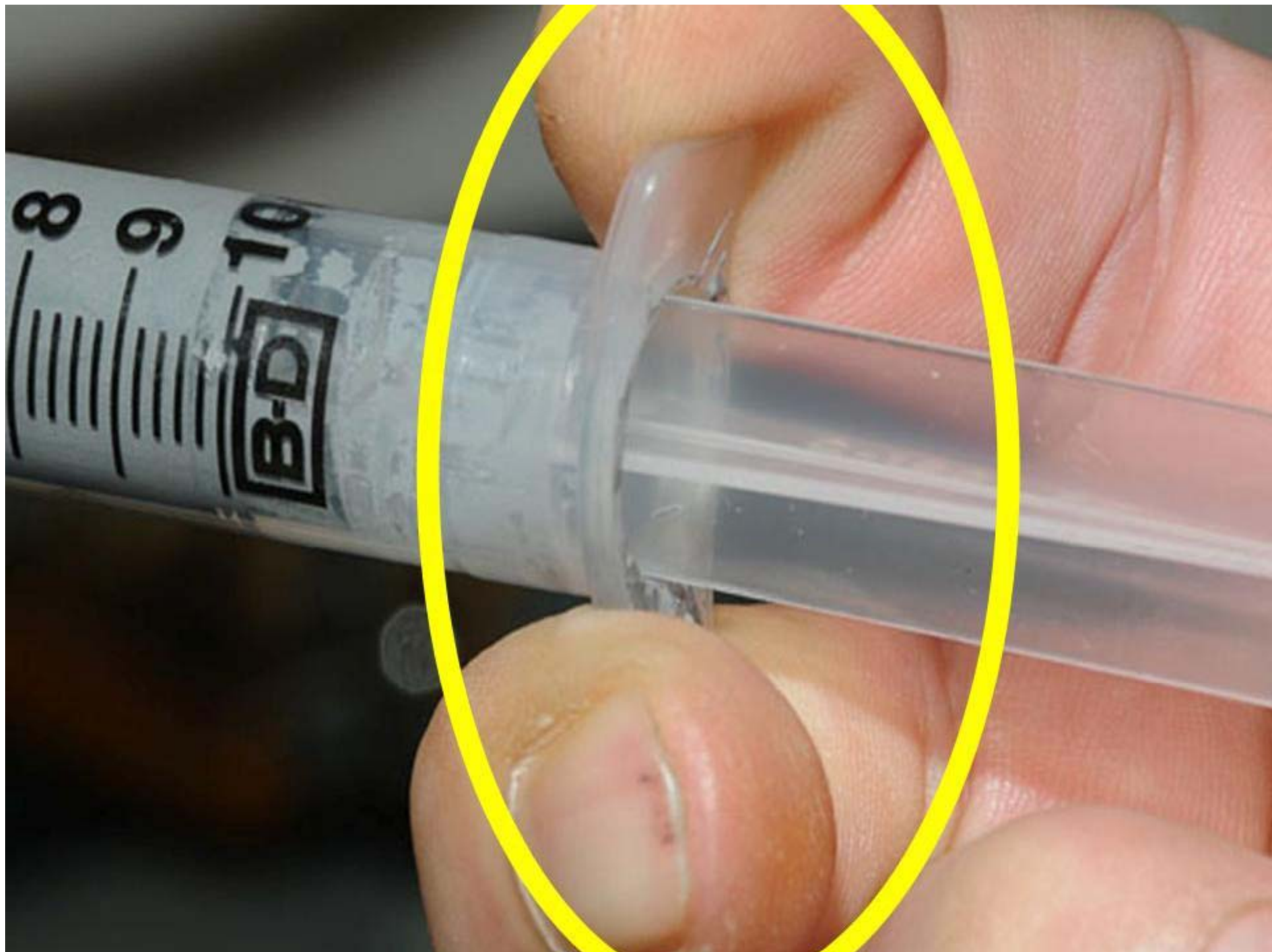


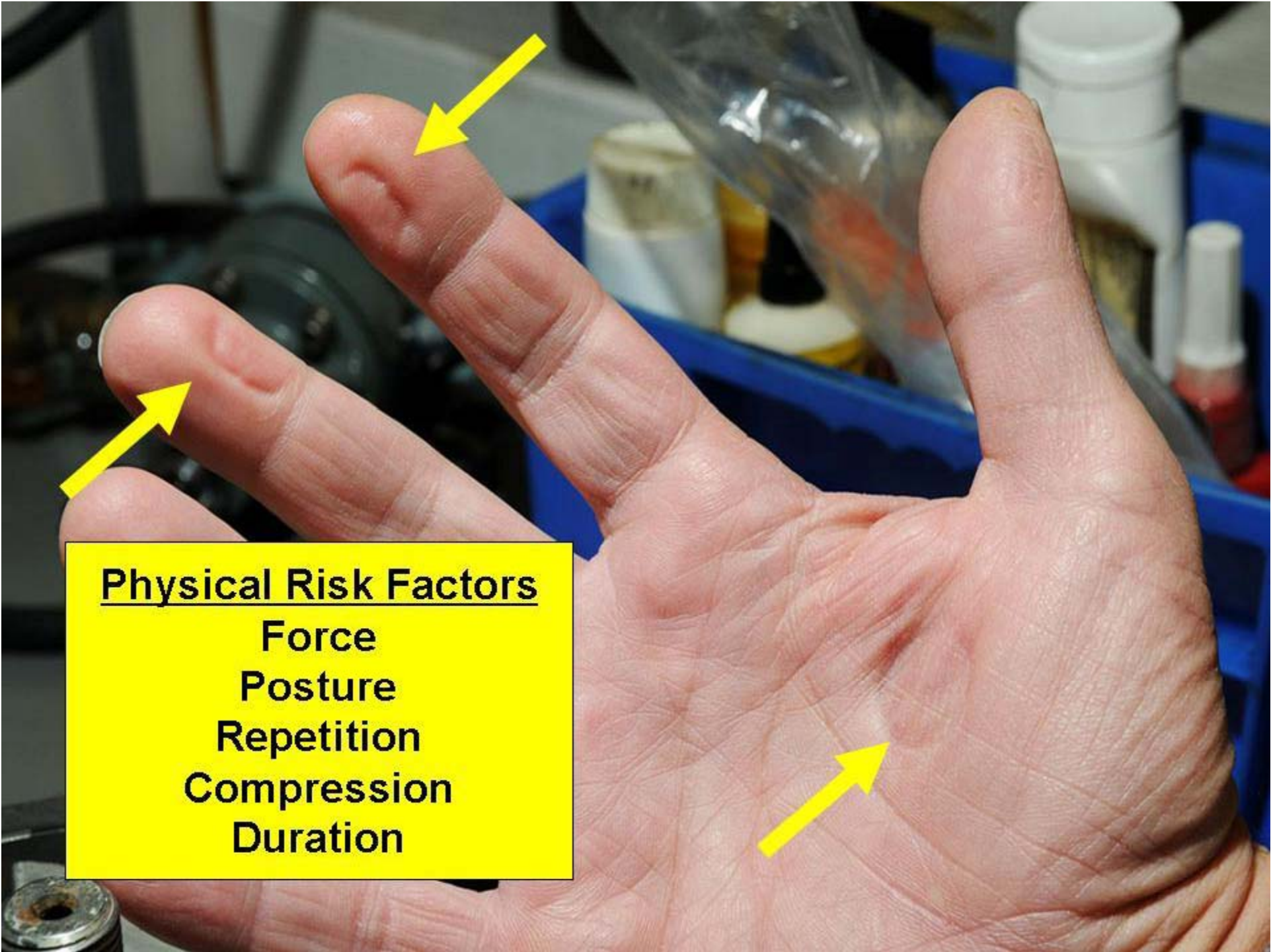
MATERIAL:	MECH FINISH:
MAKE FROM:	PROCESS FINISH:



**Applying potting compound (sealant)**







**Physical Risk Factors**

- Force**
- Posture**
- Repetition**
- Compression**
- Duration**





Let's Build Something

Buy Online. Pick Up In Store.

(0) items | Welcome to Lowes.com

Account | Order Status | Register | Log In

MY STORE

Weekly Ads

Rocky Mount, NC

Store Info | Find Another Store

Keywords or it

Search

8:14:56:10  
DAYS HRS MIN SEC

Countdown to **spring** 09

One-Day Only  
Online Savings

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Shop by Room

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Gift Center

Services

For Your Business

Help



## Tools

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**Fix**

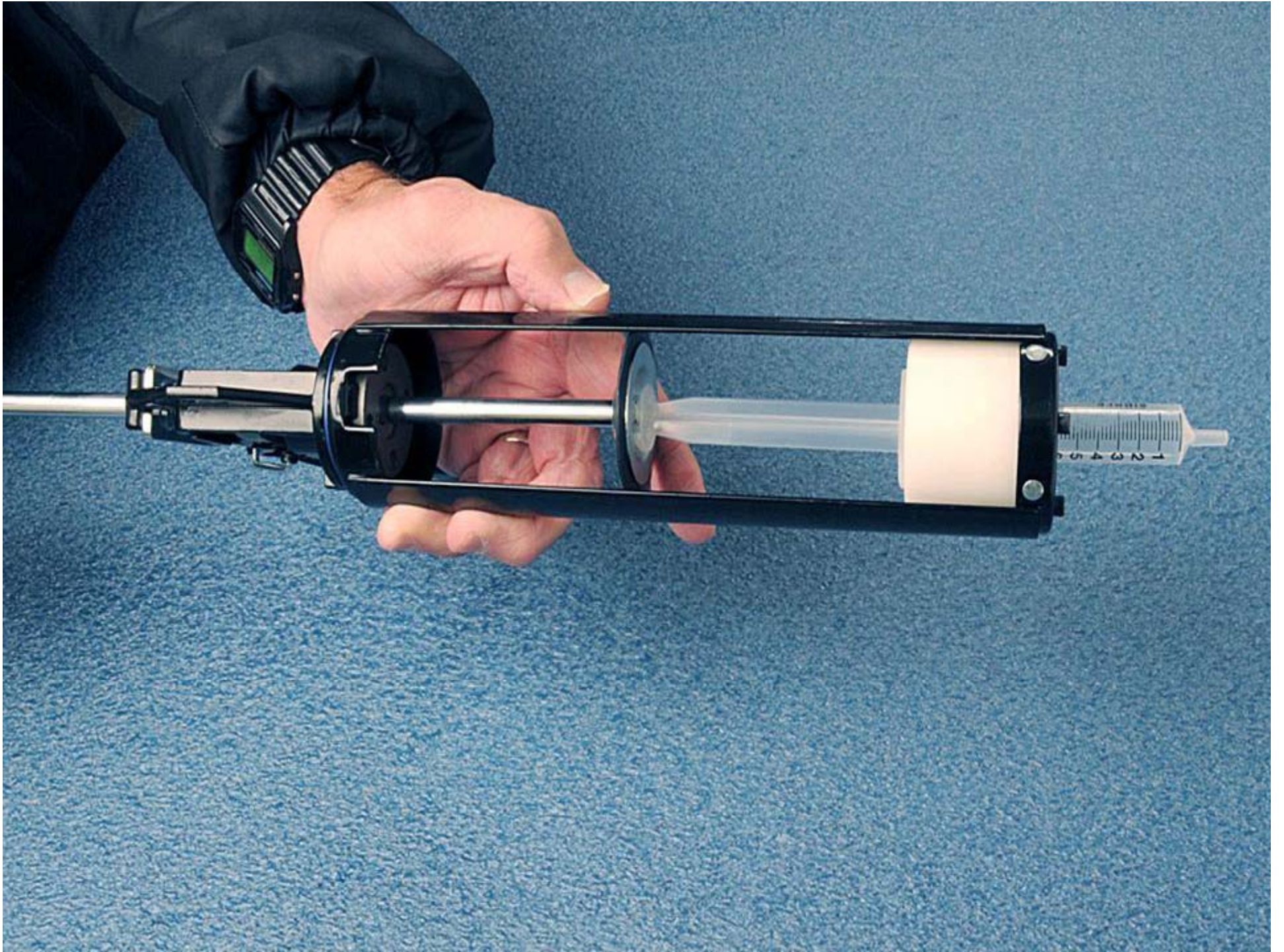




**You'll need to  
have a bushing  
made up**











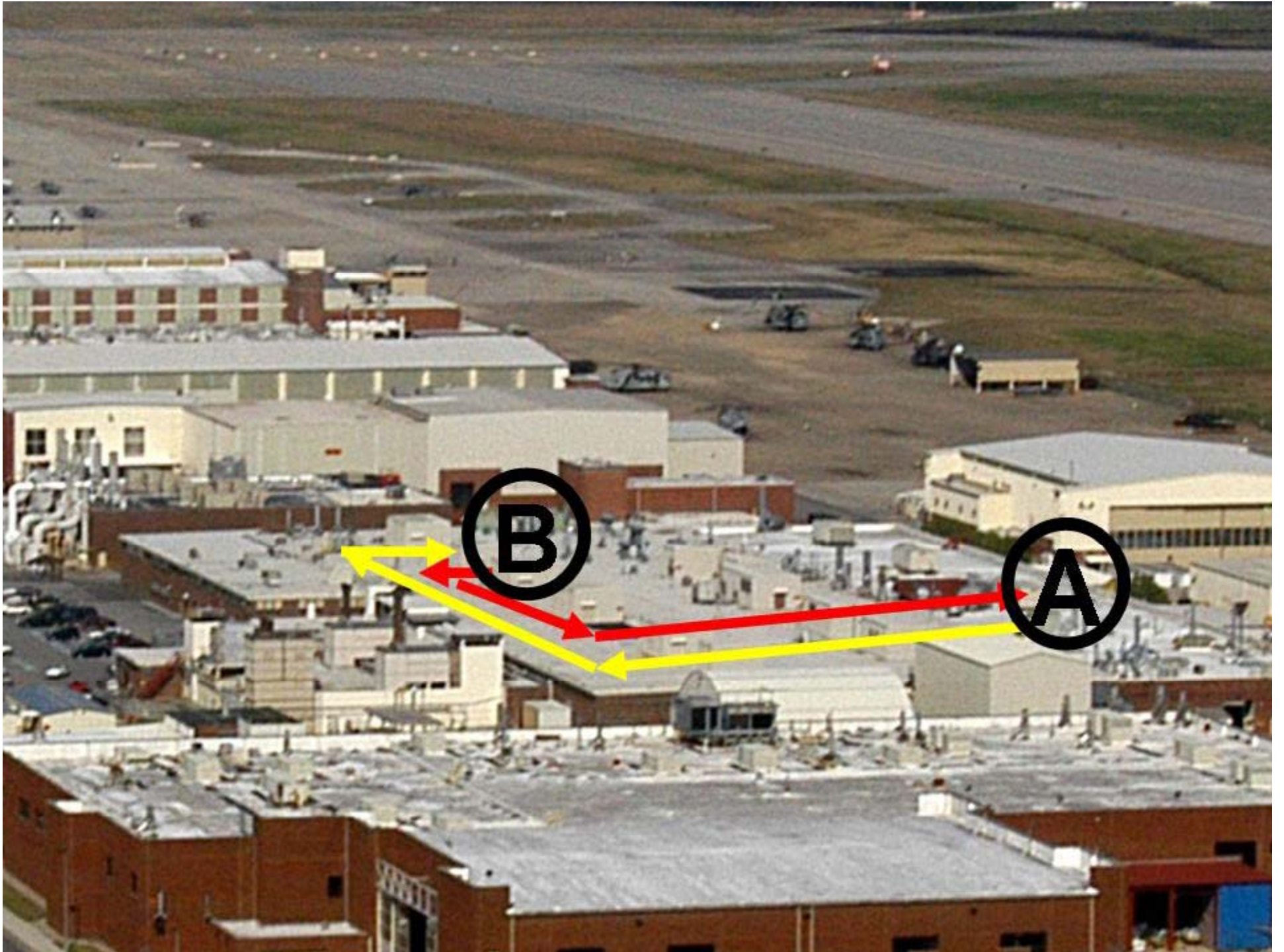




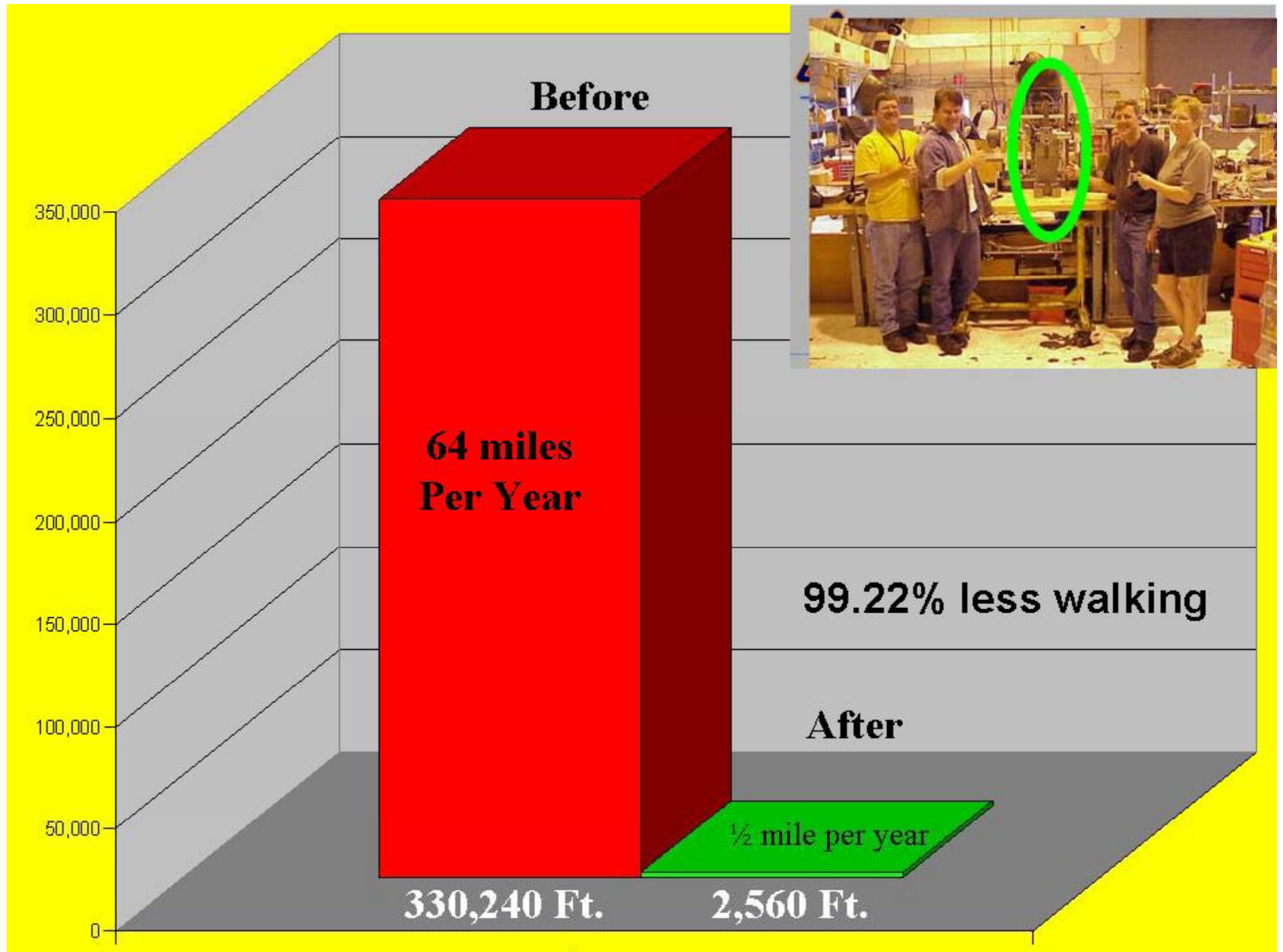














**I am walking 64 Miles  
less in a year!**

We had to walk 330,240 ft. a year to use a press located in building 133.  
Now it's less than 2,560 ft. a year.







# E-Bore (Drillless Drill)



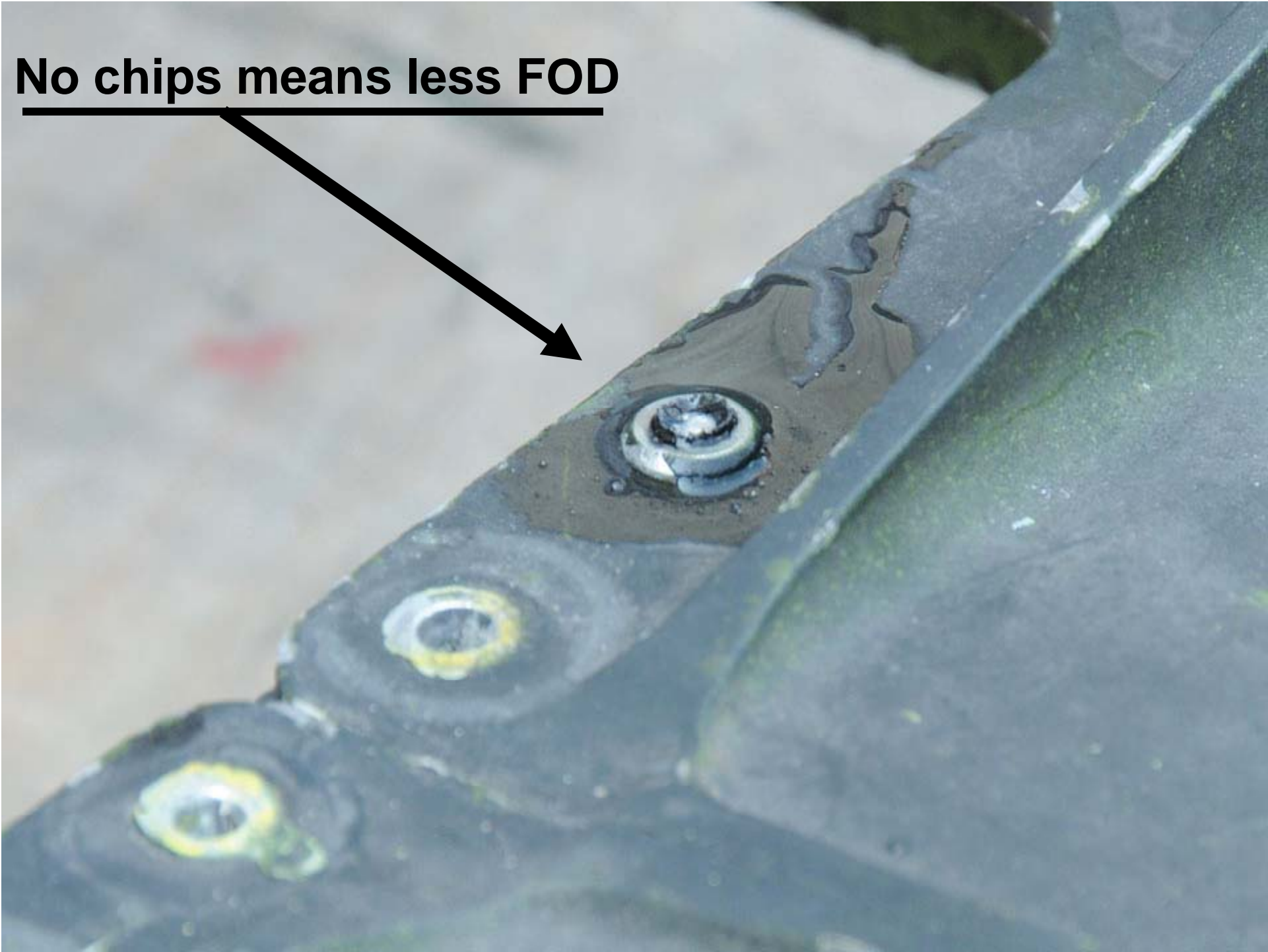








**No chips means less FOD**





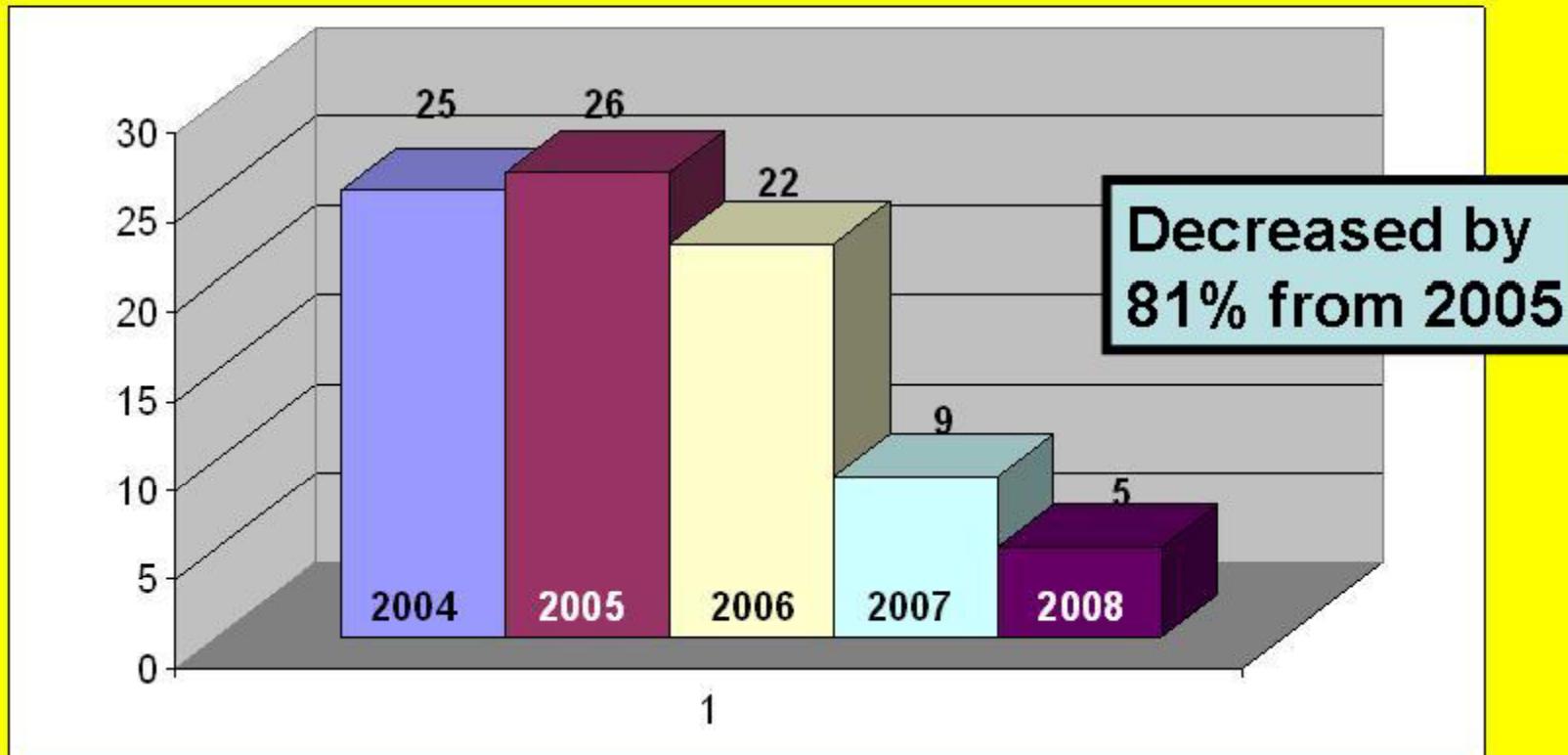


And now for the real

**Data**

## Carpal Tunnel Syndrome Cases at FRC-East over 5 years

2004	2005	2006	2007	2008
25	26	22	9	5



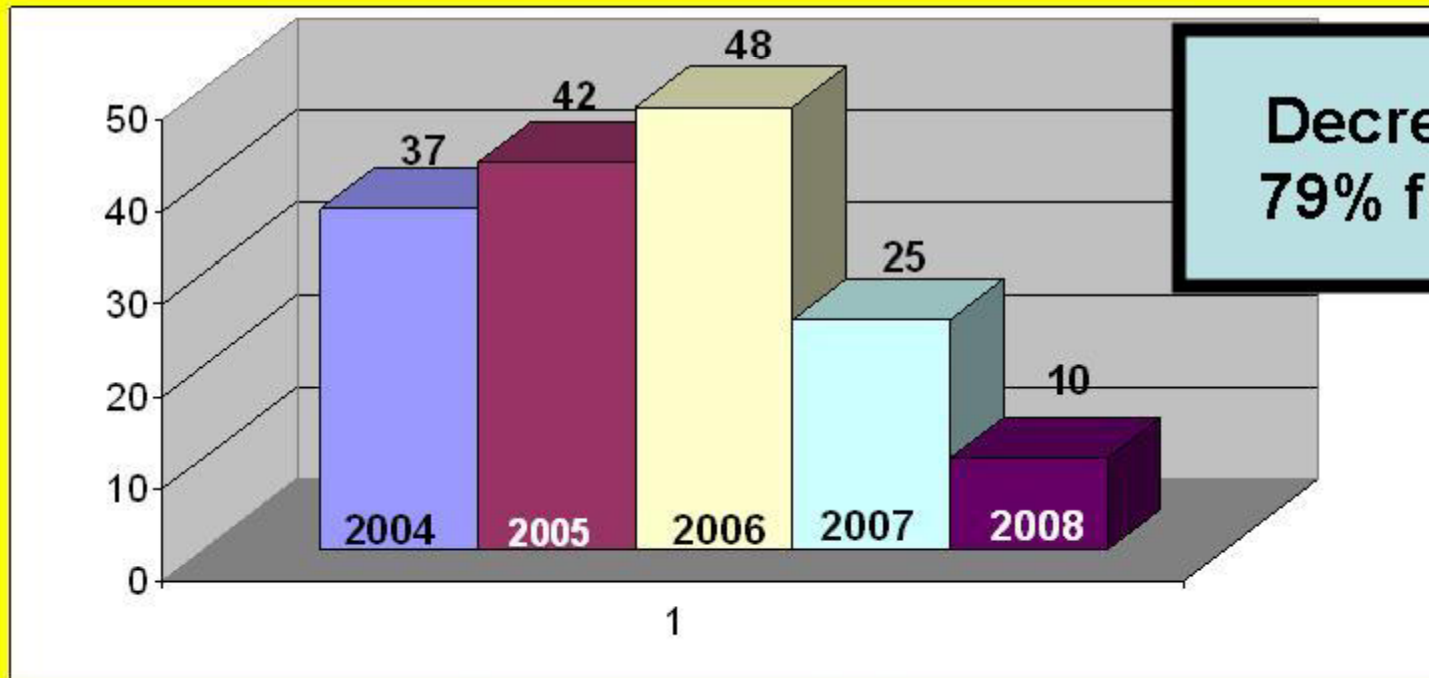
**Above information is as of 12/5/2008**

By Richard Borcicky Ergonomic/Engineer FRC-East, Cherry Point



## Back Pain / Hurt Back Cases at FRC-East over 5 years

2004	2005	2006	2007	2008
37	42	48	25	10



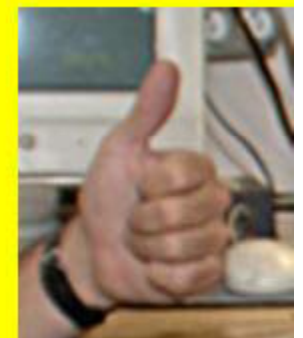
**Above information is as of 12/5/2008**

By Richard Borcicky Ergonomic/Engineer FRC-East, Cherry Point



## **We receive the thumbs up because:**

- 👤 Ergonomic study of the area.**
- 👤 Ergo Equipment purchase is based on team decisions.**
- 👤 Ergo decision was signed off by the employees and management.**







**With Ergonomics  
“you” can lift your  
Company to a new  
level in safety, quality  
and productivity.**



## PUBLICATIONS

The DoD Publications called: “The DoD Ergonomic Working Group News”

- Issue 63 “Ergonomic Interventions at FRC-East”
- Issue 78 “Applied Ergonomics Conference & Expo”
- Issue 90 “The Right Tool Can Make the Difference”

The Navy Publication called: “The Navy Success Stories”

- “Fleet Readiness Center (FRC) East Uses Lazy Susan Design to Prevent Work Related Musculoskeletal Disorders”



# **Seven Videos to view of: Improvements here at FRC-East**

**1.) Cart Caddy**

**2.) Creepers**

**3.) Movers**

**4.) Sawhorse**

**5.) Clean Shop Hose Reel vs. Drums**

**6.) Hazardous Waste**

**7.) E-BORE**

























**I'm sad, because its time for me to go.**





**Feel free to contact me for any other information:**

**Richard Borcicky**  
**Cherry Point Ergonomist**  
**1 252 464 5165**

**Email: [Richard.Borcicky@Navy.mil](mailto:Richard.Borcicky@Navy.mil)**





**Have you hugged your  
Ergonomist today?**

**“Have a Great Day”**