

INSTRUMENTATION

1950

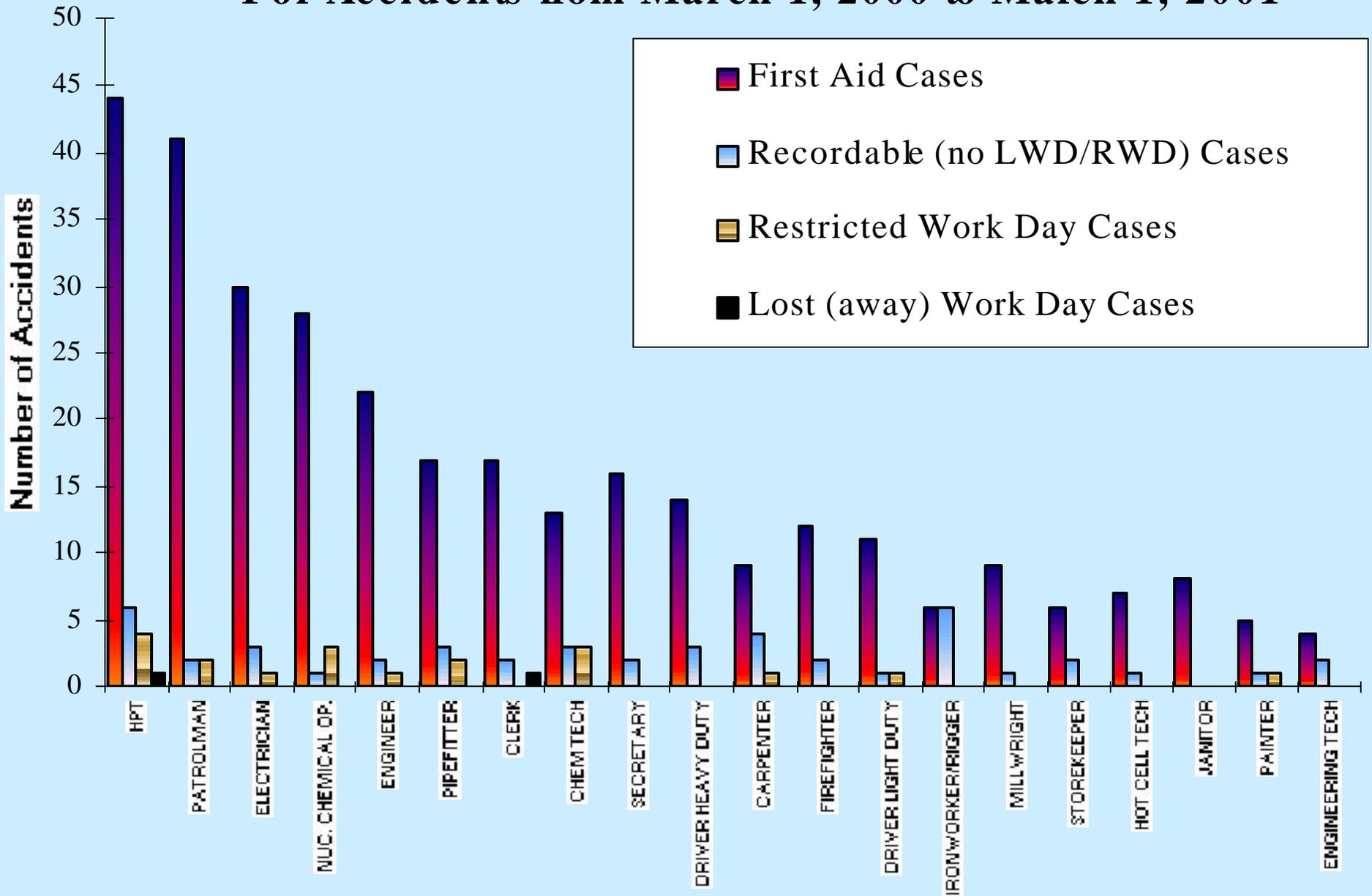
2001



Hanford Health Physics Injury Reduction Committee



For Accidents from March 1, 2000 to March 1, 2001



Concerns Raised by Union Leadership

- *Significant number of reported injuries and illnesses.*
- *Concern for non-reported minor injuries.*
- *Increase in musculoskeletal/cumulative trauma disorders.*

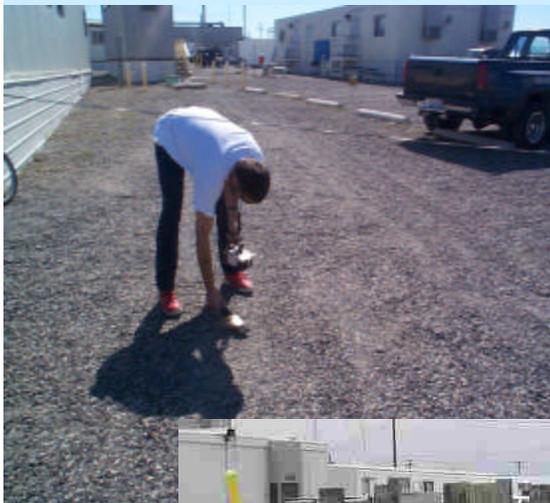


Committee Consists Of:



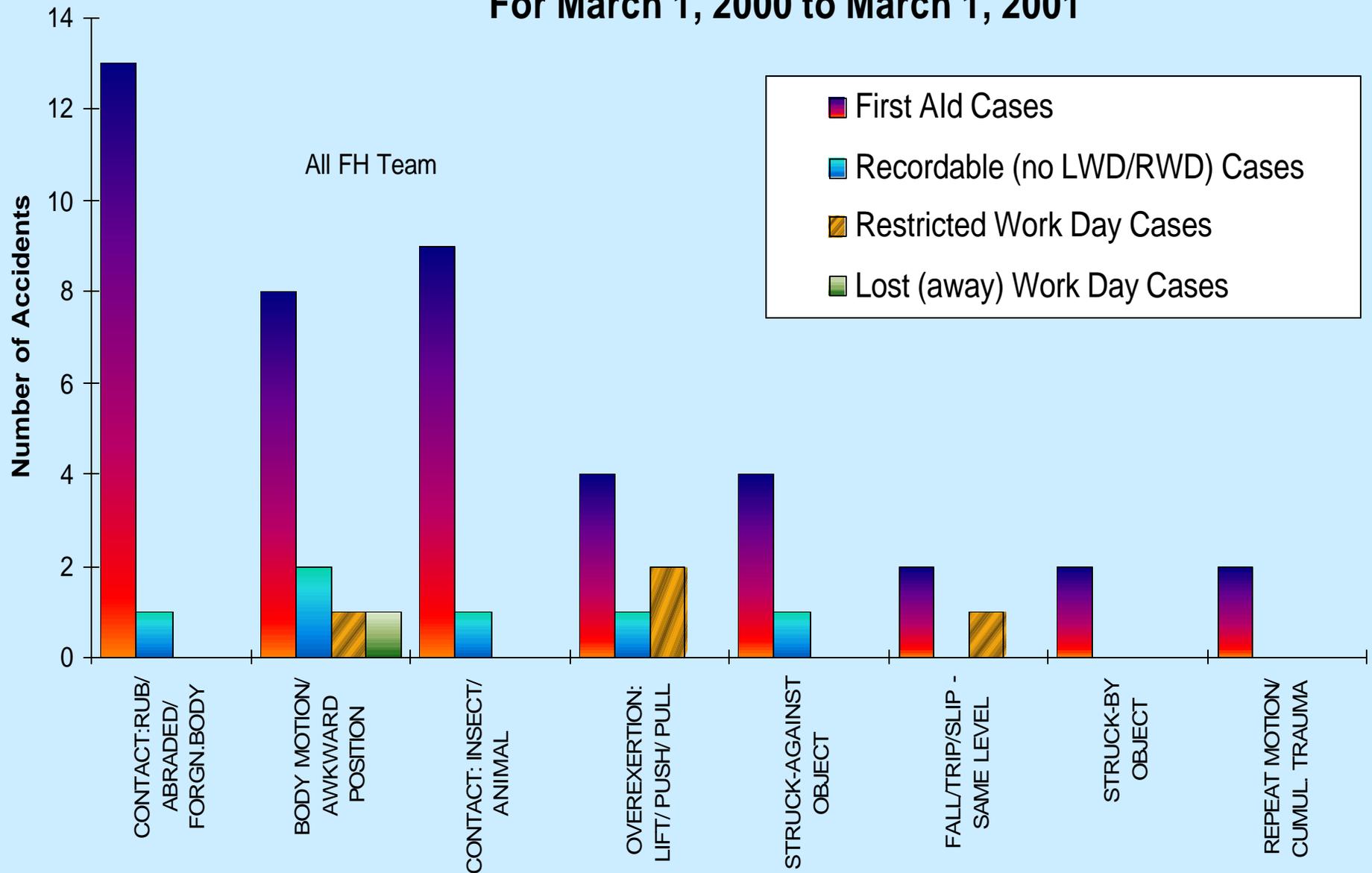
- *Union Representatives*
- *Safety Professionals*
- *Health Physics management*
- *Health Physics Technicians*
- *Ergonomic Specialists*

Health Physics Instruments and Ergonomics



HPT Accidents

For March 1, 2000 to March 1, 2001



Hanford Special Circumstances



9. 14

Hanford Special Circumstances



Plutonium Finishing Plant



Performed Field Assessments

- *Man Machine Interface*
- *Environment*
- *Procedures*
- *People Issues*
- *Communications*





Survey says....??

Injury/Illness Survey

Total of 130 responses

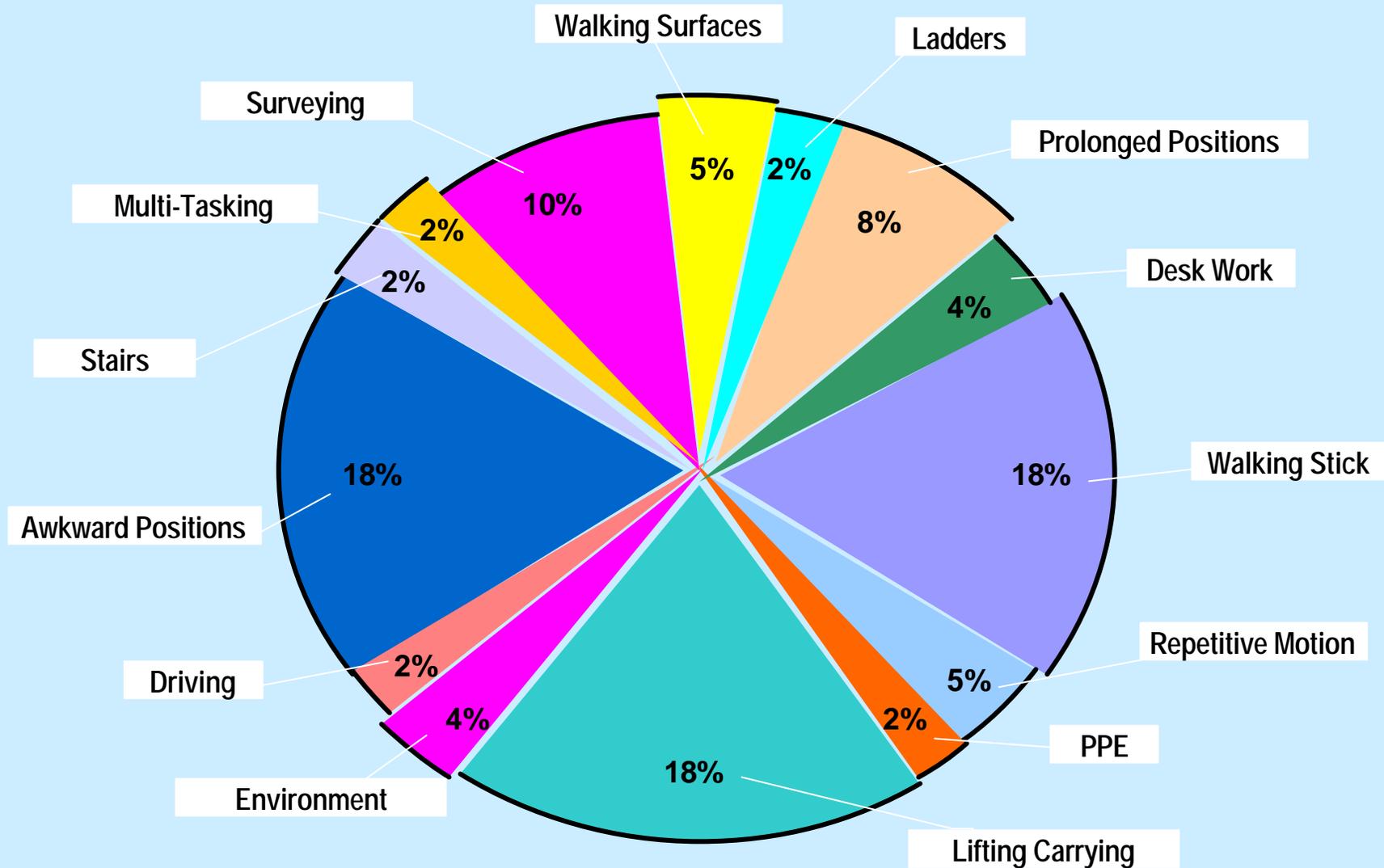
•70% of the 130 reported discomfort related to job task

•98% reported discomfort was reoccurring

•65% of 130 received medical treatment



Activity / Injury Ratios



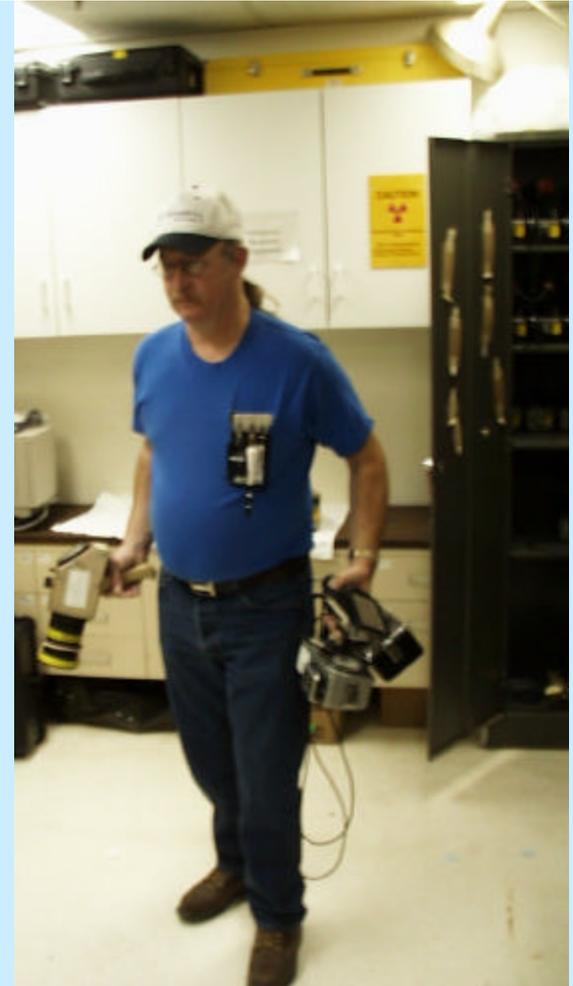


Walking Stick and Snoopy

*Top two
factors (36%)
in workplace
that
contribute to
CTD's.*

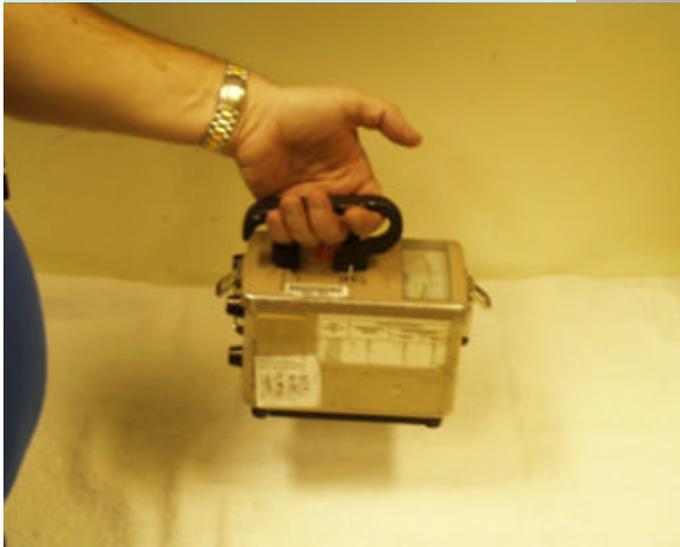
Transportation Issues

*18% of
HPT's cited
lifting and
carrying
caused pain
or
discomfort*

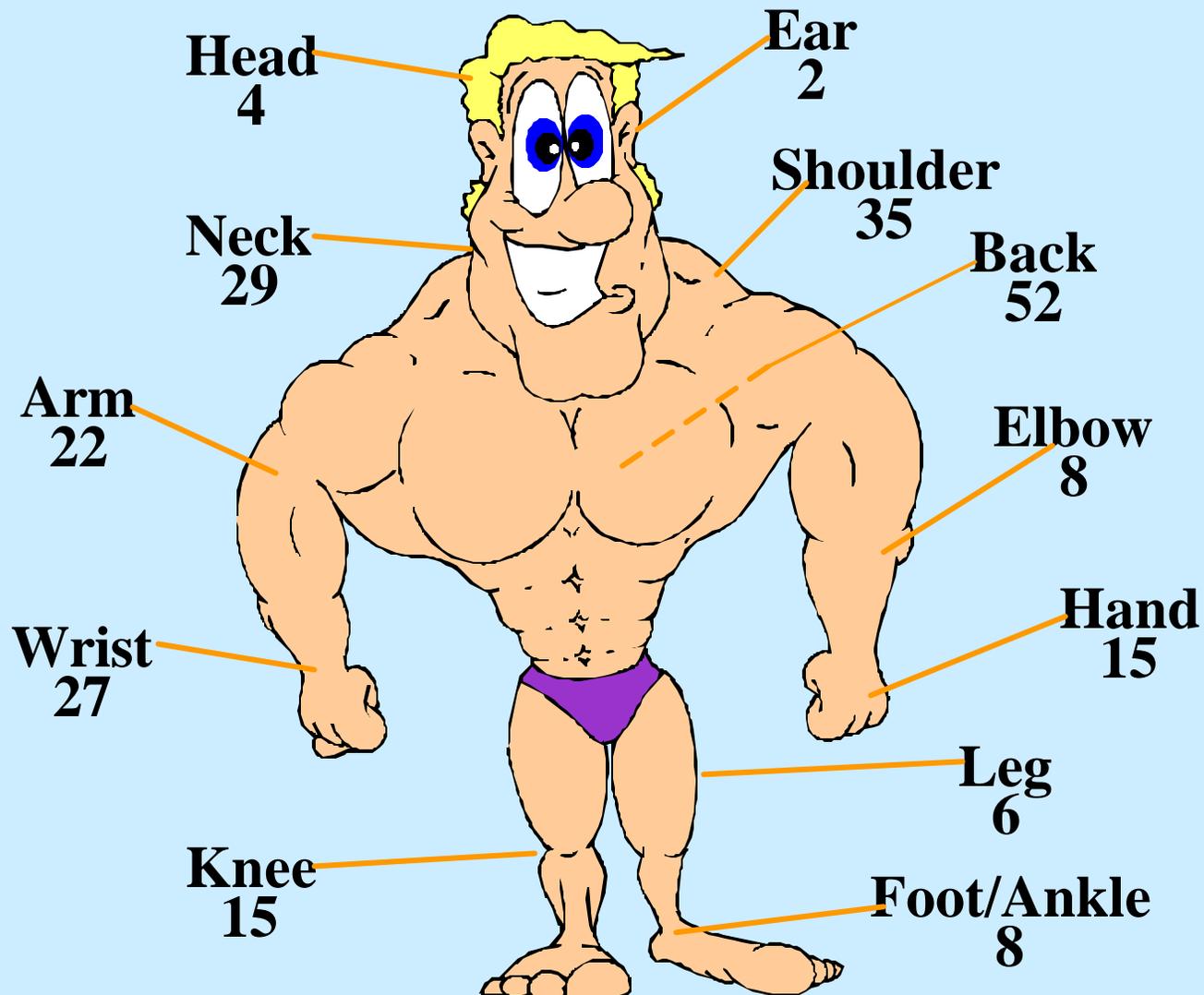


*Up to 40 +
pounds*

Awkward Positioning and Surveying (28%)



Affected Body Parts



Committee Recommendations

- *Research and implementation of new instruments and equipment with ergonomic design considerations such as weight, size, 100cm² probes, multifunction meters, etc.*

Committee Recommendations

- *HPT representation for the development and implementation of Rad Con programs and oversight.*
- *Sharing of information and ideas between projects.*



GM with Pancake Probe

*Original Hanford
Design approximately
40 years old and 4
lbs.*



PAM

Approx. 2.2 lbs



*Original
Hanford
Design
Approx. 15
to 20 years
old*

“Cutie Pie”
(CP)



*Original
Hanford Design
Approx. 40 years
old. Approx. 3.5
lbs.*



R0-2 and R0-20

***Approximately 3.6 lbs, 10-15
years old***



Expensive Option

Do Nothing.....



<i>Average developing CTD case</i>	<i>\$4,000</i>
<i>Moderate case-100days restricted duty</i>	<i>\$40,000</i>
<i>Severe case involving surgery</i>	<i>\$79,000</i>
<i>Direct cost, indirect cost could triple this amount</i>	

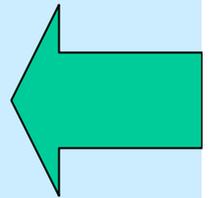
Attempted Modifications



*We are like the Flintstones,
but, we want to be like the
Jetsons*



1950 Technology



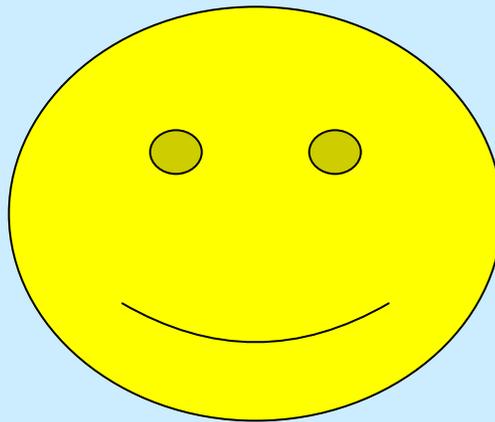
2001 Technology



The Future is Here?



Thank you



*Contact us at
RCT_Injury_Reduction@rl.gov*