



Idaho National Laboratory



INL Protective Force
presents

Human Performance



SOAR

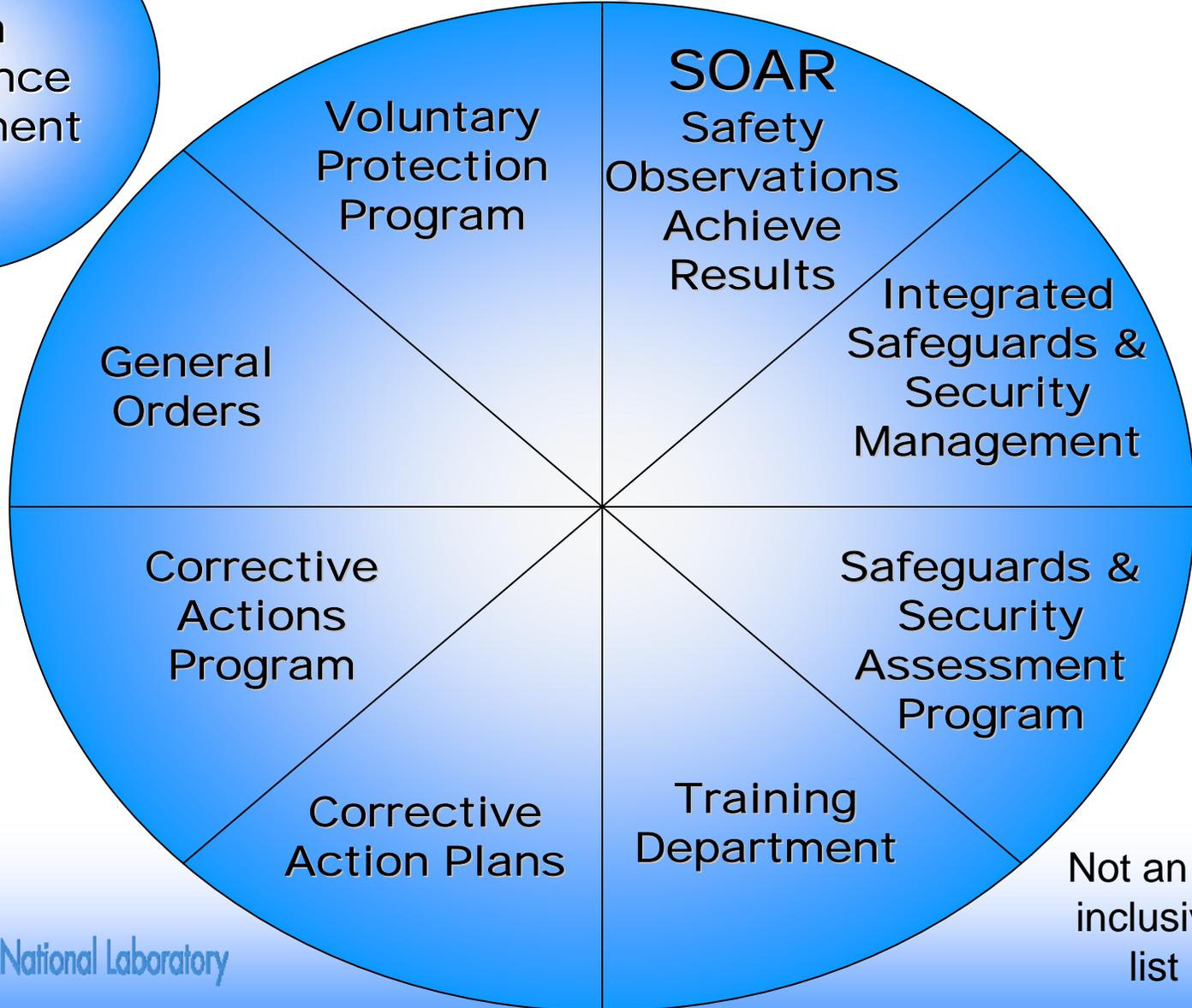


Safety Observations Achieve Results

Art Baker – Tyson Allen – Bruce Hooper – Neil Walker

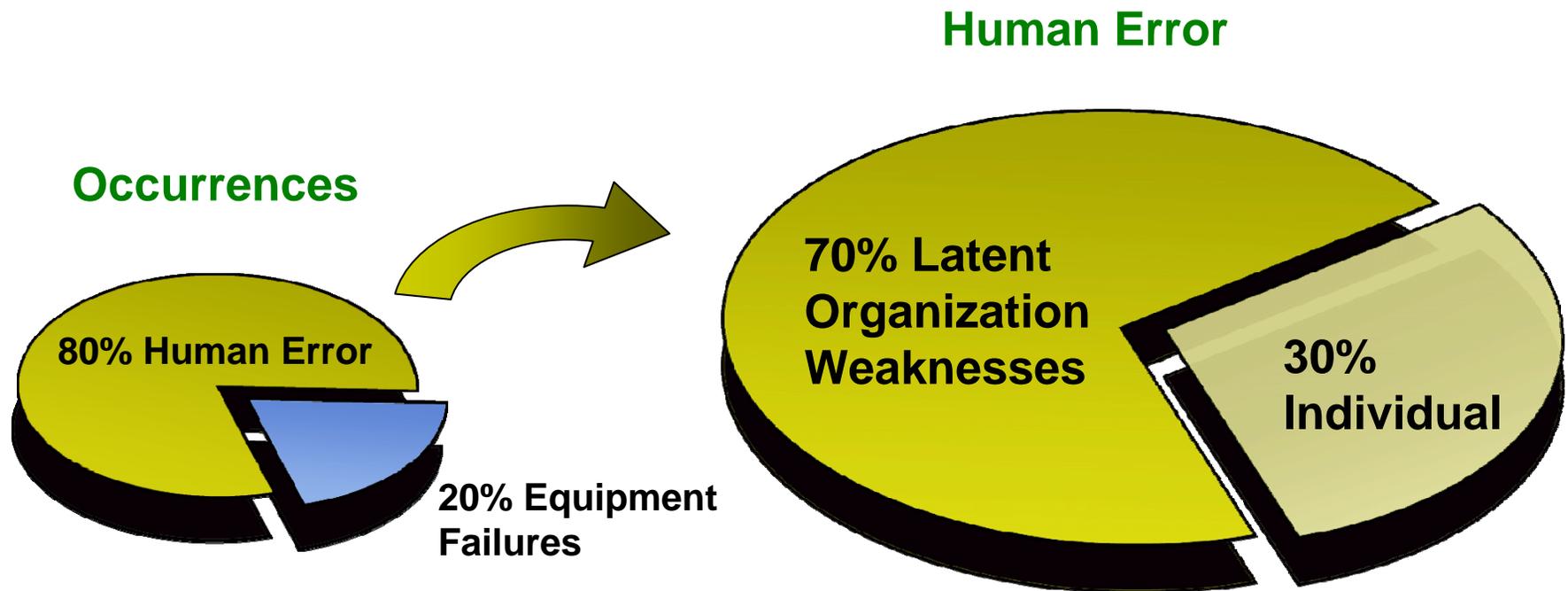
Protective Force Programs

Human
Performance
Improvement



Not an all inclusive list

Why a Human Performance Approach?



5 Principles of Human Performance

- 1. Humans are fallible, and even the best make errors.**
- 2. Error-likely situations are predictable, manageable, and preventable.**
- 3. Individual behavior is influenced by organizational processes and values.**
- 4. People achieve high levels of performance based largely on the encouragement and reinforcement received from leaders, peers, and subordinates.**
- 5. Events can be avoided by understanding the reasons errors occur and applying the lessons learned from past events.**

Question:

If a red house is made from red bricks, and a blue house is made from blue bricks, and a pink house is made from pink bricks and a black house is made from black bricks, what is a green house made from?

Answer: If you said green bricks you are wrong the correct answer is glass.

Question:

Very tricky math! Note: This must be done in your head only. Do NOT use paper and pencil or a calculator. Try it.

Take 1000 and add 40 to it. Now add another 1000. Now add 30. Add another 1000. Now add 20. Now add another 1000. Now add 10. What is the total?

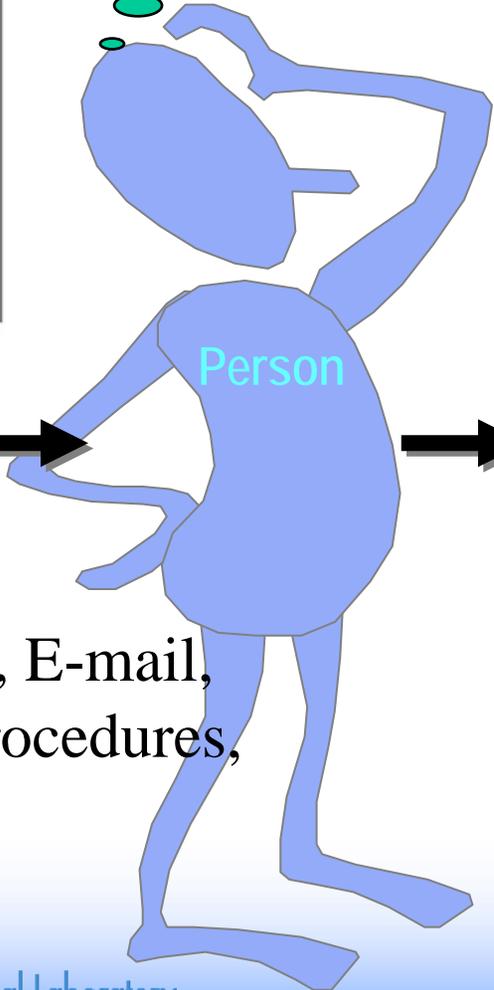
Did you get 5000 ?

Answer: The correct answer is actually 4100.
Don't believe it? Check with your calculator!
Today is definitely not your day.



ABC Model

Antecedent



Behavior



PIC/NIC
Consequence

Examples:
Training, Posters, E-mail,
Requirements, Procedures,
Billboards,

An action that
is observed

Rewards/
Reinforcers:
Social and
Tangible

SOAR



Safety Observations Achieve Results

- **How SOAR was introduced to the Protective Force**
 - Employee owned
 - Taught and coached by peers
 - Tailored to fit the Protective Force needs
 - Observations were utilized as a tool to implement HPI

Why do a SOAR observation?

1. For your safety...
2. For the rewards
 - (PICs)
3. Company endorsed

4. Shows DOE...
5. Reassures our future
6. Actively Care



What is the Safety Observation Process?

- Open Communication and Positive Reinforcement
 - Specific checklists
- A proactive approach to identify safe and at-risk behaviors
- Observers provide immediate feedback

Reinforce the safe behavior

Discourage the at-risk behavior

5:1



shady.nu

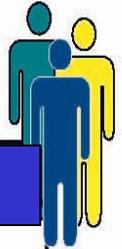
WWW.STILEPROJECT.COM

The Rule

No one

Purposely and *deliberately*
set out to have an injury or a
Security infraction

So Why Do They?



Error Precursors (short list)

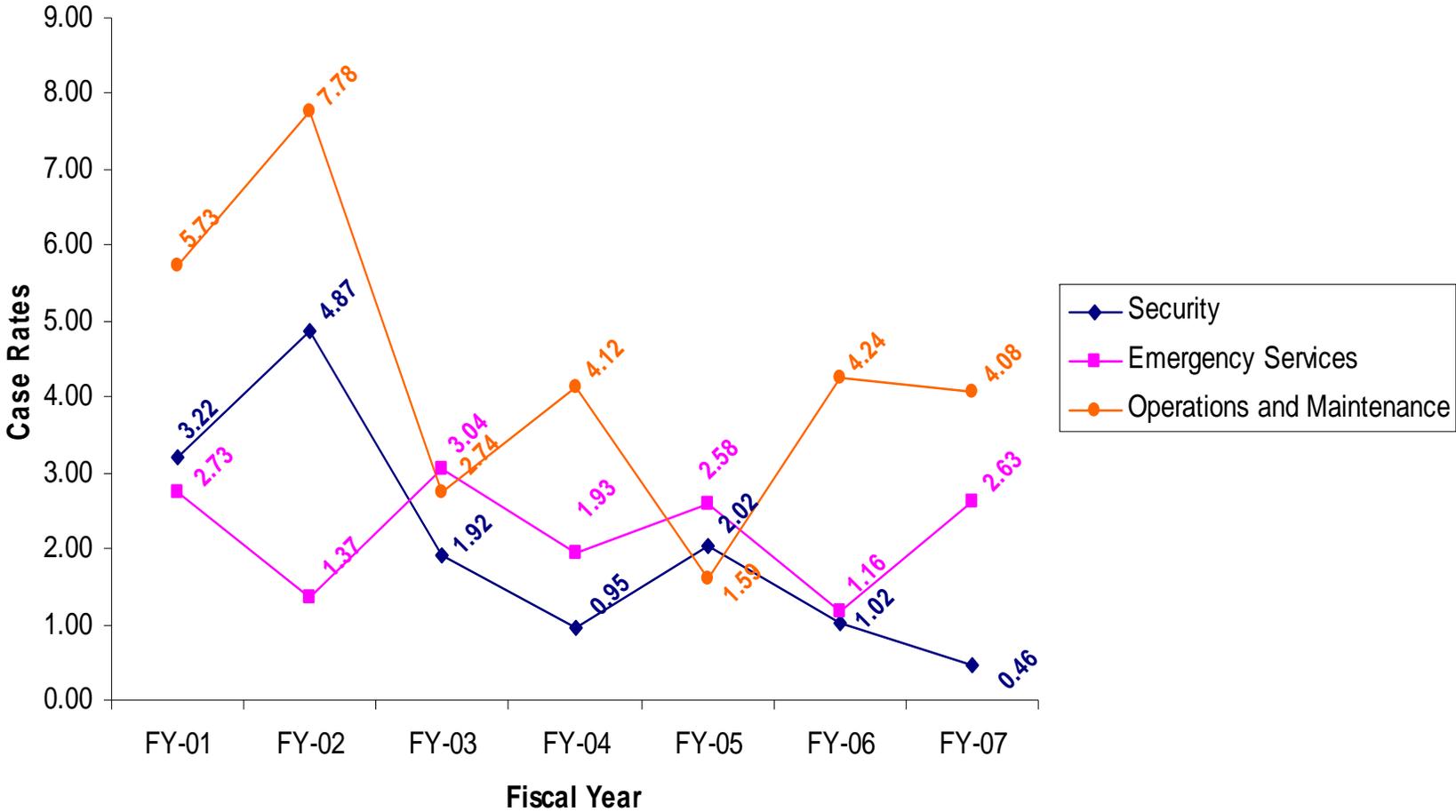
Task Demands	Individual Capabilities
<input type="checkbox"/> Time pressure (in a hurry)	<input type="checkbox"/> Unfamiliarity w/task / First time
<input type="checkbox"/> High Workload (memory requirements)	<input type="checkbox"/> Lack of knowledge (mental model)
<input type="checkbox"/> Simultaneous, multiple tasks	<input type="checkbox"/> New technique not used before
<input type="checkbox"/> Repetitive actions, monotonous	<input type="checkbox"/> Imprecise communication habits
<input type="checkbox"/> Irrecoverable acts	<input type="checkbox"/> Lack of proficiency / Inexperience
<input type="checkbox"/> Interpretation requirement	<input type="checkbox"/> Indistinct problem-solving skills
<input type="checkbox"/> Unclear goals, roles, & responsibilities	<input type="checkbox"/> "Hazardous" attitude for critical task
<input type="checkbox"/> Lack of or unclear standards	<input type="checkbox"/> Illness / Fatigue
Work Environment	Human Nature
<input type="checkbox"/> Distractions / Interruptions	<input type="checkbox"/> Stress (limits attention)
<input type="checkbox"/> Changes / Departures from routine	<input type="checkbox"/> Habit patterns
<input type="checkbox"/> Confusing displays or controls	<input type="checkbox"/> Assumptions (inaccurate mental picture)
<input type="checkbox"/> Workarounds / OOS instruments	<input type="checkbox"/> Complacency / Overconfidence
<input type="checkbox"/> Hidden system response	<input type="checkbox"/> Mindset ("tuned" to see)
<input type="checkbox"/> Unexpected equipment conditions	<input type="checkbox"/> Inaccurate risk perception (Pollyanna)
<input type="checkbox"/> Lack of alternative indication	<input type="checkbox"/> Mental shortcuts (biases)
<input type="checkbox"/> Personality conflicts	<input type="checkbox"/> Limited short-term memory



Success story

- **20,000+ Observations in less than a year**
- **77% participation**
- **Over 150 Latent Conditions Discovered**
- **Over 80 Latent Conditions Corrected**
- **Pro- Notes Website**
- **Open Communication and Positive Reinforcement...**

Facilities & Site Services TRCR History



John Grossenbacher Key Security Points From The All-Employee Meeting

- Safety and Security Behaviors Go Hand in Hand
- Conversation Awareness
- Leave Sensitive Information at Work
- People Actively Trying To Obtain Information
 - Documents
 - Electronic/Digital Files

SUI Awareness Campaign

- SOAR Checklist
- Protecting SUI Brochure
 - 11 categories of SUI
 - How to protect/dispose
- Management Walkthrough
- Security Shares
- “Can’t Touch This”
 - Awareness Posters
 - Presentations
 - Video(INL Technologies)

Sensitive Unclassified Information Observation Checklist			
#	behavior	safe	unsafe
7	7.1 Evaluate conversation awareness skills pertaining with SUI <ul style="list-style-type: none"> - Building Lobby - Bus Line - Cafeteria - Hallway 		
	7.2 Evaluate storage of SUI information		
	7.3 Evaluate storage of computer passwords		
	7.3 Evaluate storage of removable media		
	7.4 Evaluate work environment for use and storage of SUI		

what can be done to improve the performer's safety/security?

any noteworthy safe/secure practices observed?

any barriers to safety/security when performing activity/task?

address "WHY" the at-risk behavior occurred.

to input data:
 - go to the SOAR homepage <http://aespr01/ISOAR/homePage.jsp>
 - in the DATABASE pull-down menu, select SOAR Checklist input
 - enter your "SI" #, then enter the data
 - select SUI checklist

SOAR
 Sensitive Unclassified Information Awareness

observer SI# _____
 # of employees observed: _____

activity or task observed

check your Department/Activity Name

RTC MFC SMC CFA Business Mgmt
 Energy & Environment Natl & Homeland Security
 Nuclear Science & Technology
 Facility & Site Services (Town) REST
 Security Fire Dept Transportation
(gray EBT's - for reporting purposes only)

check your location/Building/Room/Class/2

RTC CFA WCS IAB MFC
 IORC EROB TSA SMC
 IRC/Labs Other:

type of environment

office laboratory operations maintenance
 fabrication & assembly construction
 classified field work* security fire dept.
 bus operations non-work related other
 work related driving non-work related driving
*Engineering, ESB, etc. field work

Testimonials

- Jared's Note

