



LEADERSHIP IN THE FUTURE OF THE INDUSTRIAL HYGIENE PROFESSION



Mission Technologies Inc.

Carter Ficklen III, CIH, CSP

NASA Langley at a Glance



Langley's Economic Impact (2015)

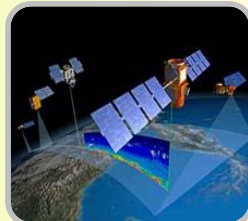
- National economic output of ~\$2.3b and generates over 17,400 high-tech jobs
- Virginia economic output of ~\$1.1b and generates over 8,800 high-tech jobs

Workforce	~3,470
Civil Servants.....	~1,840
Contractors (on/near-site).....	~1,630
Infrastructure/Facilities	
156 Buildings.....	764 acres
Replacement Value.....	~\$3.6b

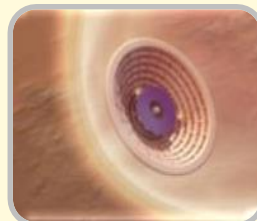
AERONAUTICS
\$191m



SCIENCE
\$232m



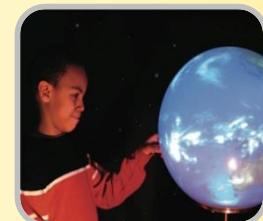
SPACE TECH
\$33m



HUMAN EXPLORATION
\$41m



EDUCATION
\$1m



SAFETY, SECURITY & MISSION SERVICES & CONSTRUCTION/ENVIRONMENTAL COMPLIANCE & RESTORATION

Center Management & Operations

(Facilities, IT, Engineering, Tech Authority, B&P, IRAD, Safety/Mission Assurance, Legal, Finance, Procurement, Human Resources)

Agency Management & Operations

(NASA Engineering & Safety Center, Office of Chief Engineer, Agency IT)

Construction Environmental Compliance & Restoration

(Revitalization Plan)



yuma pacific



All Maps News Images Videos More Settings Tools

About 435,000 results (0.61 seconds)

the Yuma Pacific Southwest AIHA Local Section Website

www.ypswaiha.org/

The Yuma Pacific Southwest (YPSW) section is part of the American Industrial Hygiene Association. The American Industrial Hygiene Association (AIHA) is ...

Walmart Supercenter, 2900 S Pacific Ave, Yuma, AZ 85365 - Walmart ...

<https://www.walmart.com/store/1474/whats-new>

Walmart Supercenter in Yuma. Get Walmart store hours and driving directions, buy online, and pick up in-store at 2900 S Pacific Ave, Yuma, AZ 85365 or call ...

Pacific International Cooling Yuma AZ, 85365 – Manta.com

www.manta.com > ... > Storage > Refrigerated Warehousing and Storage > Precooling

Get information, directions, products, services, phone numbers, and reviews on Pacific International Cooling in Yuma, AZ. Discover more Refrigerated ...

Country Club Motors & RV | Sales - Service - Parts | Featuring new ...

www.ccmotorsrv.com/

Country Club Motors & RV, located in Yuma, AZ is Arizona's premier RV center for Sales, Service and Parts. ... 1717 South Pacific Avenue Yuma, AZ 85365.

American Industrial Hygiene Association's Yuma Pacific Southwest ...

www.exponent.com/newsevents/events/2017/.../yuma-pacific-southwest-section-of-ai...


Mr. Del Malzahn, Principal Scientist in the Health Sciences practice will be presenting at the 42nd Annual Yuma Pacific Southwest (YPSW) section of the ...



...so why am I here, better yet, how am I here

- An IH Leader





There was some early resistance to the foundation's program by AIHA members who feared a large influx of industrial hygienists would saturate the market and cause possible unemployment. However, Newell E.

these types of educational programs.

11 SUMMARY

Gigantic strides have been made during the past four decades in characterizing and controlling environmental health hazards in the workplace. In many industries where full concept industrial hygiene programs are in effect, the off-the-job stresses such as smoking, alcohol consumption, drug use, and hobby activities often have a greater effect on worker health than that of on-the-job activities where the stresses associated with the job have been studied and controlled. These off-the-job stresses offer a tremendous opportunity for the development of relevant preventive programs in which the industrial hygienist can participate.

Industrial technology is rapidly changing the characteristics of many industries in that high technology is increasingly being applied with the emergence of different types of health stresses. The industrial hygienist must keep abreast of these changes along with the procedures for their recognition, evaluation, and control.

It is vital that the techniques used in measuring occupational health stresses cover all the relevant components of each stress and that these are incorporated into the control program strategy. The practice of industrial hygiene rests on proper judgment in evaluating valid data, combined with effective follow-through.

The high quality and relevancy of the industrial hygiene profession have been proven in meeting the challenge of maintaining a healthful working environment in the presence of an ever advancing and increasingly complex industrial technology.

The following chapters cover comprehensively the theoretical basis and rationale for the science of industrial hygiene.

PATTY'S INDUSTRIAL HYGIENE AND TOXICOLOGY

Volume III
THEORY AND RATIONALE OF
INDUSTRIAL HYGIENE PRACTICE
SECOND EDITION
3A, THE WORK ENVIRONMENT

LEWIS J. CRALLEY, PH.D.
LESTER V. CRALLEY, PH.D.
Editors

Contributors

L. R. Allen
E. W. Arp, Jr.
K. A. Busch
K. J. Caplan
W. C. Cooper
L. J. Cralley
L. V. Cralley

P. M. Eller
P. E. Enterline
J. E. Fielding
R. L. Fischhoff
F. G. Freiburger
R. L. Harris, Jr.
B. J. Held

M. J. Kotowski
N. A. Leidel
J. R. Lynch
M. H. Munsch
R. S. Parkinson
D. J. Paustenbach
C. Silberstein

LIBRARY COPY

MAR 31 1992

LANGLEY RESEARCH CENTER
LIBRARY NASA
HAMPTON, VIRGINIA

A WILEY-INTERSCIENCE PUBLICATION
JOHN WILEY & SONS, New York · Chichester · Brisbane · Toronto · Singapore

CHAPTER ONE

Rationale

LEWIS J. CRALLEY, Ph.D., and
LESTER V. CRALLEY, Ph.D.

1 BACKGROUND

The emergence of industrial hygiene as a science has followed a predictable pattern. Whenever a gap of knowledge exists and an urgent need arises for such knowledge, dedicated people will gain the knowledge.

The harmful effects from exposures to toxic substances in the workplace, producing disease and death among workers, have been known well for over two thousand years. Knowledge on the toxicity of materials encountered in industry and means for control of exposure to toxic materials as well as techniques for its measurement and evaluation, however, were not available during the earlier period of industrial development. With few exceptions, the earliest attention given to worker health was in applying the knowledge at hand, which concerned primarily the recognition and treatment of illnesses associated with the job.

However, the devotion of prime attention to the preventive aspects of worker health maintenance through controlling job-associated health hazards became quite evident if the best interest of the worker was to be served in preventing occupational diseases. Not until around the turn of the twentieth century, though, did major effort begin to be directed toward the recognition, measurement, evaluation, and control of workplace environmental health stresses in the prevention of occupational diseases.

The aim of this chapter is not to document or present chronologically the major past contributors to worker health and their relevant works or the events and episodes that gave urgency to the development of industrial hygiene as a science. Rather, the purpose of the chapter is to place in perspective the many factors involved in relating environmental stresses to health and the rationale

1

Copyright © 1985 by John Wiley & Sons, Inc.

All rights reserved. Published simultaneously in Canada.

Reproduction or translation of any part of this work beyond that permitted by Section 107 or 108 of the 1976 United States Copyright Act without the permission of the copyright owner is unlawful. Requests for permission or further information should be addressed to the Permissions Department, John Wiley & Sons, Inc.

Examples of created macrocosmic sources of the ozone layer of the upper atmosphere that shields the earth from excessive ultraviolet radiation through the release of large quantities of some organic compounds into the air, the excessive burning of fossil fuels that increase the carbon dioxide level and temperature of the atmosphere, or excessive industrial, community, or life-style pollution over a prolonged period that may affect the quality of the air, water, or soil.

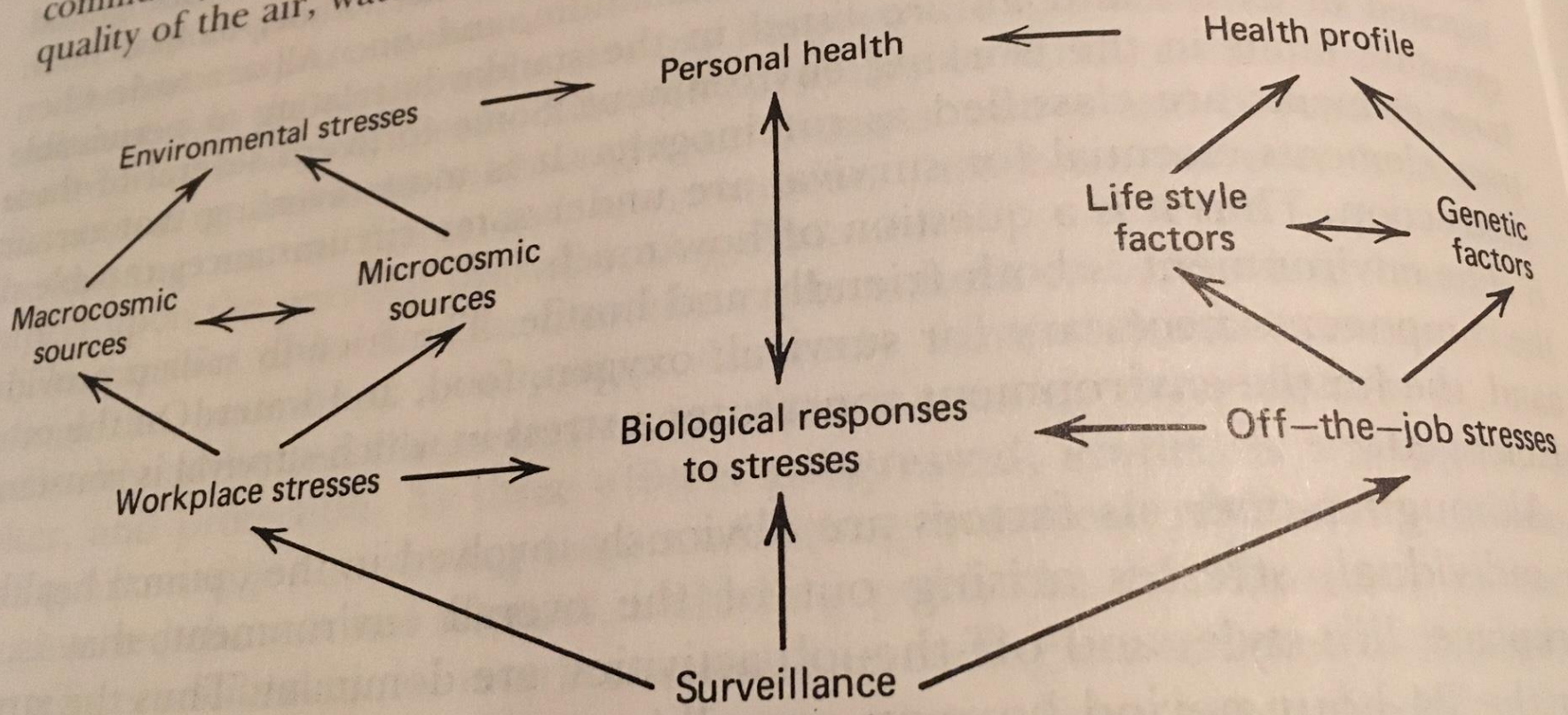


Figure 1.1. Inseparability of environment and health.

“Leadership” from Wikipedia *updated*

motivating and



- **Leadership** is “_____ organizing a group of people to achieve a common goal”.

Prioritization of Hazards



IH Leadership Model



- IH Technical Mastery
- Management Skills / Business Acumen
- Individual & Organizational Leadership Skills

***Which one needs more focus
in Professional Development opportunities?***

Is “Leadership” different for IHs?



1. 45 seconds. Go

Is “Leadership” different for IH Professionals?

- When many teams are doing their best work, it is very visible
 - ▣ Launching a new product
 - ▣ Installing new equipment
 - ▣ Signing new contracts
- When IHs are doing their best work, it is usually not visible because we are preventing incidents
 - ...in many ways similar to Quality or Security

Write down three leadership characteristics that are important for IHs

2. 90 seconds – Go



TOP 10

Top 10: Leadership Characteristics & Skills for Occupational Hygiene Professionals

1. Character
2. Science and Technical Skills
3. Interpersonal Skills
4. Communication Skills
5. Change Agent
6. Builds Strength Through Diversity
7. Decision Making Skills
8. Community Builder
9. Business Acumen
10. Innovative Problem Solving

DiSC

- The DiSC Personal Profile® uses a series of 28 questions to determine the intensity of four individual Dimensions of Behavior

DiSC® is the leading personal assessment tool used by more than 40 million people to improve work productivity, teamwork and communication.



Dominance

Emphasis on shaping the environment by overcoming opposition to accomplish results



Influence

Emphasis on shaping the environment by influencing or persuading others



Steadiness

Emphasis on cooperating with others within existing circumstances to carry out the task



Conscientiousness

Emphasis on working conscientiously within existing circumstances to ensure quality and accuracy

Background on DiSC

- DiSC helps people understand behavior (their own and others) in various situations.
 - The instrument was developed during the 1920s – 1930s
 - Not actively used until about 1970
 - Environment/life situation can have a major influence
- Validity rate of between 88% and 91%
 - Study conducted by Dr. Russell J. Watson of Wheaton College March of 1989 and 1983 by Dr. Sylvan J. Kaplan.

DiSC Reference Points

- **Dominance**
 - ▣ direct, strong-willed and forceful
- **Influence**
 - ▣ sociable, talkative and lively
- **Steadiness/Supportive**
 - ▣ gentle, accommodating and soft-hearted
- **Conscientiousness**
 - ▣ private, analytical and logical
- **Your DiSC Style is a tendency**
 - ▣ **However you need to work to have each of the four in your toolbox**



Dominance

Emphasis on shaping the environment by overcoming opposition to accomplish results



Influence

Emphasis on shaping the environment by influencing or persuading others



Steadiness

Emphasis on cooperating with others within existing circumstances to carry out the task



Conscientiousness

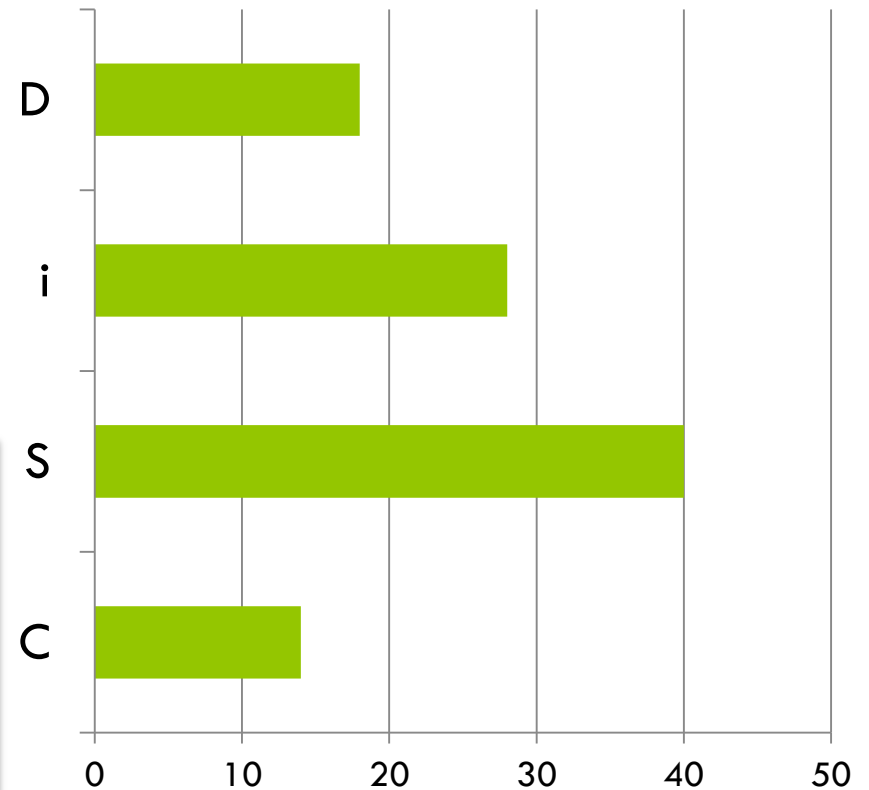
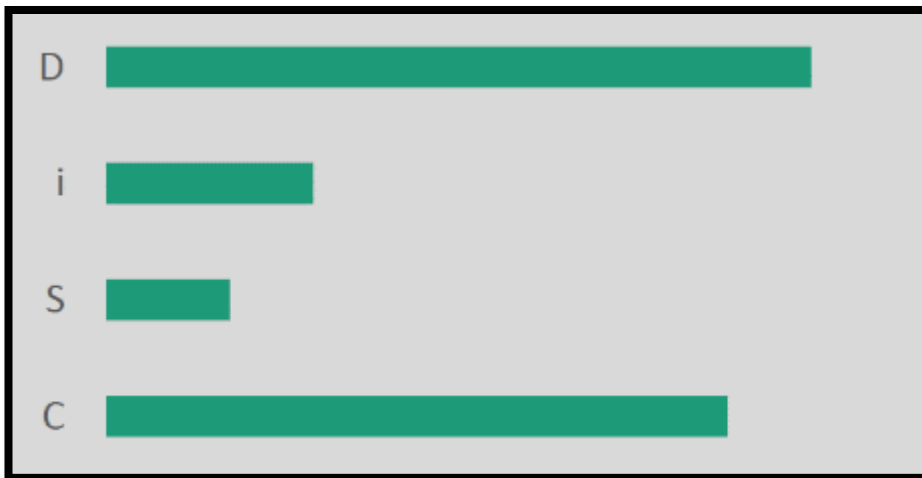
Emphasis on working conscientiously within existing circumstances to ensure quality and accuracy

$N \Rightarrow 500$



How do IHs compare to the population?

- D –
- I –
- S –
- C –



How does DiSC fit into IH Leadership

- Some situations call for particular traits that may not perfectly align with our personality profile
 - Fatality in the workplace
 - Finding an error in a complex set of data
 - Handling pressure from regulatory agency
 - Performance appraisals

- We need to have all 4 traits in our toolbox

- We need to be aware of our tendencies
 -and also aware of others

So what does that mean?

- Let's talk

What is the most important skill for future IHs?

3. 15 seconds

Listening



<https://www.youtube.com/watch?v=-4EDhdAhrOg>

The Honest Boss

PRODUCT

DESCRIPTION

SERVICE & DELIVERY

Interview with an honest boss

click on a subject

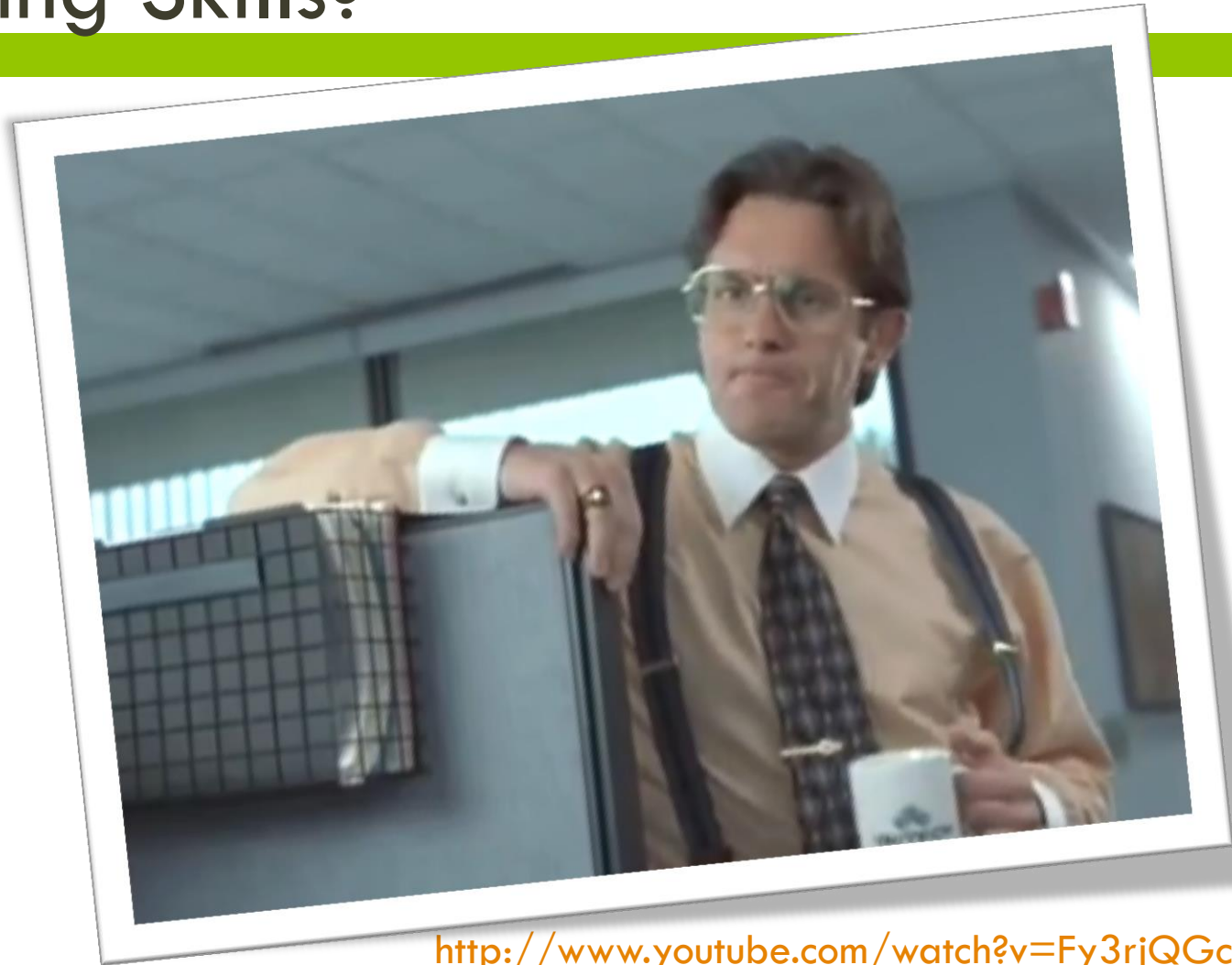
- *overtime
- *open door
policy
- *promotions
- *sick days

exit



<http://www.youtube.com/watch?v=kof75DI43FI>

How are Lumbergh's Listening Skills?



<http://www.youtube.com/watch?v=Fy3rjQGc6IA>

