

INTERPERSONAL SKILLS LAB

BOOST YOUR PERFORMANCE.







YOUR CREWS WILL PREVENT BAD DECISIONS AND INCIDENTS IN AN ESPECIALLY EFFECTIVE WAY.

MAKE THE HUMAN FACTOR COMPREHENSIBLE

LET EASA/FAA-CRM CONTENT BE EXPERIENCED VIVIDLY

UNDERSTAND LEADERSHIP BETTER

PREVENT HUMAN ERROR MORE EFFECTIVELY

FIRMLY ANCHOR SAFETY-RELATED BEHAVIOR



AVIATION LAB

Each flight demands maximum concentration. Error-inducing conditions lurk everywhere, from distributed knowledge and time pressure to multitasking and a deluge of information. And communication channels are limited. Good decisions depend on how these challenges are surmounted..

In the «LAB», important interpersonal skills are analyzed and trained under precisely these conditions.







To protect and improve aviation safety we must understand what makes pilots vulnerable to error and must understand the interplay of factors contributing to that vulnerability.

R. Key Dismukes, Benjamin A. Berman, Loukia D. Loukopoulos NASA Ames Research Center, California

AVIATION LAB HUMAN FACTORS TRAINING FOR AIRLINES AND ATC

TRAINING CONTENT

All CRM subject areas are interactively networked with each other.

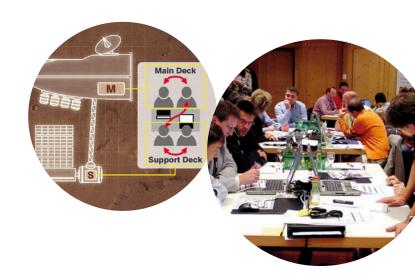
- Leadership & assertiveness
- Communication & stress
- Decision-making & complexity
- Situational awareness & perception traps
- Workload management & human error

DURATION AND NUMBER OF PARTICIPANTS

- Impulse training (2h), half day, full day, special formats
- Free course design with a company license: 2h-3 days (also spread over several lessons)
- 6–12 participants per facilitator (recommended group size)

SPECIALTY

Participants leave the «LAB» with field-tested plans of action that can be implemented immediately.



SCENARIO

Disaster in outer space. How quickly will the spacecraft be restored to normal operation? The highly dynamic situation, time pressure and different perspectives make this unusual flight a genuine challenge to manage.

TARGET GROUPS

Interpersonal Skills LAB provides «Mission Sets» for flight crew, ATC, maintenance teams, all management levels and interface functions.

DIDACTIC APPROACH

A mixture of methods.

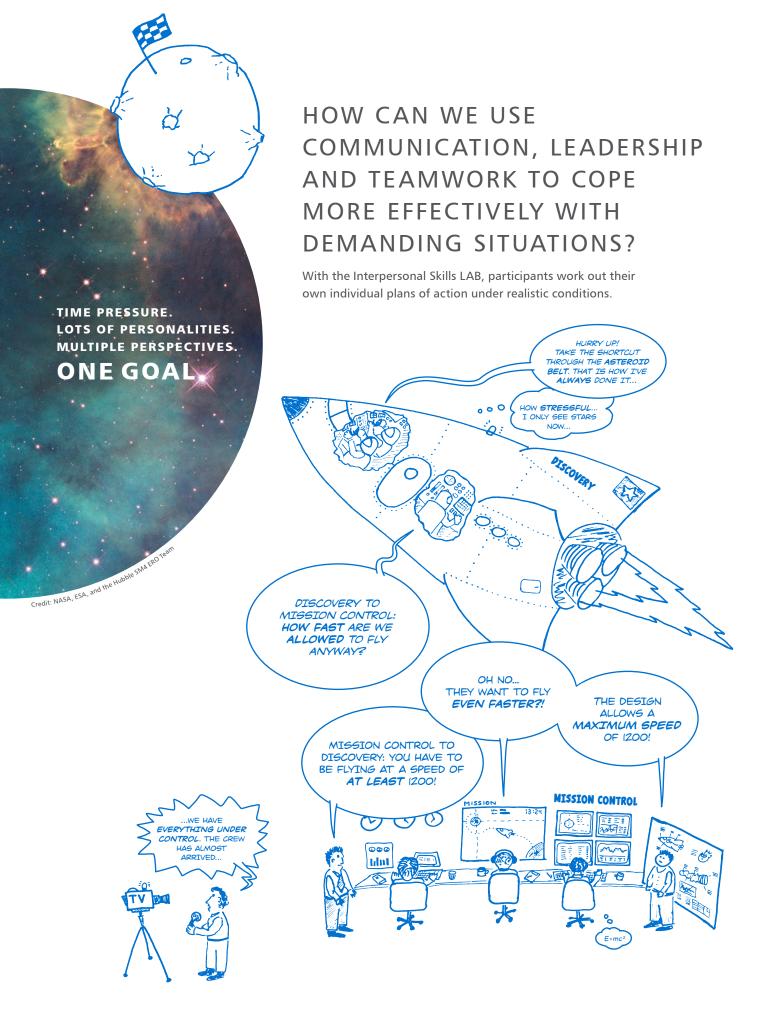
- Interactive classes
- Simulation under realistic conditions
- Behavioral measurement and assessment
- Feedback
- Reflection phases
- Discussions
- Transfer sessions



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INTERPERSONAL SKILLS LAB LEAVES THE WORLD OF SPECIALIZATION BEHIND. THE FICTIONAL SCENARIO SHIFTS THE FOCUS EXCLUSIVELY TO BEHAVIOR



TRAINER OBSERVER, LEARNING COACH AND **FACILITATOR**









CAPTIVATING SCENARIO 4 GROUPS OF 2-5 **PARTICIPANTS**

TIME PRESSURE DUE TO REAL-TIME SCENARIO

DISTRIBUTED KNOWLEDGE

DUE TO DIFFERENT WORKPLACES

INTENSIVE INTERACTION AMONG ALL PARTICIPANTS



Interpersonal Skills LAB consists of:



Real-time computer simulation for behavioral training



Measurement instruments for precise analysis of behavior within the team



Methodological toolkit for effective transfer of learning



Credit: NASA, ESA, and the Hubb

PROVEN SINCE 1998 AND STILL UNIQUE.

> HERE IS WHAT INTERPERSONAL SKILLS LAB OFFERS:

FEEDBACK FROM 3 SOURCES USE TRAINER, OTHER PLAYERS, COMPUTER!

«MINDSET» FAR AWAY FROM REALITY SHIFT THE FOCUS EXCLUSIVELY TO BEHAVIOR!

REPEATABLE SEQUENCES

LET THEM EXPERIENCE CONSEQUENCES OF CHANGE!

MULTIPLE PERSPECTIVES INCLUDE REAL COLLABORATION IN YOUR TRAININGS!

MEASURING OF BEHAVIOUR (COMPUTER) A PREREQUISITE FOR TRAINING OF BEHAVIOUR.

ORIGINALLY DEVELOPED FOR AVIATION AIMING AT NON-TECHNICAL («SOFT«) SKILLS

Credit: NASA, ESA, and The Hubble Heritage Team

SCIENTIFIC PROOF OF CONCEPT



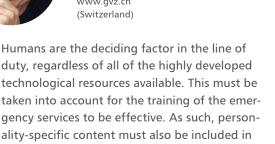
WHEREVER THE HUMAN FACTOR IS RELEVANT TO SAFETY, THE INTERPERSONAL SKILLS LAB STRENGTHENS LEADERSHIP AND TEAM SKILLS.

Ninecubes creates «Mission Sets» for all high-performance teams in all high-risk sectors. Proven sets are already available in these areas: aviation, space travel, firefighting, medicine, nuclear power plants, military, shipping, railroads.



Heinz Liebhart

Head of Fire and Rescue Service Training
Building Insurance (GVZ) Canton Zurich,
www.gvz.ch
(Switzerland)



the fire academy's syllabus alongside technical topics. Interpersonal Skills LAB is an excellent method for training cooperation between team members under realistic conditions.



Kai-Uwe R. Strelow Trainer & Consultant Human Factors Academy (Germany)

The Interpersonal Skills LAB shows individuals and groups what they need to know to assess situations and to work effectively and efficiently with a constant focus on safety. Its high level of acceptance among pilots, ship crews, shift personnel, and physicians speaks for itself as do the positive effects for transitioning to advanced level training with simulators.



Frank Wasmer
Retired with 20 years U.S. military service,
retired Fire Captain and Advanced
Cardiac Life Support Medic, retired pilot
(United States of America)

The Interpersonal Skills LAB is an excellent way to learn all the skills required to be an effective and successful leader. As a bonus, you can survive a simulation to learn and fight again. This is true in the fire service, emergency medicine, first responders and the military. What is most important is communication, coordination, and effective use of resources. The scenario does not have to relate directly. It only needs to have interactive pathways and building stress.



Heinz Weber Senior Captain & Project Manager CRM Training Swiss International Airlines (Switzerland)

Our joint training of pilots and air traffic controllers attracted attention worldwide.

The Interpersonal Skills LAB is the ideal tool for covering the subjects of communication, teams, decision-making, resource deployment, and conflict resolution. It allows trainees to practice interpersonal factors in a playful way in artificial as well as realistic settings. The pluses are that team performance is measured objectively and that we can adjust the exercises to fit the given objective.





RESULT ORIENTATION

How hard does the team strive to achieve a best-possible result?

CAPACITY

How much time and energy does the team create for additional tasks?

COMMUNICATION

How precise and goal-oriented is the exchange of information?

COORDINATION

How are work processes organized and agreements carried out?

SITUATIONAL AWARENESS

How precisely does the team perceive information from the environment (people, systems)?

CONSCIENTIOUSNESS

How conscientious is the team about observing information and abiding by rules?



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ALL BEHAVIORS RELEVANT TO COLLABORATION DIRECTLY AFFECT THESE DIMENSIONS.

THE CONSEQUENCES OF BEHAVIORAL CHANGE ARE DIRECTLY REFLECTED IN EACH MEASUREMENT.

FURTHER DIMENSIONS

THE HUMAN ERROR MODULE MEASURES HUMAN ERRORS ACCORDING TO PROFESSOR JAMES REASON (EXECUTION ERRORS, STORAGE ERRORS, PLANNING ERRORS, BREAKING OF RULES).

ACTNOW! PRINCIPLE: WITH INTERPERSONAL SKILLS LAB THE FOCAL POINTS OF TRAINING CAN BE DISTRIBUTED OVER THREE AREAS IN ANY DESIRED WAY.

ANALYSIS. ANALYSIS AND SELF-REFLECTION:

COMPETENCES.
EXAMPLES OF TEACHABLE
COMPETENCES:

What are my/our typical patterns of behavior when under pressure?

COMMUNICATION

What effects does stress have on team performance?

Communicate precisely and efficiently Listen actively Give and receive feedback Ask guestions the right way

How does behavior (e.g. management behavior, communication,...) affect the outcome?

TEAMWORK

Interact with people of different perspective Apply efficient collaboration mechanisms Observe and assess team members Give & earn trust in ambiguous situations

TEAMBUILDING. TEAM COHESION IS STRENGTHENED:

LEADERSHIP

Synergies in teams are discovered and unleashed.

Lead teams in complex situations Define goals and stick to them Coordinate & delegate tasks Recognize needs of others

Mutual trust is exercised and strengthened.

MANAGEMENT

Different personalities (or cultures) are experienced and integrated.

Plan & structure complex tasks Manage workload & stress Manage time & ressources Prevent errors

DECISION MAKING

Make decisions in a structured way Handle information overflow Assess complex situations Set priorities

NOW!

THE PARTICIPANTS LEAVE

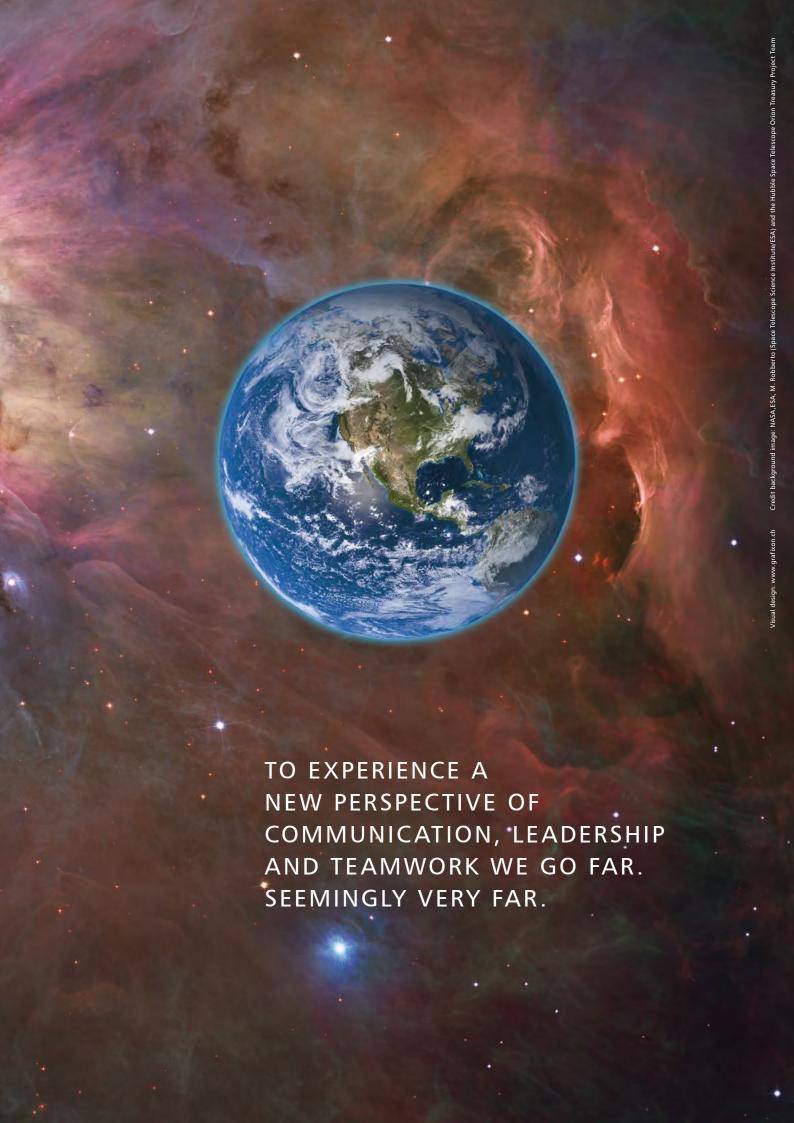
THE «LAB» WITH

FIELD-TESTED BEHAVIOR

THEY CAN IMPLEMENT

IMMEDIATELY.

Credit: NASA, N. Benitez (JHU), T. Broadhurst (Racah Institute of Physics/The Hebrew University), the ACS Sci M. Clampin (STScI), G. Hartig (STScI), G. Illingworth (UCO/Lick Observatory)



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