STAMINA HF Training at Swiss International Air Lines Ltd.

swiss
Swiss International Air Lines

The Partnership

Trinity College Dublin

NLR Amsterdam

FLS Aerospace (IRL)

SAS

In collaboration with the
EU Joint Research Centre, Ispra

The STAMINA project has been carried out with
the support of the European Community within
the framework of the Leonardo Da Vinci programme

Going beyond awareness and knowledge

Human Factors training needs to impact:

- Skills
- Attitudes & Values
- The way in which work is done

How can this be done?

Impacting the entire organisation

- Human Factors problems are not restricted to “hands-on” personnel; solutions cannot be restricted to them
- Other personnel set the context for the work of the technicians.
- Three critical roles: supervisors, managers, trainers
- They need training which addresses their particular roles.

Addressing the operational realities

- Barriers to safe performance
  - time pressure, unclear procedures, etc.
- Operational double standards
  - The role of procedures
  - “Black books”
- Management’s role
  - training message must reflect the actual core values of the company as expressed by managers
  - Cynicism the major danger

Structure of the Core Course

Introduction plus four modules:

Training Methodology

- Active learning
- Group & individual exercises
- Games
- Videos
- Group discussions
- Role plays
- Presentations

The STAMINA approach

- Focus beyond awareness
- Training for the entire organisation
- Addressing operational realities
- Integration with HCM
- Integration with technical training
- High level competence for human factors facilitators

Background

STAMINA at Swiss:

– In use since spring 2003.

– An integral part of JAR-145 Initial and Continuation training program.

–Customised for Swiss working environment using real world examples.

JAR-145 Initial Training

–Full Swiss introduction (SwissIntro) course is 5 days of which 2.5 days are dedicated to Human Factors.

–Full STAMINA program is used in order to fulfil Appendix 9 Initial Training requirements, but there remain some gaps.

–Used as an introduction to human factors for non-technical staff working in the JAR-145 organisation (planners, logistics etc.).

JAR-145 Continuation Training

–Allotment of 2 days every 24 months for CT. (Based on JAR-145 requirements and recommendations).

–Briefings from QA and engineering are imbedded in HF training (searching for context).

–Selected parts of the STAMINA program are used:

DAY ONE: task module.

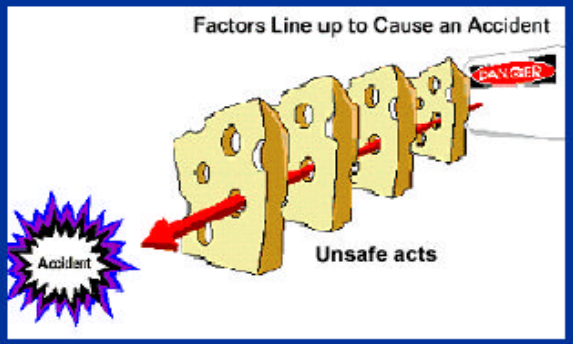
DAY TWO: customised team (written communication) and organisation modules.

How STAMINA Is Customised

In the TASK module, a company model of fleet expansion is used as the basis of reason's model

STAMINA

Reason Model



Unsafe acts (Active)

Who is Involved? Front Line aircraft maintenance personnel (mechanics, lead mechanics, supervisors)

What? e.g. Distraction from task or deviation from official (task) procedure

Example: Technicians deviate from AMM or MPM because of:

- time pressure
- poorly written procedures
- lack of manpower, etc

Task module - Introduction 17

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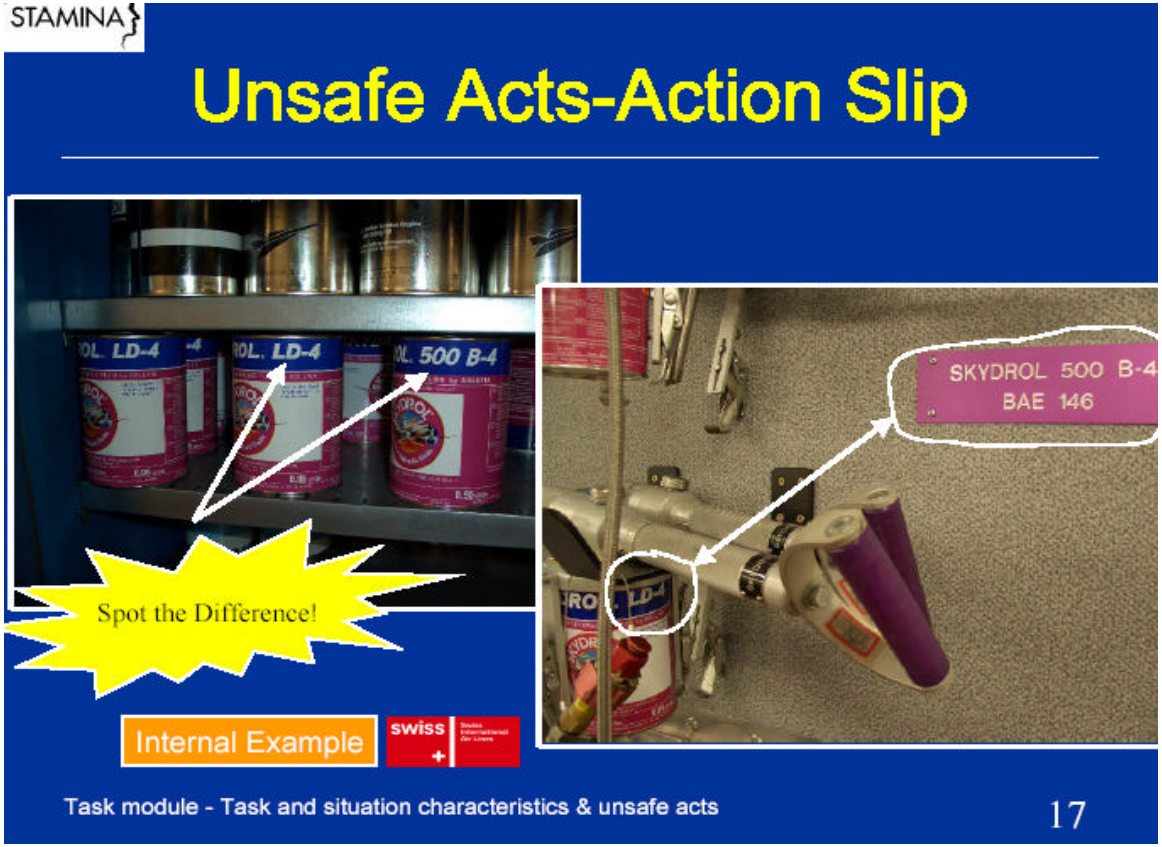
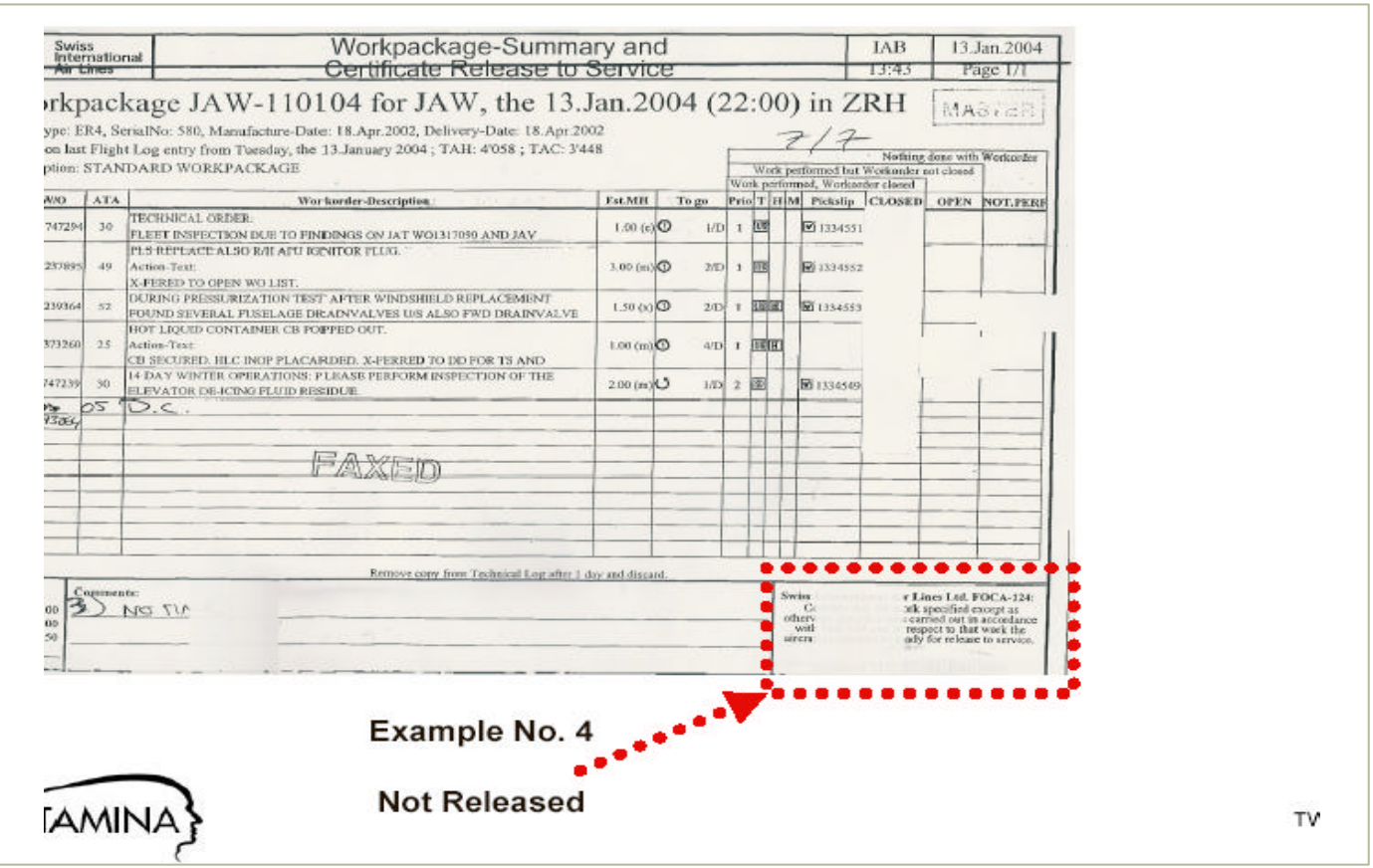
How STAMINA Is Customised

In the TASK module, unsafe acts examples come from the company deficiency reporting system



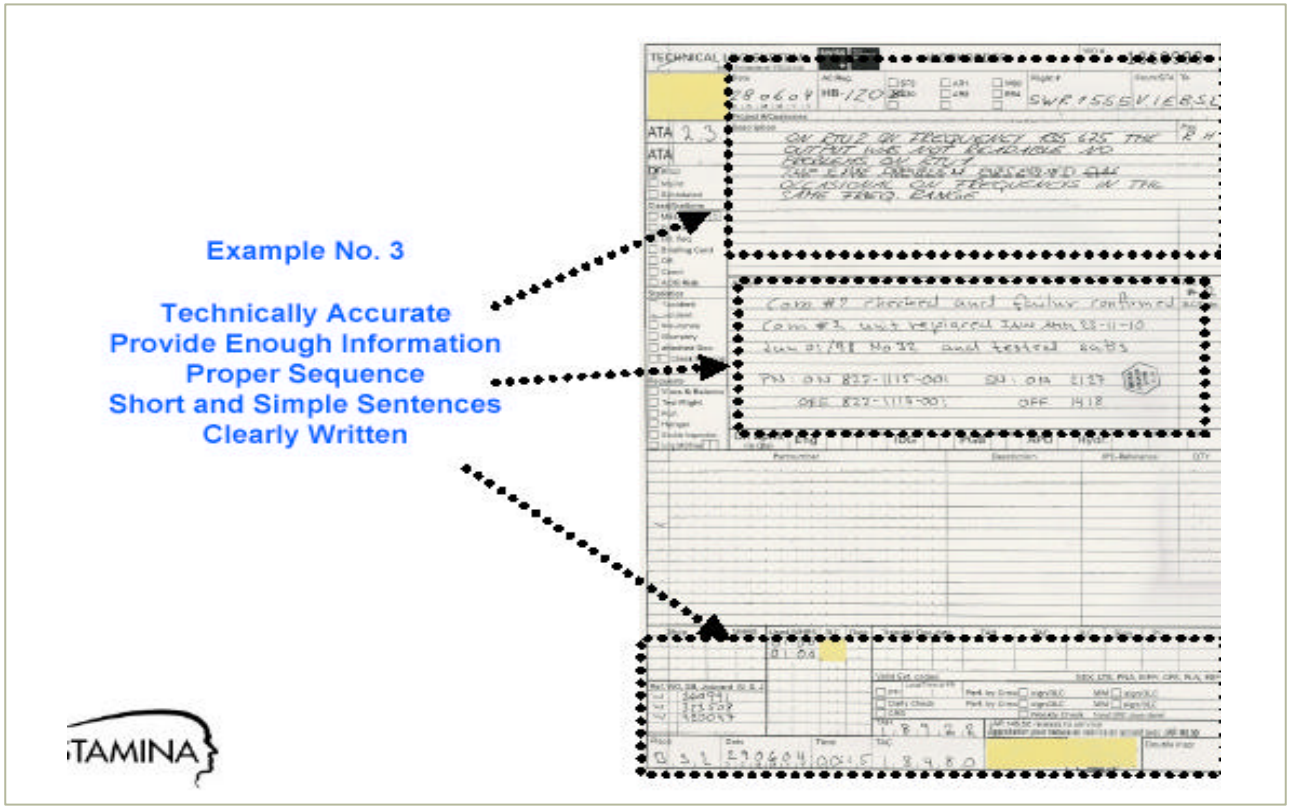
How STAMINA Is Customised

In the written communications sub-module, company examples are used to discuss problems in communication .....



How STAMINA Is Customised

.....And to reinforce positive communication techniques.



Swiss International Air Lines

Reality Check

–Current human factors training continues to be a training department initiative.

–Majority of HF training currently concentrated at the mechanic/certifying staff level.

–Management remains largely outside of HF training.

– No mechanism in place to capture, measure or quantify maintenance error, therefore the HF programme is “groping in the dark” for direction.

Positive Signs

–Closer collaboration between HF facilitators and quality manager on systemic problems in maintenance organisation

–Realisation that significant attitude change with regard to HF issues is required by management

–Quality manager to institute specific training for management on systemic theory (Reason Model)

How the Programme Is Evolving

–HF at Swiss is a evolving programme, which is re-evaluated course by course to reflect changing operational realities. (Now on change 4 for 2004).

–Facilitators exchange notes and ideas to find “best practice” for a multi-cultural, multi-lingual group.

–Specific HF training for planners being defined and developed to reflect individual needs.

–Simple case studies from in-house incidents have been developed.

Challenges for the Future

–Most of the certifying staff has now been through the first phase of STAMINA training: where do we go from here?

–How can the company identify the HF problem areas to be addressed without a maintenance error management system in place?

–How to convince the management to embrace HF principals in the face of growing operational pressures, and with no tools to measure “what has not happened” because of HF/safety training?

Questions?