

Generic “PPL –PPL Syllabus” Proposal

Juergen K Knueppel, DAEC HF Working Group, Braunschweig, Germany

Concerning 040 00 00 00 Human Factors / Part Human Performance

-Flight Safety is the main Objective of HF / HP&L

-The Majority of flight-accidents / incidents are a result of **Human behaviour**.

-Training Task: **Improve Flight Safety, Accident prevention** on the basis of **understanding and training in HF**.

- 0x0 01 00 00 Human Factors Concepts / Description of **Safe Flight Operations**.
- 0x0 01 01 00 Human Factors Basics / Reference: **HF-ICAO Doctrine, UK-CAP 719, “Fundamental Human Factors Concepts”**
- 0x0 01 02 00 Human Factors Statistics: **Demonstration of Typical Flight Accidents, - Incidents** / Accident Data / Reports
- 0x0 02 **BASICS HF Presentations, for Student Pilots and Pilots**
- 0x0 02 01 **Flight Safety Standards and competent behaviour, (Competence = Skill, Attitude, Knowledge)**
Rules of Flight Operations, Pilot Competence, Safety Culture,
Learn from Mistakes, Safety Resources, Safe Flight
- 0x0 02 02 **Pilot Errors / Team Errors**
Lack of Flight Proficiency, Perception Errors, Decision Errors, Violations
Communication of Pilot Errors, Attitude and Behaviour, Lack of Preparation
Reason’s Suisse Cheese Model, HFACS (Human Factors Analysis & Classification System)
- 0x0 02 03 **Contributing Factors**
- Psychological Factors
Mental Disturbances, Motivation, Stress; Behaviour & Hazardous Attitude
- Medical Factors
I’M SAFE, “Drugs”, Perception Deficiencies, Fitness
- Physiological Aspects
Vision, Dehydration, Oxygen, Spatial Desorientation
- 0x0 02 04 **Flight Operations**
Organization, Communication, Responsibilities, Air Task and Flying Skills,
Following Rules and Procedures, Pre-Flight Briefing, Post-Flight Briefing
- 0x0 02 05 **Social Factors**
Cooperation, Social Climate, Safety Culture, Command and Control, Role Models
- 0x0 02 06 **HF Pilot Training Sessions / Educating Competent Behaviour**
- 0x0 02 06 01 **Communication / Perception, Work Shops**
Planning, Routine and Emergency Situations, Use of Resources, Fly Top (“Program”),
Reporting / Communication of unsafe Flight Situations, Self Critique
- 0x0 02 06 02 **Drill of Emergency Situations**
Planning for flights utilizing Checklists, Mental Preparation of Emergencies, Risk Management,
CRM, Anticipation, Planning under Time Pressure, LOFT, FORDEC, Situational Awareness
- 0x0 02 06 03 **Organisation und Leadership**
Administration Management, Instructors Role, Command and Control,
Flight Proficiency related Air Task, Incident Investigation.
- 0x0 02 06 04 **Dealing with Stress**
Typical Stress Situations, Personal Stress Prevention, Stress Relaxation Technique,
Emotions, Decreasing Stress in Flight, Mental Training
- 0x0 03 **ADVANCED HF, for Instructors, Leadership, Administrators, HF Specialists**
- 0x0 03 01 **Application of Human Factors in Flight Operations:** Safe Flight Operations, Airfield Procedures, Base Ops,
Finance, Local Procedures, SOPs, Networking, Emergencies & SAR, Safety Culture, NOTAM, Weather Reports
- 0x0 03 02 **Human Factors in Maintenance and Equipment:** Cockpit Ergonomics, Maintenance, Visibility, Markings,
Technical Checks, Documentation, Control Devices & Instrument Ergonomics, Colour Coding, SAR Equipment

Generic Example / “PPL –Aero club Syllabus” Proposal for Discussion

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