The Evolution of CRM/NTS Training Programs ➔ Going Forward

Rizwan Nasir
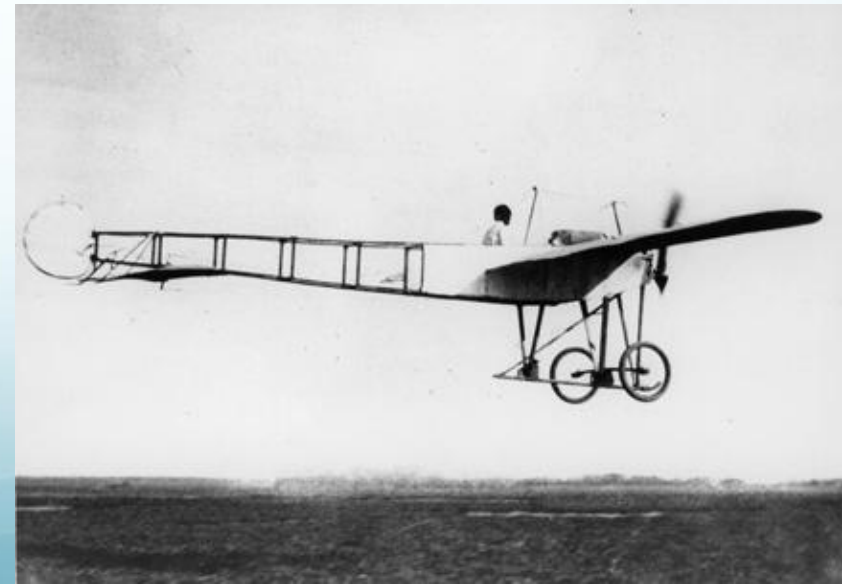
PACDEFF 2013

OVERVIEW

- History

- Modules

- Challenges

- Delivery

- > Going forward

HISTORY

- MCC 1960'S

- IATA HF   1970'S

  ……..

- United Airlines

- FAA / NASA

- Continental Airlines

- ICAO 1980'S

ICAO

- *Human Factors Training Manual*

 (DOC – 9683 AN/950) – 1998

ICAO Annex 6 Part 1 Chapter 9

FAA

- FAR Parts 121 & 135 etc.

- Research

- Recommendations

- FRMS

JAA/EASA

- JAR-OPS

- Initial

- Command

- Conversion

- Recurrent (3 years)

- Skill Assessment (PPC / Line Check)

EURO-CONTROL

- Euro-Control

- TRM: Team Resource Management

- BOOM: Behavior Oriented Observation Method

AUSTRALIAN - CASA

- SAFETY BEHAVIOURS

- CAAP 5.59-1(0)

- CAAP SMS- 2(0)

- CAAP SMS -3-1

- CAO 82.3/82.5

- CASR Part 145, 172

NEW ZEALAND CAA

- CAR 121.559 -Training

- Advisory Circular AC121-4

- Objectives NOT Activity

- Behavior / Outcome

- TECH & NO-TECH = Equally Important

- Behavioral Markers

- Instructors/ Examiners.

GENERATIONS

- 1ST Generation = COCKPIT

- 2ND Generation 1980'S = Flight Crew

- 3RD Generation 1990'S = All crew + Assess

- 4TH Generation = LOFT (AQP)

- 5TH Generation = TO ERR IS HUMAN (T&E)

- JUST CULTURE & RISK MTIGATION

Stations in Range
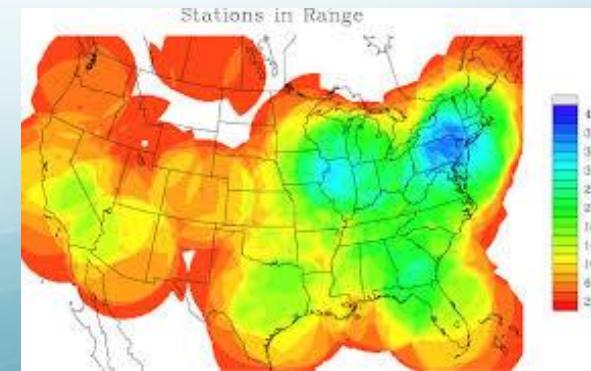
THE BIG 3

- **MAN**

   (Physiological & Psychological)

- **MACHINE**

   (Ergonomics)

- **MEDIUM**

   (Weather & Environment)

HF/NTS TRAINING

- Why called NTS/NTC not CRM ?

- Flight, Cabin, Safety, SM, Engineering, Ground

- Initial for Employees

- 3RD Party training

- Recurrent

- Command

- Conversion

LEARNING STAGES

- Awareness

- Knowledge

    (Perception & Anticipation)

    ……..

- Skills

    (Practice & Feedback)

- Assessment

FACILITATION

- ADULT- Learning by doing & discovering

- W.I.I.F.M.(What's In It For Me)

- Gain insight in their behavior

- Change ATTITUDE

- Continued Development through SELF ANALYSIS

- Non - Judgmental

- Behavioral Markers (1987)

MODULES

- Communication (Effective / Assertive)

- Situational Awareness

- Leadership / Decision Making

- Teamwork / Roles (LOFT)

- Automation / Time & Task Management

- Stress / Fatigue / Workload

- Threat & Error Management (LOSA)

- HUPER - Limitations

NEW NTS MODULES

- Content (TNA)

- Design

- Develop scope & objectives

- Integrate with technical training

- Facilitate (TTT) / Implement

- Review (assess objectives)

- Evaluate program

DELIVERY

- Facilitator / Participants

- Class room setting / Ambience

- Options (DBPP) / Team Exercises / Case Studies

- Online training

- Moving Forward……… **ATTITUDES**

CHALLENGES

- Single pilot

- Small clubs / companies

- Third party training - contract (SS) staff

- Single Channel Processor

- Linked to Technical failures

- Accreditation CRMI/CRMIE

San Francisco Bay Area Major Jet Arrival & Departure Routes

More Challenges

- Buy in by stake holders

- $$$$$$$

- Motivation for facilitators

- Integrate into SMS, Training, SOP etc.

- Assertive behavior

- Outcome based

SUPPORTING HF

- Safety Policy

- Safety Investigations

- Safety Audits

- Safety Reporting

- SMS

- FDM/ FOQA

- LOSA/ LOFT

MODELS

- REASON (Swiss Cheese)

- SHEL (Software Hardware Environment Liveware)

- PEAR (People Environment Actions Resources)

- GEMS (Generic Error Modeling System)

- HFACS (Human Factors)

- Heinrich (Pyramid / Iceberg)

- Many other models

SO ?

- Why

- Who

- What

- Where

- When

GOING FORWARD

- Text, Workbooks, PP Slides, Videos

- CLASS – Role Play, Case Studies

  (External Training Providers)

- Computer Based Training (off the shelf)

- **Online Training- Interactive exercises**

- Simulator / Line checks

  (Integration & Records)

HF/NTS Training Venues

- Class

- Line flying

- Simulator

    ……..

- Online

- Webinars / Conference Calls

- CRM inter-active games

TECHNOLOGY IS THE WAY FORWARD

- Face to Face

- Online

- Webinars

- Video conference, role playing, pp

- Interactive modules, case studies

- Scoring

SUMMARY

- HF/NTS has developed and here to stay

- Proven Effective

- Initial training - FTF preferred for employees

- Online & interactive modules / games / exercises

- Mix various teams / departments

- **Modify behaviors**

QUESTIONS

THANK YOU

CAPT.RIZ@GMAIL.COM

+61479047427