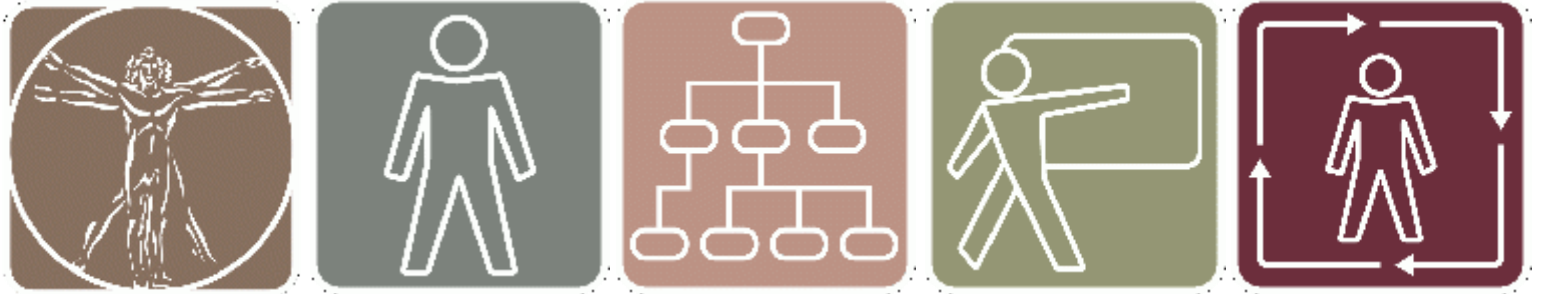# Garuda Indonesia Airlines
CRM Training Program Overview

Capt. Prita Widjaja

Aviation's Safety History & Human Factors Threats

- No defined recognition or training in 'human factors' pre-1980

- Mishaps reach epidemic levels worldwide
  - Eastern Airlines 401 (1972)
  - KLM & PanAm Airlines (1977)
  - United Airlines 173 (1978)
  - Air New Zealand 901 (1979)
  - Air Florida 90 (1982)

- Garuda Indonesia fatal accidents (since all jet aircraft introduced to expand the company)
  - 3 F-28 (Garuda) CFITs (1975, 1979)
  - 2 F-28 (Garuda) Runway Overrun (1982, 1983)

Aviation's Lessons Learned

- United Airlines originally introduced in 1981 their human factors awareness training as Cockpit Resource Management (CRM)

- FAA Advisory Circular 120-51 12 January 1989

- Garuda Indonesia sent 15 facilitator to United Airline for CRM training from 1981 until 1983

- Garuda Indonesia in 1985 started their first human factors awareness training named Cockpit Human Interaction Exercise (CHIME)

- The cabin crew started the CHIME training in 1990

- Indonesia Civil Aviation Safety Regulations (CASRs) mandated CRM training in 1997

- Now is a requirement for all airline operations

CRM Training

- CRM training is one way of addressing the challenge of optimizing the human/machine interface and accompanying interpersonal activities.

- The application of team management concepts in the flight deck environment.

- Refers to the effective use of all available resources: human resources, hardware, and information.

CRM training components

- Garuda Indonesia CRM training comprised of three components:
    - initial indoctrination/awareness,
    - recurrent practice and feedback, and
    - continual reinforcement

How we do CRM Initial Training

- Prior to start the initial training, the crewmembers should have completed the indoctrination on the SOPs.

- The training focus on the functioning of crewmembers as teams, not as a collection of technically competent individuals.

- During training, crewmembers are facilitated how to behave in ways that foster crew effectiveness.

- During training, crewmembers are encourage to practice and feedback of their performance

CRM Initial Training Topics

- **Introduction to Human Factors**
  - SHELL concept
- **Human Performance & Limitations (HPL)**
  - Information Processing
  - Arousal & Workload
  - Stress
  - Sleep
  - Fatigue
  - Circadian rhythm
  - Human error & reliability

⇨

CRM Initial Training Topics (cont'd)

- **CRM Process / Elements**
  - Inquiry, Advocacy, Conflict Resolution, Decision Making, Critique
- **Team (CRM) Skills**
  - Communication - Assertiveness
  - Team building & maintenance
  - Situational awareness
  - Resolving conflict
  - Problem solving - decision making & hazardous attitude
  - Critique

⇨

CRM Initial Training Topics (cont'd)

- **Threat & Error Management (TEM)**
  - Proactive flight deck safety philosophy
  - Tool to maximize safety margins
  - CRM skills as countermeasure

  The initial training program is 40 hours, it uses experiential-learning approach

CRM Recurrent Training

- Ground training for each flight crew, flight attendant, and flight operations officer once a year
- Joint-training between FC-FA, and FC-FOO once in 2 year
- The recurrent training topic based on company owns experience, recommendation from LOAS or industry current concern
- The flight crew conduct LOFT once in 2 year
- All CRM topics to be covered in 3 year time
- TEM is used as a means of teaching the relationships of CRM behaviors to threat and error

CRM Continual Reinforcement

- Company policy to integrate CRM aspects into all technical training and checking.
  - All flight instructors, ground instructors and check airman/ checker are required to foster CRM aspects to their crewmember
- Integration CRM aspects into flight deck, cabin, and dispatch/flight following procedures.
- Periodic CRM assessment and performance feedback for all FC, FA, and FOO.
- CRM skills and performance as a factor in the promotion of all crewmembers

CRM Instructor Training

The objectives are to enable CRM Instructor's candidate to,

- Develop and drive a CRM training program for Flight Operations personnel

- Develop and deliver human factors awareness training to Flight Operations personnel

- Provide human factors support to Flight Operations

Structure of CRM Instructor Training

The main elements of the training are,

- Delivering CRM Training - Theory and Practice

- Examination on the subject of Human Performance & Limitations topics

- Pre-readings of CRM handbook & Instructional references

- Presentations by Participants under the supervision of the training facilitators

- Debrief and Evaluation

Thank you!