MPL Program Requirements
&
Lessons Learned

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Manager MPL, ATPL, CPL Programs

Training Solutions - Civil & Military, CAE

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one step ahead

The ICAO Flight Crew Licensing and Training Panel

MPL Development Criteria

- ◻ ICAO guidelines
  - ► Competency-based format
  - ► Proficiency on all PANS Training competencies
  - ► Integrated TEM
  - ► Four distinct phases training
  - ► MCC from the beginning
  - ► Aviation English Language Level 4 competency
  - ► Minimum acceptable simulator fidelity defined
  - ► A minimum of 240 hours of flight training (PF/PNF)
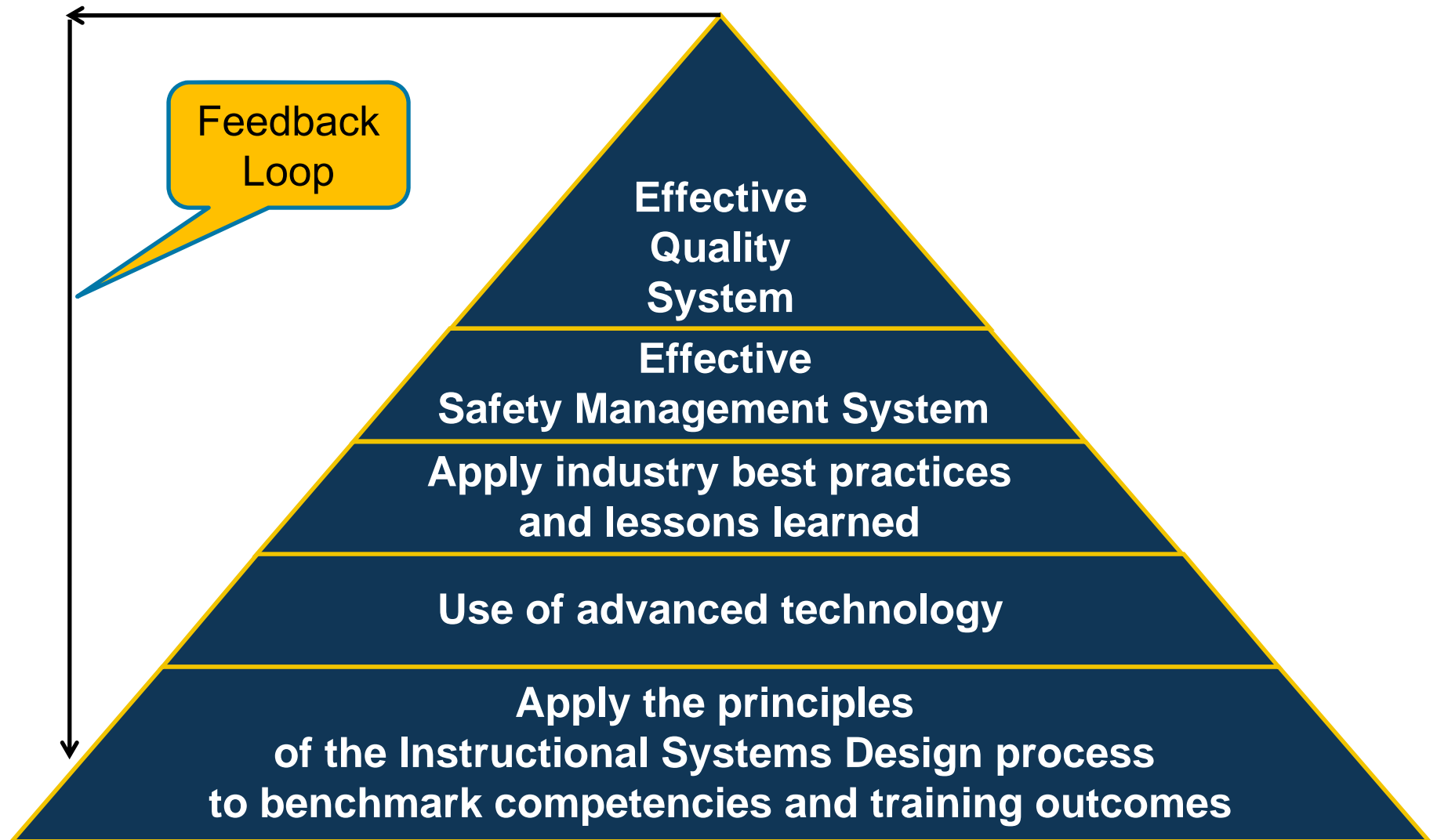 - ► Only an ATO can train toward an MPL

- ◻ Regulatory partnership is essential

- ◻ An MPL is what the regulator says it is

- ◻ The program must reflect the sponsoring airline's mission

Competency-Based Program Design

First Officer Responsibilities (The Desired End State)

- ❏ Second-In-Command

- ❏ Normal duties include attention to:

  - ▶ Flight safety
  - ▶ Mechanical problems
  - ▶ Weather
  - ▶ Crewmember proficiency
  - ▶ SOP compliance
  - ▶ Airport conditions
  - ▶ Air traffic control
  - ▶ Threats & errors

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Phase I & II Objectives

Achieve B1 ESL proficiency and LVL 3 aviation language proficiency.

Cockpit and glass familiarization, procedures, checklists, and facilitate aircraft training.

Aviation Language Orientation & Aviation Language Training

Phase I Core FSTD

Phase I Core Aircraft

Phase II Basic FSTD

Phase II Basic Aircraft

Basic aviation skills, airmanship, introduce airline centric methods, CRM, TEM, and accomplish initial solo.

Multi-crew operations, airline SOP to include scan flow checklist protocols, instrument procedures, upset, CRM/TEM event training, and night operations.

Achieve instrument literacy in all basic instrument procedures. IFR and solo cross-country, multi-crew operations, CRM, TEM, and night flight.

- ❑ Cultural indoctrination
- ❑ Core flying skills, CRM/TEM
- ❑ Glass, Checklists, SOP, AEL
- ❑ Initial Solo
- ❑ MCC, Instrument, Night, Solo Cross Country
- ❑ VFR & Instrument Validation
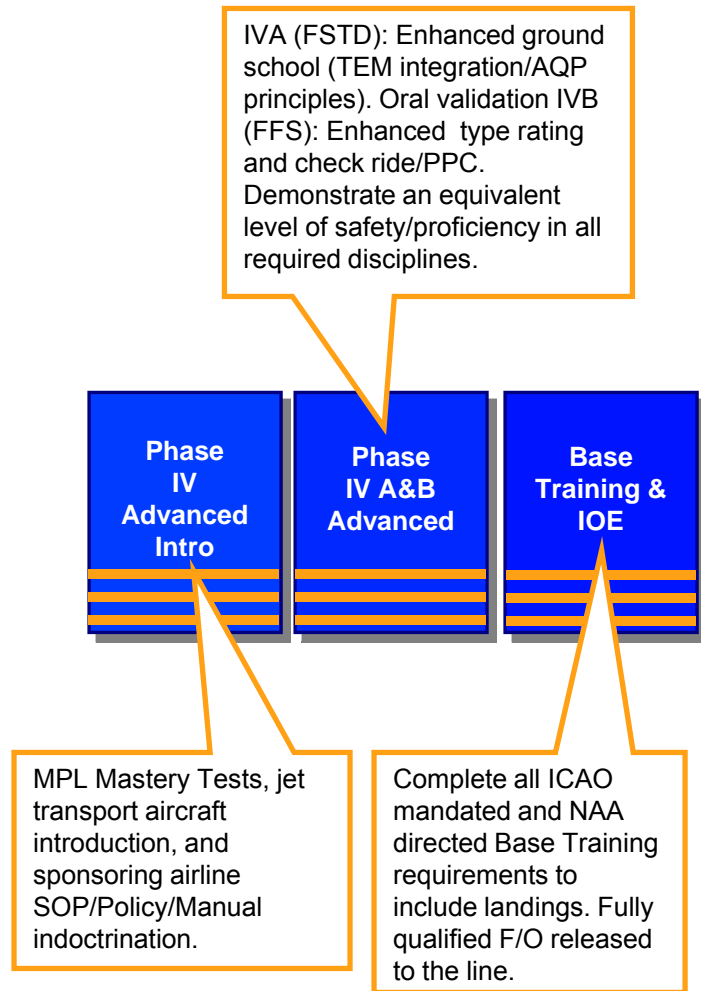
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Phase III Objectives

Jet aircraft introduction, ground school, CRM/TEM event training, and achieve maneuver proficiency IAW mandated NAA standards.

Demonstrate end level proficiency on all required MPL competency units within a LOFT format. Demonstrate ICAO LVL 4 aviation language proficiency. Achieve CRM and TEM proficiency.

Phase IIIA Intermediate

Phase IIIB Intermediate

- ❏ Jet transition

- ❏ Event set training

- ❏ An equivalent type rating

- ❏ Scenario-based training using AirAsia SOP

- ❏ PANS Training competencies

- ❏ AEL Level 4 proficiency

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Phase IV Objectives

IVA (FSTD): Enhanced ground school (TEM integration/AQP principles). Oral validation IVB (FFS): Enhanced type rating and check ride/PPC. Demonstrate an equivalent level of safety/proficiency in all required disciplines.

Phase IV Advanced Intro

Phase IV A&B Advanced

Base Training & IOE

MPL Mastery Tests, jet transport aircraft introduction, and sponsoring airline SOP/Policy/Manual indoctrination.

Complete all ICAO mandated and NAA directed Base Training requirements to include landings. Fully qualified F/O released to the line.

- ❑ A320 Type Rating

- ❑ AirAsia SOP Proficiency

- ❑ Confirm and enhance AEL competencies

- ❑ Mastery Tests

- ❑ PPC

- ❑ Confirm readiness for IOE

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Lessons Learned & Conclusions

❑ Beta 1 Trial elements of success

  ► Organization excellence

  ► Attention to instructor competencies and training

  ► Competency-based training

Lessons Learned & Conclusions

◻ Screening and selection extraordinarily important

◻ Buy-in of all stakeholders is key

  ▸ Regulators

  ▸ Airline management

  ▸ Training operator management

  ▸ Instructors

  ▸ Students

◻ Aviation English Language

  ▸ Minimum entry level for training essential

  ▸ Integration throughout the program facilitates the development of ATC competencies

  ▸ All cadets invigilated by Transport Canada - ICAO Level 6

Lessons Learned & Conclusions

- Selection

- Two Month Orientation

- Two Week Introduction

- Main Course

- Dedicated Lessons

CBT	ICAO	IELTS	CEF	TOEFL (Paper)	TOEFL (CBT)
3.5	6	7-8			
3.0	5	6	C2	630	260
2.5	4	5	C1	540	210
2.0	3+	4+	B2+	480	180
1.5	3-	4-	B2-	450	150
1.0	2	3	B1	340	60
0.5	1	2	A2	310	30

A2	Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.
B1	Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. Can deal with most situations likely to arise whilst travelling in an area where the language is spoken. Can produce simple connected text on topics which are familiar or of personal interest. Can describe experiences and events, dreams, hopes & ambitions and briefly give reasons and explanations for opinions and plans.
B2	Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisation. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.
C1	Can understand a wide range of demanding, longer texts, and recognise implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organisational patterns, connectors and cohesive devices.
C2	Can understand with ease virtually everything heard or read. Can summarise information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. Can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of meaning even in the most complex situations.

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Lessons Learned & Conclusions

❑ Core & Basic (Phase I&II)

► Airline training methods enhance and accelerate learning

► Initial training focused on the desired end state prepared cadets for the transition to jet aircraft (speed & systems / procedural complexity)

► Initial proficiencies in MCC, CRM, TEM, SOP compliance, checklist discipline required for effective progression to Phase III

Lessons Learned & Conclusions

❑ Intermediate (Phase III)

- ► Ensuring a training experience that exceeds that which is achievable from a traditional training path is challenging and key to a successful Phase IV
- ► AQP lessons learned were invaluable
  - ◆ Both training and assessment lessons learned
- ► Phase III success is heavily dependent on the highest level of FSTD fidelity
  - ◆ Transition to jet aircraft
  - ◆ Scenario based training

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Lessons Learned & Conclusions

❑ Advanced (Phase IV)

▶ Full enculturation to AirAsia policies, procedures, and SOP

▶ Validation, polish, and transition to the mission aircraft

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Lessons Learned & Conclusions

◻ IOE

- ► Positive feedback from Training Check Captains
- ► Early release to the line anticipated (80 segments standard)
- ► Results correspond to EASA findings
- ► Data collection will reveal more
- ► AirAsia has terminated all traditional ab initio training

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Thank You

MPL Myths and Facts

- MPL is cheaper and faster—myth

- MPL does not provide as good of training as traditional methods—myth

- MPL does not allow the pilot freedom of career movement—myth

- MPL is fast gaining momentum throughout the world—fact
  - ▶ MPL regulations in place – 31 countries—fact
  - ▶ Countries that have completed, are conducting, or will start MPL courses this year – 12 to 14 —fact
  - ▶ More than 1250+ students enrolled, 200+ graduates—fact

- Lufthansa and the Swiss have decided to go primarily MPL—fact

- CAE first class (AirAsia) completed and in IOE; second class began 16th May—fact

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MPL & Competency-Based Training

◻ PANS Training Extracts, Reference Appendix 3 to Chapter 3

1. *In broad terms, the MPL holder is expected to complete the airline initial operating experience (IOE) with high probability of success and <u>within the normal time frame</u> normally allowed for this phase.*

2. *The general approach that is therefore <u>suggested</u> is to use the existing training programme (ab initio or equivalent) of the ATO as a reference and to progressively implement the new training programme allowed by the MPL…*

3. *MPL courses shall be <u>competency based</u>.*

4. *In view of the developmental nature of the first MPL course in each ATO, the approval shall be <u>provisional</u> and should be <u>confirmed only after</u> obtaining a satisfactory result from the first course and after <u>incorporation of lessons learned</u> into the curriculum.*

MPL Versus ATPL (General Global Observations)

- Airlines are provided type rated candidates ready for IOE

- Standardized competency-based curriculums

- Integrated CRM and TEM

- ICAO Level 4 Aviation English Language certification assured

- Efficient value-added training focused on the desired end state

- Instructor qualifications exceed traditional standards

- High-fidelity simulation mandated

- Airline training best practices required

Timeline of ATPL may vary

TIMELINE IN MONTHS

QUALITY

MPL
- ADVANCED
- INTERMEDIATE B
- INTERMEDIATE A
- CORE/BASIC

ATPL
- THEORY
- MCC
- CPL
- ME+ I
- PPL