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Senior Director Flight
Crew Development



Multi crew pilot licence

The Airbus way

Content

- MPL Development
- Who are the MPL instructors?
- Devices for training
- Airbus MPL solutions
- Conclusion

1995



Qualifying people around the world



Why MPL

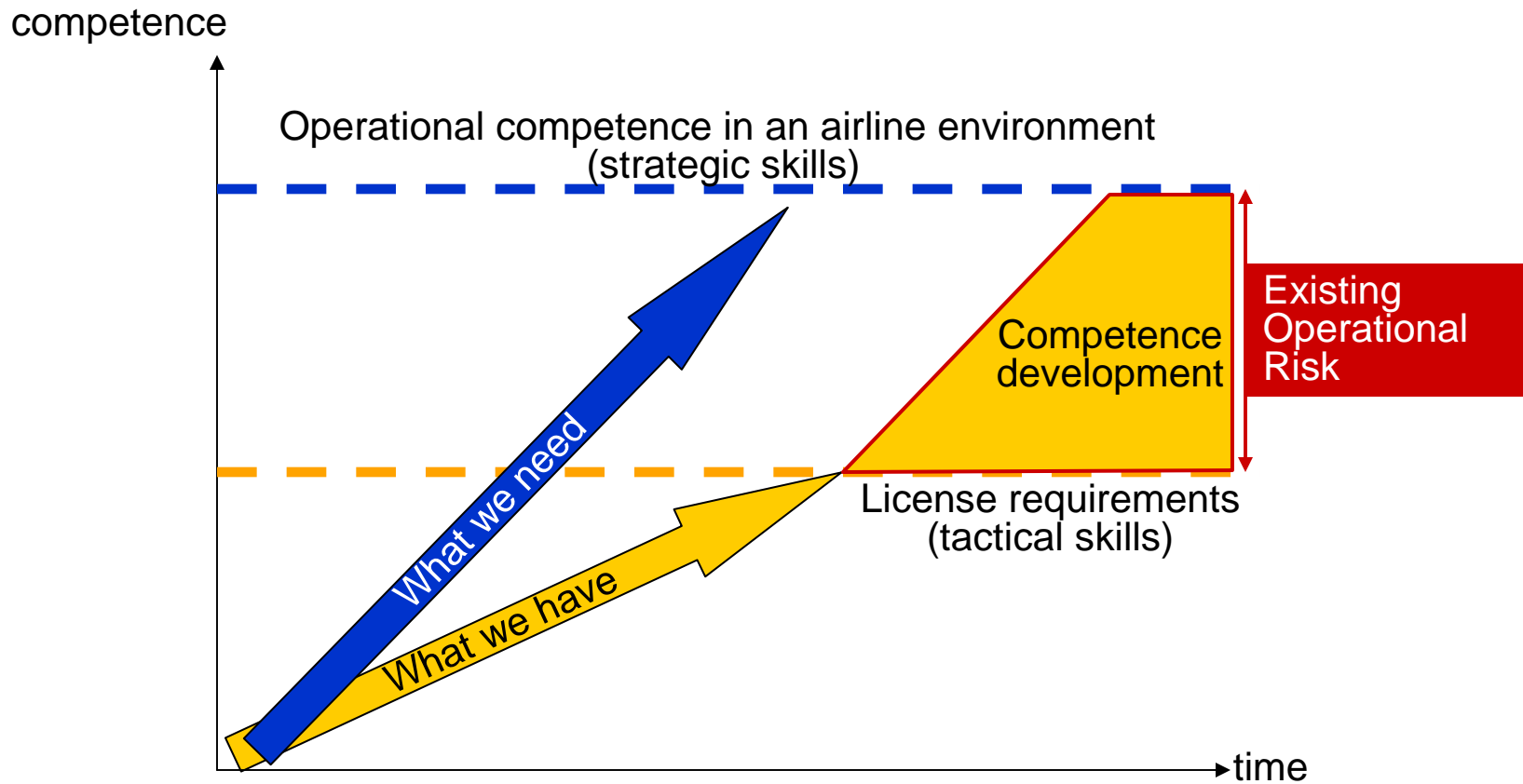
- Focus on the Single Pilot
- No competency criteria
- New technology not full utilised
- Need to train TEM and CRM
- Airline IOE experience – extra training



Existing Courses

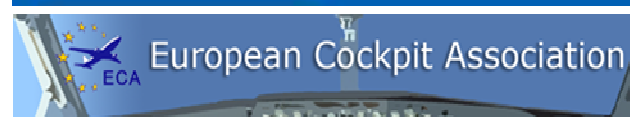
Industry View

Ab-Initio Training

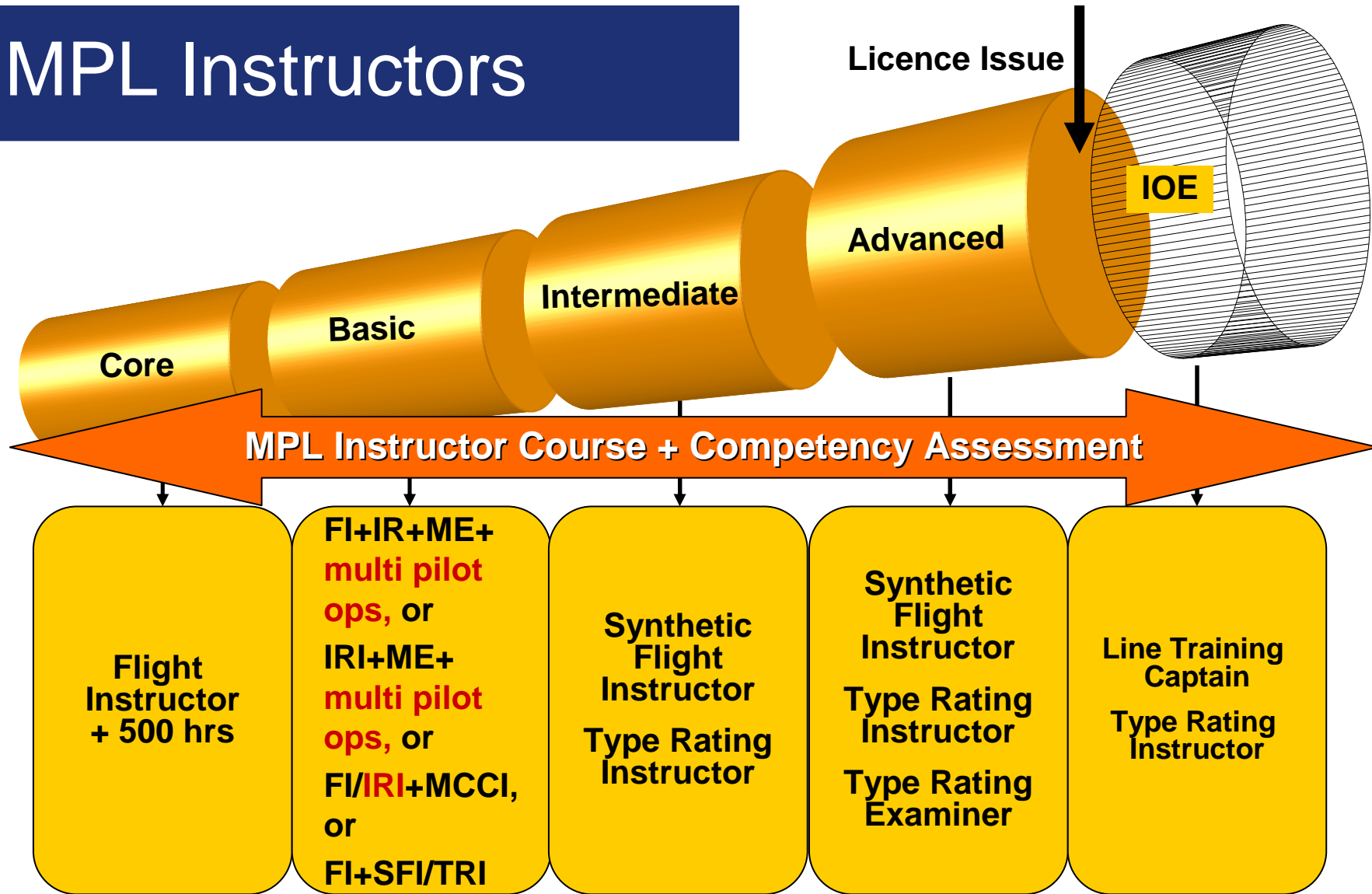


MPL Instructor Training

- Course for **all MPL instructors**
- Provides additional training for existing instructors
- Competency Standard
- Phase 2 issue addressed



MPL Instructors



APIC – MPL Instruction

An intensive practical and competency based introduction to core training skills

DAY 1



- The philosophy of Competency Based Training
- Regulatory framework, instructor competencies
- Introduction to ISD
- Competency Units, elements and Performance Criteria
- Threat and Error Management and CRM
- Assessments and Evaluations

APIC – MPL Instruction

DAY 2



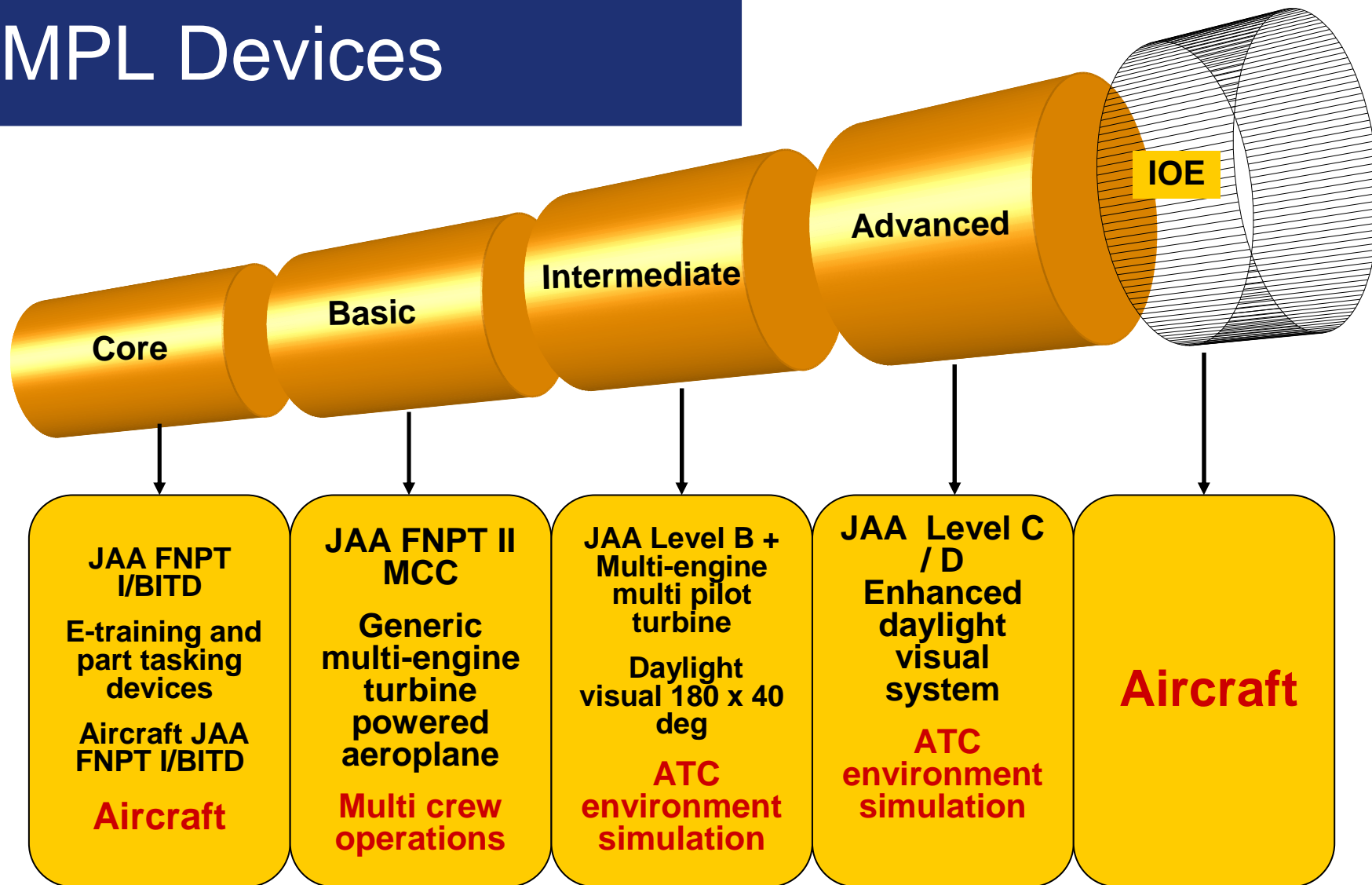
- Communications
- Understanding human factors
- CRM Training
- Exploring training techniques
- Questioning techniques

Non Technical Skills

Observable Actions (CRM Standards)

Communications	<i>Crew members :-</i>					
	Know when, what, how much and who they need to communicate to.					
	Ensure the recipient is ready and able to receive the information.					
	Pass messages and information clearly, accurately, timely and adequately.					
	Check the other person has the correct understanding when passing important information.					
	Listen actively, patiently and demonstrate understanding when receiving information.					
	Ask relevant and effective questions, and offer suggestions.					
	Use appropriate body language, eye contact and tone.					
Are open and receptive to other people's views						
<i>Overall Score</i>						
U	M	S	G	E		

MPL Devices



Phase 3 Device

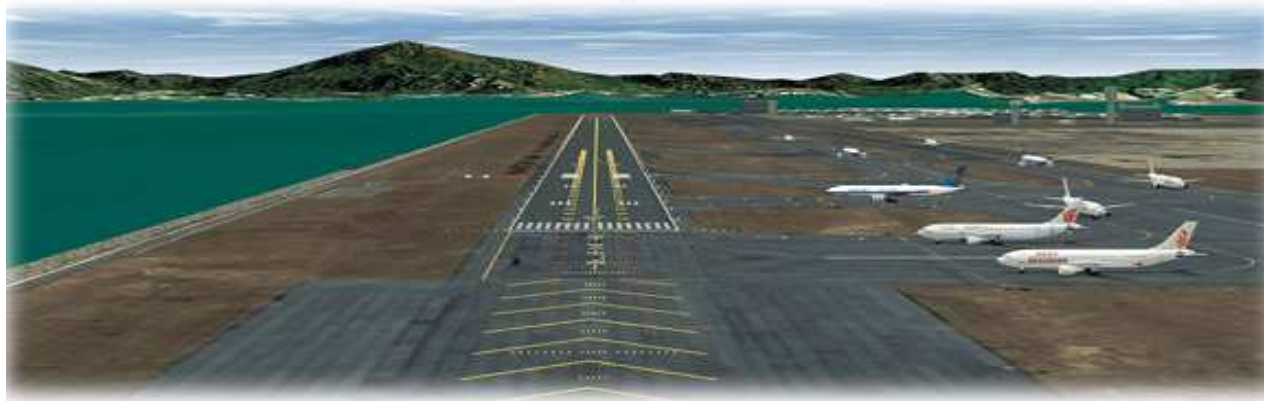
**JAA Level B + (motion)
Multi-engine multi pilot turbine**

Daylight visual 180 x 40 deg

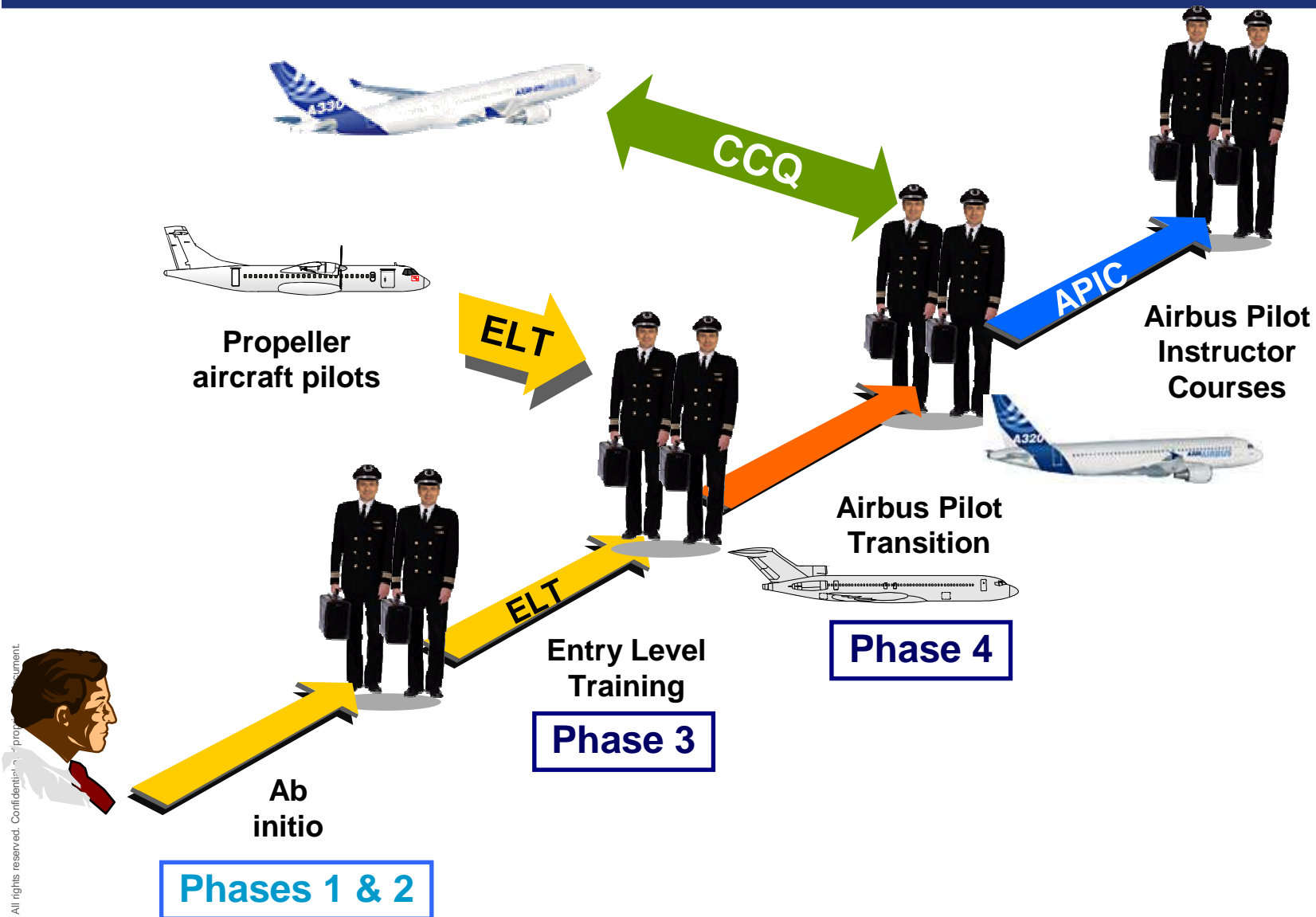
Type Specific Device

Training is not type specific

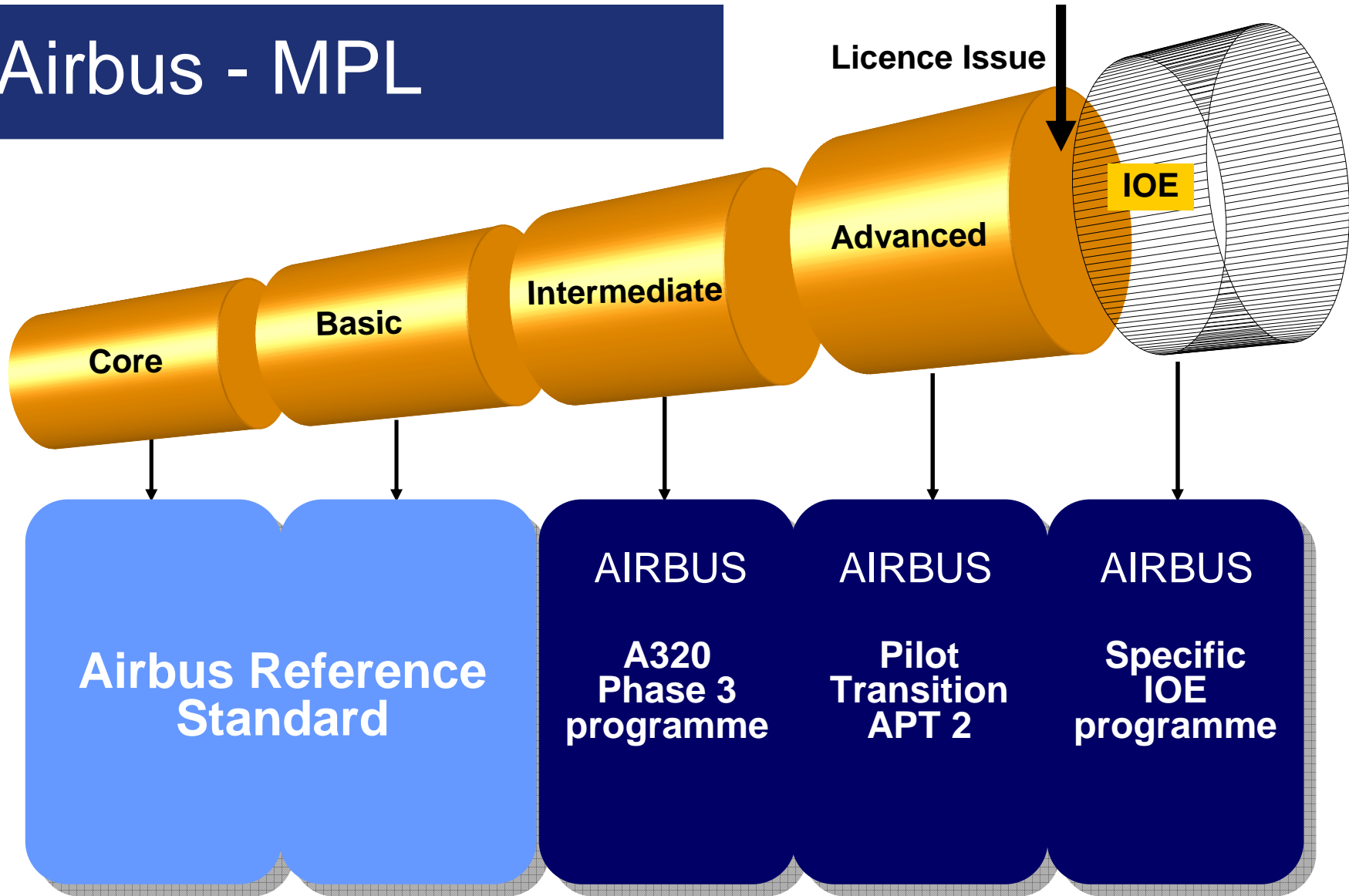
ATC Environment Simulation



Airbus Flight Crew Training



Airbus - MPL



CAAC MPL Trial Training Scheme

325h of training including 225 PF+100 PNF 95h in aircraft

Phase of training		Training items	Flight and simulated flight training media - Minimum level requirement		Ground training media
Integrated TEM principles	Advanced Type rating training within an airline oriented environment	<ul style="list-style-type: none"> • CRM • Landing training • All weather scenarios • LOFT • Abnormal procedures • Normal procedures 	Aeroplane: Turbine Multi-engine Multi-crew certified	12 take off and landings as PF	<ul style="list-style-type: none"> • E-learning • Part task trainer • Classroom
			FSTD: Type IV	A320 or B737NG / 48h 24 PF+24 PNF	
	Intermediate Application of multi-crew operations in a high performance multi-engine turbine aeroplane	<ul style="list-style-type: none"> • CRM • LOFT • Abnormal procedures • Normal procedures • Multi-crew • Instrument flight 	FSTD: Type III	FSTD Type III (48h) 12 PF+24 PNF	
	Basic Introduction of multi-crew operations and instrument flight	<ul style="list-style-type: none"> • CRM • PF/PNF complement • IFR Cross-country • Upset recovery • Night flight • Instrument flight 	Multi-crew high performance Aircraft FSTD: Type II	FSTD Type II (80h) 52 PF+52 PNF High Performance Aircraft (15h)	
			Aircraft: Single or multi-engine FSTD: Type I	Aircraft (20h) FSTD TYPE I (15h)	
Core Flying Skills Specific to single pilot	<ul style="list-style-type: none"> • CRM • VFR Cross-country • Solo flight • Basic instrument flight • Principles of flight • Cockpit procedures 	Aircraft: Single or multi-engine FSTD: Type I	Aircraft (60h) 50 h dual 5h local solo 5h cross country solo FSTD Type I (15h)		

CAAC MPL Trial Training Scheme

325h of training including 225 PF+100 PNF 95h in aircraft

Phase of training	Training items	Flight and simulated flight training media - Minimum level requirement		Ground training media	
Integrated TEM principles	Advanced Type rating training within an airline oriented environment	<ul style="list-style-type: none"> • CRM • Landing training • All weather scenarios • LOFT • Abnormal procedures 	Aeroplane: Turbine Multi-engine Multi-crew certified	12 take off and landings as PF	<ul style="list-style-type: none"> • CBT • E-learning • Part task trainer • Classroom
	Intermediate Application of multi-crew operations in a high performance multi-engine turbine aeroplane	<ul style="list-style-type: none"> • CRM • LOFT • Abnormal procedures • Normal procedures • Multi-crew • Instrument flight 	FSTD: Type IV	A320 or B737NG FFS (48h)	
	Basic Introduction of multi-crew operations and instrument flight	<ul style="list-style-type: none"> • CRM • PF/PNF complement • IFR Cross-country • Upset recovery • Night flight • Instrument flight 	Aircraft : High Performance Aircraft FSTD: Type II	FSTD Type II (80h) 52 PF+52 PNF High Performance Aircraft (15h)	
	Core Flying Skills Specific basic single pilot training	<ul style="list-style-type: none"> • CRM • VFR Cross-country • Solo flight • Basic instrument flight • Principles of flight • Cockpit procedures 	Aircraft: Single or multi-engine FSTD: Type I	Aircraft (20h) FSTD TYPE I (15h)	

AIRBUS Programmes

AIRBUS Reference Standard

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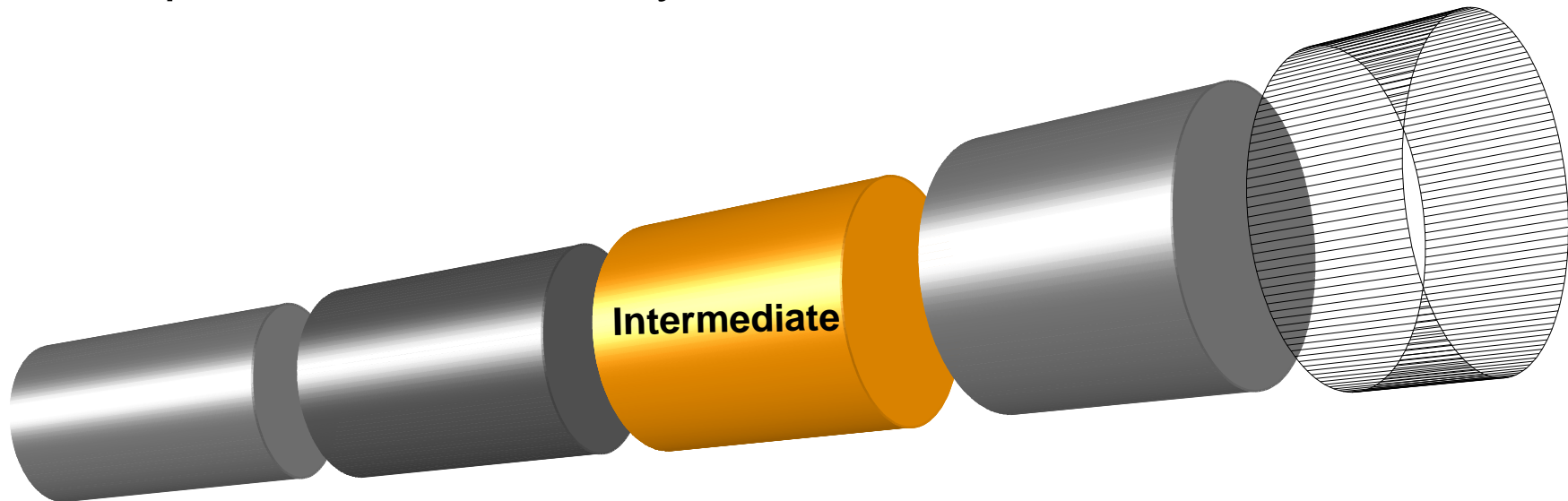
CAFUC MPL Programme

MPL Phase	ITEMS	Ground	FSTD	Aircraft	Working Days	Beginning	Ending
I	Basic Theoretic	480			80	2008/5/5	2008/9/5
	MPL Core Flying Skills (C172)		15	60	65	2008/9/8	2008/12/5
II	MPL Basic (C172)		15	20	35	2008/12/8	2009/1/23
	ATPL Theoretic	450			75	2009/2/9	2009/5/22
	CJ1 FTD		104		35	2009/5/25	2009/7/10
	CJ1 Aircraft			15	20	2009/7/13	2009/8/7
III	A320 Ground School	180			30	2009/8/24	2009/10/2
	A320 FSTD III					2009/10/5	2009/10/30
IV	A320 FSTD IV		48		30	2009/11/2	2009/12/11
Total		1110	230	95	390	78 Weeks 18 Month	

AIRBUS Programmes

The Airbus MPL development

- October 2007: MPL instructor course completed
- February 2008: MPL phase III syllabus completed
- May 2008: MPL III courseware complete
- September 2008: Entry into service



Intermediate phase: Instrument flight – Abnormal procedures –
Multi crew – LOFT – CRM/TEM

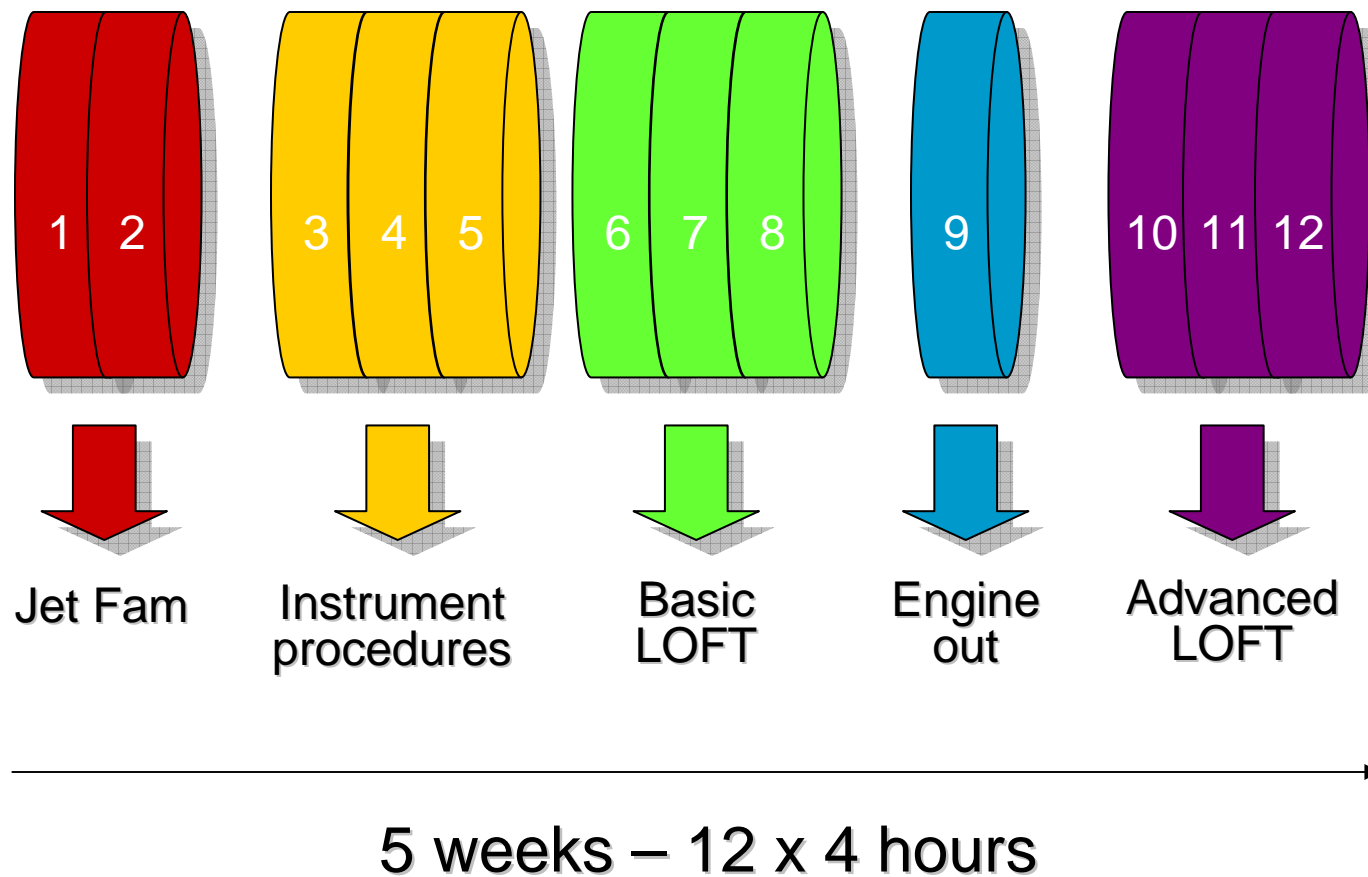
The MPL phase III principles

Airbus MPL III project:

- five week course – 12 sessions
- a **3 trainee team**: PF, PNF, observer
- 48 hours (credit - 32 hours PF+PNF)
- **generic** medium-weight jet training
- crew coordination reinforcement with threat and error management and **development of situation awareness**
- **LOFT** (6 LOFT sessions included)

The MPL phase III structure

Airbus MPL III structure (project)



MPL Phase 3 main characteristics

- **Reinforced synthetic training** – simplified procedures
- Reinforcement of **decision making, situation awareness and threat management**
- **Reinforced IFR experience** through real flight situations
- **Airline context**
- Merged theoretical and practical training
- Reinforced competency-based training
- Close trainee follow-up: the **instructor tutor role**

Summary

Competency Based

Defined Progression

Addresses the human issues

Enhances Safety

MPL Can Deliver



