



Trafik-, Bygge- og Boligstyrelsen

Danish Transport, Construction and Housing Authority

Jesper Bildstedfelt

Organisation: TDKCAA

Job Title: Flight Ops Inspector

*Jesper Bildstedfelt. Pilot/Quality Manager /Chief Inspector
First job with major airline was with **Sterling Airways**
flying SE-210 1986-90.*

*1990-2005 **Scandinavian Airlines** Fokker
50/B737/B767/MD80.*

*2007-2012 **Sterling Airlines/Cimber Sterling** working with
Flight OPS Quality Management, Ground Operations, and
Airworthiness Dokumentation.*

2012- present. OPS Flight Inspector DKCAA.

AOC, Aerial Work, NCC/NCO and SAFA oversight.



Thomas Cook Airlines

Henrik Lyngse

Organisation: Thomas Cook Airlines Scandinavia

Job Title: EBT Project Manager

*Captain Henrik Lyngse started as a pilot in **Thomas Cook Airlines Scandinavia** in 1994 and was promoted as commander on A300 B4 in 1997. He held several positions within **Thomas Cook Airlines Scandinavia**, such as EBT Project Manager, Chief Flight Instructor and Deputy Head of Training. Henrik is an Airbus TRI/TRE and senior examiner. His career as an airline pilot now passes 25 years.*



OUR WAY TO EBT

*Let's
go!*

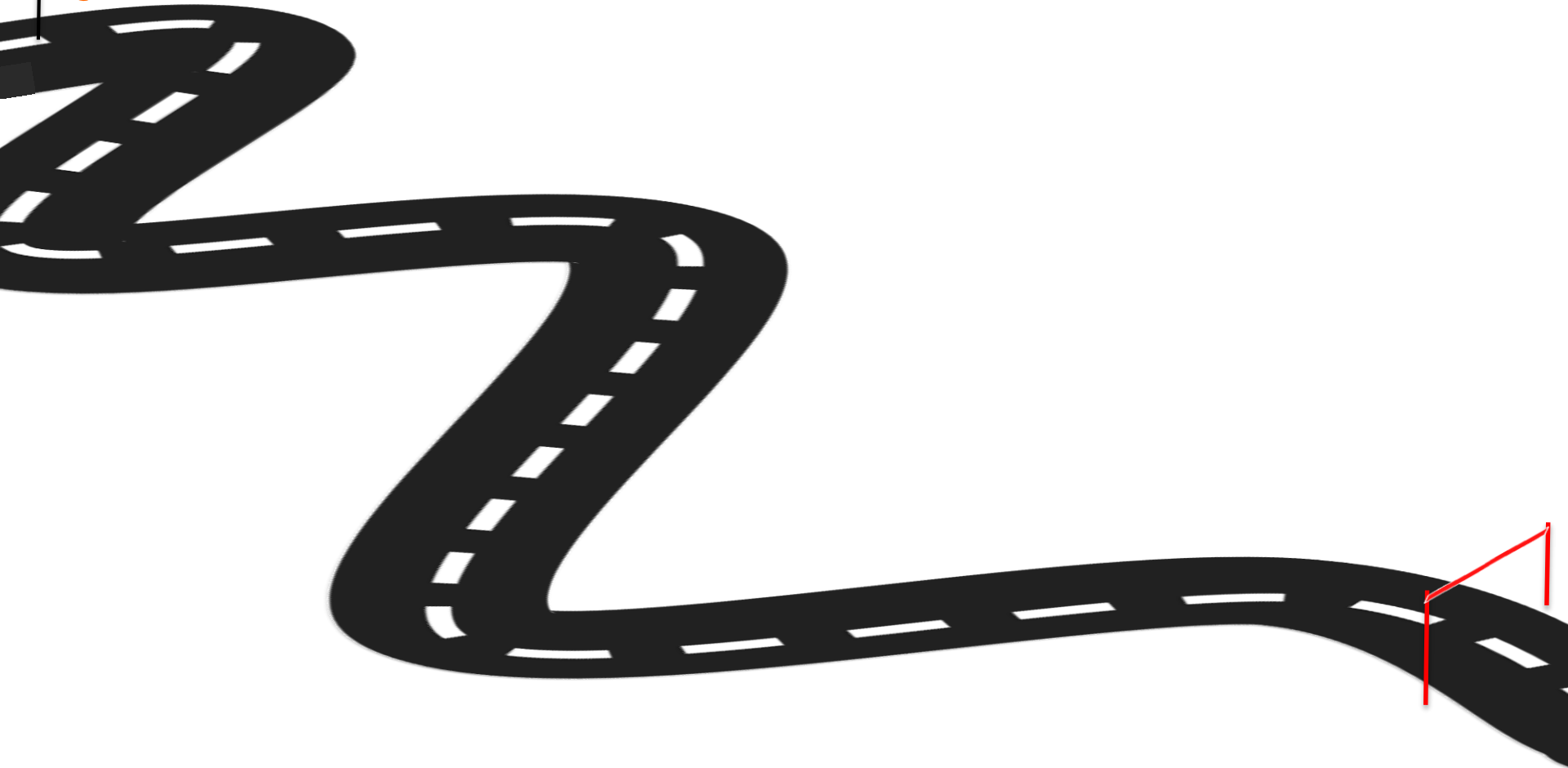
JUDO vs. FLIGHT-CREW TRAINING



Let's go!

FROM GOOD TO EXCELLENT

Project Plan



Let's go!

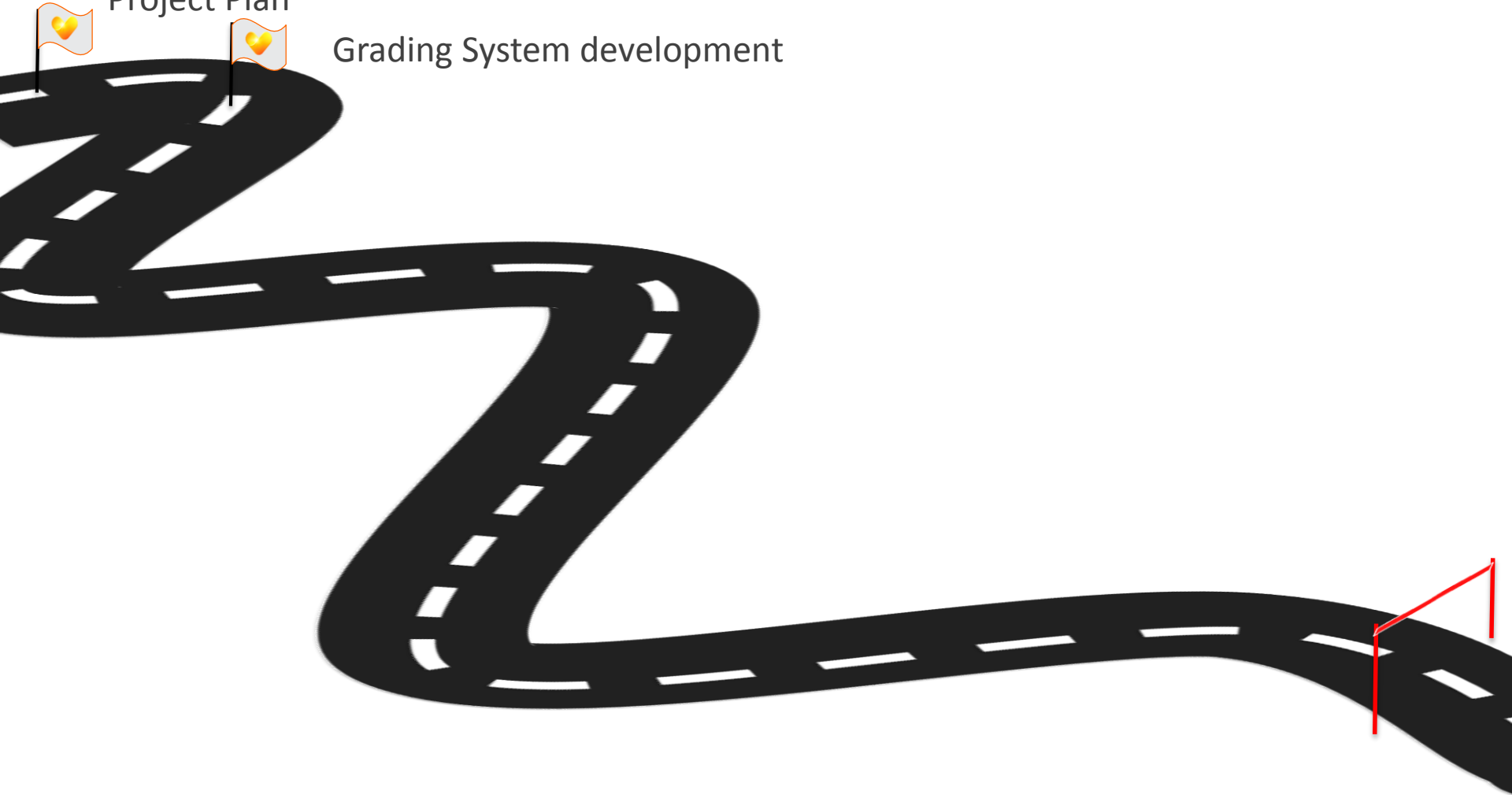
PROJECT PLAN

Project Plan for Evidence-based Training																
Objective	Details	Support	June	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Development of Project Plan	Meeting to establish a project plan to follow and to set effective dates															
Grading system development	Develop grading system.	Advice as necessary														
Development Trainer material	This is to include a module on the concept of EBT	Provide a module for TEM and Competencies, plus EBT introductory modules														
Train the trainer 2 days EBT plus IRR	EBT concept and philosophy, introduction to competency based training, new grading system with exercises. Facilitation training	In collaboration with LMQ, I can provide an e-learning package for the grading system														
Union involvement																
Grading system testing	Develop a feedback form. Run a trial period. Determine the size of the trial. Initiate and collect data. 16-01	Advice as necessary														
Compliance Check EBT, Part-FCL, Part ORO		Complete the compliance check and write the statement related to the drafts being prepared for new GM to be published by EASA in September														
ATO approval modifications to support EBT	Once the programme has been stabilised and the grading system determined, the provision of revisions to DTA with respect to OMD and ATO	Advice as necessary														
Commence module testing A320	2 elements, a first test, opportunity for revision and second validation test. Consider any differences between the 2 Sims to be used															
Present to DTA	Present concept, project plan and outline for the first A320 module	Attend meeting. Give initial conceptual presentation and talk about EASA GM development and RMT for 2016. Answer														
Train the trainer 2 days sep EBT plus IRR	EBT concept and philosophy, introduction to competency based training, new grading system with exercises. Facilitation training	In collaboration with LMQ, I can provide an e-learning package for the grading system														
Grading system testing	Select and train a small group of TRE's to conduct a live trial during training. Develop a feedback form. Determine the size of the trial. Initiate and collect data.	Advice as necessary														
	Collate results from trial and determine the need for any changes. Finalise system for launch	Advice and amendment to the e-learning package														
Fleet course presentation Sep Nov	EBT concept and philosophy, introduction to competency based training, new grading system	Assistance and advice as necessary														
EIS EBT A320 Fleet	First Module to be launched															
Analyse first results and feedback	Determine the means of receiving feedback from instructors, and evaluate after the first month to make any short term corrections and adjustments															
Malfunction clustering A330	Determine Sim malfunction lists, fwork in a small team of 2-3 people, or ask 2 individuals to complete the work and moderate results for consistency	Provide detailed written instructions, telephone briefing														
Approach clustering A330	From our discussions this may not be very necessary, but commence with a list to all type of approaches. Manoeuvres Validation includes many types of approach. In addition you will need 2 x LVO approaches including GA and landing, plus NPA if not included in the Evaluation. This is for compliance with EU regulation															
URT scenarios and manoeuvres	See ICAO Doc 9995. Confirm the validated Sim envelope for training, through the Sim provider or directly with Airbus GDS. Consult Airbus OTT on the use of FSTD's for URT. Decide how URT tasks are to be divided across the 3-year cycle	Assistance as required. I can provide you with information based on the Airbus Sim STD for each Sim														
Program development A330	Ideally work collaboratively with a small team to write scenarios for the EVAL and SBT	Advice and validation as necessary														
Manoeuvres Validation	Use the standard MV (Called Manoeuvres Training in ICAO) and consider the addition of LVO and NPA.	Ensure the EVAL and MV meet the EU compliance requirements, I can advise as necessary														
Evaluation	The combination of EVAL plus MV forms the EU compliant LPC and/or QPC. The EVAL should consist of 2 short flights with one cockpit preparation.	Advice, compliance check against EU legislation														
Scenario Based Training	This is the pure training element of EBT and scenarios can be developed to be more challenging. Ideally for the size of your operation, 2-3 options can be provided with the same start points. This provides variability and creates some potential surprise for the pilots, as well as enabling you to set levels of difficulty subject to the performance observed during the EVAL and MV															

FROM GOOD TO EXCELLENT

Project Plan

Grading System development



Let's go!



DESCRIPTION OF COMPETENCIES

WORD PICTURES

1!	2!	3!	4!	5!
<i>Ineffective performance which resulted in an unacceptable reduction in safety margin, by rarely demonstrating any of the performance indicators when required</i> !	<i>Minimum acceptable performance but which did not result in an unsafe situation, by only occasionally demonstrating some of the performance indicators when required.</i> !	<i>Adequate performance which resulted in a safe situation, by regularly demonstrating most of the performance indicators when required.!</i>	<i>Effective performance which enhanced safety, by regularly demonstrating all of the performance indicators when required.</i> !	<i>Exemplary performance, which significantly enhanced safety, efficiency and effectiveness by always demonstrating all of the performance indicators when required.!</i>

APPLICATION OF PROCEDURES

Identifies and applies procedures in accordance with published operating instructions and applicable regulations, using the appropriate knowledge. (APK)!	<ul style="list-style-type: none"> - Follows SOP's unless a higher degree of safety dictates otherwise - Identifies and applies all operating instructions in a timely manner - Correctly uses aircraft systems, controls and instruments - Safely manages the aircraft to achieve best value for the operation, including fuel, the environment, passenger comfort and punctuality. - Identifies the source of operating instructions
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COMMUNICATION

Demonstrates effective oral, non-verbal and written communications, in normal and non-normal situations. (COM)	<ul style="list-style-type: none"> - Knows what, how, where, when, how much and with whom he or she needs to communicate - Ensures the recipient is ready and able to receive the information - Conveys messages and information clearly, accurately, timely and adequately - Confirms that the recipient correctly understands important information - Listens actively, patiently and demonstrates understanding when receiving information - Asks relevant and effective questions, and offers suggestions - Uses appropriate body language, eye contact and tone, and correctly interprets non-verbal communication of others - Is receptive to other people's views and is willing to compromise
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AIRCRAFT FLIGHT PATH MANAGEMENT, AUTOMATION

Controls the aircraft flight path through automation, including appropriate use of flight management system(s) and guidance. (FPA)	<ul style="list-style-type: none"> - Controls the aircraft using automation with accuracy and smoothness as appropriate to the situation - Detects deviations from the desired aircraft trajectory and takes appropriate action - Contains the aircraft within the normal flight envelope - Manages the flight path to achieve optimum operational performance - Maintains the desired flight path during flight using automation whilst managing other tasks and distractions - Selects appropriate level and mode of automation in a timely manner considering phase of flight and workload - Effectively monitors automation, including engagement and automatic mode transitions
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AIRCRAFT FLIGHT PATH MANAGEMENT, MANUAL CONTROL

Controls the aircraft flight path through manual flight, including appropriate use of flight management system(s) and flight guidance systems. (FPM)	<ul style="list-style-type: none"> - Controls the aircraft manually with accuracy and smoothness as appropriate to the situation - Detects deviations from the desired aircraft trajectory and takes appropriate action - Contains the aircraft within the normal flight envelope - Controls the aircraft safely using only the relationship between aircraft attitude, speed and thrust - Manages the flight path to achieve optimum operational performance - Maintains the desired flight path during manual flight whilst managing other tasks and distractions - Selects appropriate level and mode of flight guidance systems in a timely manner considering phase of flight and workload - Effectively monitors flight guidance systems including engagement and automatic mode transitions
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KNOWLEDGE

Facts, information, and skills acquired through experience or education; the theoretical and practical understanding of a subject. (KNO)	<ul style="list-style-type: none"> - Demonstrates practical and applicable knowledge of limitations and systems and their interaction - Demonstrates required knowledge of published operating instructions - Demonstrates knowledge of the physical environment, the air traffic environment including routings, weather, airports and the operational infrastructure. - Demonstrates appropriate knowledge of applicable legislation - Knows where to source required information - Demonstrates a positive interest in acquiring knowledge - Is able to apply knowledge effectively
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LEADERSHIP AND TEAMWORK

Demonstrates effective leadership and team working. (LTW)!	<ul style="list-style-type: none"> - Understands and agrees with the crew's roles and objectives - Is approachable, enthusiastic, motivating and considerate of others - Uses initiative, gives direction and takes responsibility when required - Anticipates other crew members' needs and carries out instructions when directed - Is open and honest about thoughts, concerns and intentions - Gives and receives both criticism and praises well, and admits mistakes - Confidently says and does what is important for safety - Demonstrates empathy, respect and tolerance for other people - Involves others in planning and allocates activities fairly and appropriately to abilities
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PROBLEM SOLVING AND DECISION MAKING

Accurately identifies risks and resolves problems. Uses the appropriate decision-making processes. (PSD)!	<ul style="list-style-type: none"> - Identifies and verifies why things have gone wrong and does not jump to conclusions or make uninformed assumptions - Seeks accurate and adequate information from appropriate sources - Perseveres in working through a problem without reducing safety - Uses appropriate, agreed and timely decision-making processes - Applies essential and desirable criteria and prioritizes - Considers as many options as practicable - Makes decisions when needed, reviews and changes them if required - Considers risks but does not take unnecessary risks - Improvises appropriately when faced with unforeseen circumstances to achieve the safest outcome
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SITUATION AWARENESS

Perceives and comprehends all of the relevant information available and anticipates what could happen that may affect the operation. (SAW)!	<ul style="list-style-type: none"> - Is aware of the state of the aircraft and its systems - Is aware of where the aircraft is and its environment - Keeps track of time and fuel - Is aware of the condition of people involved in the operation including passengers - Develops "what if" scenarios and plans for contingencies - Identifies threats to the safety of the aircraft and people, and takes appropriate action
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WORKLOAD MANAGEMENT

Manages available resources efficiently to prioritize and perform tasks in a timely manner under all circumstances. (WLM)!	<ul style="list-style-type: none"> - Is calm, relaxed, careful and not impulsive - Plans, Prepares, prioritizes and schedules tasks effectively - Manages time efficiently when carrying out tasks - Offers and accepts assistance, delegates when necessary and asks for help early - Reviews, monitors and cross-checks actions conscientiously - Ensures tasks are completed - Manages interruptions, distractions, variations and failures effectively
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FROM GOOD TO EXCELLENT


Project Plan

Grading System development

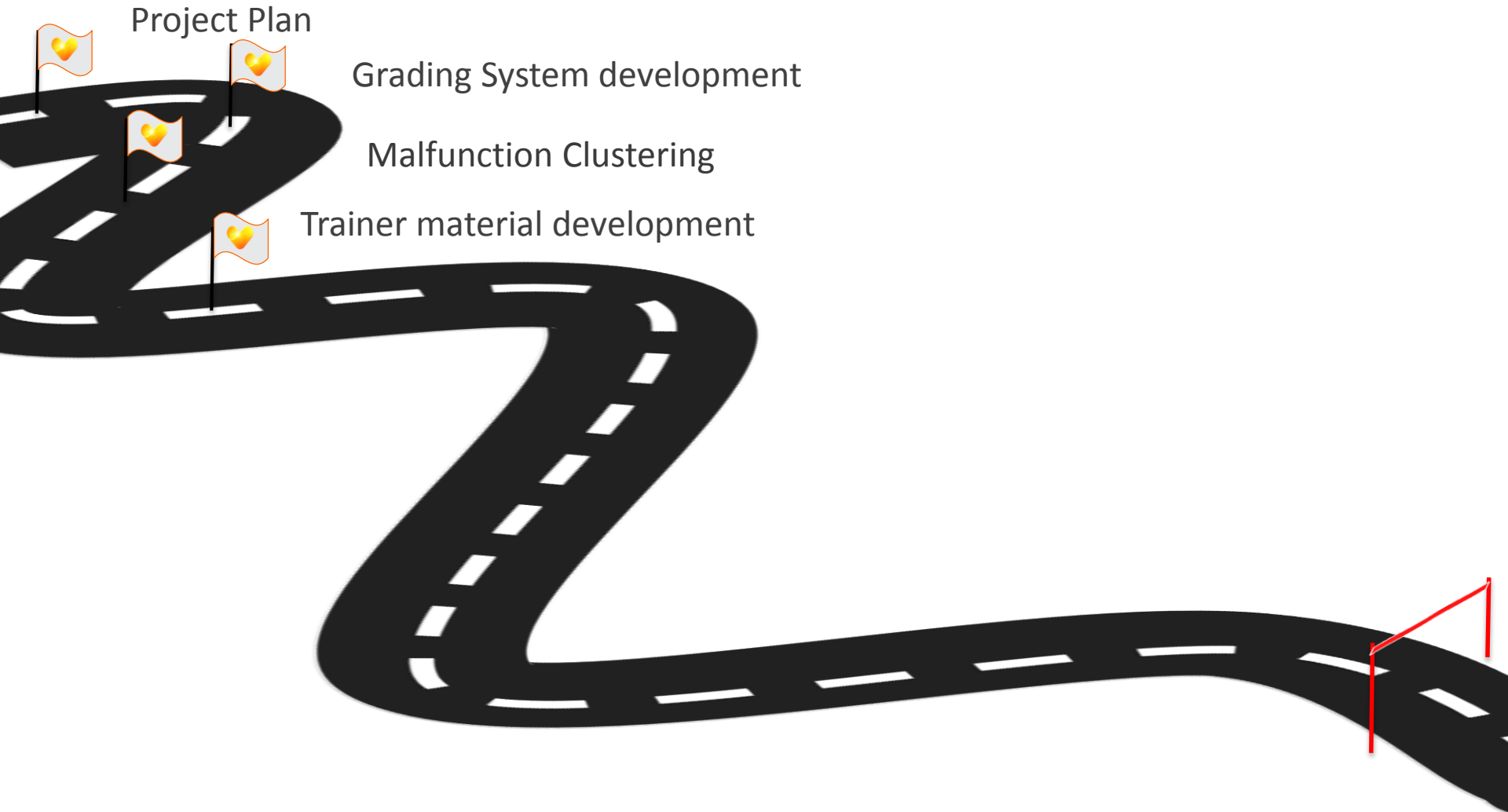
Malfunction Clustering

Let's go!

Malfunction clustering

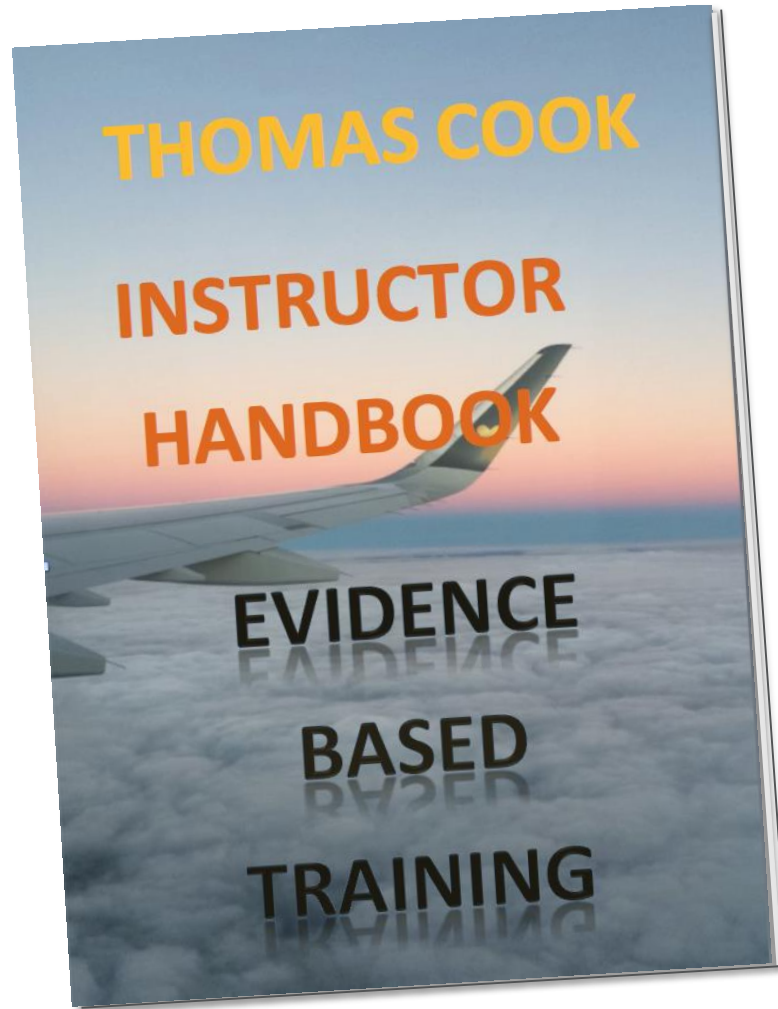
THOMAS COOK AIRLINES Malfunction clustering 							
	TYPE	IMMEDIACY	COMPLEXITY	DEGRADATION OF AIRCRAFT CONTROL	LOSS OF INSTRUMENTATION	MANAGEMENT OF CONSEQUENCES	EBT
ACP FAULT		-	-	-	-	-	N
AIR APU BLEED FAULT	MC	-	-	-	-	-	N
AIR APU BLEED LEAK	MC	-	-	-	-	-	N
AIR ENG 1(2) BLEED FAULT	MC	-	-	-	-	-	N
AIR ENG 1(2) BLEED LO TEMP (Opposite Bleed Available)	MC	-	-	-	-	-	N
AIR ENG 1(2) BLEED NOT CLSD	MC	-	-	-	-	-	N
AIR ENG 1(2) HP VALVE FAULT	MC	-	-	-	-	-	N
AIR ENG 1+2 BLEED FAULT	MC	3	-	-	-	3	Y
AIR L(R) WING or ENG 1(2) BLEED LEAK	MC	-	-	-	-	-	N
AIR PACK 1 + 2 FAULT	MC	3	-	-	-	3	Y
AIR PACK 1(2) FAULT	MC	-	-	-	-	-	N
AIR PACK 1(2) OVHT	MC	-	-	-	-	-	N
AIR PACK 1(2) REGUL FAULT	MC	-	-	-	-	-	N
ALL ADR OFF	QRH	2	2	-	-	2	Y
ANTI ICE CAPT (F/O) TAT	MC	-	-	-	-	-	N
ANTI ICE CAPT + F/O PITOT	MC	-	-	-	-	-	N
ANTI ICE CAPT + STBY PITOT	MC	-	-	-	-	-	N
ANTI ICE CAPT PITOT or L(R) STAT or AOA	MC	-	-	-	-	-	N
ANTI ICE CAPT PROBES	MC	-	-	-	-	-	N
ANTI ICE ENG 1(2) VALVE CLSD	MC	-	-	-	-	-	N
ANTI ICE ENG 1(2) VALVE OPEN	MC	-	-	-	-	-	N
ANTI ICE F/O PITOT or L(R) STAT or AOA	MC	-	-	-	-	-	N
ANTI ICE F/O PROBES	MC	-	-	-	-	-	N
ANTI ICE STBY PITOT or L(R) STAT or AOA	MC	-	-	-	-	-	N
APU AUTO (EMER) SHUT DOWN	MC	-	-	-	-	-	N
APU FIRE (EXTINGUISHABLE)	MW	4	-	-	-	-	Y
APU FIRE (UNEXTINGUISHABLE)	MW	4	-	-	-	5	Y
AUTO FLT A/THR OFF	MC	-	-	-	-	2	Y
AUTO FLT AP OFF	MW	1	-	-	-	2	Y
AUTO FLT FAC 1 + 2 FAULT	MC	1	3	2	-	2	Y
AUTO FLT FAC 1(2) FAULT	MC	-	-	-	-	-	N
AUTO FLT FCU 1 + 2 FAULT	MC	2	2	-	2	3	Y

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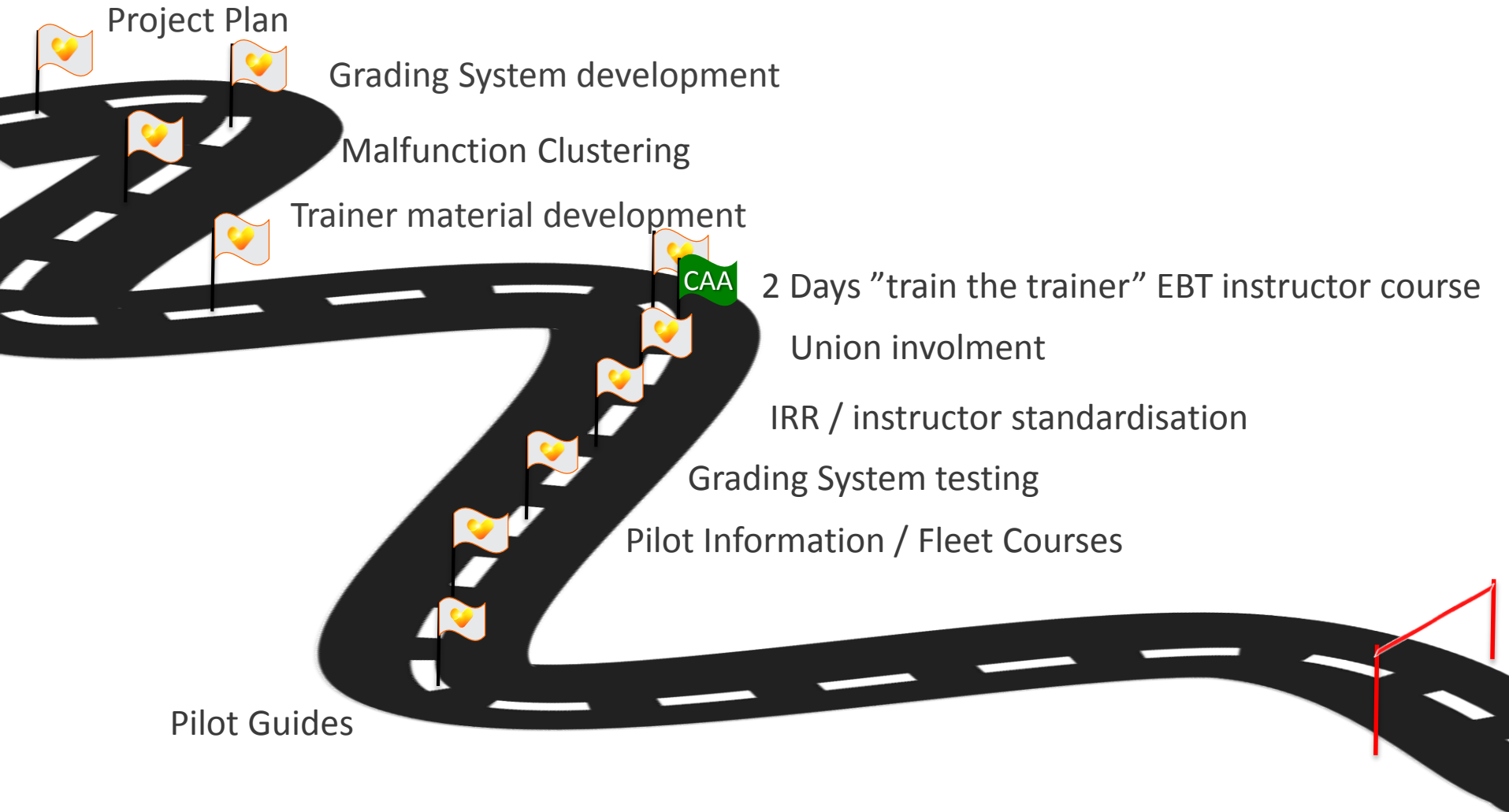
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- Trainer material development



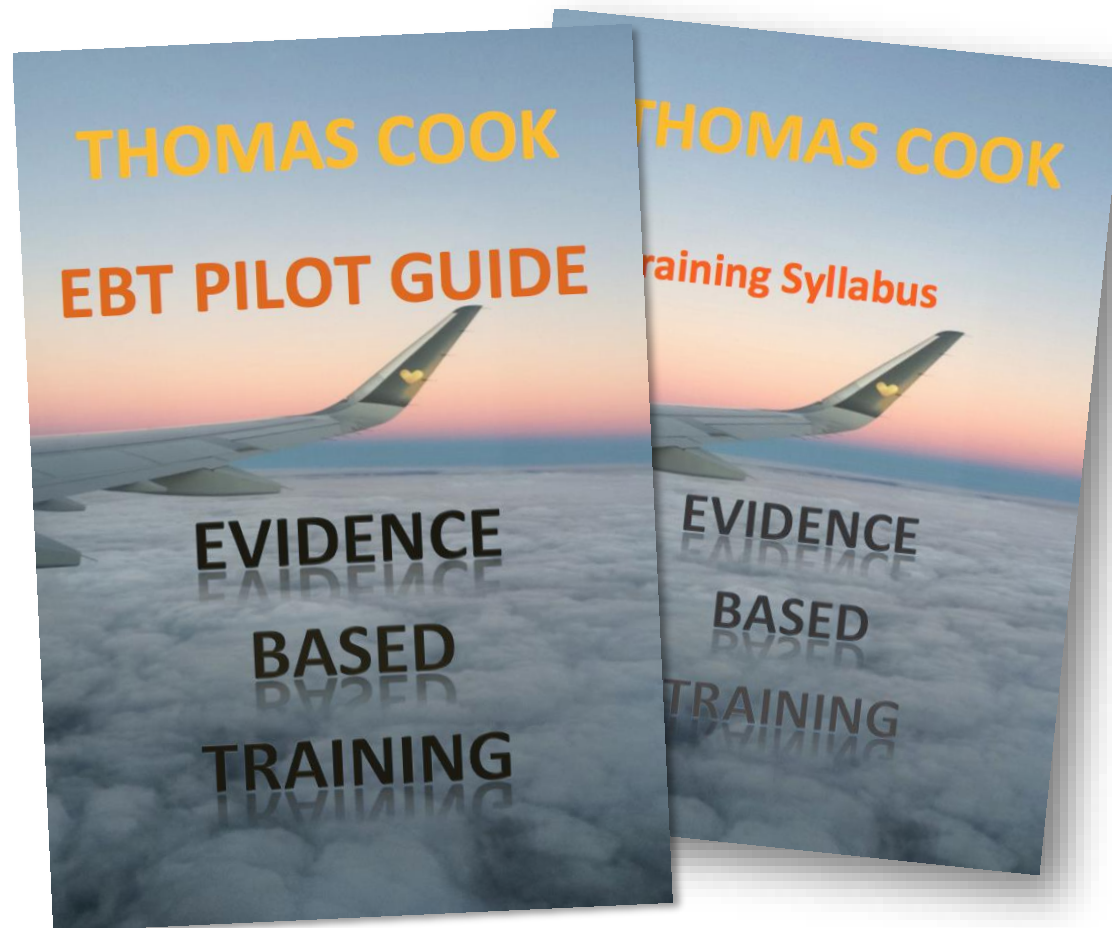
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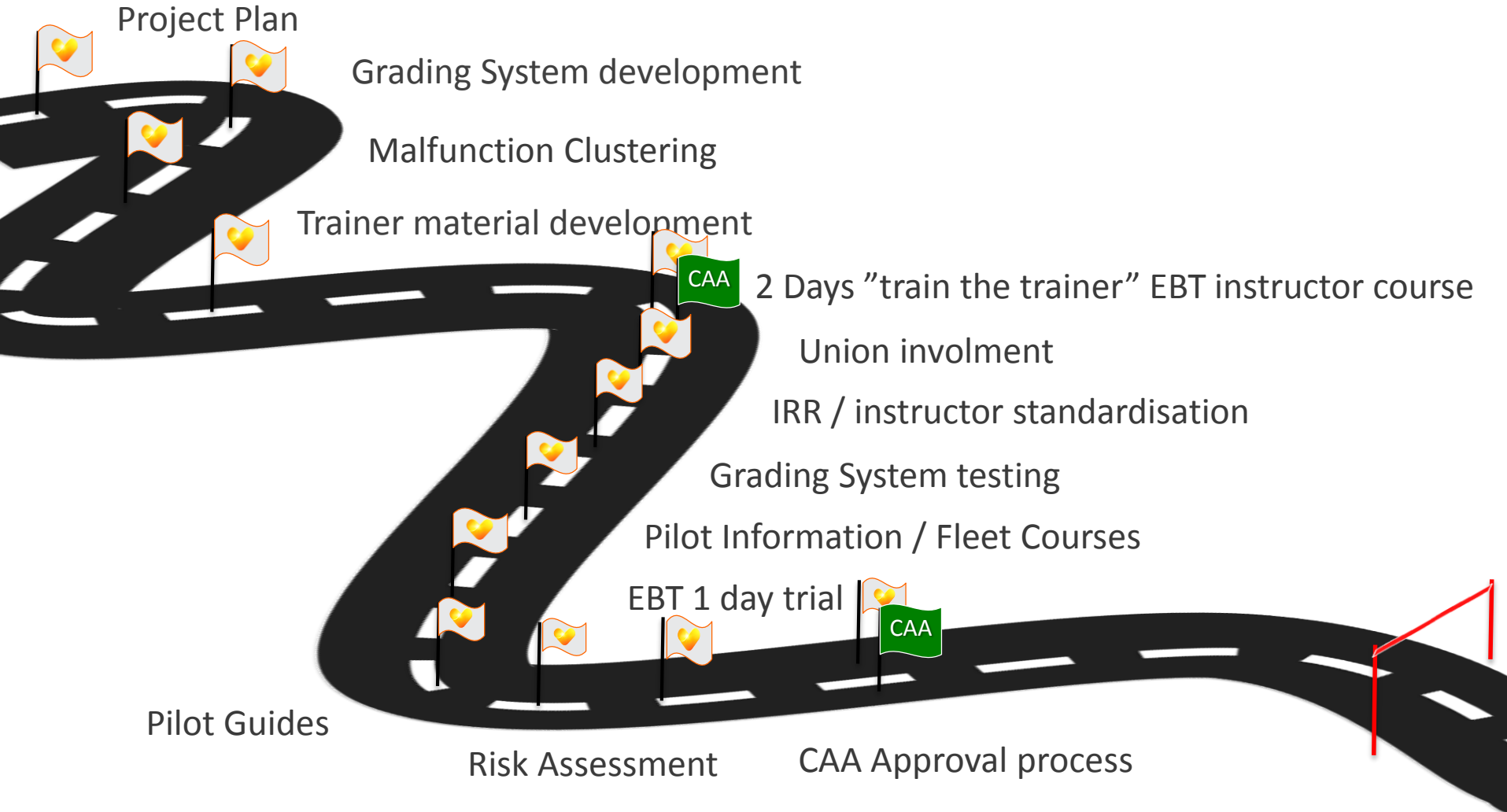
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Pilot Guides



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Thomas
Cook EBT
Application

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Regulatory considerations

- Current regulation covered and ...?

EBT integrated in the Management System/SMS and Compliance?

EBT training scenarios relevant to the Thomas Cook operation?

Documentation OM-A, OM-D....?

- Does the EBT program improve operational safety...?

Hazard identified, risk assessment/analysis, Management of Change and mitigation?

- Competency framework...?

e.g. assessment and grading system?

Regulatory considerations

- Instructors and examiners...?

EBT specific additional guidance/training and standardization on the required competencies and qualifications?

- Information to Flight Crews...?

Principles, methodology of the program and grading system?

- System for monitoring and ongoing evaluation...?

Effectiveness of the training system performance?

- Data, methods and tools...?

Established data collection and analysis procedures?

- Continuous Improvement...?

to be monitored.....

EBT course and work shop

September 2016 – a two day combined EBT course and work shop at the CAA.


Cooperation between the following participants:

- EBT Instructor
- CAA, FCL- and OPS Inspectors
- Thomas Cook EBT, NP Crew Training and CFI

Purpose:

- To provide the FCL- and OPS Inspectors with EBT theoretical training and knowledge
- Knowledge sharing between CAA and Operator
- Detailed presentation of the EBT Baseline application, Thomas Cook
- Application used as a case study
- Group work - specific element of the case study

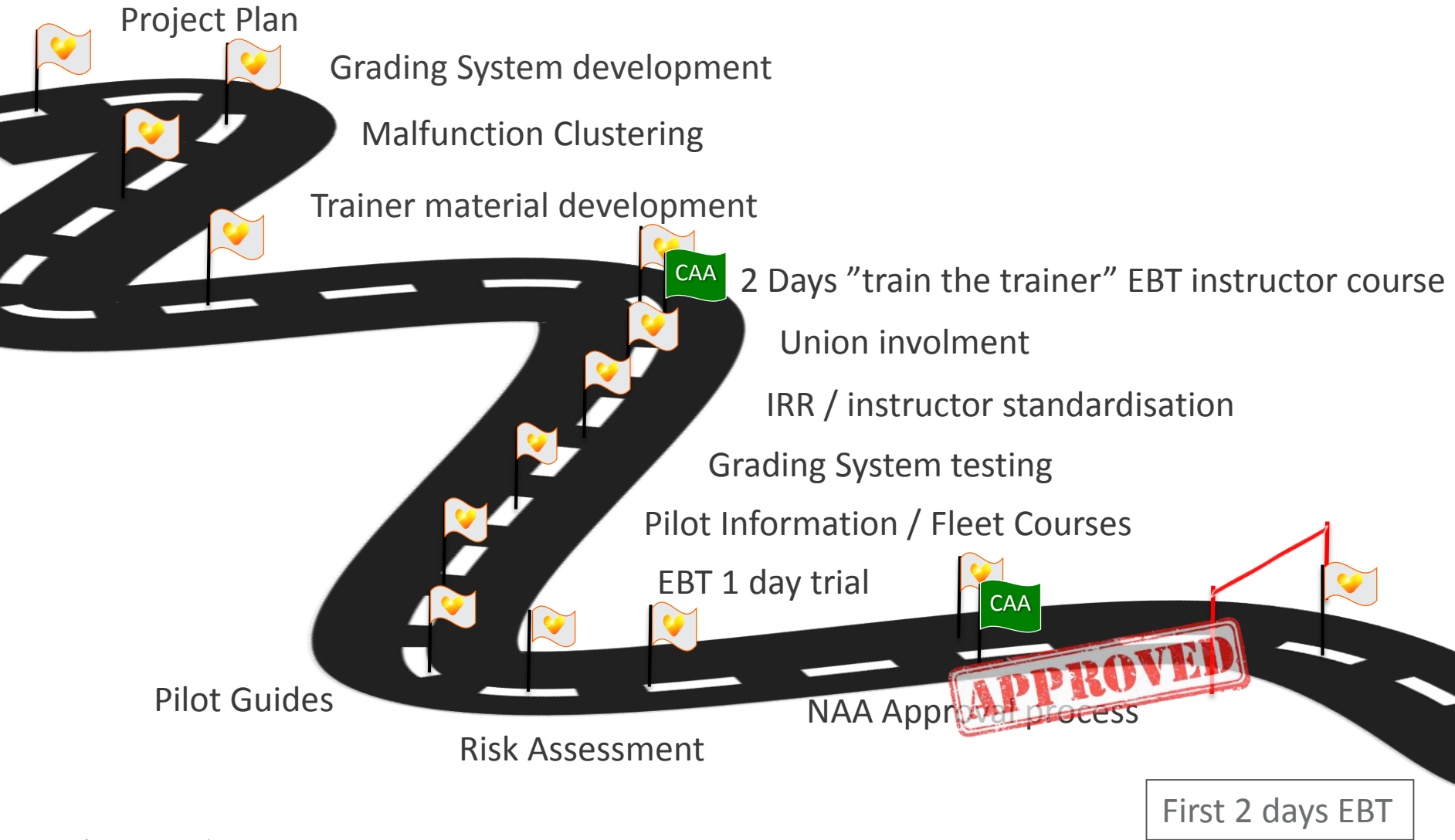
Regulatory approval process

- Joint venture with Thomas Cook
 - Knowledge sharing with the operator
 - Internal cross domain discussion – FCL and OPS
 - Analysis of Thomas Cook EBT Baseline application with reference to:
 - ICAO Doc 9995, IATA EBT Implementation Guide
 - (EU) No 965/2012 and related AMC/GM
 - (EU) No 1178/2011 and related AMC/GM
-  trial period established of 7 month – follow up and evaluation with the operator

Regulatory follow-up and CAA DK oversight

- Cooperation between operator and the CAA
- Ongoing oversight during the trial period
- May 2017
 - Follow up in the form of a joint venture
 - a two day EBT work shop at the CAA.
- Thomas Cook presents the evaluation results, issues and elements of concern and possible changes

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 **Thomas Cook Airlines**

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