Independent Training Organization

Traficom Industry Day 6.6.2023

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COPTERSAFETY IN BRIEF

- Coptersafety is 2013 founded privately owned independent simulator training provider located next to Helsinki Airport, Finland
- Coptersafety is owned by Finnish Private Equity investor (Sentica Partners) and its founders and management
- Coptersafety is EASA and UK CAA approved training organization ATO and is member of EASA Safety Task Force and HeliOffshore.
- Coptersafety FAA part 142 approval consist currently 2x AW139 + H145
- Currently offering training with two Leonardo AW139, AW169 and Airbus Helicopters H145 & H125 Level D Full Flight Simulators
- Coptersafety provides currently services for around 50 operators all around the world operating in the fields of SAR, Law Enforcement, Offshore, HEMS, Aerial Work and VVIP
- Example of Coptersafety Clientele from Public Sector: Irish Air Corps, Swedish Coast Guard, Guardia di Finanza and US Army
- Example of Coptersafety Clientele from Private Sector: Avincis, Bristow, PHI, Aramco, NHV, Boston Medflight

COPTERSAFETY TIMEFRAME

2013
- First AW139 simulator ordered

2015
- Private Equity Investor took on board to boost the future growth

2017
- H145 simulator RFT 10/2017
- New Facilities 11/2017

2019
- H125 simulator RFT 8/2019

- 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021+

2014
- FSTD and ATO approvals
- AW139 RFT 9/2014

2016
- Decision to invest to four new FFS
- Decision to build own facility
- Four new simulators ordered from TRU simulation & training 6/2016

2018
- AW139 simulator RFT 6/2018

2021
- AW169 simulator RFT 4/2021
- FAA part 142 12/2021
- UK CAA approvals 2022

AUDITS AND AUTHORITIES

COPTER SAFETY
ONE STEP AHEAD OF REALITY

WORLD OF COPTERSAFETY

Source: https://www.mapchart.net/world.html

AUDIT AND EVALUATION EVENTS IN NUMBERS

- 100+ events each year
  - Around 40 different Authority audit or evaluation events / year
  - Between 20-30 different customer audits / year
  - 26 internal audits in 2023 planned, around 20 internal inspections / year
- Funny example: H145 “big 3” evaluations in 2022
  - UK CAA 27.9.
  - Traficom (EASA) 3. – 4.10.
  - FAA 18. – 20.10.
  - SIM was blocked from commercial use 30+ hours within one month time period
  - 2023 H145 evaluations moved to AUG – **Thank you** for cooperation.
- One request for Authority cooperation:
  - Extended evaluation period when several authorities audit the same organization?
  - EASA and UK CAA every other year?

WORKING WITH DIFFERENT AUTHORITIES

- Similar at high level
- Biggest differences between FAA and EASA
- Other Authorities usually lean either towards FAA or EASA
  - Approve manuals with minor / no changes
  - Might approve FSTD evaluations
- Some differences with focus, processes and documentation

- Challenges for Coptersafety
  - Manage changes with different manuals
  - Ensure processes include all required items from all requirements

FAA	EASA	GACA	UK CAA
SQMS	OM-FS	OM-FS	OM-FS
FAA GOM	OMTM	GACA GOM	OMTM
SCMM	SCMM	SCMM	SCMM
Other	Other	Other	Other

Picture: Manual structure for some Authorities

RISKS

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ONE STEP AHEAD OF REALITY

MOST SEVERE IDENTIFIED RISKS

- Training with real aircraft
  - Coptersafety does not have own aircrafts
  - Good cooperation with providers
  - Procedures in place to reduce the risk

- Negative Training including availability of the training
  - Measured by snags (discrepancies/bugs) and downtime reports
  - Very active cooperation with Training Device Manufacturer
  - Good reporting culture
  - Training for personnel beyond Authority requirement

- These (and others) are monitored and discussed in quarterly Management Evaluations (SRB) and Compliance meetings

DIFFERENCES BETWEEN AUTHORITIES REGARDING USAGE OF REAL AIRCRAFT

- EASA (and UK CAA) requirements from Operational Suitability Data (OSD)
  - Initial Type Training (ITR)
  - Additional Type Training (ATR)
- FAA approves 100% in simulator
- Other Authorities go either EASA,FAA or combination

RISK MANAGEMENT – Real aircraft training

- Solutions for the real aircraft training
  - Customer aircraft under our ATO
  - Service provider aircraft under our ATO
  - Customer aircraft under their own ATO (if approved by Authority)
- Some authorities do NOT approve type training to be “split” between two ATOs

- Risk reduction strategies when using our own ATO
  - Reduce risk by using an instructor that also works for the subcontractor / customer to provide the training when ever possible
  - Additional internal guidelines and processes
  - Auditing / quality control
- Futrher reduced risk when using customer ATO
  - Recent experience with the location
  - Experience with the company own procedures
  - Might have experience with the individual aircraft
  - Etc

REAL AIRCRAFT TRAINING – PREFERRED METHODS

- 100% simulator +
  - For EASA a possibility to add additional items for operator training after ITR/ATR?
- If actual aircraft is required, the usage of customer ATO (if available) would be approved by all Authorities

- These would lessen or completely remove some of the environmental hazards
  - Weather
  - Technical issues
  - Scheduling challenges
  - Etc.

FUTURE

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SIMULATORS FOR EVTOLS?

- Simulator and real aircraft training depends on the requirements from Authorities
  - Rulemaking Task (RMT) 0196 estimated Q4 2028
  - OSD requirements
  - PPL, CPL, ATPL, other?
- Recurrent training
  - What?
  - How much?
- Emergency and abnormal training
  - Do we need a motion system for simulator to simulate movement during engine loss, etc?
  - Or handled by Parachute panic button?
- Navigation, ATC, airmanship etc skills and requirements?

- Active waiting and following the development

VIRTUAL / AUGMENTED / EXTENDED REALITY TRAINING DEVICES

- Extremely challenging since the EASA regulation RMT 0196 (CS.FSTD, ORA & ARA) estimated 2028
  - Will lay ground rules for these devices
  - Before that “Special conditions” and “Partially approved” for training and checking
- Big impact on acquisitions and upgrades
  - What can be done in future devices?
  - Investment for FFS devices is large compared to VR devices
- What are the effects for safety of training in short, medium and long term?
  - Too risky to order new FFS devices in short to medium term?
- Current technology not mature enough to provide some of the aspects of training
  - Peripheral vision
  - Usage of the onboard systems
- Authorities will decide how the business evolves by their decisions
  - If a device can be used for training and saves money -> organizations will react even with potential deficiencies
  - Small operators have little / no saying
- How to keep pilots from different regulators at same level of proficiency if different devices are approved by different Authorities? Or what “partially approved” means in different EASA countries?

ONE STEP AHEAD OF REALITY

IMPROVE YOUR SAFETY PERFORMANCE THROUGH
RELIABLE AND EFFICIENT SIMULATOR TRAINING

COPTER SAFETY

THANKS!