

SAFE SKIES.
SUSTAINABLE
FUTURE.





# Capt. Mudassir Khan

Chief Pilot ALS limited





Why are we here?

What do we aim to achieve?





Can you train
UPRT
effectively in
an aircraft?





# How many C208's operate in Kenya?

- 1) Over 50 aircraft
- 2) Over 150 Pilots
- 3) Over 30,500 hours per year
- 4) Over 10,000 passengers carried per year
- 5) Average experience level for PIC, 1000 hours total flight time.







# How do you develop a training plan?

### Pilot Profile:

- 1) Relatively new/inexperienced pilot
- 2) Minimal exposure, new environment/cultures
- 3) Competitive recruitment process
- 4) Job security

## Who are you training?

- 1) Single crew operations?
- 2) Multi-sector days?
- 3) Crew composition?
- 4) Passenger handling-PR?
- 5) Max duty-Min Rest
- 6) New hire pilots, minimal CRM experience
- 7) No simulator experience
- 8) Entry level fleet
- 9) Human Factors

Upset prevention and recovery training need to be tailored assuming the above







# Recognition-Recovery-Reporting

- 1) Culture
- 2) Positive criticism
- 3) Non-Punitive SMS reporting system
- 4) Open door policy

## ALS C208 UPRT Training

- 1) C208 UPRT is trained four times a year in ALS, however how can you train recovery techniques on the aircraft without putting the actual aircraft in an upset state? You can't.
- 2) You first have to train the trainers, are they competent to conduct and oversee such maneuvers?
- 3) Define the parameters for a safe training/checking event, time of day? Rest periods? Aircraft availability? Aircraft maintenance state? Weather? Hard deck? OMD.
- 4) How effective/useful is the UPRT exercise in the aircraft? Training aids? Ground training?
- 5) Focus on prevention
- 6) ALS spends approximately 90 hours of recurrent flight training per year for a pool of 15 flight crew





### Movement from B190 F.O to C208 Capt

Fleet/Rank	C208 F.O	B190 F.O	C208 Capt
Duration	6 months	2 years	

1) The above allows our pilots access to UPRT level-D training devices as B190 F.O's, this experience later helps us ensure a smoother/safer transition to C208 Captains, This however works in an ideal world, external factors may disrupt this progression. We have had to rely on a supply of DEC's to help crew this fleet.



# FSTD?

Cost:	8 C208'S	ROI
\$5,000,000	1200 hours	100 years









# How Can KCAA help?

Approval of KASAS C208 simulator as an approved training device, yes, it is a level two FTD however a consideration be made towards the flight time acquired on this device contributing to a percentage of flight training.

### 2. Cessna 208 Grand Caravan Ex G1000 Nxi

Category	Specification Details
FSTD Level	FTD-2 (Flight Training Device Level 2)
Aircraft Type	Cessna 208 Grand Caravan Ex with Reg No. 7Q-208
Engine	Pratt & Whitney PT6A-140 Turboprop Engine.
Avionics	Replica Garmin G1000 Nxi suite with integrated Autopilot (A/P) functionalities (ALT/VS, NAV/APP, VNAV/LPV).
Visual System	Euramec Direct Projection 3-channel system. Horizontal view 240° x Vertical view 40° Installed with Google orthophoto Images of East Africa scenery
Motion, Control & Aural	Fixed-base; high-fidelity acoustic model (PT6A spool/prop tones, flap/touchdown cues); responsive engine & prop dynamics for SOP/abnormal
Cockpit & controls	Realistic cockpit replica (caravan power/prop/condition levers; pedestal & overhead); 3-axis control-loading; crew intercom; instructor-driven failures
Navigation database	Jeppesen NavData (enroute, procedures) updated quarterly; terrain/obstacles and basemap enabled
Key Capability	Qualified for CAT I approaches, Night Training, Recency, IFR Training/Checks, and includes TCAS I and auto coupled Approach. Installed with Africa Airports with capability of setting specific date IMC conditions.

### 1.2. C208 (Cessna Grand Caravan EX) - Flight Training Device Level 2 (FTD-2)

Training Category	Corrected FSTD Credit (FTD-2)	Notes from EASA Guidance
Basic Flight Training		
Light Aircraft Pilot License (LAPL) Dual	NO	No credit is allowed for LAPL(A) in an FTD-2.
Private Pilot License (PPL) Dual/Solo	YES (5)	A maximum credit of 5 hours is allowed for both the Dual and Solo (PIC) portions.
Commercial Pilot License (CPL) Instrument Flight Instruction	YES (5)	Maximum credit is 5 hours.
Airline Transport Pilot License (ATPL) Instrument training	YES (40)	Maximum credit is 40 hours.
Airline Transport Pilot License (ATPL) MCC training	NO	No credit is allowed for ATPL MCC training in an FTD-2.
Modular	YES (5)	Applies to the instruction components of the modular course.
Type Rating		
Type Rating Course Single-Pilot (SP)	YES	
Type Rating Course Multi-Pilot (MP)	YES	
Zero Flight Time (ZFT) Type Rating Course	NO	



### FLIGHT SIMULATION TRAINING DEVICE (FSTD)

#### CERTIFICATE OF APPROVAL

File No: MCAA/FSTD/2025-02

Dated: 1th April 2025

Pursuant to the applicable Civil Aviation Regulations (CARs) and subject to the conditions specified below, the Malawi Civil Aviation Authority (MCAA) hereby certifies that:

FSTD No. MCAA/25/FSTD/02

Reg No. 7Q-208

S/N: MSN\_C208\_2

#### **CESSNA 208 Grand Caravan Ex with G1000 Nxi Avionics**

Located at:

#### **Think Aviation Training**

Dessert Locust Hangar | Wilson Airport.

Has satisfied the qualification requirements prescribed in the Malawi Civil Aviation Regulations (CARs) and remains subject to the conditions of the attached FSTD specifications.

The FSTD with reg no. **7Q-208** certificate of approval shall remain valid subject to FSTD and the holder of the certificate remaining in compliance with the applicable requirements of CARs unless it has been surrendered, superseded, suspended, or revoked.

Date of Initial Issue: 11th April 2025

The Director General Civil Aviation Authority Of Malawi

1 1 APR 2025

SAMUEL KALUA Private Bag 6311,

Director General of Civil Aviation

Attachment(s):

1. FSTD Certificate

Note:

The following numbers are listed on the certificate: MCAA current Project Number; MCAA/FSTD/2025-02

FSTD QUALIFICATION CERTIFICATE — 002/025, REV. 0 — Think Aviation Training Ltd., Nairobi-Kenya. MCAA Form 123, Issue 1 — 11/04/2025

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### So how do we train UPRT?

- 1) Ground briefing: The candidates are briefed extensively on the days training plan, they have an opportunity to review and discuss items with an aim of improving proficiency and mitigating any doubts or concerns. Focus on prevention/recognition
- 2) Crew Composition: Minimum of three pilots (One DCP/TRI onboard)
- 3) Time of day: Late afternoon to early evening, this allows us to also conduct night re-currency
- 4) Location: Anywhere flat, clear of terrain and traffic
- 5) Execution: DCP/TRI occupies an operating seat, either left or right. The PF has his vision reduced by using IFR goggles, the DCP/TRI enters the aircraft in an upset situation and once he/she announces 'you have control' the PF recovers the aircraft, if unable the DCP/TRI will retake control.





# What are we doing differently?

ALS ATO established to help feed our AOC with pilots.

This allows us to offer training better suited for our operations.



