PART 1.1 – COVERING NOTE

Sep 13

DG MAA

SERVICE INQUIRY INVESTIGATION INTO AN ACCIDENT INVOLVING A TUCANO TMk1 ZF349 ON 8 JAN 13

The Service Inquiry Panel assembled at RAF Linton-on-Ouse on 11 Jan 13 by order of the DG MAA for the purpose of investigating the accident involving Tucano TMk1 ZF349 and to make recommendations in order to prevent recurrence. The Panel has concluded its inquiries and submits the provisional report for the Convening Authority's consideration.

PRESIDENT

[redacted]
Lt Col
President ZF349

MEMBERS

[redacted]
Lt Cdr RN
Engineering Member ZF349

[redacted]
Sqn Ldr
Aircrew Member ZF349

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GLOSSARY

Acronym/ Abbreviation	Explanation
A2	Flying instructor qualification category.
ADR	Accident Data Recorder.
AEA	Aircrew Equipment Assemblies.
AFL	Actual Forced Landing.
agl	Above Ground Level.
ALARP	As Low As Reasonably Practicable.
AM	Air/Oxygen Mixture.
AOA	Aircraft Operating Authority.
AOC	Air Officer Commanding.
AoR	Area of Responsibility.
ASIMS	Air Safety Information Management System.
ASMP	Air Safety Management Plan.
ASMS	Air Safety Management System.
ATC	Air Traffic Control.
Attention Getter	Flashing warning light to attract the attention of the pilot.
AWC	Air Warfare Centre.
BROKEN	5 to 7 Octas of cloud cover.
CAM	Continuing Airworthiness Manager.
Cat	Category.
CDSDO	Chief of the Defence Staff Duty Officer.
CFS	Central Flying School.
Crew in	Process of pilot arriving at aircraft including the in-cockpit pre-start checks.
CTP	Chief Test Pilot.
Ctol	Certified to Instruct.
CWP	Central Warning Panel.
DA	Duty Authoriser.
DAO	Duty Aircrew Officer.
DAOS	Design Approved Organization Scheme.
DDH	Delivery Duty Holder.
DE&S	Defence Equipment and Support – The parent organisation for the management of procurement and support for equipment in the MOD. Individual or groups of equipment are managed by Project Teams within this organisation.
Dead side	The side of the runway away from the active circuit area.
DEM	Depth Engineering Maintenance.
DO	Design Organisation.
DSS	Duty Senior Supervisor.
ECU	Engine Change Unit.
EEC	Engine Electronic Control.
EGT	Exhaust Gas Temperature.
Eng	Engineering.
ERT	Emergency Response Team.
ESDL	Emergency Shut Down Lever.
FCU	Fuel Control Unit.
F700	The engineering record for a specific aircraft tail number.
FEW	1-2 Octas of cloud cover.
FEM	Forward Engineering Maintenance.
FL	Flight Level (Altitude based on Standard Pressure Setting of 1013hPa.
Flt Lt	Flight Lieutenant (OF2 Rank).

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FOD	Foreign Object Danger/Damage.
FRC	Flight Reference Cards.
ft	Feet.
FTS	Flight Test Schedule.
Gp	Group.
Gp Capt	Group Captain (OF5 rank).
GPS	Global Positioning System.
HF	Human Factors.
HP	Handling Pilot.
HQ 22(Trg) Gp	Headquarters 22 (Training) Group.
hrs	Hours.
Initials	Geographical point 3nm on the centreline of the active runway.
IFR	Instrument Flight Rules.
IO	On-scene Incident Officer – fire officer who takes charge initially.
JARTS	Joint Aircraft Recovery and Transportation Squadron.
JSP	Joint Service Publication.
kg	Kilograms.
kts	Knots (Indicated Air Speed).
Km	Kilometres.
LDA	Landing Distance Available.
LGSL	Landing Gear Selector Lever – selects landing gear using the normal system.
Live side	The active side of the runway in use.
MAA	Military Aviation Authority.
MAOS	Maintenance Approved Organization Scheme.
MAP	Maintenance and Airworthiness Processes.
MFV	Major Foam Vehicle.
MIG	Materials Integrity Group.
MilAAIB	Military Air Accident Investigation Branch.
min	Minute.
MFTS	Military Flying Training System.
Mk	Mark.
MPCM	Manual of Post Crash Management.
MRP	Military Aviation Authority Regulatory Publications.
MOD	Ministry of Defence.
NHP	Non-Handling Pilot.
nm	Nautical Mile.
NTS	Negative Torque Sensing system.
OAT	Outside Air Temperature.
OC	Officer Commanding.
Octas	The unit of measurement for cloud cover. 1 Octa of cloud would equate to an eighth of the sky being obscured. 8 Octas refers to a sky that has total cloud coverage.
ODH	Operational Duty Holder.
OEM	Original Equipment Manufacturer.
Ops	Operations.
PAPI	Precision Approach Path Indicator.
PCMIO	Post Crash Management Incident Officer.
PCM	Post Crash Management.
PEC	Personal Equipment Connector.
PFL	Practice Forced Landing.
PIDAT	Post Incident Drug and Alcohol Testing.
PIE	Pilot Initiated Event.
PSP	Personal Survival Pack.
POL	Petrol, Oil, Lubricants.

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PT	Project Team.
PTF	Partial Test Flight.
QFE	Atmospheric pressure at aerodrome elevation (or at runway threshold).
QFI	Qualified Flying Instructor.
QNH	Altimeter subscale setting to obtain elevation when on the ground.
QRF	Quick Release Fitting.
RA	Regulatory Article.
RAF	Royal Air Force.
RAF CAM	Royal Air Force Centre of Aviation Medicine.
RIV	Rapid Intervention Vehicle.
RPM	Revolutions Per Minute.
RR	Risk Register.
RtL	Risk to Life.
RTS	Release To Service.
SAR	Search and Rescue.
secs	Seconds.
SFSO	Station Flight Safety Officer.
SHE	Safety Health Environment.
SI	Service Inquiry.
SLS	Standby Lowering System – landing gear.
SME	Subject Matter Expert.
SMO	Station Medical Officer.
SNOW	Serial Number Of Work.
SOP	Standard Operating Procedure.
SQEP	Suitably Qualified and Experienced Person.
Sqn	Squadron.
Sqn Ldr	Squadron Leader (OF3 rank).
SSL	Standby Selector Lever – selects landing gear using the standby system.
Stn	Station.
Stn Cdr	Station Commander.
SUTTO	Start Up, Taxi and Take Off.
TAA	Type Airworthiness Authority.
TACAN	Tactical air navigation system.
TGSA	Tucano Glider Support Authority.
TGO	Training Group Orders (fixed wing) specific to Headquarters 22(Training) Group.
TOLERABLE	The zone between UNACCEPTABLE and BROADLY ACCEPTABLE risks is the TOLERABLE region. Risks in this region typically arise from activities that Aviation Duty Holders are prepared to tolerate in order to secure benefits, in the expectation that: • The nature and level of the risks are properly assessed and the results used properly to determine control measures. The assessment of the risks needs to be based on the best available evidence and, where evidence is lacking, on the best available advice. • The residual risks are not unduly high, in accordance with extant MAA guidance, and ALARP. • The risks are periodically reviewed to ensure that they still meet the ALARP criteria.
TM	Torque Motor.

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TQ	Indicated engine torque.
TRiM	Trauma Risk Management.
TRP	Test Reference Point.
UK MFTS PT	UK Military Flying Training System Project Team – procures and supports all equipment associated with flying training e.g. aircraft, specialist tooling and training solutions.
UTP	Unit Test Pilot.
VFR	Visual Flight Rules.
Warned out	To notify or inform.
Wg Cdr	Wing Commander (OF4 Rank).

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