

Democratic Socialist Republic of Sri Lanka**Civil Aviation Authority of Sri Lanka****Implementing Standards**

(Issued under Section 120, Civil Aviation Act No. 14 of 2010)

Title: Definitions, Abbreviations and Symbols for terms used in Air Operations**IS Reference Code:** CA-IS-6-(i)-1**Date of Issue:** 30.01.2025

Pursuant to Section 120 of the Civil Aviation Act No.14 of 2010 (hereinafter referred to as the CA Act), Director General of Civil Aviation (hereinafter referred to as the DGCA) shall have the power to issue, whenever he considers it necessary or appropriate to do so, such Implementing Standards for the Purpose of giving effect to any provision in the CA Act, Regulations or Rules made thereunder including the Articles of the Convention on International Civil Aviation specified in the Schedule to the CA Act,

Accordingly, I, being the DGCA do hereby issue the Implementing Standards on **Definitions, Abbreviations and Acronyms for terms used in Air Operations** as mentioned in the Attachment hereto (**Ref: Attachment No IS-6-(i)-1**) elaborating the requirements to be satisfied for the effective implementation of the International Standards and Recommended Practices contained in ICAO Annex 6.

This implementing Standard shall be applicable to any person/operator engaged in commercial, non-commercial air operations, Foreign Air Operator Certificate holders and any applicant seeking an Air Operator Certificate or Foreign Air Operator Certificate and shall come in to force with effect from 30th of January 2025 and remain force unless revised/revoked.

This Implementing Standard will supersede 02nd Edition, Rev 00 of Implementing Standard 011 dated 28th November 2022 issued by the DGCA.

Attention is also drawn to Section 103 of the CA Act, which states inter alia that failure to comply with any Implementing Standard is an offence. Further, if any standard stipulated in this Implementing Standard is not complied with or violated, an appropriate enforcement action will be taken as per the Aviation Enforcement Policy and Procedures Manual, SLCAP 0005 by the DGCA under Section 102 of the CA Act,

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Air Vice Marshal Sagara Kotakadeniya(retd)
Director General of Civil Aviation and
Chief Executive Officer

Enclosure: Attachment No. IS-6-(i)-1-Att-0

PREAMBLE

1. Notice to the Recipient

1.1. The requirements in this Implementing Standard are based on the Standards and Recommended Practices (SARPs) adopted by the International Civil Aviation Organization (ICAO) and incorporated in the Amendment No. 49 to Annex 06 Part I, Amendment 41 to Annex 06 Part II and Amendment 25 to Annex 06 Part III. The requirements stipulated in this Implementing Standard are in line with EASA Easy Access Rules for Air Operations (EAR for Air OPS) Revision 21, September 2023.

1.2. In pursuance of the obligation cast under Article 38 of the Convention which requires the Contracting States to notify the ICAO of any differences between the national regulations of the States and practices and the International Standards contained in the respective Annex and any amendments thereto, the CAASL will be taking steps to notify ICAO of such differences relating to either a Standard or a Recommended Practice, if any. The CAASL will also keep the ICAO currently informed of any differences which may subsequently occur, or of the withdrawal of any differences previously notified. Furthermore, the CAASL will take steps for the publication of differences between the national regulations and practices and the related ICAO Standards and Recommended Practices through the Aeronautical Information Service, which is published in accordance with the provisions in the Annex-15 to the Convention.

1.3. Taking into account of the ICAO council resolution dated 13 April 1948 which invited the attention of Contracting States of the desirability of using in the State's national regulations, as far as is practicable, the precise language of those ICAO Standards that are of a regulatory character, to the greatest extent possible the CAASL has attempted to retain the ICAO texts in the Annex in drafting this Implementing Standard.

1.4. Status of ICAO Annex components in the Implementing Standard

Some of the components in an ICAO Annex are as follows and they have the status as indicated:

1.4.1. **Standard:** Any specification for physical characteristics, configuration, material, performance, personnel or procedure, the uniform application of which is recognized as necessary for the safety or regularity of international air navigation and to which Contracting States will conform in accordance with the Convention; in the event of impossibility of compliance, notification to the Council is compulsory under Article 38. The ICAO Standards are reflected in the Implementing Standards if they are locally implemented using the normal fonts and recipients are required to conform to such requirements invariably.

1.4.2. **Recommended Practice:** Any specification for physical characteristics, configuration, material, performance, personnel or procedure, the uniform application of which is recognized as desirable in the interest of safety, regularity, efficiency or environmentally responsiveness of international air navigation, and to which Contracting States will endeavor to conform in accordance with the Convention. The ICAO Recommended Practices are reflected in the Implementing Standards in italic fonts and the Recipients are encouraged to implement them to the greatest extent possible.

1.4.3. **Appendices:** Comprising material grouped separately for convenience but forming part of the Standards and Recommended Practices adopted by the Council. Enforcement action on such matters will be as in the case of Standards or Recommended Practices.

1.4.4. **Definitions:** A definition does not have independent status but is an essential part of each Standard and Recommended Practice in which the term is used, since a change in the meaning of the term would affect the specification.

1.4.5. **Tables and Figures:** add to or illustrate a Standard or Recommended Practice, and which are referred to therein, form part of the associated Standard or Recommended Practice and have the same status.

IMPLEMENTING STANDARDS

SLCAIS-011: Definitions, Abbreviations and Symbols for terms used in Air Operations

1. GENERAL

- 1.1. Requirements contained in this document are based on ICAO Annex 6, amendment 49 to Part I, amendment 41 to Part II and amendment 25 to Part III and align with EASA Easy Access Rules – Air Operations (EAR for Air OPS) Revision 21, September 2023.
- 1.2. This Implementing Standard supersedes the SLCAIS – 011, 2nd Edition Rev: 00 issued by the DGCA on 28th November 2022.
- 1.3. This document may be amended from time to time and the amendments will be reflected with the vertical line on the right side of the text.

2. REFERENCES

- 2.1. ICAO Annex 6 Part I, Amendment 49
- 2.2. ICAO Annex 6 Part II, Amendment 41
- 2.3. ICAO Annex 6 Part III, Amendment 25
- 2.4. EASA Easy Access Rules- Air Operations, Revision 21, September 2023

3. APPLICABILITY

- 3.1. Any Commercial Air Operator who has its principal place of business in Sri Lanka.
- 3.2. Any Non Commercial Air Operator registered in Sri Lanka.
- 3.3. Any prospective applicant for Commercial/ Non- Commercial Air Operations.

HISTORY OF REVISIONS

Rev No.	Source	Areas Subjected to Change	Effective Date
1 st Edition Rev:02	ICAO Annex 06 Part 1 Chapter 1	All IS	09.02.2018
2 nd Edition Rev.00	ICAO Annex 06 Part 1 Chapter 1	ALL	28.11.2022
3 rd Edition Rev.00	Name changed to include abbreviations and symbols. Include ICAO Annex 6 part I (Amnd 49), II (Amnd 41), and III (Amnd 25) Include EASA Easy Access OPS Rules Annex 1 – Definitions (Rev. 21/Sept.2023)	ALL	30.01.2025

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ABBREVIATIONS AND ACRONYMS

2D	- Two-dimensional	ANP	- Actual Navigation Performance
3D	- Three-dimensional	AOC	- Aeronautical Operational Control
A	- Aeroplane	AOC	- Air Operator Certificate
a/c	- Aircraft	APCH	- Approach
AAC	- Aeronautical Administrative Communications	APP	- Approach
AAIM	- Aircraft Autonomous Integrity Monitoring	APU	- Auxiliary Power Unit
AAL	- Above Aerodrome Level	APV	- Approach Procedure With Vertical Guidance
ABAS	- Aircraft-Based Augmentation System	AR	- Authorization Required
AC	- Advisory Circular	ARA	- Airborne Radar Approach
AC	- Alternating Current	ARINC	- Aeronautical Radio, Incorporated
ACAS	- Airborne Collision Avoidance System	A-RNP	- Advanced Required Navigation Performance
ADF	- Automatic Direction Finder	ARP	- Aerospace Recommended Practices
ADG	- Air Driven Generator	ASC	- Air Safety Committee
ADRS	- Aircraft Data Recording System	ASDA	- Accelerate Stop Distance Available
ADS	- Automatic Dependent Surveillance	ASE	- Altimetry System Error
ADS-B	- Automatic Dependent Surveillance – Broadcast	ASIA/PAC	- Asia/Pacific
ADS-C	- Automatic Dependent Surveillance — Contract	ATA	- Air Transport Association
AEO	- All Engines Operative	ATC	- Air Traffic Control
AFCS	- Automatic Flight Control System	ATIS	- Automatic Terminal Information Service
AFFF	- Aqueous Film Forming Foams	ATM	- Air Traffic Management
AFM	- Aircraft Flight Manual	ATN	- Aeronautical Telecommunication Network
AFN	- Aircraft Flight Notification	ATPL	- Airline Transport Pilot Licence
AFN	- ATS Facilities Notification	ATQP	- Alternative Training And Qualification Programme
AGA	- Aerodromes, Air Routes And Ground Aids	ATS	- Air Traffic Services
AGL	- Above Ground Level	ATSC	- Air Traffic Service Communication
AHRS	- Attitude Heading Reference System	AVGAS	- Aviation Gasoline
AIG	- Accident Investigation And Prevention	AVTAG	- Aviation Turbine Gasoline (Wide-Cut Fuel)
AIR	- Airborne Image Recorder	AWO	- All Weather Operations
AIREP	- Air-Report	BALS	- Basic Approach Lighting System
AIRS	- Airborne Image Recording System	Baro	- Barometric VNAV
AIS	- Aeronautical Information Service	VNAV	
ALAP	- Aerodrome Landing Analysis Programme	BCAR	- British Civil Airworthiness Requirements
ALARP	- As Low As Reasonably Practicable	BITD	- Basic Instrument Training Device
ALD	- Actual Landing Distance	CAP	- Controller Access Parameters
ALSF	- Approach Lighting System With Sequenced Flashing Lights	CARS	- Cockpit Audio Recording System
AMC	- Acceptable Means Of Compliance	CAS	- Calibrated Airspeed
AML	- Aircraft Maintenance Licence	CAT	- Commercial Air Transport
AMSL	- Above Mean Sea Level	CAT	- Category I/II/III
		I/II/III	

CBT	- Computer-Based Training	DLRS	- Data Link Recording System
CC	- Cabin Crew	DME	- Distance Measuring Equipment
CDFA	- Continuous Descent Final Approach	D-METAR	- Data Link - Meteorological Aerodrome Report
CDL	- Configuration Deviation List	D-OTIS	- Data Link - Operational Terminal Information Service
CFIT	- Controlled Flight Into Terrain	DPATO	- Defined Point After Take-Off
CG	- Centre Of Gravity	DPBL	- Defined Point Before Landing
CLB	- Climb	DR	- Decision Range
CM	- Context Management	DSTRK	- Desired Track
cm	- Centimeter		
CMV	- Converted Meteorological Visibility		
C of A	- Certificate Of Airworthiness	EBT	- Evidence-Based Training
COM	- Communication (EBT Competency)	EDTO	- Extended Diversion Time Operations
COMAT	- Operator Material	EFB	- Electronic Flight Bag
COP	- Code Of Practice	EFIS	- Electronic Flight Instrument System
C of R	- Certificate Of Registration	EFVS	- Enhanced Flight Vision System
COSPAS-SARSAT	- Cosmicheskaya Sistyema Poiska Avarynich Sudov - Search And Rescue Satellite-Aided Tracking	EFVS-A	- Enhanced Flight Vision System Used For Approach
CP	- Committal Point	EFVS-L	- Enhanced Flight Vision System Used For Landing
CPA	- Closest Point Of Approach	EGT	- Exhaust Gas Temperature
CPDLC	- Controller-Pilot Data Link Communications	ELT	- Emergency Locator Transmitter
C-PED	- Controlled Portable Electronic Device	ELT (AD)	- Automatic Deployable Elt
CPL	- Commercial Pilot Licence	ELT (AF)	- Automatic Fixed Elt
CRE	- Class Rating Examiner	ELT (AP)	- Automatic Portable Elt
CRI	- Class Rating Instructor	ELT(S)	- Survival ELT
CRM	- Crew Resource Management	EPE	- Estimated Position Of Error
CRZ	- Cruise	EPR	- Engine Pressure Ratio
CS	- Certification Specifications	EPU	- Estimated Position Of Uncertainty
CSP	- Communication Service Provider	ERA	- En-Route Alternate (Aerodrome)
CVR	- Cockpit Voice Recorder	ERP	- Emergency Response Plan
CVS	- Combined Vision System	EUROCAE	- European Organization For Civil Aviation Equipment
		EVAL	- Evaluation Phase
DA	- Decision Altitude	EVS	- Enhanced Vision System
DA/H	- Decision Altitude/Height		
DAP	- Downlinked Aircraft Parameters	FAA	- Federal Aviation Administration
D-ATIS	- Digital Automatic Terminal Information Service	FAF	- Final Approach Fix
DC	- Direct Current	FALS	- Full Approach Lighting System
DCL	- Departure Clearance	FANS	- Future Air Navigation System
DES	- Descent	FAP	- Final Approach Point
D-FIS	- Data Link-Flight Information Services	FAR	- Federal Aviation Regulation
DG	- Dangerous Goods	FAS	- Final Approach Segment
DH	- Decision Height	FATO	- Final Approach And Take-Off
DI	- Daily Inspection	FC	- Flight Crew
DIFF	- Deck Integrated Fire-Fighting System	FCL	- Flight Crew Licensing
DLR	- Data Link Recorder	FCOM	- Flight Crew Operating Manual
		FDAP	- Flight Data Analysis Programmes

FDM	- Flight Data Monitoring	GPWS	- Ground Proximity Warning System
FDO	- Flying Display Operation		
FDR	- Flight Data Recorder		
FFS	- Full Flight Simulator		
FGS	- Flight Control/Guidance System	H	- Helicopter
FI	- Flight Instructor	HEMS	- Helicopter Emergency Medical Service
FL	- Flight Level		
FLIPCY	- Flight Plan Consistency	HF	- High Frequency
FLTA	- Forward-Looking Terrain Avoidance	Hg	- Mercury
FM	- Frequency Modulation	HHO	- Helicopter Hoist Operation
FMECA	- Failure Mode, Effects And Criticality Analysis	HIALS	- High Intensity Approach Lighting System
FMS	- Flight Management System	HIGE	- Hover In Ground Effect
FNPT	- Flight And Navigation Procedures Trainer	HLL	- Helideck Limitations List
FOD	- Foreign Object Damage	HOGE	- Hover Out Of Ground Effect
FOSA	- Flight Operational Safety Assessment	HoT	- Hold-Over Time
FOV	- Field Of View	hPa	- Hectopascal
FPA	- Flight Path Management — Automation (EBT Competency)	HPL	- Human Performance And Limitations
FPM	- Flight Path Management — Manual Control (EBT Competency)	HUD	- Head-Up Display
fpm	- Feet Per Minute	HUDLS	- Head-Up Guidance Landing System
FRT	- Fixed Radius Transition	HUMS	- Health Usage Monitor System
FSTD	- Flight Simulation Training Device	IAF	- Initial Approach Fix
ft	- Feet	IALS	- Intermediate Approach Lighting System
FTD	- Flight Training Device	IAP	- Instrument Approach Procedure
FTE	- Full Time Equivalent	ICAO	- International Civil Aviation Organization
FTL	- Flight And Duty Time Limitations	IDE	- Instruments, Data And Equipment
ft/min	- Feet Per Minute	IF	- Intermediate Fix
g	- Gram	IFR	- Instrument Flight Rules
G	- Normal Acceleration	IFSD	- In-Flight Shutdown
GAGAN	- GPS Aided Geo Augmented Navigation	IGE	- In Ground Effect
GBAS	- Ground-Based Augmentation System	ILS	- Instrument Landing System
GCAS	- Ground Collision Avoidance System	IMC	- Instrument Meteorological Conditions
GEN	- General	in	- Inches
GIDS	- Ground Ice Detection System	inHg	- Inch Of Mercury
GLS	- GBAS Landing System	INS	- Inertial Navigation System
GM	- Guidance Material	IP	- Intermediate Point
GMP	- General Medical Practitioner	IRS	- Instrument Rating
GND	- Ground	IS	- Implementing Standard
GNSS	- Global Navigation Satellite System	ISA	- International Standard Atmosphere
GPS	- Global Positioning System	ISI	- In-Seat Instruction
		ISO	- International Organization For Standardization
		IV	- Intravenous

JAA	- Joint Aviation Authorities	MALS	- Medium Intensity Approach Lighting System
JAR	- Joint Aviation Requirements	MALSF	- Medium Intensity Approach Lighting System With Sequenced Flashing Lights
kg	- Kilogram	MALSR	- Medium Intensity Approach Lighting System With Runway Alignment Indicator Lights
kg/M ²	- Kilogram per Metre Squared	MAPt	- Missed Approach Point
km	- Kilometer	MCTOM	- Maximum Certified Take-Off Mass
km/h	- Kilometer per Hour	MDA	- Minimum Descent Altitude
KNO	- Application Of Knowledge (EBT Competency)	MDA/H	- Minimum Descent Altitude/Height
kt	- Knots	MDH	- Minimum Descent Height
kt/s	- Knots Per Second	MEA	- Minimum En-Route Altitude
lb	- Pound	MED	- Medical
lbf	- Pound-Force	MEL	- Minimum Equipment List
LDA	- Landing Distance Available	METAR	- Meteorological Aerodrome Report
LDF	- Landing Distance Factor	MGA	- Minimum Grid Altitude
LDG	- Landing	MHA	- Minimum Holding Altitude
LDP	- Landing Decision Point	MHz	- Megahertz
LDTA	- Landing Distance At Time Of Arrival	MID	- Midpoint
LED	- Light Emitting Diode	MLR	- Manuals, Logs And Records
LHO	- Local Helicopter Operation	MLS	- Microwave Landing System
LHS	- Left-Hand Seat	MLX	- Millilux
LIFUS	- Line Flying Under Supervision	mm	- Millimetres
LNAV	- Lateral Navigation	MM	- Multi-Mode
LoA	- Letter Of Acceptance	MMEL	- Master Minimum Equipment List
LOC	- Localizer	MNPS	- Minimum Navigation Performance Specifications
LOC-I	- Loss Of Control In-Flight	MOC	- Minimum Obstacle Clearance
LOE	- Line-Oriented Evaluation	MOCA	- Minimum Obstacle Clearance Altitude
LOFT	- Line-Oriented Flight Training	MOPS	- Minimum Operational Performance Specification
LOQE	- Line-Oriented Quality Evaluation	MOPSC	- Maximum Operational Passenger Seating Configuration
LOS	- Limited Obstacle Surface	MORA	- Minimum Off-Route Altitude
LP	- Localizer Performance	MPSC	- Maximum Passenger Seating Capacity
LPV	- Localizer Performance With Vertical Guidance	m/s	- Meters Per Second
LRCS	- Long Range Communication System	m/s ²	- Meters Per Second Squared
LRNS	- Long Range Navigation System	MSA	- Minimum Sector Altitude
LSAA	- Landing System Assessment Area	MSAS	- Multi-Functional Satellite Augmentation System
LTW	- Leadership And Teamwork (EBT Competency)	MT	- Manoeuvres Training Phase
LVO	- Low Visibility Operation	MTCA	- Minimum Terrain Clearance Altitude
LVP	- Low Visibility Procedures		
LVTO	- Low Visibility Take-Off		
m	- Metres	N	- Newton
mb	- Millibar		

N	- North	OPS	- Operations
N ₁	- Low Pressure Compressor Speed (Two-Stage Compressor); Fan Speed (Three Stage Compressor)	ORO	- Organization Requirements For Air Operations
N ₂	- High Pressure Compressor Speed (Two-Stage Compressor); Intermediate Pressure Compressor Speed (Three-Stage Compressor)	OTS CAT II	- Other Than Standard Category II
N ₃	- High Pressure Compressor Speed (Three Stage Compressor)	PANS	- Procedures For Air Navigation Services
NADP	- Noise Abatement Departure Procedure	PAPI	- Precision Approach Path Indicator
NALS	- No Approach Lighting System	PAR	- Precision Approach Radar
NAV	- Navigation	PBC	- Performance-Based Communication
NCC	- Non-Commercial Operations With Complex Motor-Powered Aircraft	PBCS	- Performance-Based Communication And Surveillance
NCO	- Non-Commercial Operations With Other-Than-Complex Motor-Powered Aircraft	PBE	- Protective Breathing Equipment
N _F	- Free Power Turbine Speed	PBN	- Performance-Based Navigation
N _G	- Engine Gas Generator Speed	PBS	- Performance-Based Surveillance
NM	- Nautical Miles	PC/PT	- Proficiency Check/Proficiency Training
NOTAM	- Notice To Airmen	PCDS	- Personnel Carrying Device System
NOTECHS	- Non-Technical Skills Evaluation	PDA	- Premature Descent Alert
NOTOC	- Notification To Captain	PDP	- Predetermined Point
NPA	- Non-Precision Approach	PED	- Portable Electronic Device
NPA	- Notice Of Proposed Amendment	PFC	- Porous Friction Course
NSE	- Navigation System Error	PIC	- Pilot-In-Command
NVD	- Night Vision Device	PIN	- Personal Identification Number
NVG	- Night Vision Goggles	PIS	- Public Interest Site
NVIS	- Night Vision Imaging System	PLB	- Personal Locator Beacon
		PNR	- Point Of No Return
		POH	- Pilot's Operating Handbook
		PRM	- Person With Reduced Mobility
		PRO	- Application Of Procedures (EBT Competency)
		PSD	- Problem-Solving & Decision Making (EBT Competency)
OAT	- Outside Air Temperature	PVD	- Paravirtual Display
OB	- Observable Behaviour		
OCA	- Obstacle Clearance Altitude	QAR	- Quick Access Recorder
OCA/H	- Obstacle Clearance Altitude/Height	QFE	- Atmospheric Pressure At Aerodrome Elevation / Runway Threshold
OCH	- Obstacle Clearance Height	QNH	- Atmospheric Pressure At Nautical Height
OCL	- Oceanic Clearance		
ODALS	- Omnidirectional Approach Lighting System		
OEI	- One-Engine-Inoperative		
OFS	- Obstacle-Free Surface		
OFZ	- Obstacle Free Zone		
OGE	- Out Of Ground Effect		
OIP	- Offset Initiation Point		
OM	- Operations Manual		
OML	- Operational Multi-Pilot Limitation	RA	- Resolution Advisory
ONC	- Operational Navigation Chart	RAIM	- Receiver Autonomous Integrity Monitoring

RAT	-	Ram Air Turbine	SAW	-	Situation Awareness (EBT Competency)
RCAM	-	Runway Condition Assessment Matrix	SBAS	-	Satellite-Based Augmentation System
RCC	-	Rescue Coordination Centre	SBT	-	Scenario-Based Training
RCF	-	Reduced Contingency Fuel	SCC	-	Senior Cabin Crew
RCLL	-	Runway Centre Line Lights	SCP	-	Special Category Of Passenger
RCP	-	Required Communication Performance	SDCM	-	System Of Differential Correction And Monitoring
RCR	-	Runway Condition Report	SFE	-	Synthetic Flight Examiner
RF	-	Radius To Fix	SFI	-	Synthetic Flight Instructor
RF	-	Radio Frequency	SID	-	Standard Instrument Departure
RFC	-	Route Facility Chart	SMM	-	Safety Management Manual
RI	-	Ramp Inspection	SMS	-	Safety Management System
RI	-	Rectification Interval	SNAS	-	Satellite Navigation Augmentation System
RIE	-	Rectification Interval Extension	SOP	-	Standard Operating Procedure
RMA	-	Regional Monitoring Agency	SPA	-	Operations Requiring Specific Approvals
RNAV	-	Area Navigation	SPECI	-	Aviation Selected Special Weather Report
RNP	-	Required Navigation Performance	SPO	-	Specialized Operations
RNP	-	RNP Approach	SRA	-	Surveillance Radar Approach
APCH			SSALF	-	Simplified Short Approach Lighting System With Sequenced Flashing Lights
RNP AR	-	RNP Approach For Which Authorization Is Required	SSALR	-	Simplified Short Approach Lighting System With Runway Alignment Indicator Lights
APCH			SSALS	-	Simplified Short Approach Lighting System
ROD	-	Rate Of Descent	SSEC	-	Static Source Error Correction
RP	-	Rotation Point	SSR	-	Secondary Surveillance Radar
RSP	-	Required Surveillance Performance	SST	-	Supersonic Transport
RTCA	-	Radio Technical Commission For Aeronautics	STAR	-	Standard Terminal Arrival Route
RTODAH	-	Rejected Take-Off Distance Available (Helicopters)	STC	-	Supplemental Type Certificate
RTODRH	-	Rejected Take-Off Distance Required (Helicopters)	STOL	-	Short Take-Off And Landing
RTOM	-	Reduced Take-Off Mass	SVS	-	Synthetic Vision System
RTZL	-	Runway Touchdown Zone Lights			
RVR	-	Runway Visual Range	TA	-	Traffic Advisory
RVSM	-	Reduced Vertical Separation Minima	TAC	-	Terminal Approach Chart
RWYCC	-	Runway Condition Code	TAS	-	True Airspeed
			TAWS	-	Terrain Awareness Warning System
S	-	South	TC	-	Technical Crew
SAFA	-	Safety Assessment Of Foreign Aircraft	TC	-	Type Certificate
SALS	-	Simple Approach Lighting System	TCAS	-	Traffic Collision Avoidance System
SALSF	-	Simple Approach Lighting System With Sequenced Flashing Lights	TCCA	-	Transport Canada Civil Aviation
SAP	-	Stabilized Approach	TCH	-	Type Certificate Holder
SAP	-	System Access Parameters	TDP	-	Take-Off Decision Point
SAR	-	Search And Rescue	TDZ	-	Touchdown Zone
SAS	-	Stability Augmentation System	TDZE	-	Touchdown Zone Elevation

THR	- Threshold	VTOL	- Vertical Take-Off And Landing
TI	- Technical Instructions		
TIT	- Turbine Inlet Temperature		
TLA	- Thrust Lever Angle		
TLS	- Target Level Of Safety	WAAS	- Wide Area Augmentation System
TMG	- Touring Motor Glider	WAC	- World Aeronautical Chart
TO	- Take-Off	WIFI	- Wireless Fidelity
TODA	- Take-Off Distance Available (Aeroplanes)	WLM	- Workload Management (EBT Competency)
TODAH	- Take-Off Distance Available (Helicopters)	WXR	- Weather
TODRH	- Take-Off Distance Required (Helicopters)		
TOGA	- Take-Off/Go Around	ZFTT	- Zero Flight-Time Training
TORA	- Take-Off Run Available	°C	- Celsius
T-PED	- Transmitting Portable Electronic Device	%	- Per Cent
TRE	- Type Rating Instructor		
TSE	- Total System Error		
TVE	- Total Vertical Error		
TWIP	- Terminal Weather Information For Pilots		
UMS	- Usage Monitoring System		
UPRT	- Upset Prevention And Recovery Training		
UTC	- Coordinated Universal Time		
V ₂	- Take-Off Safety Speed		
V _{AT}	- Indicated Airspeed At Threshold		
V _D	- Design Diving Speed		
V _{MO}	- Maximum Operating Speed		
V _{MC}	- Minimum Control Speed With The Critical Engine Inoperative		
V _{SO}	- Stalling Speed Or The Minimum Steady Flight Speed In The Landing Configuration		
V _{S1}	- Stalling Speed Or The Minimum Steady Flight Speed In A Specified Configuration		
V _T	- Threshold Speed		
V _{TOSS}	- Take-Off Safety Speed		
VDF	- VHF Direction Finder		
VFR	- Visual Flight Rules		
VHF	- Very High Frequency		
VIS	- Visibility		
VMC	- Visual Meteorological Conditions		
VNAV	- Vertical Navigation		
VOR	- VHF Omnidirectional Radio Range		
VSS	- Visual Segment Surface		

DEFINITIONS FOR TERMS USED IN AIR OPERATIONS

When the following definitions are used by the DGCA for air operations, they have the following meanings:

Abnormal Flight Behaviour

In the context of an aircraft tracking system, an event affecting a flight:

- a) which is outside of the parameters defined by the operator for normal operation or which indicates an obvious deviation from normal operation; and
- b) for which the operator has determined that it poses a risk for the safe continuation of the flight or for third parties.

Accelerate-Stop Distance Available (ASDA).

The length of the take-off run available plus the length of stop way, if provided. (if such stopway is declared available by the State of the aerodrome and is capable of bearing the mass of the aeroplane under the prevailing operating conditions)

Acceptable Means of Compliance (AMC)

Means to establish compliance with the Standard. The DGCA will recognize complying with the AMC as complying with the Standard published in Implementing Standards. Acceptable Means of Compliance (AMC) published in the Implement Standards is applicable until an Alternative Means of Compliance (AltMoC) is approved by the DGCA.

Acceptance Checklist

A document used to assist in carrying out a check on the external appearance of packages of dangerous goods and their associated documents to determine that all appropriate requirements have been met with.

Accuracy

In the context of PBN operations, the degree of conformance between the estimated, measured or desired position and/or the velocity of a platform at a given time, and its true position or velocity. Navigation performance accuracy is usually presented as a statistical measure of system error and is specified as predictable, repeatable and relative.

Acts of unlawful interference

These are acts or attempted acts such as to jeopardize the safety of civil aviation and air transport, i.e.:

- unlawful seizure of aircraft in flight,
- unlawful seizure of aircraft on the ground,
- hostage-taking on board an aircraft or on aerodromes,
- forcible intrusion on board an aircraft, at an airport or on the premises of an aeronautical facility,
- introduction on board an aircraft or at an airport of a weapon or hazardous device or material intended for criminal purposes,
- communication of false information as to jeopardize the safety of an aircraft in flight or on the ground, of passengers, crew, ground personnel or the general public, at an airport or on the premises of a civil aviation facility.

Adequate Aerodrome

An aerodrome on which the aircraft can be operated, taking account of the applicable performance requirements and runway characteristics

Advanced Aircraft

An aircraft with equipment in addition to that required for a basic aircraft for a given take-off, approach or landing operation.

For the purpose of passenger classification:

- a) ‘**adult**’ means a person of an age of 12 years and above;
- b) ‘**child/children**’ means persons who are of an age of two years and above but who are less than 12 years of age;
- c) ‘**infant**’ means a person under the age of two years;

Aerial Work

An aircraft operation in which an aircraft is used for specialized operation (SPO) such as agriculture, construction, photography, surveying, observation and patrol, search and rescue, aerial advertisement, etc.

Aerodrome

A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

Aerodrome Operating Minima

The limits of usability of an aerodrome for:

- a) **Take-off**, expressed in terms of runway visual range and/or visibility and, if necessary, cloud conditions;
- b) **Landing in 2D instrument approach operations**, expressed in terms of visibility and/or runway visual range, minimum descent altitude/height (MDA/H) and, if necessary, cloud conditions; and
- c) **Landing in 3D instrument approach operations**, expressed in terms of visibility and/or runway visual range and decision altitude/height (DA/H) as appropriate to the type and/or category of the operation.

Aeroplane

A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

Agreement Summary

When an aircraft is operating under an Article 83 bis agreement between the State of Registry and another State, the agreement summary is a document transmitted with the Article 83bis Agreement registered with the ICAO Council that identifies succinctly and clearly which functions and duties are transferred by the State of Registry to that other State. The other State in the above definition refers to the State of the Operator for commercial air transport operations

Aided Night Vision Imaging System (NVIS) Flight

In the case of NVIS operations, that portion of a visual flight rules (VFR) flight performed at night when a crew member is using night vision goggles (NVG).

Aircraft

Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth’s surface.

Aircraft-Based Augmentation System (ABAS)

A system that augments and/or integrates the information obtained from the other GNSS elements with information available on board the aircraft. The most common form of ABAS is receiver autonomous integrity monitoring (RAIM).

Aircraft Operating Manual

A manual, acceptable to the DGCA, containing normal, abnormal and emergency procedures, checklists, limitations, performance information, details of the aircraft systems and other material relevant to the operation of the aircraft. The aircraft operating manual is part of the operations manual.

Aircraft Tracking

A process, established by the operator, that maintains and updates, at standardized intervals, a ground-based record of the four dimensional position of individual aircraft in flight.

Aircraft Tracking System

A system that relies on aircraft tracking in order to identify abnormal flight behaviour and provide alert.

Air Operator Certificate (AOC)

A certificate authorizing an operator to carry out specified commercial air transport operations.

Airport Moving Map Display (AMMD)

A software application that displays an airport map on a display device and uses data from a navigation source to depict the aircraft current position on this map while the aircraft is on the ground.

Air Taxi Operation

For the purpose of flight time and duty time limitations, a non-scheduled on demand commercial air transport operation with an aeroplane with a maximum operational passenger seating configuration ('MOPSC') of 19 or less.

Air Traffic Services (ATS)

A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service).

Airworthy

The status of an aircraft, engine, propeller or part when it conforms to its approved design and is in a condition for safe operation.

Alternate Aerodrome

An aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing where the necessary services and facilities are available, where aircraft performance requirements can be met and which is operational at the expected time of use. Alternate aerodromes include the following:

- a) **Take-off alternate.** An alternate aerodrome at which an aircraft would be able to land should this become necessary shortly after take-off and it is not possible to use the aerodrome of departure
- b) **En-route alternate.** An alternate aerodrome at which an aircraft would be able to land in the event that a diversion becomes necessary while En route.
- c) **Fuel/energy en route alternate (fuel/energy ERA) aerodrome.** An ERA aerodrome that is required at the planning stage for use in the calculation of fuel/energy.
- d) **Destination alternate.** An alternate aerodrome at which an aircraft would be able to land should it become either impossible or inadvisable to land at the aerodrome of intended landing.

Alternate heliport

A heliport to which a helicopter may proceed when it becomes either impossible or inadvisable to proceed to or to land at the heliport of intended landing where the necessary services and facilities are available, where aircraft performance requirements can be met and which is operational at the expected time of use. Alternate heliports include the following:

a) Take-off alternate.

An alternate heliport at which a helicopter would be able to land should this become necessary shortly after take-off and it is not possible to use the heliport of departure.

b) En-route alternate.

An alternate heliport at which a helicopter would be able to land in the event that a diversion becomes necessary while en-route.

c) Destination alternate.

An alternate heliport at which a helicopter would be able to land should it become either impossible or inadvisable to land at the heliport of intended landing.

Note.— The heliport from which a flight departs may be an en-route or a destination alternate heliport for that flight.

Alternative Means of Compliance

Means that propose an alternative to an existing acceptable means of compliance or those that propose new means to establish compliance with the Implementing Standards for which no associated AMC have been approved by the DGCA.

Altimetry System Error (ASE)

The difference between the altitude indicated by the altimeter display, assuming a correct altimeter barometric setting, and the pressure altitude corresponding to the undisturbed ambient pressure.

Approach and landing phase — helicopters

That part of the flight from 300 m (1 000 ft) above the elevation of the FATO, if the flight is planned to exceed this height, or from the commencement of the descent in the other cases, to landing or to the balked landing point.

Appropriate Airworthiness Requirements

The comprehensive and detailed airworthiness codes established, adopted or accepted by a contracting state for the class or aircraft, engine or propeller under consideration.

Anti-icing

In the case of ground procedures, means a procedure that provides protection against the formation of frost or ice and accumulation of snow on treated surfaces of the aircraft for a limited period of time (hold-over time)

Area Navigation (RNAV)

A method of navigation which permits aircraft operation on any desired flight path within the coverage of ground or space-based navigation aids or within the limits of the capability of self-contained aids, or a combination of these. Area navigation includes performance-based navigation as well as other operations that do not meet the definition of performance-based navigation.

Automatic Deployable Flight Recorder (ADFR)

A combination flight recorder installed on the aircraft which is capable of automatically deploying from the aircraft.

Availability

In the context of PBN operations, an indication of the ability of the system to provide usable service within the specified coverage area and is defined as the portion of time during which the system is to be used for navigation during which reliable navigation information is presented to the crew, autopilot or other system managing the flight of the aircraft.

Basic Aircraft

An aircraft which has the minimum equipment required to perform the intended take-off, approach or landing operation.

Balloon

A manned lighter-than-air aircraft which is not power-driven and sustains flight through the use of either a lighter-than-air gas or an airborne heater, including gas balloons, hot-air balloons, mixed balloons and, although power-driven, hot-air airships.

Cabin Crew Member

A crew member who performs, in the interest of safety of passengers, duties assigned by the operator or the pilot-in-command of the aircraft, but who shall not act as a flight crew member.

Category A with respect to Helicopters

A multi-engined helicopter designed with engine and system isolation features specified in the applicable certification specification and capable of operations using take-off and landing data scheduled under a critical engine failure concept that assures adequate designated surface area and adequate performance capability for continued safe flight or safe rejected take-off in the event of engine failure;

Category B with respect to Helicopters

A single-engined or multi-engined helicopter that does not meet category A standards. Category B helicopters have no guaranteed capability to continue safe flight in the event of an engine failure, and unscheduled landing is assumed.

Ceiling

The height above the ground or water of the base of the lowest layer of cloud below 6 000 m (20 000 ft) covering more than half the sky.

Certification Specifications (CS)

Technical standards adopted by the DGCA indicating means to show compliance with Implementing Standards.

Child (Chd)

A person who is older than two years up to twelve years of age.

Circling

The visual phase of a circling approach operation.

Circling Approach Operation

A Type A instrument approach operation to bring an aircraft into position for landing on a runway/final approach and take-off area (FATO) that is not suitably located for a straight-in approach.

Clearway

A defined rectangular area on the ground or water under the control of the appropriate authority, selected or prepared as a suitable area over which an aeroplane may make a portion of its initial climb to a specified height.

Cloud Base

The height of the base of the lowest observed or forecast cloud element in the vicinity of an aerodrome or operating site or within a specified area of operations, normally measured above aerodrome elevation or, in the case of offshore operations, above mean sea level.

Cockpit Voice Recorder (CVR)

A crash-protected flight recorder that uses a combination of microphones and other audio and digital inputs to collect and record the aural environment of the flight crew compartment and communications to, from and between the flight crew members.

Code Share

An arrangement under which an operator places its designator code on a flight operated by another operator, and sells and issues tickets for that flight.

COMAT

Operator material carried on an operator's aircraft for the operator's own purposes.

Competition Flight

Any flying activity where the aircraft is used in air races or contests, as well as where the aircraft is used to practice for air races or contests and to fly to and from racing or contest events.

Combined Vision System (CVS)

A system to display images from a combination of an enhanced vision system (EVS) and a synthetic vision system (SVS).

Commercial Operation

Any operation of an aircraft, in return for remuneration or other valuable consideration, which is available for the public or, when not made available to the public, which is performed under a contract between an operator and a customer, where the latter has no control over the operator.

Commercial Air Transport Operation

An aircraft operation involving the transport of passengers, cargo or mail for remuneration or hire.

Committal Point

The point in the approach at which the pilot flying decides that, in the event of an engine failure being recognized, the safest option is to continue to the elevated final approach and take-off area (elevated FATO).

Competency

A dimension of human performance that is used to reliably predict successful performance on the job and which is manifested and observed through behaviours that mobilize the relevant knowledge, skills and attitudes to carry out activities or tasks under specified conditions.

Competency-Based Training

Assessment and training programmes that are characterized by a performance orientation, emphasis on standards of performance and their measurement and the development of training to the specified performance standards.

Competency Framework

A complete set of identified competencies that are developed, trained and assessed in the operator's evidence-based training programme utilizing scenarios that are relevant to operations and which is wide enough to prepare the pilot for both foreseen and unforeseen threats and errors.

Complex Motor-Powered Aircraft

- a) an aeroplane:
 - with a maximum certificated take-off mass exceeding 5 700 kg, or
 - certificated for a maximum passenger seating configuration of more than nineteen, or
 - certificated for operation with a minimum crew of at least two pilots, or
 - equipped with (a) turbojet engine(s) or more than one turboprop engine, or
- b) a helicopter certificated:
 - a. for a maximum take-off mass exceeding 3 175 kg, or
 - b. for a maximum passenger seating configuration of more than nine, or
 - c. for operation with a minimum crew of at least two pilots, or
- c) a tilt rotor aircraft.

Configuration Deviation List (CDL)

A list established by the organization responsible for the type design with the approval of the State of Design which identifies any external parts of an aircraft type which may be missing at the commencement of a flight, and which contains, where necessary, any information on associated operating limitations and performance correction.

Congested Area

In relation to a city, town or settlement, any area which is substantially used for residential, commercial or recreational purposes.

Congested hostile environment

A hostile environment within a congested area.

Contaminated Runway

A runway is contaminated when a significant portion of the runway surface area (whether in isolated areas or not) within the length and width being used is covered by one or more of the substances listed in the runway surface condition descriptors.

Contingency Fuel/Energy

The fuel/energy required to compensate for unforeseen factors that could have an influence on the fuel/energy consumption to the destination aerodrome.

Continuing Airworthiness

The set of processes by which all aircraft comply with the applicable airworthiness requirements and remain in a condition for safe operation throughout their operating life.

Continuing Airworthiness Records

Records which are related to the continuing airworthiness status of an aircraft, engine, propeller or associated part.

Continuity of Function

In the context of PBN operations, the capability of the total system, comprising all elements necessary to maintain aircraft position within the defined airspace, to perform its function without non-scheduled interruptions during the intended operation.

Continuous Descent Final Approach (CDFA)

A technique, consistent with stabilized approach procedures, for flying the final approach segment (FAS) of an instrument non-precision approach (NPA) procedure as a continuous descent, without level-off, from an altitude/height at or above the final approach fix altitude/height to a point approximately 15 m (50 ft) above the landing runway threshold or the point where the flare maneuver begins for the type of aircraft flown; for the FAS of an NPA procedure followed by a circling approach, the CDFA technique applies until circling approach minima (circling OCA/H) or visual flight maneuver altitude/height are reached.

Controlled Portable Electronic Device (C-PED)

A PED subject to administrative control by the operator that uses it. This includes, inter alia, tracking the allocation of the devices to specific aircraft or persons and ensuring that no unauthorized changes are made to the hardware, software, or databases. C-PEDs can be assigned to the category of non-intentional transmitters or T-PEDs.

Converted Meteorological Visibility (CMV)

A value, equivalent to an RVR, which is derived from the reported meteorological visibility.

Corporate aviation operation

The non-commercial operation or use of aircraft by a company for the carriage of passengers or goods as an aid to the conduct of company business, flown by a professional pilot(s) employed to fly the aircraft.

Crew Member

A person assigned by an operator to duty on an aircraft during a flight duty period.

Critical Phases of Flight - Aeroplane

The take-off run, the take-off flight path, the final approach, the missed approach, the landing, including the landing roll, and any other phases of flight as determined by the pilot-in-command.

Critical Phases of Flight Helicopter

Taxiing, hovering, take-off, final approach, missed approach, the landing and any other phases of flight as determined by the pilot-in-command.

Cruise Relief Pilot

A flight crew member who is assigned to perform pilot tasks during cruise flight, to allow the pilot-in-command or a co-pilot to obtain planned rest.

Cruising Level

A level maintained during a significant portion of a flight.

Current Fuel/Energy Scheme

The approved fuel/energy scheme that is currently used by the operator.

Dangerous Goods

Articles or substances which are capable of posing a risk to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those Instructions. (Dangerous Goods are classified IS 009).

Dangerous Goods Accident

An occurrence associated with and related to the transport of dangerous goods by air which results in fatal or serious injury to a person or major property damage.

Dangerous Goods Incident

- a) an occurrence other than a dangerous goods accident associated with and related to the transport of dangerous goods by air, not necessarily occurring on board an aircraft, which results in injury to a person, property damage, fire, breakage, spillage, leakage of fluid or radiation or other evidence that the integrity of the packaging has not been maintained;
- b) any occurrence relating to the transport of dangerous goods which seriously jeopardizes an aircraft or its occupants;

Decision Altitude (DA) or Decision Height (DH)

A specified altitude or height in a 3D instrument approach operation at which a missed approach must be initiated if the required visual reference to continue the approach has not been established.

- a) Decision altitude (DA) is referenced to mean sea level and decision height (DH) is referenced to the threshold elevation.
- b) The required visual reference means that section of the visual aids or of the approach area which should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position, in relation to the desired flight path. In Category III operations with a decision height the required visual reference is that specified for the particular procedure and operation.
- c) For convenience where both expressions are used they may be written in the form “decision altitude/height “and abbreviated “DA/H”.

Defined Point After Take-off (DPATO)

The point, within the take-off and initial climb phase, before which the helicopter’s ability to continue the flight safely, with the critical engine inoperative, is not assured and a forced landing may be required.

Defined Point Before Landing (DPBL)

The point within the approach and landing phase, after which the helicopter’s ability to continue the flight safely, with the critical engine inoperative, is not assured and a forced landing may be required.

De-icing

In the case of ground procedures, means a procedure by which frost, ice, snow or slush is removed from an aircraft in order to provide uncontaminated surfaces.

Distance DR

The horizontal distance that the helicopter has travelled from the end of the take-off distance available.

Dry Lease Agreement

An agreement between undertakings pursuant to which the aircraft is operated under the air operator certificate (AOC) of the lessee or, in the case of commercial operations other than CAT, under the responsibility of the lessee.

Dry Operating Mass

The total mass of the aircraft ready for a specific type of operation, excluding usable fuel and traffic load.

Dry Runway

A runway considered dry if its surface is free of visible moisture and not contaminated within the area intended to be used.

Duty

Any task that flight or cabin crew members are required by the operator to perform, including, for example, flight duty, administrative work, training, positioning and standby when it is likely to induce fatigue.

Duty Period

A period which starts when a flight or cabin crew member is required by an operator to report for or to commence a duty and ends when that person is free from all duties.

EBT Module

A combination of sessions in a qualified flight simulation training device as part of the 3-year period of recurrent assessment and training.

EDTO - Extended Diversion Time Operations

Any operation by an aeroplane with two or more turbine engines where the diversion time to an En-route alternate aerodrome is greater than the threshold time established by the DGCA.

EDTO Critical Fuel

The fuel quantity necessary to fly to an en-route alternate aerodrome considering, at the most critical point on the route, the most limiting system failure.

EDTO-significant System

An aeroplane system whose failure or degradation could adversely affect the safety particular to an EDTO flight, or whose continued functioning is specifically important to the safe flight and landing of an aeroplane during an EDTO diversion.

EFB (Electronic Flight Bag)

An electronic information system, comprised of equipment and applications for flight crew, which allows for the storing, updating, displaying and processing of EFB functions to support flight operations or duties.

EFB Application

A software application installed on an EFB host platform that provides one or more specific operational functions which support flight operations.

EFB Host Platform

The hardware equipment in which the computing capabilities and basic software reside, including the operating system and the input/output software.

EFB Installed Resources

Certified EFB hardware components external to the EFB host platform itself, such as input/output components (installed remote displays, keyboards, pointing devices, switches, etc.) or a docking station.

EFB Mounting Device

An aircraft certified part that secures a portable or installed EFB, or EFB system components.

EFB System

The hardware equipment (including any battery, connectivity provisions, input/output components) and software (including databases and the operating system) needed to support the intended EFB application(s).

EFB System Supplier

The company responsible for developing, or for having developed, the EFB system or part of it.

Elevated Final Approach and Take-Off Area (elevated FATO)

A FATO that is at least 3 m above the surrounding surface.

Elevated heliport

A heliport located on a raised structure on land.

Emergency Exit

An installed exit-type egress point from the aircraft that allows maximum opportunity for cabin and flight crew compartment evacuation within an appropriate time period and includes floor level door, window exit or any other type of exit, for instance hatch in the flight crew compartment and tail cone exit.

Emergency Locator Transmitter (ELT)

A generic term describing equipment which broadcast distinctive signals on designated frequencies and, depending on application, may be automatically activated by impact or be manually activated. An ELT may be any of the following:

a) Automatic fixed ELT (ELT (AF))

An automatically activated ELT which is permanently attached to an aircraft.

b) Automatic portable ELT (ELT (AP))

An automatically activated ELT which is rigidly attached to an aircraft but readily removable from the aircraft.

c) Automatic deployable ELT (ELT (AD))

An ELT which is rigidly attached to an aircraft and which is automatically deployed and activated by impact, and, in some cases, also by hydrostatic sensors. Manual deployment is also provided.

d) Survival ELT (ELT(S))

An ELT which is removable from an aircraft, stowed so as to facilitate its ready use in an emergency, and manually activated by survivors.

Engine

A unit used or intended to be used for aircraft propulsion. It consists of at least those components and equipment necessary for functioning and control, but excludes the propeller/rotors (if applicable).

Enhanced Vision System (EVS)

A system to display electronic real-time images of the external scene (the natural or man-made features of a place or region especially in a way to show their relative positions and elevation) achieved through the use of image sensors.

Enhanced Flight Vision System (EFVS)

An electronic means to provide the flight crew with a real-time sensor-derived or enhanced display of the external scene topography (the natural or man-made features of a place or region especially in a way to show their relative positions and elevation) through the use of imaging sensors; an EFVS is integrated with a flight guidance system and is implemented on a head-up display or an equivalent display system; if an EFVS is certified according to the applicable airworthiness requirements and an operator holds the necessary specific approval (when required), then it may be used for EFVS operations and may allow operations with operational credits.

EFVS Operation

An operation in which visibility conditions require an EFVS to be used instead of natural vision in order to perform an approach or landing, identify the required visual references or conduct a roll-out;

EFVS 200 Operation

An operation with an operational credit in which visibility conditions require an EFVS to be used down to 200 ft above the FATO or runway threshold. From that point to land, natural vision is used. The RVR shall not be less than 550 m.

Enrolment

The administrative action carried out by the operator where a pilot participates in the operator's EBT programme.

Enrolled Pilot

The pilot that participates in the EBT recurrent training programme.

En-route phase

That part of the flight from the end of the take-off and initial climb phase to the commencement of the approach and landing phase.

Equivalency of Approaches

All the approaches that place an additional demand on a proficient crew regardless of whether they are used or not in the EBT modules.

Equivalency of Malfunctions

All the malfunctions that put a significant demand on a proficient crew regardless of whether they are used or not in the EBT modules.

Evaluation Phase

One of the phases of an EBT module which is a line-orientated flight scenario, representative of the operator's environment during which there are one or more occurrences to evaluate key elements of the defined competency framework.

Evidence-based Training (EBT)

Assessment and training based on operational data that is characterized by developing and accessing the overall capability of a pilot across a range of competencies (competency framework) rather than by measuring the performance in individual events or manoeuvres.

Extended flight over water

A flight operated over water at a distance of more than 93 km (50 NM), or 30 minutes at normal cruising speed, whichever is the lesser, away from land suitable for making an emergency landing.

Fatigue

A physiological state of reduced mental or physical performance capability resulting from sleep loss, extended wakefulness, circadian phase, and/or workload (mental and/or physical activity) that can impair a person's alertness and ability to perform safety-related operational duties.

Fatigue Risk Management System (FRMS)

A data-driven means of continuously monitoring and managing fatigue-related safety risks, based upon scientific principles and knowledge as well as operational experience that aims to ensure relevant personnel are performing at adequate levels of alertness.

Final Approach and Take-off Area (FATO)

A defined area for helicopter operations, over which the final phase of the approach manoeuvre to hover or land is completed, and from which the take-off manoeuvre is commenced. In the case of helicopters operating in performance class 1, the defined area includes the rejected take-off area available.

Exposure Time

The actual period during which the performance of the helicopter with the critical engine inoperative in still air does not guarantee a safe forced landing or the safe continuation of the flight.

Fail-operational Flight Control System

A flight control system with which, in the event of a failure below alert height, the approach, flare and landing can be completed automatically. In the event of a failure, the automatic landing system will operate as a fail-passive system.

Fail-operational Hybrid Landing System

A system that consists of a primary fail-passive automatic landing system and a secondary independent guidance system enabling the pilot to complete a landing manually after failure of the primary system.

Fail-passive Flight Control System

A flight control system is fail-passive if, in the event of a failure, there is no significant out-of-trim condition or deviation of flight path or attitude but the landing is not completed automatically. For a fail-passive automatic flight control system the pilot assumes control of the aeroplane after a failure.

Fatigue

A physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a person's alertness and ability to perform safety-related operational duties.

Fatigue Risk Management System (FRMS)

A data-driven means of continuously monitoring and managing fatigue-related safety risks, based upon scientific principles and knowledge as well as operational experience that aims to ensure relevant personnel are performing at adequate levels of alertness.

Final Approach Segment (FAS)

That segment of an instrument approach procedure in which alignment and descent for landing are accomplished.

Flight Control System

In the context of low visibility operations means a system that includes an automatic landing system and/or a hybrid landing system.

Flight Crew Member

A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.

Flight Data Analysis

A process of analyzing recorded flight data in order to improve the safety of flight operations.

Flight Data Monitoring (FDM)

The proactive and non-punitive use of digital flight data from routine operations to improve aviation safety.

Flight Data Recorder (FDR)

A crash-protected flight recorder that uses a combination of data sources to collect and record parameters that reflect the state and performance of the aircraft.

Flight Duty Period

A period which commences when a flight or cabin crew member is required to report for duty that includes a flight or a series of flights and which finishes when the aircraft finally comes to rest and the engines are shut down at the end of the last flight on which he/she is a crew member.

Flight Following

The recording in real time of departure and arrival messages by operational personnel to ensure that a flight is operating and has arrived at the destination aerodrome or an alternate aerodrome.

Flight Manual

A manual, associated with the certificate of airworthiness, containing limitations within which the aircraft is to be considered airworthy, and instructions and information necessary to the flight crew members for the safe operation of the aircraft.

Flight Monitoring

In addition to the requirements defined for flight following:

- a) operational monitoring of flights by suitably qualified operational-control personnel from departure throughout all phases of the flight;
- b) communication of all available and relevant safety information between the operational-control personnel on the ground and the flight crew; and
- c) critical assistance to the flight crew in the event of an in-flight emergency or security issue, or at the request of the flight crew;

Flight Operations Officer/ Flight Dispatcher

A Person designated by the operator to engage in the control and supervision of flight operations, whether licensed or not, suitably qualified in accordance with ICAO Annex 1, who supports, briefs and/or assists the pilot-in-command in the safe conduct of the flight.

Flight Plan

Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.

Flight Recorder

Any type of recorder installed in the aircraft for the purpose of complementing accident/incident investigation.

Flight Safety Documents System

A set of inter-related documentation established by the operator, compiling and organizing information necessary for flight and ground operations, and comprising, as a minimum, the operations manual and the operator's maintenance control manual.

Flight Simulation Training Device (FSTD)

Any one of the following three types of apparatus in which flight conditions are simulated on the ground;

- a) A flight simulator
Which provides an accurate representation of the flight deck of a particular aircraft type to the extent that the mechanical, electrical, electronic, etc. aircraft systems control functions, the normal environment of flight crew members, and the performance and flight characteristics of that type of aircraft are realistically simulated;
- b) A flight procedures trainer
Which provides a realistic flight deck environment, and which simulates instrument responses, simple control functions of mechanical, electrical, electronic, etc. aircraft systems, and the performance and flight characteristics of aircraft of a particular class;
- c) A basic instrument flight trainer
Which is equipped with appropriate instruments, and which simulates the flight deck environment of an aircraft in flight in instrument flight conditions.

Flight Time

- a) for aeroplanes, the total time from the moment an aeroplane first moves for the purpose of taking off until the moment the aeroplane finally comes to rest at the end of the flight;
- b) for helicopters, the total time between the moment a helicopter's rotor blades start turning for the purpose of taking off until the moment the helicopter finally comes to rest at the end of the flight, and the rotor blades are stopped.

Flight Watch

In addition to all elements defined for 'flight monitoring', the active tracking of a flight by suitably qualified operational-control personnel throughout all phases of the flight to ensure that the flight is following its prescribed route without unplanned deviations, diversions or delays.

Flying Display

Any flying activity deliberately performed for the purpose of providing an exhibition or entertainment at an advertised event open to the public, including where the aircraft is used to practice for a flying display and to fly to and from the advertised event.

GBAS Landing System (GLS)

An approach landing system using ground based augmented global navigation satellite system (GNSS/GBAS) information to provide guidance to the aircraft based on its lateral and vertical GNSS position. It uses geometric altitude reference for its final approach slope;

General Aviation Operation

An aircraft operation other than a commercial air transport operation or an aerial work operation.

Go-around

A transition from an approach operation to a stabilized climb. This includes manoeuvres conducted at or above the MDA/H or DA/H, or below the DA/H (balked landings).

Ground Emergency Service Personnel

Any ground emergency service personnel (such as policemen, firemen, etc.) involved with helicopter emergency medical services (HEMSs) and whose tasks are to any extent pertinent to helicopter operations;

Ground Handling

Services necessary for an aircraft's arrival at, and departure from, an airport, other than air traffic services.

Grounding

The formal prohibition of an aircraft to take-off and the taking of such steps as are necessary to detain it.

Head-up Display (HUD)

A display system that presents flight information into the pilot's forward external field of view.

Head-up Display Landing System (HUDLS)

The total airborne system which provides head-up guidance to the pilot to enable the pilot to either control the aircraft or to monitor the autopilot during take-off (if applicable), approach and landing (and roll-out if applicable), or go-around. It includes all the sensors, computers, power supplies, indications and controls.

Helicopter

A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

Note.— Some States use the term "rotorcraft" as an alternative to "helicopter".

Helicopter Hoist Operation (HHO) Crew Member

A technical crew member who performs assigned duties relating to the operation of a hoist.

Helideck

A FATO located on a floating or fixed offshore structure.

Heliport

An aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters.

Note— Helicopters may be operated to and from areas other than heliports.

Heliport operating minima

The limits of usability of a heliport for:

- a) take-off, expressed in terms of runway visual range and/or visibility and, if necessary, cloud conditions;
- b) landing in 2D instrument approach operations, expressed in terms of visibility and/or runway visual range, minimum descent altitude/height (MDA/H) and, if necessary, cloud conditions; and
- c) landing in 3D instrument approach operations, expressed in terms of visibility and/or runway visual range and decision altitude/height (DA/H) as appropriate to the type and/or category of the operation.

HEMS Crew Member

A technical crew member who is assigned to a HEMS flight for the purpose of attending to any person in need of medical assistance carried in the helicopter and assisting the pilot during the mission.

HEMS Dispatch Centre

A place where, if established, the coordination or control of the helicopter emergency medical service (HEMS) flight takes place. It may be located in a HEMS operating base.

HEMS Flight

A flight by a helicopter operating under a HEMS approval, where immediate and rapid transportation is essential and the purpose of which is either of the following:

- a) to facilitate emergency medical assistance by carrying one or more of the following:
 - a. medical personnel;
 - b. medical supplies (equipment, blood, organs, drugs);
 - c. ill or injured persons and other persons directly involved;
- b) to perform an operation where a person faces an imminent or anticipated health risk posed by the environment and either of the following conditions is met:
 - a. that person needs to be rescued or provided with supplies;
 - b. persons, animals or equipment need to be transported to and from the HEMS operating site;

HEMS HEC Operation

Air and ground operations for the purpose of transporting one or more persons as human external cargo (HEC) within a HEMS flight.

HEMS Operating Base

Means an aerodrome at which the crew members and the HEMS helicopter may be on standby for HEMS operations.

HEMS Operating Site

A site that is selected by the commander during a HEMS flight for a HEMS HEC operation or a landing or a take-off.

HHO Flight

A flight by a helicopter operating under an HHO approval, the purpose of which is to facilitate the transfer of persons and/or cargo by means of a helicopter hoist.

HHO Offshore

A flight by a helicopter operating under an HHO approval, the purpose of which is to facilitate the transfer of persons and/or cargo by means of a helicopter hoist from or to a vessel or structure in a sea area or to the sea itself.

HHO Passenger

A person who is to be transferred by means of a helicopter hoist.

HHO Site

A specified area at which a helicopter performs a hoist transfer.

High Risk Commercial Specialized Operation

Any commercial specialized aircraft operation carried out over an area where the safety of third parties on the ground is likely to be endangered in the event of an emergency, or, as determined by the competent authority of the place where the operation is conducted, any commercial specialized aircraft operation that, due to its specific nature and the local environment in which it is conducted, poses a high risk, in particular to third parties on the ground.

Hold-over Time (HoT)

The estimated time the anti-icing fluid will prevent the formation of ice and frost and the accumulation of snow on the protected (treated) surfaces of an aeroplane.

Hostile Environment

- a) an area in which:
 - a. a safe forced landing cannot be accomplished because the surface is inadequate; or
 - b. the helicopter occupants cannot be adequately protected from the elements; or
 - c. search and rescue response/capability are not provided consistent with anticipated exposure; or
 - d. there is an unacceptable risk of endangering persons or property on the ground;
- b) in any case, the following areas:
 - a. for overwater operations, the open sea area north of 45 N and south of 45 S, unless any part is designated as non-hostile by the responsible authority of the State in which the operations take place; and
 - b. those parts of a congested area without adequate safe forced landing areas;

Human Factors Principles

Principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance.

Human–Machine Interface (HMI)

A component of certain devices that is capable of handling human–machine interactions. The interface consists of hardware and software that allow user inputs to be interpreted and processed by machines or systems that, in turn, provide the required results to the user.

Human Performance

Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

Hybrid Head-up Display Landing System (hybrid HUDLS)

A system that consists of a primary fail-passive automatic landing system and a secondary independent HUD/HUDLS enabling the pilot to complete a landing manually after failure of the primary system.

Infant (Inf)

Is a person who has not attended two years of age.

In-seat Instruction

A technique used in the manoeuvres training phase or the scenario-based training phase, where the instructors can:

- a) provide simple instructions to one pilot; or
- b) perform predetermined exercises acting, in a pilot seat, as pilot flying (PF) or pilot monitoring (PM) for:
 - a. the demonstration of techniques; and/or
 - b. triggering the other pilot to intervene or interact.

Installed EFB

An EFB host platform installed in an aircraft, capable of hosting type A and/or type B EFB applications. It may also host certified applications. It is an aircraft part, and, is therefore, covered by the aircraft airworthiness approval.

Integrity

In the context of PBN operations, the ability of a system to provide timely warnings to users when the system should not be used for navigation.

Instructor Concordance

The consistency or stability of scores between different EBT instructors which gives a score (or scores) of how much homogeneity, or consensus, there is in the ratings given by instructors (raters).

Instrument Approach Operations

An approach and landing using instruments for navigation guidance based on an instrument approach procedure. There are two methods for executing instrument approach operations:

- a) A two-dimensional (2D) instrument approach operation, Using lateral navigation guidance only.
- b) A three-dimensional (3D) instrument approach operation, Using both lateral and vertical navigation guidance.

Note.— Lateral and vertical navigation guidance refers to the guidance provided either by:

- a) a ground-based radio navigation aid; or
- b) computer-generated navigation data from ground-based, space-based, self-contained navigation aids or a combination of these.

Instrument Approach Procedure (IAP)

A series of predetermined maneuvers by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or En-route obstacle clearance criteria apply. Instrument approach procedures are classified as follows:

a) Non-precision Approach (NPA) Procedure

An instrument approach procedure designed for 2D instrument approach operations Type A. (Non-precision approach procedures may be flown using a continuous descent final approach (CDFA) technique. CDFAs with advisory VNAV guidance calculated by on-board equipment are considered 3D instrument approach operations. CDFAs with manual calculation of the required rate of descent are considered 2D instrument approach operations.).

b) Approach Procedure with Vertical Guidance (APV)

A performance-based navigation (PBN) instrument approach procedure designed for 3D instrument approach operations Type A.

c) Precision Approach (PA) Procedure

An instrument approach procedure based on navigation systems (ILS, MLS, GLS and SBAS CAT I) designed for 3D instrument approach operations Type A or B.

Introductory Flight

Any operation against remuneration or other valuable consideration consisting of an air tour of short duration for the purpose of attracting new trainees or new members, performed either by a training organization or by an organization created with the aim of promoting aerial sport or leisure aviation.

Instrument Meteorological Conditions (IMC)

Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions. (The specified minima for visual meteorological conditions are contained in IS 026).

Isolated Aerodrome

A destination aerodrome for which there is no destination alternate aerodrome suitable for a given aeroplane type.

LA1 Aircraft

The following manned Light Aircraft:

- a) an aeroplane with a Maximum Take-off Mass (MTOM) of 1 200 kg or less that is not classified as complex motor-powered aircraft;
- b) a sailplane or powered sailplane of 1 200 kg MTOM or less;
- c) a balloon with a maximum design lifting gas or hot air volume of not more than 3400 m³ for hot air balloons, 1 050 m³ for gas balloons, 300 m³ for tethered gas balloons.

LA2 Aircraft

The following manned Light Aircraft:

- a) an aeroplane with a Maximum Take-off Mass (MTOM) of 2 000 kg or less that is not classified as complex motor-powered aircraft;
- b) a sailplane or powered sailplane of 2 000 kg MTOM or less;
- c) a balloon;

- d) a Very Light Rotorcraft with a MTOM not exceeding 600 kg which is of a simple design, designed to carry not more than two occupants, not powered by turbine and/or rocket engines; restricted to VFR day operations.

Landing Decision Point (LDP)

The point used in determining landing performance from which, an engine failure having been recognised at this point, the landing may be safely continued or a balked landing initiated.

Landing Distance at Time of Arrival (LDTA)

A landing distance that is achievable in normal operations based on landing performance data and associated procedures determined for the prevailing conditions at the time of landing.

Landing Distance Available (LDA)

The length of runway which is declared available and suitable for the ground run of an aeroplane landing.

Landing Distance Available - Helicopters (LDAH)

The length of the final approach and take-off area plus any additional area declared available by the State of the aerodrome and suitable for helicopters to complete the landing manoeuvre from a defined height.

Landing Distance Required-Helicopters (LDRH)

In the case of helicopters, means the horizontal distance required to land and come to a full stop from a point 15 m (50 ft) above the landing surface.

Landplane

A fixed wing aircraft which is designed for taking off and landing on land and includes amphibians operated as landplanes.

Large aeroplane

An aeroplane of a maximum certificated take-off mass of over 5 700 kg.

Lateral Navigation

A method of navigation which permits aircraft operation on a horizontal plane using radio navigation signals, other positioning sources, external flight path references, or a combination of these.

Line Check

A check conducted by the operator and completed by the pilot or the technical crew member to demonstrate competence in carrying out normal line operations described in the operations manual.

Line-orientated Flight Scenario

The assessment and training involving a realistic, 'real-time', full mission simulation of scenarios that are representative of line operations.

Local Helicopter Operation (LHO)

A commercial air transport operation of helicopters with a maximum certified take-off mass (MCTOM) over 3 175 kg and a maximum operational passenger seating configuration (MOPSC) of nine or less, by day, over routes navigated by reference to visual landmarks, conducted within a local and defined geographical area specified in the operations manual.

Low-visibility Operations (LVO)

Approach operations in RVRs less than 550 m and/or with a DH less than 60 m (200 ft) or take-off operations in RVRs less than 400 m.

Low-visibility Take-off (LVTO)

A take-off with an RVR less than 400 m.

Maintenance

The performance of tasks on an aircraft, engine, propeller or associated part required to ensure the continuing airworthiness of an aircraft, engine, propeller or associated part including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair.

Maintenance Check Flight ('MCF')

A flight of an aircraft with an airworthiness certificate or with a permit to fly which is carried out for troubleshooting purposes or to check the functioning of one or more systems, parts or appliances after maintenance, if the functioning of the systems, parts or appliances cannot be established during ground checks and which is carried out in any of the following situations:

- a) as required by the aircraft maintenance manual ('AMM') or any other maintenance data issued by a design approval holder being responsible for the continuing airworthiness of the aircraft;
- b) after maintenance, as required by the operator or proposed by the organization responsible for the continuing airworthiness of the aircraft;
- c) as requested by the maintenance organization for verification of a successful defect rectification;
- d) to assist with fault isolation or troubleshooting;

Maintenance Organization's Procedures Manual

A document endorsed by the head of the maintenance organization which details the maintenance organization's structure and management responsibilities, scope of work, description of facilities, maintenance procedures and quality assurance or inspection systems.

Maintenance Programme

A document which describes the specific scheduled maintenance tasks and their frequency of completion and related procedures, such as a reliability programme, necessary for the safe operation of those aircraft to which it applies.

Maintenance Release

A document which contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner, in accordance with appropriate airworthiness requirements.

Manoeuvres Training Phase

A phase of an EBT module during which, according to aircraft generation, crews have time to practise and improve performance in largely psychomotor skill-based exercises by achieving a prescribed flight path or performing a prescribed event to a prescribed outcome.

'Mass' and 'weight'

In accordance with ICAO Annex 5 and the International System of Units (SI), both terms are used to indicate the actual and limiting masses of aircraft, the payload and its constituent elements, the fuel load, etc. These are expressed in units of mass (kg), but in most approved flight manuals and other operational documentation, these quantities are published as weights in accordance with the common language. In the ICAO standardized system of units of measurement, a weight is a force rather than a mass. Since the use of the term 'weight' does not cause any problem in the day-to-day handling of aircraft, its continued use in operational applications and publications is acceptable.

Master Minimum Equipment List (MMEL)

A list established for a particular aircraft type by the organization responsible for the type design with the approval of the State of Design containing items, one or more of which is permitted to be unserviceable at the commencement of a flight. The MMEL may be associated with special operating conditions, limitations or procedures.

Maximum Diversion Time

Maximum allowable range, expressed in time from a point on a route to an En-route alternate aerodrome.

Maximum Mass

Maximum certificated take-off mass.

Maximum Operational Passenger Seating Configuration (MOPSC)

The maximum passenger seating capacity of an individual aircraft, excluding crew seats, established for operational purposes and specified in the operations manual. Taking as a baseline the maximum passenger seating configuration established during the certification process conducted for the type certificate (TC), supplemental type certificate (STC) or change to the TC or STC as relevant to the individual aircraft, the MOPSC may establish an equal or lower number of seats, depending on the operational constraints.

Maximum Structural Landing Mass

The maximum permissible total aeroplane mass upon landing under normal circumstances.

Maximum Zero Fuel Mass

The maximum permissible mass of an aeroplane with no usable fuel. The mass of the fuel contained in particular tanks should be included in the zero fuel mass when it is explicitly mentioned in the aircraft flight manual.

Medical Passenger

A medical person carried in a helicopter during a HEMS flight, including but not limited to doctors, nurses and paramedics.

Minimum Descent Altitude (MDA) or Minimum Descent Height (MDH)

A specified altitude or height in a 2D instrument approach operation or circling approach below which descent must not be made without the required visual reference.

- a) Minimum descent altitude (MDA) is referenced to mean sea level and minimum descent height (MDH) is referenced to the aerodrome elevation or to the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. A minimum descent height for a circling approach is referenced to the aerodrome elevation.
- b) The required visual reference means that section of the visual aids or of the approach area which should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position, in relation to the desired flight path. In the case of a circling approach the required visual reference is the runway environment.
- c) For convenience when both expressions are used they may be written in the form “minimum descent altitude/height” and abbreviated “MDA/H”.

Minimum Equipment List (MEL)

A list which provides for the operation of aircraft, subject to specified conditions, with particular equipment inoperative, prepared by an operator in conformity with, or more restrictive than, the MMEL established for the aircraft type.

Minor Failure Condition

A failure condition that would not significantly reduce aircraft safety, and which involves flight crew actions that are well within their capabilities.

Miscellaneous (non-EFB) Software Applications

Non-EFB applications that support function(s) not directly related to the tasks performed by the flight crew in the aircraft.

Misuse of Substances

The use of one or more psychoactive substances by flight crew, cabin crew members and other safety-sensitive personnel in a way that: (a) constitutes a direct hazard to the user or endangers the lives, health or welfare of others, and/or (b) causes or worsens an occupational, social, mental or physical problem or disorder.

Mixed EBT Programme

An operator's recurrent training and checking programme as per ORO.FC.230, a portion of which is dedicated to the application of EBT but which does not replace proficiency checks as per Appendix 9 to SLCAIS 072 (Part-FCL).

Modification

A change to the type design of an aircraft, engine or propeller.

Navigation Specification

A set of aircraft and flight crew requirements needed to support performance-based navigation operations within a defined airspace. There are two kinds of navigation specification

a) Required Navigation Procedure (RNP) Specification

A navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP. E.g. RNP 4, RNP APCH.

b) Area Navigation (RNAV) specification

A navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV.

Night

The hours between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise, as may be prescribed by the DGCA.

Night Vision Goggles (NVG)

A head-mounted, binocular, light intensification appliance that enhances the ability to maintain visual surface references at night.

Night Vision Imaging System (NVIS)

The integration of all elements required to successfully and safely use NVGs while operating a helicopter. The system includes as a minimum: NVGs, NVIS lighting, helicopter components, training and continuing airworthiness.

Non-congested hostile environment

A hostile environment outside a congested area.

Non-hostile Environment

An environment in which:

- a) a safe forced landing can be accomplished;
- b) the helicopter occupants can be protected from the elements; and
- c) search and rescue response/capability is provided consistent with the anticipated exposure.

In any case, those parts of a congested area with adequate safe forced landing areas shall be considered non-hostile.

NVIS Crew Member

A technical crew member assigned to an NVIS flight.

NVIS Flight

A flight under night visual meteorological conditions (VMC) with the flight crew using NVGs in a helicopter operating under an NVIS approval.

Obstacle Clearance Altitude (OCA) or Obstacle Clearance Height (OCH)

The lowest altitude or the lowest height above the elevation of the relevant runway threshold or the aerodrome elevation as applicable, used in establishing compliance with appropriate obstacle clearance criteria.

Note 1:- Obstacle clearance altitude is referenced to mean sea level and obstacle clearance height is referenced to the threshold elevation or in the case of non-precision approach procedures to the aerodrome elevation or the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. An obstacle clearance height for a circling approach procedure is referenced to the aerodrome elevation.

Note 2:- For convenience when both expressions are used they may be written in the form “obstacle clearance altitude/height” and abbreviated “OCA/H”.

Offshore Operation

A helicopter operation that has a substantial proportion of any flight conducted over open sea areas to or from an offshore location.

Off-shore Location

A facility intended to be used for helicopter operations on a fixed or floating offshore structure or a vessel.

Open Sea Area

The area of water to seaward of the coastline.

Operating Site

A site, other than an aerodrome, selected by the operator or pilot-in-command for landing, take-off and/or external load operations.

Operation

An activity or group of activities which are subject to the same or similar hazards and which require a set of equipment to be specified, or the achievement and maintenance of a set of pilot competencies, to eliminate or mitigate the risk of such hazards.

Note.— Such activities could include, but would not be limited to, offshore operations, heli-hoist operations or emergency medical service.

Operational Control

The exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight.

Operational Credit

A credit authorized for operations with an advanced aircraft enabling a lower aerodrome operating minimum than would normally be authorized for a basic aircraft, based upon the performance of advanced aircraft systems utilizing the available external infrastructure. Lower operating minima may include a lower decision height/altitude or minimum descent height/altitude, reduced visibility requirements or reduced ground facilities or a combination of these.

Operational Flight Plan

The operator's plan for the safe conduct of the flight based on considerations of aeroplane performance, other operating limitations and relevant expected conditions on the route to be followed and at the aerodromes concerned.

Operation in Performance Class 1

An operation that, in the event of failure of the critical engine, the helicopter is able to land within the rejected take-off distance available or safely continue the flight to an appropriate landing area, depending on when the failure occurs.

Operation in Performance Class 2

An operation that, in the event of failure of the critical engine, performance is available to enable the helicopter to safely continue the flight, except when the failure occurs early during the take-off manoeuvre or late in the landing manoeuvre, in which cases a forced landing may be required.

Operation in Performance Class 3

An operation that, in the event of an engine failure at any time during the flight, a forced landing may be required in a multi-engined helicopter and will be required in a single-engined helicopter.

Operations Manual

A manual containing procedures, instructions and guidance for use by operational personnel in the execution of their duties.

Operations Specifications

The authorizations including specific approvals, conditions and limitations associated with the air operator certificate and subject to the conditions in the operations manual.

Operator

A person, organization or enterprise engaged in or offering to engage in an aircraft operation.

Operator Proficiency Check

A check conducted by the operator and completed by the pilot or the technical crew member to demonstrate competence in carrying out normal, abnormal and emergency procedures.

Operator's Maintenance Control Manual

A document which describes the operator's procedures necessary to ensure that all scheduled and unscheduled maintenance is performed on the operator's aircraft on time and in a controlled and satisfactory manner.

'Overpack'

For the purpose of transporting dangerous goods, means an enclosure used by a single shipper to contain one or more packages and to form one handling unit for convenience of handling and stowage.

Package

For the purpose of transporting dangerous goods, means the complete product of the packing operation consisting of the packaging and its contents prepared for transport.

Packaging

For the purpose of transporting dangerous goods, means receptacles and any other components or materials necessary for the receptacle to perform its containment function.

Passenger with Reduced Mobility (PRM)

A Person with Reduced Mobility is any person whose mobility when using transport is reduced due to any physical disability (sensory or motor, permanent or temporary) intellectual disability or impairment, or age or any other cause of disability that requires special attention and the adaptation to his or her particular needs of the services which are made available to all passengers.

Performance-based Aerodrome Operating Minimum (PBAOM)

A lower aerodrome operating minimum, for a given take-off, approach or landing operation, than is available when using a basic aircraft.

Performance-based Communication (PBC)

Communication based on performance specifications applied to the provision of air traffic services.

Performance-based Navigation (PBN)

Area navigation based on performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in a designated airspace.

Performance-based Surveillance (PBS)

Surveillance based on performance specifications applied to the provision of air traffic services.

Performance Class A Aeroplanes

Multi-engined aeroplanes powered by turbo-propeller engines with an MOPSC of more than nine or a maximum take-off mass exceeding 5 700 kg, and all multi-engined turbo-jet powered aeroplanes.

Performance Class B Aeroplanes

Aeroplanes powered by propeller engines with an MOPSC of nine or less and a maximum take-off mass of 5 700 kg or less.

Performance Class C Aeroplanes

Aeroplanes powered by reciprocating engines with an MOPSC of more than nine or a maximum take-off mass exceeding 5 700 kg.

Personal Locator Beacon (PLB)

An emergency beacon other than an ELT that broadcasts distinctive signals on designated frequencies, is standalone, portable and is manually activated by the survivors.

Personnel-Carrying Device System (PCDS)

A system including one or more devices that is either attached to a hoist or cargo hook or mounted to the rotorcraft airframe during human external cargo (HEC) or helicopter hoist operations (HHO). The devices have the structural capability and features needed to transport occupants external to the helicopter e.g. a life safety harness with or without a quick release and strop with a connector ring, a rigid basket or a cage.

Pilot-in-command

The pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.

Point of No Return

The last possible geographic point at which an aeroplane can proceed to the destination aerodrome as well as to an available en route alternate aerodrome for a given flight.

Portable EFB

A portable EFB host platform, used on the flight deck, which is not part of the configuration of the certified aircraft.

Portable Electronic Device (PED)

Any kind of electronic device, typically but not limited to consumer electronics, brought on board the aircraft by crew members, passengers, or as part of the cargo, that is not included in the configuration of the certified aircraft. It includes all equipment that is able to consume electrical energy. The electrical energy can be provided from internal sources such as batteries (chargeable or non-rechargeable) or the devices may also be connected to specific aircraft power sources.

Pressure-altitude

An atmospheric pressure expressed in terms of altitude which corresponds to that pressure in the Standard Atmosphere.

Principal Place of Business

The head office or registered office of the organization within which the principal financial functions and operational control of the activities referred to in this Regulation are exercised.

Proficient

Having demonstrated the necessary skills, knowledge and attitudes that are required to perform any defined tasks to the prescribed standard.

Psychoactive Substances

Alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psych stimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded.

Public Interest Site (PIS)

A site used exclusively for operations in the public interest.

Receiver Autonomous Integrity Monitoring (RAIM)

A technique whereby a GNSS receiver/processor determines the integrity of the GNSS navigation signals using only GNSS signals or GNSS signals augmented with altitude. This determination is achieved by a consistency check among redundant pseudo-range measurements. At least one satellite in addition to those required for navigation has to be in view for the receiver to perform the RAIM function.

Rectification Interval

A limitation on the duration of operations with inoperative equipment.

Rejected take-off Distance Available (RTODAH)

The length of the final approach and take-off area declared available and suitable for helicopters operated in performance class 1 to complete a rejected take-off.

Rejected take-off Distance Required (RTODRH)

The horizontal distance required from the start of the take-off to the point where the helicopter comes to a full stop following an engine failure and rejection of the take-off at the take-off decision point.

Repair

The restoration of an aircraft, engine, propeller or associated part to an airworthy condition in accordance with the appropriate airworthiness requirements, after it has been damaged or subjected to wear.

Required Communication Performance (RCP)

A set of requirements for air traffic service provision and associated ground equipment, aircraft capability and operations needed to support performance-based communication.

Required Communication Performance Type (RCP type)

A set of requirements for air traffic service provision and associated ground equipment, aircraft capability and operations needed to support performance-based surveillance.

Required Surveillance Performance (RSP) Specification

A set of requirements for air traffic service provision and associated ground equipment, aircraft capability, and operations needed to support performance-based surveillance.

Rest Period

A continuous and defined period of time, subsequent to and/or prior to duty during which flight or cabin crew members are free of all duties.

Rotation Point (RP)

The point at which a cyclic input is made to initiate a nose-down attitude change during the take-off flight path. It is the last point in the take-off path from which, in the event of an engine failure being recognised, a forced landing on the aerodrome can be achieved.

Runway Condition Assessment Matrix (RCAM)

A matrix that allows the assessment of the runway condition code (RWYCC), using associated procedures, from a set of observed runway surface condition(s) and pilot report of braking action.

Runway Condition Code (RWYCC)

A number, to be used in the runway condition report (RCR), that describes the effect of the runway surface condition on aeroplane deceleration performance and lateral control.

Runway Condition Report (RCR)

A comprehensive standardized report relating to the conditions of the runway surface and their effect on the aeroplane landing and take-off performance, described by means of runway conditions code.

Runway Surface Condition

A description of the condition of the runway surface used in the RCR which establishes the basis for the determination of the RWYCC for aeroplane performance purposes.

Runway Surface Condition Descriptors

One of the following elements on the surface of the runway:

- a) 'compacted snow': snow that has been compacted into a solid mass such that aeroplane tyres, at operating pressures and loadings, will run on the surface without significant further compaction or rutting of the surface;
- b) 'dry snow': snow from which a snowball cannot readily be made;
- c) 'frost': ice crystals formed from airborne moisture on a surface whose temperature is at or below freezing; frost differs from ice in that the frost crystals grow independently and, therefore, have a more granular texture;
- d) 'ice': water that has frozen or compacted snow that has transitioned into ice in cold and dry conditions;
- e) 'slush': snow that is so water-saturated that water will drain from it when a handful is picked up or will splatter if stepped on forcefully;
- f) 'standing water': water of depth greater than 3 mm;
- g) 'Wet ice': ice with water on top of it or ice that is melting.
- h) 'wet snow': snow that contains enough water to be able to make a well compacted, solid snowball, but water will not squeeze out.

Runway Visual Range (RVR)

The range over which the pilot of an aircraft on the center line of a runway can see the runway surface markings or the lights delineating the runway or identifying its center line.

Safe Forced Landing

Unavoidable landing or ditching with a reasonable expectancy of no injuries to persons in the aircraft or on the surface.

Safe Landing

In the context of the fuel/energy policy or fuel/energy schemes, a landing at an adequate aerodrome or operating site with no less than the final reserve fuel/energy remaining and in compliance with the applicable operational procedures and aerodrome operating minima.

Safety Management Systems (SMS)

A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

Safety-sensitive Personnel

Persons who might endanger aviation safety if they perform their duties and functions improperly, including flight crew and cabin crew members, aircraft maintenance personnel and air traffic controllers.

Sailplane

A heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its fixed lifting surfaces, the free flight of which does not depend on an engine.

Scenario-based Training Phase

A phase of an EBT module which focuses on the development of competencies, whilst the pilot is trained to mitigate the most critical risks identified for the aircraft generation. It should include the management of specific operator's threats and errors in a real-time line orientated environment.

Seaplane

A fixed wing aircraft which is designed for taking off and landing on water and includes amphibians operated as seaplanes.

Separate Runways

Runways at the same aerodrome that are separate landing surfaces. These runways may overlay or cross in such a way that if one of the runways is blocked, it will not prevent the planned type of operations on the other runway. Each runway shall have a separate approach procedure based on a separate navigation aid.

Series of flights

Series of flights are consecutive flights that:

- a) begin and end within a period of 24 hours; and
- b) are all conducted by the same pilot-in-command.

Slippery Wet Runway

A wet runway where the surface friction characteristics of a significant portion of the runway have been determined to be degraded.

Small Aeroplane

An aeroplane of a maximum certificated take-off mass of 5 700 kg or less.

Specialized Operation

Any operation, other than commercial air transport operation, where the aircraft is used for specialized activities such as agriculture, construction, photography, surveying, observation and patrol, aerial advertisement, maintenance check flights.

Specially Prepared Winter Runway

A runway with a dry frozen surface of compacted snow or ice which has been treated with sand or grit or has been mechanically treated to improve runway friction.

Special VFR flight

A VFR flight cleared by air traffic control to operate within a control zone in meteorological conditions below VMC.

Specific Approval

A specific approval is an approval which is documented in the Operations Specifications for commercial air transport operations or in the list of specific approvals for non-commercial operations.

Stabilized Approach (SAp)

An approach that is flown in a controlled and appropriate manner in terms of configuration, energy and control of the flight path from a pre-determined point or altitude/height down to a point 50 ft above the threshold or the point where the flare manoeuvre is initiated if higher.

State of the principal location of a general aviation operator

The State in which the operator of a general aviation aircraft has its principal place of business or, if there is no such place of business, its permanent residence.

Sterile Flight Crew Compartment

Any period of time when the flight crew members are not disturbed or distracted, except for matters critical to the safe operation of the aircraft or the safety of the occupants.

State of the Aerodrome

The State in whose territory the aerodrome is located.

State of Registry

The State on whose register the aircraft is entered.

State of the Operator

The State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.

Synthetic Vision System (SVS)

A system to display data-derived synthetic images of the external scene from the perspective of the flight deck.

Take-off Alternate Aerodrome

An alternate aerodrome at which an aircraft can land should this become necessary shortly after take-off and if it is not possible to use the aerodrome of departure.

Take-off Decision Point (TDP)

The point used in determining take-off performance from which, an engine failure having been recognised at this point, either a rejected take-off may be made or a take-off safely continued.

Take-off Distance Available (TODA)

The case of aeroplanes means the length of the take-off run available plus the length of the clearway, if provided.

Take-off Distance Available (TODAH)

In the case of helicopters means the length of the final approach and take-off area plus, if provided, the length of helicopter clearway declared available and suitable for helicopters to complete the take-off.

Take-off Distance Required (TODRH)

In the case of helicopters means the horizontal distance required from the start of the take-off to the point at which take-off safety speed (VTOSS), a selected height and a positive climb gradient are achieved, following failure of the critical engine being recognized at the TDP, the remaining engines operating within approved operating limits.

Take-off Flight Path

The vertical and horizontal path, with the critical engine inoperative, from a specified point in the take-off for aeroplanes to 1 500 ft above the surface and for helicopters to 1 000 ft above the surface.

Take-off Mass

The mass including everything and everyone carried at the commencement of the take-off for helicopters and take-off run for aeroplanes.

Take-off Run Available (TORA)

The length of runway that is declared available by the State of the aerodrome and suitable for the ground run of an aeroplane taking off.

Target Level Of Safety (TLS)

A generic term representing the level of risk which is considered acceptable in particular circumstances.

Task Specialist

A person assigned by the operator or a third party, or acting as an undertaking, who performs tasks on the ground directly associated with a specialized task or performs specialized tasks on board or from the aircraft.

Technical Crew Member

A crew member in commercial air transport HEMS, HEMS HEC, HHO or NVIS operations, other than a flight or cabin crew member, assigned by the operator to duties in the aircraft or on the ground for the purpose of assisting the pilot during HEMS, HEMS HEC, HHO or NVIS operations, which may require the operation of specialized on-board equipment.

Technical Instructions (TI)

The latest effective edition of the 'Technical instructions for the safe transport of dangerous goods by air', including the supplement and any addenda, approved and published by the International Civil Aviation Organization.

Tethered Gas Balloon

A gas balloon with a tether system that continuously anchors the balloon to a fixed point during operation.

Threshold Time

The range, expressed in time established by the State of the Operator to an en-route alternate aerodrome, whereby any time beyond requires a specific approval for EDTO from DGCA.

Total Vertical Error (TVE)

The vertical geometric difference between the actual pressure altitude flown by an aircraft and its assigned pressure altitude (flight level).

Touch Down and Lift-Off Area (TLOF)

A load-bearing area on which a helicopter may touch down or lift off.

Traffic Load

The total mass of passengers, baggage, cargo and carry-on specialist equipment and including any ballast.

Training to Proficiency

Training designed to achieve end-state performance objectives, providing sufficient assurance that the trained individual is capable of consistently carrying out specific tasks safely and effectively.

Transmitting PED (T-PED)

A portable electronic device (PED) that has intentional radio frequency (RF) transmission capabilities.

Type A EFB Application

An EFB application whose malfunction or misuse has no safety effect.

Type B EFB Application

An EFB application:

- a) whose malfunction or misuse is classified as minor failure condition or below; and
- b) which neither replaces nor duplicates any system or functionality required by airworthiness regulations, airspace requirements, or operational rules.

Type A Instrument Approach Operation

An instrument approach operation with an MDH or a DH at or above 250 ft.

Type B Instrument Approach Operation

An operation with a DH below 250 ft. Type B instrument approach operations are categorized as:

- a) Category I (CAT I): a DH not lower than 200 ft and with either a visibility not less than 800 m or an RVR not less than 550 m;
- b) Category II (CAT II): a DH lower than 200 ft but not lower than 100 ft, and an RVR not less than 300 m;
- c) Category III (CAT III): a DH lower than 100 ft or no DH, and an RVR less than 300 m or no RVR limitation

Unaccompanied Minor (UM)

A person of 5 years up to 12 years who is permitted to travel alone with the responsibility of the airline operator.

Unaided NVIS flight

In the case of NVIS operations, that portion of a VFR flight performed at night when a crew member is not using NVG.

Undertaking

Any natural or legal person, whether profit-making or not, or any official body whether having its own personality or not.

V₁

The maximum speed in the take-off at which the pilot must take the first action to stop the aeroplane within the accelerate-stop distance. V₁ also means the minimum speed in the take-off, following a failure of the critical engine at VEF, at which the pilot can continue the take-off and achieve the required height above the take-off surface within the take-off distance.

VEF

The speed at which the critical engine is assumed to fail during take-off.

Vertical Navigation

A method of navigation which permits aircraft operation on a vertical flight profile using altimetry sources, external flight path references, or a combination of these.

Viewable Stowage

A non-certified device that is attached to the flight crew member (e.g. with a kneeboard) or to an existing aircraft part (e.g. using suction cups), and is intended to hold charts or to hold low-mass portable electronic devices that are viewable by the flight crew members at their assigned duty stations.

Visibility (VIS)

Visibility for aeronautical purposes, which is the greater of:

- a) the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognized when observed against a bright background; and
- b) the greatest distance at which lights in the vicinity of 1 000 candelas can be seen and identified against an unlit background.

Visual Approach Operation

An approach operation by an IFR flight when either a part or all parts of an IAP is (are) not completed and the approach operation is executed with visual reference to terrain.

Visual Meteorological Conditions (VMC)

Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima. (The specified minima are contained in IS 026)

Weather-Permissible Aerodrome

an adequate aerodrome where, for the anticipated time of use, meteorological reports, or forecasts, or any combination thereof, indicate that the meteorological conditions will be at or above the required aerodrome operating minima, and the runway surface condition reports indicate that a safe landing will be possible.

Wet Lease Agreement

An agreement:

- a) In the case of CAT operations, between air carriers pursuant to which the aircraft is operated under the AOC of the lessor; or
- b) In the case of commercial operations other than CAT, between operators pursuant to which the aircraft is operated under the responsibility of the lessor.

Wet Runway

The runway surface is covered by any visible dampness or water up to and including 3 mm deep within the intended area of use.

GUIDANCE FOR DEFINITIONS

ALL-WEATHER OPERATIONS RELATED DEFINITIONS

The following terms and concepts are used in the provisions related to all-weather:

'Advanced aircraft' means an aircraft with equipment in addition to that required for a basic aircraft for a given take-off, approach or landing operation.

'AFM or additional data from the TC/STC holder'

— an AFM or additional data from the TC/STC holder may provide:

— limitations, in accordance with which the aircraft must be operated, as described under airworthiness requirements published by the DGCA. This means that the aircraft may NOT exceed those given values; or
 — demonstrated capabilities, which are the assumptions, envelope or conditions that were used to demonstrate adequate performance to comply with the appropriate certification specifications.

However, some AFMs may not include all of the assumptions, envelope or conditions that were used to demonstrate adequate performance. Information regarding the assumptions, envelope, or conditions that were used to demonstrate adequate performance of a landing system can be provided by equivalent documentation issued by TC/STC holder.

Other types of information issued by the TC/STC holder may include (not an exhaustive list):

- equivalence between different aircraft models (types);
- equivalence between aircraft types and variants;
- landing systems equivalence;
- a list of runways with their demonstrated performance;
- a letter of no-technical objection/evaluation letter.

Note: 'TC/STC holder' should be understood as the holder of the certificate for the landing system.

'Basic aircraft' means an aircraft which has the minimum equipment required to perform the intended take-off, approach or landing operation.

'Continuous descent final approach (CDFA)': when the circling altitude/height is reached, it is acceptable to maintain altitude (level-off) and transition to the visual segment. The operator may provide a point in the visual segment in which the descent may be resumed to follow a continuous descent to a point approximately 15 m (50 ft) above the landing runway threshold or the point where the flare manoeuvre begins for the type of aircraft flown.

'Enhanced flight vision system (EFVS)-Approach (EFVS-A)' means a system that has been demonstrated to meet the criteria to be used for approach operations from a decision altitude/height (DA/H) or a minimum descent altitude/height (MDA/H) to 100 ft (30 m) threshold elevation while all system components are functioning as intended, but may have failure modes that could result in the loss of EFVS capability. It should be assumed for an EFVS-A that:

- a) the pilot will conduct a go-around at or above 100 ft threshold elevation, in the event of an EFVS failure; and
- b) descent below 100 ft above the threshold elevation through to touchdown and roll-out should be conducted using natural vision so that any failure of the EFVS does not prevent the pilot from completing the approach and landing.

'Enhanced flight vision system (EFVS)-Landing (EFVS-L)' means a system that has been demonstrated to meet the criteria to be used for approach and landing operations that rely on sufficient visibility conditions to enable unaided roll-out and to mitigate for loss of EFVS function.

'Head-up display (HUD) or equivalent display system' means a display system which presents flight information to the pilot's forward external field of view (FOV), and which does not significantly restrict the external view.

'Landing system' means an airborne equipment, which:

- a) provides automatic control of the aircraft during the approach and landing (i.e. automatic landing system); or
- b) has been demonstrated to meet the criteria to be used for approach and landing operations (e.g. HUD landing system, EFVS-L or any other approved system).

'Landing system assessment area (LSAA)' means the part of the runway that extends from the threshold to a distance of 600 m from the threshold.

Note — Although the landing systems certification criteria use a value greater than 600 m after the threshold to evaluate limit conditions, for the purpose of flight operations assessment a distance of 600 m is the relevant part as landing beyond this point is not expected to occur in day-to-day operations. The LSAA may not necessarily be coincident with the touchdown zone.

'Low-visibility procedures (LVPs)' means procedures applied by an aerodrome for the purpose of ensuring safety during low-visibility operations (LVOs).

'Regular runway' means a runway whose characteristics fit within the acceptable limits demonstrated by the original equipment manufacturer (OEM) during certification. The classification of a runway as a 'regular runway' is different from one set of equipment to another.

'Required visual reference' refers to that section of the visual aids or of the approach area which should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position, in relation to the desired flight path. In the case of a circling approach, the required visual reference is the runway environment.

'Satellite-based augmentation system (SBAS)' means a wide coverage augmentation system in which the user receives augmentation information from a satellite-based transmitter. The most common form of SBAS in Europe is the European Geostationary Navigation Overlay Service (EGNOS).

'Synthetic vision system (SVS)' means a system that displays data derived synthetic images of the external scene from the perspective of the flight deck.

'Landing area' means that part of a movement area intended for the landing or take-off of aircraft.

'Touchdown zone (TDZ)' means the portion of a runway, beyond the threshold, where landing aeroplanes are intended to first contact the runway.

'Type B instrument approach operations categories': where decision height (DH) and runway visual range (RVR) fall into different categories of operation, the instrument approach operation would be conducted in accordance with requirements of the most demanding category. This does not apply if the RVR and/or DH has been approved as operational credits.

Coastline

The national definition of coastline should be included by the appropriate authority in the aeronautical information publication (AIP) or other suitable documentation.

Contaminated Runway

As the runway condition is reported in runway thirds, a significant portion of the runway surface area is more than 25 % of one third of the runway surface area within the required length and width being used.

The runway length being used in this context is the physical length of runway available, typically from the start of the take-off run available (TORA) in one direction to the start of the TORA in the opposite direction. When the runway is shortened by a notice to airmen (NOTAM) — for example, due to works, or the aerodrome operator is not able to clear the full length of the runway and closes part of it for operations, the length being used is that declared in the NOTAM and the 'reduced runway length' that declared in the RCR.

The runway width being used in this context is the physical width of the runway (between the runway edge lights), or the 'cleared width' if reported in the RCR. It is not intended that 25 % coverage is reported when contaminants affect only the runway edges after runway cleaning. Runway inspectors are instructed to focus on the area around the wheel tracks when reporting the contaminant type, coverage and depth.

Decision Altitude (DA) or Decision Height (DH)

- a) Decision altitude (DA) is referenced to mean sea level and decision height (DH) is referenced to the threshold elevation.
- b) For operations using DA, the aircraft altimeters are set to QNH. For operations using a barometric DH, the aircraft altimeters are set to QFE.

- c) For CAT II, CAT III operations, the DH is based on the use of a radio altimeter or other devices capable of providing equivalent performance. The DH is determined with reference to threshold elevation, but the value of the DH set for the approach will be based on the height of the aircraft above the pre-threshold terrain, which may be higher or lower than the threshold.
- d) For convenience, when both expressions are used, they may be written in the form ‘decision altitude/height’ and abbreviated ‘DA/H’.

Dry Runway/Wet Runway

The ‘area intended to be used’ means the area of the runway that is part of the TORA, accelerate and stop distance available (ASDA) or landing distance available (LDA) declared in the aeronautical information publication (AIP) or by a NOTAM.

Enhanced Vision Systems (EVSs)

- a) Introduction to EVSs

EVSs use sensing technology to improve a pilot’s ability to detect objects and topographical features ahead of the aircraft. Different types of sensing technology are used on different aircraft installations. Sensing technologies used include forward-looking infrared, millimetre wave radiometry, millimetre wave radar or low-light level intensification; additional technologies may be developed in the future. The image from sensors may be displayed to the pilot in a number of different ways including ‘head-up’ and ‘head-down’ displays.

- b) EVSs and EFVSs

An EFVS is an EVS that is integrated with a flight guidance system, which presents the image from sensors to the pilot on a head-up display (HUD) or equivalent display. If EFVS equipment is certified according to the applicable airworthiness requirements and an operator holds the necessary specific approval, then an EFVS may be used for EFVS operations. An EFVS operation is an operation with an operational credit which allows operating in visibility conditions lower than those in which operations without the use of EFVS are permitted.

- c) Functions of EVSs Depending on the capabilities of the particular system, EVSs may be useful during operations at night or in reduced visibility for the following:

- a. improving visibility of airport features and other traffic during ground operations;
- b. displaying terrain and obstructions in flight;
- c. displaying weather in flight;
- d. improving visibility of the runway environment during approach operations; and
- e. improving visibility of obstructions on a runway (e.g. aircraft, vehicles or animals) during take-off and approach operations.

- d) Limitations of EVSs

EVSs are a useful tool for enhancing situational awareness; however, each EVS installation has its own specific limitations. These may include:

- a. Performance variations depend on conditions including ambient temperature and lighting and weather phenomena. A system may provide very different image qualities in the same visibility depending on the particular phenomena causing restricted visibility, e.g. haze, rain, fog, snow, dust, etc.
- b. An EVS may not be able to detect certain types of artificial lighting. Light emitting diode (LED) lights have a much lower infrared signature than incandescent lights and therefore may not be detected by some types of EVSs. LED lighting is used for runway, taxiway and approach lighting at many airports.

- c. Monochrome display. EVSs will generally not be able to detect and display the colour of airport lighting. This means that colour coding used on airport lighting will not be visible to the pilot using an EVS.
 - d. Many EVS installations do not have redundancy, so a single failure may lead to loss of EVS image.
 - e. The location of the sensor on the airframe may mean that in certain conditions it could be susceptible to ice accretion or obscuration from impact damage from objects such as insects or birds.
 - f. Where an EVS image is presented on a HUD or an equivalent display, the image needs to be consistent with the pilot's external view through the display. Particular installations may have limitations on the conditions under which this consistent image can be generated (e.g. crosswind conditions during approach).
 - g. Imaging sensor performance can be variable and unpredictable. Pilots should not assume that a flightpath is free of hazards because none are visible in an EVS image.
- e) Considerations for the use of EVSs

EVSs may be used in all phases of flight and have significant potential to enhance the pilot's situational awareness. No specific approval is required for the use of an EVS; however, the operator is responsible for ensuring that the flight crew members have received training on the equipment installed on their aircraft in accordance with ORO.FC.120. In addition, the operator is responsible for evaluating the risks associated with system limitations and for implementing suitable mitigation measures in accordance with ORO.GEN.200(a)(3) before using the EVS.

The use of EVSs does not permit the use of different operating minima, and EVS images cannot replace natural vision for the required visual reference in any phase of flight including take-off, approach or landing.

An EVS that is not an EFVS cannot be used for EFVS operations and therefore does not obtain an operational credit.

EVIDENCE-BASED TRAINING DEFINITIONS

'Behaviour' refers to the way a person responds, either overtly or covertly, to a specific set of conditions, and which is capable of being measured.

'Conditions' refers to anything that may qualify a specific environment in which performance will be demonstrated.

'Cycle' refers to the combination of two modules where Cycle 1 comprises Modules 1 and 2, Cycle 2 comprises Modules 3 and 4, and Cycle 3 comprises Modules 5 and 6 of the 3-year EBT programme.

'Equivalency of approaches' refers to approach clustering in other industry documentation.

'Equivalency of malfunctions' refers to malfunction clustering in other industry documentation.

'Evaluation phase (EVAL)' refers to the phase where a first assessment of competencies is performed in order to identify individual training needs. On completion of the evaluation phase, any areas that do not meet the minimum competency standard will become the focus of the subsequent training. The evaluation phase comprises a complete mission as a crew but not necessarily a complete flight.

'Facilitation technique' refers to an active training method, which uses effective questioning, listening and a non-judgemental approach, and is particularly effective in developing skills and attitudes, assisting trainees in developing insight and their own solutions, resulting in better understanding, retention and commitment.

'Instructor concordance' is also called 'inter-rater reliability'.

'Line-orientated flight scenario(s)' are comprised of scenario elements derived from the table of assessment and training topics.

'Line-orientated safety audit (LOSA)' is one of the tools used to help evaluate the performance of the operations. It consists of line flights that are observed by appropriately qualified operator personnel to provide feedback to validate the EBT programme. LOSA may be one of the tools used to look at those elements of the operation that are unable to be monitored by FDM or Advanced FDM programmes.

'Manoeuvres training phase' refers to the phase where skill retention is trained (body memory actions). Flight path control may be accomplished by a variety of means including manual aircraft control and the use of auto flight systems.

'Monitoring' refers to a cognitive process to compare an actual to an expected state. It requires knowledge, skills and attitudes to create a mental model and to take appropriate action when deviations are recognised.

'Observable behaviour (OB)' refers to a single role-related behaviour that can be observed. The instructor may or may not be able to measure it.

'Performance criteria' refers to statements used to assess whether the required levels of performance have been achieved for a competency. A performance criterion consists of an OB, a condition (or conditions) and a competency standard.

'Practical assessment (or EBT practical assessment)' refers to a method for assessing performance that serves to verify the integrated performance of competencies. It takes place in either a simulated or an operational environment. An EBT assessment is equivalent to a proficiency check and is performed under the instructor privilege in the context of proficiency check in accordance with Appendix 10 to SLCAIS 072 (Part-FCL). More information can be found in ICAO Doc 9868 'PANS-TRG'.

'Scenario-based training phase (SBT)' refers to the largest phase in the EBT programme. It is designed to maximize crew's exposure to a variety of situations that develop and sustain a high level of competency and resilience. The scenario for this phase should include critical external and environmental threats, to build effective crew interaction to identify and manage errors. A portion of the phase will also be directed towards the management of critical system malfunctions. Scenario elements address the training topic and detail the threat and/or error that the crew are exposed to.

'Train-to-proficiency' refers to approved training designed to achieve end-state performance objectives, providing sufficient assurance that the trained individual is capable of consistently carrying out specific tasks safely and effectively.

Note: In the context of this definition, 'train-to-proficiency' can be replaced by 'training-to-proficiency'.

Flight Recorder

A flight recorder may be crash-protected or lightweight and may be deployable or not. Crash-protected flight recorders are capable of withstanding very severe crash conditions such as those encountered during some accidents of large aeroplanes and large helicopters. Crash-protected flight recorders comprise one or more of the following systems: a flight data recorder (FDR), a cockpit voice recorder (CVR), an airborne image recorder (AIR), or a data link recorder (DLR). Lightweight flight recorders are usually designed to meet less demanding requirements than crash-protected flight recorders, which allows them to be lighter. A non-deployable flight recorder is permanently attached to the aircraft. A deployable flight recorder includes a part that is capable of automatically deploying from the aircraft.

FLIGHT MONITORING AND FLIGHT WATCH — RELEVANT SAFETY INFORMATION

Relevant safety information is any element that may affect the safety of the flight, such as:

- a) an aircraft technical failure (e.g. failures where flight operations personnel can help to calculate the landing distance or new trip fuel or to update the aerodrome minima);
- b) unforeseen hazards:
 - a. air traffic (e.g. delays and/or long distance to complete the approach, extensive use of radar vectoring);
 - b. meteorological conditions (e.g. DH and aerodrome operating minima, adverse or extreme meteorological conditions);
 - c. aerodrome and runway status (e.g. insufficient runway length due to brake failure, obstruction or closure of the runway, runway contamination, failure or malfunction caused by on-ground navigation or approach equipment);
 - d. navigation aid status (e.g. failure of the navigation aids);

- e. availability of communications (e.g. failure of communications capabilities, interruptions, interferences, change of frequency channels); and
 - f. terrain and obstacles (e.g. geophysical phenomena (volcanic eruptions, earthquakes, tsunami), difficult terrain at an unplanned aerodrome (large bodies of water, mountains);
- c) updates of the operational flight plan when they affect the fuel reserves:
- a. diversion to an en route alternate (ERA) aerodrome, a destination alternate, or a take-off alternate aerodrome;
 - b. change of the runway selected for landing if the new runway is shorter;
 - c. location of the decision point or the point of no return (PNR) due to, for instance, change in altitude, in wind data, etc.;
 - d. significant in-flight change of the flight route compared to the route in the flight planning; or
 - e. significant deviation from the planned fuel consumption; and
- d) position reporting:
- a. flight-monitoring personnel should report in every phase of the flight: taxi, take-off, climb, cruise, cruise steep climb, descent, approach, landing;
 - b. flight watch provides active tracking; and
 - c. where no real-time automatic position-reporting is possible, the operator should have an acceptable alternative to ensure in-flight reporting at least every hour.

Fuel/Energy

The energy used for aircraft propulsion comes from various sources and is of various types.

A frequently used type of energy in aviation is derived from processing (in a piston or turbine engine) hydrocarbon-based fuels that include gasoline (leaded or unleaded), diesel, avgas, JET A-1, and JET B. Hydrogen may also be used as fuel for fuel cell applications, which generate electricity that is used to generate propulsion. However, as current technologies already use other sources of energy for aircraft propulsion, such as stored electrical energy, the typical term 'fuel' has become restrictive and no longer covers emerging technologies.

Therefore, a broader, combined term is introduced to accommodate new types of energy, other than fuel, used for aircraft propulsion purposes.

The term 'fuel/energy' should cater for both typical fuel and any other type or source of energy used for aircraft propulsion, including but not limited to electrical energy stored in batteries.

When used in the combination 'fuel/energy', the term 'energy' only refers to the electrical energy used for aircraft propulsion purposes. It does not include any other form of stored electrical energy that is used on board an aircraft (e.g. batteries of EFBs, ELTs, underwater locating devices (ULDs), automatic external defibrillators (AEDs), or backup energy sources).

Fuel/Energy En Route Alternate (ERA) Aerodrome

Fuel/energy ERA aerodromes could be used in the following cases:

- a) 'fuel ERA aerodrome critical scenario': that aerodrome is used when additional fuel is required at the most critical point along the route to comply with point (c)(6) of point CAT.OP.MPA.181 'Fuel/energy scheme — fuel/energy planning and in-flight re-planning policy — aeroplanes';
- b) 'fuel ERA aerodrome 3 %': that aerodrome is used when an operator reduces the contingency fuel to 3 %; and
- c) 'fuel ERA aerodrome PNR': that aerodrome is used at the PNR during isolated aerodrome operations.

Head-Up Guidance Landing System (HULDS)

A HUDLS is typically used for primary approach guidance to decision heights of 50 ft.

Helicopter Emergency Medical Services (HEMS) Flight

- (a) A HEMS flight (or more commonly referred to as HEMS mission) normally starts and ends at the HEMS operating base following tasking by the 'HEMS dispatch centre'. Tasking can also occur when airborne, or on the ground at locations other than the HEMS operating base.
- (b) The following elements should be regarded as integral parts of the HEMS mission:
 - a. flights to and from the HEMS operating site when initiated by the HEMS dispatch centre;
 - b. flights to and from an aerodrome/operating site for the delivery or pick-up of medical supplies and/or persons required for completion of the HEMS mission; and
 - c. flights to and from an aerodrome/operating site for refuelling required for completion of the HEMS mission.

Helideck

The term 'helideck' includes take-off and landing operations on ships and vessels and covers 'shipboard final approach and take off areas (FATOs).

Hostile Environment

Those parts of an open-sea area not considered to constitute a hostile environment should be designated by the appropriate authority in the appropriate aeronautical information publication (AIP) or other suitable documentation.

Instrument Approach Operations

- a) Depending on the instrument approach procedure (IAP) in use, the lateral and vertical navigation guidance for an instrument approach operation may be provided by:
 - a. a ground-based radio navigation aid; or
 - b. computer-generated navigation data from ground-based, space-based or self-contained navigation aids or a combination of these.
- b) A non-precision approach (NPA) procedure flown as CDFAs with vertical path guidance calculated by on-board equipment is considered to be a 3D instrument approach operation. Depending on the limitations of the equipment and information sources used to generate vertical guidance, it may be necessary for the pilot to cross-check this guidance against other navigational sources during the approach and to ensure that the minimum altitude/height over published step-down fixes is observed. CDFAs with manual calculation of the required rate of descent are considered 2D operations.
- c) Further guidance on the classification of an instrument approach operation based on the designed lowest operating minima is contained in Appendix J to ICAO Doc 9365 Manual of AllWeather Operations, Fourth Edition, 2017.

Landing Distance at Time of Arrival

The landing distance data to be used for a landing performance assessment at time of arrival allow to establish an operationally achievable landing distance from 50ft above runway threshold to full stop that takes into account AFM procedures for final approach and landing and is provided as a function of the main influence parameters such as aeroplane mass and configuration, pressure altitude, wind, outside air temperature, runway slope and approach speed increments. It may be provided for use of automation such as autobrakes and autoland and may account for reverse thrust use. As the landing distance at time of arrival is the unfactored minimum landing distance achievable for the assumed conditions, an appropriate margin should be applied to this distance to determine the minimum LDA necessary for a safe stop.

Minimum Descent Altitude (MDA) or Minimum Descent Height (MDH)

- a) Minimum descent altitude (MDA) is referenced to mean sea level and minimum descent height (MDH) is referenced to the aerodrome elevation or to the threshold elevation if that is more than 7 ft below the aerodrome elevation. An MDH for a circling approach is referenced to the aerodrome elevation.
- b) For operations using MDA, the aircraft altimeters are set to QNH. For operations using a barometric MDH, the aircraft altimeters are set to QFE.
- c) For convenience, when both expressions are used, they may be written in the form ‘minimum descent altitude/height’ and abbreviated ‘MDA/H’.

Minor Failure Condition

Minor failure conditions may include, for example, a slight reduction in safety margins or functional capabilities, a slight increase in crew workload, such as routine flight plan changes, or some physical discomfort to passengers or cabin crew. Minor failure conditions are not considered to be unsafe conditions

Night Vision Imaging System (NVIS)

Helicopter components of the NVIS include the radio altimeter, visual warning system and audio warning system.

Offshore Location

‘Offshore location’ includes, but is not limited to:

- a) helidecks;
- b) shipboard heliports; and
- c) winching areas on vessels or renewable-energy installations.

Offshore Operations

An offshore operation is considered to be a helicopter flight for the purpose of:

- a) support of offshore oil, gas and mineral exploration, production, storage and transport;
- b) support to offshore wind turbines and other renewable-energy sources; or
- c) support to ships including sea pilot transfer.

Principal Place of Business

- a) The principal place of business encompasses the principal financial functions and operational control of the activities of an operator. It may refer to the organization’s site from which the majority of its management personnel specified in ORO.GEN.110 directs, controls or coordinates its operational activities, ensuring that the organization complies with Regulations published by the DGCA. For non-commercial operations, this is usually the home base of the aircraft concerned or the location of the flight department.
- b) Since an operator, especially in the world of non-commercial operations, may use several places where it performs financial transactions, or several operational bases where there are personnel in charge of operational control, for the purpose of an effective oversight, it is relevant that the principal place of business be the one:
 - a. where its main building facilities are located;
 - b. where main administrative and financial work is being done (where salaries and employment benefits are paid); and

- c. from where the organization management directs, controls or coordinates a substantial part of its activities, ensuring that the organization complies with the requirements specified in Regulations published by the DGCA.
- c) Organizations that perform also activities which are not subject to Part-ORO, Part-NCC or Part-SPO are recommended to consider that part of the organization which is responsible for the operation of aircraft subject to Part-ORO, Part-NCC or Part-SPO.

For such organizations, the accountable manager is that manager who has the authority to ensure that all activities subject to Part-ORO, Part-NCC or Part-SPO can be financed and carried out in accordance with the applicable requirements. If the accountable manager is not located in the part of the organization that is responsible for the operation of aircraft, but the other criteria mentioned in point (b) apply, the location of the accountable manager does not need to be considered for the determination of the principal place of business.

Public Interest Site

An example of a public interest sites is a landing site based at a hospital located in a hostile environment in a congested area, which due to its size or obstacle environment does not allow the application of performance class 1 requirements that would otherwise be required for operations in a congested hostile environment.

Runway Condition Code (RWYCC)

The purpose of the runway condition code (RWYCC) is to permit an operational aeroplane landing performance calculation by the flight crew.

Runway Surface Condition(s)

- a) The runway surface conditions used in the RCR establish a common language between the aerodrome operator, the aeroplane manufacturer and the aeroplane operator.
- b) Aircraft de-icing chemicals and other contaminants are also reported but are not included in the list of runway surface condition descriptors because their effect on the runway surface friction characteristics and the RWYCC cannot be evaluated in a standardized manner.

Runway Surface Condition Descriptors — General

The runway surface condition descriptors are used solely in the context of the RCR and are not intended to supersede or replace any existing World Meteorological Organization (WMO) definitions.

RUNWAY SURFACE CONDITION DESCRIPTORS — FROST

- a. Freezing refers to the freezing point of water (0 °C).
- b. Under certain conditions, frost can cause the surface to become very slippery, and it is then reported appropriately as downgraded RWYCC.

RUNWAY SURFACE CONDITION DESCRIPTORS — STANDING WATER

Running water of depth greater than 3 mm is reported as ‘standing water’ by convention.

RUNWAY SURFACE CONDITION DESCRIPTORS – WET ICE

Freezing precipitation can lead to runway conditions associated with wet ice from an aeroplane performance point of view. Wet ice can cause the surface to become very slippery. It is then reported appropriately as downgraded RWYCC.

Simple and Complex Personnel-Carrying Device System (PCDS)

- a) The following may qualify as a simple PCDS:
 - a. A safety harness or rescue triangle for no more than two persons.

- b. A fixed-rope system for no more than two persons, to be attached under a single cargo hook or Y-rope to be attached to a dual hook.
- b) The following may not qualify as a simple PCDS:
 - a. Any system that connects three persons or more to the helicopter.
 - b. A PCDS with new or novel features.
 - c. A PCDS that has not yet been proven by an appreciable and satisfactory service experience.
- c) The connecting elements to the hoist or cargo hook are part of the PCDS.

Slippery Wet Runway

- a) The surface friction characteristics of the runway are considered degraded when below the minimum standards.
- b) A portion of runway in the order of 100 m long may be considered significant.

Task Specialists

For the purpose of air operations, persons that are carried in a specialized operation, e.g. on a parachute flight, sensational flight or scientific research flight, are considered to be task specialists.

Technical Instructions

The ICAO document number for the Technical Instructions is Doc 9284-AN/905.

4. UPSET PREVENTION AND RECOVERY TRAINING (UPRT) DEFINITIONS

‘Aeroplane upset prevention and recovery training (UPRT)’ refers to training consisting of:

- aeroplane upset prevention training: a combination of theoretical knowledge and flying training with the aim of providing flight crew with the required competencies to prevent aeroplane upsets; and
- aeroplane upset recovery training: a combination of theoretical knowledge and flying training with the aim of providing flight crew with the required competencies to recover from aeroplane upsets.

‘Aeroplane upset’ refers to an undesired aircraft state characterised by unintentional divergences from parameters normally experienced during operations. An aeroplane upset may involve pitch and/or bank angle divergences as well as inappropriate airspeeds for the conditions.

‘Angle of attack (AOA)’ means the angle between the oncoming air, or relative wind, and a defined reference line on the aeroplane or wing. *‘Approach-to-stall’* means flight conditions bordered by the stall warning and stall.

‘Competency’ means a combination of skills, knowledge, and attitudes required to perform a task to the prescribed standard.

‘Developed upset’ means a condition meeting the definition of an aeroplane upset.

‘Developing upset’ means any time the aeroplane begins to unintentionally diverge from the intended flight path or airspeed.

‘Energy state’ means how much of each kind of energy (kinetic, potential or chemical) the aeroplane has available at any given time.

‘Error’ means an action or inaction by the flight crew that leads to deviations from organisational or flight crew intentions or expectations.

‘Error management’ means the process of detecting and responding to errors with countermeasures that reduce or eliminate the consequences of errors, and mitigate the probability of further errors or undesired aircraft states.

'First indication of a stall' means the initial aural, tactile or visual sign of an impending stall, which can be either naturally or synthetically induced.

'Flight crew resilience' means the ability of a flight crew member to recognise, absorb and adapt to disruptions.

'Fidelity level' means the level of realism assigned to each of the defined FSTD features.

'Flight path' means the trajectory or path of the aeroplane travelling through the air over a given space of time.

'Flight path management' means active manipulation, using either the aeroplanes automation or manual handling, to command the aeroplane flight controls to direct the aeroplane along a desired trajectory.

'FSTD Training Envelope' refers to the high and moderate confidence regions of the FSTD validation envelope.

'Load factor' factor means the ratio of a specified load to the weight of the aeroplane, the former being expressed in terms of aerodynamic forces, propulsive forces, or ground reactions.

'Loss of control in flight (LOCI)' means a categorisation of an accident or incident resulting from a deviation from the intended flight path.

'Manoeuvre-based training' means training that focuses on a single event or manoeuvre in isolation.

'Negative training' means training which unintentionally introduces incorrect information or invalid concepts, which could actually decrease rather than increase safety.

'Negative transfer of training' means the application (and 'transfer') of what was learned in a training environment (i.e., a classroom, an FSTD) to normal practice, i.e. it describes the degree to which what was learned in training is applied to actual normal practices. In this context, negative transfer of training refers to the inappropriate generalisation of knowledge and skill to a situation or setting in normal practice that does not equal the training situation or setting.

'Post-stall regime' means flight conditions at an angle of attack greater than the critical angle of attack.

'Scenario-based training' means training that incorporates manoeuvres into real-world experiences to cultivate practical flying skills in an operational environment.

'Stall' means a loss of lift caused by exceeding the aeroplane's critical angle of attack.

Note: A stalled condition can exist at any attitude and airspeed, and may be recognised by continuous stall warning activation accompanied by at least one of the following:

- a) buffeting, which could be heavy at times;
- b) lack of pitch authority and/or roll control; and
- c) inability to arrest the descent rate.

'Stall Event' means an occurrence whereby the aeroplane experiences conditions associated with an approach-to-stall or a stall.

'Stall (event) recovery procedure' means the manufacturer-approved aeroplane-specific stall recovery procedure. If an OEM-approved recovery procedure does not exist, the aeroplane-specific stall recovery procedure developed by the operator, based on the stall recovery template contained in GM5 ORO.FC.220&230, may be used.

'Stall warning' means a natural or synthetic indication provided when approaching a stall that may include one or more of the following indications:

- a) aerodynamic buffeting (some aeroplanes will buffet more than others);
- b) reduced roll stability and aileron effectiveness;

- c) visual or aural cues and warnings;
- d) reduced elevator (pitch) authority;
- e) inability to maintain altitude or arrest rate of descent; and
- f) stick shaker activation (if installed). Note: A stall warning indicates an immediate need to reduce the angle of attack.

‘Startle’ means the initial short-term, involuntary physiological and cognitive reactions to an unexpected event that commence the normal human stress response.

‘Stick pusher’ means a device that, automatically applies a nose down movement and pitch force to an aeroplane’s control columns, to attempt to decrease the aeroplane’s angle of attack. Device activation may occur before or after aerodynamic stall, depending on the aeroplane type.

Note: A stick pusher is not installed on all aeroplane types.

‘Stick shaker’ means a device that automatically vibrates the control column to warn the pilot of an approaching stall. Note: A stick shaker is not installed on all aeroplane types.

‘Stress (response)’ means the response to a threatening event that includes physiological, psychological and cognitive effects. These effects may range from positive to negative and can either enhance or degrade performance.

‘Surprise’ means the emotionally-based recognition of a difference in what was expected and what is actual.

‘Threat’ means events or errors that occur beyond the influence of the flight crew, increase operational complexity and must be managed to maintain the margin of safety.

‘Threat management’ means the process of detecting and responding to threats with countermeasures that reduce or eliminate the consequences of threats and mitigate the probability of errors or undesired aircraft states.

‘Train-to-proficiency’ means approved training designed to achieve end-state performance objectives, providing sufficient assurances that the trained individual is capable to consistently carry out specific tasks safely and effectively. Note: In the context of this definition, ‘train-to-proficiency’ can be replaced by ‘training-to-proficiency’.

‘Undesired aircraft state’ means flight crew-induced aircraft position or speed deviation, misapplication of controls, or incorrect systems configuration, associated with a reduction in margins of safety.

Note: Undesired states can be managed effectively, restoring margins of safety, or flight crew response(s) can induce an additional error, incident, or accident.

Note: All countermeasures are necessary flight crew actions. However, some countermeasures to threats, errors and undesired aircraft states that flight crew employ, build upon ‘hard’/systemic-based resources provided by the aviation system.

‘Unsafe situation’ means a situation, which has led to an unacceptable reduction in safety margin.

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The first action includes for example: apply brakes, reduce thrust, deploy speed brakes.

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The minimum speed at which climb shall be achieved with the critical engine inoperative, the remaining engines operating within approved operating limits.

Note.— The speed referred to above may be measured by instrument indications or achieved by a procedure specified in the flight manual.