

**STATE OF LIBYA  
GOVERNMENT OF LIBYA  
MINISTRY OF TRANSPORT  
CIVIL AVIATION AUTHORITY**



**دولة ليبيا  
الحكومة الليبية  
وزارة المواصلات  
مصلحة الطيران المدني**

# **LIBYA CIVIL AVIATION REGULATIONS Air Operations**

AMC (Acceptable Means of Compliance) & GM (Guidance Material)

## **Part CAT DEFINITIONS**

Amendment 3 – December 2019

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## INTRODUCTION

1. The LyCAA has adapted associated compliance or interpretative material to Part DEF. This document is based on EASA Acceptable Means of Compliance (AMCs) and Guidance Materials (GMs).
2. This is Amendment 3 of Acceptable Means of Compliance (AMCs) and Guidance Materials (GMs) to Part Definitions of LYCAR Air Operations.
3. Unless specifically stated otherwise, clarification will be based on this material or other EASA documentation, therefore, reference to EASA in this document may still be used for clarification and guidance.
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Signed on 4<sup>th</sup> December 2019, by:



**Captain Nasereddin Shaebelain**  
**Director General**

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## TABLE OF CONTENT

<b>GM TO PART DEFINITIONS</b> .....	<b>1</b>
DEFINITIONS FOR TERMS USED IN ACCEPTABLE MEANS OF COMPLIANCE AND GUIDANCE MATERIAL.....	1
GM 1- DEFINITIONS .....	1
GM2 - ABBREVIATIONS AND ACRONYMS .....	3
GM3 - DEFINITIONS.....	14
GM4 - DEFINITIONS.....	14
GM5 - HELICOPTER EMERGENCY MEDICAL SERVICES (HEMS) FLIGHT.....	14
GM6 ANNEX I DEFINITIONS.....	15
GM7 - NIGHT VISION IMAGING SYSTEM (NVIS).....	15
GM8 ANNEX I DEFINITIONS .....	15
GM9 - OFFSHORE OPERATIONS.....	15
GM10 - COASTLINE .....	15
GM11 - PUBLIC INTEREST SITE.....	15
GM12 - TECHNICAL INSTRUCTIONS.....	15
GM13 - V1.....	15
GM14 - TASK SPECIALISTS .....	15
GM15 - UPSET PREVENTION AND RECOVERY TRAINING (UPRT) DEFINITIONS.....	15

**Amendment 3 Changes highlights**

<b>EASA Amend</b>	<b>Item</b>	<b>Change</b>
8	GM15	amended
9	GM1	amended
10	GM1	amended
	GM17	Added
11	GM17	amended
	GM18	Added

## GM to Part Definitions

### DEFINITIONS FOR TERMS USED IN ACCEPTABLE MEANS OF COMPLIANCE AND GUIDANCE MATERIAL

#### GM 1- definitions

For the purpose of Acceptable Means of Compliance and Guidance Material to Regulation Air Operations, the following definitions should apply:

- (a) 'abnormal flight behaviour' means, in the context of an aircraft tracking system, an event affecting a flight:
  - (1) which is outside of the parameters defined by the operator for normal operation or which indicates an obvious deviation from normal operation; and
  - (2) for which the operator has determined that it poses a risk for the safe continuation of the flight or for third parties.
- (b) 'Accuracy' means, 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.
- (ba) 'Airport moving map display (AMMD)' means 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.
- (c) 'Aircraft-based augmentation system (ABAS)' means 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).
- (d) 'Area navigation (RNAV)' means a method of navigation which permits aircraft operation on any desired flight path within the coverage of station-referenced navigation aids or within the limits of the capability of self-contained aids, or a combination of these.
- (e) 'Availability' means, 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.
- (fa) 'Controlled portable electronic device (C-PED)' means 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 unauthorised changes are made to the hardware, software, or databases. C-PEDs can be assigned to the category of non-intentional transmitters or T-PEDs.
- (fb) 'EFB installed resources' means 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.
- (fc) 'EFB mounting device' means an aircraft certified part that secures a portable or installed EFB, or EFB system components.
- (fd) 'EFB system supplier' means the company responsible for developing, or for having developed, the EFB system or part of it.
- (g) 'Committal point' means the point in the approach at which the pilot flying decides that, in the event of an engine failure being recognised, the safest option is to continue to the elevated final approach and take-off area (elevated FATO).

- (h) 'Emergency locator transmitter' is a generic term describing equipment that broadcasts distinctive signals on designated frequencies and, depending on application, may be activated by impact or may be manually activated.
- (i) 'Exposure time' means 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.
- (j) 'Fail-operational flight control system' means 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.
- (k) 'Fail-operational hybrid landing system' means 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.
- (l) '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.
- (m) '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.
- (n) 'HEMS dispatch centre' means 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.
- (na) 'Installed EFB' means 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.
- (o) 'Hybrid head-up display landing system (hybrid HUDLS)' means 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.
- (p) 'Integrity' means, 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.
- (q) 'Landing distance available (LDAH)' means 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.
- (r) 'Landing distance required (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.
- (s) 'Lateral navigation' means 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.
- (t) 'Maximum structural landing mass' means the maximum permissible total aeroplane mass upon landing under normal circumstances.
- (ta) 'Miscellaneous (non-EFB) software applications' means non-EFB applications that support function(s) not directly related to the tasks performed by the flight crew in the aircraft.
- (u) 'Maximum zero fuel mass' means 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.
- (v) '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.

- (w) '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.
- (x) '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.
- (y)
- (z) 'Personal locator beacon (PLB)' is an emergency beacon other than an ELT that broadcasts distinctive signals on designated frequencies, is standalone, portable and is manually activated by the survivors.
- (aa) (ra) '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 standardised 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.
- (ac) 'Transmitting PED (T-PED)' means a portable electronic device (PED) that has intentional radio frequency (RF) transmission capabilities.
- (acd) 'Vertical navigation' means 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.
- (ae) 'Viewable stowage' means 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.
- (bb) 'Receiver autonomous integrity monitoring (RAIM)' means 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.
- (cc) 'Rotation point (RP)' means 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.
- (dd) 'Space -based augmentation system (SBAS)' means a wide coverage augmentation system that augments and/or integrates the information obtained from the other GNSS elements with information from a satellite-based transmitter. The most common form of SBAS in Europe is the European Geostationary Navigation Overlay Service (EGNOS).
- (ee) 'Touch down and lift-off area (TLOF)' means a load-bearing area on which a helicopter may touch down or lift off.
- (ff) 'Vertical navigation' means a method of navigation which perm its aircraft operation on a vertical flight profile using altimetry sources, external flight path references, or a combination of these.

## GM2 - ABBREVIATIONS AND ACRONYMS

The following abbreviations and acronyms are used in the parts of this Regulation:

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A	aeroplane
a/c	aircraft
AAC	aeronautical administrative communications
AAL	above aerodrome level
AAIM	aircraft autonomous integrity monitoring
ABAS	aircraft-based augmentation system
AC	advisory circular
AC	alternating current
ACAS	airborne collision avoidance system
ADF	automatic direction finder
ADG	air driven generator
ADS	automatic dependent surveillance
ADS-B	automatic dependent surveillance - broadcast
ADS-C	automatic dependent surveillance - contract
AEA	Association of European Airlines
AEO	all-engines-operative
AFFF	aqueous film forming foams
AFM	aircraft flight manual
AFN	aircraft flight notification
AFN	ATS facilities notification
AGL	above ground level
AHRS	attitude heading reference system
AIS	aeronautical information service
ALARP	as low as reasonably practicable
ALSF	approach lighting system with sequenced flashing lights
AMC	Acceptable Means of Compliance
AML	aircraft maintenance licence
AMSL	above mean sea level
A-RNP	advanced required navigation performance
ANP	actual navigation performance
AOC	aeronautical operational control
AOC	air operator certificate
APCH AR	approach authorisation required
APU	auxiliary power unit
APV	approach procedure with vertical guidance
AR	authorisation required
A-RNP	advanced required navigation performance
ARA	airborne radar approach
ARA	Authority Requirements for Aircrew

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ARO	Authority Requirements for Air Operations
ARP	Aerospace Recommended Practices
ASC	Air Safety Committee
ASDA	accelerate-stop distance available
ASE	altimeter system error
ATA	Air Transport Association
ATC	air traffic control
ATIS	automatic terminal information service
ATN	air traffic navigation
ATPL	airline transport pilot licence
ATQP	alternative training and qualification programme
ATS	air traffic service
ATSC	air traffic communication services
AVGAS	aviation gasoline
AVTAG	aviation turbine gasoline (wide-cut fuel)
AWO	all weather operations
BALS	basic approach lighting system
BCAR	British civil airworthiness requirements
Baro-VNAV	barometric VNAV
BITD	basic instrument training device
CAP	controller access parameters
CAT	commercial air transport
CAT I/II/III	category I / II / III
CBT	computer-based training
CC	cabin crew
CDFA	continuous descent final approach
CDL	configuration deviation list
CFIT	controlled flight into terrain
CG	centre of gravity
CM	context management
CMV	converted meteorological visibility
CofA	certificate of airworthiness
COP	code of practice
CoR	certificate of registration
COSPAS-SARSAT	cosmicheskaya sistyema poiska avariynich sudov - search and rescue satellite-aided tracking
CP	committal point
CPA	closest point of approach
CPDLC	controller pilot data link communication

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CPL	commercial pilot licence
C-PED	controlled portable electronic device
CRE	class rating examiner
CRI	class rating instructor
CRM	crew resource management
CS	Certification Specifications
CVR	cockpit voice recorder
DA	decision altitude
DA/H	decision altitude/height
DAP	downlinked aircraft parameters
D-ATIS	digital automatic terminal information service
DC	direct current
DCL	departure clearance
D-FIS	data link flight information service
DG	dangerous goods
DH	decision height
DI	daily inspection
DIFF	deck integrated fire fighting system
DLR	data link recorder
DME	distance measuring equipment
D-METAR	data link - meteorological aerodrome report
D-OTIS	data link - operational terminal information service
DPATO	defined point after take-off
DPBL	defined point before landing
DR	decision range
DSTRK	desired track
EC	European Community
ECAC	European Civil Aviation Conference
EFB	electronic flight bag
EFIS	electronic flight instrument system
EGNOS	European geostationary navigation overlay service
EGT	exhaust gas temperature
ELT	emergency locator transmitter
ELT(AD)	emergency locator transmitter (automatically deployable)
ELT(AF)	emergency locator transmitter (automatic fixed)
ELT(AP)	emergency locator transmitter (automatic portable)
ELT(S)	survival emergency locator transmitter
EPE	estimated position of error
EPR	engine pressure ratio

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EPU	estimated position of uncertainty
ERA	en-route alternate (aerodrome)
ERP	emergency response plan
ETOPS	extended range operations with two-engined aeroplanes
EU	European Union
EUROCAE	European Organisation for Civil Aviation Equipment
EVS	enhanced vision system
FAA	Federal Aviation Administration
FAF	final approach fix
FALS	full approach lighting system
FANS	future air navigation systems
FAP	final approach point
FAR	Federal Aviation Regulation
FATO	final approach and take-off
FC	flight crew
FCL	flight crew licensing
FCOM	flight crew operating manual
FDM	flight data monitoring
FDO	flying display operation
FDR	flight data recorder
FFS	full flight simulator
FGS	flight control/guidance system
FI	flight instructor
FLIPCY	flight plan consistency
FLTA	forward-looking terrain avoidance
FMECA	failure mode, effects and criticality analysis
FMS	flight management system
FNPT	flight and navigation procedures trainer
FOD	foreign object damage
FOSA	flight operational safety assessment
fpm	feet per minute
FSTD	flight simulation training device
FRT	fixed radius transition
ft	feet
FTD	flight training device
FTE	full time equivalent
FTL	flight and duty time limitations
FTE	flight technical error
g	gram

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GAGAN	GPS aided geo augmented navigation
GBAS	ground-based augmentation system
GCAS	ground collision avoidance system
GEN	general
GIDS	ground ice detection system
GLS	GBAS landing system
GM	Guidance Material
GMP	general medical practitioner
GNSS	global navigation satellite system
GPS	global positioning system
GPWS	ground proximity warning system
H	helicopter
HEMS	helicopter emergency medical service
HF	high frequency
Hg	mercury
HHO	helicopter hoist operation
HIALS	high intensity approach lighting system
HIGE	hover in ground effect
HLL	helideck limitations list
HOGE	hover out of ground effect
HoT	hold-over time
hPa	hectopascals
HPL	human performance and limitations
HUD	head-up display
HUDLS	head-up guidance landing system
HUMS	health usage monitor system
IAF	initial approach fix
IALS	intermediate approach lighting system
ICAO	International Civil Aviation Organization
IDE	instruments, data and equipment
IF	intermediate fix
IFR	instrument flight rules
IFSD	in-flight shutdown
IGE	in ground effect
ILS	instrument landing system
IMC	instrument meteorological conditions
in	inches
INS	inertial navigation system
IP	intermediate point

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IR	Implementing Rule
IR	instrument rating
IRS	inertial reference system
ISA	international standard atmosphere
ISO	International Organization for Standardization
I	intravenous
JAA	Joint Aviation Authorities
JAR	Joint Aviation Requirements
kg	kilograms
km	kilometres
kt	knots
LDA	landing distance available
LDP	landing decision point
LED	light-emitting diode
LHS	left hand seat
LIFUS	line flying under supervision
LNAV	lateral navigation
LoA	letter of acceptance
LOC	localiser
LOE	line-oriented evaluation
LOFT	line-oriented flight training
LOQE	line-oriented quality evaluation
LOS	limited obstacle surface
LPV	localiser performance with vertical guidance
LRCS	long range communication system
LRNS	long range navigation system
LVO	low visibility operation
LVP	low visibility procedures
LVTO	low visibility take-off
m	metres
MALS	medium intensity approach lighting system
MALSF	medium intensity approach lighting system with sequenced flashing lights
MALSR	medium intensity approach lighting system with runway alignment indicator lights
MAPt	missed approach point
MCTOM	maximum certified take-off mass
MDA	minimum descent altitude
MDH	minimum descent height
MEA	minimum en-route altitude

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MED	medical
MEL	minimum equipment list
METAR	meteorological aerodrome report
MGA	minimum grid altitude
MHA	minimum holding altitude
MHz	megahertz
MID	midpoint
MLR	manuals, logs and records
MLS	microwave landing system
MLX	millilux
mm	millimetres
MM	multi-mode
MMEL	master minimum equipment list
MNPS	minimum navigation performance specifications
MOC	minimum obstacle clearance
MOCA	minimum obstacle clearance altitude
MOPSC	maximum operational passenger seating configuration
MORA	minimum off-route altitude
MPSC	maximum passenger seating capacity
MSA	minimum sector altitude
MSAS	multi-functional satellite augmentation system
MTCA	minimum terrain clearance altitude
N	North
NADP	noise abatement departure procedure
NALS	no approach lighting system
NCC	non-commercial operations with complex motor-powered aircraft
NCO	non-commercial operations with other-than-complex motor-powered aircraft
NF	free power turbine speed
NG	engine gas generator speed
NM	nautical miles
NOTAM	notice to airmen
NOTECHS	non-technical skills evaluation
NOTOC	notification to captain
NPA	non-precision approach
NPA	Notice of Proposed Amendment
NSE	navigation system error
NVD	night vision device
NVG	night vision goggles

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NVIS	night vision imaging system
OAT	outside air temperature
OCH	obstacle clearance height
OCL	oceanic clearance
ODALS	omnidirectional approach lighting system
OEI	one-engine-inoperative
OFS	obstacle-free surface
OGE	out of ground effect
OIP	offset initiation point
OM	operations manual
OML	operational multi-pilot limitation
ONC	operational navigation chart
OPS	operations
ORO	Organisation Requirements for Air Operations
OTS CAT II	other than standard category II
PAPI	precision approach path indicator
PAR	precision approach radar
PBE	protective breathing equipment
PBN	performance-based navigation
PCDS	personnel carrying device system
PC/PT	proficiency check/proficiency training
PDA	premature descent alert
PDP	predetermined point
PED	portable electronic device
PIC	pilot-in-command
PIN	personal identification number
PIS	public interest site
PLB	personal locator beacon
PNR	point of no return
POH	pilot's operating handbook
PRM	person with reduced mobility
QAR	quick access recorder
QFE	atmospheric pressure at aerodrome elevation / runway threshold
QNH	atmospheric pressure at nautical height
RA	resolution advisory
RAIM	receiver autonomous integrity monitoring
RAT	ram air turbine
RCC	rescue coordination centre
RCF	reduced contingency fuel

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RCLL	runway centre line lights
RF	fixed radius
RF	radio frequency
RF	radius to fix
RFC	route facility chart
RI	ramp inspection
RI	rectification interval
RIE	rectification interval extension
RMA	regional monitoring agency
RNAV	area navigation
RNP	required navigation performance
RNP APCH	RNP approach
RNP AR APCH	RNP approach for which authorisation is required
ROD	rate of descent
RP	rotation point
RTCA	Radio Technical Commission for Aeronautics
RTODAH	rejected take-off distance available (helicopters)
RTODRH	rejected take-off distance required (helicopters)
RTOM	reduced take-off mass
RTZL	runway touchdown zone lights
RVR	runway visual range
RVSM	reduced vertical separation minima
S	South
SAFA	safety assessment of foreign aircraft
SALS	simple approach lighting system
SALSF	simple approach lighting system with sequenced flashing lights
SAP	stabilised approach
SAP	system access parameters
SAR	search and rescue
SAS	stability augmentation system
SBAS	satellite-based augmentation system
SCC	senior cabin crew
SCP	special category of passenger
SDCM	system of differential correction and monitoring
SFE	synthetic flight examiner
SFI	synthetic flight instructor
SID	standard instrument departure
SMM	safety management manual
SMS	safety management system

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SNAS	satellite navigation augmentation system
SOP	standard operating procedure
SPA	operations requiring specific approvals
SPECI	aviation selected special weather report
SPO	specialised operations
SRA	surveillance radar approach
SSALF	simplified short approach lighting system with sequenced flashing lights
SSALR	simplified short approach lighting system with runway alignment indicator lights
SSALS	simplified short approach lighting system
SSEC	static source error correction
SSR	secondary surveillance radar
STAR	standard terminal arrival route
STC	supplemental type certificate
TA	traffic advisory
TAC	terminal approach chart
TAS	true airspeed
TAWS	terrain awareness warning system
TC	technical crew
TC	type certificate
TCAS	traffic collision avoidance system
TCCA	Transport Canada Civil Aviation
TCH	type certificate holder
TDP	take-off decision point
TDZ	touchdown zone
THR	threshold
TI	Technical Instructions
TIT	turbine inlet temperature
TLS	target level of safety
TMG	touring motor glider
TODA	take-off distance available (aeroplanes)
TODAH	take-off distance available (helicopters)
TODRH	take-off distance required (helicopters)
TORA	take-off run available
TOGA	take-off/go around
T-PED	transmitting portable electronic device
TRE	type rating examiner
TRI	type rating instructor
TSE	total system error

TVE	total vertical error
TWIP	terminal weather information for pilots
UMS	usage monitoring system
UTC	coordinated universal time
V <sub>2</sub>	take-off safety speed
V <sub>so</sub>	stalling speed
VAT	indicated airspeed at threshold
VDF	VHF direction finder
VFR	visual flight rules
VHF	very high frequency
VIS	visibility
VMC	visual meteorological conditions
VMO	maximum operating speed
VNAV	vertical navigation
VOR	VHF omnidirectional radio range
VT	threshold speed
VTOL	vertical take-off and landing
VTSS	take-off safety speed
WAAS	wide area augmentation system
WAC	world aeronautical chart
WIFI	wireless fidelity
ZFTT	zero flight-time training

### **GM3 - Definitions**

#### HELIDECK

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

### **GM4 - Definitions**

#### HEAD-UP GUIDANCE LANDING SYSTEM (HUDLS)

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

### **GM5 - 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:
  - (1) flights to and from the HEMS operating site when initiated by the HEMS dispatch centre;

- (2) 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
- (3) flights to and from an aerodrome/operating site for refuelling required for completion of the HEMS mission.

### **GM6 Annex I Definitions**

#### **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.

### **GM7 - NIGHT VISION IMAGING SYSTEM (NVIS)**

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

### **GM8 Annex I Definitions**

#### **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.

### **GM9 - 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..

### **GM10 - COASTLINE**

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

### **GM11 - 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.

### **GM12 - TECHNICAL INSTRUCTIONS**

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

### **GM13 - V1**

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

### **GM14 - TASK SPECIALISTS**

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

### **GM15 - 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 or 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.

## **GM16 Annex I Definitions**

### **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. Further guidance can be found in AMC 25.1309.

Minor failure conditions are not considered to be unsafe conditions in accordance with AMC 21.A.3B(b).

## **GM17 Definitions**

### **SIMPLE AND COMPLEX PERSONNEL-CARRYING DEVICE SYSTEM (PCDS)**

- (a) The following may qualify as a simple PCDS:
  - (1) A safety harness or rescue triangle for no more than two persons.
  - (2) 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:
  - (1) Any system that connects three persons or more to the helicopter.
  - (2) A PCDS with new or novel features.
  - (3) 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.

## **GM18 Annex I Definitions**

### **DETERMINING THE 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 organisation'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 organisation complies with LYCAR Air Operations. 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:
  - (1) where the operator has registered its organisation with the local register and where it pays corporate tax;
  - (2) where its main building facilities are located;
  - (3) where main administrative and financial work is being done (where salaries and employment benefits are paid); and
  - (4) from where the organisation management directs, controls or coordinates a substantial part of its activities, ensuring that the organisation complies with the requirements specified in LYCAR Air Operations.
- (c) Organisations that perform also activities which are not subject to Part-ORO, Part-NCC or Part-SPO are recommended to consider that part of the organisation which is responsible for the operation of aircraft subject to Part-ORO, Part-NCC or Part-SPO.

For such organisations, 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 organisation 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.