Flightpath

AVIATION ENGLISH FOR PILOTS AND ATCOs

GLOSSARY OF AVIATION TERMS

Word	Definition and examples
aft	an adjective referring to the back part of a plane. *Rear* is also used with the same meaning. It contrasts with *forward*. The words *before* and *after* are only used to talk about time relationships
A.C.	Alternating Current: the type of electrical power generated by the engine generators and characterised by frequency oscillation as opposed to D.C. (Direct Current).
a/c	abbreviation for *aircraft*
abeam the runway	indicating that the runway is to the side of the aircraft, at a bearing of approximately 90° or 270° relative to the aircraft, i.e. to the right or the left
abort (v)	to stop doing something or stop a process that you had intended to do or had already started to do, especially a take-off or landing: *take-off must be aborted before V1.*
ACAS	Airborne Collision Avoidance System: an aircraft system using Secondary Surveillance Radar (SSR) transponder signals, which operates independently of ground equipment to alert the flight crew about conflicting aircraft
A.C. bus	an aircraft electrical power distribution point for alternating current to which several power circuits are connected
AC Essential feed	the main alternating current power supply
access platform	a platform mounted on wheels with steps which allows technicians to gain access to the higher parts of the aircraft
accretion rate	the speed at which ice is accumulating; it is also referred to as the *accumulation rate* or *build-up rate*
acknowledge (v)	to say that you have heard and understood. It is important that the controller listens carefully to pilot input on the nature of the emergency, requests clarification if in doubt, and gives the crew reassurance that their problem is understood. Requesting and providing clarification, paraphrasing, confirming and acknowledging all play a key role in such exchanges: *In case of radio failure, acknowledge by flashing headlights.*
acrid	used to describe a sharp, bitter (smell), especially of smoke or fumes
acute	1) at a sharp angle, at an angle of less than 90° 2) severe: *acute pain*
ADF	Automatic Direction Finder: airborne radio navaid tuned to non-directional beacons; the intersection of two bearings provides the aircraft's position: *if the ADF needle points up, the NDB is ahead*
advance (v)	to move forward the thrust or throttle levers to increase engine power; the contrary of *to retard*: *advance the thrust levers to TOGA (Take-off / Go-around)*
Advanced Visual Docking Guidance System	another term for the Nose-in Guidance System or PAPA (Parallel Aircraft Parking Aid). Different technologies are used, but basically they all use a system of lights to guide the crew to the correct position for their aircraft type
advise (v)	most often used in aviation in the sense of *to inform* or *to tell*, rather than *to recommend*: *advise intentions*
advisory	information displayed to the crew which does not require immediate action or informational documents issued by the regulator or the manufacturer
aerodrome	any place from which aircraft flight operations take place
affect (v)	to have an effect or influence on something or someone: *It is well known that fatigue affects a pilot's alertness and performance*
affirm	yes: '*Confirm 8.33.*' – '*Affirm. 8.33.*'
against	1) in relation to, compared with: *the airspeed against angle of attack ratio was a concern* 2) in contact with: *the aircraft overran the end of the runway and came to a stop against the boundary fence.*
AGNIS	Azimuth Guidance for Nose-In Stand: one of the most popular forms of stand guidance, i.e. ways of guiding a plane to its correct position in the stand
ahead	in front of the aircraft: *there is traffic ahead at 10 o'clock.*

Word	Definition and examples
ahead of the aircraft	a desirable condition meaning that the flight crew can anticipate what the aircraft will do and what they should plan for in advance: *the crew must stay ahead of the aircraft at all times.*
aileron power control unit	a hydraulically powered servo-control which moves the ailerons on the outer wings
air conditioning pack	a large unit comprising an air cycle machine and pre-cooler which regulates bleed air from the engine compressor for use in conditioning the cabin air
Air Data Computer	ADC: a digital computer serving as a central source of information on the surrounding atmosphere and the aircraft flight through it. It provides the pressure altitude, outside air temperature, airspeed, Mach number and angle of attack data to the automatic flight control system, the flight instruments and other systems.
Air Safety Report	a report written after an operational incident. Transparent, non-blaming reporting of incidents contributes significantly to improvements in safety and a better understanding of error chains
airborne	1) in the air 2) installed or carried on the aircraft: *The ADF is an airborne navaid*
airbridge	a telescopic walkway for passengers to board and disembark from the aircraft directly from and to the terminal building; it is also referred to as a *jetway* or *jetty*
aircraft maintenance technician	AMT: an aircraft mechanic or engineer who inspects and services the aircraft (engine oil levels, tyre pressure and wear, signs of fuel or hydraulic leaks, impact damage to the engine air intakes and wing leading edges etc.), performs any small repairs and makes entries in the aircraft technical logbook. These activities are *line maintenance*
airframe	another word for the aircraft structure or *fuselage* and wings; *hull* is also used
AIRPROX	a situation in which the distance between aircraft and their relative positions and speed is such that their safety may be threatened. After such an incident a pilot or ATCO can file a report.
airstairs	mobile stairs used at outlying stands for passengers to board and disembark
ALAR	Approach and Landing Accident Reduction: more accidents occur during approach and landing than during any other phase of flight. The Flight Safety Foundation has gathered extensive research on this issue and published the ALAR Tool Kit.
alternate (n)	an airport along or near the scheduled route to which the aircraft can divert and where it can land in case of an incident during the flight
alternative	something you can choose to do instead of something else. It can be related to any aspect of the flight: routing, level, heading, timing etc: We *have two alternatives: uplift extra fuel or offload the last passengers.*
altimeter setting	standard pressure altitude with reference to sea level (QNH) or local pressure altitude at the airport elevation (QFE) set by the crew on their altimeter and critical, especially during descent and approach: *The altimeter setting is 1023. Confirm.*
altitude restriction	an obligation for the crew to not fly above or below a certain altitude at a given point or in a given area
amber transit lights	the amber lights neat the landing gear lever which are illuminated when the landing gear is moving between its extended and retracted positions and vice versa
ambient lighting	the general lighting of the cockpit provided by the dome light
amend (v)	to modify or change something: We *wish to amend our flight plan.*
AMT	See *aircraft maintenance technician*
analog(ue)	technology based on continuous variables rather than digital binary inputs: *Most analog(ue) instruments have been replaced by digital displays.*
angled exit / turn-off	exits designed to facilitate aircraft vacating the runway at speed, hence the term *high-speed turnoff*, and performing a rolling start for take-off
angle of attack	AOA or ά: the angle between the chord line of the wing of an aircraft and the vector representing the relative motion between the aircraft and the atmosphere. Information from the angle of attack sensor, or alpha probe, is used to trigger a stall warning.
anomaly	an unusual, incorrect or abnormal event: *we experienced an oil pressure indication anomaly on Engine Number 3.*
ANSP	Air Navigation Service Provider: organisation providing air traffic control within a given region for example, Aerothai, Airways NZ, DFS, FANA, FAA, NAV Canada, NATS, PANSA, ENAV etc.
anti-ice / anti-icing	all the pneumatic systems which prevent the accumulation of ice on the wing leading edges and engine air intakes: *wing anti-ice, engine anti-ice*

Word	Definition and examples
Antonov	Russian aircraft manufacturer. The Antonov 124 and 225 are currently among the world's largest cargo aircraft; the Antonov 225 has a maximum take-off weight of approximately 600 tonnes
approach charts	instrument approach charts show holding procedures, instrument approach procedures and missed approach procedures. In addition to the plan and profile views of various instrument procedures, the charts provide a wealth of other information: obstacle location and clearance height (OCH); ground speeds versus rates of descent; VOR-DME, LOC, G/S, IAF identifiers and frequencies; transition altitudes and levels; airfield elevation in feet and metres; Tower, Approach, Ground and ATIS radio frequencies; the location of outer, middle and inner markers, fixes and missed approach point; ILS minima; minimum safe /descent altitudes; final approach course; decision height / altitude; threshold crossing heights (TCH); missed approach procedure etc.
Approach Control frequency	the frequency used by the Approach controllers at a given airport as distinct from the Tower or Ground frequencies
approach gate	an imaginary point used as a basis for vectoring the aircraft to the final approach course. The gate will be established along the final approach course 1 mile from the final approach fix on the side away from the airport and will be no closer than 5 miles from the landing threshold
approach segments	the parts of an instrument approach: arrival, initial approach, intermediate approach, final approach and missed approach segments
apron	the paved area around the terminal buildings, hangars and cargo terminals where aircraft park
APU	Auxiliary Power Unit: a small gas turbine engine, usually located in the tail cone, which is used on the ground when the engines are shut down to generate electricity, to provide air conditioning and high pressure air to start the engines. The APU can also be used in flight up to 25,000 feet for back-up electrical power in the event of an engine failure
aquaplaning	when an aircraft's wheels are partially supported by standing water on the runway and not fully in contact with the runway surface so that braking and steering are inefficient
arc	the ground track of an aircraft flying a constant DME distance from a navaid to intercept the ILS localizer inbound course. The *DME arc* is often used to transition from en route to intermediate approach.
Are you visual?	'Have you got the runway in sight?'
Area Control (Centre)	ACC: ATCOs responsible for planes overflying a large area of airspace en route at altitude
area navigation	RNAV: *area navigation* allows pilots to fly on a direct course using, but not actually overflying, ground-based radio aids. RNAV systems can provide distance to waypoints in nautical miles, crosstrack deviation from the selected course, groundspeed in knots and time-to-waypoints: *LORAN-C and GPS are forms of area navigation.*
arm (v)	to place a device in an active mode so that it is ready to operate: *arm the Vertical Speed mode on the FCU / MCP; the cabin attendant armed the escape slide*
asap	as soon as possible: immediately, very quickly
assess (v)	to evaluate: *After a major failure, the crew must assess the situation*
assigned level	the flight level to which a flight has been cleared by ATC
asymmetry	unequal position or force on the two sides of the aircraft; *flap asymmetry, asymmetric thrust*
ASU	Air Start Unit: ground support vehicle which compresses air and delivers it to the aircraft engine if the APU is not available
at time	mentioned prior to a given time to avoid confusion with any other value: *request descent at time 45*
ATIS	Automatic Terminal Information Service: a continuous broadcast of recorded non-control information in selected high-activity terminal areas. The report is identified by a sequence of letters (…Kilo, Lima, Mike, etc.) For example, "Hong Kong Arrival Information Kilo at 17:05Z; Runway 07 closed for maintenance; Wind 340°, 15 knots; Visibility 8 km …"
ATR	a twin-engine turboprop regional transport manufactured by a consortium of Alenia Aeronautica and EADS. There are two versions: the ATR 42 and larger ATR 72.
attitude	the position of the aircraft in relation to the three axes: pitch, roll and yaw. Attitude is conventionally displayed on the Attitude Director Indicator (ADI) or artificial horizon, now often incorporated into the Primary Flight Display (PFD).
audio warning	a standardised sound (repetitive chime, single stroke chime, clacker, cavalry charge, woofer) which draws the crew's attention to an anomaly: *the ENG 1 red fire warning light came on accompanied by the repetitive chime audio warning.*

Word	Definition and examples
autobrake	a computer-assisted system which controls and monitors landing gear brake applications in order to achieve maximum braking efficiency: *the PF selects an autobrake MIN, MED or MAX setting according to the runway conditions.*
auto-flight system	AFS: the combination of autopilot, autothrottle / autothrust, flight director, autoland systems etc. used to control the flight through the Flight Management System (FMS)
autoland	an autopilot function which enables the aircraft to be landed automatically. ILS installations now often support fully automatic "hands-off" autoland approaches to below 50 feet above the runway threshold in visibility, or Runway Visual Ranges (RVR) as low as 200 metres or less
Automatic Direction Finder	ADF: a flight instrument which indicates the direction from which the signal from a non-directional beacon is coming, i.e. a relative bearing
Autopilot	AP: a computerised system which provides the flight controls with orders: *The FAA wants new software installed on Boeing 777s to prevent crews from inadvertently engaging the autopilot before takeoff.*
autothrottle	ATHR, an automatic engine power control system: *When using the autothrottle during autoland, position command speed to VREF +5 knots*
autothrust	computerised system which provides the engines with orders: *The autothrust was disconnected by the PF to prevent another overspeed conditon*
aviation English	*Aviation English* is broader than ICAO standard phraseology, but it is the language used by pilots and controllers in an operational context. In the ICAO context, fuel prices, low-cost airlines, aerobatics or the four forces of flight are not *Aviation English*. Non-aviation English would also include vocabulary from completely unrelated fields, idiomatic language, slang, etc.
avionics bay	the under-floor avionics compartment where computers and other electronic equipment are located (Airbus). Boeing call this compartment the main equipment centre.
avoidance	the action of distancing oneself from an obstacle, danger etc
avoiding action	an announcement by the controller to alert the crews that they must modify their flightpath to avoid coming into conflict with other traffic
axle	a shaft on which one or more landing gear wheels are mounted
back course	a procedure when a reverse ILS localizer signal can be used for an approach
backtrack (v)	having landed on the runway in use, to turn 180° and proceed along the runway in the opposite direction or having entered the runway lower down, to taxi to the end of the runway and turn 180° in order to have a longer take-off run: *backtrack Runway 27R*
baggage cart	small towed vehicle for transporting baggage
bank (n)	angle at which the aircraft is inclined about its longitudinal axis: *bank angle, turn and bank indicator*
base leg	the part of a conventional landing circuit when the aircraft turns off the downwind leg and flies perpendicular to the extended runway centreline before joining the glidepath
base turn	a specified outbound track followed by a turn of more than 180° to intercept the inbound track
bearing	1) the angular direction of a distant point measured in degrees clockwise from a local meridian or other reference. Usually relative bearings are described clockwise from 000° to 360° 2) a surface that supports and reduces friction between moving parts. Types of bearing include ball, roller and needle bearings
BECMG	becoming (METAR): *BECMG 0812/0815 21015KT PROB30*
belligerent	aggressive, rude, provocative, violent: *the cabin crew are dealing with some very belligerent football fans who are abusing the other passengers*
belt conveyor	baggage loader with rotating rubber belt used to load the bulk cargo compartment, hold 5
below minima / minimums	being below the limits of vertical and horizontal visibility for which the airport, aircraft and crew are certificated
best practice	technique, procedure or process regarded as most efficient and appropriate: *all training should adopt best practice*
bird strike	impact by a bird. Birds can hit the aircraft at different points. Effects will depend on the location of the impact and the size and number of the birds (See Units 5 and 6). The ingestion of large birds may cause engine stall or failure. Although windshields are tested for bird strikes, large birds can crack or break windshields impairing vision and affecting cabin pressurisation. The crew will need to make a precautionary landing.
black-hole effect	spatial disorientation and erroneous perception of altitude caused by a dark approach area and bright lights beyond the active runway

Word	Definition and examples
blade	a radial aerofoil designed to rotate about an axis: *the bird ingestion caused some minor damage to the fan and 2nd stage LP compressor blades*
blank (v)	to stop displaying data, to become dark: *the power failure caused the First Officer screens to blank momentarily*
blast fence	long barrier which diverts efflux behind parked or taxiing aircraft: *blast fences are often installed between the aircraft stands and the terminal buildings*
bleed air	hot air taken from the engine compressor for air conditioning, anti-icing, hydraulic reservoir pressurisation etc.
blind spot	a point on a radar screen where information is not displayed or an area outside the aircraft hidden from the pilot by the airframe
blocked transmission	a transmission that fails to get through, typically because of a technical fault
blow-out (n)	a tyre burst: *The blow-out left some rubber debris 600 metres from the threshold of Runway 17 Left.*
board (v)	to go on the aircraft, to *enplane*: *The passengers are boarding from Gate 27.*
bogged down	stuck in the mud, damp earth or sand: *a tug is required to tow the Regional Jet which is bogged down off Taxiway Lima.*
bomb scare	threat or fear that there may be a bomb on a plane or on the ground
bomb warning	a threat of a bomb on board or on the ground; a *bomb scare*. Even bomb scares which do not seem credible have to be taken seriously and the aircraft must divert and land as soon as possible.
bound for	flying to: *Air India 389 is bound for Dubai*
bowser	vehicle which pumps fuel from an underground fuel distribution system. Aircraft are refuelled either by *tankers* or *bowsers.*
braking action	a measure of likely adhesion of tyres to the runway, braking efficiency, which can be characterised as 'good', 'medium' or 'poor'
braking coefficient	a measurement of braking efficiency based on the friction coefficient of the runway, i.e. if the runway surface is wet or icy, it will be slippery, there will be less friction and the braking coefficient will be low
break	standard radiotelephony phraseology which indicates a separation between messages
breakdown	failure, disintegration, collapse: *Radio malfunction and inadequate language proficiency can both result in a breakdown in communication.*
bright	with intense light: *the lights can be set to BRT (bright) or DIM; if the runway lights are too bright they can cause glare*
broken	BKN: cloud cover of between 0.5 and 0.9 (i.e. 50% and 90%) of the sky: *METAR KMWN 142255Z 32026KT 120SM BKN/// FEW180 SCT210*
broken up	an interrupted transmission
bruise	A mark on the skin caused by a blow: *Some passengers suffered minor cuts and bruises when the flight encountered turbulence*
buffeting	the effects of being knocked around by turbulence or the rapid oscillation of flight control surfaces
build-up	accumulation, accretion, growth
build up (v)	to accumulate, to increase in amount: *Ice is building up on our wing leading edges*
bulk cargo	cargo which is not placed in a container, but loaded into hold 5 and maintained in position by nets
bumpy	turbulent: *we are having a bumpy ride at our present level*
bus control unit	a computer controlling the connection of the electrical busbars
busy	with a lot of activity and traffic movements: *Beijing Capital is a busy airport*
buttoned up	an example of aviation jargon, meaning doors and panels closed. It is unacceptable aviation English.
bypass mode	a condition in which an ILS transmitter circuit is shunted and is not transmitting an operational signal to approaching aircraft
cabin altitude	the atmospheric pressure in the cabin. Air pressure is artificially maintained at approximately 6,000-8,000 feet inside the cabin. Flying for prolonged periods above 10,000 feet may cause hypoxia, altitude sickness, decompression sickness and acute earache and intestinal pain. Oxygen masks are deployed automatically if cabin altitude reaches 14,000 feet.
cabin attendant	flight crew member in charge of looking after the safety and comfort of the passengers

Word	Definition and examples
cabin depressurisation	loss of cabin pressurisation and an increase in cabin altitude; the cabin altitude, normally maintained at between 6,000 and 8,600 feet, increases and at 14,000 feet cabin altitude the passenger oxygen masks are automatically deployed in the cabin. Cabin depressurisation is a perfectly manageable failure, but will result in the passenger oxygen masks dropping, an unscheduled descent, poor communication as the crew will be wearing their oxygen masks and possibly injuries (concussion, broken ribs, bruises, cuts) among the passengers and cabin crew who did not have their seat belts fastened.
calibrated airspeed	CAS: the indicated airspeed (IAS) corrected for airspeed indicator errors
call-out / callout	a spoken data read-out by a crew member or an automatic synthetic voice: *The First Officer made airspeed call-outs during approach*
callsign	identification used to contact each flight for example *Qantas 358*
Captain probe heat	a system of electrical resistances inside the angle of attack sensor, pitot probe, static port etc. which supply the captain's instruments with attitude, airspeed and altitude data. The heating prevents the probes from being obstructed or seized up by ice
capture (v)	to intercept the glide path; when an aircraft *captures* a glide path, the ILS system on board detects the localizer and glide slope ground transmitter signals and the aircraft's descent to the runway is automatically controlled under the crew's supervision
cargo terminal	building used for storage and handling of containers, pallets etc. See also *freight terminal.*
carry out (v)	to do, especially a standard procedure: *the First Officer is carrying out an external inspection*
CAT III conditions	conditions when visibility is very poor and aircraft require ILS automation for (take-off and) landing operations: *when shooting a CAT II or III approach the PF must make callout of 'CAT 3 dual (or single)' or 'CAT 2' based on FMA information.*
CAT IIIC	Category three C: the crew, aircraft and aerodrome are qualified and equipped to land in conditions with theoretically 0 feet vertical Decision Height and 0 feet longitudinal visibility
catering truck	elevator truck for delivering meal trays, drinks, newspapers etc
caution	1) a crew alert symbolised by the colour amber and less urgent than a red warning: *the master caution light came on and the single-stroke chime sounded* 2) RT recommendation to proceed with additional care: *taxi with caution*
CAVOK	Ceiling and Visibility OK, pronounced 'CAV-O-KAY':. *TAF SCAR 142230Z 1500/1524 25005KT CAVOK TN18*
CB	cumulonimbus cloud formation
ceiling	1) bottom of cloud cover 2) aircraft's highest operating altitude 3) top of the cabin
centre pedestal	a large standing panel between the two pilots which contains the thrust / throttle levers, radio and navigation control panels: *the RMP is located on the centre pedestal.*
CFIT	Controlled Flight Into Terrain: *CFIT* happens when an aircraft, which is airworthy and under the control of the flight crew, is flown unintentionally into terrain, obstacles or water, usually without the crew being aware.
challenge-response call	a pilot-to-pilot exchange which consists of a request for confirmation and a response; in this way, each action and condition is double-checked: *'Climb' – 'Climb set'; '80 knots' – 'Checked'*
chart	map used for navigation: *arrival chart*
checklist	A series of checks performed and confirmed orally by two crew members; one reads out the action to be performed, the other performs the action and confirms aloud that it has been performed. *Checklists* are typically performed at specific phases in the flight ('Before descent' *checklist*) or in abnormal or emergency situations ('Engine fire' *checklist*). They are contained in the Quick Reference Handbook.
chime	audio warning: *single-stroke chime, repetitive chime*
chocks	rubber or wooden blocks placed against the aircraft wheels to prevent aircraft movement: *Are the chocks in place?*
chute	a rapid-inflation pneumatic channel to enable passengers and crew to evacuate quickly, it is also referred to as an *escape slide*
circuit breaker	an electrical protecting safety device which opens a circuit in case of an excessive flow of current. Most circuit breakers are located on the cockpit overhead panel and rear cockpit bulkhead.
circuits and bumps	a training exercise by which pilots practise approaches, touch down on the runway, but do not roll out and stop; also referred to as *touch and go*
Citation	an American twin engine business jet
clean speed	the aircraft airspeed with flaps, slats and landing gear retracted

Word	Definition and examples
clear	1) CLR: no cloud cover: *METAR KANB 172253Z 35008KT 10SM CLR 08/M06* 2) easy to understand, both in terms of vocabulary and pronunciation: *the briefing was very clear*
clear (v)	to remove an obstacle: *the snow ploughs are clearing the snow from the runway and taxiways*
clear air turbulence	CAT: significant turbulence where no clouds are present, normally at high altitude near a jetstream
clearance	1) phraseology referring to authorisation: *expect onward clearance at time 38* 2) removal of an obstacle: *snow clearance is under way* 3) distance between a moving object and a potential obstacle: *monitor our wing tip clearance; the engine ground clearance on the B737 is quite small*
cleared	given permission: *cleared ILS approach Runway 03L*
climb-out (n)	the initial climb from the airport of departure
coast guards	members of a state service in charge of protecting territorial
cockpit voice recorder	CVR: an automatic recycling recorder storing all crew radio and intercom traffic, including crew speech and background noise: *The crew can only erase the CVR recording after engine shut-down.*
collapse (v)	to break down, to fold, to lose rigidity and strength: *the nose landing gear collapsed*
come into conflict (v)	to be at or near the same flight level heading towards each
commander	the captain of an aircraft
complete (v)	to finish a process: *checklist completed*
compliance	being in agreement or in accordance with: *each operator shall demonstrate compliance with the requirements*
component	1) part of an aircraft system: *a valve, a pump, a control unit* 2) a constituent or contributing part, a factor: *clear, concise communication is an essential component of safety* 3) a coordinate of a vector: *crosswind component*
compound (v)	to make more difficult or more serious, to intensify: *the poor visibility only compounded the difficulty of a single-engine approach*
concerned	worried, preoccupied: *the crew is concerned about the weather at destination*
concise	short, efficient, not wasteful, not containing unnecessary information. Being concise is essential in radio communications, because pilots and ATCOs often have to communicate information fast
concussion	blow to the head: *one of the passengers was in the aisle when we encountered the turbulence and is suffering from concussion.*
conditional clearance	when a clearance is given by a controller conditional upon another traffic movement (departure or arrival) occurring first. For example: 'Cathay Pacific 396, behind Boeing 777 on short final, line up behind.'
confirm	phraseology for 'I request clarification or verification': *confirm runway vacated*
conflicting traffic	traffic at or near the same flight level heading towards each other
confusion	the state of being unsure in one's mind, of being *confused*: *runway confusion is a well-documented error*
congested	busy, blocked: *there are several additional diverted flights and the apron is very congested*
contact(v)	phraseology for establish communications with: *contact Tower 118.75*
contaminated	degraded by the presence of another substance: *runways can be contaminated by snow, ice or standing water; fuel is sometimes contaminated with water or oil.*
contextual	related to the circumstances or context of a situation
contingency plan	a plan B; a pre-prepared plan to be implemented in case events do not take place as initially planned: *we need a contingency plan in case we have to divert*
contradictory	showing different information: *the Captain and First Officer airspeed displays were contradictory*
contributing factor	one of several factors that lead to an event: *A lack of English language proficiency was a contributing factor in several high-profile accidents*
control tower	a tall ATC building with overall visibility of the airport
controlled airspace	an airspace of defined dimensions within which air traffic control service is provided to controlled flights. It is divided into different classes according to altitude
Controlled Flight Into Terrain	CFIT happens when an aircraft, which is airworthy and under the control of the flight crew, is flown unintentionally into terrain, obstacles or water, usually without the crew being aware.

Word	Definition and examples
converge (v)	to move towards each other
converging	flight paths which are heading towards each other
conveyor belt loader	rotating rubber belt for loading bulk cargo
copy (v)	phraseology for to hear and understand
correction	phraseology which indicates that an error has been made by the person making the transmission and that correct information will follow: *climb to reach Flight Level 290 at time 58. Correction at time 55.*
cowl panel	part of the engine cowling, the fairing which surrounds and protects the engine and provides an optimum aerodynamic profile
cowling	the panels (cowls) surrounding the engine; it is the main part of the engine nacelle.
crabbing	flying with drift due to crosswind
cracked	damaged with small fissures: *the outer pane of the left hand windshield appears to be slightly cracked*
crew minibus	small bus to take crew to and from aircraft: *we are still waiting for the crew minibus to pick us up*
crew resource management	CRM: a branch of human factors which analyses the ways in which team work and good communication can reduce the effects of human error. CRM training has become part of mainstream pilot training. See James Reason's seminal works in this field: *Human Error* (1990) and *Managing the risks of organisational accident*s (1997)
critical	crucial, decisive, essential. This word often refers to the turning point in a series of events: *effective monitoring and communication are especially critical for safety during approach; safety-critical*
cross (v)	1) to fly over: *cross NES at Flight Level 250* 2) to move from one side to the other: *request cross Runway 29 Left*
crossbleed valve	a valve which is part of the pneumatic system and allows hot 'bleed' air taken from each engine compressor for air conditioning purposes etc. to be transferred from one side of the aircraft to the other
crosscheck (v)	to check one piece of information from two sources: *crosscheck the pressure altitude on the Captain's and First Officer's instruments*
crossfeed valve	a valve which allows fuel to be transferred from one wing to another
crosswind	a wind blowing in a direction perpendicular to the direction of travel of the aircraft
cumuliform cloud	cloud formation made of a large aggregate or mass of cloud
cumulonimbus	CB: a type of cloud characterised by its density, large size and height, its tendency to create stormy conditions and the hazard it represents for aircraft. It often has a characteristic 'anvil' shape
current Information K	ATIS Information Kilo in a series of updates (…India, Juliet, Kilo…) so that pilots can check easily that they have the most recent meteorological information about the airport: *Cleveland Hopkins Information Kilo, 1755 Zulu Automated Weather, Wind 260 at 15 gust 19, Visibility 6, light snow, 2,600 broken, 3,500 overcast, Temperature -5, Dewpoint -11, Altimeter 2999***.**
customer service manager	the chief cabin attendant on board a large aircraft
damper	a hydraulic shock absorber
Dash 8	a twin engine turboprop regional transport aircraft
debris	the general name for objects which are where they shouldn't be: *Debris on the ground can be extremely dangerous for aircraft*
decision altitude	DA: the altitude at which the flight crew must decide to land or go around
decision height	DH: the height above the ground shown on the radio altimeter in final approach at which the pilot must decide to land or go around: '*100 above' – 'Continuing'*
decrab (v)	to re-align the aircraft on the runway centreline in crosswind conditions immediately before touchdown
de-energize (v)	to remove electrical power, to switch off
deflated	a tyre, escape slide or other inflatable device which is missing air / gas or empty: *Will you change one of our RH main gear tyres; it looks a little deflated.*
deflect (v)	to move along a pre-defined arc: *the rudder deflects from left to right*
degradation	worsening: *there has been a degradation in our roll control; the spoilers are responding more slowly.*
degraded mode	*in degraded mode* means operating at a reduced capacity or in a mode with fewer capabilities

Word	Definition and examples
de-icing	ice removal performed by the airport services in cold weather either by aircraft passing under a gantry or by special tankers with hydraulic platforms which spray de-icing fluid onto the wings, flight control surfaces, empennage and fuselage.
de-icing station	a designated location where aircraft are de-iced in cold weather before departure
de-icing truck	vehicle with tank and hydraulic platform for spraying aircraft
delaying action	phraseology for holding or orbiting to slow down the progress of a flight: *Air China 473, delaying action: turn left heading 150*
deteriorate (v)	to become worse: *the weather is deteriorating at Bangkok*
determine (v)	to work out, to calculate: *we must determine our fuel endurance*
dew point / dewpoint	the temperature at which condensation begins in cooling air. The dew point varies with different levels of atmospheric pressure, air humidity, etc: *Temperature 11, Dewpoint 9*
digital flight data recorder	DFDR / FDR: a device for automatically recording information on aircraft operation (altitude, airspeed, vertical acceleration, heading, elapsed time, attitude, flight control surface position and engine speed). Such recorders are designed to survive crash accelerations, impacts, crushing and fire and often carry underwater transponders or beacons
dim	of light with low intensity: *the dials and displays are easier to see if the ambient lighting is dim*
Direct Madras	phraseology for flying directly to Madras or towards the Madras beacon without passing via another waypoint
discharge (v)	to release pressure, to trigger, to activate; especially used about the fire extinguishers and cabin pressure
disconnect (v and n)	1) to stop or interrupt a connection; to switch off 2) disconnection: *the pilot disconnected the autopilot with the instinctive disconnect pushbutton and took over control of the aircraft*
discretion	'at your discretion': timing or navigation is to be decided by the pilot
disengage (v)	to de-activate or place in neutral an automatic function; it may, however, remain *armed*. i.e. ready to operate
disorientation	loss of a sense of one's position in space: *spatial disorientation may be caused by whiteout*
dispatch (n)	1) the airport service which is responsible for liaising with the crew about operational matters: *ask Dispatch for an updated weight and balance sheet* 2) the Flight Ops department of an airline which plans and monitors each flight and provides operational information in abnormal situations: *when the flight crew encountered volcanic ash they contacted their company dispatch*
dispatcher	the airport agent who provides the weight and balance sheet which must be checked and signed by the captain. The weight and balance sheet contains updated information about the aircraft payload (passengers, baggage, cargo and fuel) and its location. This allows the aircraft's centre of gravity, which must be within certain limits for safe take-off and flight, to be calculated
disregard (v)	to decide not to comply with or ignore an instruction, information or recommendation etc. Flight crews may disregard controller instructions in certain situations, for example to resolve a TCAS Resolution Advisory.
distraction	something which disturbs mental concentration and attention: *a cabin attendant entering the flight deck when crew workload is high will be a distraction*
ditching	alighting on water in an emergency: *the successful ditching in the Hudson River of US Air 1549 has become famous in aviation history*
diverging	moving or heading in two different directions
divert (v)	to make a change in the flight plan, often to fly to an alternate destination; *diversion*
DME	Distance Measuring Equipment: a transmitter which will be located on the airport and provide distance information for the aircraft during approach by timing the delay of VHF or UHF radio signals
DME arc	a segment of a circle which is flown as a transition from en-route flight to begin an instrument (ILS) approach using a set distance from a DME transmitter
DME1	one of the two Distance Measuring Equipment systems which measure the time signals transmitted from the aircraft take to reach a ground station and return to the aircraft. This is converted into distances in nautical miles and is one means of calculating the aircraft's position
do-list	a series of actions to be performed in the form of a procedure; it may be performed by one crew member, technician or controller. It is often used for routine actions
dome light	a cockpit ceiling light

Word	Definition and examples
don (v)	to put on a mask or life vest
dot	point on the localizer and glideslope scales which indicates the degree of deviation left or right / above or below during approach
downdraught / downdraft	a downward movement of air caused by a descending body of cool air
downwind	in a direction away from the source of the wind, 180° from the landing direction: *the pilot is flying the downwind leg and is about to make the base turn*
drainage grate	metal grills on ground to evacuate rain water
drift (n)	gradual lateral movement off course usually caused by a crosswind
drift correction	the action by which the pilot corrects the horizontal flight path by bringing the aircraft back onto the extended runway centreline or localizer beam
drift-down (n)	losing height gradually
drifting snow	DRSN: snow that has been blown by the wind to form a deep deposit
drive motor	an electrical motor which moves containers etc. into position
drizzle	DZ: very light but constant rain
drop (v)	to decrease, to go down: *the oil pressure is dropping*
due	used as a preposition meaning *due to / because of*: *all departures are delayed due snow clearance*
dump (v)	to discharge fuel in flight in order to reduce the aircraft's weight; to *jettison: we are over our MLW (Maximum Landing Weight) and need to dump 2 tonnes of fuel*
Dutch roll	aircraft oscillating from side to side: *our Yaw Damper system is inoperative and we are experiencing some Dutch roll*
duty time	the time during which a crew is scheduled and authorised to work
eastbound	moving towards the east: *eastbound flights from Beijing to Tokyo*
EGPWS	Enhanced Ground Proximity Warning System: a system providing crews with forward warning of the risk of collision with terrain in sufficient time for them to take avoiding action. EGPWS or *TAWS* (*Terrain Awareness and Warning System*) is combined with a *Global Positioning System* (*GPS*) for greater accuracy in remote areas
EGT	Exhaust Gas Temperature: one of the principal engine parameters monitored by the crew with N1 and N2 or EPR
electronic racks	shelves used to house computers in the avionics bay / main equipment centre
elevation	elev: vertical distance above sea level: *airfield elevation*
elevator	1) flight control surface located on the horizontal stabilizer trailing edge, which controls the aircraft on the pitch axis; servo actuators move the elevators. 2) hydraulic ground loader used to raise containers
eleven o'clock	a direction, not a time (which would be pronounced eleven hundred hours) used to locate objects in space. *12 o'clock* means straight ahead, so *11 o'clock* means a little to the left.
Embraer 190/195	a series of narrow-body, twin-engine, medium-range, jet airliners produced by the Brazilian manufacturer Embraer
emergency	any unplanned, threatening situation which requires immediate action
emergency code	4-digit international transponder signals used by the crew to alert ATC in the event of an emergency. 7500 indicates unlawful interference, 7600 lost communication and 7700 a general emergency.
emergency descent	rapid descent using following a cabin depressurisation
emergency exit	door or hatch fitted with an escape slide to allow the aircraft to be evacuated in 90 seconds in the event of an emergency: *the passengers on USAir Flight 1549 used mainly the overwing emergency exits to evacuate the aircraft after the ditching*
empennage	the tail section of an aircraft, consisting of the fin, the tailplane and the part of the fuselage to which they are attached
en route	on the way, in flight between two points: *we are at FL 310 en route to Punta Arenas*
en-route charts	charts providing detailed information for IFR flight in upper airspace: navaids, tracks, navigational fixes, waypoints, sectors, standard airways, airport locations, minimum altitudes etc.
encounter (v)	to meet, to experience: *we encountered severe windshear from 500 feet to touchdown*
endurance	time an aircraft can fly without refuelling: *we have 35 minutes (fuel) endurance*

Word	Definition and examples
engine run-up	operating the engine on the ground over its full power range for testing purposes after an engine change or repair
engine run-up area / pad	remote location where aircraft engines can be tested
engine stall margin	the difference between the gas turbine operating line and the stall line
Engineering	the technical department, responsible for aircraft maintenance: *we will need to call Engineering to inspect our rear fuselage after a tail strike at take-off*
enplane (v)	to go on board the aircraft; to *board*
enunciation	clear pronunciation of sounds to maximise understanding: *a simple way to improve enunciation is to exaggerate normal mouth movements*
EPR indication	Engine Pressure Ratio: indication of the ratio between engine turbine discharge pressure and compressor inlet pressure, which is used on certain engines
erroneously	by mistake, by error: *'1023' was entered erroneously instead of '1013' when the altimeter was set*
escape slide	a rapid-inflation pneumatic channel to enable passengers and crew to evacuate quickly also referred to as a *chute: inflatable escape slides can also be used as life rafts in case of ditching*
established in cruise	in level flight at its maximum or cruise altitude, which is typically between 35,000 and 41,000 feet
ETA	Estimated Time of Arrival: the time at which an aircraft is expected to arrive at its destination or pass a waypoint
ETD	Estimated Time of Departure: the time at which an aircraft is expected to depart
ETOPS	Extended Twin Operations: the use of *long-haul*, twin-engine aircraft over the sea, desert or arctic regions where there is no suitable airport within 60 minutes of flight which can be used in case of a diversion being necessary following the loss of an engine. A more facetious interpretation of the acronym 'ETOPS' is 'Engines Turning Or Passengers Swimming'!
evacuation	exiting the aircraft in an emergency, often via the emergency escape slides
evaluate	to judge, to assess, to analyse, to decide about: *in the event of a system failure or structural damage the flight crew must evaluate the situation before making a decision.*
exceed (v)	to go beyond or over, to go too far: *the crew have exceeded their legal duty time; you must not exceed 250 knots below 10,000 feet in this area*
exhaust	the rear engine section which expels engine gases: *exhaust gas temperature*
exit (v)	to leave, to go out of, to vacate: *the flight exited the runway via B3*
expect (v)	used by ATC with a time or location reference for a clearance to be given later in the flight. It is important that it is not confused with a current clearance: *expect onward clearance at 54*
expectation bias	the belief that you know in advance what you will see or hear, which affects what you actually think you see or hear. Expectation bias in ATC means that there is a strong belief or mindset that a particular outcome will happen, or there is a particular cause for a situation, even when there is evidence to the contrary. Expectation bias is reinforced by previous experience of situations which have features in common with the current situation.
expedite (v)	to perform as quickly as possible: *we have a pressurisation problem and need to expedite our descent*
explosive device	bomb
extend (v)	1) to deploy or move down and out flaps, slats or landing gear: *the flaps are extended to the 25° position* 2) to cover an area of land or sky: *the cloud cover extends for 200 miles*
extend the RAT (v)	to deploy the Ram Air Turbine, a small electrical generator driven by a propeller, which is lowered into the airstream below the wing to provide essential electrical (and hydraulic) power in the event of multiple engine-driven generator failures
extended threshold	the end of the runway beyond the operational threshold which is usually only used for additional stopping distance in an emergency
extinguish (v)	to stop or put out a fire: *we have managed to extinguish the fire and have the situation under control*
facilitate (v)	to make easier, to support: *computerisation facilitates revising and updating documentation*
F/O	First Officer or co-pilot
FAF	Final Approach Fix: the fix or reference point from which the final IFR approach to an airport is executed and which identifies the beginning of the final approach segment

Word	Definition and examples
failure	an inoperative state or the process of becoming inoperative: *a temperature sensor failure;* 2) an omission or the inability to perform an action: *there was a failure by the crew to use the Standard Operating Procedures*
far end	The end of a runway at the opposite end from where the aircraft touches down or starts its take-off run
fast landing	a landing made above the usual landing speed of the aircraft either because of adverse wind conditions or because the flaps are not fully extended. This will probably result in a *hard landing*.
FBO	Fixed Base Operator: an American term for an airport operator
feet per minute	fpm: a unit of measurement for rate of climb or descent: *we are descending at 1,500 feet per minute*
ferry flight	a flight whose purpose is to reposition an aircraft to another location and not to transport a payload: *the crew are making a ferry flight to Casablanca so that there is an aircraft in place to ensure the Casablanca-Paris flight tomorrow*
few	0.25 or less of the sky covered by clouds
field	another term for the *aerodrome* or *airport; airfield* is also used
fighter	military combat aircraft: *the Sukhoi Su-27, the F-15 and the Dassault Rafale are all jet fighters*
filter clog	the blocking by particles of a fuel or hydraulic filter
final	inbound to the active runway; typically 4 miles from touchdown
final approach track	the heading flown by the crew during the final approach: *the final approach track to Runway 24 at Aomori is 231degrees*
finger	extension from main terminal building extending into the apron and containing gates: *Terminal 3 has six fingers and forty eight gates*
FIR	Flight Information Region: an airspace of defined dimensions within which flight information and alerting services are provided by an air traffic control centre: *en route from Lagos to Cairo you fly over the N'Djamena, Khartoum and Cairo FIRs*
fire extinguishing agent	a fire extinguishing chemical: *AGENT 1 discharged*
fire engine	vehicle for spraying an extinguishing agent or water: *request a fire engine standing by in case our brakes need cooling*
fire extinguisher squib	an explosive cartridge which discharges a fire extinguisher and releases the fire extinguishing agent; also referred to as a *cartridge*
fire station	base for fire service and their fire-fighting equipment
first aid kit	materials used to administer basic medical attention: *a first aid kit is stowed in the overhead rack*
fix	a radio beacon that a pilot can use to identify the aircraft's position and direction: *VOR/DME fix, initial approach fix (IAF), final approach fix (FAF)*
FL 100	'Flight Level one zero zero' is correct ICAO standard phraseology. However, given the well-documented cases of confusion which have occurred between 'FL 110' and 'FL 100', the UK CAA and other European ANSPs have decided to adopt 'hundred' for all levels ending in '00' (FL 100: Flight Level one hundred; FL 200: Flight Level two hundred etc.) rather than 'zero zero'. For this and the other differences between ICAO and UK phraseology notified to ICAO, see CAA CAP 413 Radiotelephony Manual, Appendix 1.
flag	1) red indicator which shows that an instrument is not supplied or that the indication is unreliable 2) red warning placed on the outside of the aircraft to show that ground safeties are installed which must be removed before flight
flameout / flame-out	a loss of combustion in a gas turbine engine
flap asymmetry	when the flaps are not extended the same amount on both wings: *A B737 flap asymmetry occurred on final approach to a short runway. The Captain requested vectors to a nearby airport with a longer runway*
flaps-up landing	occurs when the crew is not able to extend the high-lift flaps. This results in the minimum speed of the aircraft being higher and so the aircraft landing at a higher speed and probably requiring a longer stopping distance
flare	the final nose-up pitch movement of a landing airplane. The landing flare is a manoeuvre that enables a pilot to reduce an airplane's vertical speed without applying engine power.

Word	Definition and examples
Flight Control Unit	FCU: a control panel on the glareshield which, on an Airbus aircraft, fulfils the same function as a *Mode Control Panel (MCP)* on a Boeing aircraft, i.e. entering altitude, heading, speed, vertical speed (rate of climb / descent) values into the autopilot and autothrust / autothrottle
flight crew	captain, first officer, and occasionally flight engineer working as a team
flight deck	compartment from which the crew fly the aircraft; *cockpit, flight compartment, control cabin*
flight idle	lowest engine power setting and r.p.m at which the engine can safely operate in flight: *the engine should go from flight idle to take-off power in 6 seconds for a missed approach*
flightpath / flight path	trajectory of the aircraft in the vertical and horizontal planes: *the aircraft's flightpath can be reconstituted from DFDR data*
flight plan	specified information relating to the whole or portion of an intended flight: *we filed our flight plan at 06:38; we wish to amend our flight plan*
flock	group of birds: *a flock of seagulls has been reported near the threshold of Runway 19L.*
flow	the movement of one flight after another, the number of aircraft passing through a given airspace
flow control valve	a valve which regulates fuel supply to the engines and APU
flow management	making the best use of airspace capacity to meet the demands of the traffic at any given time. It may result in aircraft being delayed, holding or being re-routed by ATC: *The Eurocontrol Central Flow Management Unit protects controllers from overload by making sure that only a manageable number of aircraft are flying at one time.*
FMS	Flight Management System: an aircraft computer system that uses a large data base to 1) allow routes to be pre-programmed; 2) interface with the AFCS (Automatic Flight Control System) i.e. autopilot and flight director; 3) memorise and update navigation aids; 4) provide information to the EFIS (Electronic Flight Instrument System) for PFD and ND displays
foam carpet	a layer of foam put down on the runway by fire tenders to cushion the impact of an aircraft making a wheels-up landing.
foam crash tender	vehicle for spraying fire extinguishing foam
focus (v)	to pay attention or concentrate on a particular point, subject or situation: *the crew of Eastern Airlines Flight 401 were all too focused on the landing gear indicator and failed to notice that their aircraft was descending into the Everglades*
FOD	foreign object damage: damage to the aircraft from stray objects on the ground or birds in flight
follow-me car	a car used to guide taxiing aircraft
forecast	estimation of future weather
foreign object	the general name for something which should not be there: a bird, a plastic bag, metal debris etc. are all *foreign objects* which can damage the aircraft
fpm	feet per minute: unit of measurement of rate of climb and descent: *the aircraft is descending at 1,200 fpm*
freezing level	the altitude at which the temperature in the atmosphere drops to 0° C
freight terminal	a building used for the storage and handling of containers, pallets etc. their dispatch to specific aircraft and their loading onto cargo flights. See also *cargo terminal.*
freighter	a plane for carrying heavy ***freight***, such as industrial equipment, raw materials, livestock, food, parcels and goods
frequency congestion	radio saturation which occurs when there are too many transmissions on the same radio frequency; the pilot may have to wait for a break in transmissions to pass a message and may have to wait for a response from the ATCO. Congestion can result in important information (clearances, flight levels, headings, times etc.) being lost or only partially heard, conditional clearances and advice to expect being taken as clearances, pilots not being able to pass urgent information, information intended for one flight being adopted by another and a general loss of communication quality with the ensuing stress.
friction tester	vehicle which can measure the braking coefficient of a runway
fuel emergency	running short of fuel. Fuel emergencies do not usually occur suddenly, but are the result either of incorrect automatic or manual fuel management or prolonged holding. Avianca Flight 052 remains the classic case of a fuel emergency where inadequate communication, non-standard phraseology and poor language skills by the crew led to fuel exhaustion on all four engines. Different degrees of urgency (distress – pan calls; and emergency – Mayday) are at the crew's disposal once they have communicated their fuel endurance to ATC.
fuel farm	place where fuel tanks are located and tankers are housed and replenished

Word	Definition and examples
fuel hydrant	underground fuel supply point
fuel manifold	an aircraft fuel distribution line to which a nozzle is attached
fuel tanker	vehicle containing aircraft fuel
full-stop landing	a normal landing which ends with the aircraft stopping and exiting the runway rather than doing a training exercise of touch and go
fumes	chemical or industrial gases
fuselage	The fuselage is the main body of a plane (i.e. excluding the wings, tail, landing gear, etc.).
gain on (v)	to reduce the distance between an aircraft and the aircraft ahead: *you are still gaining on the turboprop ahead of you*
galley	the part of the plane where the cabin attendants store and prepare food and drinks
gantry	a metal framework shaped like a bridge used for de-icing at the airport
garbled	unclear, inaudible, typically because of technical problems: *say again, your last transmission was garbled*
gate	parking stand directly connected to the airport terminal by an airbridge: *we are pushing back from Gate 36; will you have an ambulance standing by at the gate?*
gear	the landing gear, i.e. the wheels and the mechanisms connected to them: *V2 … positive rate …. gear up ; the gear is retracted*
general aviation pilot	a pilot who flies a light aircraft for pleasure and holds a PPL (private pilot's license)
general aviation terminal	terminal for private, business and leisure aviation
generator overload	a condition which occurs when an excessive amount of electricity is being taken from the generator
give way (v)	to let another aircraft pass first during ground movements: *give way to the 787 passing from right to left*
glare	bright reflected or refracted light
glareshield	cockpit panel above the main instrument panels and below the windshield which protects the instruments from reflection and on which the automatic flight control panel is located
glide path	the flight path of an aircraft during approach, especially when making an ILS landing. Also *glidepath, glideslope.*
glideslope	See *glide path.*
glideslope antenna	ILS aerial connected to a transmitter of a radio beam providing vertical flight path guidance
GNSS	Global Navigation Satellite System: the underlying technology behind the GPS GNSS Landing System, which combines satellite and local data to provide very accurate navigational positioning for landing
go ahead (v)	This can mean 1) move forward, or 2) do what you intended to do. It is a dangerously ambiguous phrase and should be avoided in aviation communication.
go-around (n)	a missed approach, discontinuing an approach, pulling up and performing a traffic pattern or circuit: *if we are not visual at 250 feet, we will perform a go-around*
go around (v)	to discontinue an approach: *if we are not visual at 250 feet, we will go around*
go visual (v)	to have the runway in sight and no longer be dependent only on instruments
go-around thrust	Take-off / Go-around thrust (TOGA on Airbus); this is the maximum engine power setting
GPU	ground power unit: independent electrical generator designed to provide an engine with electrical power during turnaround when the aircraft engines and APU are shut down
grab (v)	to seize, to get hold of: *grab the handle and pull it down*
green system	one of the three hydraulic systems (green, blue, yellow) on Airbus aircraft. Boeing identify their hydraulic systems numerically
ground (v)	1) to connect to the electrical ground or earth: *the aircraft must be grounded during refuelling* 2) to prevent or prohibit from taking off: *the fleet has been grounded by the CAA until the inspections have been carried out.*
ground handler	airport agent who usually installs and removes wheel chocks and supervises the push-back of the aircraft with a tractor / tow vehicle / tug
ground handling personnel	airport staff including the dispatcher, the loadmaster, baggage handlers, mechanics or engineers, the tug driver, caterers, water servicing staff, waste water staff, refuelling agent, cleaners etc.

Word	Definition and examples
Ground Proximity Warning System	GPWS: an airborne system which alerts the flight crew that they are approaching terrain or that there sink rate is excessive. If the GPWS detects a flightpath deviation 'pull up', 'sink rate', terrain' or 'glide slope' audio warnings are triggered.
GSE	Ground Service Equipment: combination of GPUs, ASUs, tow vehicles, tow-bar etc.
gusty	*gusty* conditions are when the wind speed changes suddenly
hail	GR (French, *grêle*): precipitation in the form of compacted ice and snow: *hail storms can cause significant structural damage*
hand signals	signals given by marshaller to give instructions to pilot
handle (v)	to deal with or to manage a situation: *flight crew are trained to handle unexpected and abnormal situations*
handoff (n)	a transfer of a flight from one controller or area to another: also *handover*
handover(n)	a transfer of a flight from one controller or area to another; also a verb, to *hand over* (v). See also *handoff*.
hangar	shelter for housing aircraft on ground: *scheduled A, B and C checks are performed in the hangars*
hard copied	written in note from a radio transmission. More complex clearances, instructions and terminal information are *hard copied* by the crew in the form of written notes.
hardly (adv)	scarcely, almost not at all: *there was hardly any damage caused to the fuselage when the catering truck skidded on the ice and failed to stop in time*
hazardous	dangerous, representing a threat, a danger or a risk: *the ramp area is hazardous during turnaround and staff wear high-visibility vests*
haze	HZ: fine dust or vapour causing an unclear, clouded atmosphere
heading	HDG: the angle between the horizontal reference datum (compass north, magnetic north or true north) and the longitudinal axis of the aircraft: *turn left heading 230*. It is not to be confused with the track which is either 1) the path of the aircraft over the Earth's surface from take-off to touchdown, or 2) the angle between a reference datum and the actual flight path.
heads-down	of a crew member who is focused on the flight instruments rather than looking outside the aircraft
headwind	a wind blowing in a direction opposite to the direction of travel of the aircraft. Its opposite is *tailwind.*
hearback error	a failure to notice when one's own error is correctly repeated by the interlocutor
hectoPascal (hPa)	the most common unit of atmospheric pressure; in the plural, it does not take an 's': 1021 hectoPascal. It is the equivalent of millibars (mb), which is still referred to in many countries. Inches of Mercury (in.Hg) is used in the United States. 1 in.Hg = 3.386 hPa
Hercules	a Lockheed C-130, four engine turboprop military transport plane
HF	High Frequency: the high radio frequencies (3 MHz to 30 MHz). HF radio bands are less used than VHF (30 MHz to 300 MHz) in aeronautical radio communication, but they are not limited by the line-of-sight characteristic of VHF, so may sometimes be convenient at low altitudes.
higher	a higher flight level: *request higher due icing conditions at this level*
high-speed approach	an approach at a higher than normal airspeed using a flaps-up (clean) aircraft configuration for longer in the early stages in order to expedite arrival
high-speed exit	angled taxiway allowing aircraft to vacate runway without decelerating completely
high-speed tug	tow vehicle used to tow aircraft over long distances: *request a high-speed tug to tow us to the maintenance area*
hijacker	terrorist who tries to take control of an aircraft and its crew in order to obtain demands, make a political statement using threats, or to deliberately crash the plane: *the transponder code 7500 is used in the event of a hijacker on board*
HIRL	High Intensity Runway Lighting. The brightness of runway lighting can be adjusted by the Tower according to the atmospheric conditions and time of day
hold (n)	1) the holding pattern followed by aircraft typically while waiting to descend and land. It is also called a *stack* in the US: *taxi into position and hold* ; *hold position* 2) the series of underfloor cargo compartments in an aircraft: *bulk cargo and animals are loaded into hold 5*
hold short of (v)	to stop and wait just before you get to a location: *hold short of Runway 33 Left*
holding pattern identifier	a three-letter code identifying the location of a particular hold or holding pattern by the beacon it refers to: *LAM is the holding pattern identifier for Lambourne to the east of London Heathrow.*

Word	Definition and examples
holding point / position	a place indicated by painted ground markings, illuminated signage and (often) stop bars where aircraft stop until they are authorised to enter the runway: *taxi holding point Lima 1 Runway 08 via taxiways Charlie and Hotel*
horizontal separation	the horizontal distance between two aircraft, which is measured in metres or kilometres
horizontal stabilizer	a horizontal part of the empennage at the rear of the plane, which can be trimmed, i.e. deflected to a position in which it produces the least aerodynamic resistance; it is also referred to as the *tailplane* or *THS (trimmable horizontal stabilizer)*
hot section	the section of the engine comprising the combustion chamber, high and low pressure turbines and exhaust
hot spot	intersection indicated on an aerodrome chart where the risk of collisions and incursions is high
how do you read?	'how clear is my transmission?'
human remains	corpse, dead body transported in a coffin
hurt (v)	to injure, to harm, to cause pain: *one of the passengers was hurt when he fell on the icy steps and cut his leg*
humming	a low buzzing noise
hydraulic problems	malfunctions or failures (leaks, loss of pressure, filter clogging, pump failure etc.) on a hydraulic system. Several aircraft systems depend on hydraulic power: flight controls, landing gear, brakes, thrust reversers. However, most commercial aircraft have triplexed hydraulic systems, i.e. three separate hydraulic systems, at least two of which supply each hydraulically driven component. However, the complete loss of a system can cause the secondary flight controls (flaps, slats) to be downgraded and also affect aircraft braking. If the flaps are not fully extended, the aircraft will land faster and so will require a longer stopping distance. If there is not full braking capability, braking will be less effective and again the stopping distance will be increased.
hypoxia	an inadequate amount of oxygen being supplied to the brain, for example at high altitude in the event of cabin depressurisation. In the case of rapid decompression at 40,000 feet the resulting hypoxia will mean that the time of useful consciousness will be about 20 seconds; it is therefore essential to don oxygen masks and initiate an emergency descent immediately.
Hz	Herz: a unit of measurement of frequency
IAF	See *initial approach fix*
ice patches	intermittent ice cover on the ground
IDG	Integrated Drive Generator: The main source of A.C. (alternating current) electrical power on the aircraft; it is a combination of a constant speed drive and an electrical generator driven by the engine through the accessory gearbox.
idle	the minimum smooth engine operating speed: *flight idle, ground idle*
idling	operating an engine at its minimum smooth rotating speed
in.Hg	inches of mercury: unit of measurement of barometric pressure in the United States. 1 in.Hg = 3.386 hPa. See also *hectoPascal.*
ILS	Instrument Landing System: a system which uses radio transmitter signals to guide an aircraft down, typically when visibility is poor. ILS consists of the glideslope (G/S), localizer (LLZ) and Locator (LOC)
ILS CAT II, CAT III, CAT IIIC	the various degrees of automation which aircraft and airports are equipped with, and flight crew are qualified to use. These categories involve different landing minima, i.e. vertical and horizontal visibility.
ILS critical area	an area which an ATCO may instruct an aircraft to hold short of in order to avoid interference with an ILS signal
Instrument Landing System	ILS: a system which uses radio transmitter signals to guide a aircraft down, typically when visibility is poor. ILS consists of the glideslope (G/S), localizer (LLZ) and Locator (LOC).
ILS Transmitters	the localizer and glideslope transmitters. The localizer transmitter is aligned with the runway centreline within the airport perimeter some distance from the runway threshold. The glideslope antenna is located perhaps some 100 metres to the left or right of a runway to the side of the touchdown zone.
IMC	Instrument Meteorological Conditions: weather conditions (cloud, fog) which make it impossible to fly visually (VMC) and so which require the crew to use their instruments to fly
in accordance with	IAW: in agreement with, in compliance with, following
in line	queuing, stopped, standing by: *we are in line on Taxiway Golf behind a Cathay Pacific 747 and an Etihad A330 number three for departure*

Word	Definition and examples
inadequate	not good enough, not of a sufficient quantity: *there was inadequate warning of the trench being dug along the side of the taxiway*
inadvertently	unintentionally, without being aware: *the crew inadvertently strayed onto the active runway*
inboard / outboard spoilers	the spoilers on the upper surface of the wing; there are several surfaces and they are commonly identified as inboard or inner and outboard or outer spoilers.
inbound	used to describe an aircraft which is flying towards a point, towards a fix, arriving, approaching: *we are flying inbound heading 22; track inbound to the Norfolk VOR on the 193° radial.*
incapacitated	unconscious or too ill to function properly: *the Captain was incapacitated as the result of a stroke (obstruction of an artery to the brain)*
increase (v)	to become or make greater or more: *increase speed by 20 knots*
indicated airspeed	IAS: the relative velocity between the aircraft and the surrounding air: *the indicated airspeed is displayed on the airspeed scale of the PFD*
indication	the readings on the various flight instruments
indication oscillations	variations in the display which may be caused by instrument malfunctions rather than actual changes in the parameters
indication problem	an erroneous or spurious indication is being given when there is not necessarily anything wrong with the system itself
induce (v)	to cause something to happen: *the crew's familiarity with this approach induced a sense of complacency*
inertial navigation system	INS: a system of laser gyros and accelerometers which sense all aircraft movements on all three axes and so calculates the aircraft's present position to a high degree of accuracy
INS	See *inertial navigation system.*
in-flight turnback	when the crew decides to return to the airport of departure. This is dangerous because the aircraft is likely to be full of fuel and therefore over its *maximum landing weight*: the certified value above which fuel must be jettisoned or burnt off if landing becomes urgently necessary and structural damage is to be avoided
Information Kilo, Lima, Mike etc.	identifies a specific ATIS (Automatic Terminal Information Service) broadcast in a series A, B, C, D etc. giving up-to-date information about conditions at the airport
ingest (v)	to suck or pull into, to swallow, to suck a bird into the engine: *Canada geese were ingested into both engines at 3,000 feet, causing a dual engine loss on USAir Flight 1549*
initial approach fix	IAF: the point from which the initial segment of an ILS approach begins.
initiate (v)	to commence, to start a procedure or manoeuvre: *we will be initiating descent in two minutes*
injury	hurt done to a person's body: *cuts, bruises, fractures, concussion, bleeding are all forms of injury*
inoperative	a general term meaning that a system or part cannot operate correctly, also *inop, unserviceable*
INS check point	remote location with well-defined geographical coordinates where an aircraft's inertial navigation system (INS) can be reset
INS warning	a warning about a malfunction in the Inertial Navigation System, i.e. the main system using gyros and geographical coordinates to calculate the aircraft's precise position
instinctive disconnect push button	small red pushbutton on the control wheel or sidestick used to disconnect the autopilot quickly
instrument approach procedure	IAP: the procedure for a given ILS approach
intend (v)	1) to plan to do something: *we intend to maintain our present heading* 2) to wish to send a message to a specific aircraft: *that clearance was intended for Japan Air 465*
intention	what you plan or wish to do: *advise intentions*
intercept (n)	joining a path, trajectory or navigation beam: *fly the DME arc to intercept the ILS*
intercept heading	the heading the crew must follow in order to capture and follow the ILS or visual approach flight path
intercept ILS (v)	to capture the localizer and glideslope radio transmitter beams which guide the aircraft during an ILS approach
intermittent	of a phenomenon which appears and disappears: *we have had intermittent signal loss, but it seems to be operating normally now*
interpretation	a way of understanding something: *people's interpretation of different cultural behaviour varies*

Word	Definition and examples
intersection	crossing of taxiways, runways or taxiways and runways
intoxicated	under the effects of drugs or alcohol, drunk: *there is a very intoxicated and belligerent passenger in the rear*
isolate (v)	to shut off the electrical, hydraulic, fuel or pneumatic supply to a failed component: *we have isolated the leak*
item	a point, a piece of information or an action: *the checklist consists of six items*
jammed	blocked in position, especially used about the flaps, slats and servocontrols: *the trailing edge flaps seem to be jammed in the 15-degree position*
Jeppesen charts	charts used by pilots worldwide; they represent a very high quality of cartography. The chart used as a model in Unit 8 Exercise 19a is an arrival chart for an ILS or LOC approach to Runway 16C at Seattle International Airport, Washington State, USA. Different charts exist for each arrival and type of arrival. Other Jeppesen charts include Standard Instrument Departures (SID), airport charts, approach charts, route plotting charts, VFR charts and high level en-route charts for larger regions. Many charts have a validity of only two weeks and must be constantly updated. Electronic charts are becoming more and more common. In addition to the cartographic and flight path information in the middle of the page, the chart contains a wealth of information about the airport and its facilities: radio frequencies, airport elevation, minimum safety altitudes, missed approach points and holdings, location and altitude of obstacles, transition altitudes and levels, RVR, minima etc.
jet streams	high altitude, fast-moving currents of air
jettison (v)	to discharge fuel in flight in order to reduce the aircraft's weight; to *dump*
jetty	a telescopic walkway for passengers to disembark from and board the aircraft directly to and from the terminal building; also *airbridge* or *jetway*
jetway	a telescopic walkway for passengers disembark from and board the aircraft directly to and from the terminal building; also *airbridge* or *jetty*
join downwind Runway 21	an instruction to make an approach to Runway 21 facing the wind
joining clearance	authorisation to join a circuit prior to approach and landing
key in (v)	to enter data into a computer system using a keyboard: *Key in the coordinates of our alternate.*
known traffic	traffic whose flight details and intentions are known by the controller through direct communication
kt	knots: nautical mile per hour: *The aircraft is flying at 290 kt*
land long (v)	to land after the target / touchdown zone: *They landed long because of the windshear and heavy rain*
land short (v)	to land before the target / touchdown zone
landing distance available	LDA: the actual length of runway which can be used for landing and roll-out. This is a key consideration for pilots when considering which alternate airport to choose for a diversion, especially towards the beginning of a flight when the aircraft is heavy with fuel and if, for example, one engine is operating at idle resulting in the thrust reversers being unavailable or only partly available. All these factors will increase the landing distance required with the necessary safety margin and may be compounded by a wet or icy runway surface, which will reduce the braking coefficient and increase the stopping distance. In addition, the *LDA* may be reduced due to work being carried out on the runway
landing sequence	the series of manoeuvres (outbound track, base turn, inbound track) prior to landing
laser gyro	a system which senses rotation by measuring the frequency shift of laser light in a closed circuit
late flare	a late flare occurs when the aircraft passes the runway touchdown target area before it is rotated.
lateral distance	related to the aircraft's horizontal movement (heading, course, track) and the localizer part of the ILS
lateral track offset procedure	the fact that in RVSM conditions aircraft often fly a few miles to the left or right of the actual route in order to increase separation
layer	thickness, stratum, coat of material or cloud: *a layer of paint* ; *the cloud layer extends for 15 miles*
leading edge	the forward part of the wing, engine blades or stabilizers: *the leading edge slats are extended*
leakage	unintentional flow of fluid from a container or system which can be measured in drops per minute: *We appear to have a fuel leakage from the inner left hand tank*
leg	1) part of a long-haul journey, where the plane stops to refuel one or more times on the way: *The first leg of the journey is from Beijing to Anchorage; we then fly on to Washington*. 2) a phase of a circuit or traffic pattern: *departure, crosswind, downwind and base legs*
legal working time	the maximum number of hours that a crew may work without a break. This is an important safety issue, as tired crews are much more likely to make mistakes. In the event of long delays, a crew may exceed its legal working time and be unable to ensure a flight.

Word	Definition and examples
Level 160	a flight level, corresponding approximately to a height of 16,000 feet. Flight levels are calculated based on atmospheric pressure read by a barometer at ISA (International Standard Atmosphere), i.e. 1013 hectoPascal, rather than actual distance above the ground or sea.
level change	climbing or descending
LH	Left Hand; in aviation 'Left Hand' / 'Right Hand' are generally used to avoid confusion with 'right' meaning 'correct' and 'left' meaning 'remaining'.
lift dumper	a function of the ground spoilers on the upper surface of the wing during landing to reduce the lift of the wing and improve wheel brake traction, the *lift dumper* mode of the spoilers is armed before landing
light chop	mild turbulence
likely	probable: *It is likely that we will have to hold on arrival: ATC have announced heavy traffic*
line maintenance	aircraft maintenance performed at the flight line or ramp between two flights
line mechanic	an aircraft mechanic or engineer who inspects and services the aircraft (engine oil levels, tyre pressure and wear, signs of fuel or hydraulic leaks, impact damage to the engine air intakes, fan blades and wing leading edges etc.), performs any small repairs and makes entries in the aircraft technical logbook. This is line maintenance.
line up (v)	to align the aircraft on the runway centreline ready for take-off: *line up and wait*
line-up check	this check performed by the flight crew involves checking the identity of the runway and the departure clearance
load shed	the disconnection of non-essential electrical power users (notably the galley) if there are electrical generation failures in order to give priority to the essential systems
loadmaster	person in charge of a team of handlers loading and unloading cargo and baggage. Baggage loading devices are one of the main causes of damage to the aircraft during turnaround
local time	LT: time used at a given geographical location or in a time zone as opposed to Universal Coordinated Time or GMT
localizer antenna	ILS aerial connected to a transmitter providing directional guidance
localizer beam front course	the course indicated by the localizer transmitter antenna along the approach path of the aircraft
log book	a record of all technical incidents and maintenance action carried out on a given aircraft, signed by the crew and technicians and kept on the flight deck; also referred to as the aircraft *technical log*
long haul	long distance or long range: *4-engine and ETOPS aircraft are operated on long haul flights*
long straight-in approach	an approach which does not involve a turn and during which the crew has time to stabilise
long way round	a change of heading in which the aircraft turns more than 180°.
loose	not correctly attached or secured, detached, unfastened: *there are loose pieces of plastic blowing around the apron - one of the pallets is loose.*
loss	when you do not have something you had before, because it is unavailable, not working, or destroyed: *We experienced a loss of power; the fire resulted in a complete hull loss.*
low ceiling	the height of the first of cloud cover at a short distance from the ground
low pass	a flight at low altitude in landing configuration above the aerodrome usually so that the Tower controllers can check whether the landing gear seems correctly extended and locked down
lower cargo deck	space below the cabin floor which is divided into a forward and aft cargo hold and which on larger aircraft may be subdivided into compartments. The holds / compartments are subdivided into bays each one of which corresponds to the size of a ULD or container.
lower level	a lower flight level which the crew wishes to descend to for operational, technical or meteorological reasons
LP	low pressure. N1 is the parameter of the *LP* compressor rotation speed expressed as a percentage
Mach number	the ratio of the speed of the aircraft to the speed of sound: *The aircraft is flying at Mach 0.89*
magnetic track	a track / course using the Earth's magnetic field. Given the fluctuations in magnetic field in the polar regions, magnetic navigation cannot be used here
main equipment centre	the under-floor avionics compartment where computers and other electronic equipment are located (Boeing); on Airbus aircraft this is referred to as the avionics bay

Word	Definition and examples
main gear	MLG: the main landing gear which is located under the inner wing and, in very large aircraft, under the centre fuselage. It consists of wheels mounted on axles connected by a boggie which is attached to the gear leg through a shock absorber. The gear is maintained rigid, retracted and extended by a series of struts, braces and actuators.
maintain (v)	1) to continue to follow, or work within, certain conditions: *maintain Flight Level 290 until further advised* 2) to make sure that certain conditions continue: *ATC must maintain separation*
maintain own separation (v)	the crew uses its vision of other aircraft to keep the necessary distance from other traffic
manage (v)	1) to succeed in doing something: *we managed to isolate the failure* 2) to control a situation: *ATC manages traffic flow*
mandatory	obligatory, compulsory, regulatory; something which you must do: *the CAA's requirements are mandatory*
manoeuvrability	refers to the extent to which an aircraft can manoeuvre, i.e. move around, get into the right position: *manoeuvrability may be reduced if there are flight control problems*
manoeuvring surface	an area where aircraft move on the ground and which should be clear of all obstacles and other vehicles
marking	indication painted horizontally onto the runway or taxiway: *holding points are identified by continuous and broken yellow markings*
marshaller	a person in charge of guiding the aircraft to its stand using hand signals: *marshallers often use bats or lighted batons to give signals*
maximum landing weight	MLW: the weight at which an aircraft can land without risking structural damage
MD-83	a McDonnell Douglas narrow-body jet aircraft of an older generation (1990s) with twin engines mounted on the rear fuselage; it was derived from the earlier DC-9 and resulted in the later MD-90 series
meal tray	flat support containing food: *catering delivered 139 standard and 21 vegetarian meal trays*
mean sea level	msl: the average height of the sea surface
measured	calm, controlled, regular: *RT delivery should be clear, concise and measured*
medium haul	medium range flight: medium haul flights usually last from between three to five hours
met office	*meteorological office:* an organisation gathering and distributing updated weather reports and forecasts: *the met office has announced the likelihood of electric storms in the vicinity of Adis Ababa*
metal debris	parts which may become detached from aircraft during take-off and landing; they can have devastating effects as was shown by the Air France Concorde accident at Charles de Gaulle
MEL	Minimum Equipment List: a list of instruments and equipment on an aircraft which must be serviceable before the aircraft can be dispatched: if they are in doubt, the flight crew refers to the MEL. The MMEL (Master Minimum Equipment List) provides a list of equipment which are allowed to be inoperative under certain conditions when the aircraft is dispatched
MET / met	meteorology / meteorological, relating to the weather: *met office, met report*
METAR	a weather report from an airport or weather station often used by pilots as a print-out during the pre-flight briefing. It can be obtained for any location in the world and is usually updated hourly
microburst	a dangerous vertical gust of wind
millibars	unit of atmospheric pressure measurement which refers to the same unit value as hectoPascal
minima	the lower limits of visibility for a given aircraft at a given approach depending on its onboard equipment: *The aircraft landed at Perth Airport in weather conditions that were below the prescribed landing minima for the instrument approach*.
minimum approach speed	the fact that each aircraft type (B737, A320 etc.) will have a minimum speed at which it can safely fly in a given configuration, i.e. clean configuration (all flaps and gear retracted) and then with flaps and slats extended to different degrees (5°, 15°, 25° etc.) and the gear extended. This speed will decrease as the flaps, slats and gear are extended.
Minimum Descent Altitude	MDA: the altitude in the terminal area (around the airport) below which no aircraft must descend unless it is on its approach path. In some airports, the MDA will be different in different directions depending on the terrain
miss (n)	a near-collision, an airprox: *It was a near miss, as separation was reduced to 650 feet vertically and 1,200 metres horizontally.*

Word	Definition and examples
missed approach	when a aircraft approaches an airport in order to land, but does not actually land, typically because of low visibility, an obstacle on the runway etc. and goes around to make another approach
missed approach point	MAP: last point (altitude and distance from threshold) at which the crew should decide to land or go around
missing	absent, not present, lost: *the pitot covers are missing.* In the case of radio communication, it can mean 'not transmitted or heard': *part of the transmission was missing*
misunderstanding	understanding incorrectly: *there was a misunderstanding between the pilot and the controller and the crew continued their descent.*
mitigate (v)	to make less serious: *the crew made a long approach to mitigate the risk of landing long*
mobile lounge	telescopic vehicle able to transport passengers and enable them to board directly at outlying stands
Mode Control Panel	MCP: a control panel on the glareshield which, on a Boeing aircraft, fulfils the same function as a *Flight Control Unit* (*FCU*) on an Airbus aircraft, i.e. entering altitude, heading, speed, vertical speed (rate of climb / descent) values into the autopilot and autothrust / autothrottle
molten	fused or melted: *molten plastic and metal were found at the scene of the fire.*
monitor (v)	1) to listen to the frequency 2) to watch indications over time: *monitor* the Engine 2 parameters
mountain wave effect	the result of a powerful air mass immediately downstream of a transverse mountain range, rotating about a horizontal axis
MSA	Minimum Safe Altitude: altitude in the terminal area below which aircraft should not descend except on approach
mud	soft wet earth
N1	engine low pressure compressor (and fan) rotation speed expressed as a percentage: *97% N1 is a typical value*
N2	engine high pressure compressor rotation speed
nautical mile	NM: 1,853.18 metres. Compare *statute mile*, 1,609.34 metres.
navaid	various radio navigation aids: DME (Distance Measuring Equipment), NDB (Non-Directional Beacon), ADF (Automatic Direction Finder), VOR (VHF Omnidirectional Range), ILS (Instrument Landing System: localizer and glideslope), VORTAC (VOR + Tacan), GPS (Global Positioning System), GNSS (Global Navigation Satellite System), RNAV (Area Navigation)
navigation accuracy check	the crew's practice of crosschecking different navigation instruments and sources against each other in order to make sure their data is correct
Navigation Display	ND: one of the main pilot instruments which provides compass heading, navigational and weather radar return data; it is located in front of each pilot next to the PFD (Primary Flight Display)
near (v)	to approach, to come closer: *we are nearing our top of climb (cleared cruise flight level) and will be levelling off in 1 minute*
negative	contradicts a previous statement by the other speaker; no; permission not granted; this is not correct; not capable: '*Are you going around?' 'Negative'*
no deviation signal	in this case (NZ 60) no information is displayed; this should not be confused with *zero deviation signal,* which means that there is a signal which shows the aircraft to be correctly aligned
no-go item	a component or system on the Minimum Equipment List (MEL) which, if it is unserviceable, prevents the aircraft from being dispatched for a flight
no show (n)	a passenger who is booked on a flight, but does not check in
no-entry sign	airport sign which indicates that a taxiway etc. is closed or unserviceable. A no-entry sign is a white rectangle on a red circular background.
noise	1) unwanted signals within an electronic system: *We're getting a lot of noise on the tower frequency* 2) sound: *What was that noise from the cabin?*
Non-Directional Beacon	NDB: a ground-based beacon with a given Morse identifier used by the pilot in conjunction with the ADF in order to establish his / her position: *with the spread of VOR and GPS, NDBs tend to be used less*
non-emergency evacuation	leaving the aircraft as a precautionary measure while the aircraft is not at its parking stand
non-precision approach	an instrument approach which uses horizontal guidance (Localizer, DME, VOR, NDB etc.), but not vertical guidance (glideslope)
northerly	in or from the north: *they are flying a northerly route*

Word	Definition and examples
nose gear	NLG: the wheels, leg, steering system etc. at the front of the aircraft. The taxi and take-off lights are mounted on the nose gear. A safety pin is inserted in the nose gear during turnaround until the tow-bar has been disconnected.
nose-down correction	the action by which the pilot pitches down to lose altitude or increase speed
nose-in	a type of stand directly in contact with the airport passenger terminal; parking or docking is usually assisted by an automatic system
nose-up elevator	refers to when the pilot pulls on the control wheel or stick in order to raise the nose of the aircraft by acting on the elevators
NOSIG	no significant change for the next two hours in a METAR
NOTAM	Notice to Airmen: document giving information about changes to aeronautical facilities, services, procedures or hazards. NOTAM are available in the form of Pre-Flight Information Bulletins (PIB) using a live database.
notify (v)	to inform, to advise, to tell: *Notify all incoming flights of the recent reports of windshear near the threshold*
Number 1	used by ATC to inform a flight crew that they are the first in line to depart or on approach
oblique exit / turn-off	exits designed to facilitate aircraft vacating the runway at speed, hence the term 'high-speed turnoff', and performing a rolling start for take-off
obscuration	decreased visibility caused by fog, smoke, sandstorm etc.
obscure (v)	to hide or conceal from view: *the markings were obscured by a layer of sand*
occur (v)	to happen, to take place: *a bird strike occurred during climb-out*
offload (v)	to remove from the aircraft: *as the passenger did not show up at the gate, his baggage had to be identified and offloaded*
offset (v)	to shift or displace to the side of a central axis: *crews cannot offset their flight paths in RVSM conditions if parallel route centrelines are less than 30 nm apart*
omit (v)	to fail or forget to do something: *the controller omitted to use the complete callsign*
on board	on the aircraft: *we have 358 passengers on board (POB)*
on hold	waiting for authorisation or clearance
on runway heading	flying on a heading which is an extension of the runway centreline
on time	in accordance with the schedule, not late or early, on schedule: *the flight arrived on time*
onward clearance	a clearance to pursue the flight after a waypoint or holding action: *expect onward clearance at 09*
operate (v)	1) to cause to function, to run, to keep in operation: *Singapore Airlines operates a fleet of A380s; after the bird ingestion, the crew operated the engine at flight idle* 2) to be enforced, to apply: *when RVSM operate, vertical separation is reduced to 1,000 feet*
opposite	in the contrary direction or location: *there is traffic in the opposite direction 2,000 feet above*
OPS	Operations, flight ops
orbit (v)	to perform a 360° circuit usually in order to delay: for safety reasons, the ATC will tell the pilot whether to orbit left or right.
out of phase	not following, in harmony or aligned with something else
outbound destination sign	airport sign which indicates the direction to common taxi routes
outbound track	flight away from a navaid fix
outer marker	an ILS marker beacon usually on the runway centreline, often coinciding with the final approach fix, approximately 4 to 7 miles from the runway threshold
outer taxiway	continuous taxiway between apron and inner taxiways and runways allowing aircraft to circumnavigate (taxi around) the terminals for easier access
outer windshield panel	external layer of a windshield; aircraft windshields comprise up to five separate layers, incorporate gold heating filaments and may weigh up to 80kg.
outflow valve	a valve which regulates cabin pressure by controlling the amount of air which is allowed to flow out of the cabin. They are large door-type valves which are quite visible on the outside of the fuselage
outgoing flight	departing flight
outlying stand	parking position which is not directly connected to terminal; *remote stand*
overcast	OVC: complete cloud cover, 0.9+ (i.e. over 90%) cloud cover

Word	Definition and examples
overfly (v)	to fly over: *aircraft overfly waypoints and beacons*
overhead	immediately above*: we are overhead the field*
overhead panel	an instrument panel above the pilots' heads in the cockpit which contains most of the system control panels on aircraft with a two-man crew
over-reliance	depending on somebody or something too much, which creates dangers when that person or thing is unavailable or wrong
override (v)	to give a manual order which has priority over an automatic order: *the crew can always override the automation manually and take control*
overshoot (v)	to fail to stop before the runway exit or the runway threshold
overshoot windshear	windshear characterized by an increase in aircraft airspeed
oversight	1) As an uncountable noun, *oversight* means supervision, from the verb 'to oversee': *The Federal Aviation Authority has oversight of air traffic control and safety regulation within US airspace*. 2) As a countable noun, an *oversight* is something that has been forgotten or missed: *Not removing the pitot covers was an oversight by maintenance.*
P	in excess of , greater than the highest reportable sensor in a TAF: *FM191600 24012KT P6SM SKC, i.e. in excess of 6 statute miles*
pack controller	an electronic device which regulates airflow and temperature within the air conditioning pack / air cycle machine, which adjusts the temperature of hot engine compressor bleed air for use in the aircraft
pallet	flat wooden trays transporting goods
Pan-pan, pan-pan, pan-pan"	a 'pan' call indicates an urgency call which concerns the safety of the aircraft, but does not require immediate assistance. It is a lesser degree of urgency than the distress call 'Mayday'.
paperwork	filling in forms, records, documents, reports etc.
PAPI	Precision Approach Path Indicator: a series of lights leading to the runway threshold which enable pilots to control their rate of descent visually
parameter	a basic definable value or quantity which can be expressed numerically: %, °C, kts, ft, psi, rpm, fpm etc.
parking brake	wheel brake applied from the flight deck by means of a handle and used on the ground at the stand until the chocks are in place or for emergency braking as a last resort
pass (v)	to go through or by: *report passing PAR / Flight Level 160*
pass through (v)	to cross, to move from one side to the other: *we are passing through some dense cloud*
pass your message (v)	to transmit or give your message
passenger address	PA: a communication system for the flight and cabin crew to talk to all the passengers or the communication itself
passenger coach	bus for transporting passengers to and from aircraft
passenger steps	mobile stairs used for boarding and disembarking at outlying stands
passenger terminal	building for passenger check-in, security, immigration, etc.
pattern	a circuit of procedural turns: *traffic pattern, holding pattern*
paving	the hard surface of all parts of the apron, runways and taxiways
pax	a common abbreviation for passengers: *We have 164 pax on board*
payload	1) carrying capacity of an aircraft 2) the part of the useful load from which revenue is derived
penalty	a reduction in aircraft or system performance caused by a failure: *we have a 20-knot speed penalty due to the engine malfunction*
perform (v)	to do, to carry out, to execute a procedure: ***we will perform a*** *missed approach*
perform a 360 (v)	to make a complete turn or traffic pattern, to orbit, usually as a delaying action
perimeter fencing	security barrier around the outer limit of airport
perishable goods	items such as fresh food which must be kept under specific conditions to protect them from spoiling too soon
PF	pilot flying: the pilot who is actually doing the hands-on flying of the aircraft at a given moment. Captain and First Officer takes these roles in turn

Word	Definition and examples
pick up (v)	1) to detect something heard on the frequency, the Lan Chile crew *picked up* the pan call from the TAROM flight and relayed it to ATC 2) In a more technical sense, it refers to sensors, detectors etc. detecting a signal, movement, vibration, temperature etc.
pier	long corridor connecting airport terminal with gates
pilot in command	the pilot flying (PF), the pilot in control of the aircraft
PIREP	pilot reports: Weather information from official sources is complemented by live updates from pilots about weather conditions they encounter en route or during approach and landing
pitch attitude	the angle between the aircraft's longitudinal axis and the horizontal plane
pitch-down input	the action of the pilot pushing on the control column or stick
pitch-down movement	a nose-down movement of the aircraft attitude
pitot heat	refers to the electrical heating of the various air data probes: pitot probe, angle of attack sensor, static port etc.
Please give us five miles behind the heavy	a request by the pilot for a horizontal separation of five miles between himself and the preceding wide-body aircraft in order to avoid the effects of wake
PNF	*Pilot Not Flying* or *Pilot Non-Flying*: the pilot who is monitoring the PF, entering data, communicating with ATC etc. Captain and First Officer takes these roles in turn.
poor	of bad quality, insufficient: *poor visibility, poor braking action*
position report	the fact that the crew regularly informs ATC of their current position: *resume position reporting*
post-incident analysis	a study conducted after an event: *a post-incident analysis revealed that the crew had not performed a full approach briefing*
power cut	loss of electrical power supply: *a series of power cuts has affected the continuity of the radar*
power setting	the position of the engine thrust /throttle levers: *the PF selected a Maximum Continuous Thrust power setting*
power transient	a temporary electrical surge or impulse, causing a sudden peak of variables and very short power cuts, especially at power up
precautionary landing	an anticipated landing decided on by the crew in order to manage an abnormal situation (technical failure, illness etc.) but which is not an emergency: *due to the failure of engine 1, we have decided to return to Bogota and make a precautionary landing*
precipitation	moisture released from the atmosphere and falling as rain, snow, hail etc.
prevention	action to stop or avoid something: *accident prevention has developed greatly over the past few years and has resulted in improved safety statistics*
previous	the one before: *there was an electrical power incident on the previous leg which we entered in the aircraft technical log*
primary radar target	a blip (symbol) displayed on controller's radar screen
primary surveillance radar	PSR: a radar system which operates independently of the target: unlike *Primary Surveillance Radar*, SSR (Secondary Surveillance Radar) uses a transponder onboard the aircraft to obtain a return.
PRO	probability (METAR)
probe heat	the electrical anti-icing of the air data probes (pitot probe, static ports, angle of attack sensors, outside air temperature sensors) which are located on the outside of the forward fuselage. The failure of the probe heat system on the A330 is suspected as being a contributory factor to the loss of Air France Flight 447 over the South Atlantic in June 2009. If the probes become obstructed with ice, the flight crew can lose all altitude, airspeed and angle of attack information and the computers which receive this information will generate erroneous outputs
probes	air data probes: pitot probe, static port, angle of attack sensor, temperature sensors. There are three sets of probes: one usually connected to the captain's instruments, one to the first officer's and a standby set which can be used if either of the others fails or for crosschecking
proceed (v)	to continue, to carry on, to go towards, to go forward: *track 280 degrees magnetic to GAN before proceeding on course*
progressive taxi instructions	gradual or step-by-step instructions for taxiing: *progressive taxi instructions are recommended when taxiing is complex*
prolonged	long, over a long period of time: *we were in radio silence for prolonged periods*

Word	Definition and examples
PSU	Passenger Service Unit: component located on the lower side of the overhead baggage racks above the passengers' heads and containing oxygen masks, air gasper outlets, 'no smoking' and 'fasten seat belt' signs
published speed	the reference speed which is published in the flight manual for this phase of operations
pull in (v)	to move to the side of the road / taxiway, etc., to allow another vehicle to pass; also *pull over*
purser	the chief cabin attendant on medium size narrow-body aircraft
push-back	moving the aircraft back away from its parking stand so that the crew can start the engines and taxi: *request push-back – push-back approved*
pylon	1) a structure used to mount engines to the underside of an aircraft wing 2) a tall steel structure to which wires carrying electricity are fixed so that they are safely held high above the ground: *there is a row of pylons rising to 150 feet on final approach to the left of the centreline*
QNH	an atmospheric pressure altitude setting with reference to mean sea level within a certain defined region; also referred to as 'Q' in METAR: *Q0994, Q1023*
Quick Engine Change	QEC: the replacement of an aircraft engine in the field
Quick Reference Checklist / Handbook	QRC / QRH: concise document listing actions to be performed in abnormal situations
quiet hours	the time, typically 23:00–06:00, when aircraft movements to and from the airport are restricted or prohibited to avoid disturbance by noise: *we need to expedite our departure or we will be into quiet hours on arrival*
radar antenna	portion of radar system used to radiate and intercept signals
radar coverage	the area or scope reached by a radar
radar return	the reflection of the beam off the 'target' (the aircraft) which causes a 'blip' or display on the controller's screen or a weather contour on the aircraft's weather radar
radar surveillance approach	a type of radar instrument approach provided by ATC; only an operational radio transmitter and receiver are required. The radar controller vectors the aircraft to align it with the runway centreline
radar vectors	heading, altitude and airspeed instructions given by ATC using secondary surveillance radar: *radar vectors are given to arriving flights to enable them to intercept an approach aid*
radial	a magnetic bearing from a navigation aid: *a fix may be the intersection of two VOR radials; proceed to PRL along the 238 degree radial FROM PRL*
radio altitude	an altitude above the ground displayed by the radio altimeter during the last 2,500 feet of the approach
Radio Management Panel	RMP: a control panel located on the centre pedestal between the two pilots which allows them to tune to different VHF and HF radio frequencies as well as to various navigation aids. There is an ACTIVE and a STANDY window which enables a new frequency to be pre-tuned and then selected when needed
radio operator	initially, aircraft were flown by a five-man crew: captain, first officer, flight engineer, radio operator (whose language skills were often better than those of the rest of the crew) and navigator. With the advances of navigational technology and aircraft system automation, these five-man crews have gradually been reduced to the two pilots on modern aircraft.
radio silence	not using the frequency in the event of another aircraft being in an emergency. Silence is twofold: first, it means instructing other aircraft and controllers on the frequency to maintain radio silence, if necessary, ('Stop transmitting') so that the frequency is fully available for the aircraft in distress; secondly, it is keeping the controller's transmissions to a minimum so as not to disturb the flight crew.
radome	a conical protective cover in composite material over the weather radar antenna and forming the nose of the aircraft: *the radome was damaged by the lightning strike*
ramp	area around the terminal buildings where aircraft are parked and serviced. Also *apron.*
ramp supervisor	person in charge of a team of handlers loading and unloading cargo and baggage in case of any special cargo. Baggage loading devices are one of the main causes of damage to the aircraft during turnaround.
range	1) the distance that can be covered by an aircraft without refuelling: *the maximum range of the B777-200ER is 7,700 nautical miles* 2) the distance that can be covered by a radar / radio / navigation aid signal or an instrument: *the weather radar can be set to ranges of up to 320 nautical miles.*

Word	Definition and examples
RAT	Ram Air Turbine: a small electrical generator driven by a propeller, which is lowered into the airstream below the wing to provide essential electrical (and hydraulic) power in the event of multiple engine driven generator failures
reach (v)	to arrive at a given point: *the aircraft levelled off on reaching its top of climb*
read (v)	to hear and understand: *how do you read me?*
readback	an instruction to make the interlocutor acknowledge specific instructions or information: *The readback was both incomplete and given with the wrong stop altitude; the ATCO had corrected the omission but missed the stop altitude error*
readback error	a failure to correctly repeat all or part of message to verify accuracy
readback/ hearback error	a failure to notice and correct a readback error
readout	1) data which is displayed visually: *the FOB (Fuel On Board) readout is showing 38 tonnes* 2) data said / played audibly: *the PNF made a radio altitude readout during approach*
reclear (v)	to modify a previous ATC clearance: *recleared Flight Level 310; rest of clearance unchanged*
recovery	1) the completion of a flight manoeuvre and return to straight and level flight 2) the return to normal operation, for example the restarting of engine of the regaining of a previously lost system
recycle (v)	to perform a complete flight control, landing gear or door operation: extend-retract-extend, close-open-close etc.
red cap	airport agent who provides the weight and balance sheet which must be checked and signed by the captain. The weight and balance sheet contains updated information about the aircraft payload (passengers, baggage, cargo and fuel) and its location. This allows the aircraft's centre of gravity, which must be within certain limits for safe take-off and flight, to be calculated
reference speed	Vref: the speed at which the aircraft should be flying in a given configuration
refraction	the deflection of a light ray from a straight path, which causes visual distortion
reject (v)	to refuse, to abandon: *the crew rejected take-off at 70 knots*
relay (v)	to pass on or transmit information: *Will you relay our situation to our company Ops, please?*
reliability	probability that equipment will operate correctly for a specified period of time
relief crew	a flight crew on the ground or on board who replaces a crew at the end of their period of duty
relieve(v)	1) to remove pressure, strain or pain: *Good ground support during turnaround can relieve pressure on flight crews.* 2) to take over from someone: *Regulations state that controllers must be relieved after an eight-hour shift and that there must be at least ten hours between shifts.*
relight (v)	to restart an engine (past: relit), *We are trying to relight our stalled engine*
reluctance	a lack of willingness, often because of fear of embarrassment or simply to save time and effort*: The First Officer showed a lot of reluctance to question the Captain's decision*
remote stand	parking position which is not directly connected to the terminal; *outlying stand*
repair station	a technical facility where certain types of aircraft, engines and equipment can be repaired and maintained
report (n)	a verbal or written account of an incident: *Pilots and controllers file reports on any airprox they encounter*
report (v)	to pass requested information: *report airborne*
report short final	the pilot is instructed by ATC to advise them when he / she is on the last section of the approach
report vacating / vacated	an instruction from ATC requesting the crew to report that they are leaving or exiting a runway or parking stand
reporting point	a specific location in relation to which the position of an aircraft should be reported
request (v)	In radiotelephony, this means 'I would like to know' or 'I would like to obtain': *request departure instructions*
require (n)	to need: *we require 117 tonnes of fuel for our next leg*
rescue (v)	to save, to recover, to free from danger: *search and rescue; all the passengers and crew were rescued from the icy water*

Word	Definition and examples
Resolution Advisory	RA: a message delivered by the TCAS instructing the crew to climb or descend. An RA requires the crew to take immediate action. If there is a conflict between an ATC instruction and a TCAS Resolution Advisory, the crew must obey the Resolution Advisory. If the TCAS instructs the crew of one aircraft to descend, and ATC also instructs the non-TCAS equipped aircraft to descend, the TCAS will give the crew a contrary instruction after a few seconds in order to avoid collision
response time	time taken by a human being or a machine to react to a situation or input
resume (v)	to start using or doing again, to return to again after an interruption: *resume own navigation direct CHN*
resuscitation	bringing someone back to consciousness
retard (v)	to pull back the throttle / thrust lever(s) on the centre pedestal to reduce the engine speed and the resulting thrust; to throttle back; just prior to touchdown the automatic system in the flight deck says 'retard, retard'.
retract the gear (v)	to set the landing gear lever on the right centre part of the instrument panel to UP; the landing gear is unlocked, folds and enters the landing gear bays: *the landing gear bay doors open to allow the landing gear to retract*
reverse thrust	engine thrust whose direction is changed during the landing roll-out by a translating cowl, doors or buckets in order to reduce aircraft speed and assist the wheel braking
revert (v)	to return to: *revert to flight plan call sign*
RH	Right Hand; 'Right hand' / 'Left hand' are generally used to avoid confusion with 'right' meaning 'correct' and 'left' meaning 'remaining'.
ride (n)	jargon for *flight*: *we are having a smooth ride*
right green arrow	the green arrow (or indicator light) which shows that the right hand main gear is extended and locked down
rim	the outer lip of a wheel, which holds the tyre in place
risk factor	an aspect which can be a source of danger or threat: *Poor visibility, crew fatigue, failure to follow SOPs are all potential risk factors during approach and landing*
risk management	identification, assessment and prioritization of risks followed by coordinated use of resources to minimize them
roger	'I have received all your last transmission'. *Roger* is not to be used in reply to a question which requires a direct answer or readback
roll through (v)	to taxi past, to fail to stop at: *the crew inadvertently rolled through the stop bar*
rollout / roll-out (n)	1) an aircraft's ground roll along the runway after touchdown; 2) returning to level flight
RT loading	the degree of saturation of radio frequency
RTF / R/T	radiotelephony: transmission of speech by radio: *both standard phraseology and plain language are used in RT*
rudder deflection	the movement of the rudder from side to side: *rudder deflection is reduced at high speed.*
run away (v)	to increase in an uncontrolled manner: *The temperature indications seem to be running away.*
runaway (n)	a situation where something increases in an uncontrolled manner or moves out of control: *thermal runaway, stabilizer runaway*
run up (v)	to test the engine at full power: *we need to run up the engines after the inspection; engine run-up (n)*
runway	the paved surface designed for aircraft take-off and landing. Runways have different designated orientations (QFU) such as 05L / 23R 180° apart and are generally some distance from the terminal buildings. The runways may be parallel, offset or intersecting
runway centreline lighting	lighting along the longitudinal axis of runway
runway centreline marking	a series of painted marks showing the runway centreline
runway confusion	a pilot approaching, entering, or landing on the wrong runway
runway edge lighting	white lights, usually on stalks, on each side of the
runway exit	a short taxiway which allows aircraft to leave a runway
runway exit sign	an airport sign which indicates an approaching taxiway to vacate a runway
runway holding point / position marking	painted markings of continuous and broken yellow lines which indicate where aircraft must hold until cleared onto a runway

Word	Definition and examples
runway incursion	when an aircraft, vehicle, pedestrian or animal inadvertently enters an active runway
rupture (n)	a break or failure
rushed	in a hurry, in haste, too fast to do things properly: *rushed decisions and actions often lead to errors and inattention*
RVR	Runway Visual Range: a value representing the horizontal distance a pilot will see centreline or edge lights or runway markings down the runway from the approach end measured from three points on the runway: threshold, mid point and stop end: *R12/1200,* i.e. RVR Runway 24 1,200 metres
RVSM	Reduced Vertical Separation Minima: the reduction of vertical separation from 2,000 to 1,000 feet with aircraft flying in opposite directions every 1,000 feet in order to accommodate more aircraft in the same airspace
Saab 340	a small Swedish twin turboprop regional transport, still in operation, but no longer in production.
safety	the protection of people from harm, injury, danger and death: *safety* audit, *safety* management system, passenger *safety*: *Aviation safety is the reason behind ICAO's Language Proficiency Requirements.*
Saint Elmo's fire	a visible discharge on blades, windshields, etc. caused by the build-up of electrical potential
satellite	a terminal building at an airport, attached to a larger terminal, which is located to bring passengers nearer to the gates
say again	is used when a transmission has not been heard or understood or the listener is not sure of the content; '*I say again*' announces a repetition or a rephrasing
scan (v)	to look systematically over a given area: *the First Officer scanned the instruments and control panels*; *the crew scanned the sky for any traffic*
scattered	SCT: showers or clouds which are distributed irregularly: *PAEL 182245Z 30010KT 25SM SCT050*
scheduled	planned at a specific time, regular: *Both scheduled and charter flights use the airport.*
scissor lift loader	telescopic loader for raising containers and pallets to the cargo compartments
scratch (n and v)	a shallow line or incision in the surface of a material; to make a shallow line with a sharp object
seal	part of a union which prevents fluid leaking out
secondary surveillance radar	SSR: an ATC radar system which detects and measures the position of aircraft as well obtaining its identity and altitude by means of a transponder onboard the aircraft: *Mode S is a Secondary Surveillance Radar (SSR) with a selective interrogation of aircraft and a unique 24-bit worldwide address which removes the risk of confusion due to overlapping signals.*
sector	defined area of airspace controlled by specific controllers
secure (v)	to fasten, to attach, to hold in position, to make safe: *Have you made sure that the load is secured?*
security	protection against crime, theft, terrorism: *the security services are standing by at the ramp in case they need to board the aircraft*
seepage	a very slow fluid leak
seize (v)	1) to block, lock or jam: *the flap linkage appears to be seized up* 2) to grab or take hold of: *seize the handle and turn clockwise*
sensory memory	memory of visual, auditory or tactile (touch) impressions
separate (v)	to maintain a safe distance between aircraft. An aircraft in difficulty will need more airspace; manoeuvring may be slower and more difficult; the crew need to be able to concentrate on handling the failure and not on possible conflicts with other aircraft: *ATC must separate the aircraft in distress from other traffic*
separation	the distance between aircraft, which is carefully monitored and controlled by ATCOs: *reduced vertical separation minima*
sequencing	air traffic controller's action placing aircraft in order with a safe separation during approach
servicing	light maintenance and replenishment (fuel, water, waste, catering) during turnaround
set (v)	to position precisely: *set the altimeter to 1019 hPa*
setting	value entered, calibration, position of flight control surface, engine, system or instrument: *the altimeter setting is 1007 hPa; reduce the engine power setting*
setup	preparation, calibration, selection
severely (adv)	badly, considerably, seriously: *the lower wing surface was severely damaged by the burst tyre*
shallow mist	MIBR (French, *mince brume*): a thin layer of mist near the ground, usually in the early morning, above which the aircraft climbs quickly

Word	Definition and examples
shed (v)	to disconnect certain heavy non-essential electrical loads such as the galley
shift (n)	1) a change of wind direction: *there has been a shift in the wind which is now blowing from the north-east* 2) a period of working time: *the next shift is ready to take over*
shift handover	the moment one group of controllers is replaced by another or one control centre passes control to another
short circuit	an inadvertent electrical connection which can cause an electrical failure, a circuit breaker to open or an electrical fire
short final	the last part of the approach before touchdown, typically from the inner marker, or some 2 nautical miles, to the threshold
shortly	soon, in a short time: *we will be landing shortly*
Short Term Conflict Alert	a ground-based safety net intended to assist the controller in preventing collision between aircraft by generating …an alert of a potential or actual infringement of separation minima
shutdown (n)	reducing engine or APU power to zero, stopping engine operation
SID	Standard Instrument Departure, a pre-planned, coded ATC IFR departure routing
sign	an indication mounted vertically on a signpost and illuminated at night
sill	lower part of the doorway: *the door sill scuff plate was slightly damaged by the catering truck*
sink rate	the rate of descent of a body in free fall
skid (v)	to move in an uncontrolled way, typically because the surface is slippery (due to oil, ice, standing water etc.) or because it was going too fast to grip the surface
skin	the fuselage, wing and empennage panels which make up the outer airframe of the aircraft
slant visibility	the fact of seeing something at an angle rather than head on which causes distortion
slide	a rapid-inflation pneumatic channel to enable passengers and crew to evacuate quickly; also referred to as a *chute*: *one of the slides failed to deploy*
slightly(adv)	a little, a small amount: *the door is only slightly damaged*
slippery	which is likely to cause sliding or skidding: *the runway is slippery when wet*
slope	a gradient, angle to the horizontal: *the aircraft is descending on a 3-degree slope*
slot time	allocated take-off times for flights: *we must push back in the next 5 minutes or we will miss our slot time*
smoke	fumes caused by combustion. Both smoke and fire remain number one hazards on board the aircraft. Response time is critical. The crew's priority is to land as soon as possible while trying to contain and extinguish the fire. The flight crew will be working under a lot of stress. Communication will be less clear as they crew will be wearing masks. It will be necessary to make an emergency evacuation using the escape slides as soon as the aircraft is on the ground.
smooth tops	cloud tops with no irregularities
snow blower	vehicle which clears runways of snow by blowing
snow flurries	sudden rapid falls of snow
snow plough	vehicle which removes snow from runways with a large blade
spacing	a safe distance between aircraft. A key role of an ATCO is to maintain spacing at all times. See also *separation*.
speed bugs	small plastic markers, now often replaced by digital displays, which are set manually or automatically around / along the airspeed indicator scale to give the crew easily visibly references to critical airspeeds during take-off and approach: V1 or decision speed, when the pilot must decide to take off or reject take-off; V2 take-off safety speed at which the aircraft can be safely airborne with one engine shut down; various flap retraction / extension speeds; Vref, final approach speed. They are also referred to as *V-bugs.*
Speedbird	the callsign for British Airways
speedbrakes	upper wing flight control surfaces, or spoiler function, which decrease airspeed in flight
split sector	controlled airspace divided vertically (by flight level) or horizontally to accommodate high traffic, preferably using different radio frequencies
spurious	referring to an indication, message or warning, not based on true facts, and which may in fact be the result of a problem with the warning system
squall	SQ: a sudden violent wind often with rain or snow

Word	Definition and examples
squawk (n and v)	a transponder identifier code which enables an ATC to identify each aircraft on radar screens. "*Squawk 6422*" means "select transmission code 6422". Pilots may sometimes use the expression 'Squawking 6422', with squawk as a verb in the present continuous.
stabilized approach	to be on the glidepath at the correct airspeed, in the correct configuration (flaps, slats, gear) and to have completed the checklists
stabilizer	horizontal and vertical surfaces mounted on the aircraft tail, also called the *empennage*; the elevators are installed on the horizontal *stabilizer* or *tailplane, which* is usually trimmable, i.e. its angle can be adjusted to minimize drag and optimize aerodynamic efficiency. The vertical stabilizer is also referred to as the *fin*
stabilizer trim runaway	a malfunction which occurs when the Trimmable Horizontal Stabiliser (THS), or tailplane, on the aircraft tail fails to stop at the selected position and continues to deflect up or down
stack	a superimposed series of holding patterns at assigned flight levels
stall	a sudden breakdown of fluid flow around the aerofoil (wing) or in an engine: *stall can result in the aircraft losing stability and lift and in engine failure*
stand (n)	the place where the aircraft parks, where passengers board and disembark.
stand by	Wait and I will call you
standard operating procedures	SOP: specific procedures defined by an airline to respond to all contingencies
standard pressure setting	the altimeter setting used universally above the transition level or altitude: it is 1013.25 hPa or 29.92 in Hg
standby (adj)	STBY: alternate, backup, redundant or precautionary system, instrument or mode of operation: *The Radio Management Panel has ACTIVE and STANDBY windows*
static discharger	an electrical conductor on the outer trailing edges of the wings and stabilizers designed to discharge static electricity which accumulates in the aircraft during the flight or as the result of a lightning strike; also referred to as a *wick*
status	the present condition: *what is the status of your engine?*
statute mile	SM: 1,609.34 metres, land mile. Compare *nautical mile* (1,853.18 metres).
step climb (n)	gaining altitude by a series of steps, i.e. periods of level flight, between phases of climbing
step-down fix	an identified point permitting descent in a segment of an ILS approach once an obstacle has been overflown
steps	stairs used by technicians
sterile cockpit	cockpit environment in which there are no audio or visual distractions from the piloting tasks: *a sterile cockpit is one of the prerequisites of a safe working environment*
stick shaker	an aircraft stall warning system which when triggered by the angle of attack sensor causes the stick or control column to vibrate so that the pilot gives a nose-down order
sticking mike	a microphone which is blocked in the open position
stop bar	a series of lights indicating whether access to a runway is authorised or not: *do not proceed if the stop bar lights are red*
stopway	additional paved area beyond the normal end of the runway to allow for aircraft overrunning in an emergency
straight ahead	in a straight line, often on the extended runway centreline: *climb straight ahead*
straight-in	an instrument approach in which the final approach is begun without a prior procedure turn. In VFR, *straight-in* means the entry of a traffic pattern by interception of the extended runway centreline without executing any portion of a traffic pattern.
stratiform cloud	a stratified or layered cloud
stray (v)	to enter an area or airspace by mistake: *the pilot was distracted and strayed onto the active runway*
strength	force, volume or loudness of a radio transmission: *signal strength varied during the storms*
stretcher	a collapsible canvas bed for carrying an injured person: *we will need a stretcher to carry off the injured passenger*
strip	1) a piece of paper or cardboard, or an electronic equivalent, which enables a controller to record basic data about a flight and manage flow control. Before the development of hi-tech visual displays, these strips were the main source of information for ATCOs. They are still used as a backup system in case the electronic systems fail. 2) *Strip* can also refer to an airstrip or small runway.

Word	Definition and examples
stuck	blocked in one position, unable to move: *the microphone selector is stuck*
suitable	appropriate, convenient: *we need to divert to a suitable alternate*
sudden	unexpected, rapid: *there has been a sudden change in wind velocity*
supply line	hydraulic, fuel or pneumatic piping or electrical wiring which gives a source of energy
support	providing information and services. In an unexpected situation caused by a technical failure, the crew will need additional information about alternate airports, weather conditions, runway surface conditions, priority landing, emergency services on the ground, airport facilities etc.
surface movement radar	a radar system to monitor aircraft movements on the ground
surface wind	wind measured near ground level
surge	a sudden irregular flow of fluid, especially in the engine, electrical or hydraulic system, which causes a malfunction; in the case of an engine, this results in an engine stall
surge (n)	a breakdown of airflow resulting from local stall and often accompanied by a muffled bang and an increase in turbine temperature
surge margin	the parameter that is the difference between the operating RPM and the RPM at which the compressor blades will stall at any altitude and for transient slam acceleration
surveillance minimum altitude area	a designated area in the vicinity of an aerodrome, in which the minimum safe levels allocated by a controller vectoring IFR flights with radar equipment have been predetermined
surveillance radar approach	an approach guided by primary radar determining position, track and (with secondary surveillance radar) the identity of an aircraft
sweep (v)	to move over a wide area in a large arc: the weather radar antenna *sweeps* an area of +/- 45 degrees ahead of the aircraft; the windshield wipers *sweep* the windshield clear of rain
sweeper	vehicle with rotary brush for removing dirt and debris
switch (v)	to transfer, to move from one position or selection to another: *Can you switch to the Tower frequency?*
System 1	*System 1* refers to the fact that nearly all systems are 'duplexed', i.e. there are two systems operating in parallel. In the case of instrumentation, System 1 usually provides the captain with information and System 2 the first officer.
TAF	Terminal Aerodrome Forecasts: *TAF*s use a similar format and coding to METARs, but provide weather forecast information, rather than current weather reports, for a five-mile radius around a given point
tailpipe	the exhaust section of the engine aft of the turbine
tailwind	a wind blowing in the same direction as the direction of travel of the aircraft. Its opposite is *headwind.*
take-off point	a position on the runway, beyond which an aircraft is travelling too fast to slow down again safely, and therefore must take off
take-off roll	the process of accelerating down the runway in order to take off
take over (v)	to replace someone in the function they are performing: *the next shift will take over at 18:00.*
task sharing	dividing the workload between crew or team members in a systematic and integrated way
target	1) point which you aim at, which you wish to reach or hit: *There is a white painted touchdown target on the runway; A target speed can be set on the speed scale* 2) a radar echo displayed on the screen
taxi location sign	airport sign which indicates the taxiway that an aircraft is currently on
taxiway	paved way for aircraft to move to and from the terminals and different parts of the airport
taxiway ending marking	painted markings consisting of striped lines on the far end of an intersection indicating the end of a taxiway
TCAS	Traffic Collision Avoidance System: TCAS is a communication between aircraft equipped with an appropriate transponder. Each TCAS-equipped aircraft "interrogates" all other aircraft in a determined range about their position, and all other TCAS-equipped aircraft reply to other interrogations. This interrogation-and-response cycle may occur several times per second. Through this constant back-and-forth communication, the TCAS system builds a three dimensional map of aircraft in the airspace, incorporating their bearing, altitude and range. Then, by extrapolating current range and altitude difference to anticipated future values, it determines if a potential collision threat exists.

Word	Definition and examples
TCAS Advisory	a message given by the Traffic Collision Avoidance System warning the crew of the presence of another aircraft with which there may be conflict; there are two levels of message: 1) Traffic Advisory (TA), which does not require immediate crew action, and 2) Resolution Advisory (RA) which does, and supersedes any ATC instruction
TCAS Resolution Advisory	TCAS RA: an automatically-generated warning such as '*descend, descend*' requiring immediate crew action
technical log	a record of all technical incidents and maintenance action carried out on a given aircraft, signed by the crew and technicians and kept on the flight deck; also referred to as the *log book*
terrain	any rising ground, north, south, east or west. Its height and direction are important. Terrain determines the value of the *Minimum Safe Altitude* (*MSA*) or *Minimum Descent Altitude* (*MDA*) in the aerodrome area.
thoroughly	completely, rigorously, methodically
threat (n)	1) a suggestion that something unpleasant or violent will happen: *there is a threat of airport closures caused by the strike; the threat of tropical storms* 2) a danger: *Bird strikes remain a serious threat to aircraft safety*
threaten (v)	1) to give signs or warnings of harm or danger: *Windshear can threaten the stability of aircraft on final approach* 2) to force someone to act under duress: *the terrorist is threatening the crew*
three greens	the green arrows or indicator lights on the landing gear display which indicate that the landing gear is extended and correctly locked down
threshold	the beginning of the runway
throttle back (v)	to pull back the throttle / thrust lever(s) on the centre pedestal to reduce the engine speed and the resulting thrust; to *retard*
throttles	levers on the centre pedestal which control engine thrust
thrust (n)	the propulsive force generated by an aircraft engine; the other three forces which act on an aircraft are lift, weight and drag
THS	Trimmable Horizontal Stabilizer: a horizontal surface mounted on the aircraft tail on which the elevators are installed; its angle can be adjusted to minimize drag and optimize aerodynamic efficiency. It is also called a *tailplane* or *empennage*.
thud	a deep, dull noise caused by an impact: *the cabin crew heard a thud shortly before lift-off; we are wondering whether a tyre had burst*
tight	1) In the case of a tank, a pipe or a join between mechanical parts, secure or leakproof: *The join between the two fuel hoses was tight enough.* 2) in the case of a nut or a fastener, difficult to turn: *These nuts are tight, can you loosen them?* 3) in the case of a turn, with a short radius or a small angle: *Small aircraft can land even straight after a tight turn*
tight circuit	a traffic pattern turn with a short radius
timely	at the right time: *the controller made a timely decision and instructed the aircraft to climb immediately*
TMA	Terminal Control Area / Terminal Manoeuvring Area: airspace around an airport used for departures and arrivals
toilet servicing truck	truck with tank for emptying aircraft waste
tolerance	the range of values within which a system can operate correctly: *The A.C. power supply has a tolerance of +/- 2 volts*
torching	flames coming from the engine exhaust duct due to the presence of fuel which has not been burnt
touch and go (n)	a training exercise by which pilots practise approaches, touch down on the runway, but do not roll out and stop; also referred to as *circuits and bumps*
touchdown aim point / target	area on runway materialised by white paint on which pilot intends to land
touch-down speed	the airspeed at which the aircraft makes contact with the ground on landing: *The touchdown speed of the B747 is approximately 160-170 knots.*
touchdown zone	area after threshold where aircraft usually touch down initially on landing
tow vehicle	a vehicle used especially during pushback to move an aircraft backwards from the stand or to pull it to another location at the airport. It is also referred to as a *tug* or *tractor*
tow-bar	bar connecting the aircraft nose gear to a tow vehicle for pushback and towing

Word	Definition and examples
track	1) the path of the aircraft over the Earth's surface from take-off to touchdown 2) the angle between a reference datum and the actual flight path
track (v)	to fly along a radial etc., to join a navaid or ILS fix
tractor	a towing vehicle, used especially during pushback, i.e. moving a plane backwards from the stand. It is also referred to as a *tug* or *tow vehicle*
traffic	aircraft in movement
Traffic Advisory	TA: A TCAS message informing the crew of the presence of traffic in their vicinity. A TA does not require crew action. This allows them time to seek the traffic visually and question ATC
traffic circuit	a predefined flight movement used either for holding or to prepare an approach
traffic conflict	when two aircraft are at altitudes or on headings which, if maintained, could result in an airprox or a collision
traffic on the roll	an aircraft is moving on the runway
traffic pattern	a predefined flight movement used either for holding or to prepare an approach; a *circuit*
trailing edge	the rear edge of the wing, stabilisers and engine blades: *trailing edge flaps*
transient parking	a place for planes to park temporarily
transit (v)	to pass through
transition altitude	the altitude at which the altimeter setting is changed from local atmospheric pressure to 1013 hPa and vice versa
transition level	the flight level at which flight crews reset their altimeters from local atmospheric pressure (QNH or QFE) to standard atmospheric pressure at sea level (1013 hPa) and vice versa. Below this point altitude rather than level is used by pilots and controllers.
transponder	a radio device which when triggered sends out a pre-coded reply on the same wavelength. ATC allocates Modes A and B four-digit numbers to provide aircraft identification. Mode C gives auto-reading from the encoding altimeter
trench	a long hole, typically dug in order to lay underground pipes or cables
trend	tendency, general movement or direction in development: *a trend forecast shall supersede, during the validity of the trend, the aerodrome forecast (TAF) for the aerodrome concerned*
trigger (v)	to cause, to initiate, or to activate a system response or reaction: *The angle of attack sensor will send a signal to trigger a stall warning*
trim fuel valve	a valve which allows fuel to flow from the *trim tank* to the main fuel tanks in the wings and wing centre box (between the wings)
trim tank	auxiliary fuel tank in the tail. Some long-range aircraft have fuel tanks in the horizontal stabilizer; the weight of this fuel is used to regulate the aircraft's centre of gravity (C.G.)
triple seven	a Boeing 777 wide-body, twin engine, long-range jet airliner
triplexed	systems which consist of three independent subsystems, each of which can ensure operation in the event of one or two of the other subsystems failing
tug	a towing vehicle, used especially during pushback. It is also referred to as a *tractor* or *tow vehicle*: *We are waiting for the tug to arrive so that we can push back*
turboprop	an aircraft with propellers which are driven by a gas turbine (ATR 72, Dash 8, Fokker 50, Saab 2000, C-135, A400M)
turnaround	the time between the arrival of a flight at its parking stand and its departure for the next flight; it is a period when the flight crew's attention is turned to a whole series of activities (servicing, unloading, loading, refuelling, catering, engineering, boarding etc.) where the airport ground staff is involved and contact with Air Traffic Control is limited. However, the flight crew also communicate with different categories of ground staff both by radio / interphone and face to face in situations where safety is an ongoing concern and the operational time constraints to depart on time create what is a potentially stressful environment.
TWY	taxiway
U/S	unserviceable, not operational, out of order
ULD	Unit Load Device: a pallet or container which can be loaded onto a plane as a single unit
unable	'I cannot comply with your request, instruction or clearance'; 'unable' is usually followed by a reason.
unambiguous	having only one possible meaning. If a word or sentence is *ambiguous*, it may be interpreted in several ways
unaware	not knowing, not realizing: *The cockpit crew were unaware of the situation in the cabin*

Word	Definition and examples
unconsciousness	being without awareness
under control	controlled, not out of hand: *Following the engine flame-out, the captain announced that the situation was under control*
undershoot windshear	windshear characterized by a decrease in aircraft airspeed
union	connector or fitting which attaches one piece of piping to another
unlawful interference	hijackers or terrorists attempting to take control of or threaten the safety of the aircraft. There is a specific code (7500) to alert the ground of any attempted hijacking as the flight crew may not be able or wish to communicate orally. There may be unexplained and unscheduled changes to the aircraft's course if the crew is threatened and is complying with the hijacker(s). Threatened in this way, the crew may not reply, or may not reply normally, to ATC and may not follow ATC instructions
unruly	aggressive, belligerent, badly behaved: *we have a group of unruly football fans on board*
unserviceable	which cannot be used on the aircraft and must be replaced or repaired. Also *U/S.*
updated	in the most recent version: *make sure that the charts you use have been updated*
updraught	an ascending current of air
uplift (v)	to take fuel on board the aircraft, to *refuel*: *we need to uplift 69 tonnes of fuel*
upper level winds	winds blowing at altitudes typically between 23,000 and 39,000 feet for the polar *jet streams* and at higher levels for the subtropical jet streams. They blow from west to east and, as a result, make eastbound flying times across the North Atlantic approximately one hour shorter than the westbound ones.
upwind end	the end of a runway which is the opposite end from where an aircraft starts its take-off roll
urgent	requiring immediate attention: *if it is urgent, make it sound urgent*
U/S	Abbreviation for *unserviceable.*
UTC	Universal Coordinated Time: for most purposes, the same as *GMT* (Greenwich Mean Time), also referred to as *Zulu* in radiotelephony
V1	the decision speed, i.e. the speed at which the pilot must decide to continue or abandon take-off
vacate (v)	to exit or leave the runway: *report vacated*
vectoring	issuing headings to aircraft to provide navigation guidance
vectoring ILS approach	involves the controller using radar to instruct the pilot about the headings and altitudes to fly to capture the ILS glidepath.
veer (to)	1) to move off course, to change direction, to move diagonally away from the centreline or correct path 2) for the wind to change direction clockwise
vertical separation	the vertical distance between two aircraft, which is measured in feet, but in metres / kilometres in Russia, China and the CIS
vertical speed mode	V/S: the basic pitch autopilot mode
VFR traffic	a flight following Visual Flight Rules, i.e. in this case, making an approach using visual references rather than flying on the instruments (IFR) making an ILS approach
via	passing by or through: *taxi to holding position via November and Lima*
vicinity	surroundings, neighbourhood: *there is VFR traffic in the vicinity of the aerodrome*
visual	*to be visual* means to have something in sight, to see something, especially the runway: *Are you visual yet?*
visual approach	an approach to a given runway where the pilot relies on visual references such as VASI (Visual Approach Slope Indicator), PAPI (Precision Approach Path Indicator) and topography rather than using the Instrument Landing System
visual contact	when something is visible; the expression 'We are visual' is also used
visual references	topographical features, markings and lights which contribute to situational awareness; also *visual cues*
visual separation	the separation between two aircraft based on the pilots' visual contact rather than a distance imposed by ATC
VOR	VHF Omnidirectional Range: a type of ground-based navigation transmitter which sends signals in all directions to enable aircraft to identify their position. The intersection of two VOR radials provides the aircraft's position.

Word	Definition and examples
VOR calibration	periodic checking and resetting of VOR transmitters
VOR-DME approach	an approach using a combination of two types of navaid: VHF Omnidirectional Range and Distance Measuring Equipment
Vref	the speed or velocity at which the aircraft should be flying in a given configuration
VSI	Vertical Speed Indicator: instrument which displays the vertical speed, or rate of climb or descent, of the aircraft in feet per minute: *the PNF using the VSI after lift-off to call 'positive rate'.*
wake turbulence	a downdraught caused by the movement of a large aircraft through the air. For this reason, ATC usually provides additional horizontal separation after the passage of particularly large aircraft; also *wake vortex*
walkaround inspection	an external check of the aircraft made by the first officer at the stand between two flights; he makes sure that there is no apparent damage
wander (v)	to move or enter unintentionally: *The crew was unfamiliar with the airport and wandered onto the active runway.*
warning	a crew alert symbolised by the colour red and requiring immediate crew action. *We have an engine fire warning*
water servicing truck	truck for replenishing aircraft's potable water supply
waypoint	a point on the journey to the final destination, i.e. a pilot may fly from Warsaw to London by flying first via Berlin and then Amsterdam
We 'may' request a diversion	ATC has responded to utterances like this as full emergencies on several occasions due to the fact that they did not pick up the fact that the flight crew had used the modal verb 'may' or 'might' in a statement
wear (n)	damage from being used regularly, as in clothes, paint, mechanical parts etc. that gradually deteriorate as they get older: *There is a lot of wear on the wingtips*
wear (v)	1) to have clothing, etc. on your body: *Marshallers must wear ear protection on the ramp at all times.* 2) to become weaker, damaged or thinner because of continuous use: *It is the moving parts within the engine which wear most quickly.*
wear out (v)	to become obsolete, unserviceable or need replacement, because of *wear*: *These tyres seem to wearing out very quickly: I wonder if they are correctly aligned?*
weather bureau	station gathering and distributing updated weather reports and forecasts. See also *met office*.
weather radar returns	the coloured patterns or outlines from the weather radar antenna displayed on the cockpit ND. Aircraft are fitted with weather radar systems using a radar antenna in the radome covering a range of up to several hundred miles. Crews use the colour-coded displays provided by this system to detect the presence of weather systems (cumulonimbus clouds, thunderstorms and resulting turbulence) in order to request a change of flight path if necessary
weight and balance print-out	a document recording distribution of weight and CG (centre of gravity) at take-off; also referred to as the *weight and balance sheet*
weight and balance sheet	document recording and allowing the checking of the aircraft weight, load distribution and centre of gravity
westbound	moving towards the west: *westbound air traffic from London to New York*
wheelchair	light chair with wheels for invalids
whiteout	the phenomenon of spatial disorientation caused by the intense glare of a snowy landscape
wick	*static discharger* located on trailing edges to discharge electrical charges built up in the airframe
wide body	large transport aircraft with two cabin aisles such as the B747, B767, B777, A330, A340, A380
width	the distance from one side to the other: *45 metres is a typical runway width*
wilco	*Wilco* means 'I understood your message and will comply with it'. *Wilco* should not be used in reply to a question which requires a direct answer or readback.
window heat	the electrical resistances in the windshield and side cockpit window panels which prevent the formation of ice and condensation
windshear	a large local wind gradient, i.e. sudden changes in wind speed and direction which may cause aircraft to lose airspeed and altitude and are especially dangerous close to the ground during approach and landing
windsock	a fabric sleeve hung from a mast to give a rough indication of the local wind strength / direction
within	inside defined limits or boundaries: *within controlled airspace, within the aircraft's flight envelope*

Word	Definition and examples
words twice	'Communication is difficult. Please send every word twice' or 'Since communication is difficult, every word in this message will be sent twice'.
working memory	a model to describe how we use short-term memory to manipulate information
workload	the quantity of work to be performed in a particular time frame: *Climb, approach and landing are periods of high crew workload*
worn	Weaker, damaged or thinner because of continual use: *The painted taxiway markings appear to be very worn.*
yaw control	the control of the aircraft about the vertical axis managed mainly by the rudder
yaw damper	a flight control system which sends inputs to the rudder in order to counter the effects of turbulence and avoid the aircraft oscillating from side to side, which is called *Dutch roll*. If the yaw damper fails the aircraft may suffer from Dutch roll
yellow system	one of the three hydraulic systems (green, blue, yellow) on Airbus aircraft. Boeing identify their hydraulic systems numerically
yoke	another word for the control wheel which controls the ailerons on a conventional aircraft
Z	Zulu: Coordinated Universal Time: *15:45Z*
zero deviation signal	a signal which indicates that the aircraft is correctly aligned on the ILS; this should not be confused with *no deviation signal*, which means that no information is displayed