GEN 2.3 CHART SYMBOLS

AERONAUTICAL CHART SYMBOLOGY

AERODROME - Civil

AERODROME - Civil, limited or no facilities

HELIPORT - Civil

AERODROME - Government, available for Civil use

AERODROME - Government

HELIPORT - Government

MICROLIGHT FLYING SITES

DISUSED or ABANDONED Aerodrome

AERODROME - Training Aerodrome: flight training, including circuit training, takes place from this aerodrome. See UK AIP ENR 1.

AERODROME - Unusual Activity: Unusual aerial activities including aerobatic and formation flights take place from this aerodrome. See UK AIP ENR 1.1.

Aerodrome having one or more IAPs outside Controlled Airspace

UK AERODROME TRAFFIC ZONE (ATZ)

Customs Aerodromes — MANCHESTER

AERODROME LIGHT BEACON — FIG, FIR

GLIDER LAUNCHING SITES

a. Primary activity at locations showing Maximum Altitude of winch launch. AMSL — G/2.5

b. Additional activity at locations showing Maximum Altitude of winch launch. AMSL — G/2.

c. Additional activity without cables — 5 G

HANG/PARA GLIDING - showing Maximum Altitude of winch launch. AMSL — /2.5

FREE-FALL PARACHUTING DROP ZONE

RADIO NAVIGATION AIDS

Distance Measuring Equipment (DME)

VHF Omnidirectional Radio Range (VOR)

Collocated, freq-paired VOR/DME

UHF Tactical Air Navigation Aid (TACAN)

Non-Directional Radio Beacon (NDB and NDB(L))

OTHER NAVIGATIONAL AIDS

VOR COMPASS ROSE
Oriented on Magnetic North

Marine Light — Fl(3)30·0secs

Lightship — FlWR12·0secs

MAXIMUM ELEVATION FIGURES (MEF) — 32

CONTROLLED AIRSPACE

Annotation of vertical limits for controlled airspace which have an upper limit of FL195 are shown with a plus (+) after their base level altitude, eg 3000'-FL195 is shown as 3000'+. Where the upper limit is below FL195 both base and upper limits are shown. Airspace vertical limits are defined by altitude/flight level unless otherwise noted.
Wide tint banding denotes the extremity of controlled airspace and narrow tint banding denotes level changes within area

A — L10 A FL45+

C — CTA C 2500'-FL185

D — CTA D 2500'-3500'

E — TMA E 2000'-6000'

All airspace not covered by classes A-E — G

Low Level Corridor or Special Route — 750'-2500'

Radar Advisory Service Zone or Area

Air Traffic Service Unit (ATSU) Area

Transponder Mandatory Zone (TMZ)

Radio Mandatory Zone (RMZ)

Reporting Point

Compulsory Reporting Point

Altimeter Setting Region (ASR) Boundary — PORTREE ASR / BELFAST ASR

AIAA and ATA areas

Lines of equal magnetic variation — 2.5°W

Special Access Lane Entry/Exit (→ indicates centre of lane) — E/E MERSEY LANE

Visual Reference Point (VRP) Location identified by ⊕ — VRP SANDBACH

MILITARY AERODROME TRAFFIC ZONE (MATZ) — 5NM, 4NM, 5NM, MATZ LARS 126·5

Standard MATZ with two stubs and LARS

AIRSPACE RESTRICTIONS

Prohibited 'P', Restricted 'R' and Danger Areas 'D' are shown with identification number/ effective altitude (in thousands of feet AMSL) or a Flight Level.
Areas activated by Notam are shown with a broken boundary line

HIGH INTENSITY RADIO TRANSMISSION AREA (HIRTA)

BIRD SANCTUARIES

GAS VENTING OPERATIONS — GVS/3·1

LASER SITES — LASER SITE/UNL

AIR NAVIGATION OBSTACLES

Exceptionally High Obstacle (Lighted) 1000ft or more AGL — 1978 (1031)

Single Obstacle (Unlighted) — 825 (350)

Multiple Obstacle (Lighted) — 1614 (505)

Cable joining Obstacles — cables

CHANGE (3/17): RADIO MANDATORY ZONE (RMZ) SYMBOL ADDED.

AERO INFO DATE 05 DEC 16

GEN 2.3 CHART SYMBOLS (continued)

ADDITIONAL SYMBOLS FOR THE 1:250,000 TOPOGRAPHICAL AIR CHARTS

AERODROMES - Field limits with hard runway pattern... Civil..... Government.....

- Showing disused runways as solid patterns.....

HELIPORT.....

MINOR AERODROME with runway pattern unknown or not portrayable.....

DISUSED or ABANDONED Aerodrome.
Shown for navigational landmark purposes only. See AIC 56/02 (Pink 34).....

Power Transmission .....
Power Transmission Line over 200' .....

Low Level Corridor or Special..... 750-2500' or

ADDITIONAL SYMBOLS FOR AERODROME AND AIRCRAFT PARKING/DOCKING CHARTS - ICAO

Wind Direction Indicator .....

Illuminated Wind Direction Indicator .....

Aerodrome Reference Point .....

Runway Visual Range .....

Pattern A (CAT I) Holding Position Closest to the Runway .....

Pattern B (CATII/III) Holding Position .....

Intermediate Holding Position .....

Holding Position Signs H1 D2

Helicopter Approach Aiming Point .....

Helicopter Training Area ..... HTA

Approach Lighting, simple approach - 2 bar (spacing not to scale)

Approach Lighting ..... (spacing not to scale)

Supplementary Lighting (spacing not to scale)

Precision Approach Path Indicator (PAPI).....

Aerodrome Radar .....

Aerodrome Radar (lit) .....

Aerodrome Radar and Obstacle .....

Aerodrome Radar and Obstacle (lit) .....

Threshold and Touch-Down Zone Markings:

AD Chart Apron.....

AD Chart Operational Taxiway.....

AD and Parking/Docking Chart Disused Area.....

Parking/Docking Chart..... Apron/Taxiway/Runway

ADDITIONAL SYMBOLS FOR INSTRUMENT PROCEDURE CHARTS

Basic Procedure .....

Missed Approach Procedure .....

Alternative Procedure .....

Direct Arrival .....

Holding Pattern .....

Alternative Holding Pattern .....

Initial Approach Fix .....

Intermediate Fix .....

Final Approach Fix .....

Missed Approach Point (MAPt) .....

Step Down Fix .....

Minimum Sector Altitude ..... MSA

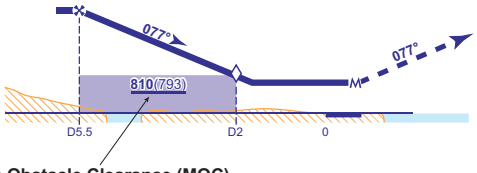
Radio Marker Beacon .....

ILS Reference Datum Height ..... RDH 54

Procedure Aerodrome .....

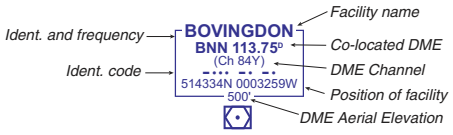
Aerodrome influencing traffic patterns of Procedure Aerodrome or of landmark value .....

Procedure Not Below heights ..... 2000(1800)

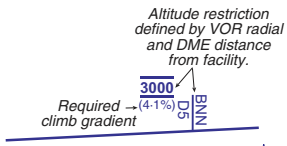


Minimum Obstacle Clearance (MOC)

Area Minimum Altitude ..... AREA MNM ALT (x100) 38



VOR/DME
Co-located



Waypoint (Fly-by) .....

Compulsory Waypoint (Fly-by) .....

Waypoint (Fly-over) .....

Co-located Waypoint (Fly-by) with VOR/DME .....

Co-located Waypoint (Fly-over) with VOR/DME .....

Speed Limiting Point ..... SLP

SID Designator and Distance to Significant Point ..... ABBOT 1D 18

CHANGE (13/16): AMENDMENT TO AERODROME SYMBOLS.

GEN 2.3 CHART SYMBOLS (continued)

Meteorological Charts-Explanatory Notes

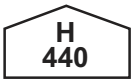
1 Symbols for significant Weather, Tropopause and Freezing Level etc

	Thunderstorm
	Tropical cyclone
	Severe squall line
	Hail
	Moderate turbulence
	Severe turbulence
	Mountain waves
	Moderate aircraft icing
	Severe aircraft icing
	Freezing precipitation
	Drizzle
	Rain

	Snow
	Widespread blowing snow
	Shower
	Severe sand or dust haze
	Widespread sandstorm or duststorm
	Widespread haze
	Widespread mist
	Widespread fog
	Freezing fog
	Widespread smoke
	Volcanic eruption
	Radioactive materials in the atmosphere

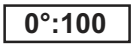
Note: Altitudes between which phenomena and any associated cloud are expected are indicated by flight levels, top over base or top followed by base. 'XXX' means the phenomenon is expected to continue above and/or below the vertical coverage of the chart. Phenomena of relatively lesser significance, for example light aircraft icing or drizzle, are not usually shown on charts even when the phenomenon is expected. The thunderstorm symbol implies hail, moderate or severe icing and/or turbulence.

Tropopause spot altitude (eg FL400)



High point or maximum in tropopause topography (eg FL440)

Low point or minimum in tropopause topography (eg FL340)



Freezing level

Boundary of area of significant weather

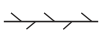
Boundary of area of clear air turbulance. The CAT area may be marked by a numeral inside a square and a legend describing the numbered CAT area may be entered in the margin

State of sea (wave height in metres)

Sea surface temperature (°C)

2 Fronts and Convergence Zones

	Cold front at the surface
	Warm front at the surface
	Occluded front at the surface
	Quasi-stationary front at the surface

	Convergence line
	Inter-tropical convergence zone
	Position, speed and level of maximum wind
	Widespread strong surface wind

Note: An arrow with associated figures indicates the direction and the speed of the movement of the front (knots). Dots inserted at intervals along the line of a front indicate it is a developing feature (frontogenesis), while bars indicate it is a weakening feature (frontolysis).

GEN 2.3 CHART SYMBOLS (continued)

3 Cloud Abbreviations

3.1 Type

CI = Cirrus
CC = Cirrocumulus
CS = Cirrostratus
AC = Altocumulus
AS = Altostratus
NS = Nimbostratus
SC = Stratocumulus
ST = Stratus
CU = Cumulus
CB = Cumulonimbus (its insertion implies hail moderate or severe icing and/or turbulence)

3.2 Amount

Clouds except CB
FEW = few (1/8 or 2/8)
SCT = scattered (3/8 or 4/8)
BKN = broken (5/8 to 7/8)
OVC = overcast (8/8)
CB only
ISOL = individual CB's (isolated)
OCNL = well separated CB's (occasional)
FRQ = CB's with little or no separation (frequent)
EMBD = thunderstorm clouds contained in layers of other clouds (embedded).

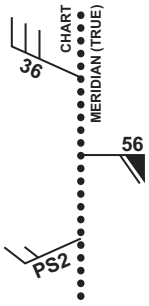
4 Example Weather Abbreviations

RA = rain
DZ = drizzle
SN = snow
SH = showers
FZ = freezing
TS = thunderstorms

Other phenomena may be expressed as a combination of abbreviations or written in full. TS implies severe turbulence and icing.

5 Wind Symbols

5.1 Wind/Temperature Chart

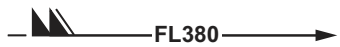


Wind 300°(T) 30 KT, temperature -36°C at arrow head

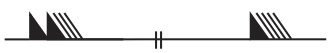
Wind 090°(T) 60 KT, temperature -56°C at arrow head

nd 240°(T) 15 K T, temperature +2°C at arrow head

5.2 Significant Weather/Tropopause/ Maximum Wind Chart



Maximum wind 270°(T), 110 KT at FL380



A double bar marks a speed change of 20 KT, and/or height change of 3000 ft

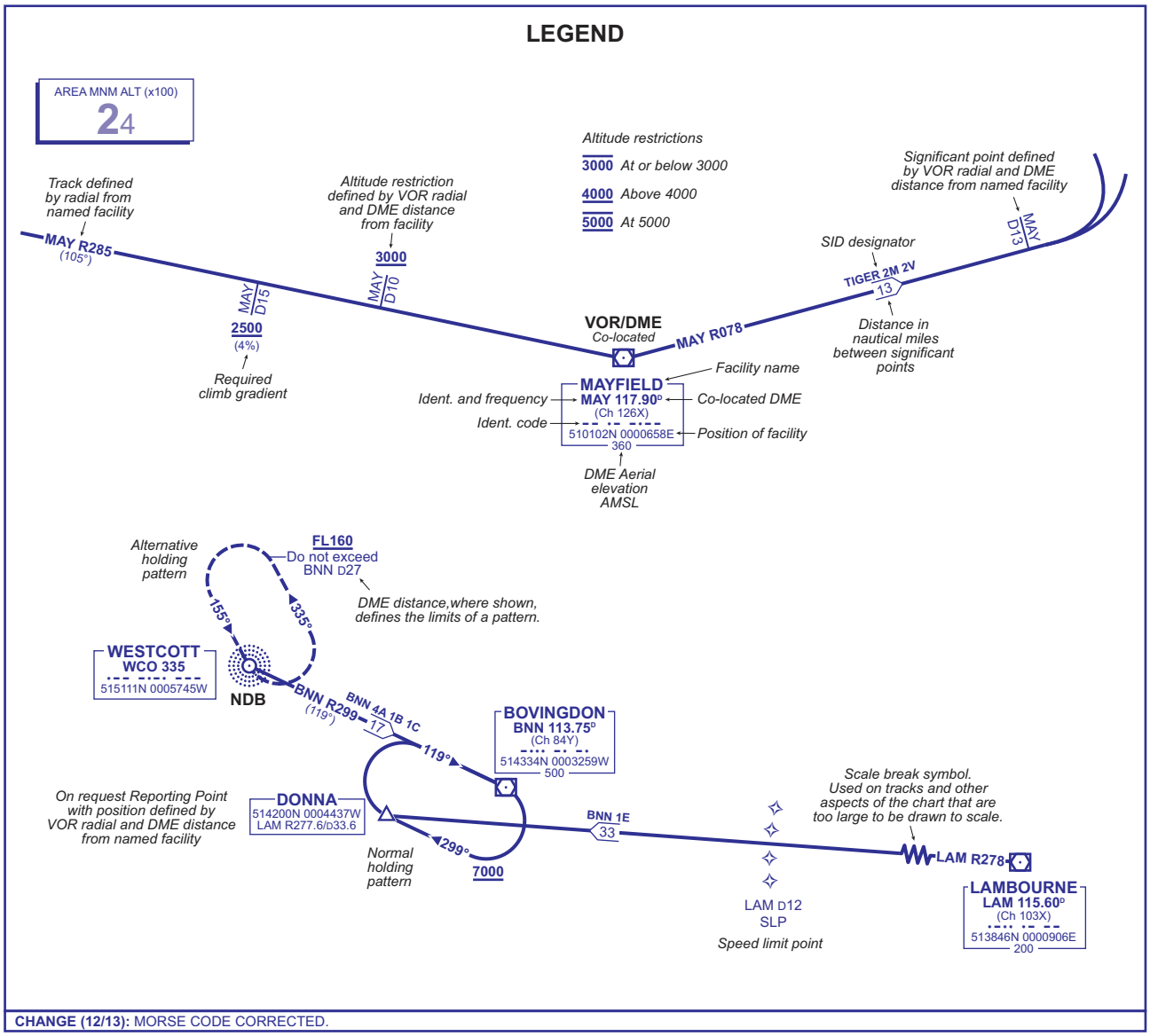
FL 320
220/400

If the maximum wind speed is 120kt or more, the flight levels between which winds are greater than 80kts is placed below the maximum wind level.
In this example winds are greater than 80kt between FL220 and FL400

GEN 2.3 CHART SYMBOLS (continued)

STANDARD INSTRUMENT DEPARTURE (SID) AND ARRIVAL ROUTES (STAR)	
1	SID procedure charts are located in AD 2. They consist of a textual description of the procedure, a graphical illustration and explanatory notes. Only aeronautical information pertinent to the procedure is shown and these charts should therefore be used together with a suitable En-route chart which gives details of Airspace Reservations, Controlled Airspace and ATS routes.
2	SID charts are arranged by Main Exit Points: the various runway directions which can be used to the relevant Main Exit Point will be found on one chart.
3	The procedure charts are drawn to scale. Unless otherwise indicated: a) Distances are in nautical miles; b) Headings, bearings, tracks and radials are in degrees magnetic; c) Heights/altitudes where stated are based on QFE/QNH; d) Horizontal datum WGS 84 (CO-ORDS in DEG MIN SEC).
4	Area Minimum Altitude (AMA). The lowest altitude to be used under instrument meteorological conditions (IMC) that will provide a minimum vertical clearance of 300M (1000FT) or in designated mountainous terrain 600M (2000FT) above all obstacles located in the area specified, rounded up to the nearest (next higher) 30M (100FT).
5	Net Climb Gradient. The climb gradient, expressed as a percentage, that the aircraft is required to achieve to meet standard (ICAO PANS-OPS) obstacle clearance requirements, will be detailed in the textural description of the SID procedure when the required gradient is greater than 3.3% to be achieved. Procedure design gradients are annotated on charts as necessary. A table for conversion of percentage climb gradients to rates of climb for various speeds is given in the GEN 2.6 section.
6	Arrival Charts. STARs or established inbound routes are shown in a similar fashion to SIDs. Tracks terminate at the main inbound holding point from which the Instrument Approach commences.

GEN 2.3 CHART SYMBOLS (continued)



CHANGE (12/13): MORSE CODE CORRECTED.

AERO INFO DATE 23 AUG 13