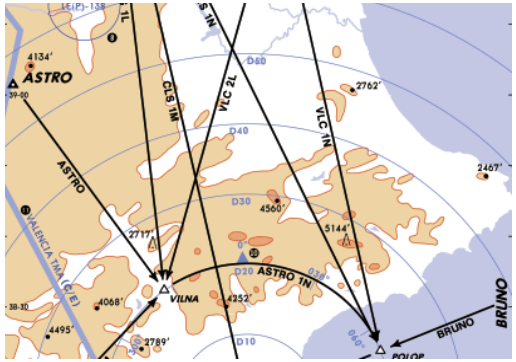
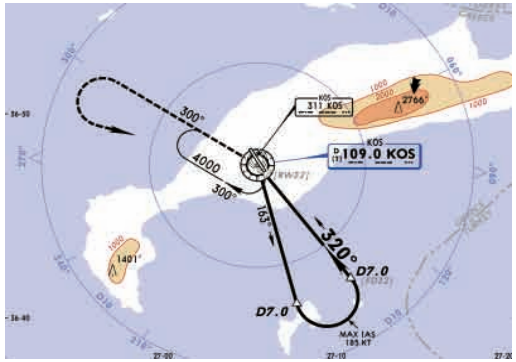
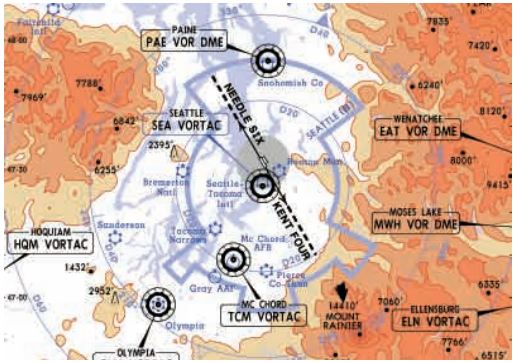
Orientation Booklet

The New Airline Chart Series







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Introduction

This Orientation Booklet is a quick reference aid to assist you in making a smooth transition to the new airline chart series, which represents our ongoing effort to improve chart usability and readability as well as smoothing the path to a digital presentation in today's and tomorrow's Electronic Flight Bags. The new airline chart series has been developed to better support those airlines that primarily operate category C and D aircraft.

The main areas of improvement are:

- Supporting a constant descent on final approach for Non-Precision Approach Charts
- Showing CAT 3A approach minimums on Standard ILS Precision Approach Charts
- Reducing the amount of information not used by airlines
- SID/STAR Overview Chart showing basic route information to scale and with terrain

Omitting all information unnecessary for these aircraft categories in the plan view and profile view as well as in the minimums boxes for landing and take-off results in improved readability of the charts. However, if an airline prefers to stay with the current information (aircraft categories A, B, C and D) the Jeppesen Standard Chart is still available.

New printing technology allows printing one additional color – blue for hydrography, special use airspace and information to improve situational awareness.

The new airline chart series will be made available for a selected number of airports which are most frequently used by airlines as destination or alternate airports and contained in a tailored route manual.

Besides the approach and airport charts, SID/DP/STAR overview charts have been developed mainly to enhance terrain awareness that is not currently provided by the standard SID/DP/STAR charts. It shows the simplified routing relative to terrain, special use airspace and other routes. The charts are to scale and useful in flight planning.

The contents of this Orientation Booklet provide you with detailed information on the new airline chart series. This includes example charts of standard approach versus new airline charts, SID/DP/STAR overview charts, and a new legend.

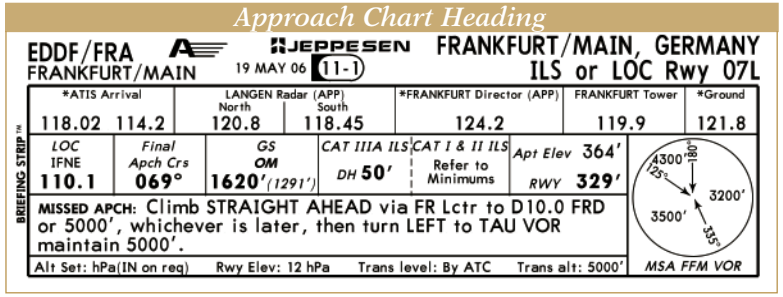
Approach Chart

Approach Chart Heading

1 Index Oval, Special Issue

A square-end oval outline is used to distinguish Airline charts from Standard charts. The Airline Icon is placed between the airport name and the revision date.

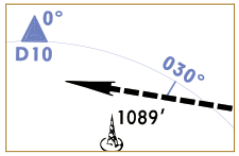
2 ILS/MLS/LOC Approach Charts



The former reference to CAT II and III suffixes in the procedure title are routinely being omitted by various States according to ICAO recommendations. Typically, there will be no separate chart for CAT II/IIIA. CAT I, II, and IIIA ILSs will always be combined if space permits. Only the lowest permissible minimums are charted. If a runway is CAT IIIA-approved, an ILS CAT IIIA minimum of DH 50' together with a reference to CAT I & II ILS is shown in the pre-approach briefing section. If the lowest operations a runway is approved for are CAT II operations, the lowest permissible RA for category C and D as well as the DA(H) for the CAT I are shown. If the CAT I or CAT II DH is different for aircraft category C and D, a cross-reference note is shown referring to the minimums section; e.g., DA(H) Refer to Minimums. In countries where ILS CAT IIIB minima are published on the Jeppesen Standard Chart, the Airline Chart will also show ILS minima down to CAT IIIB.

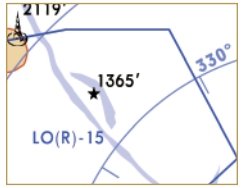
Plan View

1 DME Distance Circles



Whenever a suitable VORDME is available (within 6 NM of the ARP of the airport concerned), relevant distance and radial information are shown, spaced at intervals of 5 NM for both precision and non-precision approach procedures. Where no suitable VORDME is available, DME distance circles centered on an ILS/LOCDME, or stand-alone DME or TACAN location indicating the appropriate frequency and ident are shown. DME Distance Circles are printed in blue.

2 Restrictive Airspace (Prohibited & Restricted Areas, Danger Areas)



The wide crosshatched band used on standard charts will be replaced by a thin solid line. Restricted Airspace outlines and labels are printed in blue.

3 Secondary IFR/VFR Airports - Printed in blue.

4 Terrain Contours

The depiction of terrain contours is not limited by terrain criteria as applied for standard charts of a 2000' rise above the airport elevation within 6 NM of the airport or 4000' above the airport elevation within the limits of the charted plan view. The lowest contour shown is at least 400 feet above the airport elevation beginning with the source chart's next higher 1000 feet interval.

Profile View

1 Recommended Altitude Descent Table (DME Ribbon)

When not already state-supplied, a recommended altitude descent table (DME ribbon) is shown beginning at the FAF, assuming a suitably located DME is used in the procedure. The recommended altitude ribbon is shown for all non-precision approaches (VOR, NDB, LOC, etc.), provided that the maximum divergence between the DME fixes, the tracking facility and the DME is not more than 23° to accommodate a continuous rate of descent until reaching the minimum. A maximum of nine altitudes will be shown in increments of 1 NM in even DME distances sequenced in the direction of flight of the profile. Recommended altitudes, if not already a multiple of ten, will always be rounded up to the next higher 10 foot increment.

2 Ground Speed-Kts Table

A modified Gnd speed-Kts box replaces the standard box to better match the requirements for category C and D aircraft.

Gnd speed-Kts	*120*	*140*	*160*	*180*
ILS GS 3.00° *or* *LOC Descent Gradient* 5.2%	647	755	862	970
MAP at MM/D1.7 FRD				

Minimums

Only the best minimums condition e.g., “With DME” or “With Local Altimeter Setting” are shown. Footnoted is the “Without DME” or “With Remote Altimeter Setting” condition. ILS CAT I/II/IIIA minimums will always be shown combined with non-precision (LOC [GS out]) minimums. However, if space does not permit the depiction of all ILS minimums together with LOC (GS out) minimums or any other combined non-precision approach minimums, a separate non-precision approach chart for LOC (GS out), VOR, NDB, etc. will be created. ILS landing minimums for approach category 2 is standardized to DH 100’ and RVR 300m and for approach category 3A to DH 50’ and RVR 200m. These values will be printed on a standard chart. Airlines that have other landing minimums approved have the option to tailor this information. Landing minimums for category 3B vary significantly from airline to airline. Therefore, the depiction of category 3B minimums remains as tailoring option.

Minimum Boxes

JAR-OPS	STRAIGHT-IN LANDING RWY 07L						
	ILS				LOC (GS out)		
	CAT IIIA	CAT II	CAT I				
	DH 50′	RA 100′ DA(H) 429′(100′)	DA(H) 529′(200′)		MDA(H) 800′(471′)		
			FULL	ALS out		ALS out	
PANS OPS 4 C	RVR 200m	RVR 300m [1]	RVR 550m	RVR 1000m	RVR 1200m	RVR 2000m	
PANS OPS 4 D					RVR 1600m		

[1] Operators applying U.S. Ops Specs: Autoland or HGS required below RVR 350m.

CHANGES: Minimums.

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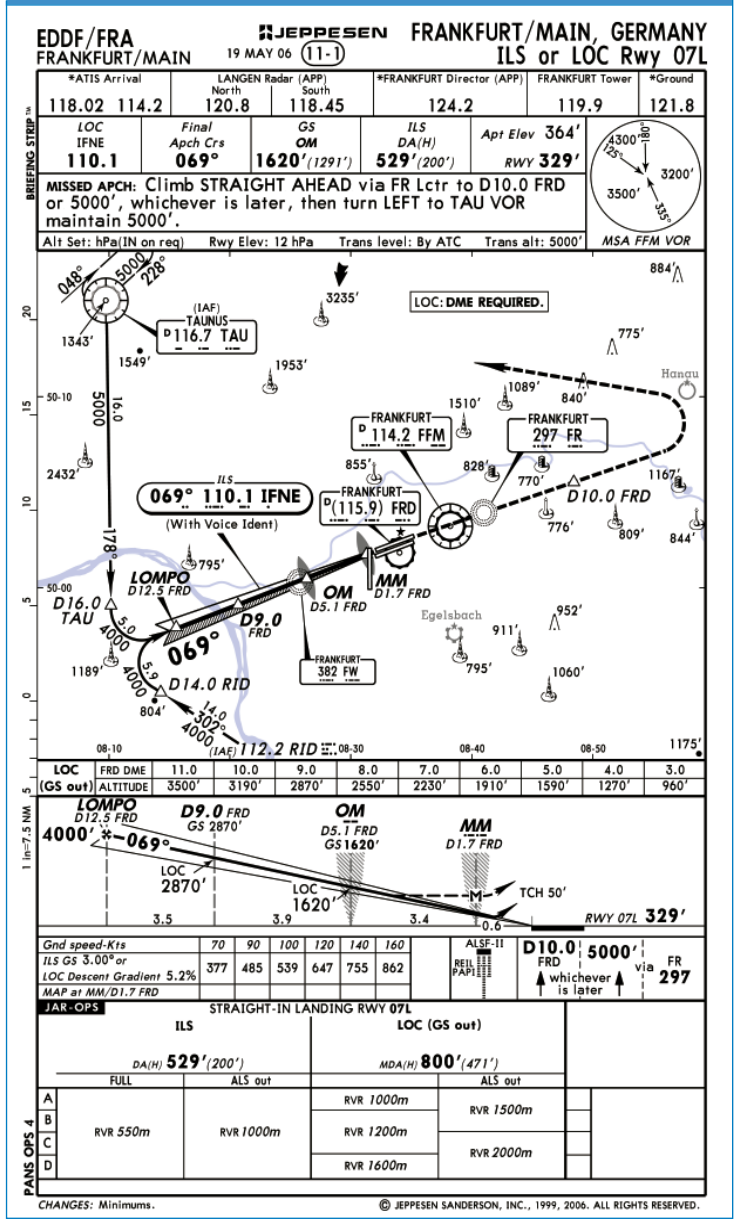
	STRAIGHT-IN LANDING RWY 16R		CIRCLE-TO-LAND	
	MDA(H) 1160′ (595′)			
		ALS out	Max Kts	MDA(H)
C	RVR 50 or 1	1½	140	1160′(554′) - 1½
D	1½	1½	165	1160′(554′) - 2

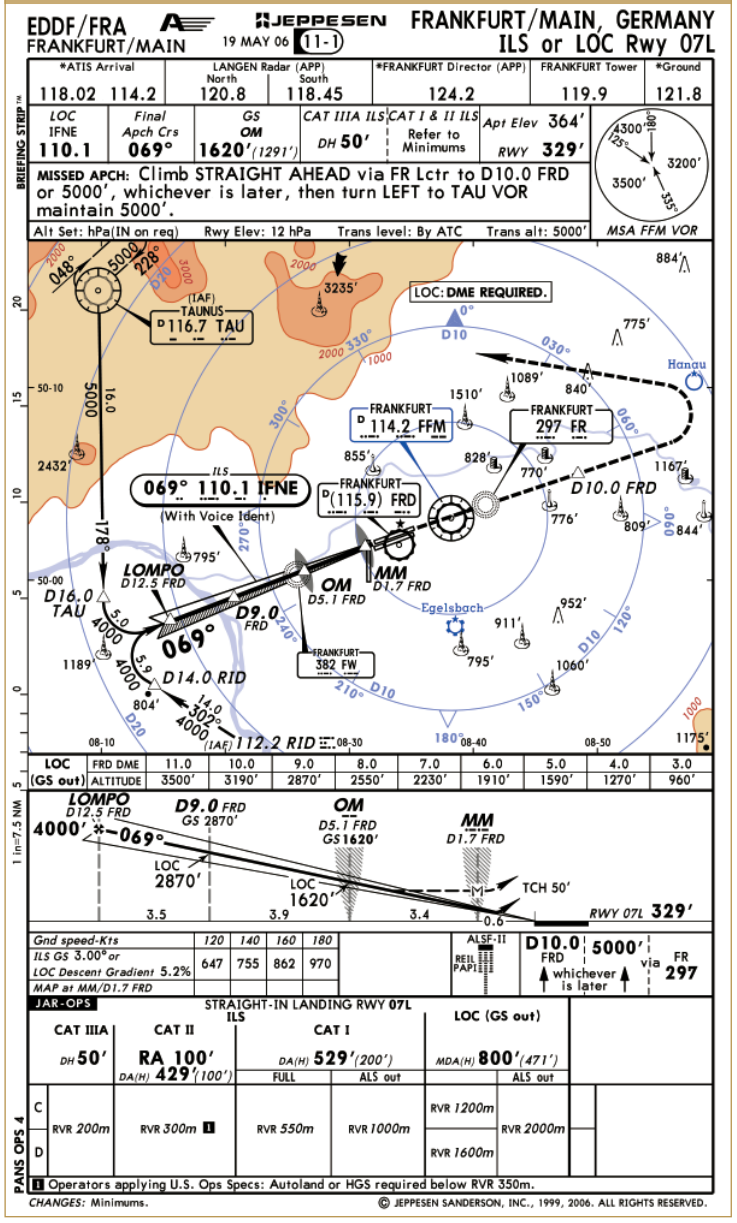
AMEND 12

Sample Charts

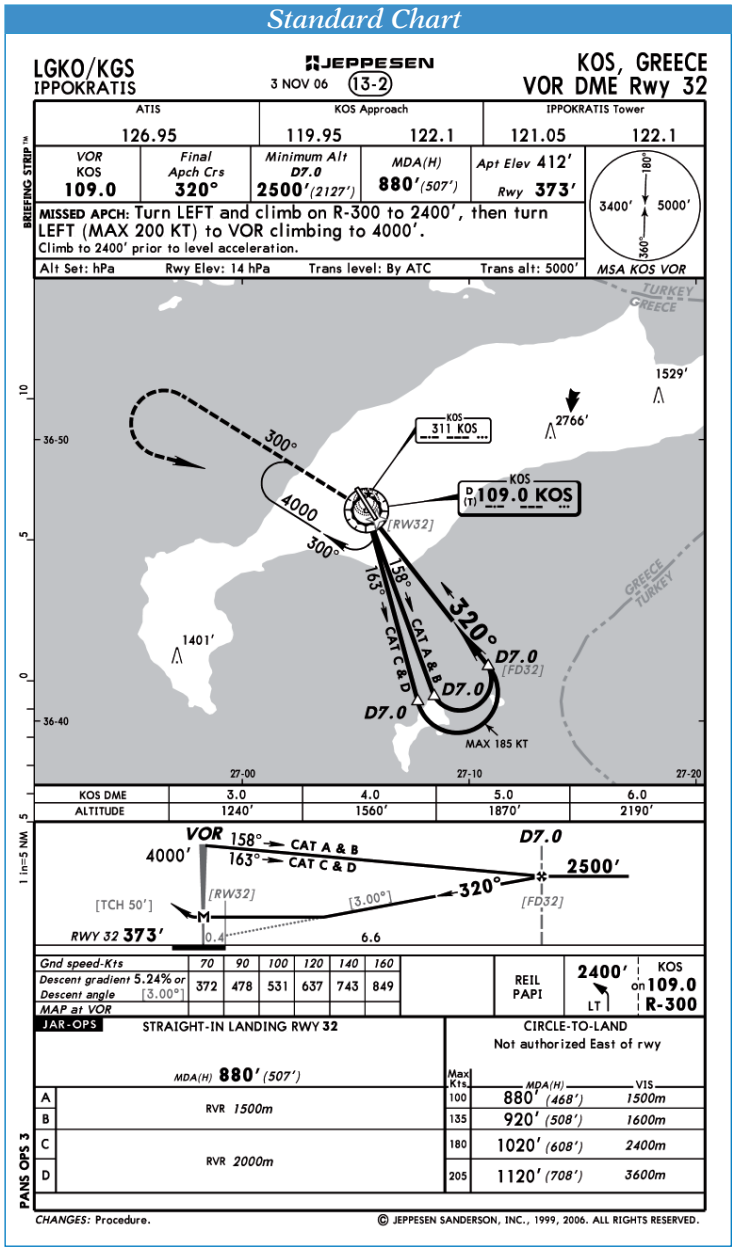
Standard Chart



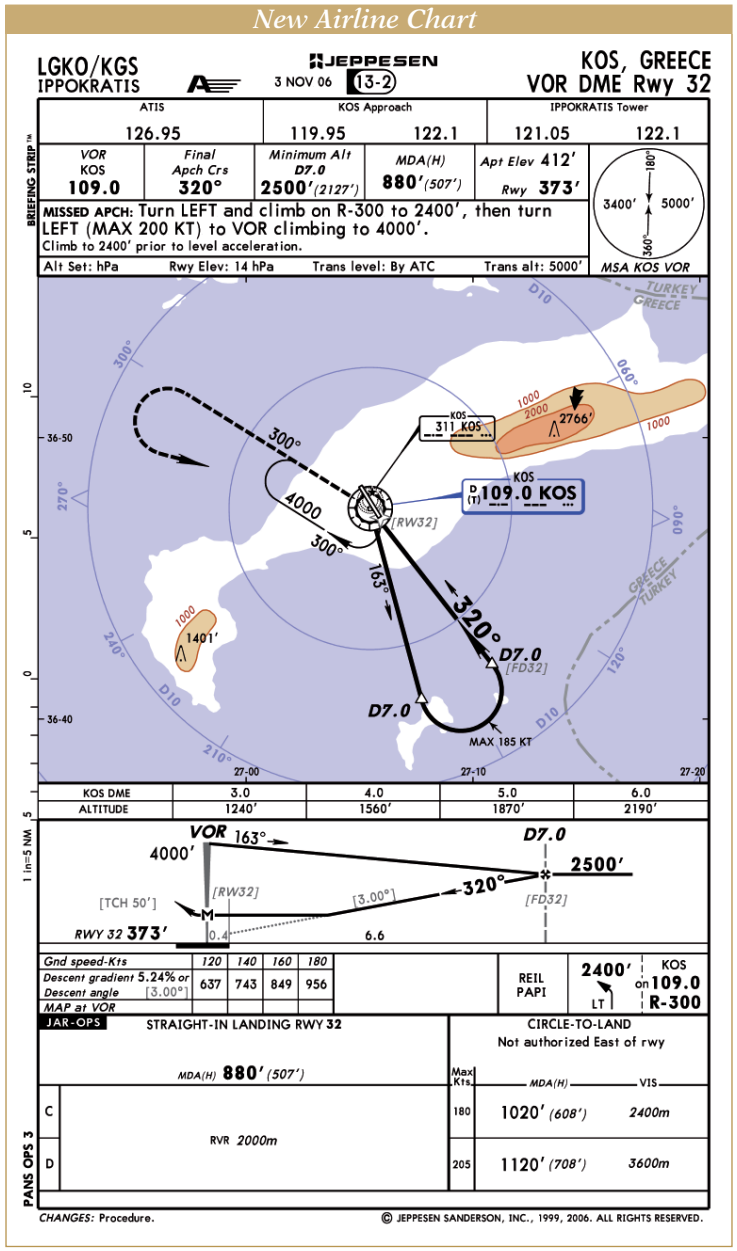
New Airline Chart



Standard Chart



New Airline Chart



Approach Chart Legend

Approach Chart Legend Airline Format

General

This legend serves as supplementary information to the NEW FORMAT and regular APPROACH Chart LEGEND. The following pages briefly explain the differences and symbols used on Airline charts. Airline charts refer only to aircraft categories C and D. The additional colour blue serves for better differentiation between primary and secondary information.

Approach Chart Heading

1. Airline chart icon.
2. The former reference to CAT II and III suffixes are routinely being omitted by various states according to ICAO recommendations. If space permits, a combined chart for CAT I, II, and IIIA ILS will be shown.
3. The lowest permissible CAT IIIA minimum will always be charted if a runway is CAT IIIA approved together with a cross reference note for CAT I and CAT II referring to the minimums section.

Approach Chart Heading

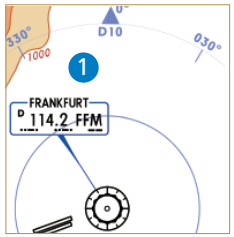
EDDF/FRA (1) JEPPESEN FRANKFURT/MAIN, GERMANY
FRANKFURT/MAIN 19 MAY 06 11-1 (2) ILS or LOC Rwy 07L

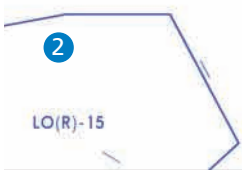
*ATIS Arrival		LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)	FRANKFURT Tower	*Ground
118.02	114.2	120.8	118.45	124.2	119.9	121.8

LOC IFNE	Final Apch Crs	GS OM	CAT IIIA ILS	CAT I & II ILS	
110.1	069°	1620′ (1291′)	DH 50′ (3)	Refer to Minimums	Apt Elev 364′ RWY 329′

Plan View

1. DME distance and radial information spaced at intervals of 5NM.
2. Special Use Airspace (Prohibited, Restricted, Danger Areas)
3. Secondary Airport





Profile View

When not already state supplied, a DME ribbon, beginning at the final approach fix (FAF), will be shown for all non-precision approaches, when a suitable located DME is used in the procedure.

Recommended Altitude Descent Table

LOC (GS out)										
FRD DME	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0
ALTITUDE	3500′	3180′	2870′	2550′	2230′	1910′	1590′	1270′	960′

Conversion Table

Gnd speed-Kts	120	140	160	180
ILS GS 3.00° or LOC Descent Gradient 5.2%	647	755	862	970
MAP at MM/D1.7 FRD				

The aircraft approach speeds have been adjusted to better match the aircraft categories C and D.

Approach Chart Legend Airline Format

Typical depiction of landing minimums for runways approved for ILS CAT IIIA operations.

Landing Minimums

JAR-OPS — STRAIGHT-IN LANDING RWY 07L

	CAT IIIA	CAT II	CAT I		LOC (GS out)	
		ILS				
	DH 50′	RA 100′ DA(H) 429′(100′)	DA(H) 529′(200′)		MDA(H) 800′(471′)	
			FULL	ALS out		ALS out
C	RVR 200m	RVR 300m [1]	RVR 550m	RVR 1000m	RVR 1200m	RVR 2000m
D					RVR 1600m	

[1] Operators applying U.S. Ops Specs: Autoland or HGS required below RVR 350m.

Typical depiction of landing minimums for runways that are approved for ILS CAT IIIB operations and where CAT 3B minimums are shown on the Jeppesen Standard Chart.

Take-off Minimums

STRAIGHT-IN LANDING RWY 8L

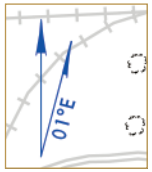
	CAT IIIB	CAT IIIA	CAT II	CAT I			LOC (GS out)		SIDESTEP LANDING RWY 8R
			ILS						
			RA 106′ DA(H) 1115′(100′)	DA(H) 1215′(200′)			MDA(H) 1440′(425′)		MDA(H) 1440′(416′)
				FULL	TDZ or CL out	ALS out		ALS out	
C	RVR 6	RVR 7	RVR 12	RVR 18 or ½	RVR 24 or ½	RVR 40 or ¾	RVR 40 or ¾	RVR 60 or 1¼	1½
D									2

IMPORTANT NOTE

Legend pages titled "AIRLINE FORMAT" contain information specific to charts c
Airlines. These legend pages include only those items that are unique to the Air
For information not covered in the "AIRLINE FORMAT" legend, refer to the "NE
and regular "Approach Chart Legend".

Airport Chart

1. Variation and Hydrography printed in blue.



2. Take-off minimum box

JAR-OPS — TAKE-OFF [1]

Rwys 07L/25R, 07R/25L, 18
LVP must be in Force

	Approved Operators HIRL, CL & mult. RVR req	RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)
C	125m	150m	200m	250m	400m	500m
D	150m	200m	250m	300m		

[1] Operators applying U.S. Ops Specs: CL required below 300m; approved guidance system required below 150m.

CHANGES: Minimums.

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SID/DP/STAR Overview Chart

General

The SID/DP/STAR overview chart has been developed to enhance situational and terrain awareness. It depicts a simplified routing relative to terrain, prohibited and controlled airspace. The chart will be geo-referenced, i.e. if your Electronic Flight Bag system allows the display of an aircraft spotter, or, if it has moving map functionality, the position of the own airplane can be displayed for general awareness.
The overview chart serves as supplementary information and is therefore available only if requested by an airline.

Heading

1 Index Oval, Index Number, Special Issue

A square-end oval outline is used to distinguish Airline charts from the Standard versions. Overview charts will be filed before the 10-2/10-3 SID/DP/STAR charts. The index number is 10-1S, 10-1S1, 10-1S2 etc.

The Airline Icon is placed between the airport name and the revision date.

2 SID/STAR Overview Block

A negative “SID OVERVIEW” or “STAR OVERVIEW” block is shown top right below the location/country name to indicate the purpose of the chart.

3 Arrival/Departure Runways

All runways for which SID/STAR routes exist are shown in the heading.

Examples:
STAR OVERVIEW RWYS 04, 06, 09
SID OVERVIEW RWYS 15, 18L/R
ALL RWYS is shown if only one SID or STAR overview sheet exists.

Plan View:

1 DME Reference Circles

Whenever a suitable VORDME is available (within 10 NM of the ARP of the airport concerned) DME reference circles are shown. Where no suitable VORDME is available within 10 NM of the ARP, DME distance circles centered on an ILS/LOCDME or stand-alone DME or TACAN location indicating the appropriate identification are shown. DME reference circles are printed in blue.

2 Special Use Airspace

Only prohibited airspace is shown. The wide crosshatched band used on standard charts is replaced by a thin solid line. Outlines and labels are printed in blue.

Plan View (Cont.)

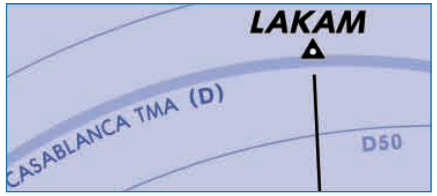
3 Secondary IFR/VFR Airports and Hydrography printed in blue

4 Contours, Terrain High Points and Man-made Structures

A contour interval legend block replaces the contour values normally shown along the contour lines. The lowest starting contour is at least 1500 feet above airport elevation. If no contours are shown, no terrain high points/man-made structures are charted unless the man-made structure is 1000AGL or higher.

5 Controlled Airspace

Only the outermost airspace boundaries are shown together with their names and are printed in blue.



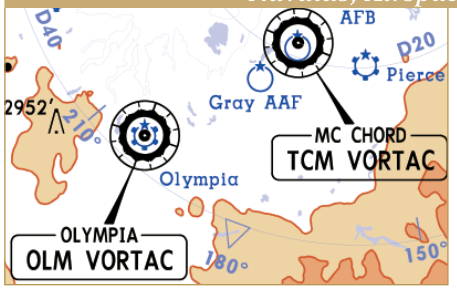
6 North Arrow

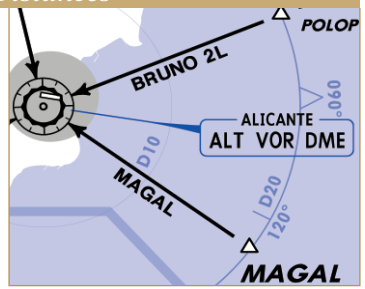
A small North Arrow as shown below is preferably placed in the upper right corner of the chart. Printed in blue.

7 Navaids, Airspace Fixes and Distances

All navaids are shown which are charted on the SID/DP/STAR charts, with the exception of their morse code. Airspace fixes are generally omitted except those designated as IAF and those that define the beginning/end points of the enroute transitions and named STAR or SID routes. Distances along routes are omitted with the exception when the beginning/end point is off chart. All distances are in whole miles.

Navaids, Airspace and Distances





SID/DP/STAR Overview Chart Legend

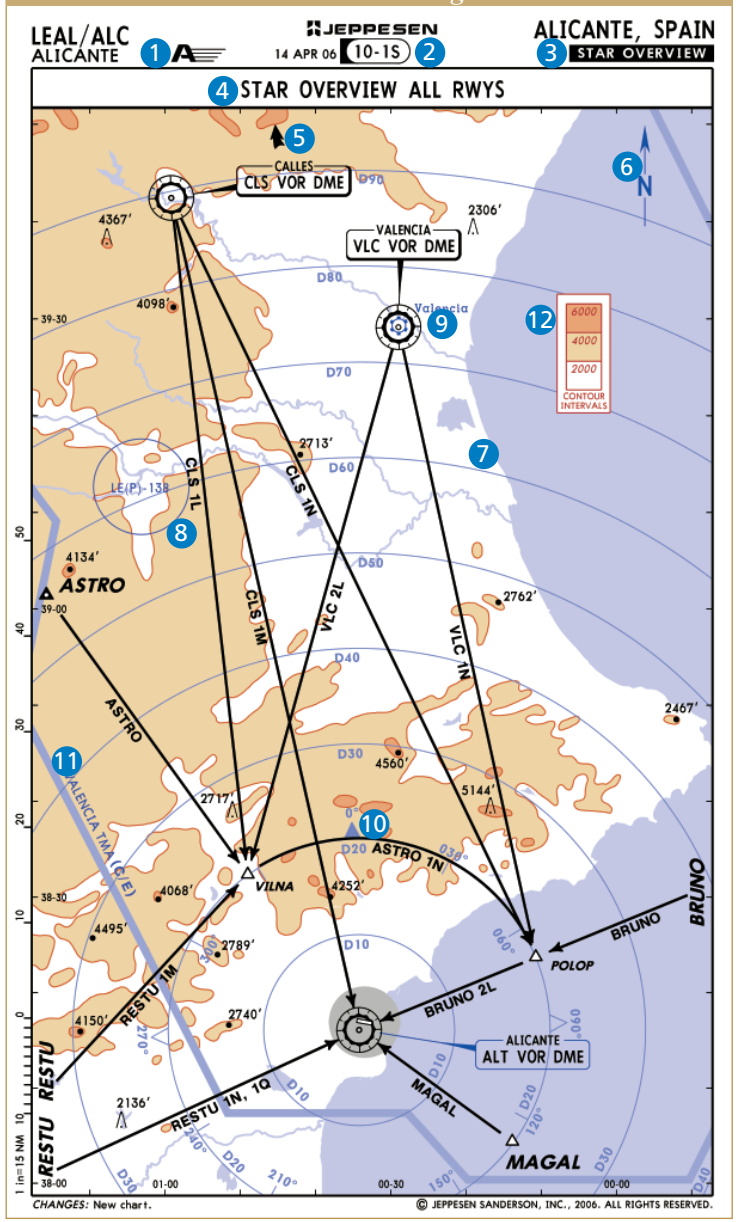
SID/DP/STAR Overview Chart Legend Airline Format

General

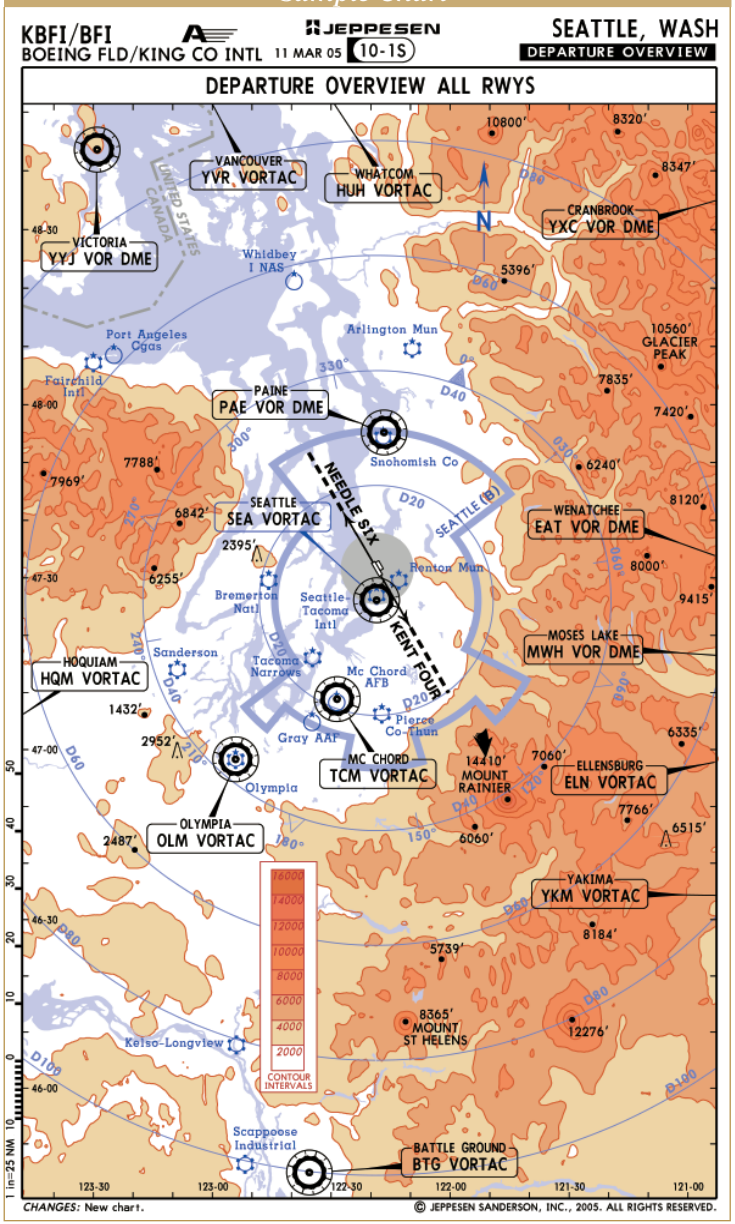
SID/DP/STAR Overview Charts are to scale, however, they are not intended for navigation. They serve mainly to enhance terrain and general situational awareness and to provide basic information useful in flight planning. If ordered by your airline, these optional Overview Charts serve as supplementary information only in conjunction with the associated SID/DP/STAR charts. The following pages briefly explain the differences and symbols used on the Airline Overview Charts. Blue as an additional color serves to better differentiate between primary and secondary information.

1. Airline Chart Icon
2. Index Number (Special chart for Airlines)
3. Standard Terminal Arrival Overview
4. Standard Terminal Arrival Routes to all available runways
5. Highest of portrayed Terrain High Point/Man-made Structures or Terrain contours in the charted plan view. Higher terrain or man-made structures may exist which have not been portrayed
6. North Arrow
7. Large Water Area, Lake or Rivers
8. Special Use Airspace (Prohibited, Restricted, Danger Areas)
9. Secondary Airport
10. DME Distance Circles preferrably based on a VORDME on or in the vicinity of the airport concerned. Where no suitable VORDME is available, DME distance circles may be centered on ILS/LOCDME, stand alone DME or TACAN locations. For quick identification, the box of the concerned radio is printed in blue.
11. TMA boundary with name and airspace classification.
12. Brown box indicating the corresponding layers top elevation within the plan view.

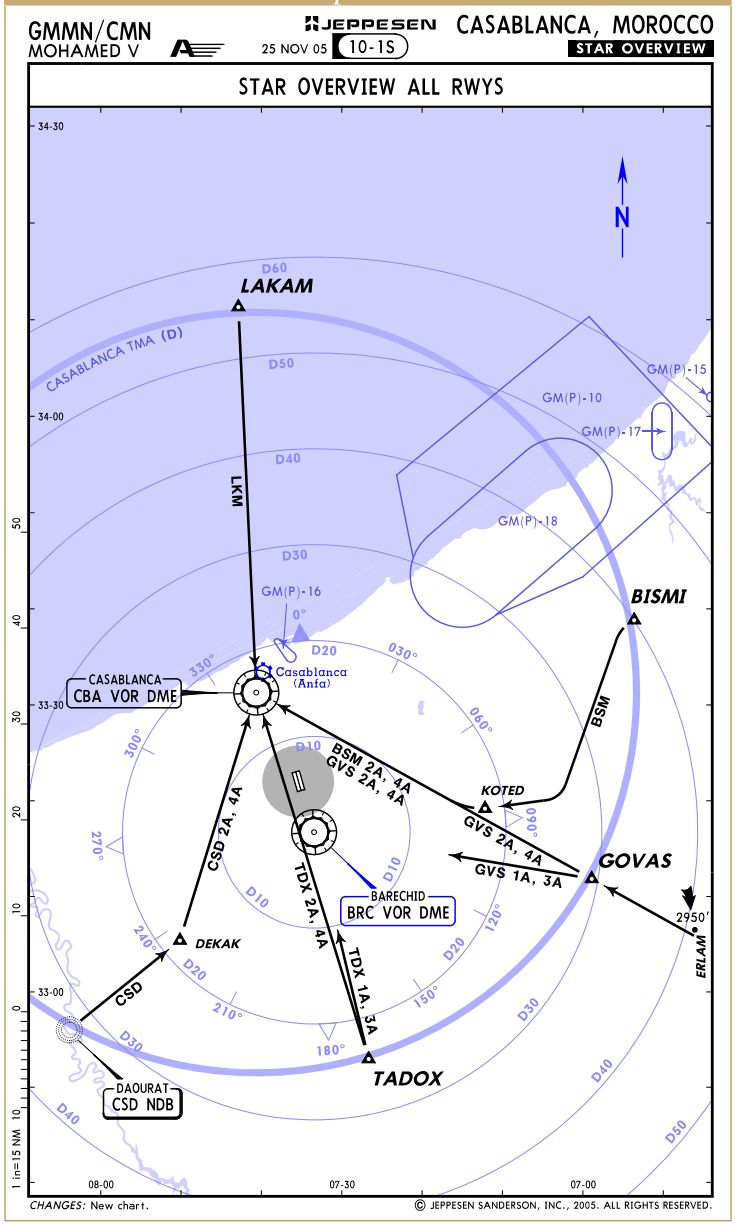
Overview Chart Legend



Sample Chart



Sample Chart



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