INTRODUCTION TO
INDOAVIS
AERONAUTICAL NAVIGATION
CHARTS USER'S GUIDE

8

STANDARD INSTRUMENT DEPARTURE (SID) AND ARRIVAL (STAR) CHARTS LEGEND

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These charts are for training purposes only and not to be use for flight

INDOAVIS®

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INTRODUCTION TO INDOAVIS AERONAUTICAL CHART USER'S GUIDE

English Version

STANDARD INSTRUMENT DEPARTURE (SID) AND ARRIVAL (STAR) CHART LEGEND

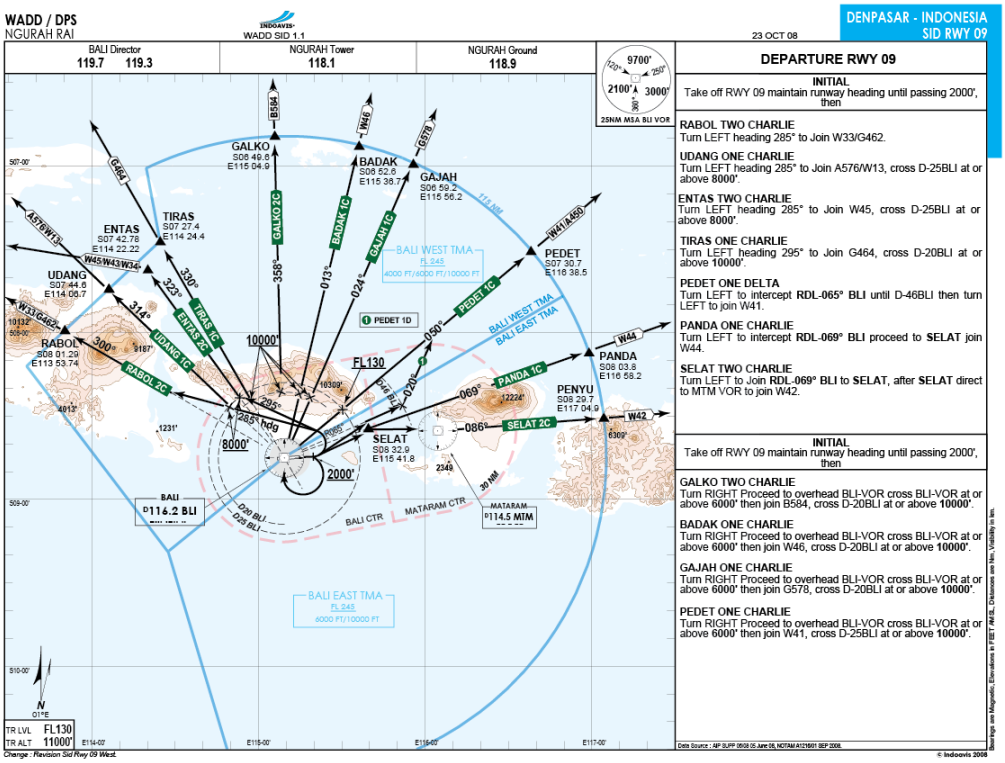
SID / STAR CHART LEGEND

GENERAL

SID and STAR charts are graphic illustrations of the procedures prescribed by the governing authority. A text description may be provided, in addition to the graphic, when it is furnished by the governing authority. Not all items apply to all charts.

FUNCTION

- **STANDARD INSTRUMENT DEPARTURE (SID)** Charts. This chart shall provide the flight crew with information to enable it to comply with the designated standard departure route instrument from take-off phase to the en-route phase.
    - *Note 1.- Provisions governing the identification of standard departure routes are in Annex 11, Appendix 3 guidance material relating to the establishment of such routes is contained in the Air Traffic Services Planning Manual (Doc 9426).*
    - *Note 2.- Provisions governing obstacle clearance criteria and details of the minimum information to be published are contained in the Procedures for Air Navigation Services - Aircraft Operations (PANS-OPS, Doc 8168), Volume II, Part II.*



- **STANDARD TERMINAL ARRIVAL (STAR)** Charts. This chart shall provide the flight crew with information to enable it to comply with the designated standard arrival route — instrument from the en-route phase to the approach phase.
    - *Note 1 - Standard arrival routes — instrument are to be interpreted as including "standard descent profiles"," continuous descent approach", and other non-standard descriptions. In the case of a standard descent profile, the depiction of a cross-section is not required.*
    - *Note 2 - Provisions governing the identification of standard arrival routes are in Annex 11, Appendix 3; guidance material relating to the establishment of such routes Is contained in the Air Traffic Services Planning Manual (Doc 9426).*

Coverage and scale
The coverage of the chart shall be sufficient to indicate the point where the departure route begins and the specified significant point at which the en-route phase of flight along a designated air traffic services route can be commenced.
Note.- The departure route normally originates at the end of a runway.

Identification
The chart shall be identified by the name of the city or town, or area, which the aerodrome serves, the name of the aerodrome and the identification of the standard departure route(s) — instrument as established in accordance with the *Procedures for Air Navigation Services — Aircraft Operations* (PANS-OPS, Doc 8168), Volume II, Part II, Chapter 5.

- *Note.— The identification of the standard departure route(s) — instrument is provided by the procedures specialist.*

Recommendation
To improve situational awareness in areas where significant relief exists, the chart should be drawn to scale and all relief exceeding 300 m (1000 ft) above the aerodrome elevation should be shown by smoothed contour lines, contour values and layer tints printed in brown. Appropriate spot elevations, including the highest elevation within each top contour line, should be shown printed in black. Obstacles should also be shown.

- *Note 1.— The next higher suitable contour line appearing on base topographic maps exceeding 300 m (1000 ft) above the aerodrome elevation may be selected to start layer tinting.*
- *Note 2.— An appropriate brown colour, on which half-tone layer tinting is to be based, is specified in Appendix 3 — Colour Guide for contours and topographic features*.
- *Note 3.— Appropriate spot elevations and obstacles are those provided by the procedures specialist.*

CORRECTIONS, COMMENTS

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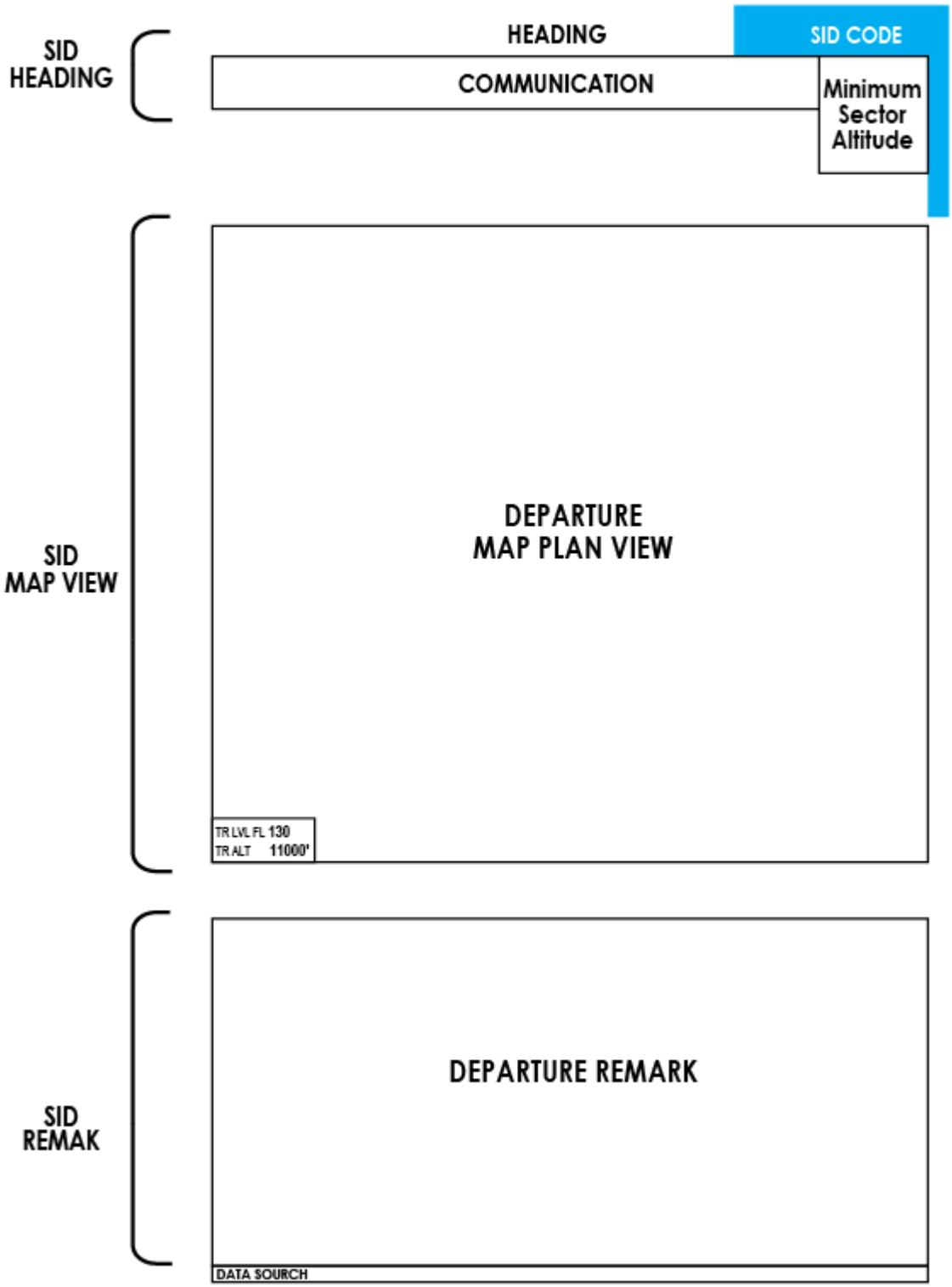
See the FAQs prior to contact number or email.

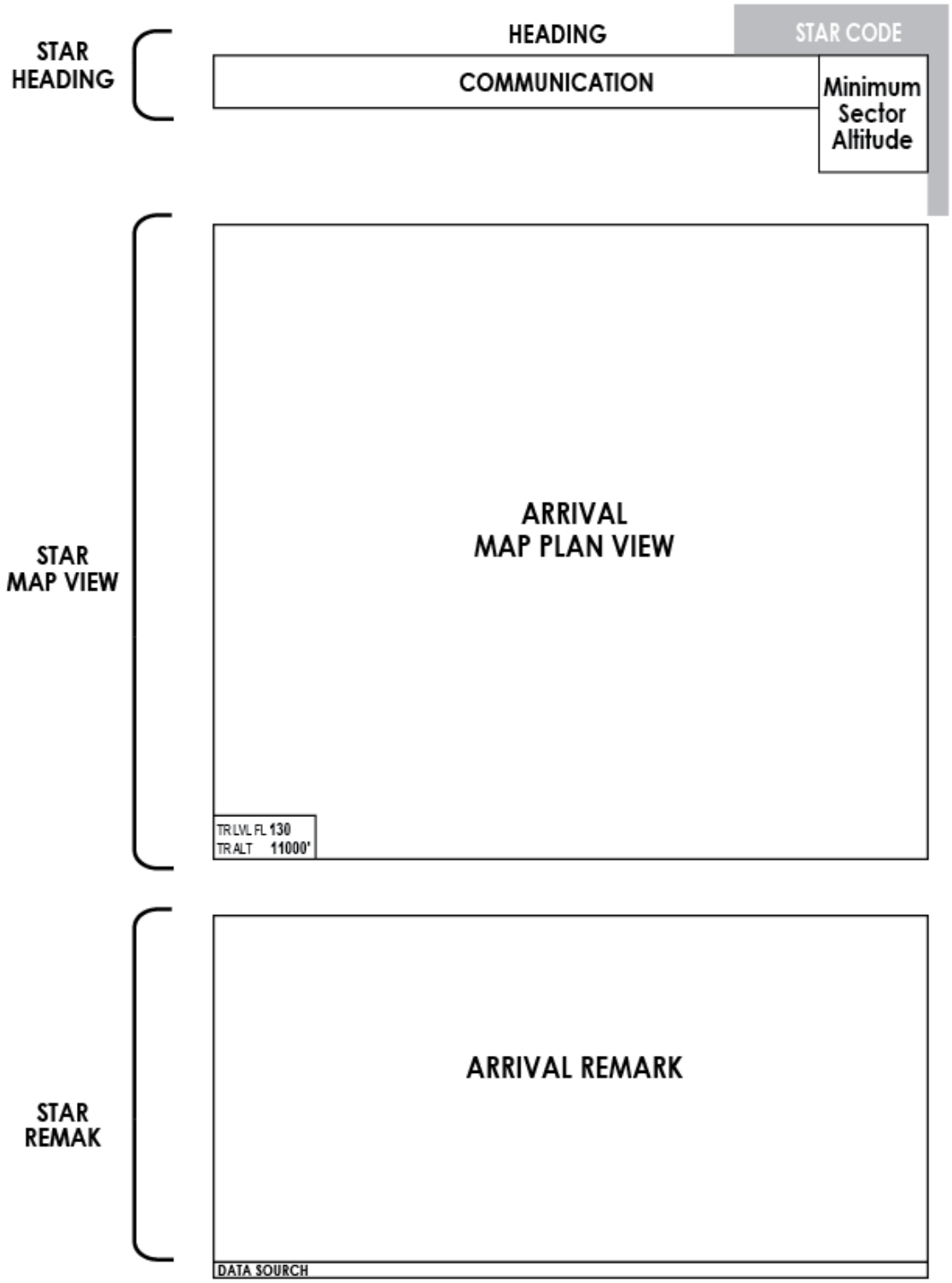
GENERAL SID CHART FORMAT

The step of Indoavis SID chart layout



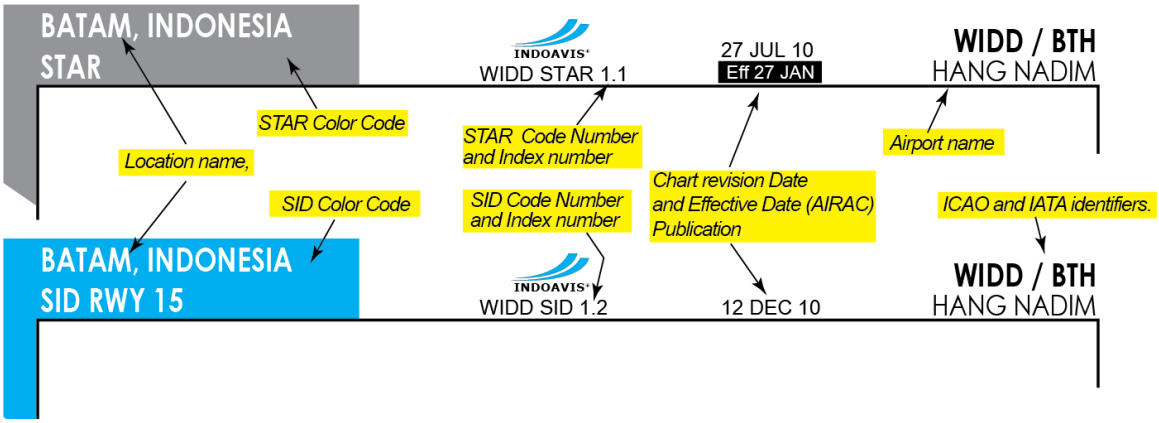
GENERAL STAR CHART FORMAT

The step of Indoavis STAR chart layout

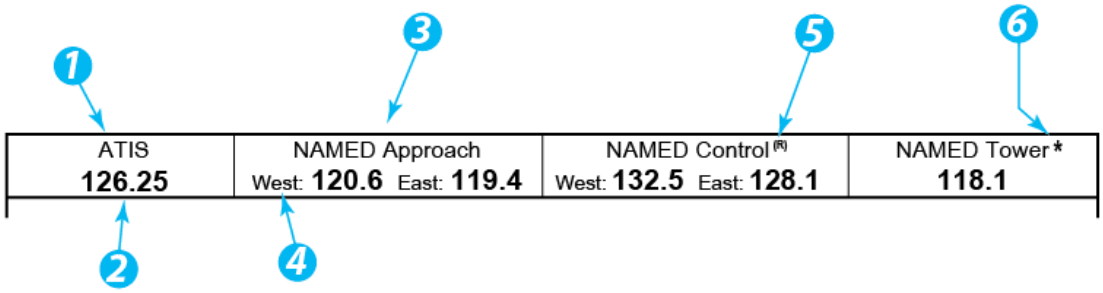


H E A D I N G

OVERVIEW OF HEADING FEATURES



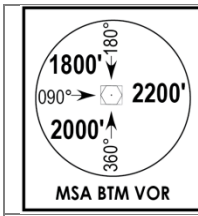
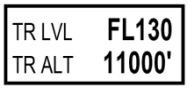
COMMUNICATION



OVERVIEW OF COMMUNICATION FEATURES

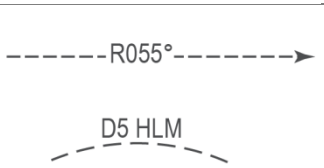
1. ATIS Facilities (Automatic Terminal Information Services)
2. Frequencies
3. Facilities Name
4. Location facilities
5. Radar (R) is available
6. An asterisk (*) indicated part-time operation

SECTOR AND TRANSITION

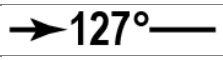
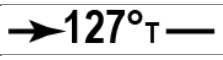
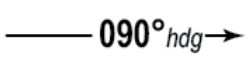
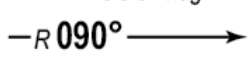
	**MSA (Minimum safe/Sector Altitude)** The MSA is provided when specified by the controling authority. Altitude depicted on (IAP, SID and STAR Chart) and identified as the minimum altitude which provide a 1.000ft obstacle clearance within a 25 NM radius from the navigational facility upon which the MSA is pirated. If the radius limit is other than 25NM.
	**Transition Level (TR LVL) and Transition Altitude (TR ALT)** are listed below the map view. The transition level (QNE) is the lowest level of flight using standard altimeter setting (29.92 inches of mercury or 760 millimeters of mercury or 1013.2 ,illibars or 1013.2 hectopascals.) The transition altitude (QNH) is the altitude at and below which local pressure setting must be used.

SID/STAR CHART LEGEND
MAP VIEW SYMBOLS

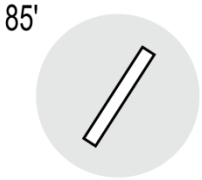
1. PROCEDURE TRACKS

	Departure/Arrival procedure track
	Missed approach procedure track
	Radial line and value BR - (Bearing) R - (Radial) LR- (Lide Radial) hdg - (Heading) D - Distance
	Track Transition Name Minimum En-route Altitude (MEA) Segment mileage
	Airways Designator Flight level
	Scale break

2. BEARING TRACKS

	Magnetic course
	True course
	Magnetic heading
	Magnetic radial

3. AIRPORT SYMBOLS

	Primary SID/STAR Airport Airport Name and Elevation (MSL)
	Secondary SID/STAR of Civil Airport
	Secondary SID/STAR of Military Airport
	Secondary SID/STAR of Join civil and Military Airport

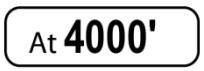
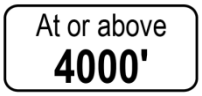
4. RADIO NAVIGATION AIDS SYMBOLS

	LOC/LDA/ SDF/MLS	Transmitter (Shown when installation is offset from its normal position off the end of the runway)
	LOC/DME	Collocated LOC and DME radio navigation aids
	VOR	VHF omnidirectional radio range
	NDB	Non-directional radio beacon
	TACAN	Tactical air navigation aid
	DME	Distance measuring equipment
	VOR/DME	Collocated VOR and DME radio navigation aids
	VORTAC	Collocated VOR and TACAN radio navigation aids
		Compass rose • Compass rose To be orientated on the chart in accordance with the alignment of the station (normally Magnetic North), • Compass rose to be used as appropriate in combination with the following symbols: (VOR, VOR/DME, TACAN, VORTAC)

5. RADIO NAVIGATION AIDS INFORMATION

ILS, LOC, LDA, SDF, MLS (primary)		Navaid facility boxes include facility name, identifier, Morse code and frequency. The shadow indicates the primary facility. In VOR/DME and VORTAC facility boxes the letter “D” Indicate DME and “H” High Altitude when available.
VOR, VOR/DME (Primary)		
NDB (Secondary)		

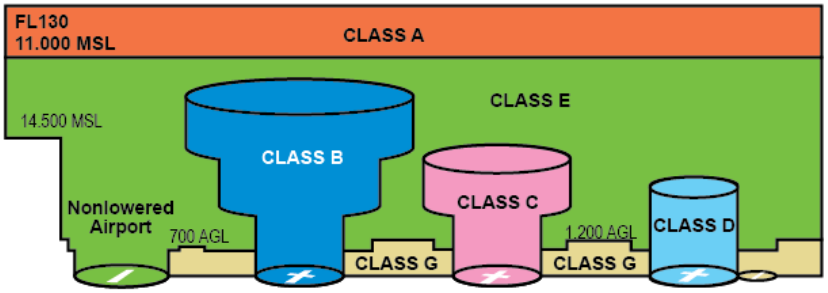
6. ALTITUDE

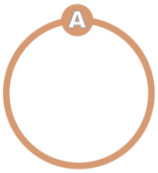
		MANDATORY	Mandatory altitude in line cross at.
		MINIMUM	Minimum altitude in line cross at or above
		MAXIMUM	Maximum altitude in line cross at or below
4000'		RECOMMENDED	Recomended altitude

7. AIRSPACE CLASSIFICATIONS

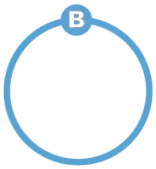
Airspace classification is designated by the letters **(A)** thru **(G).** Classification **(A)** represents the highest level of control and **(G)** represents uncontrolled airspace. The definition of each classification is found in the Glossary portion of this section and the En-route and Air Traffic Control section of this m a n u a l . The airspace classification letter is displayed in association with the airspace type and vertical limits.

INDONESIAN AIRSPACE CLASSES

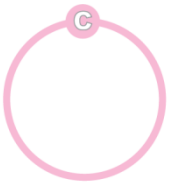




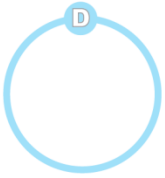
CLASS A Airspace; Class A Airspace is the airspace from FL110 (11,000) feet to FL130 (13,000). All pilots flying in Class A airspace shall file an Instrument Flight Rules (IFR) flight plan and receive an appropriate air traffic control (ATC) clearance. When climbing through 11,000 feet, the pilot will change the altimeter setting from the local altimeter (30.01 for example) to 29.92. This ensures all aircraft flying in class A airspace have the same altimeter setting and will have proper altitude separation.



CLASS B Airspace; Class B Airspace is generally the airspace from the surface to 10,000 feet. This airspace is normally around the busiest airports in terms of aircraft traffic. Class B airspace is individually designed to meet the needs of the particular airport and consists of a surface area and two more layers. Most Class B airspace resemble an upside down wedding cake. Pilots must contact air traffic control to receive an air traffic control clearance to enter Class B airspace. Once a pilot receives an air traffic control clearance, they receive separation services from other aircraft within the airspace.



CLASS C Airspace; Class C Airspace is the airspace from the surface to 4,000 feet above the airport elevation. Class C airspace will only be found at airports that have an operational control tower, are serviced by a radar approach control, and that have a certain number of IFR operations. Although Class C airspace is individually tailored to meet the needs of the airport, the airspace usually consists of a surface area with a 5 nautical mile (NM) radius, an outer circle with a 10 NM radius that extends from 1,200 feet to 4,000 feet above the airport elevation and an outer area. Pilots must establish and maintain two-way radio communications with the ATC facility providing air traffic control services prior to entering airspace. Pilots of visual flight rules (VFR) aircraft are separated from pilots of instrument flight rules (IFR) aircraft only. Anchorage International airport.



CLASS D Airspace; Definition. Generally, that airspace from the surface to 2,500 feet above the airport elevation (charted in MSL) surrounding those airports that have an operational control tower. The configuration of each Class D airspace area is individually tailored and when instrument procedures are published, the airspace will normally be designed to contain the procedures.

8. RESTRICTED AIRSPACE

	Restricted airspace. The accompanying label indicates it as prohibited, restricted, danger, etc. (T) Training, (A) Alert, (C) Caution, and Military Operations Areas.

WI-(R)-121 UNL GND (0800 - 2200 LT MON - SAT IND-ARTC)	**WI** Country identifier WI : Indonesia, WS : Singapore WM : Malaysia YB : Australia **(R)** Restricted _____→ **121** designation number **UNL** Unlimited (Upper Limit) **GND** Ground (Lower Limit) **0800-2200** Hours active **MON-SAT** Day active **IND-ARTC** Controling Agency	(A) Alert (T) Training (C) Caution (W) Warning (D) Danger (P) Prohibited (R) Restricted (TRA) Temporary Reserved Airspace (TSA) Temporary Segregated Area (MOA) Military Operations Area

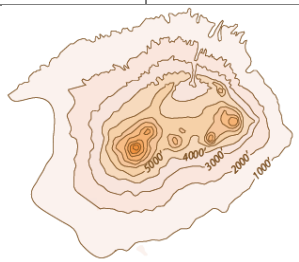
9. AIRSPACE FIXES

	RPC	Reporting Point (Compulsory)
	RPR	Reporting Point (On-Request)
	RNAV	RNAV Point (Compulsory)
	RNAV	RNAV Point (On-Request)
	DME	DME Distance
	MB	Mileage Breakdown
	WPT	Flyover Waypoint
	WPT	Fly-by Waypoint
D3.0 IHAL	DME info	DME value Navaid name
SPADA S05 40.7 E107 54.6	FIX POINT Info	Fixes Point Name Coordinates are shown

10. MAGNETIC BEARING

	**Bearing magnetic variation** **Magnetic declination** is the angle between magnetic north (the direction the north end of a compass needle points) and true north. The declination is positive when the magnetic north is east of true north. The term **magnetic variation** is a synonym

11. TERRAIN HIGH POINT (OBSTACLE)

45	Spot Elevation	Mean Sea Level (MSL) elevation at top of terrain high point/man-made structure.
45±	Spot Elevation	unsurveyed accuracy
1065	Spot highest elevation	Box indicates only the highest of portrayed terrain high point and man-made structures may exist which have not been portrayed.
		Generalized terrain contour information. The Gradient tints indicate the elevation change between contour intervals