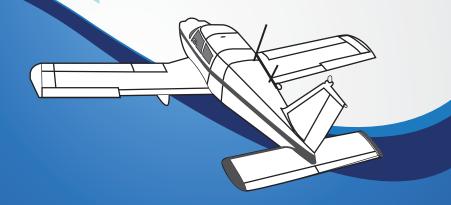


PROPOSAL

INDOAVIS STUDENT PILOT AIRNAVIGATION MANUAL

Edition - 2014



PT. INDOAVIS NUSANTARA

2nd Floor Terminal Building A-02/PK Halim Perdana Kusuma Int'l Airport Jakarta 13610, INDONESIA Ph : 62-21 808 80028 - 62.21 912 60023 Fax : 62-21 809 7242 http://www.indoavis.net - email : info@indoavis.co.id



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General Description

A side from educating the Student on the proficiency to fly the aeroplane, a Flying School also teaches the Student Pilot in cruising and navigating the aircraft from one place to another, through educating the Air Navigation Science which lean heavily on the Aeronautical Information.

Understanding the needs and Aeronautical Information for Airman Students are inseparable from the task of the educational aviator curriculum. Without the correct and accurate information, it is impossible for a pilot candidate to follow and preform good and professional education.

Therefore, to meet these needs, PT. Indoavis Nusantara, in collaboration with APPI (Association of Indonesian Aviation Training & Education) create a product that will continually be updated and evaluated in order to generate the will be, reliable and proffesional Indonesian Aviator Candidates, by equipping the Instructors and Pilot student's with an Air Navigation Handbook domestically produced, which is named:

"INDOAVIS STUDENT PILOT AIR NAVIGATION MANUAL"

Indoavis Student Pilot Air Navigation Manual contains information needed by the prospective student pilots and instructors in understanding the information AIS (Aeronautical Information Services) required, in the training of flying and navigating from the beginning of Flight Preparations, Pre-flight, Flight Maneuver Approach / Landing until the parking stage.

it is also dedicated to support the Student Pilots and exclusively designed for The Flying Schools.

The manual is also prepared for pilot training in Visual (VFR) or instrument flights (IFR), including flight charts the provision of flight charts for Cross Country (Route) Chart.

HOW TO BECOME A PILOT?

it also provides basic information on Air Navigation Aeronautical Charts in the Indonesia Area of Flight Operations, which are used by Flying Schools. It is expected that candidates will be familiar with the Aviators Terms/Symbols used in the Air Navigation Charts issued by the Indoavis, in order to support the development of aviation safety and the Aviation Technology Development in Indonesia

PT INDOAVIS NUSANTARA will continue to assess and meet the needs of Air Navigation Mapping/Charting information, which will be outlined in the Operation Manual for each region in Indonesia

ACKNOWLEDGEMENTS

This manual is made by PT Indoavis Nusantara, based on the source of Data obtained from The Government of Indonesia (DGCA) NOTAM, AIP, AIP Supplement, AIP Amendment as Standard Procedure aplied at the local Airports and Nusa Flying International School's local procedure used in the training. In preparation of this Manual, Indoavis has formed a Team consisting of following members:

Project Manager
Hendra A. Londy (Indoavis)
Principal (Flying School)

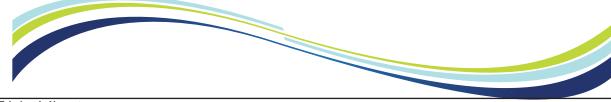
General Advisor
Capt. D.J Leimena

Project Advisor
Capt. Soenaryo

Technical Auditor
Muh.Tauhid Paliweng (Indoavis)

Joint Quality Control
Hendra Andi Londy
Capt. Wuri Septiawan
Principal (Flying School)

Technical support is obtained from APPI (Association of Indonesian Aviation Education)



Student Book Components

The "INDOAVIS STUDENT PILOT AIRNAV MANUAL" consist of 4 (Four) Sections in one Book and contained the following data:

I. GENERAL (GEN)

	PREFACE, ACKNOWLEDGEMENTS, INTRODUCTION	GEN-1
	FOR CHART ERROR OR FOR CHANGES ADDITIONS	
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	- IFK Class (Co. O.) Co. o. o	INT-20
	- VFR Chart (SAC, ONC and WAC) Legend	IN 1-30
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	- Threshold Marking	
	- Runway Designation Marking	
	- Runway Centerline Marking	REC-4
	- High Speed taxiway Turn-Off Indicator	REC-4
	- Runway Touchdown Zone Marking	RFC-5
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	Punyay Sido String Marking	DEC 6
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IV.	AERONAUTICAL CHART	
	INTRODUCTION	AC-1
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Intes .

Contain General Description of the book publication and the product

Notes:

Contains instructions to students in understanding of each rule and policies that are used during flight training in the Indonesian Air Space. Also provides introduction of standard Chart symbols of Aviation Safety, applicable Internationally.

Votes

Contain information on standard requirement and practices, applied in the international Organization (ICAO)

Notes:

. Contains information and charts of destination Airports and their facilities available, source are originated from the regulator/Government (AIP,AIP Amdt Supp and NOTAMs)

Local Flight Training procedures, is a Aeronautical Charts, used for student pilots training, that are published by schools ,known and acknowledged by the DGCA.

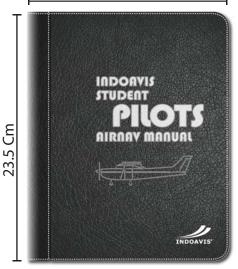
In this case Indoavis design and publish the Charts using the correct cartography and Navigational Sciences formulas and parameters

Air Rotes Charts ,using VFR and IFR facilities

Specification Product

Product Name : INDOAVIS STUDENT PILOT AIRNAV MANUAL

19 Cm



Indoavis Cover Book Standard

Initial : ISPAM

Product Type : GUIDANCE MANUAL BOOK

Produced by : INDOAVIS

Compiled & Published by : INDOAVIS NUSANTARA

Supported by : Asosiasi Pendidikan Penerbang Indonesia

Production year : 2011 / 2013 Data Update : Every year

Airports : Tailor Made for each individual school

Type of Chart : - Aerodrome Chart (AD)

- Aerodrome Facilities

- Aerodrome Parking/Docing Chart

Departure chart (SID)Arrival Chart (STAR)

Instrument Approach chart (IAP)Terminal Area Chart (TMA)Training Area Chart

Training Area ChartCross Country ChartIFR H/L Alt En-route Chart

Users : Instructors and Student Pilots

Language : English Cover Material : Semi Leather

Cover Color : Black

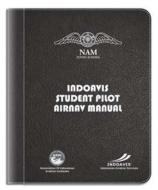
Cover Logo : Flying School Logo*

Ring : 20 Holes
Book thickness : ± 10 Cm
Dimension : 19 x 23Cm
Copyright : Indoavis – 2013/4

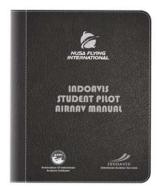
Special Cover Flying School logo



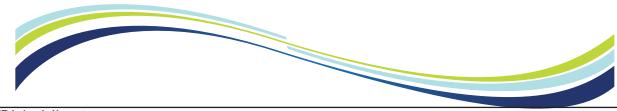
Alfa Cover Book 2014



NAM Cover Book 2013



NUSA Cover Book 2013

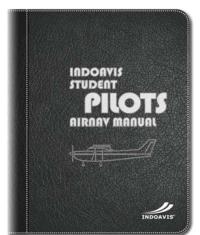


Student "BROCHURE" Pilot Airnay Manual

Indoavis Student Pilot Air-Navigation Manual

For Pilot Training (PPL and CPL)





Indoavis Air-navigation Student Pilot Manual" is a book that is designed for prospective pilots for understanding in the introduction of provisions relating to information Aeronautics and air navigation maps in Indonesia.

This book can also be used as a guide in the task of education curriculum pilot, which prospective pilots must perform both solo flight Visual (VFR) and Instrument (IFR), like the flying Cross Country (Route).

Therefore, to meet the needs of PT. Indoavis archipelago in collaboration with APPI (Association of Indonesian Aviation Education) equip the Airmen and Instructor Candidate a Handbook Air Navigation in Indonesia.

Indoavis Standards published by region covers an area informed of Indonesia only (Java, Bali, Lombok and Sumatra).

For coverage of the airport in 2013, as many as 9 Indoavis enter Airport (Halim, Semarang, Cirebon, Budiarto, Lampung, Bandung, Cilacap, Pandan Tj, Tj. Pinang). And to fly Cross Country region, there is a VFR route route: 1.Halim - Semarang, 2. Halim -Lampung, 3.Halim - Bogor, 4.Lampung - Palembang, 5.Curug - Ti. Pandan

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- Abbreviation
- Indonesian Airspace
- Indonesian Communication Indonesian Airport Classification
- Basic VFR Weather Minimums
- VFR Cruising Altitude

- IFR En-route Chart Legend
- VFR Chart Legend
- Instrument Chart Legend
- SID/STAR Chart Legend

AERONAUTICAL CHART LEGEND

- Aerodrome Chart Legend

ICAO-RECOMMENDED
AIRPORT SIGNS AND RUNWAY MARKING

- Visual Runway Marking
- Runway Holding Position Marking Aeronautical Ground Lighting
- ICAO ATS Airspace Classification Legend and Explanation ACN/PCN System
- Load Classification of RWY & Aircraft Alight

TERMINAL CHART

- A. STANDART PROCEDURE FLIGHT
- STAR (Standard Instrument Arrival) Charts
 SID (Standard Instrument Departure) Charts
- TMA (Terminal Area Chart) 3.
 - AD (Aerodrome Chart and Information) AD-P (Aerodrome Parking and Taxi Charts)
- (Instrument Approach) Charts

B. LOCAL PROCEDURE TRAINING FLIGHT

- Coverage Index Area Chart
- Route Triangle Exercise
- * Training Area Char Airport Base Circuit
- In/Out Bound Procedure Chart

C. VFR ROUTE CHART

VFR Cross Country (Route) Chart

SPECIAL AREAs

Indoavis also made specifically for the purposes of any Flying School, with operations and airport tailored to the needs of the school, with a more economical price.

Register Flying School who has been a member Indoavis:

- . NAM Flying School
- . NUSA Flying School
- . GENESHA Flying School
- . ProFlight Flying School (on Progress)

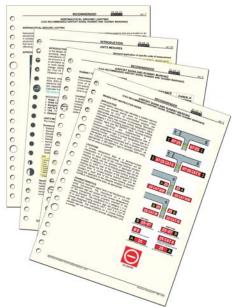
The information contained in the book will be updated once every year, in accordance with the provisions of the respective schools and the provisions of the applicable data in the region of Indonesia, by NOTAM, AIP and AIP Supp Amdt.

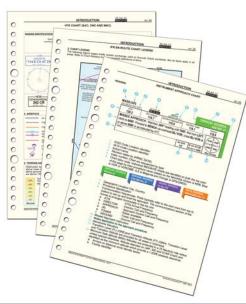




Information and Description







GENERAL INFORMATION

AERONAUTICAL (AIRAC) DATE ICAO - DOCUMENT REFERENCIES ICAO - CHART FUNCTIONS
AERODROME TRAFFIC CIRCUIT PROFILE
INDONESIA MAGNETIC VARIATION

INTRODUCTION (INT)

- CHART GLOSSARY
 ICAO DEFINITION Rules of the Air (Annex 2)
 ICAO DEFINITION Aeronautical Chart (Annex 4)

Airspace Classifications

- Flight Information Region (FIR)
- Special Use Airspace

RADIO COMMUNICATION AND FREQUENCY

- General
- Precautions in the use of call signs
- Student pilot radio identification Ground Station call Signs
- Indonesia ground Station

RECOMMENDED

AIRPORT SIGNS AND RUNWAY MARKING - Mandatory Instruction Signs - Information Signs

- Mandatory Instruction Marking
 Runway Holding Position marking
 Intermediate Holding Position Marking
- Intermediate Holding Position Marking
 Threshold Marking
 Runway Designation Marking
 Runway Centerline Marking
 High Speed taxiway Turn-Off Indicator
 Runway Touchdown Zone Marking
 Runway Aiming Point Marking
 Runway Side Stripe Marking
 Diplaced Threshold Markings
 Closed Runways Taxiways or Parts Th

- Closed Runways, Taxiways or Parts There

of

- Non Load-Bearing SurfacesPre-Threshold Area Marking (Chevron

AERONAUTICAL GROUND LIGHTING

- Approach and runway lighting typical
 Precision Approach Path Indicator (PAPI)
- Visual Approach Path Indicator (VAPI)

CHART AND SYMBOL LEGEND

INDOAVIS AERONAUTICAL CHART LEGENDS

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- Table of Coffient
 IFR En-Route Chart Legend
 VFR Chart (SAC, ONC and WAC) Legend
 Aerodrome Chart Legend
 Intruments Approach Chart Legend
 SID (Departure) and STAR (Arrival) Chart Legend

Terminal (Airport) Navigation Charts

ENROUTE CHART

Function: This chart shall provide flight crews with information to facilitate navigation along ATS routes in compliance with air traffic services procedures.

AREA CHART

Function: This chart shall provide the flight crew with information to facilitate the following phases of instrument flight

a) the transition between the en-route phase and approach to an aerodrome b) the transition between take-off/missed approach and en-route phase of flight; and

 c) flights through areas of complex ATS routes or airspace structure

STANDARD DEPARTURE CHART-INSTRUMENT (SID)

Function: 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.

STANDARD ARRIVAL CHART - INSTRUMENT (STAR)

Function: 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.

INSTRUMENT APPROACH CHART (IAP)

Function: This chart shall provide flight crews with information which will enable them to perform an approved instrument approach procedure to the runway of intended landing including the missed approach procedure and where applicable, associated holding patterns.

Note.— Detailed criteria for the establishment of instrument approach procedures and the resolutions of associated altitudes/heights are contained in the Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS, Doc 8168).

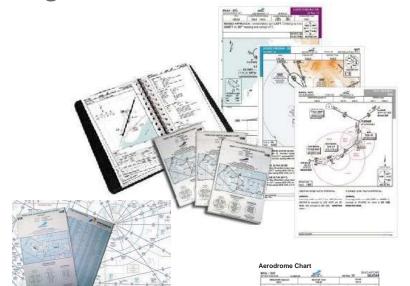
AERODROME/HELIPORT CHART (AD)

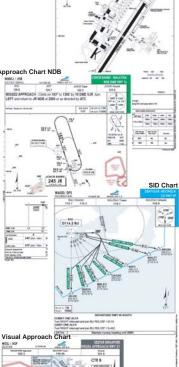
Function: This chart shall provide flight crews with information which will facilitate the ground movement of aircraft:

- a) from the aircraft stand to the runway; and
- b) from the runway to the aircraft stand and helicopter movement
- c) along helicopter ground and air taxiways; and
- d) along air transit routes; it shall also provide essential operational information at the aerodrome/heliport.

AIRCRAFT PARKING/DOCKING CHART

Function: This supplementary chart shall provide flight crews with detailed information to facilitate the ground movement of aircraft between the taxiways and the aircraft stands and the parking/docking of aircraft.







Special Navigation Chart



TRAINING AREA CHART

Chart scale : 1:500.000 / 1:27 Nm or Scale : 1:250.000 / 1:1.3Nm

Paper size : 27 x 20 Cm
Color : Full Color
Chart Standard : ICAO Standard
Chart Format : Indoavis Format
Description : Map of area for

Map of area for student pilot training area with the travel distance and angle information with the navigation reference point, shown accurately and easily readable equipped with visual information (VFR).

CROSS COUNTRY CHART

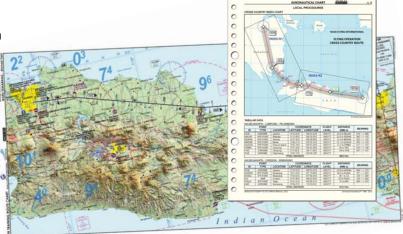
Chart scale : 1:1.000.000/5.4 Nm or Scale : 1:500.000/1:27 Nm

Paper size : ± 30 x 60Cm Color : Full Color Chart Standard : VFR ICAO Chart Format : Indoavis

Description

VFR map types, with such information as well as elevation of the earth surface is shown with a count of the MEF (Figure elevatio Minimim),

The flight path is adjusted to the Cross Country route path of an airport with VFR reference check point in which there is information (distance, angle and coordinates of the point) adjusted for purposes of flight school in question.





TERMINAL AREA CHART

Chart scale : 1:250.000 / 1:1.3Nm Paper size : ± 22 x 20 Cm Color : Full Color Chart Standard : VER ICAO Standard

Chart Standard : VFR ICAO Standard
Chart Format : Indoavis Standard
Description : VFR navigation m

VFR navigation map types that inform regional 25nm diameter area of the airport navigational point. Can also be regarded as a map of the MSA (Minimum Sector Altitude)

PARTNERSHIP DATA NEEDS

In the manufacture of products such as "map navigation flight" a better and accurate, Indoavis will recalculate and re-create the map in accordance with the applicable rules and refers to ICAO Doc. and will always be updated, in accordance with the changing times.

Expected product "STUDENT PILOT MANUAL AIRNAV" In accordance with the needs of the operational flight school, therefore Indoavis require some data to be matched with data that Indoavis have had.

Fill the information below: NAME OF PRINCIPAL: NAMA OF FLYING SCHOOL: OFFICE ADDRESS: AIRPORT BASE OPERATION: LIST OF OTHER AIRPORTS: TRAINING AREA DATA/ LOCATION : TYPE / BRAND OF AIRCRAFT: CROSS COUNTRY ROUTE AND VFR POINT REF.: TRIANGEL EXERCISE ROUTE: IN/OUTBOUND LOCAL PROCEDURE CHART: AIRPORT CIRCUIT PROFILE: LOST POSITION PROCEDURE AND INFORMATION CONTACTS: If you have a record of its own that must be known by us, or something that the information will be presented in the Pilot Student Airnay manual, please write below OTHER NOTE:

THE PRICE

Component unit Prices

No	Code	Description	Qtt	Type	Price (IDR)
1	CLG	Cover with FS Logo	1	Cover	200,000
2	RNG20	Ring and Devider	5	Ring	44,000
3	RLS	VFR Rules	1	Rules	32,000
4	GEN	General Information	13	Txt	100,000
5	INT	Introduction of Chart definitions	54	Txt	150,000
6	REC	Reccomendation mandatory	8	Txt	100,000
7	TNAV	Airport including Navigation chart	5	Airport	420,000
8	SPC	Special Navigation Chart	5	Chart	420,000
9	ENR	IFR Enroute Chart	1	Chart	54,000
					+

Total Price, Rp. 1,520,000

Note:

Down payment (DP) 60% should be paid after the purchase order confirm and 40%, 3 (three) days before goods delivered.



PT. INDOAVIS NUSANTARA

2nd Floor Terminal Building A-02/PK Halim Perdana Kusuma Int'l Airport Jakarta 13610, INDONESIA Ph: 62-21 808 80028 - 62.21 912 60023

Fax:62-21 809 7242

ntp://www.indoavis.net - email : info@indoavis.co.id

