IVAO Flight Operations Department
Indonesia (ID) Division Procedures

Revised April 12rd, 2010

Please consult also the local application of common procedures on http://www.ivao.web.id

1. General

1.1 In general, the air traffic rules and procedures in force and the organization of air traffic services conform with ICAO standards, Recommended Practices and Procedures.

1.2 Aircraft in flight and operating on the maneuvering area of an aerodrome hall comply with general flight rules applicable to the operation of aircraft. An aircraft operating between the hours of sunset and sunrise, irrespective of weather conditions, shall comply with IFR requirements or, if in a control zone during these hours, shall require special authorization from ATC. Aircraft operating in controlled airspace shall comply with any request, clearance or instruction issued by ATC, or shall immediately advise ATC if unable to comply.

Units of measurement
Standard ICAO table is used

MEASUREMENT OF	UNIT
Distance used in navigation, position reporting, etc.	Nautical miles and tenths
Relatively short distances such as those related to airports (e.g. runway lengths)	Metres
Altitude, elevation and height	Feet
Horizontal speed, wind speed	Knots
Vertical speed	Feet per minute
Wind direction for takeoff and landing	Degrees magnetic
Wind direction except for takeoff and landing	Degrees true
Visibility, including RVR	(Kilo)metres
Altimeter setting	Hectopascal hPa
Temperature	Degrees Celsius
Weight	Metric tons or kilograms
Time	Hours and minutes - The day of 24 hours beginning at midnight UTC. Local time West of Indonesia -7 hour = UTC (Z); Center of Indonesia -8 hours = UTC (Z); East of Indonesia -9 hours = UTC (Z)

Airports of Entry
Polonia (Medan), Hang Nadim (Batam), Soekarno-Hatta (Jakarta), Juanda (Surabaya), Ngurah Rai (Bali), Hasanudin (Ujung Pandang/Makasar), Sentani (Jayapura)

2. Controlled airspace and ATC

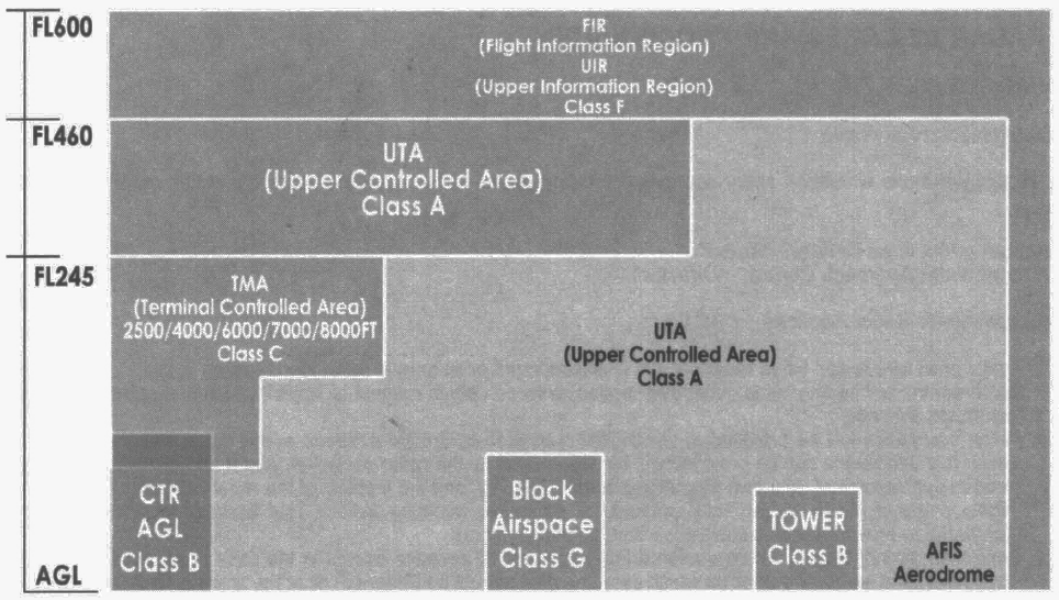
ATS AIRSPACE CLASSIFICATION

Indonesian airspace is designated in accordance with ICAO airspace classification as follows:

a. Class A – controlled airspace between FL245 and FL460 and designated as a CTA and Upper Control Area (UTA).
b. Class B – controlled airspace within the limits of all CTRs.
c. Class C – controlled airspace within all TMAs and TZs where aerodrome control service is provided. VFR speed limitation is 250 KIAS below 10000 FT AMSL.
d. Class F – uncontrolled airspace from ground to unlimited designated FIR, Upper Flight Information Region (UIR) and Flight Information Service Sector. In addition, the airspace above an aerodrome where AFIS is provided and unattended aerodromes. IFR and VFR speed limitation is 250 KIAS below 10000 FT AMSL.
e. Class F – uncontrolled temporary airspace designated for special purposes. IFR and VFR speed limitation is 250 KIAS below 10000 FT AMSL.

Note: Radio is required in Class F and G airspace.

Airspace Diagram:



3. General flight procedures

HOLDING, APPROACH AND DEPARTURE PROCEDURES

General

The holding, approach and departure procedures in use are based on those contained in ICAO Doc 8168 – Procedures for Air Navigation Services – Aircraft Operations.

Arriving

IFR flights entering and landing within a terminal control area will be cleared to a specified holding point and instructed to contact approach control at a specified time. The terms of the clearance shall be adhered to until further instructions are received from approach control. If the clearance limit is reached before further instructions have been received, holding

procedure shall be carried out at the level last authorized.

Pilots are strongly requested to inform ATC if or any reason the approach and/or holding cannot be performed as required.

Departing
IFR flights departing from controlled aerodromes will receive initial ATC clearance from the local aerodrome control tower. The clearance limit will normally be the aerodrome of destination. Detailed instructions will be issued with regard to routes, turns, etc. after take-off.

Controlled Airspace
Essential traffic information shall be issued to controlled flights concerned whenever they constitute essential traffic to each other. Essential traffic information shall include:

a. The direction of flight of aircraft concerned,
b. The type of aircraft concerned, and
c. The level(s) of the aircraft concerned and estimated time of passing or if this is not available, the estimated time of arrival for the reporting point nearest to where they will be crossed.

Aerodrome and Approach Control
Aircraft which plan to enter, cross or operate within an Aerodrome Traffic Zone, Control Zone, or Terminal Control Area shall:

a. call the aerodrome/approach control approximately 15 minutes prior to the relevant boundary,
b. report the airport position, level and track,
c. report the estimated time crossing the boundary,
d. maintain a continuous listening watch on that frequency while the aircraft is within the zone or area,
e. navigate in accordance with the flight plan and ATC clearance, and
f. carry out any instructions received from aerodrome/approach control.

Aircraft operating under IFR in CTR maybe cleared for a visual approach if weather conditions permit and it is during daylight hours.

4. Visual flight rules VFR

General
Except when operating as a special VFR flight, VFR flights shall be conducted so that the aircraft is flown in conditions of visibility and distance from clouds equal to or greater than those specified in the following table:

OCTA (Class F, G)	Visibility	Distance From Cloud
Below 3000 FT AGL	1 statute miles*	Clear of cloud
Between 3000 FT AGL and A060	3 statute miles	2000 FT horizontally 500 FT below 1000 FT above
Between A060 0 and FL20	5 statute miles	1 statute mile horizontally 1000 FT vertically

CTA (Class A, B, C)	Visibility	Distance From Cloud
In control zone		Beneath a ceiling of 1500 FT
Between 3000 FT AGL and A060	3 statute miles	2000 FT horizontally 500 FT below 1000 FT above
Between A060 and FL150	5 statute miles	1 statute mile horizontally 1000 FT vertically

* This does not apply to helicopters if the speed of the helicopter allows the pilot adequate opportunity to see any air traffic or obstructions time to avoid collision.

Unless authorized, VFR flights are not permitted:
a. Above FL 150 in controlled airspace
b. Above FL 200 outside controlled airspace,
c. Between sunset and sunrise, or such other period as prescribed by the Director,
d. If the flight operates over the sea at a distance of more than 10nm from land and for more than one hour, and
e. Ground visibility is at least three statute miles.

VFR squawk codes
Squawk 1200 as an VFR flight within Indonesian FIR unless otherwise instructed by ATC.

Special VFR
Special VFR weather minima is available within a control zone, provided a clearance is obtained from ATC. The aircraft must be operated clear of clouds, and both ground and flight visibility must be at least one statute mile.

Cruising Levels
Except while holding in a holding pattern of two minutes or or less, or while turning, each person operating an aircraft under VFR in level cruising flight, at or above 3000FT AGL, shall maintain the appropriate altitude or flight level as prescribed below:

more than 3000FT above surface, operating below FL200: 0-89=Odd thousands; 90-179=Odd thousands+500; 180-269=Even thousands; 270-359=Even thousands+500.

FL200 is not usable, operating above FL200, become half moon principle 0-179=Odd thousands; 180-359=Even thousands). No VFR above FL290.

5. Instrument flight rules IFR

Minimum Levels

All IFR flights have minimum levels except when necessary for take-off and landing, or unless otherwise authorized by the Director, no person may operate an aircraft under IFR below :

a. In case of operations over an area designated as a mountanous area, an altitude of 2000ft above the highest obstacle within a horizontal disctance of five statue miles from the course to be flown; or
b. In any other case, an altitude of 1000ft above the highest obstacle within a horizontal distance of five statue miles from the course to be flown.

Minimum levels if both Minimum Enroute Altitude (MEA) and a Minimum Obstacle Clearence Altitude (MOCA) are prescribed for a particular route segment, a person may operate an aircraft below the MEA but not below MOCA, when within 25 statue miles of the VOR concerned (based on the pilot's reasonable estimate of that distance)

Climb to a higher minimum IFR altitude shall begin immediately after passing point beyond which that minimum altitude applies, except that, when ground obstructions intervene, the point beyond which the higher minimum altitude applies shall be crossed at or above the applicable Minimum Crossing Altitude (MCR)

IFR flight within controlled airspace

In Controlled airspace, under IFR shall maintain the altitude or flight level assigned to that aircraft by ATC. However, if ATC clearence assigns "VFR conditions on top" the aircraft should maintain an appropriate quadrantal altitude as per cruising levels applicable to VFR flight.

IFR flight outside controlled airspace

Cruising levels for IFR except while holding in a holding pattern of two minutes or or less, or while turning, each person operating an aircraft under IFR in level cruising flight outside controlled airspace shall maintain an appropriate altitude or flight level as follow :

When operating below FL200: 0-89=Odd thousands; 90-179=Odd thousands+500; 180-269=Even thousands; 270-359=Even thousands+500.

FL200 is not usable

Above FL200 and below FL290: 0-179=Odd thousands; 180-359=Even thousands)

Without RVSM, when flying at or above FL290 differences become 4,000FT, e.g. 0-179 FL290, FL330, FL370, FL410, etc. 180-359 FL310, FL350, FL390, etc.

With RVSM, When flying at or above FL290 differences only 2,000FT, e.g. 0-179 FL290, FL310, FL330, FL350, up to FL410. 180-359 FL300, FL320, FL340, FL360 up to FL400.

6. Special requirements and regulations

General Flight Planning

The flight plan form used in Indonesia is the standard ICAO international flight plan form.

Flight Planning

A. Air Traffic Service Airspace
For a complete description of designated airspace in this region, for exercise planning purpose, contact DGAC AIS prior to deployment for current information

B. ATS routes
Consult ERCI for current operational information on ATS routes. For a complete description of regional ATS routes for exercise planning purpose, contact DGAC AIS prior for current information

C. Navigation Aids
Consult ERSR and/or TAGR for current operational information on regional navigation aids. For a complete description of regional Navigation aids for exercise planning purpose, contact DGAC AIS prior for current information

D. Navigation Warnings
Consult ERCI for current operational information on prohibited, restricted and danger areas. For a complete description of regional PRD areas for exercise planning purpose, contact DGAC AIS prior for current information

Special Level Assigments for airways B470 and G579

The following special level assignments for aircraft operationg in the Jakarta / Singapore segment of ATS routes B470 and G579 will be adopted by Singapore and Jakarta ACC.

Jakarta ACC shall utilize :

a. All even flight levels + 500ft above the minimum enroute level up to and including FL185 (quadrantal)
b. Above FL185, starting at FL220 all even flight levels up to and including FL280 (semi-circular)
c. Above FL280, all flight levels at 2000ft intervals starting at FL310 (non standard)

Due to the above procedures, all flights operating between Jakarta/Perth and Singapore, on ATS route B469 shall be subject to specific approval by ATC.

Mach Number Technique

Mach Number Technique (MNT) has been permanently implemented on ATS routes within the Hong Kong, Singapore, Jakarta and Australian FIRs
Aircraft Departing/Arrifing at aerodromes located within these route segments or joining them from other routes may be subject to the aplication of MNT :

ATS Route	Entry Point	Exit Point
R202/R85/R900	ALTAR	ISBAN
A464	ATVIK	SATCO
A576 (DEST WADD)	AKTOD	SIPUT
A576	AKTOD	CTN VOR
A576/R575	AKTOD	KU VOR
A576/G578	AKTOD	PD VOR
A576/G463	AKTOD	KA VOR
B470/A585	ANITO	PD VOR
B470/B469	ANITO	CAR VOR

Note :

1. Details of MNT are contained in Chapter 2 – ICAO ATS Planning Manual (Doc 9426)
2. Aircraft are to include their planned True Mach Number in item 15 of the ICAO international flightplan including :
    a. TAS and level preceeding the entry point, and/or
    b. True mach number and level at entry point and exit point
3. ATC shall clear the aircraft at the filed Mach Number prior to the entry point. This speed/number is to be maintained

7. Differences from ICAO Standards and Procedures

No ICAO differences published and/or use/addopted all ICAO standards and procedures

8. Emergencies

No information provided for this moment, use ICAO standards and procedures