

AIR LAW

- Standard = binding Rules (HARD LAW)
Recommended = good to follow (SOFT LAW)
- Hard law: RDII (regulations, delegated acts, implementing acts, implementing rules)
Soft law: CAD (certification specifications, acceptable means of compliance, guidance material)
- CPL - 50h/10h (for x-country);
IR - 50h/10h;
Atpl - 100h/25h (and 100h at night);
Banner 100/200h (as PIC);
Aerobating - 30h/5h;
Rating Flight Test - 1000h/400h.
- pink- babies need safety
Yellow- ATC gets stressed and smoke loads and therefore have yellow teeth
White- admin, admin papers are white
Mauve- danger areas, mauve is basically red and red means danger
Green- maps and charts, you need a map to hike through the green forest
- SIC RN (Sick right now)
Safety 2008
Investigation 2010
Commercial/Non operation 2012
Report of occurrence 2014
Navigation 2017
- FIX TOLERANCE
DME : 0,25 NM
TAR : 0,8 NM **terminal area surveillance radar**
RSR : 1,7 Nm en-route surveillance radar

- Airmet = Aerodrome (low level)
Sigmet = Upper Levels
- AIP
Location Indicators-GEN
SIGMET/Meteo-GEN
Holding/Arr/Dep-ENR
Danger/Restricted/Prohibited-ENR
Refuelling-AD
Airport lights-AD
- RESA 90m Resa is a 90 year old STRIPper
Clear Way 150m
- DAMP - the surface shows a change of colour due to moisture.
WET - the surface is soaked but there is no standing water.
STANDING WATER - for aeroplane performance purposes, a runway where more than 25 percent of the runway surface area (whether in isolated areas or not) within the required length and width being used is covered by water more than 3 mm deep.
- AIC
-no letter
-once a year
- Tokyo = Crimes
Warsaw = damage
Rome = liability foreign for damage (compensation)
Montreal = damage on goods & violence onboard
- APPROACH ANGLE OF INTERCEPTION:
 - *All parallels: 30 degrees.
 - *Single approach: 45 degrees.
 - *Precision approach: 90 degrees.
 - *Single non precision approach: 120 degrees.
 - *Independent: 30 degrees.
 - Normal: 45 degrees.

- ALTIMETER TOLERANCE
 - +/- 60ft for 0-30k altimeters
 - +/- 80ft for 0-50k altimeters
- Longitudinal separation - based on time
Lateral separation - based on distance
- **"Mixed Operations"**.
2 RWY's for both, Arrivals and Departures
- **"Semi Mixed Operations"**:
1 RWY Arrivals, 1 RWY for both Departures and Arrivals
or
1 RWY Arrivals. 1 RWY for both Arrivals and Departures
- **"Segregated Operations"**.
1 RWY for Arrivals, 1RWY for Departures
- The Council tasks the Air Navigation Commission with the development of SARPS and PANS that make up the Annexes.
- The Air Navigation Commission recommends modifications to the Annexes.
- For IATA = Represent
For ICAO = Serve
- AIRAC:
 - 1) Operationally significant changes to AIP.
 - 2) Operationally significant changes to AIP at specific date.
 - 3) Document that is released at certain notification intervals.
 - 4) The publication containing information on Rules of the Air, Air Traffic Services and Air Navigation Procedures, distributed in advance to become effective at a specific date.
 - 5) The system notifying IN ADVANCE the circumstances requiring important changes in the methods of operation, based on common effective dates, is identified by the acronym..
 - 6) system aimed at advanced notification based on common effective dates, of circumstances necessitating significant changes in operating procedures

- reVALIDation while its VALID
reNEWal you get a NEW one
- Supplement = TEMPORARY
- Amendment = PERMANENT
- AIRCRAFT SEPARATION
HH --> 4 NM
MH --> 5 NM and 2 min separation
LH --> 6 NM and 3 min separation
LM --> 5 NM and 3 min separation
- TORA: Runway + Displaced Threshold (if exists)
TODA: TORA + Clearway (if designated)
LDA: Runway *DO NOT include Displaced Threshold*
ASDA: TORA + Stopway
- Freedoms of the air (technical)
Peaceful transit(overfly without landing)
2-Land for a technical stop.
Freedoms of the air (Commercial)
Country A(home) to B
B to country A(home)
A to B to C(pick up/drop off in B)
- 1 Overfly
2 Stop
3 : PUT DOWN
4 : TAKE ON
5 : PUT DOWN & TAKE ON
- Passport = from birth
Own seat on airplane = after 2 years of age
- below 10,000ft: 5km, 1500m horizontally and 1000ft vertically
above 10,000ft: 8km, 1500m horizontally and 1000ft vertically
below 3000ft : 5km, 1500m horizontally and 1000ft vertically,
BUT for class F and G visibility 5km and clear of clouds

- HORIZONTAL SEPARATION
VOR 15 NM 15 degree
NDB 15 NM 30 degree
GNSS AT least 15 nm below FL 190
23 nm above FL 200
- Movement area - aircraft being (moved) by tow truck : (i.e. apron included)
- Manoeuvring area - aircraft (manoeuvred) by its own power
- report
I - identification
P - position
T - time
A - altitude
N - next point
E - ensuing points
- REGULATION 376 = ASSIST
- REGULATION 996 = PREVENT
- ELEVATION ANGLE
2nm before intercepting the Glidepath
1nm before intercepting the Localiser
- Precision approach: Always use the runway threshold elevation.
- Non-precision approach: Always use the Aerodrome elevation unless the threshold elevation is 2 m (7 ft) or more below the aerodrome elevation in that case use runway threshold elevation.
- Notify the ICAO when the maximum mass is over 5700 kg
Make the identity known of the representative sent when the maximum mass is over 2250 kg
- RED: Medical supplies and first aid equipment.
BLUE: Food and water.
YELLOW: Blankets and protective clothing.
BLACK: Miscellaneous equipment (like pots and pans)

- medical certificate initial issuance → AeMC
- medical certificate revalidation and renewal → AeMC or AME
- dependent & independent parallel approach = Missed approach track diverge by 30
independent parallel departure = Tracks diverge by 15

--White- - - ->--White red- - ->--red - - -
 - - - 900- - - - ->-- - - - 900- - - - ->-- - - - 300- - - -

- Not reciprocal - base turn
- Reciprocal - procedure turn
- *Aeroplane categories based on ias at threshold (Vat)*
- A - 90 kts (add 20 kts)
B - 110 kts (add 20 kts)
C - 130 kts (add 20 kts)
D - 150 kts (add 20 kts)
E - 170 kts (add 20 kts)
- Lower limit of Control Area
CTA - 200m (700ft)
TMA - 200m (700ft)
CTR - 0-200m
- Transition Level , you (hear) it from ATC & ATIS
- Transition Altitude, you (see) it from AIP & Charts
- Independent runways departure
-runway centrelines separated by at least 760m
-tracks diverge by at least 15degrees
-suitable radar surveillance capable of identification of the aircraft within 1nm
- Separation minima
RNAV 80 NM
MNPS 60NM

- **ATPL:**
 - Instrument - 75 of which 30 on ground
 - Night - 100 PIC/co-pilot
 - Sim - 100/25
 - ATPL cross country 200/100
 - ATPL-A 250/70
- **CPL:**
 - Modular - 200
 - Integrated - 150 of which 5 may be on ground
 - Instrument - 10 of which 5 may be on ground
 - Cross country - 20 with a flight of 300NM
 - Night - 5 with 5 take offs and landings
 - FI for CPL: 500 total of which 200 instruction time
- **MPL:**
 - 70 PIC for first type rating
- **IR:**
 - 50 cross country of which 10 on aeroplane/helicopter
- STRUCTURAL CERTIFICATE --> State of Design
 Airworthiness --> State of Registry
 Registrations --> State of Registry
- Mountains - 2000 ft
 Cities - 1000 ft
 Elsewhere - 500 ft

Annex 1 - Personnel Licensing
Annex 2 - Rules of the Air
Annex 3 - Meteorological Services
Annex 4 - Aeronautical Charts
Annex 5 - Units of Measurement
Annex 6 - Operation of Aircraft
Annex 7 - Aircraft Nationality and Registration Marks
Annex 8 - Airworthiness of Aircraft
Annex 9 - Facilitation
Annex 10 - Aeronautical Telecommunications
Annex 11 - Air Traffic Services
Annex 12 - Search and Rescue
Annex 13 - Aircraft Accident and Incident Investigation
Annex 14 - Aerodromes
Annex 15 - Aeronautical Information Services
Annex 16 - Environmental Protection
Annex 17 - Security
Annex 18 - The Safe Transportation of Dangerous Goods by Air
Annex 19 - Safety Management

- AIRAC
UPDATED= At interval of 28DAYS
DISTRIBUTED (no major change)= 6 weeks 42 DAYS in advance
DISTRIBUTED (major change) = 8 weeks 58 DAYS in advance
- Notify ATS when:
TAS ± 10 kts, or $\pm 5\%$.
MACH ± 0.2
ETA ± 2 minutes
- 45 days = medical
3 months = type rating
- less than 3 month = notam
more than 3 month = aip supplement
4ever = aip amendment

- 2 NM - Clearance to Land.
- 2 NM - Go Around Instruction - missed approach.
- 4 NM - Short Final.
- 4-8 NM - Long Final.

- Above FL290 RVSM = 1000 ft separation (so deviate +/- 500 ft)
Above FL290 Non-RVSM = 2000 ft separation (so deviate +/- 1000 ft)
Below FL290 = 1000 ft separation (so deviate +/- 500 ft)
Above FL410 = 2000 ft separation (so deviate +/- 1000 ft)
- (C)ommon mark = I(C)AO
- (R)egistration mark = State of (R)egistry
- Injured Or Structural Failure = ACCIDENT

IR - 1 year

MEP - 1 year

SEP(A) - 2 years

- INVESTIGATIONS OF ACCIDENTS/INCIDENTS:
In Contracting state - State of occurrence
Non-contracting State - State of Registry
- simple approach lighting system=420m
precision approach Category 1&2&3= 900m
Cat has 9 lives
simple people celebrating 420
- Straight in approach-5 min
Abeam approach-3 min
- Signals:
Black on yellow, inform a fellow. (information)
Yellow on black, where you at! (location)
White on red, do it or you're dead.

- Taxiway edge colours:
Markers = BLUE
Markings = YELLOW
- AERODROME REFERENCE CODE
Element 1= aeroplanes reference field length
Element 2= wing and wheel span