PILOT GENERAL DATA

AUGUST 1967

REVISED OCTOBER 1970

UNITED STATES ARMY AVIATION CENTER

FORT RUCKER, ALABAMA

PILOT GENERAL DATA

(Revised by Inst Tng Br, G3, February 1970)

I. FILING: IFR

a. Clearing authority (AR 95-1).
   (1) Special rating: IFR clearing authority when he is actually at the controls.
   (2) Standard rating: IFR clearance authority en route when he is actually at the controls. IFR clearance authority for his own flights from an area not having a military base operations officer with clearance authority available.

b. Pilots will prepare a flight plan for each flight and submit it to the appropriate clearance authority for approval (if necessary) and transmittal to FAA or appropriate flight service.

c. DD Form 175, sample is shown in section II, "Planning Data and Procedures." This should be referred to, when filing. The T-42 is "U" transponder equipped, while the U-8 has a "T" capability.

d. DD Form 175 should be submitted at least 30-45 minutes prior to intended takeoff.

e. Clearance will not be requested unless forecast weather is at or greater than appropriate for ETA.

f. A straight-in approach may be commenced if visibility or RVR is at or greater than the appropriate visibility minimum.

II. IFR MINIMUMS:

		F/W	R/W
a.	T/O Standard	200 1/2	100 1/4
b.	T/O Special	None	None
c.	Landing	Published	Published Ceiling, 50% of Pub Vis

III. ALTERNATE REQUIREMENTS (AR 95-2)

a. An alternate airport is required if the weather conditions at the destination airport of an instrument flight plan is forecast to be less than the following during the period from 1 hour before until 1 hour after ETA:

F/W	R/W
Ceiling 3000 above appropriate landing minimum. Visibility 3 miles or 1 mile more than appropriate landing minimum, whichever is greater.	Ceiling 1000 above appropriate landing minimum. Visibility 2 miles or published minimum, whichever is greater.

b. An airfield will not be listed as an alternate unless current weather forecasts indicate that the ceiling and visibility at the alternate airfield will be at or greater than the following during the period from 1 hour before until 1 hour after ETA:

(1) Airfields for which an instrument procedure or radar minima is provided in the DOD FLIP publications.

(a) Airplanes - ceiling and visibility at or greater than alternate minimums specified in DOD FLIP (800-2) for non-precision approaches (NDB, VOR, LOC, TACAN, VORTAC, VOR/DME, or ASR) or (600-2) for precision approaches (ILS with glide slope or PAR).

(b) Helicopters - same as (a) above, except visibility may be reduced by 50 percent (800-1) (600-1).

(2) Instrument procedures not published in the DOD FLIP or for which alternate minima are not specified.

(a) Airplanes - ceiling 400 feet above the appropriate approach minima and visibility 1 1/2 miles above the appropriate published minima.

(b) Helicopters - same as (a) above, except that the derived visibility may be reduced by 50 percent.

(3) Airfields without an instrument approach.

(a) Airplanes - conditions which permit VFR descent and approach and landing with visibility of not less than 3 miles.

(b) Helicopters - same as (a) above, except that visibility may be reduced by 50 percent.

IV. FUEL REQUIREMENTS (AR 95-2, para 3-13)

a. No alternate required: Destination plus 45 minutes at normal cruise. (Don't forget starting, taxiing, runup, and climb consumption.)

b. Alternate required: Destination; to alternate plus 45 minutes reserve at normal cruise.

c. Turboprop airplanes are an exception; see AR 95-2, para 3-13.

d. If, upon arrival at the destination airfield, the required minima does not exist, a pilot may not commence approach. He may request ATC instructions to hold if the forecast is favorable and all alternate airfield requirements can be met.

V. COPILOT REQUIREMENTS (Except OV-1)

a. AR 95-2, para 3-13. An instrument-rated copilot qualified in the aircraft being flown is

required for all fixed and rotary wing flights into known or forecast instrument conditions.

b. Terminal control area. The use of an instrument-rated copilot is encouraged for flights originating or terminating in areas of high-density air traffic. In this connection, special consideration will be given to major terminals included in the DOD FLIP area chart's coverage.

VI. IFR CHECKLIST

a. Initial weather check.
   (1) Destination weather.
   (2) Requirement for, and selection of, an alternate.
   (3) General enroute forecast, winds aloft, and freezing level.
   (4) Nearest available field (if taking off from a field with weather below approach minimums).

b. Route planning.
   (1) Availability of Standard Instrument Departures (SID's), or Radar Vectors.
   (2) Check preferred routes and NOTAMS.
   (3) Select route and check MEA's, MOCA's, and MRA's.
   (4) Select best altitude (oxygen required for flights above 10,000 feet (para 4-5b, AR 95-1): exception granted for 1 hour. Oxygen mandatory above 14,000).
   (5) Compute for TAS and groundspeeds.
   (6) Compute ETE from T/O to radio facility serving destination airport.
   (7) Prepare DD Form 175.
   (8) Prepare DA Form 2283 or other type flight log as desired.

c. Destination.

(1) Study approach plates.

(a) Minimums for approaches available.

(b) Transitions to final approach fix.

(c) Field elevation.

(d) Missed approach.

(e) Radio frequency: UHF - VHF.

1. Approach control.
2. Tower.
3. Ground.
4. Clearance delivery.

MILITARY FLIGHT PLAN

AIRCRAFT UNIT OF ASSIGNMENT/HOME STATION: USAAVNC, FT. RUCKER ALA.

AIRCRAFT SERIAL NO.: 67-4321

TYPE OF FLIGHT PLAN: [X] IFR [ ] DVFR [ ] VFR [ ] FVFR

RADIO CALL: R 74321

AIRCRAFT DESIGNATION/TO CODE: T-42/U

ESTIMATED TRUE AIRSPEED: 180

DEPARTURE TIME (Z): PROPOSED 1315 ACTUAL

INITIAL CRUISING ALTITUDE: 7000

POINT OF DEPARTURE: CAIRNS AAF

STANDARD INSTRUMENT DEPARTURE: NAME AND NUMBER: MARIANNA FOUR

TO: MARIANNA

IFR	VFR	ROUTE OF FLIGHT	TO	ETE
✓		V 198 MONIAC NZC	TOWERS FIELD	1+29

SAMPLE

REMARKS

RANK/HONOR CODE: R7N

PSGR/CARGO CODE: Q3 DP1 AP2 OZR

HOURS FUEL ON BOARD	DIST TO DESTN	ALTERNATE AIR FIELD	ETE TO ALTN	NOTAMS	DD FORM 365F (Wt. and Bal.)	WEATHER	REQUEST CLEARANCE AFTER
5+00	226	DAYTONA BEACH MUNI	0+25	✓	✓	✓	

INST RATING: 2

SIGNATURE OF PILOT IN COMMAND: E. J. Miller

SIGNATURE OF APPROVING AUTHORITY: Robert S. Little

DATE: 10FEB70

CREW/PASSENGER LIST — [ ] Attached [ ] See Passenger Manifest

DUTY	NAME AND INITIALS	GRADE	SERVICE NO.	ORGANIZATION AND LOCATION
PILOT IN COMMAND	MILLER, E.J.	LTC	631-26-1553	G3, USAAVNC, FT RUCKER ALA
CP	CARTER, F.A.	1LT	226-35-1761	D01, USAAVNS, FT. RUCKER ALA.
Z	JONES, E.R.	COL	326-14-9711	G1, USAAVNC FT. RUCKER ALA.

DD FORM 1 JUL 65 175 PREVIOUS EDITION OF THIS FORM WILL BE USED UNTIL STOCK IS EXHAUSTED. D-38305

VIII.

COMMO DATA

	Elev	Grd	TWR	C/D	Dep	APC	VOR	ILS	LOM	NDB	GCA	TACAN
OZR	305	242.8	241.0	370.3	234.4	234.4	111.2	109.7	212	212	YES	NO
		121.9	126.2	133.75	125.4	125.4						
NZC	22	336.4	355.8	352.4	322.4	324.8	108.2	NO	NO	NO	YES	CH 48
		126.2	126.2	142.74	124.9	134.1						
DAB	34	348.6	257.8	348.6	322.3	322.3	112.6	109.7	263	263	NO	NO
		121.9	120.7	121.9	123.9	123.9						

ARMY AVIATION INSTRUMENT FLIGHT LOG

For use of this form, see AR 95-63; the proponent agency is the Office of the Assistant Chief of Staff for Force Development.

ATC CLEARS _____ TO _____

SAMPLE

WINDS = 330/10 TAS = 180K

TIME			DISTANCE	FUEL			
TAKE OFF	LANDING		TOTAL 226	REQUIRED 2+25		AVAILABLE 5+00	
ROUTE (Check Point)	IDENT / FREQ	MAG CRSE	LEG / REMAINING	ETE / ATE	ETA / ATA	ALTITUDE / GND SPD	REMARKS
CAIRNS	OZR		11	05		7,000	
	111.2	SID	215			189	
MARIANNA	MAI	118	36	12			
	114.0		179			188	
TALLAHASSEE	TLH	107	41	13			
	117.5		138			187	
Greenville	GEF	088	31	10			
	109.0		107			185	
TAYLOR	TAY	091	64	21			
	113.8		43			186	
MONIAC	TAY	093	20	07			
	113.8		23			186	
NAVY CECIL	NZC	136	23	07			
	108.7		0			190	
	ALTERNATE						
DAYTONA BEACH	DAB	118	74	25			
	112.6					188	

POSITION REPORT

IDENT	POSITION	TIME	ALT	IFR (VFR)	EST NEXT FIX	NAME OF SUCCEEDING REPORTING POINT

DA FORM 2283, 1 AUG 66 EDITION OF 1 MAY 60 MAY BE USED

X. PREFLIGHT AND START (AR 95-1, para 4-4)

a. Crewmembers will not memorize checklists and rely on memory for the accomplishment of prescribed operational procedures.

b. Checklists will be available and will be used.

c. Complete the -12, to include names and flight symbols (located in the front of each book).

XI. ACCEPTED REPORTING PROCEDURES - ATC CONTROL (Airman's Information Manual)

a. Pre-taxi: Monitor ATIS (Automated Terminal Information Service) if available.

b. Before taxi: "Cairns ground control Army 74321, east of the tower (location) IFR Navy Cecil: Ready to taxi, over."

c. Pre-runup: "Clearance delivery, Army 74321, IFR Navy Cecil, standing by for clearance: over."

d. After takeoff, contact with departure control: "Cairns departure control, Army 74321: Climbing to two thousand, over."

e. Initial radar transfer of control from departure control to center: "JAX Center, Army 74321, at four thousand, climbing to six thousand: over."

f. Departure control advises "Radar Service Terminated," or "Radar Contact Lost"; and you have been instructed to contact JAX Center. Your correct report to JAX should be "JAX Center, Army 74321, estimating Greenville (next compulsory reporting point) at 24 (time), at four thousand, climbing to six thousand: over."

g. Transfer to control.

(1) (RADAR environment).

(a) ID.

(b) Altitude.

(2) Initial contact at noncompulsory reporting point; no report to follow.
   (a) ID.
   (b) ETA next reporting point.
   (c) Altitude.
(3) Initial contact at compulsory reporting point.
   (a) ID.
   (b) Position (name of fix).

h. Report (nonradar).
   (1) ID.
   (2) Position.
   (3) Time.
   (4) Altitude.
   (5) ETA next reporting point.
   (6) Name of next reporting point.

i. On request of ATC to report PASSING or BY a fix, or report for RADAR ID):
   (1) ID.
   (2) Position.

j. Departing an altitude.
   (1) ID.
   (2) Departing ALTITUDE.

k. Station passage inbound.
   (1) ID.
   (2) Fix.
   (3) Inbound.

l. Missed approach.
   (1) ID.
   (2) Missed approach.
   (3) Remarks (intentions).

m. Arriving at a holding fix.
   (1) ID.
   (2) Position.
   (3) Time.
   (4) Altitude.

n. Switch to ground control frequency as directed, or after the aircraft has cleared the active.

o. Close your flight plan!

REPORTING POINTS

a. Reporting points - pilots are required to maintain a continuous listening watch on the appropriate frequency and furnish reports as indicated by the symbols shown on the FLIP Enroute Charts: when informed by ATC that their aircraft is in "radar contact," pilots will discontinue position reports over designated reporting points.

(1) Compulsory reporting points are symbolized by a solid triangle on the FLIP charts. On request, reporting points are open triangles.

(2) Position reports are required for "VFR-on-top."

(3) Flights along a direct route (regardless of the altitude being flown) including flights operating in accordance with an ATC clearance specifying "VFR-on-top," pilots shall report over each point used on the flight plan to define the route of flight. A published departure; i.e., a SID, is not a direct route of flight.

(4) Additional reports: shall be made without request.

(a) The time and altitude/flight level reaching a holding fix or point to which cleared.

(b) When vacating any previously assigned altitude/flight level for a newly assigned altitude/flight level.

(c) When leaving any assigned holding fix or point.

(d) When leaving final approach fix inbound on final approach.

(e) When approach has been missed. (Request clearance for specific action; i.e., to alternate airport, another approach, etc.)

(f) A corrected estimate at any time it becomes apparent that an estimate as previously submitted is in error in excess of 3 minutes.

(g) That an altitude change will be made if operating on a clearance specifying "VFR-conditions-on-top."

(h) Report loss of navigational aids or communication difficulties.

(5) Report nonforecast weather conditions or hazards to flight.

XIII. COMMO FAILURE

a. Radio failure: turn up the volume on all operating receivers capable of receiving voice transmissions and refer to IFR supplement.

(1) Return to last assigned frequency.

(2) Go to FSS frequency.

(a) VHF: 122.6, 123.6, 122.2, 122.1, or VOR frequency 122.1.

(b) UHF: 255.4. (272.7 is now used in Alaska and Pacific and 12 stations in United States where it is used at the option of the pilot.)

(3) Monitor emergency frequency if no contact has been made and also monitor VOR, ADF.

(4) If transponder equipped squawk code 7600.

b. Route.

(1) By the route assigned in the last ATC clearance received.

(2) If being radar vectored by the direct route from the point of radio failure to the fix, route, or airway specified in the vector clearance.

(3) In the absence of an assigned route, by the route that ATC has advised may be expected in a further clearance; or—

(4) In the absence of an assigned route or a route that ATC has advised may be expected in a further clearance, by the route filed in the flight plan.

c. Altitude. At the highest of the following altitudes or flight levels:

(1) The altitude or flight level assigned in the last ATC clearance received.

(2) The minimum altitude (converted, if appropriate, to minimum flight level as prescribed in FLIP Planning, sec II, para III-1) for IFR operations; or—

(3) The altitude or flight level ATC has advised may be expected in a further clearance.

d. Climb. When it is necessary to climb in order to comply with subparagraph "c" of this paragraph, the following applies:

(1) Climb to the assigned altitude or flight level in accordance with the last ATC clearance received;

(2) Climb to the minimum altitude for IFR operation at the time or place necessary to comply with the minimum; or—

(3) Climb to the altitude or flight level ATC has advised may be expected in a further clearance at the time or place included in the "expected further clearance."

(4) Do not descend to an altitude or flight level ATC has advised may be expected in an "expected further clearance."

e. Leave clearance limit/holding fix. If no holding instructions have been received, continue to the facility/fix serving destination airport at last

assigned or Minimum Enroute Altitude (MEA), whichever is higher. If holding instructions have been received, leave the holding fix at the expect-further-clearance time received, or, if an expect-approach-clearance time has been received, leave the holding fix in order to arrive over the fix from which the approach begins as close as possible to the expected-approach-clearance time.

f. Descent. Begin descent from the enroute altitude or flight level upon reaching the fix from which the approach begins, but not before—

(1) The expected-approach-clearance time (if received); or—

(2) If no expected-approach-clearance time has been received, at the estimated time of arrival, shown on the flight plan, as amended with ATC.

(3) Holding. If holding is necessary at the radio facility/fix to be used for the approach at the destination airport, holding and descent to the initial approach altitude or initial penetration altitude/flight level for the execution of the penetration and/or instrument approach shall be accomplished in a holding pattern in accordance with the procedure depicted on the approach and landing chart for the airport. If no holding pattern is depicted, holding and descent will be accomplished in a holding pattern on the side of the final approach course to the fix on which the procedure turn is prescribed.

XIV. USE OF TRANSPONDER

a. Correct usage.

(1) Turn set on and select STANDBY position during all ground operations (both prior to takeoff and shortly after landing).

(2) Prior to takeoff, position transponder as instructed.
(3) IDENT only as directed by controller.

b. Common codes.
(1) VFR: Code 1200 - below 10,000 feet.
(2) VFR: Code 1400 - 10,000 feet and above.
(3) IFR: As directed.

c. The following common codes are used at Cairns but may not always be standard due to traffic:
(1) Code 0200 - IFR arrival/departure in N and E quadrants.
(2) Code 0400 - IFR arrival/departure in S and W quadrants.
(3) Code 0100 - IFR enroute 5000 or below.
(4) Code 1100 - IFR handoff to center.

ANNUAL FLYING REQUIREMENTS
AR 95-1

	HOURS			
	Semiannual		Annual	
	Minimums	Maximums	Minimums	Maximums
TOTAL	30	50	80	80
Night	5		15	
Instrument	7		20	
Cross-country	7		20	

1. Minimums are prorated for portions of the fiscal year.
2. Night: One-half as P or IP. 5 hours must be cross-country.
3. Instrument: Hood or AI as IP or P - except 5 hours may be as CP in AI, and 10 hours may be in synthetic trainer. 5 hours must be cross-country.
4. Night and instrument cross-country requirements are credited toward total cross-country requirements.

All military flying time will be credited toward minimums. CR time will be held to maximums shown in the tables above. Service missions will be used to obtain minimums wherever possible.

RECORD OF MINIMUMS
(AR 95-1, para 2-9)

DATE FLOWN	ACFT No.	TOTAL TIME	CREDIT FOR MINIMUMS Night	Inst	XC	
9 FEB 70	74321	2+45	1+00PN	1+00 H	2+00	45LCL
TOTALS PILOT						
TOTALS CP						
GRAND TOTAL						

BASIC AIRCRAFT INFORMATION GUIDE
(Refer to -10 for details.)

T-42:

Gross Weight		5100
Weight: Full fuel and oil		4320
*Safe load		780 pounds
Usable fuel		142 gallons
Main Tanks	40.0 each	
Aux Tanks	31.0 each	

Fuels; oils; alternate fuels and oils; and comparable civilian substitute may be found in the front of each flight book, located in each aircraft.

Maximum safe time, excluding runup, takeoff, and climb is 4.7 hours at 65 percent power and 7.8 fuel psi. (See -10.)

T-41:

Gross Weight		2500
Weight: Full fuel and oil		1846
*Safe load		654 pounds
Usable fuel		46 gallons
Left Tank	26.0	
Right Tank	26.0	

Fuels; oils; alternate fuels and oils; and comparable civilian substitutes may be found in the front of each flight book, located in each aircraft.

Maximum safe time, excluding runup, takeoff, and climb is 3+30 at 65 percent power. (See -10.)

*Safe load, as stated, does not include the weights of the pilot or crew. Pilot or crew weight must be included as part of safe load.

U-8D:

Gross Weight		7300
Weight: Full fuel and oil		6418
*Safe load		882 pounds
Usable fuel		230 gallons
Main Tanks	44.0 each	
Aux Tanks	71.0 each	

Fuels; oils; alternate fuels and oils; and comparable civilian substitute may be found in the front of each flight book, located in each aircraft.

Maximum safe time, excluding runup, takeoff, and climb is 6.5 hours at 65 percent power. (See -10.)

U-6A:

Gross Weight		5100
Weight: Full fuel and oil		4207
*Safe load		893 pounds
Usable fuel		138 gallons
Wing Tanks	21.5 each	
Front Tank	35.0	
Center Tank	35.0	
Rear Tank	25.0	

Fuels; oils; alternate fuels and oils; and comparable civilian substitutes may be found in the front of each flight book, located in each aircraft.

Maximum airborne time with 28/1850 power settings is 6.0 hours, excluding runup, takeoff, and climb. (See -10.)

*Safe load, as stated, does not include the weights of the pilot or crew. Pilot or crew weight must be included as part of safe load.

UH-1D:

Gross Weight		9500
Weight: Full fuel and oil		6630
*Safe load		2870 pounds
Usable fuel		220 gallons

Fuels; oils; alternate fuels and oils; and comparable civilian substitutes may be found in the front of each flight book, located in each aircraft.

Maximum time, maximum gross = 2+15. (See -10.)

CH-47B:

Gross Weight		40,000
Weight: Full fuel and oil		24,205
*Safe load		15,795 pounds
Usable fuel		620 gallons
Left Tank	310	
Right Tank	310	

Fuels; oils; alternate fuels and oils; and comparable civilian substitutes may be found in the front of each flight book, located in each aircraft.

Maximum time, maximum gross = 1+30. (See -10.)

U-21

Gross Weight		9650
Weight: Full fuel and oil		8205
*Safe load		1445 pounds
Usable fuel		370 gallons
Left Wing	185	
Right Wing	185	
Fuels: JP-4		
Alternate	80/87 Up	

Maximum time: Refer to cruise charts in -10.

*Safe load, as stated, does not include the weights of the pilot or crew. Pilot or crew weight must be included as part of safe load.