flugschule birrer
Regionalflugplatz Grenchen SO

pilots checklist

Rockwell Commander

AC-114

TRIP PREPARATION

1. CFPL _____ on board
2. MAPS _____ on board
3. KOSIF, NOTAM, meteo _____ checked
4. passport, pilot licence, AOPA card _____ on board
5. cash and credit cards _____ on board
6. trip equipment _____ on board
   - oxygen, lifewests
   - sick-bags
   - oil
   - aircraft documents
   - food & drinks
7. flightplan _____ filed
8. fueling _____ performed
9. GPS programming _____ completed
10. passenger ticket _____ filed

PRE FLIGHT INSPECTION

1. control lock _____ removed
2. controls _____ free and easy
3. magnetos _____ off
4. circuit breakers _____ all in
5. landing gear switch _____ down
6. emmerg. landing gear extending knob ___ up
7. static source _____ normal
8. trims _____ t/o position
9. radio master _____ off
10. electrical equipment _____ all off
11. master/alternator switch _____ on
12. landing gear lights _____ 3 x green
13. fuel quantity _____ check l & r, note
14. master/alternator switch _____ off
15. exterior inspection _____ completed
16. weight & balance _____ checked

BEFORE STARTING ENGINE

1.	seat, seatbelts	adjust & secure
2.	parking brake	set
3.	radio master	off
4.	electric equipment	off
5.	circuit breakers	all in
6.	cowl flaps	open
7.	landing gear switch	down
8.	master/alternator switch	on
9.	passenger briefing	completed

ready for startup

COLD STARTING ENGINE

1.	mixture	rich
2.	propeller	high RPM
3.	throttle	1 cm open
4.	alternate air	cold
5.	fuel pump	on for 5 sec, then off
6.	propeller area	clear
7.	starter	engage
8.	throttle	800-1000 RPM
9.	oil pressure	within 30 sec
10.	ammeter	charging

HOT STARTING ENGINE

1.	mixture	rich, fuel pump 3 sec, then off
2.	propeller	high RPM
3.	throttle	3 – 4 cm open
4.	alternate air	cold
5.	propeller area	clear
6.	starter	engage
7.	throttle	retard
8.	mixture	full rich
9.	throttle	800-1000 RPM
10.	oil pressure	within 30 sec
11.	ammeter	charging

CHECK BEFORE TAXI

1. rotating beacon ____ on
2. radio master ____ on
3. radios, GPS and NAV ____ on & set
4. flight instruments & heading bug ____ set
5. giro ____ set & checked
6. altimeter ____ set QNH
7. flaps ____ full cycle / checked
8. ATIS ____ received
9. taxi clearence ____ received

ready for taxi

TAXI CHECK

1. brakes ____ left and right checked
2. steering ____ normal
3. gyros ____ turning correctly

ENGINE RUN UP

1. parking brake ____ set
2. engine instruments ____ checked, oil temp. green arc
3. throttle ____ 2000 RPM
4. magnetos check left & right ____ max. drop 175 RPM / max. difference 50 RPM
5. mixer ____ checked, EGT rising
6. propeller ____ cycle (2)
7. alternate air ____ hot and ret.
8. suction gauge, fuel pressure ____ green arc
9. ammeter ____ charging
10. engine instruments ____ checked
11. throttle ____ 1000 RPM

engine run up completed

CHECK BEFORE DEPARTURE

1. seat belts, shoulder harness _____ fastened and checked
2. fuel quantity _____ checked
3. fuel pump _____ on
4. fuel selector _____ both
5. mixture _____ rich
6. propeller _____ high RPM
7. cowl flaps _____ open
8. ignition / magnetos _____ both
9. flaps _____ 10° / 20° short / soft
10. trim tabs _____ take off position
11. doors _____ latched & locked
12. windows _____ closed
13. autopilot _____ off
14. radios _____ on & set
15. nav settings _____ completed
16. clock _____ set
17. altimeter _____ set QNH
18. giros & heading bug _____ set
19. controls _____ free and easy
20. take off briefing _____ RWY , wind, speeds
    (10° Vr = 65 KIAS, Vx = 72/80 KIAS, Vy = 91 KIAS)
    (20° Vr = 65 KIAS, Vx = 69/80 KIAS, Vy = 91 KIAS)
    routing, altitude, restrictions, malfunctions

    ready for depature

LINE UP CHECK

1. approach sector _____ free
2. landing light, strobes _____ on
3. doors _____ closed
4. runway and heading _____ identified / checked
5. transponder _____ on as required
6. wind _____ visual checked
7. time _____ note

    line up completed

TAKE OFF

1. take off power _____ set / checked
2. brakes _____ released
3. speed _____ rising
   when safly airborn
4. gear _____ break and up
5. flaps _____ up
6. climb power _____ 25 / 25 set

CLIMB CHECK

1. gear _____ up
2. flaps _____ up
3. climb power _____ 25 / 25 set
4. fuel pump _____ off
5. landing light _____ off
6. cowl flaps _____ open
7. engine instruments _____ checked

climb check completed

CRUISE CHECK

1. cowl flaps _____ close
2. cruise power _____ according AFM
3. mixture lean _____ EGT / max. perf. 100 below
4. engine instruments _____ checked
5. altimeter _____ set & checked
6. fuel selector _____ both, left or right

cruise check completed

PRE DESCENT CHECK

A	ATIS	received
B	briefing for approach	done
C	circuit breakers	all in
D	directional gyros	set
E	electronics and radios	set
F	further planning	done
2.	mixture	enrich
3.	engine instruments	checked
4.	cowl flaps	closed

pre descent check completed

CHECK FOR APPROACH

A	altimeter	set QNH
F	fuel pump	on
I	landing light	on
S	fuel selector	both
	fuel quantity	checked
M	mixture	rich
A	autopilot / HDG bug	off, RWY axis
2.	power	adjust
3.	flaps	set for approach
4.	speed	90 – 120 KIAS
5.	seatbelts	fastened & secured

check for approach completed

APPROACH CONFIGURATION

1.	flaps	10° below 150 KIAS
2.	gear down	3 x green below 129 KIAS

FINAL CHECK

G	gas (fuel selector, pump, quantity)	checked
U	undercarryage: gear down	3 x green checked
M	mixture	full rich
P	propeller	high RPM
S	speed	80 / 75 KIAS 71 KIAS shortfield
F	flaps	35°
R	runway	identified
C	clear to land	received

final check completed

CHECK AFTER LANDING

1.	time	noted
2.	flaps	up
3.	cowl flaps	open
4.	fuel pump	off
5.	landing & strobe	off
6.	transponder	standby

check after landing completed

ENGINE SHUT DOWN

1.	electric consumers	all off
2.	avionics	121.5 check, then off
3.	mixture	cut off
4.	ignition	off, key removed
5.	master / alternator switch	off
6.	controls lock	installed
7.	fuel selector	right
8.	after flight briefing / logs	done

EMERGENCY GEAR DOWN

1.	3 lights check	press to test & check
2.	check for approach	done
3.	reduce speed	70 KIAS
4.	propeller	high RPM
5.	master / alternator switch	off
6.	electrical gear switch	down
7.	emergency ext. valve knob	pull out and down
	yaw airplane if necessary to help lower gear	
8.	master & alternator switch	on
9.	3 light check	green

ELECTRICAL FIRE IN FLIGHT

1.	master & alternator	off
2.	electrical consumers	all off
3.	cabin heat and cabin air	off
	if fire out	
5.	only master switch	on
6.	then one essential electrical deviceat a time	on

ENGINE FIRE IN FLIGHT

1.	mixture	full lean
2.	fuel selector	off
3.	master & alternator switch	off
4.	cabin heat and cabin air	off
5.	increase airspeed to extinguish	as needed
6.	emergency descent	max. 187 KIAS, gear down, flaps up
7.	emergency landing	

EMERGENCY LANDING AFTER POWER LOSS / NO RESTART

1.	maintain best glide	82 KIAS
2.	prop	low RPM
3.	transponder	7700
4.	declare emergency	
5.	ELT	on
6.	fuel selector	off
7.	mixture	full lean / idle cut off
8.	seatbelts / harness	fastened & secure
9.	flaps	as needed
10.	gear	down up, if very rough / soft terrain
11.	master, alternator & magnetos	off
12.	door	unlatch
13.	protect body	

other cases according to AFM

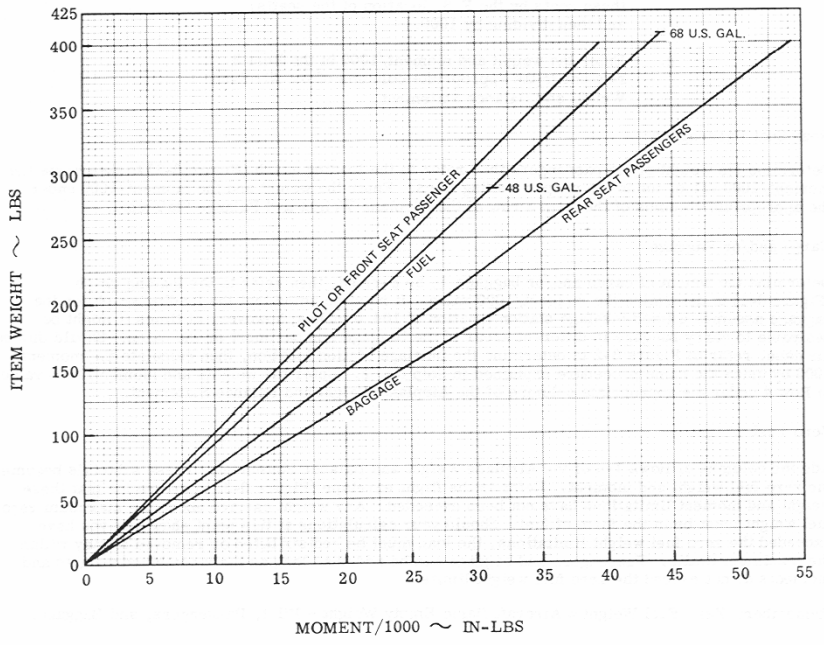
AIRSPEEDS

takeoff	normal 10°	Vr = 65 KIAS Vx = 72 KIAS (10°), 80 KIAS clean Vy = 91 KIAS clean	
	soft & short 20°	Vr = 65 KIAS Vx = 69 KIAS (20°), 80 KIAS clean Vy = 91 KIAS clean	
cruise	Vne =		187 KIAS
	Vfe = (0 - 20° flaps) (20 - 25° flaps) (25 – 35° flaps)		150 KIAS 120 KIAS 109 KIAS
	Vlo (gear operation) Vle (gear extracted)		129 KIAS 187 KIAS
	Vno (max. structural cruise)		147 KIAS
	Va (manuevering speed) 3140 lbs 2658 lbs 2023 lbs		116 KIAS 107 KIAS 93 KIAS
landing	normal	Flaps 35° final speed 80/75 KIAS Max. demonstr. crossw. 19 KIAS	
	Shortfield	Flaps 35° final speed 80/71 KIAS	
other	Best glide, clean = 82 – 75 KIAS, gliding number approx. 1:10		

IMPORTANT INFORMATIONS

fuel_____70 USG, 68 USG usable
fillerneck_____24 USG each side, total 48 USG
MTOW_____3140 lbs / 1424 kg
oil _____minimum 6 quarts / maximum 8 quarts
airpressure_____frontwheel 50 psi
mainwheels 38 psi

LOADING GRAPH



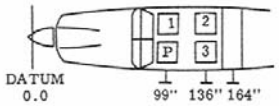
2 of 7

AIRPLANE WEIGHT AND BALANCE STATEMENT

MODEL 114 SERIAL NUMBER 14356

AIRPLANE WEIGHT AND MOMENT TABLES

LOADING CALCULATION TABLES
(TO BE USED WITH BASIC EMPTY WEIGHT)



SEATING PLAN

PASSENGER LOADING

Seat No.	Wgt.	Mom/1000
PILOT	170	17
1	170	17
2	170	23
3	170	23

BAGGAGE (D=164.0)	
WGT.	MOM/1000
20	3
40	7
60	10
80	13
100	16
120	20
140	23
160	26
180	30
200	33

USABLE FUEL (D=108.6)		
GAL.	WGT.	MOM/1000
5	30	3
10	60	7
15	90	10
20	120	13
25	150	16
30	180	20
35	210	23
40	240	26
45	270	29
48	288	31
50	300	33
55	330	36
60	360	39
65	390	42
68	408	44

LOADING SCHEDULE (EXAMPLE)

	ITEM	WGT	MOM/1000
1.	BASIC EMPTY WEIGHT	1,962.6	198.
2.	PILOT	170	17
3.	PASSENGERS 1	170	17
	2	170	23
	3	170	23
4.	BAGGAGE	89.4 147,345	15.
5.	ZERO FUEL WT (NOT TO EXCEED 2852 LBS)	2,732.	293.
6.	FUEL	408.	44.
7.	LOADED ACFT. WGT.	3,140.	337.

Weights Engineer J Roy 4-21-78

Form AC 1751 (10-76) Page 2

AIRCRAFT OPERATIONAL LIMITATIONS

WEIGHT AND MOMENT ALLOWABLES
(OPERATION OUTSIDE MIN. AND MAX. VALUES IS PROHIBITED)
(GEAR RETRACTION MOMENT ACCOUNTED FOR)

NOTE: UTILITY CATEGORY APPLICABLE TO SERIAL NUMBERS 14000 THRU 14254 WITH CUSTOM KIT NO. CK-114-1 INSTALLED, AND SERIAL NUMBERS 14255 AND SUBS.