

CAPT M^CRAINEY

C-123K

DATA SOURCE: T.O.1C-123K-1

MINIMUM ACCEPTABLE TORQUE-MAX WET POWER (SEA LEVEL)

TEMPERATURES			DEW POINT (F)									
EAT (F)	CAT (C)		(F)	100	90	80	70	60	50	40	30	20
105	40½	47½		112	116	119	120	122	123	125		
95	35	42			118	120	122	124	125	126		
85	29	36				121	123	125	126	127	128	
75	24	31					125	126	127	128	129	129
65	18	25½						128	129	130	130	131
55	12½	19½							129	130	131	132
45	7	14								132	133	133
35	1½	8½									134	134

- * 1. For each 2000'PA above sea level, subtract 1¼ PSI.
- * 2. For each 3000'PA above sea level, subtract 3 PSI if FAT above 69° F and 2 PSI if FAT below 69° F.
3. Add 7 PSI for Expected TOP.
4. To find MAX DRY POWER TORQUE SUBTRACT II PSI.

- * Note:
- a. Correction factor 1. is to compensate for PA versus Temperature.
 - b. Correction factor 2. is to compensate for PA versus Dew Point Temperature.

SUBJECT: Calculation of Minimum Acceptable Torque Max Wet Power on C-123K Aircraft.

The attached power chart should be used as a "quick reference" guide only. For more detailed and exacting information, use the appropriate "Brake Horsepower Available" charts in the C-123K Flight Manual.

To find the TOP for a typical takeoff at Vientiane (Wattay) Airport if the PA is 500', FAT 85°F and Dew Point 80°F, proceed as follows:

- a. Enter at left with FAT 85°F, move horizontally right to vertical intersection of Dew Point Temperature 80°F.
- b. Read Minimum Acceptable Torque - Max Wet Power 121 PSI.
- c. For Expected Torque Max Wet Power, add 7 PSI. (121 + 7 = 128 PSI.)
- d. For Max Dry Power TOP subtract 11 PSI.
 - (1) Minimum acceptable dry is 121 - 11 = 110 PSI.
 - (2) Expected TOP dry is 128 - 11 = 117 PSI.

To find required TOP for a typical takeoff at site LS-20A if the PA is 3200', FAT 75°F, and Dew Point 70°F, use chart as follows:

- a. Enter at left with FAT 75°F, move horizontally right to vertical intersection of Dew Point 70°F.
- b. Read TOP 125 PSI.
- c. Apply correction factor 1 to compensate for PA versus Temperature (125 - 2 = 123).
- d. Apply correction factor 2 to compensate for PA versus Dew Point (123 - 3 = 120).
- e. For expected Torque Wet add 7 PSI, (120 + 7 = 127 PSI.)
- f. For Max Dry Power TOP subtract 11 PSI.
 - (1) Minimum acceptable dry is 120 - 11 = 109 PSI.)
 - (2) Expected TOP dry is 127 - 11 = 116 PSI.

Makam

1200 BHP

	+10	+20	+30	
10M	34.7	35.3	35.4	2300
9M	34.9	35.5	36.1	
8M	35.1	35.7	36.3	2200
7M	35.2	35.9	36.5	

1100 BHP

	+10°	+20°	+30°	
10M	33.0	33.6	34.2	2100
9M	34.0	33.7	34.2	
8M	34.2	34.8	35.4	
7M	34.3	35.0	35.6	2000

1000 BHP

	+10	+20	+30	
10M	31.5	32.1	32.7	2000
9M	32.6	32.2	32.8	
8M	32.8	33.4	34.0	1900
7M	33.5	34.2	34.2	1850

900 BHP

	+10	+20	+30	
10M	30.2	30.7	30.3	2000
9M	31.3	30.9	31.5	1900
8M	31.5	32.0	31.6	
7M	32.7	32.3	32.9	1800
				1700

C-123/R - 2800 -99W

CLIMB POWER SCHEDULE - 2400 RPM - 1400 BHP

CONDITIONS MIXTURE RICH
FUEL 115/145Note: If
CAT above
15° use
low blower

PRESS ALTITUDE (FEET)	MANIFOLD PRESS					HIGH PRESSURE	LOW PRESSURE
	---CARB AIR TEMP---						
	-20°C	0°C	+10°C	+20°C	+30°C		
15,000	37.5	38.9	39.7	see note 2		HIGH	960
14,000	34.5	38.9	39.7				
13,000	34.6	38.9	39.7				
12,000	34.7	36.1	39.7				
11,000	34.9	36.2	36.9			LOW	
10,000	35.0	36.3	37.0	37.6	38.3		
9,000	35.1	36.5	37.1	37.8	38.4		
8,000	35.2	36.6	37.2	37.9	38.5		
7,000	35.3	36.7	37.4	38.1	38.6		
6,000	35.4	36.8	37.5	38.2	38.7		
5,000	35.7	37.1	37.8	38.5	39.0		
4,000	35.9	37.4	38.0	38.7	39.3		
3,000	36.1	37.5	38.2	38.9	39.5		
2,000	36.2	37.6	38.3	39.0	39.7		
1,000	36.5	37.9	38.6	39.3	40.0		
S. L.	36.8	38.2	38.9	39.6	40.2		

T.O. 1C-123K-1GL-1

**PILOTS'
&
FLIGHT MECHANIC'S**

FLIGHT CREW CHECKLIST

USAF SERIES

C-123K

F 09603-68-A-0323

F00003-70-C-0000

**Commanders are responsible for bringing this checklist to the attention
of all personnel cleared for operation of the aircraft.**

**PUBLISHED UNDER AUTHORITY OF
THE SECRETARY OF THE AIR FORCE**

1 AUGUST 1968

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IMPORTANT INFORMATION CONCERNING TECHNICAL ORDERS

LIST OF EFFECTIVE PAGES

NOTE: The portion of the text affected by the changes is indicated by a vertical line in the outer margins of the page. Changes to illustrations are indicated by miniature pointing heads. Changes to wiring diagrams are indicated by shaded areas.

Dates of issue for original and changed pages are:

Original 0 1 Aug 68 Change 3 15 Jan 70
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TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 50, CONSISTING OF THE FOLLOWING:

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iii	3	*E-2 - E-10	5
iv	0	E-11 - E-16	0
N-1	0	E-17	2
*N-2 - N-4	5	*E-18 - E-19	5
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*N-6 - N-7	5		
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*The asterisk indicates page changed, added, or deleted by the current change.

ADDITIONAL COPIES OF THIS PUBLICATION MAY BE OBTAINED AS FOLLOWS:

USAF

USEP ACTIVITY - In accordance with T.O. 00-5-2

Change 5

Drop	Weight	Altitude	Speed	Altitude
				(Absolute)
19 Ft. Muslin :	150 lbs. :	Porter/C-47 :	90K :	400 ft.
27 Ft. Muslin :	250 lbs. :	Porter/C-47 :	90K :	400 ft.
39 Ft. Muslin :	350 lbs. :	Porter/C-47 :	90K :	500 ft.

1. Muslin chutes are not designed or intended for use under conditions other than stated above. AFS and APD are not to accept heavier loads for drop without approval.

2. Muslin chutes are not to be clustered.

24 Ft. Nylon :	200 lbs. :	C-47, C-7A, C-123 :	120K :	400 ft.
		C-46, C-130 :		
28 Ft. Muslin :	500 lbs. :	" :	120K :	400 ft.
28 Ft. Nylon :	350 lbs. :	" :	120K :	400 ft.
C-13 Muslin :	500 lbs. :	" :	120K :	400 ft.
35 Ft. Nylon :	550 lbs. :	" :	120K :	400 ft.
44 Ft. Nylon :	550 lbs. :	" :	120K :	500 ft.
40 Ft. Muslin :	1200 lbs. :	" :	120K :	600 ft.
100 Ft. Nylon :	2,200 lbs. :	" :	120K :	700 ft. *
67 Ft. Nylon :	1,500 lbs. :	" :	120K :	700 ft. **
64 Ft. Nylon :	1,800 lbs. :	" :	120K :	700 ft. *

* If high surface winds prevail, altitude may be lowered to 600 and IAS increased to L25/130K.

For Cluster of Two Chutes

24 Ft. Nylon	:	400 lbs.	:	C-47, C-74, C-46	:	120K	:	400 Ft.
	:		:	C-123, C-130	:		:	
28 Ft. Nylon	:	550 lbs.	:	"	:	120K	:	400 Ft.
35 Ft. Nylon	:	900 lbs.	:	"	:	120K	:	400 Ft.

All other chutes should not be clustered. AFS and APD observe deployment and report failures and/or malfunctions.

SUBJECT: Parachute Loads, Drop Speeds and Altitudes

Type Chute : Not Max Load : Type A/C : Max Speed : Min Alt

1000 BHP

	+10	+20	+30	
10M	31.5	32.1	32.7	2100
9M	32.6	32.2	32.8	2000
8M	32.8	33.4	34.0	
7M	33.5	34.2	34.2	1900
6M	33.7	34.3	34.9	1850
5M	33.9	34.5	35.1	
4M	34.2	34.8	35.4	
3M	34.3	35.0	35.6	
2M	34.5	35.1	35.7	
1M	34.8	35.4	36.0	

900 BHP

	+10	+20	+30	
10M	30.2	30.7	30.3	2000
9M	31.3	30.9	31.5	1900
8M	31.5	32.0	31.6	
7M	32.7	32.3	32.9	1800
6M	32.9	33.5	34.1	
5M	33.6	34.2	34.3	1700
4M	33.8	34.4	35.0	1650
3M	34.0	34.6	35.2	
2M	34.2	34.8	35.4	
1M	34.5	35.1	35.7	

FOREWORD

YOUR RESPONSIBILITY. In accordance with AFR 60-9 the flight crew is required to use this checklist when operating the subject aircraft.

HOW TO BE ASSURED OF HAVING LATEST DATA.

Refer to T.O. 0-1-1-3 and monthly supplement thereto for listing of current Flight Manuals, Checklist and Operational and Safety Supplements.

TECHNICAL ORDER NUMBER. This checklist is identified by a T.O. number that is identical to that of the applicable Flight Manual except for the addition of the letters "CL" (checklist) and a suffix number indicating the crew member to which it applies.

CONTENT. This checklist consists of two parts, normal procedures and emergency procedures. The numbered items (line items) correspond to identically numbered items in the amplified procedures in Sections II and III of the Flight Manual. Emergency procedures are identified by a black

striped border. A Take-Off and Landing Data card and a Speeds Chart are included at the end of the normal procedures checklist.

FLIGHT MANUAL. This checklist does not replace the amplified version of the procedures in the Flight Manual. To fly the aircraft safely and efficiently, you must read and thoroughly understand why each step is performed and why it occurs in a certain sequence.

CONCURRENCY. As changes are made to the amplified checklists in the Flight Manual, concurrent changes will be made to this checklist so that both will agree. However, a change to the Flight Manual may not affect the amplified procedures. Therefore the Flight Manual date may not be the same as the checklist date. To determine the checklist applicable to a given Flight Manual issue, refer to the bottom of the Flight Manual "A" page under "Current Flight Crew Checklist." For purposes of determining the concurrency between the Flight Manual and this checklist, the latest date of a Safety Supplement or Operational Supplement affecting this checklist will be considered to represent the latest change date of the Flight Manual.

1200 BHP

	+10	+20	+30	
10M	34.7	35.3	35.4	2300
9M	34.9	35.5	36.1	} 2200
8M	35.1	35.7	36.3	
7M	35.2	35.9	36.5	
6M	35.5	36.1	36.6	
5M	35.6	36.3	36.9	
4M	35.9	36.5	37.1	
3M	36.0	36.6	37.2	
2M	36.2	36.8	37.5	
1M	36.4	37.0	37.7	

1100 BHP

	+10	+20	+30	
10M	33.0	33.6	34.2	2200
9M	34.0	33.7	34.3	} 2100
8M	34.2	34.8	35.4	
7M	34.3	35.0	35.6	} 2000
6M	34.6	35.2	35.8	
5M	34.7	35.3	35.9	
4M	34.9	35.5	36.1	
3M	35.2	35.8	36.4	
2M	35.3	35.9	36.5	
1M	35.4	36.0	36.7	

SAFETY SUPPLEMENTS AND OPERATIONAL SUPPLEMENTS. Whenever you receive a supplement affecting your checklist, write in the appropriate information. Printed replacement checklist pages will be made available to you as quickly as possible. A notation on the bottom inside corner of these pages will indicate that they reflect certain Safety or Operational Supplements. Note that there is no action in the checklist program that constitutes authority for discarding a Safety Supplement or Operational Supplement. Such action is authorized only through the title page of the Flight Manual, another Safety Supplement or T.O. 0-1-1-3.

CHANGES AND REVISIONS. Whenever you receive a normal change or revision to your checklist, check to ascertain that it reflects all outstanding Safety Supplements or Operational Supplements that affect the checklist. If it does not, add in the required information by hand (sometimes you will be able to accomplish this end simply by retaining the change page which refers to the outstanding supplement).

BINDERS. Binders containing plastic envelopes, to hold and protect the checklist pages, are available through normal AF supply channels. The binders are available with either 15, 25, or 40 envelopes. The Air Force Stock List numbers for these binders are: 7510-766-4268, 7510-766-4269, 7510-766-4270 respectively. Be sure to order enough binders - if you have a large checklist you may want to carry it in two small binders instead of a single large one.

COMMENTS AND QUESTIONS. Any comments and questions should be directed through command headquarters to Hq. WRAMA, Service Engineering Division, Robins AFB, Georgia. Attn: WRNEO.

NORMAL PROCEDURES

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BEFORE EXTERIOR INSPECTION.

- * 1. Forms 781, 365F and publications -
Checked.
- * 2. Landing gear pins - Installed.
- * 3. APU oil quantity - Checked.
- * 4. Landing gear lever - DOWN.
 - 5. Jet anti-ice - OFF.
 - 6. Windshield heat - OFF.
 - 7. Alarm bell - Checked.
 - 8. Propeller deice - OFF.
- * 9. Ignition - OFF.
- *10. Jet start switches - OFF.
 - 11. Drop tank jettison - Safetied.
 - 12. Nacelle tank jettison - Safetied.
- *13. Fire handles - IN.
- *14. Battery - ON.
- *15. APU - START - IDLE.
- *16. Landing gear position indicators -
Checked.
- *17. Fire detector systems - Checked.
 - 18. Fire extinguisher switches - Safetied.
 - 19. Heating system valve check - As required.
 - 20. APU - RUN, generator - ON.
- *21. Single phase inverter - SPARE.
- *22. Cowl flaps - OPEN.
- *23. Oil temperature - COLD.
- *24. Carb air - COLD.

25. Superchargers - LOW.
26. Water injection - OFF.
- *27. Parking brakes - SET.
28. Compass slaving - IN.
29. Propeller replenish - OFF.
30. Three phase inverters - Checked and OFF.
31. Pilot's attitude indicator - OFF.
- *32. Anti-skid - OFF.
33. Reciprocating generators - ON.
34. Jet generators - OFF.
35. Secondary bus - As required.
- *36. Circuit breakers - Checked.
37. NAV/POSITION lights - BRIGHT/FLASH.
38. Anti-collision lights - ON/Checked/OFF.
39. Pitot heat - OFF.
40. Heaters - OFF.
41. Windshield wipers - OFF.
- *42. Jet start switches - SHUTTER.
43. Aux hydraulic pump - ON/Checked/OFF.
44. Drop tank air pumps - OFF.
45. Fuel shutoff valves - OPEN.
- *46. Fuel quantity - Checked.
- *47. Single phase inverter - OFF.
48. Warning lights - Checked.
49. Trim - Zero.
- *50. Electrical power - As required.

EXTERIOR INSPECTION.

1. Front entrance door hinge - Checked.
2. Left static port - Checked.
- * 3. Pitot covers - Removed.
- * 4. Nose landing gear - Checked.
- * 5. Bailout hatch cover - Secure.
6. Right static port - Checked.
- * 7. Right propeller - Checked.
- * 8. Outboard side of right engine - Checked.
- * 9. Oil cooler and exit door - Checked.
- * 10. Right jet engine - Checked.
- * 11. Right wing - Checked.
- * 12. Inboard side of right engine - Checked.
- * 13. Right main landing gear - Checked.
- * 14. Stabilizer, elevator, and rudder -
Checked.
- * 15. Left side of aircraft - Checked.
- * 16. Jet start switches - OFF.
- * 17. Top of aircraft - Checked.

INTERIOR INSPECTION.

CARGO COMPARTMENT (Left Side).

1. Entrance door emergency release handle - Safetied.
- * 2. Cargo and equipment - Secured.
3. First aid kits - Stowed.

- * 4. Litter posts - Secured.
5. Cargo compartment thermostat - Free of obstructions.
- * 6. Remote compass emergency power - Single-phase NORMAL.
- * 7. Left wheel well circuit breakers - IN.
8. Left main landing gear - Checked.
9. Electrical equipment above left wheel well - Checked.
10. SIF controls - As required.
11. Airborne loudspeaker - Secured.
- *12. Left main landing gear up lock release - Checked.
- *13. Left troop door - Secured.
14. Deicing system manual shutoff valve - CLOSED.
15. First aid kits - Stowed.
16. Ditching hatches and ladders - Checked.
- *17. Cargo ramp and door - Checked.
18. Paratroop anchor cables - Checked.
- *19. Maintenance ladder - Secured.

CARGO COMPARTMENT (Right Side).

1. Emergency hand axe - Stowed.
2. First aid kits - Stowed.
3. Cargo ramp and door control panel - Checked.

- * 4. Right troop door - Secured.
- 5. Fire extinguisher - Checked.
- * 6. Right main landing gear up lock release - Checked.
- 7. Main hydraulic accumulator pressure - Checked.
- 8. Aux hydraulic pump - Checked.
- 9. Elevator and rudder reverse lock release valve - Normal.
- 10. Hydraulic air pressure valve - RES. PRESS.
- 11. Landing gear controllable check valve - NORMAL and safetied.
- 12. Right main landing gear - Checked.
- 13. APU manual fuel bypass valve - CLOSED.
- *14. Right wheel well circuit breakers - In.
- *15. Jet engine junction box circuit breakers - In.
- 16. Ground blower relay junction box circuit breakers - In.
- *17. Litter posts - Secured.
- 18. First aid kits - Stowed.
- 19. Aileron deicing junction box circuit breakers - In.
- 20. Heaters for evidence of leaks and over-heat condition - Checked.

Forward Bulkhead.

1. Radio compartment - Checked.
2. Ignition analyzer - OFF.
3. Navigator's seat, table and equipment - Stowed.
4. Nose landing gear emergency down lock and up lock releases - Secured.
5. Landing gear emergency handcrank - Stowed.
6. Emergency hand axe - Stowed.
- * 7. AC radio junction box circuit breakers - In.
8. Paratroop anchor cables - Checked.
9. Driftmeter - Retracted, caged and off.
10. Oxygen compartment - Checked.
- *11. Emergency air brake pressure - Checked.

PASSENGER BRIEFING.

1. Aircraft commander's name.
2. Route, ETE, weather, aircraft altitude.
3. Seats, safety belts, and movement in aircraft.
4. Smoking.
5. Location of relief tubes.
6. Air sickness.
7. Electronic devices.
8. Opening the doors.

9. Use of parachutes and survival equipment.
10. Bail-out.
11. Crash landing.
12. Ditching.
13. Questions.

BEFORE STARTING RECIPROCATING ENGINES.

- * 1. Electrical power - ON. CP
2. Oxygen - Checked. ALL
- * 3. Seats, rudder pedals, safety belts and harnesses - Adjusted. P, CP
- * 4. Position lights - BRIGHT/FLASH. P
- * 5. Radios - As required. P
- * 6. Oil temperature - AUTO. P
- * 7. Parking brake - Set. P
- * 8. Anti-skid - OFF. P
- * 9. Aileron deice pump - ON. CP
- * 10. Aux hydraulic pump - Checked. P
- * 11. Propellers - INCREASE. P
- * 12. Mixtures - OFF. P
- * 13. Angle of attack/stall warning - Checked. P
- * 14. Field barometric pressure - Checked. P
- * 15. Checklist - Completed.

STARTING RECIPROCATING ENGINES.

- * 1. Propellers - Clear, fire guard posted.
P, CP
- * 2. Right engine - Start. P, CP
- 3. Right hydraulic pump, wing flaps -
Checked. P
- * 4. Start the left engine repeating steps 1
and 2.
- * 5. Checklist - Completed.

ENGINE WARM-UP.

- * 1. Temperatures and pressures - Checked. P
- * 2. External power - Removed, battery ON.
CP
- * 3. APU generator - OFF, engine IDLE.
CP, FM
- * 4. Three-phase inverters - ON. P, CP
- * 5. Pilot's attitude indicator - ON. P
- * 6. AN/APN-22 altimeter - ON/SET. P
- * 7. NAV radios - As required. P, CP
- * 8. IFF-SIF - STDBY. CP
- 9. Manifold pressure purge - Completed. P
- 10. Ignition switch safety - Checked. P, CP
- *11. Drop tank pumps. ON until lights go out
then - OFF. P
- *12. Flight emergency bus relay - Checked. P
- *13. Aux hydraulic pump - AUTO. P

- *14. Alarm bell - Checked. P
- *15. Flight controls - UNLOCKED. P
- 16. Propeller reverse - Checked. P
- *17. Radios - Checked as required. P, CP
- *18. Altimeters and flight instruments -
Checked. P, CP
- *19. Wheel chocks - Removed. P
- *20. Checklist - Completed.

TAXIING.

- * 1. Ramp and troop doors - CLOSED. FM
(LM)
- * 2. Troop signal lights - CAUTION. CP
- * 3. Windshield heat - As required. CP
- * 4. Taxi area - CLEAR. P, CP, FM (LM)
- * 5. Hydraulic pressure - Checked. CP
- * 6. Brakes - Checked. P, CP
- * 7. Flight instruments - Checked. P, CP
- * 8. Checklist - Completed.

ENGINE RUN-UP.

- * 1. Nose landing gear and parking brakes - Centered and set. P
- * 2. Engine instruments - Checked. P
- * 3. Mixtures - RICH. P
- 4. Propellers - Checked. P
- 5. Reciprocating generators - Checked. CP
- 6. Propeller deice - As required. CB, FM
- 7. Aileron deice - As required. CP, FM
- 8. Wing and tail anti-ice - As required. CP, FM
- * 9. Power and ignition - Checked. P, CP
- 10. Superchargers - Checked. P
- 11. Carb air - Checked. P
- *12. Elevator and rudder reverse lock - Released. P
- *13. Engines and nacelles - Checked. FM (LM)
- *14. Checklist - Completed.

BEFORE TAKE-OFF.

ENGINE RUN-UP

1. Boost pumps - HI. P
2. Drop tank air pumps - OFF. P
3. Secondary bus - NORMAL. CP
4. Wing flaps - TAKE-OFF. P
5. Trim - Set. P
6. Troop signal lights - OFF. CP
7. Water injection - ON. CP
8. Water injection - RESET. CP
9. Carb air - COLD. P
10. Landing gear pins - Removed, doors closed. FM
11. Crew briefing - Complete. P
12. Jets - START. P, CP, FM
13. Pitot heat - As required. CP, FM
14. APU - As required. CP, FM
15. Doors and hatches - Secured. FM
16. Seats, safety belts, shoulder harnesses - Secured. ALL.
17. Flight controls - Checked. P
18. Anti-ice/deice - As required. CP
19. Checklist. Completed.

LINE-UP.

- ① Mixtures - RICH. CP
2. Cowl flaps - TAKE-OFF. CP
3. IFF-SIF - Set/NORM. CP
4. Anti-collision lights - ON. CP
5. Position lights - STEADY. CP
- ⑥ Landing lights - As required. CP
7. Flight instruments - Checked. P, CP
8. Anti-skid - ON/Checked. P
9. Checklist - Completed.

AFTER TAKE-OFF - CLIMB.

- ① Landing gear - UP. CP
- ② Wing flaps - UP. CP
- ③ METO power - Set. P, CP
4. Water injection - OFF. CP
- ⑤ Landing lights - OFF. CP, FM
6. Aux hydraulic pump - OFF. CP, FM
7. Boost pumps - LO. CP, FM
8. Temperatures and pressures - Checked.
CP, FM
9. Engines and cargo compartment -
Checked. FM
10. Checklist - Completed.

CRUISE.

- ① Power setting and jet engines - As required. CP, FM
2. Boost pumps - OFF. CP, FM
3. Temperatures and pressures - Checked. CP, FM
4. Flight emergency bus relay - Checked. CP, FM
5. Fuel quantity - Checked. CP
6. APU - OFF. FM, CP
- ⑦ Compasses - Checked. P, CP
- ⑧ Mixtures - As required. CP, FM
- ⑨ Jets - As required. CP, FM
10. Checklist - Completed.

DESCENT.

1. Landing data card - Prepared. CP
2. Crew briefing - Completed. P
3. Passengers and cargo compartment - Secured. FM (LM)
4. Circuit breakers - Checked. CP, FM
5. Drop tank air pumps - OFF. CP, FM
6. Fuel crossfeed - OFF. CP, FM
7. Oil temperature - AUTO. CP, FM
8. Carb air - As required. CP, FM
9. Superchargers - LOW. CP, FM
10. Mixtures - As required. CP, FM
11. APU - As required. FM
12. Stall warning - Checked. P
13. Driftmeter - Retracted, caged and OFF. FM, (N)
14. Jets - START. CP, FM
15. Checklist - Completed.

BEFORE LANDING.

- ① Landing gear - DOWN. CP
- ② Mixtures - RICH. CP, FM
3. Propellers - 2400 RPM. CP, FM
4. Aux hydraulic pump - AUTO. CP, FM
5. Boost pumps - HI. CP, FM
- ⑥ Jet engines 60% - CP, FM
- ⑦ Water injection - As required. CP
8. Water injection RESET - As required. CP
9. Cowl flaps - As required. CP, FM
10. Carb air - As required. CP, FM
11. Heaters - As required. CP, FM
- *12. Landing Gear - Visually checked down. CP
- Visually checked down and
gear pins IN. AFS/AFD
13. Seats, Safety belts, and shoulder harnesses -
Secured. ALL
14. Wing flaps - As required. P
- ⑬ Landing lights - As required. CP, FM
- ⑭ Propellers - Full increase. CP
17. Checklist - Completed.

* Reflects OPW-72-051

GO-AROUND.

- ① Power - As required. P, CP
- ② Wing flaps - TAKE-OFF (if extended). CP
- ③ Landing gear - UP. CP
- ④ Wing flaps - UP. CP
5. Carb air - As required. CP, FM
6. AFTER TAKE-OFF-CLIMB checklist -
Accomplish. FM
7. Checklist - Completed.

AFTER LANDING.

1. Anti-skid - OFF. P
- ② Jet start switches - As required. CP, FM
3. Jet generators - As required. CP
4. Wing flaps - UP. CP
5. Anti-ice/deicing - OFF. CP, FM
6. Reciprocating engine boost pumps - OFF.
CP, FM
7. Jet boost pumps - As required. CP, FM
8. Water injection - OFF. CP, FM
- ⑨ Landing lights - As required. CP
10. Troop signal lights - CAUTION. CP
11. Cowl flaps - OPEN. CP, FM
12. Carb air - As required. CP, FM
13. NAV radios - As required. CP, FM
14. IFF-SIF - As required. CP
15. Lights - As required. CP, FM
 - a. Anti-collision light - OFF
 - b. Position lights - FLASH
 - c. NAV lights - OFF.
- *16. Landing gear pins - Installed. FM
17. Checklist - Completed.

* Reflects OPW-72-051

POSTFLIGHT ENGINE CHECK.

1. Nose landing gear and parking brake - Centered and set. P
2. Mixtures - RICH. P
3. Propellers - Checked. P
4. Power and ignition - Checked. P, CP
5. Superchargers - Checked. P
6. Idle speed - Checked individually. P
7. Checklist - Completed.

RECIPROCATING ENGINE SHUTDOWN.

1. Nose landing gear and parking brake - Centered and set. P
2. Aux hydraulic pump - OFF. P
3. Aileron deice - OFF. CP
4. Power - 1000 RPM. P
5. Ignition switch safety - Checked. P, CP
6. Oil dilution - As required. P
7. Right mixture - OFF. P
8. Left hydraulic pump - Checked. P
9. APU generator - As required. CP
10. Secondary bus - As required. CP
11. Left mixture - OFF. P
12. Ignition - OFF. P
13. Troop signal lights - OFF. CP
14. All inverters - OFF. P, CP
15. Windshield heat - OFF. CP

16. AN/APN-22 altimeter - OFF. P
17. Wheel chocks - In place. FM
18. Checklist - Completed.

BEFORE LEAVING AIRCRAFT.

1. Elevator and rudder reverse locks - Released. P
2. Flight controls - LOCKED. P
3. All radios - OFF. P, CP
4. Electrical switches - As required. ALL
5. Carb air - FILTER. CP
6. IFF-SIF - As required. CP
7. Form 781 - Completed. P
8. Cowl flaps - As required. FM
9. APU generator - OFF, APU - IDLE. FM
10. Tie-down - Completed. FM
11. Pitot tube covers - Installed. FM
12. APU - Idle 5 minutes, then OFF. FM
13. Checklist - Completed.

ASSAULT PROCEDURES.**ASSAULT AFTER LANDING.**

1. Anti-skid - OFF. P
- ② Jet start switches - As required. CP, FM
- ③ Jet generators - As required. CP
4. Wing flaps - TAKE-OFF. CP
5. Anti-icing/deicing - OFF. CP, FM
6. Troop signal lights - CAUTION. CP
7. Cowl flaps - OPEN. CP, FM
8. IFF-SIF - STDBY. CP
9. Trim tabs - Set. CP
10. Secondary bus - As required. CP
11. Checklist - Completed.

BEFORE TAKE-OFF.

1. Crew briefing - Complete. P
- ② Mixtures - RICH. CP
3. Carb air - As required. CP
4. Cargo ramp, doors and hatches - Closed.
FM, (LM)
5. Troop signal lights - OFF. CP
6. Elevator and rudder reverse locks -
Released. P
- *6a. Gear Pins - Removed, doors closed. AFS/AFD
- ⑦ Jets - Start. CP, FM
8. Cowl flaps - TAKE-OFF. CP
9. Pitot heat - As required. CP

* Reflects OPW-72-051

10. Anti-ice/deice - As required. CP
11. Seats, safety belts and shoulder harnesses - Secured. ALL
12. IFF-SIF - Set/NORM. CP
13. Anti-skid - ON/checked. P
14. Checklist - Completed.

SPEEDS CHART

GROSS WEIGHT POUNDS	POWER OFF STALL V_s			NORMAL APPROACH $1.25 V_s$ $1.3 V_s$ $1.3 V_s$			OBSTACLE CLEARANCE $1.2 V_s$			TAKE-OFF & TOUCHDOWN $1.1 V_s$			FULL FLAP APPROACH	ENGINE OUT BEST CLIMB	
	FLAPS			FLAPS			FLAPS			FLAPS				JETS OFF	JETS 100%
	0°	T/O	LAND	0°	T/O	LAND	0°	T/O	LAND	0°	T/O	LAND			
40,000	76	70	64	102	97	92	92	84	78	84	77	71	84	110	120
42,000	78	72	66	104	99	94	95	86	81	86	79	73	86	110	120
44,000	80	73	68	106	102	96	97	89	82	88	81	75	87	110	120
46,000	82	75	70	109	104	98	99	91	84	90	83	77	89	111	121
48,000	83	77	72	111	106	100	101	93	86	92	85	79	91	111	121
50,000	85	78	73	113	108	102	103	95	88	94	87	80	92	112	122
52,000	87	80	74	116	110	104	106	97	90	96	89	82	95	112	122
54,000	89	81	75	118	113	106	108	99	92	98	90	84	96	113	123
56,000	91	83	77	120	115	108	110	101	94	100	92	86	98	113	123
58,000	93	85	78	122	117	110	112	103	96	102	94	88	100	113	124
60,000	94	86	80	124	119	112	114	104	97	104	95	89	102	114	124

Note: 1. All speeds listed above are indicated (IAS).

2. Engine-Out Best Climb Speeds are based on sea level altitude and maximum wet power, with propeller feathered, gear and flaps up.

Change 3 N-23/(N-24 blank)

T.O. 1C123K-1CL-1

EMERGENCY PROCEDURES

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NOTE

The urgency of certain emergencies requires immediate and instinctive action by the air crew members. These checklist items are depicted in bold print and will be memorized by the applicable crew member. Following completion of the bold print items, the applicable checklist will be completed in its entirety.

RECIPROCATING ENGINE FAILURE DURING TAKE-OFF.

After Attaining Engine-Out
Best Climb Speed

Adjust Airspeed for Directional Control.

- ① LANDING GEAR - UP. CP
- ② WING FLAPS - UP. CP
3. THROTTLE - CLOSED. P
- ④ PROPELLER - FEATHERED. CP
- ⑤ Mixture - OFF. CP
- ⑥ Fuel shutoff - CLOSED. CP

Clean-up Inoperative Engine.

1. Oil temperature - HOT. CP
2. Cowl flaps - CLOSED. CP
3. Boost pump - OFF. CP
- ④ Ignition - OFF. CP
5. Generators - OFF. CP
6. All unnecessary electrical equipment - OFF. CP
7. APU - As required. CP
8. Engines - Checked. FM
- ⑨ Jettison - As required. ALL
10. Checklist - Completed.

RECIPROCATING ENGINE FAILURE DURING FLIGHT.

Shutdown Dead Engine.

1. THROTTLE - CLOSED. P
- ② PROPELLER - FEATHERED. CP
- ③ Mixture - OFF. CP
- ④ Fuel shut-off - CLOSED. CP
5. Power - As required. P, CP
- ⑥ APU - START - RUN generator - ON.
CP, FM
- ⑦ Propeller deice - OFF. CP, FM
- ⑧ Jet engines - Start, power - As required.
CP, FM
- ⑨ Propeller deice - As required. CP, FM
10. Fuel management - As required. CP, FM

Clean-up Inoperative Engine.

1. Oil temperature - HOT. CP, FM
2. Cowl flaps - CLOSED. CP, FM
- ③ Ignition - OFF. CP
4. Generators - OFF. CP
5. Engines - Checked. FM
- ⑥ Jettison - As required. ALL
7. Checklist - Completed.

**RESTARTING RECIPROCATING ENGINES
IN FLIGHT.**

1. Propeller - DECREASE. CP
2. Throttle - CLOSED. CP
3. Fuel shutoff - OPEN. CP
4. Starter - Eight blades. CP
5. Boost pump - LO. CP
6. Propeller - Unfeathered. CP
7. Ignition - BOTH. P
8. Mixture - RICH. CP
9. Generators - ON. CP
10. Cowl flaps - As required. CP
11. Oil temperature - AUTO. CP, FM
12. Checklist - Completed.

RECIPROCATING ENGINE-OUT GO-AROUND.

- ① POWER - AS REQUIRED. P, CP
- ② WING FLAPS (if extended) - TAKE-OFF. CP
- ③ LANDING GEAR - UP. CP
- ④ WING FLAPS - UP. CP
5. Carb air - As required. CP
6. AFTER TAKE-OFF CLIMB Checklist - Accomplished. FM
7. Checklist - Completed.

RUNAWAY PROPELLER.

1. THROTTLE - RETARD. P
- ② PROPELLER - FEATHER. CP
- ③ Mixture - OFF. CP
- ④ Fuel shutoff - CLOSED. CP
5. RECIPROCATING ENGINE FAILURE
DURING FLIGHT Checklist - Completed.
CP

FAILURE TO FEATHER.

- ① Fire handle - Pull. CP
- ② Propeller lever - DECREASE RPM. CP
3. Accomplish ENGINE FAILURE DURING
FLIGHT Checklist - Completed. CP
4. Checklist - Completed.

**RECIPROCATING ENGINE FIRE DURING
GROUND OPERATION.**

- ① FIRE HANDLE - PULL. CP
- ② MIXTURE - OFF. CP
- ③ FIRE EXTINGUISHER - AS REQUIRED - (After engine stops). CP
4. Ignition - OFF. CP
5. Call tower for assistance. P, CP

If Fire Persists.

6. Mixture (good engine) - OFF. P, CP
7. Ignition - OFF. P, CP
8. Jet start switches - Shut down. P, CP
9. Electrical power source (APU, Battery) - OFF. P, CP
10. Alarm bell - ON. P
11. Abandon aircraft - All
12. Hand fire extinguisher - As required. FM

RECIPROCATING ENGINE FIRE DURING FLIGHT.

Fight The Fire.

- ① FIRE HANDLE - PULL. CP
- ② MIXTURE - OFF. CP
- ③ FIRE EXTINGUISHER - AS REQUIRED - (After engine stops). CP
4. Power - As required. P, CP
5. APU - START, RUN, generator - ON. CP, FM
6. Propeller deice - OFF. CP, FM
7. Jet engines - Start, power as required. CP, FM
8. Propeller deice - As required. CP, FM
9. Fuel management - As required. CP, FM

Clean-Up Inoperative Engine.

1. Oil temperature - HOT. CP, FM
2. Cowl flaps - CLOSED. CP, FM
- ③ Ignition - OFF. CP
4. Generators - OFF. CP
5. Engines - Checked. FM
- ⑥ Jettison - As required. ALL
7. Checklist - Completed.

JET ENGINE FIRE.

- ① JET START SWITCH - SHUTDOWN. CP
- ② JET EXTINGUISHER - DISCHARGE - (if fire is in the accessory section). CP
- 3. JET BOOST PUMP - OFF. CP
- 4. MOTORING SWITCH - MOTOR - (if required). CP
- 5. Jet generator - OFF. CP
- 6. Call tower for assistance. P, CP
- 7. All engines - Shutdown (ground operation). P, CP
- 8. Checklist - Completed.

FIRE IN FUSELAGE.

- 1. Crew - Alerted. P
- 2. All exits and vents - Closed. ALL
- 3. Oxygen or smoke masks - ON. ALL
- 4. Heater primary selector - OFF. CP
- 5. APU ignition - OFF. CP
- 6. Checklist - Completed.
- 7. Fight fire - FM (LM, N)

WING FIRE.

1. Crew and passengers - Alerted. P
- ② Jet start switch - OFF. CP
3. Jet boost pump - OFF. CP
4. Jet generator - OFF. CP
5. Wing lights - OFF. CP
6. Drop tank air pumps - OFF. CP
7. Pitot heat - OFF, if fire in right wing. CP
8. Pilot's three-phase inverter - OFF, if fire in left wing. P
9. Single-phase inverter - OFF, if fire in left wing. CP
10. Reciprocating engine fuel crossfeed - OFF. CP
11. Jet engine fuel crossfeed - OFF. CP
12. Aileron deicing distributor valve - OFF. CP
- ⑬ Fuel tanks - Jettison as necessary. CP
14. Checklist - Completed.

ELECTRICAL FIRE (SOURCE UNDETERMINED).

1. Crew - Alerted. P
2. All generators - OFF. CP
3. Battery - OFF. CP
4. Oxygen or smoke masks - On. ALL
5. Fight fire - FM (LM. N)
6. All electrical switches - Off. ALL
7. Generators - ON, one at a time. CP
8. Battery - ON. CP
9. Electrical switches - On. CP
10. Checklist - Completed.

FORCED LANDING PROCEDURE.

1. Crew and passengers - Alerted. P
2. Aircraft position - Transmitted. CP
3. IFF-SIF - EMERGENCY. CP
4. Navigator's seat - Stowed. FM
5. Jettison as required. P. FM, LM
6. APU - OFF. CP
7. Heaters - OFF. CP
8. All non-essential electrical switches - Off. CP
9. Jet engines - SHUTDOWN. CP
10. Jet boost pumps - OFF. CP
11. Landing gear - As desired. CP
12. Seats, safety belts, and shoulder harnesses secured and locked. ALL

APU EMERGENCY OPERATING PROCEDURES.

To Start The Auxiliary Power Unit Manually.

1. APU generator - OFF. FM
2. APU ignition - ON. FM
3. Governor - As required. FM
4. APU field control relay - Manually reset. FM
5. Fuel bypass valve - Open. FM
6. Altitude compensator valve - Set. FM
7. APU rewind starting handle - Pulled. FM
8. Governor - IDLE for warmup, when APU has started. FM
9. Starter - On. FM
10. Governor - RUN, after warmup. FM
11. Generator - ON, after engine has stabilized in RUN. FM
12. Battery - ON. FM
13. Fuel bypass valve - Closed. FM

**FAILURE OF ONE OR TWO RECIPROCATING
ENGINE GENERATORS.**

1. Engine generator - RESET then OFF.
2. DC voltmeter (select malfunctioning generator) - Check voltage.
3. If voltmeter reading is approximately 28 volts:
 - a. Generator - ON.
 - b. Loadmeter - Check for output.
4. If voltmeter reading is more than 28 volts:
 - a. Voltage regulator rheostat - Adjust for 28 volts.
 - b. Accomplish step 3.
5. If voltmeter reading is 0-5 volts:
 - a. Field control relay - Reset manually.
 - b. DC voltmeter - Check for 28 volts.
 - c. Accomplish step 3.
6. If unable to recover engine generator output.
 - a. Generator - OFF.
7. Checklist - Completed.
8. Maintain fire watch.

FAILURE OF THREE RECIPROCATING ENGINE GENERATORS.

1. All unnecessary electrical equipment - Off.
2. Secondary bus - MONITOR, if required.
3. APU - Start and idle.
4. Engine generator - RESET, then OFF.
Accomplish steps 1 through 8 in procedure for FAILURE OF ONE OR TWO RECIPROCATING ENGINE GENERATORS.
5. Jet engines - As required.
6. Drop tank air pumps - ON.
7. Checklist - Completed.
8. Maintain fire watch.

FAILURE OF FOUR RECIPROCATING ENGINE GENERATORS.

1. Battery - ON.
2. All generators - OFF.
3. All unnecessary electrical equipment - Off.
4. APU - Manually start and idle.
5. Field control relays - Reset manually.
6. DC voltmeter (select one generator) - Check voltage.
7. If voltmeter reading is approximately 28 volts:
 - a. Generator - ON.
 - b. Loadmeter - Check for output.
8. If voltmeter reading is more than 28 volts:
 - a. Voltage regulator rheostat - Adjust for 28 volts.
 - b. Accomplish step 7, if applicable.
9. If voltmeter reading is 0-5 volts:
 - a. Field control relay (of corresponding generator) - Reset manually.
 - b. DC voltmeter - Check for 28 volts.
 - c. Accomplish step 7, if applicable.
10. If output of generator has been recovered:
 - a. APU - Start electrically if manual starting has not been completed.
 - b. APU starter - ON.

- c. APU governor - IDLE.
- d. APU generator - RESET, then OFF.
- 11. If output of generator cannot be recovered:
 - a. Generator - OFF.
- 12. Attempt to recover the output of the other engine generators by repeating steps 6 through 11.
- 13. If output of any of the other engine generators cannot be recovered:
 - a. Engine generators - OFF.
 - b. APU governor - RUN (when warm-up is completed).
 - c. APU generator - ON.
- 14. Jet engines - As required.
- 15. Drop tank air pumps - ON.
- 16. Secondary bus - MONITOR, if required.
- 17. Checklist - Completed.
- 18. Maintain fire watch.

FAILURE OF JET ENGINE GENERATOR.

1. Generator switch - RESET, then OFF.
2. DC voltmeter (select malfunctioning generator) - Check voltage.
3. If voltmeter reading is approximately 28 volts:
 - a. Generator switch - ON.
 - b. Loadmeter - Check for output.
4. If voltmeter reading is more than 28 volts:
 - a. Voltage regulator rheostat - Adjust for 28 volts.
 - b. Accomplish step 3.
5. If voltmeter reading is 0-5 volts:
 - a. Field control relay or GCU - Reset manually at unit.
 - b. DC voltmeter - Check for 28 volts.
 - c. Accomplish step 3.
6. Generator - OFF.
(If unable to recover jet engine generator output.)
7. Checklist - Completed.
8. Maintain fire watch.

HYDRAULIC FAILURE (LANDING GEAR FAILS TO EXTEND).

1. Landing gear lever - **DOWN. CP**
2. Landing gear controllable check valve - **EMERGENCY. FM**
3. Main landing gear uplock release handles - **Pulled. FM**
4. Main landing gear - **Handcrank into locked position. FM**
5. Main landing gear ground lock pins - **Installed. FM**
6. Nose landing gear uplock release handle - **Pulled. FM**
7. Nose landing gear emergency downlock handle - **Pulled. FM**
8. Nose landing gear ground lock pin - **Installed. FM**
9. Checklist - **Completed.**

ELECTRICAL FAILURE (LANDING GEAR FAILS TO EXTEND).

1. LANDING GEAR CONTROL circuit breaker - Pulled. FM
2. Landing gear lever - DOWN. CP
3. Landing gear directional control valve - Depress down (top) button until all three struts are down and locked. FM
4. Insert ground lock pins. FM
5. Checklist - Completed.

ELECTRICAL FAILURE (LANDING GEAR FAILS TO RETRACT).

1. LANDING GEAR CONTROL circuit breaker - Pulled. FM
2. Landing gear lever - UP. CP
3. Landing gear directional control valve - Depress up (bottom) button until all three struts are up and locked. FM
4. Checklist - Completed.

Good Judgment² comes From Experience.

ALAS

Experience comes From Bad Judgment².
