EMERGENCY PROCEDURE TABS

NAVAIR 01-60FGB-1B

NATOPS PILOT'S POCKET CHECKLIST

T-28B/C AIRCRAFT

THIS PUBLICATION SUPERSEDES NAVAIR 01-60FGB-1B DATED 15 JANUARY 1964.
"BASIC AND ALL CHANGES HAVE BEEN COLLATED TO MAKE THIS A COMPLETE PUBLICATION"
ISSUED BY AUTHORITY OF
THE CHIEF OF NAVAL OPERATIONS AND
UNDER THE DIRECTION OF THE COMMANDER,
NAVAL AIR SYSTEMS COMMAND

PERFORMANCE DATA INDEX

LIFT TAB

LIST OF EFFECTIVE PAGES

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ADDITIONAL COPIES:

Additional copies of this manual and changes thereto may be procured by submitting Form DD 1348 to NPFC Philadelphia in accordance with NAVSUP Publication 2002, Section VIII, Part C.

15 MAY 1966
Changed 15 June 1970

INTERIM CHANGE SUMMARY

The following Interim Changes have been canceled or previously incorporated in this manual:

INTERIM CHANGE NUMBER(S)	REMARKS/PURPOSE

The following Iterim Changes have been incorporated in this Change /Revision

INTERIM CHANGE NUMBER	REMARKS/PURPOSE
1	Page 47 - Canopy control handle position changed to MANUAL.

Interim Changes Outstanding–To be maintained by the custodian of this manual

INTERIM CHANGE NUMBER	ORIGINATOR/DATE (or DATE/TIME GROUP)	PAGES AFFECTED	REMARKS/PURPOSE

TAKE-OFF DISTANCE

HALF FLAPS
NO-WIND

T-28B/C

TEMP — °C	FIELD ELEVATION — FEET					
	SEA LEVEL	1000	2000	3000	4000	5000
8000 POUNDS LIFT-OFF 68 KIAS						
0	600	650	700	750	800	900
20	650	700	800	850	950	1050
40	720	800	950	1000	1150	1250
9000 POUNDS LIFT-OFF 75 KIAS						
0	800	850	950	1050	1150	1250
20	950	1000	1100	1200	1350	1450
40	1100	1200	1300	1400	1600	1700
10,000 POUNDS LIFT-OFF 84 KIAS						
0	1250	1300	1450	1550	1650	1800
20	1450	1550	1650	1800	1950	2100
40	1650	1750	1900	2050	2250	2450
11,000 POUNDS LIFT-OFF 100 KIAS						
0	1950	2000	2150	2250	2400	2550
20	2100	2200	2350	2500	2700	2900
40	2350	2500	2650	2850	3100	3400

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AIR START

If engine fails in flight and altitude permits, establish 130 KIAS glide.

1. **FUEL shutoff — ON.**
2. **THROTTLE — OPEN ¾ inch.**
3. **PROP — full INCREASE RPM.**
4. **MIXTURE — RICH.**
5. **IGNITION — BOTH.**
6. **DC POWER switch:**
   (a) **Generator operating — BAT. & GEN.**
   (b) **Generator failed, fuel pressure less than 19 psi — BAT. ONLY.**
7. **Fuel pressure — check 19 to 25 psi.**
   If generator is failed, boost pump operation is regained with DC POWER switch in BAT. ONLY.

If engine fails to start:

8. **MIXTURE — IDLE CUTOFF.**
9. **THROTTLE — full OPEN to clear engine.**
10. **THROTTLE — OPEN ¾ inch.**
11. **MIXTURE — RICH.**

No start:

12. **PRIMER — Hold DOWN 1 to 2 seconds.**
    Engine start on PRIMER — Hold PRIMER, adjust THROTTLE for smoothest operation (approximately 20 to 22 inches MAP and 1400 to 1600 rpm).

POWER-OFF GLIDE

GEAR/FLAPS UP
NO WIND

BEST GLIDE SPEED — 130 KIAS

ALTITUDE (FEET)	DISTANCE (NAUTICAL MILES)	TIME (MINUTES)
30,000	54	25
25,000	45	21
20,000	36	17
15,000	27	12
10,000	18	8
5,000	9	4

MILITARY POWER CLIMB

STANDARD DAY
HIGH BLOWER ABOVE 11,000 FEET

ALL CONFIGURATIONS
NO-WIND

T-28B

GROSS WEIGHT (POUNDS)	BEST CLIMB IAS	123	122	120	118	114	108
	ALT - FT X 1000	5	10	15	20	25	30
8,000	TIME - MIN	3	4	7	9	12	15
	DIST - N MI	4	6	14	23	28	40
	FUEL - LBS	200	230	280	305	345	360
9,000	TIME - MIN	3.2	4.5	8.5	13	15	19
	DIST - N MI	4.5	9	17	29	35	53
	FUEL - LBS	210	240	295	345	375	410

T-28C

GROSS WEIGHT (POUNDS)	BEST CLIMB IAS	129	120	118	115	110	103
	ALT - FT X 1000	5	10	15	20	25	30
8,000	TIME - MIN	3	4.1	7.5	9.5	12.5	16
	DIST - N MI	4	7	14.5	24	30	45
	FUEL - LBS	200	235	290	315	360	380
9,000	TIME - MIN	4.0	5.0	9.0	13.5	14.5	20.0
	DIST - N MI	5	10	18	30	40	55
	FUEL - LBS	245	255	290	365	400	435
10,000	TIME - MIN	4.5	7	10	17	22	—
	DIST - N MI	6	11	21	39	54	—
	FUEL - LBS	255	280	335	450	500	—
11,000	TIME - MIN	6	8	12	19	—	—
	DIST - N MI	12	17	25	38	—	—
	FUEL - LBS	285	310	390	490	—	—

Fuel, time included for take-off and acceleration.
For each 10°C rise above standard temp, increase:
Time — 10%
Dist — 12%
Fuel — 7%

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FIRE

ENGINE FIRE DURING START

1. MIXTURE — IDLE CUTOFF.
2. DO NOT PRIME.
3. CONTINUE CRANKING.
4. No start — CONTINUE CRANKING.
5. FUEL shutoff — OFF.
6. IGNITION — OFF.
7. CARBURETOR AIR — DIRECT.
8. THROTTLE — OPEN.
9. If fire continues — STOP CRANKING.
10. DC POWER — OFF.
11. Signal for fire extinguisher when appropriate.
12. ABANDON AIRCRAFT.

ENGINE FIRE AFTER START

1. FUEL shutoff — OFF.
2. MIXTURE — IDLE CUTOFF.
3. THROTTLE — OPEN.
4. IGNITION — OFF.
5. DC POWER — OFF.
6. Signal for fire extinguisher when appropriate.
7. ABANDON AIRCRAFT.

FIRE (Cont)

GROUND FUSELAGE FIRE

1. FUEL shutoff — OFF.
2. MIXTURE — IDLE CUTOFF.
3. THROTTLE — CLOSED.
4. IGNITION — OFF.
5. DC POWER — OFF.
6. Signal for fire extinguisher.
7. ABANDON AIRCRAFT.

ACCESS THROUGH BAGGAGE COMPARTMENT AND BATTERY ACCESS DOORS.

ENGINE FIRE IN FLIGHT

1. FUEL shutoff — OFF.
2. MIXTURE — IDLE CUTOFF.
3. COWL FLAPS — OPEN.
4. IGNITION — OFF.
5. DC POWER — OFF.

DO NOT ATTEMPT RESTART.

6. If forced landing elected, follow EMERGENCY LANDING PATTERN procedure.

FIRE (Cont)

FUSELAGE FIRE IN FLIGHT

1. REDUCE AIRSPEED.
2. Use oxygen if available or open canopy.
3. COCKPIT HEATER CONTROL — OFF.
4. DC POWER — OFF.

If fire persists:

5. FUEL shutoff — OFF.
6. MIXTURE — IDLE CUTOFF.
7. IGNITION — OFF.
8. Fire not out immediately — BAIL OUT.
9. If forced landing elected, follow EMERGENCY LANDING PATTERN procedure.

WING FIRE IN FLIGHT

1. LANDING LIGHTS switches — OFF.
2. LANDING LIGHT CIRCUIT BREAKERS — OUT.
3. EXT MASTER lights — OFF.
4. PITOT HEATER — OFF.
5. Side slip away from fire.
6. Fire not out immediately — BAIL OUT.

FIRE (Cont)

ELECTRICAL FIRE

1. DC POWER — OFF.
2. All electrical switches — OFF.
3. DC POWER — BAT. & GEN.
   If generator is shorted, select BAT. ONLY.
4. Individually turn each system on, allowing short period before proceeding.
5. Land as soon as practicable.

SMOKE/FUMES ELIMINATION

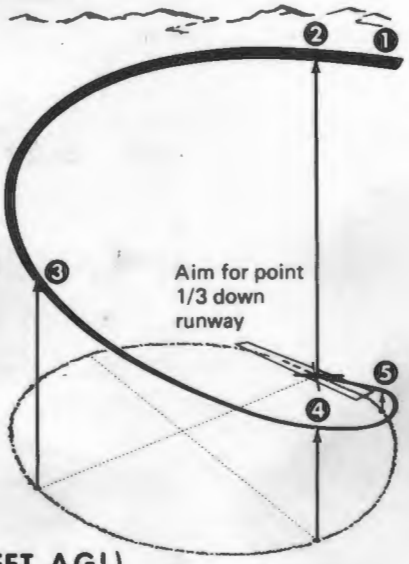
1. COCKPIT AIR CONTROL — OPEN.
2. Air outlets — OPEN.
3. Canopy defrost — ON.

If smoke or fumes persist:

4. If smoke comes from air outlets, COCKPIT AIR CONTROL — EMERG OFF.
5. OXYGEN — 100%, if available.
6. Canopy — OPEN.

EMERGENCY LANDING PATTERN

TO BE USED FOR:
- ENGINE FAILURE
- PRECAUTIONARY EMERGENCY LANDING
- SIMULATED ENGINE FAILURE
- PRACTICE PRECAUTIONARY EMERGENCY LANDING



(1) APPROACH

Gear–UP
Flaps–UP
Cowl flaps–CLOSED
Speed broke–UP
A/S–130 KIAS

(2) HIGH KEY (2500 FEET AGL)

Over intended point of landing, 130 KIAS,
THROTTLE–CLOSED
PROP–FULL INCREASE
Begin turn to LOW KEY,
Transition to 110 KIAS.

(3) LOW KEY (1600-1800 FEET AGL)

110 KIAS, Wing-Tip distance
abeam intended point of landing.
Flaps–AS DESIRED
A/S–100 KIAS minimum (Full Flaps)

NOTE
PPEL–Clear engine

(4) 90-DEGREE (1200 FEET AGL)

(5) FINAL

1800 foot straightaway
Runway assured–Gear DOWN
Canopy–EMERG OPEN*
Fuel–OFF*
D-C Power Switch–OFF*
Flaps–FULL

*Only for actual engine failure.

T-28B-1B-00-1C

ENGINE FAILURE

ENGINE FAILURE DURING TAKE-OFF

1. THROTTLE — CLOSED.
2. Maximum braking.
3. MIXTURE — IDLE CUTOFF.
4. Canopy — EMERG OPEN.
5. Flaps — UP.
6. DC POWER — OFF.

If going off runway above 15 knots on unprepared terrain:

(a) Gear — UP (hard pull necessary).

(b) Seat — LOWER.

ENGINE FAILURE IN FLIGHT

PRECAUTIONARY EMERGENCY LANDING

If any of the following is encountered, perform the following procedures and execute a precautionary emergency landing.

- **Sump plug warning**
- **Rough engine**
- **Low oil pressure**
- **High cyl head temp**
- **MAP loss**
- **Fluctuating rpm**

1. **MIXTURE — RICH.**
2. **THROTTLE — 20 to 25 inches MAP (140 to 160 KIAS).**
3. **PROP — 1900 to 2000 rpm.**
4. **COWL FLAPS — Adjust as necessary.**
5. **COCKPIT — SYSTEMATIC CHECK FOR PROBABLE CAUSE.**
6. **Fly to high key position over hard surfaced runway; execute EMERGENCY LANDING PATTERN procedure.**
7. **At high key close throttle and advance prop to full increase rpm. As power is available, use power if necessary to control descent. DO NOT secure engine.**

ENGINE FAILURE (Cont)

ENGINE FAILURE (HIGH ALTITUDE)

- **Pilot in command: Make decision to bail out or land.**
- **For bail-out, refer to BAIL-OUT; for landing:**

1. **Airspeed — Establish 130 KIAS glide.**
2. **Gear, flaps, and speed brake — UP/cowl flaps — closed.**
3. **Head toward selected field.**
4. **Execute AIR START procedure.**
5. **Communicate — MAYDAY report.**
6. **Vary turns to arrive high key on airspeed and altitude.**
7. **Execute EMERGENCY LANDING PATTERN procedure. Start flare for landing approximately 200 feet above runway.**

ENGINE FAILURE (LOW ALTITUDE)

1. **Lower nose; maintain airspeed above stall.**
2. **Gear — UP (unprepared surface or water).**
   — DOWN (prepared surface).
3. **CANOPY — EMERG OPEN.**
4. **HARNESS — LOCKED.**
5. **FUEL shutoff — OFF.**
6. **DC POWER — OFF.**
7. **FLAP handle — DOWN.**
8. **Land straight ahead.**

ENGINE FAILURE (Cont)

SIMULATED EMERGENCIES

For training, pilot initiating simulated emergency is referred to as safety pilot.

SIMULATED ENGINE FAILURE (HIGH ALTITUDE)

Not to be initiated above 5000 feet or below 2000 feet.

Conform to ENGINE FAILURE (HIGH ALTITUDE) procedure, except as follows.

Safety Pilot

Initiate simulated engine failure by reducing power to 16 inches MAP and 1600 rpm. As airspeed approaches 130 KIAS, take electrical control and extend speed brake and ½ flaps. After simulated air start, check MIXTURE RICH. In emergency landing pattern, place PROP control to full INCREASE RPM at low key. Initiate wave-off at farmer's fields to remain 300 feet AGL minimum.

Pilot

Simulate air start (safety pilot — check MIXTURE RICH). Simulate MAYDAY report on ICS to safety pilot. Simulate ½ flaps (safety pilot—close throttle); CANOPY—EMERG OPEN; FUEL shutoff—OFF; DC POWER — OFF. The safety pilot will initiate wave-off.

ENGINE FAILURE (Cont)

SIMULATED ENGINE FAILURE (LOW ALTITUDE)

Not to be initiated below 500 feet AGL or above 2000 feet AGL.

Flaps must be up and airspeed 120 knots minimum. Conform to ENGINE FAILURE (LOW ALTITUDE) procedure except as follows.

Safety Pilot

Initiate simulated engine failure by closing the throttle, placing MIXTURE RICH, and PROP control in full INCREASE RPM. Initiate the wave-off to remain 300 feet AGL minimum.

Pilot

Simulate CANOPY — EMERG OPEN, FUEL shutoff — OFF, and DC POWER — OFF. Safety pilot will initiate wave-off.

ENGINE FAILURE (Cont)

PROPELLER GOVERNOR FAILURE

HIGH RPM (LOW PITCH)

1. **THROTTLE — Retard to maintain below 2700 rpm.**
2. **Climb to load propeller.**
3. **PROP control lever — Manipulate to restore governing.**
4. **Land as soon as practicable.**

LOW RPM (HIGH PITCH)

1. **SUPERCHARGER — LOW.**
2. **THROTTLE — lowest MAP to maintain flight.**
3. **MIXTURE — RICH.**
4. **Land as soon as practicable.**

LOSS OF CONTROL

If propeller linkage fails, propeller governor controls rpm between 2000 and 2200 rpm.

REDUCED POWER CLIMB

STANDARD DAY
MAXIMUM CRUISE POWER CLIMB -
HIGH BLOWER ABOVE 15,000 FEET

ALL CONFIGURATIONS
NO-WIND

T-28B

GROSS WEIGHT (POUNDS)	BEST CLIMB IAS	115	112	111	110	108	105
	ALT - FT X 1000	5	10	15	20	25	30
8,000	TIME - MIN	5	9	13	17	21	27
	DIST - N MI	8	16	26	35	47	64
	FUEL - LBS	185	205	230	265	290	305
9,000	TIME - MIN	6	11	16	21	27	35
	DIST - N MI	10	21	32	45	60	86
	FUEL - LBS	200	215	245	280	305	350

T-28C

GROSS WEIGHT (POUNDS)	BEST CLIMB IAS	112	111	110	108	105	101
	ALT - FT X 1000	5	10	15	20	25	30
8,000	TIME - MIN	5	9	13	18	22	28
	DIST - N MI	8	17	27	39	48	67
	FUEL - LBS	190	210	240	280	300	325

(NORMAL-RATED POWER - HIGH BLOWER ABOVE 13,000 FEET)

9,000	TIME - MIN	3	6	10	14	18	29
	DIST - N MI	5	11	20	29	42	70
	FUEL - LBS	205	245	285	325	365	525
10,000	TIME - MIN	5	8	12	17	24	—
	DIST - N MI	8	15	28	40	60	—
	FUEL - LBS	235	275	320	365	405	—
11,000	TIME - MIN	6	9	14	22	—	—
	DIST - N MI	13	20	36	55	—	—
	FUEL - LBS	235	275	320	405	—	—

Fuel and Time Included For Take-off And Acceleration
For Each 10°C Rise Above Standard Temp, increase:
- Time — 10%
- Dist — 12%
- Fuel — 7%

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DITCHING

1. Check that personal equipment will not foul when leaving aircraft (PK-2 pararaft kit lanyard attached to Mae West).
2. Radio and oxygen — DISCONNECT.
3. SEAT BELT AND SHOULDER HARNESS — LOCKED.
4. Landing gear — UP.
5. SPEED BRAKE — OFF.
6. CANOPY — EMERG OPEN.
7. DC POWER — OFF.
8. FLAP handle — DOWN.
9. Make normal power-on approach if possible, flare as for normal landing, touch down with minimum sink rate.

DO NOT STALL BEFORE CONTACT WITH WATER.

- In moderate sea — Land PARALLEL TO SWELLS.
- In heavy sea (25-knot wind or more) — Land INTO SEA, attempting to touch down on UPWIND SIDE OF SWELL.

BEST CRUISE DATA - CLEAN

STANDARD DAY
CLEAN
HIGH BLOWER ABOVE 15,000 FEET

T-28B/C

ALTITUDE FEET	GROSS WEIGHT POUNDS	RPM	MAP	CAS	TAS	NO-WIND N MI/LB
SEA LEVEL	7,000	1400	25.5	150	150	0.95
	7,500	1400	26.5	155	155	0.92
	8,000	1400	27.0	158	158	0.90
5,000	7,000	1400	25.5	150	162	0.98
	7,500	1400	26.0	154	163	0.96
	8,000	1400	26.8	158	165	0.93
10,000	7,000	1500	23.7	147	179	0.99
	7,500	1500	24.5	150	181	0.96
	8,000	1500	25.2	153	183	0.94
15,000	7,000	1600	21.8	153	192	1.00
	7,500	1600	22.5	155	195	0.98
	8,000	1600	MAX	158	198	0.95
20,000	7,000	1510	MAX	147	200	1.02
	7,500	1550	MAX	148	202	0.98
	8,000	1600	MAX	150	205	0.94
25,000	7,000	1680	MAX	144	213	1.02
	7,500	1730	MAX	146	215	0.99
	8,000	1780	MAX	148	218	0.95
30,000	7,000	1890	MAX	142	230	1.03
	7,500	1950	MAX	144	233	0.99
	8,000	2000	MAX	145	235	0.96

For each 10°C rise above standard temp, increase MAP 0.5 inch, TAS 1.8%.

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AIRBORNE DAMAGED AIRCRAFT

1. Aircraft controllable — Climb, 5000 feet minimum.

2. Communicate — State trouble; Request visual inspection.

3. Check flight characteristics:

   (a) Landing configuration.

   (b) Reduce airspeed in 10-knot increments, minimum 90 knots.

   DO NOT STALL.

4. Fly wide, easy approach; if control problems exist, fly straight in, maintain airspeed 10 knots above minimum obtained during check.

BEST CRUISE DATA - STORES

T-28C

HIGH BLOWER ABOVE 15,000 FEET

ALTITUDE FEET	GROSS WEIGHT POUNDS	RPM	MAP	CAS	TAS	NO WIND N MI/LB
2 STORES						
SEA LEVEL	8000	1400	29.0	148	148	0.76
	8500	1430	29.5	150	150	0.74
	9000	1450	30.0	154	154	0.72
	9500	1500	31.0	156	156	0.70
10,000	8000	1420	26.3	143	165	0.81
	8500	1470	26.7	144	167	0.78
	9000	1500	27.0	146	170	0.76
	9500	1540	27.0	147	171	0.75
20,000	8000	1630	MAX	135	182	0.79
	8500	1680	MAX	138	186	0.77
	9000	1730	MAX	142	192	0.74
	9500	1780	MAX	144	195	0.72
4 STORES						
SEA LEVEL	8500	1430	29.5	145	145	0.70
	9000	1450	30.0	150	150	0.67
	9500	1500	31.0	152	152	0.64
	10,000	1550	32.0	155	158	0.59
10,000	8500	1470	26.7	140	162	0.73
	9000	1500	27.0	142	165	0.72
	9500	1540	27.0	144	168	0.70
	10,000	1600	27.0	148	171	0.68
20,000	8500	1680	MAX	135	182	0.73
	9000	1730	MAX	140	190	0.70
	9500	1780	MAX	142	192	0.68
	10,000	1830	MAX	146	196	0.66
6 STORES						
SEA LEVEL	9000	1450	30.0	150	150	0.65
	9500	1490	31.0	153	153	0.63
	10,000	1530	31.0	155	155	0.61
	10,500	1600	31.0	157	157	0.59
10,000	9000	1500	27.0	145	168	0.67
	9500	1540	27.0	146	170	0.65
	10,000	1600	27.0	148	172	0.64
	10,500	1650	27.0	150	175	0.63
20,000	9000	1740	MAX	142	192	0.70
	9500	1780	MAX	144	195	0.64
	10,000	1830	MAX	146	197	0.63
	10,500	1950	MAX	150	205	0.60

For each 10°C rise above standard temp, increase MAP 0.5 inch, TAS 1.8%

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BAIL-OUT

- Marginal success below 1200 feet AGL.
- Marginal success above 200 KIAS.
- 5000 feet — recommended minimum, uncontrolled flight.
- "D" ring — hard, firm pull immediately on exit.

1. Pilot in command — Warn copilot that bail-out is necessary.
2. Head toward uninhabited area.
3. Airspeed — Reduce.
4. CANOPY — EMERG OPEN.
5. Seat — raised.
6. Radio and oxygen — DISCONNECT.
7. FUEL shutoff — OFF.
8. IGNITION — OFF.
9. DC POWER — OFF.
10. Seat belt and shoulder harness — Release.
11. Pilot in command — SIGNAL COPILOT TO BAIL OUT.
12. Pilot in command — BAIL OUT.
    Rear seat pilot dive forcibly toward trailing edge of wing. The front seat pilot should roll onto the wing.

IF IN A SPIN, EXIT TOWARD THE OUTSIDE OF SPIN.

13. When clear, pull "D" ring.

BAIL-OUT (Cont)

HIGH SPEED BAIL-OUT

1. Radio and oxygen — DISCONNECT.
2. Seat belt and shoulder harness — LOCKED.
3. CANOPY — EMERG OPEN.
4. Elevator trim — full nose down.
5. Aircraft — Roll inverted.
6. Seat belt — Release.
7. When clear, pull "D" ring.

CONSTANT RPM CRUISE

STANDARD DAY
HIGH BLOWER ABOVE 20,000 FEET

CLEAN
AVERAGE WEIGHT
7500 POUNDS

ALTITUDE FEET	RPM	MAP	CAS	TAS	N MI/LB NO-WIND	LBS/HR
T-28B						
SEA LEVEL	1700 2000	30.0 31.0	190 203	190 203	0.78 0.70	244 290
5,000	1700 2000	28.0 29.0	185 199	200 212	0.83 0.73	241 290
10,000	1700 2000	27.0 28.0	181 194	209 224	0.87 0.77	240 291
15,000	1700 2000	MAX MAX	170 190	212 238	0.93 0.82	228 290
20,000	1700 2000	MAX 27.0	164 182	222 243	0.92 0.81	242 300
25,000	2000	MAX	171	251	0.89	282
T-28C						
SEA LEVEL	1700 2000	30.0 28.0	188 201	188 201	0.75 0.65	250 323
5,000	1700 2000	28.0 29.0	183 196	195 211	0.78 0.68	250 310
10,000	1700 2000	27.0 28.0	180 192	208 222	0.84 0.74	248 300
15,000	1700 2000	MAX 27.0	160 183	203 228	0.90 0.79	226 289
20,000	1700 2000	MAX 27.0	162 180	218 243	0.87 0.76	248 320
25,000	1800 2000	MAX MAX	147 162	217 238	0.90 0.86	240 277

For each 10°C rise above standard temp, increase TAS 1.8%

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FUEL SYSTEM MALFUNCTIONS

FUEL PRESSURE DROP

1. Engine-driven pump may have failed.
2. Sump boost pump will supply fuel.
3. Land as soon as practicable.

POWER LOSS ABOVE 10,000 FEET

1. Descend as required to restore normal operation.
2. Land as soon as practicable.

ENDURANCE

STANDARD DAY **T-28B/C**

HIGH BLOWER ABOVE 15,000 FEET

ALL CONFIGURATIONS 30° BANK

GROSS WEIGHT POUNDS	ALTITUDE FT x 1000	RPM	MAP	CAS	TAS	LB/HR	LB/ MIN
8000	SL	1400	23.8	100	100	140	2.35
	5	1400	22.0	95	100	170	2.83
	10	1500	20.3	88	120	180	2.98
	15	1600	20.0	88	131	200	3.32
	20	1400	MAX	88	140	220	3.66
9000	SL	1400	25.5	100	100	160	2.67
	5	1450	24.0	105	110	185	3.08
	10	1500	23.0	110	125	175	2.92
	15	1600	MAX	115	135	220	3.66
	20	1700	MAX	110	144	220	3.66
10,000	SL	1400	28.5	100	100	190	3.15
	5	1400	27.0	105	110	215	3.57
	10	1500	27.0	110	130	225	3.74
	15	1700	MAX	118	148	260	4.32
	20	2000	MAX	118	160	250	4.15
11,000	SL	1400	29.5	100	100	220	3.66
	5	1500	28.5	120	130	235	3.91
	10	1600	28.0	125	145	250	4.15
	15	1700	27.0	125	150	240	4.00

For level flight, decrease MAP 0.75 inch, fuel flow 10%.

T-28B-1B-93-7

HYDRAULIC FAILURE

To attempt to pressurize failed system:

1. **Canopy handle button — Press and hold.**
2. **Operate hydraulic hand pump to pressurize system.**

> **Hand pump will not pressurize system if failure due to other than engine-driven hydraulic pump.**

LANDING GEAR EMERGENCY EXTENSION

1. **Airspeed — 115 KIAS or below.**
2. **GEAR handle — DOWN.**
3. **Yaw if necessary to lock main gear.**
4. **Check for safe gear indication.**

CANOPY EMERGENCY OPENING

CANOPY — EMERG OPEN

If pneumatic system fails:
CANOPY — MANUAL, Pull aft.

HYDRAULIC FAILURE (Cont)

SPEED BRAKE EMERGENCY RETRACTION

SPEED BRAKE — OFF.

Brake trailed by airload.

WHEEL BRAKES

Operate normally.

CANOPY EMERGENCY STOPPING

CANOPY EMERGENCY STOP button — DEPRESS.

BOMB AND ROCKET EMERGENCY JETTISON

EMERG JETTISON handle — PULL.

On armament modified T-28C:
STORES JETTISON button — DEPRESS.

LANDING GROUND ROLL - FEET

FULL FLAPS

T-28B/C

TEMP - °C	FIELD ELEVATION - FEET: SEA LEVEL	1000	2000	3000	4000	5000	WIND
7500 POUNDS	TOUCHDOWN 75 KNOTS						
0	1250	1300	1350	1400	1450	1500	0
20	1350	1400	1450	1500	1550	1600	
40	1450	1500	1550	1650	1700	1800	
0	1000	1050	1100	1150	1200	1250	10-KNOT
20	1100	1150	1200	1250	1300	1350	
40	1200	1250	1300	1400	1450	1550	
0	750	800	850	900	950	1000	20-KNOT
20	850	900	950	1000	1050	1100	
40	950	1000	1050	1150	1200	1300	
8000 POUNDS	TOUCHDOWN 77 KNOTS						
0	1350	1400	1450	1500	1550	1600	0
20	1450	1500	1550	1600	1650	1750	
40	1550	1600	1650	1750	1800	1900	
0	1100	1150	1200	1250	1300	1350	10-KNOT
20	1200	1250	1300	1350	1400	1500	
40	1300	1350	1400	1500	1550	1650	
0	850	900	950	1000	1050	1100	20-KNOT
20	950	1000	1050	1100	1150	1250	
40	1050	1100	1150	1250	1300	1400	
8500 POUNDS	TOUCHDOWN 80 KNOTS						
0	1450	1500	1550	1600	1650	1700	0
20	1500	1600	1650	1700	1800	1850	
40	1600	1650	1750	1800	1900	1950	
0	1200	1250	1300	1350	1400	1450	10-KNOT
20	1250	1350	1400	1450	1550	1600	
40	1350	1400	1500	1550	1650	1700	
0	950	1000	1050	1100	1150	1200	20-KNOT
20	1000	1100	1150	1200	1300	1350	
40	1100	1150	1250	1300	1400	1450	
9000 POUNDS	TOUCHDOWN 82 KNOTS						
0	1500	1550	1600	1650	1700	1800	0
20	1650	1700	1750	1800	1900	2000	
40	1800	1850	1900	2000	2100	2300	
0	1250	1300	1350	1400	1450	1500	10-KNOT
20	1400	1450	1500	1550	1650	1750	
40	1550	1600	1650	1750	1850	2050	
0	1000	1050	1100	1150	1200	1300	20-KNOT
20	1150	1200	1250	1300	1400	1450	
40	1300	1350	1400	1500	1600	1800	

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ELECTRICAL FAILURE

ASC 36 NOT COMPLIED WITH

GENERATOR FAILURE

1. Instruments and radios essential:
   (a) DC POWER — BAT. ONLY.
   (b) INST. POWER — NO. 2 INV.
2. Instruments but no radios essential:
   (a) DC POWER — BAT. & GEN.
   (b) INST. POWER — NO. 2 INV.
3. Instruments and radios not essential:
   (a) DC POWER — OFF.
   (b) Conserve power by turning off all non-essential equipment.
   Pull circuit breakers if necessary.

ASC 36 COMPLIED WITH

GENERATOR FAILURE

1. Instruments and radios essential:
   (a) DC POWER — BAT. ONLY.
   (b) INST. POWER — NO. 1 INV.
2. Instruments but no radios essential:
   (a) DC POWER — BAT. & GEN.
   (b) INST. POWER — NO. 1 INV.
3. Instruments and radios not essential:
   (a) DC POWER — OFF.
   (b) Conserve power by turning off all non-essential equipment.
   Pull circuit breakers if necessary.

ELECTRICAL FAILURE (Cont)

INVERTER FAILURE

(FLT INST POWER FAILURE light on.)

1. INVERTER circuit breakers — check/Attempt reset.
2. INST. POWER — NO. 2 INV. (both cockpits). TACAN inoperative with NO. 2 INV. selected.
3. If warning light out, pull failed INVERTER circuit breaker.

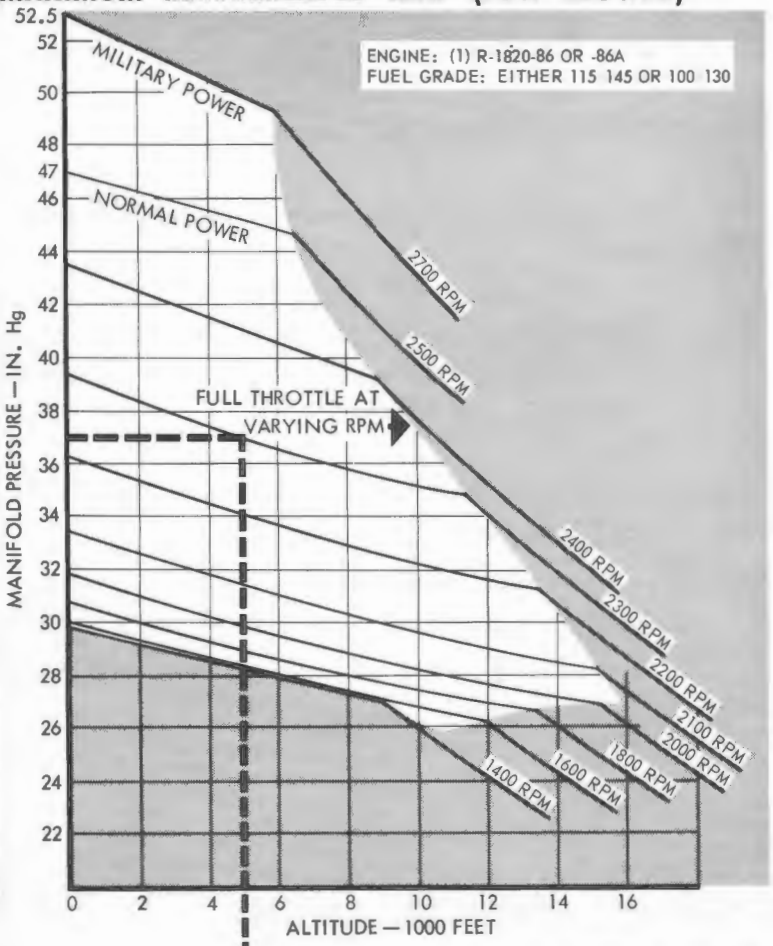
   If warning light not out, either power is interrupted to altitude gyro or both inverters have failed — check altitude gyro fuses.

COMPLETE ELECTRICAL FAILURE

If complete electrical failure occurs, land as soon as practicable.

INSTRUMENT FLIGHT NOT POSSIBLE.

MAXIMUM RECOMMENDED MAP (LOW BLOWER)



EXAMPLE: During cruise at 5000 feet and 2300 rpm maximum allowable manifold pressure is 37 inches. However, at or above 11,250 feet at 2300 rpm, full throttle is permissible.

HOW TO USE CHARTS

Enter bottom of chart at altitude; project vertically to desired rpm curve, then left horizontally for maximum recommended manifold pressure for the given rpm and altitude.

NOTE: Refer to (High Blower) chart for notes pertaining to operation.

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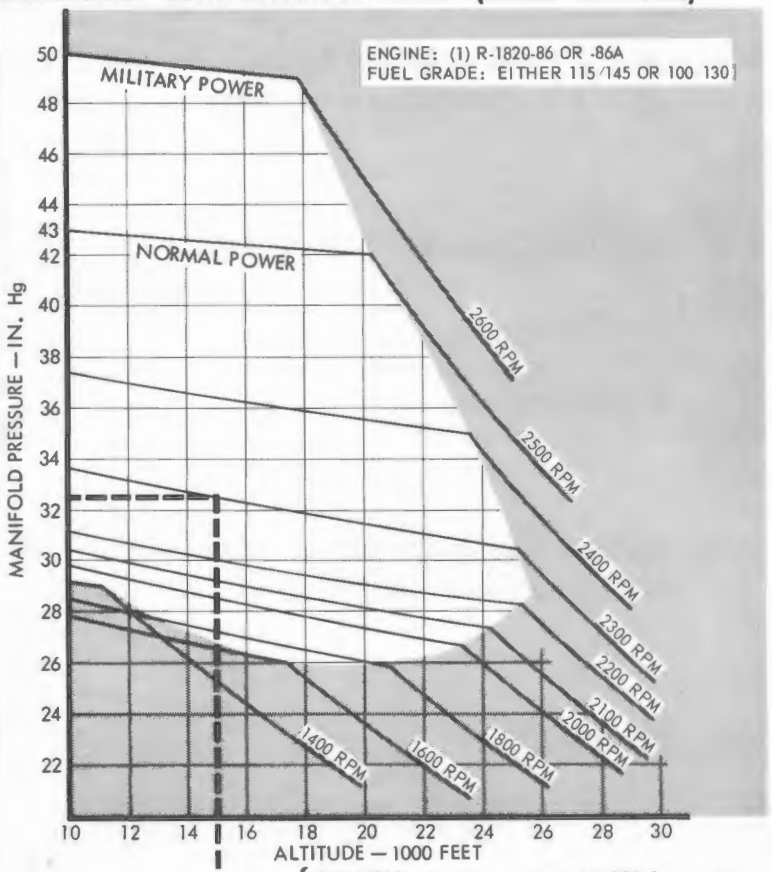
EMERGENCY COMMUNICATIONS

Any time a pilot is in urgent distress, he will transmit on GUARD channel as time permits:

1. **MAYDAY, MAYDAY, MAYDAY.**
2. **Identification.**
3. **Position (geographical or bearing and distance from fixed point).**
4. **Altitude.**
5. **Nature of emergency.**
6. **Intended actions.**

Remain on GUARD channel for assistance. If situation corrected, notify all stations on GUARD channel.

MAXIMUM RECOMMENDED MAP (HIGH BLOWER)



NOTES:

1. RPM lines to the left of the dashed line show maximum allowable manifold pressure (at the given rpm) for various altitudes at average operating speeds.
2. RPM lines to the right of the dashed line show maximum available manifold pressure (full throttle with increase in altitude at average operating speeds).
3. To increase power, first increase rpm, then adjust manifold pressure according to limits shown in the chart.
4. For all powers except Take-off, MAP should be corrected by 1/4 in. Hg per 6°C deviation of CAT from standard temperature. For temperature below standard decrease MAP; above standard, increase up to a maximum of 1 in. MAP.
5. For each 6°C increase in corburetor air temperoture above 38°C in low blower, or 15°C in high blower, the manifold pressure should be reduced 1 inch Hg.

T-28B-1B-93-10A

LOST AIRCRAFT PROCEDURE

PRIMARY PROCEDURES

1. Confess.

2. Communicate.

3. Climb.

4. Conserve.

5. Conform.

6. Know local area/ship procedures.

Refer to FLIP IFR/VFR Supplements, NWP 37(A) and NWP 41(A).

LANDING EMERGENCIES

GEAR HANDLE CANNOT BE MOVED TO DOWN POSITION

1. Place aircraft in clean configuration.
2. Check hydraulic pressure for pressurized indication.
3. If hydraulic system is pressurized, place canopy control handle in MANUAL position and hold canopy handle button in.
4. When hydraulic pressure drops to lowest pressure, lower gear handle.
5. Make normal landing.

LANDING GEAR UNSAFE INDICATION

1. Land and roll straight ahead.
2. Do not taxi until landing gear safety pins are inserted.

LANDING WITH GEAR RETRACTED

1. Establish normal flaps-down approach.
2. CANOPY — OPEN.
3. Shoulder harness — LOCK.
4. Flare out as in normal landing.
5. Prior to touchdown — SECURE ENGINE.
6. WHEN STOPPED — ABANDON AIRCRAFT IMMEDIATELY.

LANDING EMERGENCIES (Cont)

ONE MAIN GEAR UP

Gear-up landing preferable. If unavoidable:

1. Make normal flap-down approach (extended gear wing low).
2. CANOPY — OPEN.
3. Touchdown on extended gear (Hold opposite wing up).
4. ENGINE — SECURE.
5. When wing tip contacts ground — Apply maximum opposite brake.
6. When stopped — ABANDON AIRCRAFT.

NOSE GEAR RETRACTED

1. Make normal landing.
2. Secure engine on touchdown.
3. Hold nose-high attitude to reduce speed and rpm.
4. When stopped — ABANDON AIRCRAFT.

NORMAL PROCEDURES

TABLE OF CONTENTS

LINE OPERATIONS (MANNING AIRCRAFT)

1. Lower flaps manually and climb onto left wing.
2. Canopy external handle — MANUAL.
3. Slide canopies aft, using handle on frame.

COCKPIT SAFETY CHECK

FRONT COCKPIT

1. FUEL — OFF.
2. Trim — Set ZERO.
3. MIXTURE — IDLE CUTOFF.
4. GEAR handle — DOWN.
5. Accelerometer — plus 6, minus 2.
6. IGNITION — OFF.
7. Oxygen pressure — 1000 psi minimum (hose stowed).
8. Radios — OFF.
9. NO. 1 and NO. 2 INVERTER circuit breakers — out.
10. LH and RH LDG & TAXI LIGHT circuit breakers — out.
11. DC POWER — BAT. & GEN.
    (a) Voltmeter — 22 minimum.
    (b) SUMP warning light — Press to test.
    (c) Landing gear indications — all down.
    (d) COWL & OIL COOLER FLAPS — OPEN.
12. DC POWER — OFF.
13. Controls — unlocked (lock secured).
14. Firewall door closed (dzus buttons parallel with edge).
15. Canopy — check for cracks.

Night Flight Anticipated

1. With the aid of outside observer, test operation of all exterior lights.
2. Check operation of interior lights.
3. Have working flashlight available.

REAR COCKPIT

1. INST POWER — NO. 1 INV.
2. DC POWER — OFF (NORMAL — ON with ASC 36).
3. If solo:
   (a) All other switches — OFF.
   (b) Oxygen equipment — Secure.
   (c) Safety belt, harness — Secure.

EXTERIOR INSPECTION

Starting at front cockpit and moving clockwise, inspect as follows:

1. Port nose section — check:
   (a) Hydraulic reservoir fluid level above FILL line, cap secure.
   (b) Oil quantity 8.0 gallons minimum, dip stick retainer secure.

2. Port wing, upper surface — check:
   (a) Top surface; access plates and doors secured.
   (b) Fuel quantity; filler gasket and cap secure.

Drain excess fuel at this time to avoid a siphoning effect during run-up and take-off.

3. Trailing edge port wing — check:
   (a) Flap turnbuckle linkage straight; locknuts cotter-keyed, turnbuckle safety-wired.
   (b) Flaps for excessive play; pull trailing edge. Maximum 1½ inches play allowed.

(c) Aileron trim tab flush, aileron neutral; aileron movement, cables, pulleys, and turnbuckles free, alined and safetied.
(d) Static discharge wicks, proper length and security. Minimum 6 inches, 1 inch of fray.
(e) Hinges for cracks; bonding braids attached.

4. Port wing tip — check:
(a) Wing and aileron tip for breaks or scratches.
(b) Check condition of wing light.

5. Leading edge, port wing — check:
(a) Leading edge for breaks, bulges, and contour.
(b) Landing light fully retracted.
(c) Tie-down eye for security.
(d) Check for leakage at port fuel tank drain.
(e) Check port and starboard fuel tank vent outlets; 25-degree angle to skin and even.

6. Port main landing gear and wheel well — check:
(a) Wheel properly chocked.
(b) Wheel and strut fairings secure, not bent.
(c) Main wheel retaining nut cotter-keyed.
(d) Tire properly inflated and no cord showing.
(e) Striker plate set at proper angle.
(f) Uplock roller secure and free to roll.
(g) No hydraulic leaks in brake lines.
(h) Outboard brake pucks no thinner than 1/16 inch (dime).
(i) Brake disc not warped or scored.
(j) Brake disc keys fastened securely and free of cracks.
(k) Strut extended minimum of 2.5 inches (3 finger widths).

(l) Shock strut scissors retaining nut cotter-keyed. Ground safety switch securely fastened to shock strut scissors.
(m) Gear position light clean and intact.
(n) No cracks in shock strut, trunnion fitting, and trunnion pin.
(o) Downlock switch and actuating arm secured to overcenter side brace and mechanical locking pin.
(p) Downlock bungee actuating rod not bent.
(q) Wheel well for hydraulic or fuel leaks and/or loose lines.
(r) Wheel door retracting roller free.
(s) Wheel door for ease of movement to full retract position. Braces clear of fuel line.
(t) Main gear uplock hook and turnbuckle not bent or cracked and turnbuckle safety-wired. Spring properly secured to turnbuckle.

7. Port cowling, and wing root/fuselage area — check:
(a) Heater ram-air intake clear.
(b) Wing root rubber seal (top and bottom) in place.
(c) Heater exhaust outlet clear.
(d) Fuel strainer drain and 2 heater drains not leaking fuel.
(e) Pull-out step — in.
(f) Port cowling flush with fuselage, cowling release handle flush, and release handle dzus button vertical.
(g) Exhaust stacks for cracks, security, and covers removed.
(h) Cowl flap security, actuating rod straight and properly secured to cowl flap.
(i) Oil cooler flap for security, actuating rod straight and properly secured to oil cooler flap. Check for excessive oil leaks and obstructions aft of oil cooler.

8. Power plant section—check:

DO NOT PULL ENGINE THROUGH BY HAND AS DAMAGE MAY RESULT DUE TO HYDRAULIC LOCK.

(a) Oil cooler air scoop, carburetor air scoop, and generator air intake clear.
(b) Propeller dome cap cotter-keyed to dome.
(c) One of the 4 dome retainer nut lockscrews safety-wired to dome.
(d) Oil leaks around propeller dome and blade hub assembly.
(e) Prop blades for cracks or excessive nicks.
(f) Prop governor for:
  (1) No oil leaks.
  (2) Control cable seated on governor pulley, tension sufficient and turnbuckle safety-wired.
  (3) Cotter keys in 2 of the 3 locknuts on governor pulley and washer on shaft.
(g) Ensure that 5 cowling shear pins are properly secured to shear pin receptacles (about $\frac{3}{8}$ inch of the shear pin protrudes through receptacle).
(h) Ignition harness for cracks and security.
  Do not pull on harness excessively.
(i) All ignition leads properly secured to spark plugs.
(j) Push rod housings and rocker box covers for excessive oil leaks, cracks, and proper security.
(k) Cylinder heads and bodies for excessive oil leaks and cracks.
(l) Cylinder cooling fins for security.
(m) Engine sump tank for:
  (1) Excessive oil leaks.
  (2) Magnetic drain plug safety-wired.
  (3) Sump warning indicator cannon plug and lead properly secured.
(n) Area below sump for excessive oil and foreign objects.

9. Starboard cowling and nose section—check:
   (a) Exhaust stacks—same as port side.
   (b) Cowl flaps—same as port side.
   (c) Cowl release handles (2)—same as port side.
   (d) Fire extinguisher door not stuck shut.
   (e) Fuel, oil, hydraulic drains for leaks or obstruction.

10. Nose wheel well—check:
   (a) Ground wire in place and touching ground.
   (b) Nose wheel retaining nut cotter-keyed.
   (c) Tire properly inflated and no cord showing.
   (d) Gear position light clean and intact.
   (e) Oleo strut extended a minimum of 3.25 inches (4 finger widths).
   (f) Shock-strut scissors retaining nut cotter-keyed.
   (g) Striker plate for excessive gouges or roughness.
   (h) Uplock roller secure and free to roll.
   (i) Uplock solenoid actuating arm vertical.
   (j) Shimmy damper fluid level indication between full and refill marks.
   (k) No cracks in shock strut, trunnion fitting, or trunnion pin.
   (l) Spring bungee not cracked.
   (m) Excessive oil leaks in top forward section of nose wheel well.
   (n) Nose gear uplock hook not bent or cracked.
   (o) Ground safety pin installed and not binding.
   (p) Downlock switch and actuating arm securely fastened to overcenter side brace and mechanical locking pin.
   (q) Downlock bungee actuating rod not bent.
   (r) Check nose gear torque box for cracks, loose rivets or bolts.
   (s) Check 5 dzus fasteners on lower cowling forward of nose wheel well.

(t) No hydraulic leaks around nose gear actuating cylinder.
(u) Check scissors of door actuating arms for excessive gouges.
(v) Check wheel well doors, springs, and actuating arms for proper security or cracks.
(w) Hydraulic system drain for leaks.
(x) Open defueling valve access door; check valve safety-wired and not leaking.
(y) All access doors closed.
(z) Dust cover secured and dzus button slots parallel to ground.

11. Starboard main landing gear and wheel well—check:
(a) Same as port gear and wheel well.
(b) Fuel sump tank for leaks, especially in tank drain area.

12. Starboard wing—check:
(a) Same as port wing.
(b) Pitot cover removed and tube clear.
(c) Aileron trim tab preset (may not be flush with aileron).

13. Baggage compartment—check:
(a) Data case empty.
(b) Compartment door seal for tears or excessive wear. (Lack of good seal may allow carbon monoxide to enter.)
(c) Ensure latches (2) are over latch rollers and latch springs attached.
(d) Aileron yoke assembly for full throw, cracks, and proper security at all fittings.

(e) Check elevator control system for:
  (1) Full throw.
  (2) Cracks and proper security at all fittings.
  (3) Bobweight clearing control cables and not touching compartment wall at full forward position.
  (4) Bobweight bungee for cracks in housing or rod.
  (5) Elevator control cables for proper tension and security.

(f) Inspect all hydraulic lines for leaks, particularly hydraulic panel on port side and canopy actuating cylinder at top of compartment.

(g) Ensure no loose gear present in baggage compartment.

(h) Speed brake actuating cylinder boots (2) snapped in place.

(i) Canopy emergency air pressure within limits (1300 to 1980 psi).

(j) Elevator cable chafing strip installed.

(k) All control cables for tension and obstructions.

(l) Check (by trying to move) all radio units, oxygen bottles (T-28C), battery (T-28C), inverters, and canopy air bottle for proper security.
  (Some radio units are shock-mounted and should display some "give.")

(m) Check UHF control unit for:
  (1) GUARD/BOTH COMD switch at BOTH.
  (2) LOCAL/REMOTE switch wired at REMOTE.
  (3) TONE/VOICE switch wired at VOICE.

(n) Baggage compartment service light—OFF.

(o) Baggage compartment—properly locked.

14. Fuselage, starboard side—check:
    (a) Ensure canopy seal in place.
    (b) Static vent unobstructed.
    (c) Fuselage anticollision light condition.

15. Empennage—check:
    (a) Vertical and horizontal stabilizer skin for cracks.
    (b) Horizontal stabilizer leading edge for breaks, bulges, and proper contour.
    (c) Check elevator for:
        (1) Freedom of movement.
        (2) Hinges for cracks and bonding braids attached.
        (3) Counterweights for security, one at each end of each elevator.
            Each counterweight is secured by two screws and two bolts.
        (4) Static discharge wicks for proper length and security.
        (5) Trim tab flush with elevator neutral.
        (6) Trim tab actuating rod locknut tight.
        (7) Trim tab hinge pin in place.
    (d) Check rudder for:
        (1) Freedom of movement.
        (2) Hinge for cracks and bonding braids attached.
        (3) Static discharge wicks for proper length and security.
        (4) Trim tab flush with rudder neutral.
        (5) Trim tab actuating rod locknut tight.
        (6) Trim tab hinge pin in place and bent end of pin secured in hole.
        (7) Drain hole clear.
        (8) Condition of taillight.
        (9) Tail hook up and locked (T-28C, if installed).

16. Fuselage port side — check:
    (a) Same as starboard side.
    (b) Ensure empennage surface control access door secured.
    (c) Battery access door secured.
        (1) T-28B: just forward of horizontal stabilizer leading edge.
        (2) T-28C: 3 feet aft of wing trailing edge.
    (d) Oxygen filler valve access door secured (T-28B only).

PRESTART CHECK LIST

1. Rudder pedals and seat—Adjust and Lock.

Assure seat adjust lever is full forward.

2. Controls—free.
3. Control lock—Stowed.
4. COCKPIT AIR CONTROL—OPEN
5. FUEL shutoff—ON.
6. Trim—Set (0, 0, 5 right).
7. SUPERCHARGER—LOW.
8. MIXTURE—IDLE CUTOFF.
9. PROP—full INCREASE RPM.
10. THROTTLE—OPEN (¾ inch).
11. SPEED BRAKE—OFF.
12. CARBURETOR AIR—DIRECT.
13. COWL & OIL COOLER FLAPS—OPEN.
14. COCKPIT HEATER—OFF.
15. GEAR handle—DOWN.
16. LANDING LIGHTS—OFF.
17. WINDSHIELD & CANOPY DEFROST—ON.
18. Oxygen pressure—1000 psi minimum.
19. Oxygen diluter—100 percent.
20. IGNITION—OFF.

21. DC POWER—OFF.
22. PITOT HEATER—OFF.
23. INST POWER—NO. 1 INV.
24. CONTROL SHIFT—energized.
25. Navigation and cockpit lights—as desired.
26. Circuit breakers—check.

Inverter circuit breakers out; landing light circuit breakers out for day flights.

27. Radios—OFF.
28. DC POWER—BAT. & GEN.
29. Gear position indicators—DOWN.
30. SUMP PLUG warning light—Press to test.
31. Fuel pressure—13 psi minimum.
32. Battery voltage—22 volts minimum.
33. DC POWER—OFF.
34. Gear pins—removed.
35. Field barometric pressure—check.

STARTING PROCEDURE

1. DC POWER—BAT. & GEN. (OFF with APU).
2. STARTER—Depress/Turn through 8 blades minimum.
3. IGNITION—BOTH.
4. PRIMER—Depress.

If no start after 30 seconds of continuous cranking, starter must cool 3 minutes before repeating.

5. When engine starts, STARTER—Release.
   Continue priming until engine runs smooth at 1000 to 1200 rpm.

6. MIXTURE—RICH; when rpm drops, release PRIMER button.

   Oil pressure rise in 10 seconds; 40 psi in 20 seconds, or secure engine.

7. APU used—Disconnect; then DC POWER—BAT. & GEN.

8. INVERTER circuit breakers—in.

Keep cowl and oil cooler flaps open for warm-up and all ground operations.

PRETAXI CHECK

(Warm-up between 1200 to 1600 rpm.)

1. Radio equipment—as desired.
2. FLAPS—UP.
3. Hydraulic pressure—1250 to 1650 psi.
4. Altimeter—Set field elevation.
5. Clock—Set.
6. Engine instruments—check.
7. Fuel quantity—check total LEFT WING/RIGHT WING.
8. Attitude gyro—erected (cage and release).
9. Gyro compass—SLAVED and alined.
10. INST POWER—check NO. 2 INV. back to NO. 1 INV.
11. Engine fuel pump—check 1200 rpm/pull FUEL BOOST PUMP circuit breaker or (hold FUEL BOOST PUMP switch to TEST*) (21 to 25 psi).
12. IGNITION–(750 rpm) check L, R, OFF/BOTH.

***Aircraft having AFC 105 complied with**

TAXI

1. Idle engine/Signal chocks out.
2. Release brakes, roll straight ahead, and test brakes.
3. Taxi–750 to 950 rpm.
4. Check turn-and-bank indicator and gyro magnetic compass during turns.
5. Operate at 1200 rpm when stopped.
6. Taxi on hard surface areas.
7. Turn into wind for engine run-up.

BEFORE TAKE-OFF

ENGINE RUNUP

Check engine instruments in normal operating range.

1. PROP–full INCREASE RPM (1600).
2. Check 400-rpm drop at FULL DECREASE, return.
3. Loadmeter, voltmeter–check (0.3–0.5/27.7).
4. SUPERCHARGER–check HIGH/LOW (2-inch drop).
5. Engine power–check, MAP at field barometric pressure.
   (a) T-28B: 2250 (±50) rpm.
   (b) T-28C: 2150 (±50) rpm.
6. IGNITION–check (2300 rpm in T-28C).
   MAX DROP 75 rpm. If drop excessive, perform following burnout procedure:
   (a) RPM–2250.
   (b) MIXTURE–NORMAL.
   (c) Maintain 2250 rpm for 1 minute or 200° CHT whichever occurs first.
   (d) MIXTURE–RICH.
   (e) Repeat ignition check.
7. Oil pressure/idle rpm–check (1800 rpm; 65 psi minimum/approximately 750 rpm).
8. Radios–tuned and checked.
9. PITOT HEATER–checked and as desired.
10. Flight instruments–checked.

TAKE-OFF CHECK LIST

1. TRIM—check.
   (a) AILERON—0.
   (b) ELEVATOR—0.
   (c) RUDDER—5 RIGHT.
2. FLAPS—UP (check visually).
3. CANOPY—fully CLOSED.
4. Recheck: FUEL—ON, fuel pressure, full fuel load, FUEL BOOST PUMP circuit breaker in.
5. SUPERCHARGER—LOW.
6. PROP—full INCREASE RPM.
7. MIXTURE—RICH.
8. Harness—tight and LOCKED.
   COWL & OIL COOLER FLAPS—1/4 open, check controls for free and proper movement and CARBURETOR AIR —DIRECT, unless icing is anticipated.

TAKE-OFF

1. Align nose wheel with runway and hold brakes.
2. THROTTLE—30-inch MAP.
3. Engine instruments—check.
4. Release brakes, advance to 48-inch MAP (Max 52.5-inch MAP).
5. Rudder effective above 30 knots.
6. Lift-off 85 to 90 KIAS (no flaps); 70 to 75 KIAS (1/2 flaps).

AFTER TAKE-OFF

1. Brakes—Apply, GEAR—UP.
2. THROTTLE—36-inch MAP, PROP—2400 rpm.
3. Accelerate to normal climb schedule.

CLIMB

Normal (sea level) — 140 KIAS, 36-inch MAP, 2400 rpm.
Maintain MAP—IAS reduces 1 knot/1000 feet.

1. Maintain MAP during climb.
2. Monitor cylinder head and oil temperatures.
3. HIGH blower required above 15,000 feet.
4. MIXTURE—NORMAL, at cruise altitude.

CRUISE

- 170 KIAS below 10,000 feet.
- 155 KIAS above 10,000 feet.

DESCENT — 170 KIAS

1. Defrost—as required.
2. SUPERCHARGER—LOW.
3. MIXTURE—RICH.
4. COWL FLAPS—CLOSED.
5. SPEED BRAKE—as desired.
6. Power—1400 rpm/16-inch MAP (minimum).
7. Clear engine periodically.

LANDING

LANDING CHECK LIST

1. CARBURETOR AIR—as required.
2. Harness—LOCKED.
3. SUPERCHARGER—LOW.
4. MIXTURE—RICH.
5. HOOK—as desired (T-28C).
6. CANOPY—CLOSED.
7. Wheels, propeller, flaps to go (2200 rpm recommended).

BREAK

1. Assume desired bank angle.
2. THROTTLE—15-inch MAP.
3. SPEED BRAKE—ON (extend).
4. GEAR—DOWN (below 140 KIAS).
5. SPEED BRAKE—OFF (retract).
6. Slow to 120 KIAS.
7. PROP control—2400 rpm.

FULL-FLAP LANDING

1. Approaching abeam intended point of landing:
   (a) THROTTLE—20 inches MAP.
   (b) PROP control—full increase.
   (c) FLAP handle—DOWN.
2. Abeam intended point of landing: Transition to arrive at 90-degree position at 100 KIAS.
3. Intercept landing line:
   (a) 150 to 200 feet altitude.
   (b) 1200 feet straight away to touchdown.
4. Level wings, transition to 90 KIAS.
5. Start flare-out at 5 to 10 feet altitude.
6. On rollout, lower nose wheel as elevator becomes ineffective.

WAVE-OFF

1. Advance THROTTLE smoothly.
   (Do not exceed 52.5 in. Hg.)
2. Establish climb attitude.
3. GEAR—UP.
4. COWL FLAPS—OPEN as necessary.
5. FLAP handle—UP (300 feet or above).

AFTER LANDING (CLEAR RUNWAY)

1. COWL FLAPS—OPEN.
2. PITOT HEATER—OFF.
3. CANOPY—as desired.

ENGINE SHUTDOWN

1. COWL FLAPS—OPEN.
2. Ignition ground (idle)—check.
3. Idle mixture—checked.
4. Scavenge engine at 1200 rpm for 60 seconds.
   Allow cylinder-head temperatures to stabilize.
5. MIXTURE—IDLE CUTOFF/THROTTLE—CLOSED.

After propeller stops:

6. FUEL—OFF.
7. DC POWER—OFF.
8. IGNITION—OFF.
9. Gear pins—in.
10. Accelerometer—in limits.
11. Oxygen—minimum 1000 psi.
12. Light switches—OFF.
13. Radios—OFF.
14. INVERTER circuit breakers—pulled.
15. Controls—locked.
16. Trim tabs—neutral.

Do not set the parking brakes if wheel brakes are overheated.

POSTFLIGHT

Inspect aircraft for hydraulic, fuel, and oil leaks.

SPECIAL PROCEDURES

TABLE OF CONTENTS

ARMAMENT OPERATION

FIRING GUNS

1. ARMAMENT MASTER — ON.
2. ARMAMENT SELECTOR — GUNS.
3. FIRE CONTROL select — GUNS.
4. GUN FIRING — SAFE, then READY (gun charging).
5. Sight reticle — as desired.
6. DIMMER — Adjust as desired.
7. Sight masking — as desired.
8. Target spanner — Set for target.
9. Throttle grip — full clockwise (sight caged).
10. Track target while ranging with throttle grip.
11. In range — Depress trigger.

FIRING ROCKETS

1. ARMAMENT MASTER — ON.
2. Sight reticle — GYRO or FIXED & GYRO.
3. Sight masking — as desired.
4. Throttle grip — full clockwise (sight caged).
5. DIMMER — Adjust as desired.
6. ARMAMENT SELECTOR — ROCKETS.
7. FIRE CONTROL select — ROCKETS.
8. STATION SELECTOR — as desired.
9. STATION SELECT ADVANCE — as desired (T-28C mod).
10. DIVE ANGLE — as desired.
11. Track target.
12. To fire, depress R button.

BOMB RELEASE

1. ARMAMENT MASTER — ON.
2. Sight reticle — GYRO or FIXED & GYRO.
3. Sight masking — as desired.
4. Throttle grip — full clockwise (sight caged).
5. DIMMER — Adjust as desired.
6. FIRE CONTROL select — BOMBS.
7. ARMAMENT SELECTOR — as desired.
   (a) ARMAMENT SELECTOR — BOMBS (T-28C mod).
   (b) STATION SELECTOR — as desired (T-28C mod).
   (c) STATION SELECT ADVANCE — as desired (T-28C mod).
8. BOMB ARMING — NOSE & TAIL or TAIL ONLY.
9. To release, depress B button.

TOW-TARGET OPERATION

EXTERIOR CHECK

1. Container or carrier secure — check.
2. Container release latch lock cord — check secure.
3. Tow ropes hooked properly, release cocked — check.

LAUNCH

1. Speed — Reduce to 120 KIAS or less.
2. Turn into target to be launched.
3. LAUNCH TARGET — Depress.
4. Maintain turn until launch is completed.
5. To drop, depress DROP TARGET/DROP TARGET CONTAINER.

FLIGHT

1. Sleeve — limit 200 to 260 KIAS.
2. Banner — limit 180 to 210 KIAS.

RELEASE

On command — Depress DROP TARGET.

EMERGENCY

EMERGENCY JETTISON EXT STORES — Depress.

REFERENCE DATA

TABLE OF CONTENTS

LIMITATIONS

AIRSPEED LIMITS

Gear, flaps, hook retracted (limit — KIAS)

Below 2500 feet — 340 (clean), 295 (stores).

2,500 to 15,000 feet — 315 (clean), 270 (stores).

15,000 to 20,000 feet — 290 (clean), 265 (stores).

20,000 to 25,000 feet — 275 (clean), 240 (stores).

Above 25,000 feet — 225 (clean), 190 (stores).

Gear, flaps, or hook extended — 140 KIAS.

Landing lights extended — 120 KIAS.

GROSS WEIGHT LIMITS

Field landing maximum (T-28B) — 8600 pounds.

Field landing maximum (T-28C) — 10,900 pounds.

Arrested landing maximum (T-28C) — 8300 pounds.

ALLOWED MANEUVERS

Inverted flight (zero or negative "g") — 10 seconds.

Loop.

Immelmann.

Aileron roll.

Wing-over.

Chandelle.

Upright spins (no stores, gear/flaps up, idle rpm).

ENGINE LIMITS

	MINIMUM	CONTINUOUS	MAXIMUM
Oil Pressure (PSI)	65	65—75	90
Oil Temperature (°C)	40	75—90	95
Cyl Head Temp (°C)	150 (take-off)	150—230	245 (continuous) 260 (take-off)
Carb Air Temp (°C)	−10 to +5 (icing)	15—38 (low blower)	38 (low blower) 15 (high blower)
RPM	1400 (flight)	1400—2500	2700 (low blower, 30 minutes) 2600 (high blower, 30 minutes)
MAP (In. Hg)	18 (flight)	18—47	52.5 (5 minutes) 51.5 (30 minutes)

1. See MAXIMUM RECOMMENDED MAP charts.
2. T-28C: Avoid ground operation between 1900 and 2200 rpm.
3. Do not throttle burst at, and above, 2500 rpm.
4. Oil pressure:
   Minimum 10 seconds after start — above zero psi.
   Minimum 20 seconds after start — 40 psi.
5. Blower shift (airborne, LOW to HIGH):
   (a) MAP — 20 inches maximum.
   (b) RPM — 1600 maximum.
   (c) Minimum of 5 minutes between LOW to HIGH shifts.

WEIGHT TABLE

ITEM	WEIGHT (POUNDS)
T-28B, Full Fuel, 2 Crew	8250
T-28C, Full Fuel, 2 Crew	8400
T-28C (Mod), Full Fuel, 2 Crew	8550
Arm Kit, Aero 1A	100
Gun Pod, .50 Cal, 100 Rounds (2)	308
Bomb Rack, MK 51 Mod 14 (2)	40
Bomb Container, Aero 4B (Empty)	40
(6) MK 5 Practice Bombs	18
(8) MK 23 Practice Bombs	24
(8) MK 43 Practice Bombs	34
Practice Bomb, AN/M38A2	100
3x2.25-inch Scar, Supports, Launcher	67
Pylon, Aero 15C-1	27

SERVICING SPECIFICATIONS

MATERIAL	SPECIFICATION	NATO CODE
Fuel — Recommended (115/145)	MIL-G-5572 (115/145)	F-22
— Emergency (100/130)	MIL-G-5572 (100/130)	F-18
No Intermix Limit		
Oil — Primary (Dispersant)	MIL-L-22851	None
— Alternate (Grade 1100)	MIL-L-6082	O-117
— Cold Alternate (Grade 1065)	MIL-L-6082 (below 25°F)	O-113
Hydraulic Fluid	MIL-H-5606	H-515
Oxygen, High-pressure	MIL-O-21749 (I)	None
Oxygen, Alternate	MIL-O-27210 (USAF)	None
Nitrogen, High-pressure	MIL-N-6011	None

ELECTRICAL UNITS

28 volts dc, 200 amps minimum for starts.

USN UNITS		USAF UNITS			
NC-2A					
NC-5	NC-8	A-1	A-7	B-10B	MD-3, 3A, 3M
NC-6	NC-10	A-3	AF-M32A-10	C-22	MC-1
NC-7	NC-12	A-4	B-10A	C-26	MA-1,2,3MP

HIGH-PRESSURE AIR (PRESAIR)

USN UNITS	USAF UNITS
515 PH3MS1 (Joy) P4R156-B (Ingersol)	ACE-37A MC-1 (Joy) MC-11 (Ingersol) MA-1,2,3MP

REFUELING

Grade 115/145 or 100/130 fuel.

1. Check aircraft for proper grounding.
2. Ground hose nozzle to fuel cap receptacle.
3. Remove cap and fill to neck lip.
4. Replace cap and remove ground.
5. Repeat steps 2 through 4 for opposite wing.

OIL SYSTEM

MIL-L-22851 dispersant oil.

1. Open door and remove cap.
2. Check oil level with dip stick.
3. Add oil as necessary to spill-over level.
4. Reinstall cap, lock dip stick, close door.

HOOK SNUBBER (T-28C)

Nitrogen, MIL-N-6011.

1. Open door and check gage.
2. Nitrogen service to 350 — 450 psig (HOOK — UP) and close door.

GEAR STRUTS

Nitrogen, MIL-N-6011.

STRUT	FIELD (INCHES)	FCLP
Nose	3.25 (± 1/8)	3.25 (± 1/8)
Main	2.50 (± 1/8)	2.50 (± 1/8)

OXYGEN

MIL-O-21749(I).

T-28B — Left Fuselage.

T-28C — Baggage Compartment.

1. Regulator emergency valves — CLOSED.
2. Regulator SAFETY PRESS plungers — out.
3. Open cart regulator screw; slowly open supply valve.
4. Close regulator screw; build 1900 to 1950 psig.
5. Remove filler cap and attach hose.
6. Open supply valve; fill slowly to 1900 — 1950 psig on cockpit indicators.
7. Close supply valve, grip hose firmly and disconnect.
8. Check filler for leakage and replace cap.

CANOPY AIR BOTTLE

PresAir.

1. Check gage and service to 1980 psig.
2. Tighten swivel nut to 50 — 70 inch-pounds.

TIRE PRESSURE

PSI.

TIRE	FIELD (AIR)	FCLP (NITROGEN)
Nose	80	150
Main	55	110

BATTERY

Normal hydrometer — 1.275 to 1.300.

Replace if corrected reading below 1.240.

ELECTROLYTE TEMP (°F)	CORRECTION
140	+0.024
120	+0.016
100	+0.008
80	Zero
60	−0.008
40	−0.016
20	−0.024
0	−0.032
−20	−0.040

HYDRAULIC SYSTEM

MIL-H-5606 Fluid.

1. Open door, check sight gage.
2. If low, proceed:
   (a) FLAPS — DOWN.
   (b) CANOPIES — OPEN.
   (c) SPEED BRAKE — CLOSED.
   (d) HOOK — UP (T-28C).
   (e) Fill to "FULL" on sight gage.
   (f) Replace cap and close door.

CAPACITIES

CAPACITIES	U.S. GAL	U.S. QTS	IMPERIAL GALLONS	LITERS	
Wing Fuel Tank (each)	87.5		72.9	330.2	
Sump Fuel Tank	3.0		2.5	11.4	
Total Fuel	178.0		148.3	671.8	NEW
Oil Tank — Usable	8.8	35.2	7.3	33.3	
— Unusable	3.4	13.6	2.8	12.9	
Oil Tank Total	12.2	48.8	10.1	46.2	NEW
Hydraulic Reservoir	2.5		2.1	9.5	
Hydraulic System	4.5		3.7	17.0	

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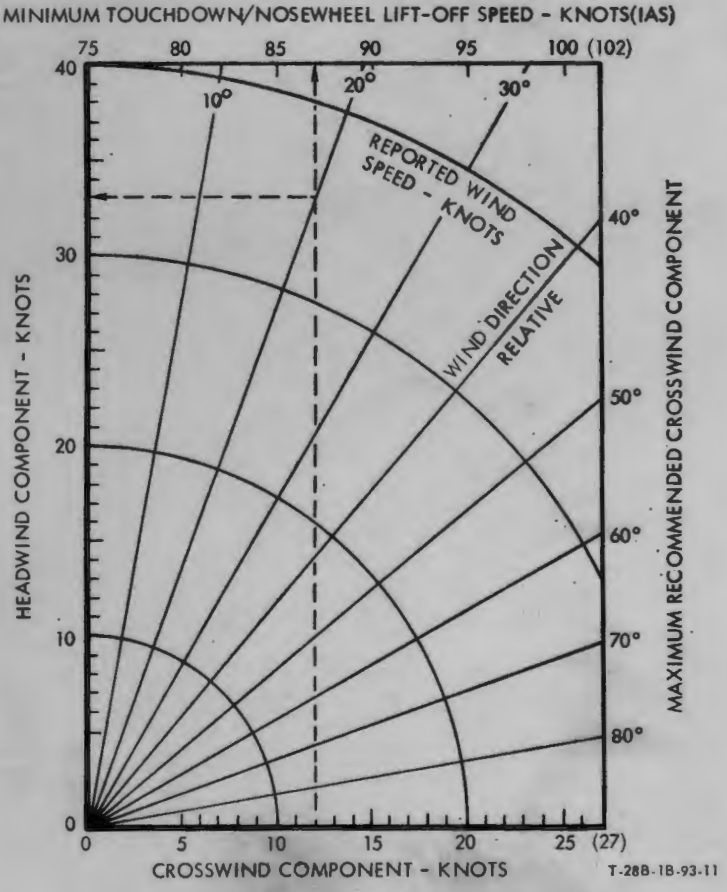
CAPT. MIKE HAMMER

NAVWEPS 01-60FGB-1B

CROSSWIND COMPONENT

TO DETERMINE CROSSWIND COMPONENT: (1) LOCATE REPORTED WINDSPEED ON RELATIVE BEARING LINE; (2) FROM INTERSECTION OF WINDSPEED AND BEARING, DROP VERTICALLY TO BASELINE TO FIND CROSSWIND COMPONENT; (3) FROM INTERSECTION, PROJECT A LINE HORIZONTALLY TO FIND HEADWIND COMPONENT. (4) PROJECT VERTICALLY TO FIND MINIMUM TOUCHDOWN/NOSEWHEEL LIFT-OFF SPEED.

EXAMPLE
REPORTED WIND OF 35 KNOTS, 20 DEGREES OFF RUNWAY
CROSSWIND COMPONENT = 12 KNOTS
HEADWIND COMPONENT = 33 KNOTS
MINIMUM TOUCHDOWN/NOSEWHEEL LIFT-OFF SPEED = 87 KNOTS.



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Inside Back Cover

Acrobatics ✓ List

180 KIAS 2200 RPM Mix - Rich

STALL CHECK LIST

1. MIX - RICH
2. RPM - 2400
3. BILGES - CHECKED
4. Seat Belt - Locked

APPROACH TURN STALL

1. Transition to SLOW FLIGHT
2. Complete clearing Turns with 20° and assume 90 Kt attitude
3. Roll into 30° angle-of-bank turn and maintain 90 Kt.
4. Raise nose and close throttle. Maintain LOF bank and attitude until aircraft stalls.
5. Lower nose, level wings, Add Pwr. To max allowable.

[redacted] 20K Max Cats 55K

Nose App 90K

Eng Acc 8-10 sec 3-4 sec Normal