T-3A FIREFLY QUICK REVIEW

CHAPTER 1

T-3A DASH 1

WARNING: personal injury or loss of life.

CAUTION: damage.

NOTE: emphasize.

Shall or Will is mandatory. Should or May isn’t.

Technical: a technique, not procedure.

Wing Span-35' 2", Length-24' 9".

Landing Gear:

Don’t restart with fuel fumes.

Cannons:

Service ceiling is 19,000 ft.

Turbulence penetration is 120 KIAS.

If prop stops duringacro, use start button to restart, can dive to windmill @ approx. 115 KIAS, from 72 KIAS uses 600-800 feet.

PROP FAILURE: Will not increase: Check oil press, Manifold pressure > 15, exercise prop control, if no response, set mid-range, lower. Over-speeds or won’t decrease: Adjust throttle (around 40), prop control mid-range, slow to 80, land.

Cockpit Field Light: Close air and heat vents, canopy window slide open (sucks air), assess fire damage.

Do not isolate electric fire.

SMOKE’N FUME ELIM: Hot air off, fresh air open, windows slightly open, land, if foul fumes. (Don’t turn electrical components on or off) shut down when landing assured (tech: high key).

ASYMETRICAL FLAPS: Raise good flap if no damage, fly no flap.

CANNONS: Leaning with right flap on, 65 to 70, on right spin, 800 to 850 rpm.

Don’t use spin recovery.

NOTE: emphasize.

CAUTION: damage.

Max takeoff, landing pressure altitude is 8000 ft. at 50°C (Density Altitude of 12,300 ft). • If temp > 38°C (100°F) switch test temp, CHT, and Oil temp. Min. temp for winterization: -20°C (-4°F). • Danot is found front of firewall. 

Cht: 30°C to 32.4 inches. • Max weight for takeoff and Idg.: 2525.

No vertical stalls (tailslides) or inverted spins or aerobatics with soft 

5.1 bar) Oil cooler closed at 85°C C 0.2 Oil 0 limit.

Left mag has shower spark device.

Low oil pressure when cold is OK. Oil press relief approx. 75 PSI (5.1 bar).

-100 ft, 180 final, 150 on final. • No Flap: 85 final turn, 75 final, touchdown at not less than 53 KIAS.

Rectangular Landing Pattern: 95 KIAS, slow to 85 before base, 180 and 185, 65 and 65 on final. No Flap: 85 final turn, 75 final, touchdown at not less than 53 KIAS.

Gusting crosswind: add 5 KIAS to final.

Downwind is ½ to ¼ mile.

Short Field Landing: 40 KIAS, approaching threshold, slow to 58, (48 is stable speed) carry power, lower nose wheel immediately, apply max braking, move stick aft. WARNING: Watch for sink.

Closed Pattern: min. 90 KIAS. After takeoff check completed, mid-field before request, 90 KIAS min. during climbing turn.

Ignition grounding check: if engine stops leave ignition switch off.

CHAPTER 3

EMERGENCY GROUND EGRESS (Emergency Engine Shutoff on Ground):

If Parking brake, landing gear, harness, canopy, breather, tool: WARNING: Watch for AC, props.

ABORT: smooth, even brake application.

PARTIAL ENGINE FAILURE: bad EDP, fuel leak, fuel distribution, spark plugs, magneto, fuel selector, oil system.

Fuel flow: shut engine down when landing assured (tech: high key). Indications: fluctuating RPM, high oil temp, rough sounding or running engine.

SPIN RECOVERY: Throttle idle, raise flaps, stick full aft and neutral, determine direction out and in, opposite rudder and hold, pause 1 second, smoothly move stick forward of neutral to break stall, spinning stops, neutralize rudder, recover from dive. WARNING: With CG at rearward limit, full forward stick may be needed for spin recovery. Do spin suppression drill if spin by one turn after full anti-spin controls: check rudder anti-spin, stick to rear stop, then stick forward.

Greatest glide distance is 72 KIAS.

Don’t restart with fuel fumes.

CHAPTER 6

Don’t pull too hard over-the-top.

HAMMERHEAD: 120, 50 KIAS.

SNAP ROLL: 90 KIAS medium.

High speed dive is greatest hazard to operations (split S). Stall horn 5-10, light buffeted 2-3 KIAS above stall.

After stall recovery check man. press. within 4.

At full power stall speed 5 less than idle.

Multiple poultry on runway, watch engine oil & CHT.

Stall @ 48 with 0 bank and 40 KIAS.

INTENTIONAL SPINS: Idle, 5 above stall full aft stick, neutral ailerons, full rudder. Developed spin 30-40° nose low, rotation just over 2 seconds per turn (MAN 3-3 says 3 sec.).

WARNING: Lose approx. 300 per turn, 700 dive recovery, allow additional 1000 feet safety margin. From developed spin, recovery takes 1 - ¼ turns. Right spin may take ½ to ¼ turn more. WARNING: Always use flt. manual spin procedure to recover.

Spin: 150, 300+ rpm, 200 RPM, direction in and out, opposite rudder and hold, pause 1 second, smoothly move stick forward of neutral to break stall, spinning stops, neutralize rudder, recover from dive. WARNING: With CG at rearward limit, full forward stick may be needed for spin recovery. Do spin suppression drill if spin by one turn after full anti-spin controls: check rudder anti-spin, stick to rear stop, then stick forward.

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Greatest glide distance is 72 KIAS.

Don’t restart with fuel fumes.
Best Endurance at 10,000' is 94 KIAS (equals 109 TAS).

**AETC REG 55-4 (T-3A OPS)**

40 minutes min. between brief and TO for non-student sorties. One hour for SP sorties. No arms on rails. Nothing on glare shield. Don’t approach from front of AC. Min. 2 AC lengths during taxi. Avoid excessive power during taxi.

**PROHIBITED MANEUVERS:** (IF IN SEAT) IMC, Formation, Icing (known or forecast), Night flight, Spins with flaps or inverted, Engine shutdown in flight for practice. Aerobatics with flaps or temp > 55, Tailslides, Touchdowns from SFLs except on prepared surfaces at authorized airfields.

For solo students no: no-flaps or straight-in.

Min. fuel 9, 12 solo. Enter 6-gallons at final touchdown.

Min. runway 2500 x 50 feet. Don’t cross threshold with less than 3000 ft or other AC airborne.

With AC inside 2 mile final, don’t turn final unless in sight, can fly normal final, and have normal spacing behind him.

Crosswind limits 25, 10 solo. Max wind 35. Restricted low approach 300 ft AGL. Perform all parts of spins, stalls andacro > 1500 ft.

Must do HASSELL check. (Height, Airframe, Security, Engine, Location, Lookout) before stalls or spins. Brief all airborne simulated emergencies. Can’t fly without position lights.

**AETC MAN 3-3 VOL 1**

**RADIO FAILURE:** Normal overhead, rock wings on initial, watch for lights, flash taxi light on final. Squawk 7600 (7500 is hijack).

**AIRSPEED INDICATION PROBLEM:** fly straight-in, use power settings (tech: 20 ODW, 18 base, 2100 final).

Energy gain: PO stalls, chandelle, nose-high recovery, Lazy 8. AGSM: breathe every 3 seconds.

**STALLS:** Caused by exceeding critical AOA (angle between chord and relative wind). Affected by: weight, power, G, configuration.


**SLOW FLIGHT:** SCATSAFE: Straight and level, Control effectiveness, Adverse yaw, Turns, Steep turns, increase pitch attitude, raise Flaps, coordination Exercise. ELEc Failure: fly 400' over RSU, pull closed.

**EAGLE R06 #1 DEPARTURE LEG (OUTSIDE DOWNWIND) DEPARTING:** SPRINGS APPROACH R06 WOODMEN ROAD PASSING 8100 FOR 9500 SOUTHWEST (WITH ALPHA); EAGLE R06 CORRAL REQUEST AREA; R06 ESTABLISHED IN AREA X; EAGLE R06 CORRAL FOR BULLSEYE; BULLSEYE R06 CORRAL, BULLSEYE R06 LOVE; R06 ENTRY (REQUEST ST IN); R06 INITIAL (REQUEST EAST BREAK); EAGLE R06 DEPARTING BULLSEYE REQUEST AREA (CLEARANCE TO ACADEMY); EAGLE R06 AREA X REQUEST CLEARANCE TO BULLSEYE; EAGLE R06 REQUEST RECOVERY FROM AREA X; SPRINGS APPROACH R06 CORRAL AT 8500 SOUTHEAST ARRIVAL: ACADEMY TOWER R06 FOREST (PALMER); R06 IN THE BREAK (at AFF); R06 CLEAR OF THE ACTIVE.


RESTRICTED PATTERN: 1600-3 no breakouts, max 6 AC. WX SHIP: 1300-3, STOP LAUNCH: 1300-3.

STANDBY: forecast to improve. STAND DOWN: terminated.


Must monitor 243.0. Woodmen departure used for Calhan andNortheast areas. Woodmen to LOVE: climb at CORRAL to 11,500', to BRIDGES: take Garet Road, when clear of Meadow Lake Airport climb to 11,500' direct BRIDGES, to EASTON: east of Meadow Lake, direct EASTON.

Areas to Bullseye @ 8500', call LOVE to Eagle ½ mile prior to LOVE, then call LOVE to Bullseye.

Bullseye to areas @ 8000'

At KANE: Area-11,500', AFF-8500', BLS-7500'.

All recoveries at 8500', squawk 2 miles prior to CORRAL.

IP lands on rwy 26. Pattern spacing: 1500 air, 3000 rwy and other light aircraft. Takeoff 2 minutes behind UV-18. Turn crosswind 200° AGL, 90 KIAS, good spacing. Closed traffic: midfield, 90 KIAS, 200° AGL. "STANDBY" straight ahead at or below 400' AGL. Break zone is first half of rwy. "DISCONTINUE" continue to 2 mile point, go around from pattern, twr calls wind. RSU Restricted Low Approach-300° AGL, Tower Restricted Low Approach-500° AGL.

Bullseye: 10 AC max, 8 with solo, pattern alt 6900'.

Buts: 8 AC max, 6800'. COS: 2 AC norm, 4 with SOF coordination, 7000'. APA: A tower determines max. 6800'.

SFLs: AFF, BLS (with RSU), Butts, COS, APA, PUB.

Radio Failure: Squawk 7600, Ldg light on, rock wings at entry and initial.

Elec Failure: fly 400' over RSU, pull closed.

WX Recall, IP lands: Lost: climb to 12,000, 90 KIAS.

Non-Student Flying: senior raking IP (not officer) is PIC. Minimum altitude is 1000' AGL.

**BOLD FACE**

EMERG ENG SHUTDOWN ON THE GROUND MIXTURE-CUTOFF FUEL SELECTOR-OFF IGNITION SWITCH-OFF MASTER SWITCH-OFF ABORT THROTTLE-IDLE BRAKES-AS REQUIRED ENG FAIL IMM AFTER TO OR LOW ALTITUDE GLIDE-ESTABLISH MIXTURE-CUTOFF FUEL SELECTOR-OFF IGNITION SWITCH-OFF COMPLETE ENGINE FAILURE DURING FLIGHT/FORCED LANDING GLIDE-ESTABLISH ENGINE FIRE MIXTURE-CUTOFF FUEL SELECTOR-OFF IGNITION SWITCH-OFF ELECTRICAL FIRE ALTERNATOR-OFF MASTER SWITCH-OFF ✋