DEPARTMENT OF THE NAVY
COMMANDER
TRAINING AIR WING FIVE
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MILTON, FLORIDA 32570-6017

IN REPLY REFER TO
COMTRAWINGFIVENOTE 1542
N3
11 Apr 13

COMTRAWING FIVE NOTICE 1542

From: Commander, Training Air Wing FIVE

Subj: T-6B INSTRUMENT TRAINING OPTIMIZATION PILOT PROGRAM FOR THE STRIKE PIPELINE

Ref: (a) CNATRANOTE 1542
(b) CNATRAINST 1542.167

Encl: (1) TRAWING FIVE Standardization Note for T-6B Instrument Training Optimization Pilot Program (ITOPP) FTI Addendum

1. Background. The TRAWING FIVE Flight Instructor Training Unit (FITU), has been designated the ITOPP Subject Matter Expert. In developing the program the FITU established procedures to supplement references (a) and (b).

2. Action. The procedures contained in enclosure (1) shall be utilized in conjunction with reference (a) for the training of all Student Military Pilots selected for the Strike Top-off syllabus and Instructor Pilots selected to conduct the Strike Top-off training.

3. Cancellation. This Notice shall remain in effect until the procedures in enclosure (1) are incorporated reference (b). All changes to Enclosure (1) shall be submitted to the TRAWING FIVE Standardization Officer via the FITU.

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TW-5 Standardization Note
for
T-6B Instrument Training Optimization Pilot Program (ITOPP)
FTI Addendum

This document serves as a supplement to and errata for to the current ITOPP FTI Addendum. These will be incorporated into the FTI at a later date. Suggestions and recommendations should be submitted to the TW-5 Standardization Department via the FITU ITOPP Subject Matter Expert.

1.) For the duration of the ITOPP, Basic Approach Configuration (BAC) is defined as gear down, no flaps, and trimmed up for optimum AOA (on speed).

2.) Raising and lowering the gear as well as raising flaps require concurrence from the Instructor Pilot (IP). After takeoff with the airspeed above 110 KIAS and below 150 KIAS, SNA will report "Gear". IP will confirm airspeed in limits and respond "Clear". SNA will then raise gear and flaps. When transitioning for landing, SNA will confirm airspeed below 150 KIAS and report "Gear". IP will confirm airspeed below 150 KIAS and then report "Clear". Lowering of flaps or any speedbrake actuation does not require concurrence.

3.) The intent of transition to land is to be fully configured NLT 3-5nm from the Final Approach Fix (FAF). The transition is considered to be a continuous process starting at 5-7nm on an approach or when within 10nm and 30 radials of the Final Approach Course (FAC) in a "box pattern". It can be started sooner if the pilot determines that it is necessary or helpful to adhere to gates or minimums on the approach.

4.) The T-6B radar altimeter / Low Altitude Warning (LAW) shall be set to 2450' AGL. The intent of the LAW is for safety of flight and not to assist in basic airwork or adherence to altitudes assigned by Air Traffic Control.

5.) For LAW settings below 2450' AGL, T-6B LAW shall be set to 1000' as the intermediate, or step down altitude. This is in compliance with CV NATOPS Case 3 procedures. The pilot is to "stay ahead" of the LAW and reset it prior to leaving the FAF. A good technique is to reset after the gear transition is complete. While these procedures differ from the TAW-1/TAW-2 Joint SOP (which use the "10% Below MDA Rule of Thumb (ROT)"), it is not practical with a LAW that operates only at/below 2450'.

6.) If the LAW goes off at 1000' AGL as a result of not resetting prior to the FAF, the pilot may reset appropriately and continue the approach.

7.) On the left hand Multi-function display, the NAV and/or TSD scales should be constantly adjusted to provide maximum SA and resolution for what the pilot needs to see. Set the smallest scale that provides the most data or SA.

8.) Ensure that Maximum Climb and Maximum Cruise Power settings are strictly adhered to when flying the ITOPP syllabus. Pilots may further adjust cruise speeds and descents as appropriate for fuel conservation.

9.) Enroute descents will be flown with Torque at 4-6% and airspeed as required (should striving for 200-250 KIAS) to make assigned altitudes or as required for fuel conservation. To determine the number of miles prior to a given point from which to initiate your descent, a good general ROT is to multiply the 10% of the altitude required to lose by 2 (and add an additional 10nm if cleared into the low approach environment). If fuel is a concern descend at 3 times of 10% of the altitude required to lose (+10nm if cleared into the low approach environment).

10.) WARP checks are considered the minimum information/steps required to descend and commence an approach.

11.) Penetration approaches shall be flown at 250 KIAS until beginning transition. To commence, pilot shall lower the nose while leaving current power set, accelerate to 250 KIAS then reduce power to 4-6%, pitch as required to maintain 250 KIAS. Speedbrake will be used only as required for the approach. Pitch initially for approximately 25 degrees nose low with the Climb Dive Marker (CDM), then reset to approximately 10 degrees nose low to sustain 250 KIAS. Trim changes will be considerable and mild pitch changes required to maintain 250 KIAS. Rate of descent (ROD) in the T-6B will start at around 6000-7000 FPM initially, then reducing to approximately 4000 FPM when reaching mid-altitudes below 10,000 MSL. Because of this, the T-6B will frequently arrive at minimum altitudes early. "Dive and drive" is not considered to be fuel efficient. Consideration can be given to starting the penetration after the IAF to minimize fuel consumption on the approach.

12.) A good technique to intercept a radial from an arc or any situation requiring awareness to a radial is to set the HDG bug to the lead or desired radial.

13.) At the FAF, on any approach, pilot shall extend speed brake while simultaneously reducing power for the approach. For a precision approach this is approximately 30%, for a non-precision approach this is approximately 26%.

14.) For a missed approach or to execute climb out instructions, pilot shall select PCL max while simultaneously retracting the speed brake. If a touch and go or full stop landing is to be made, pilot will transition to desired landing configuration on short final and with "field in sight". Anticipate the "balloon" with appropriate forward stick, place the CDM on the intended point of landing, and add a small amount of power. Then execute a normal flared landing. Recommended technique is to retract speed brake then set flaps to ensure speed brake retraction and to practice manual speedbrake retraction.

CAUTION

Do not land with speed brake extended or airframe damage could occur. Takeoff flaps or landing flaps are required for all landings in this syllabus as a preventative measure, unless NF is required situationally, ensure speed brake retracted if landing NF.

15.) A good ROT for AOB while established in a "box pattern" (ILS or GCA) is no more than 30 degrees AOB in the pattern, 20 degrees AOB on base and 10 degrees AOB on final.

16.) On non-precision approaches, avoid "dive and drive" for fuel and safety. The idea is to reach your MDA approximately 1nm from the MAP. A ROD from 800-1000 FPM will generally work. A good ROT while established on the FAC is to not exceed 1000 FPM ROD, unless good headwork dictates; good BAW will avoid this.

17.) On ASR approaches strive to be 100' below recommended altitudes in order to reach MDA 1nm prior to the MAP.

18.) A good ROT to back up precision approaches is to descend 300'/nm, equating to a 3 degree glide slope. Most precision approaches begin 5nm from the runway, so the FAF should be approximately 1500'AGL. This ROT can also be used for self contained approaches and straight in approaches.

19.) ROT for ROD descent on a 3 degree glide slope is ½ groundspeed x10. Example GS=120 KIAS: 120/2 x10 = 600 FPM. For quick math, take half your ground speed and add a zero. This will not work for 2 or 2.5d glide slopes. Though not common, some precision approaches utilize a 2.5 degree glideslope.

20.) EMERGENCY APPROACH PROCEDURES are for discussion only. T-6B has no published procedures for Min/Emerg fuel approaches or instrument PEL approaches. In the event of actual Min/Emerg fuel approach or instrument PEL, good pilot judgment will dictate, the discussion below can be considered a guide.

Emergency Fuel GCA/ILS. Declare "Emergency Fuel", if not given, request a descent to min vectoring altitude and request a "short hook" or continuous turn to final. You may expect to intercept glideslope from above, depending on the controllers vectoring. Request a 30 second warning to glide path (moving glides slope needle approximates a 30 second warning). If fuel is critical, consideration should be given to flying the aircraft clean at/near gear speed until 1nm or landing is assured.

1. Request 30 second glide slope warning.

2. Maintain 150kts until 30 second glide slope warning, transition to BAC by reducing power, lower landing gear, and slow to on speed AOA.

3. When "on glide path" lower nose, reduce power, and maintain onspeed AOA do not extend speedbrake.

4. Flaps shall be held till landing is assured to reduce drag and power requirements.

Emergency oil GCA (Instrument PEL or Precautionary Approach). This procedure would be used in the event of any engine related emergency or EP that requires a PEL while IMC conditions exist at your landing field . If weather is above basic VFR then consideration could be given to getting below the cloud layer and driving to DEGA. In the event of a an engine failure while in IMC and your field is IMC, aircrew should eject. It is impossible to maintain a 3degree glideslope with a failed engine and there is no ability to get up to glideslope if below. The intent with the discussion procedures is to fly the fastest approach possible, reduce strain on the engine, and keep the aircrew in the safest ejection envelope possible. In an actual emergency consideration should be given to flying the approach with a true mid-range setting of 50-60% power (200kts) and accepting a gear overspeed at the transition. An advisory call to ATC should be given that includes expected airspeed in the pattern and final to assist them in sequencing, separation, and final controller calls.

1. Set power to mid-range (approximately 40%) and extend speed brake to maintain airspeed at or slightly below gear speed (approximately 145-150kts). If power is set to 50-60% power, with speed brake out airspeed is approximately 175kts at 2000' MSL.

2. Pilot has the option to request 30 second glideslope warning.

3. At glide path intercept, ensure airspeed below 150kts, lower gear, reduce power to 30%, and intercept glide path by reducing pitch to maintain approximately 140kts and set a 3degree glide path with the VV. Speed brake remains out. If airspeed is slightly above 150kts, prior to transition, pilot may use a small pitch up motion or slight reduction in power to reach gear speed.

4. With this configuration use the nose to maintain glidepath and accept small variations in airspeed, while leaving the power set. If airspeed continues to build pilot may reduce power 5%, then leave the power set. In an actual emergency overspeeding the gear should not be a concern.

5. With runway in sight and landing assured, lower flaps as required, ensure speed brake is retracted and make a normal flared landing. The balloon with LF will be more pronounced at higher airspeeds, counter firmly with forward stick, by keeping the VV on the intended point of landing, and add a small amount of power. At higher speeds, in an actual emergency, care should be taken not to exceed tire speed; ground speed must be taken into account.