***T-44A Briefing Guides***



EVENT: **I3305**

**SYLLABUS NOTES:**

1. Emphasis for I3305 is at discretion of instructor.
2. Minimum of three approaches per event.
3. Each even shall include a minimum of one approach with the flight director and one approach without the flight director.
4. Holding should be accomplished and graded on at least four different events.
5. All events shall include a missed approach; at least two circling approaches in the block.
6. SMA in right seat shall be PM and graded accordingly, emphasizing CRM callouts and radio communications.

**DISCUSS ITEMS:** IAF Procedures, DPs (SID/ODP/etc.), Turbulence, Icing, Weight and Balance Form F.

**IAF Procedures, DPs (SID/ODP/etc.) –**

6 T’s!!! ALWAYS AT YOUR IAF AND FAF!! NO MATTER WHAT!!

**Turbulence –**

Chapter 19 NATOPS –

19.2.1 Use turbulence air penetration speed of 153 kts. This speed gives the best assurance of avoiding excessive stress loads and, at the same time, provides margin against inadvertent stall because of gusts.

19.2.2 Don’t try and chase altitudes. Severe g-loading can occur.

19.3 If it is absolutely necessary to penetrate a thunderstorm, it should be done in the lower third portion of the cell.

19.3.2 If necessary to fly through a storm or thunderstorm, turn on icing system, turn up lights, attain altitude for penetration (lower third) and speed of 153.

AIM -

AIRCRAFT CLASSES− For the purposes of Wake Turbulence Separation Minima, ATC classifies

aircraft as Heavy, Large, and Small as follows:

**a.** Heavy− Aircraft capable of takeoff weights of more than 255,000 pounds whether or not they are

operating at this weight during a particular phase of flight.

**b.** Large− Aircraft of more than 41,000 pounds, maximum certificated takeoff weight, up to 255,000 pounds.

**c.** Small− Aircraft of 41,000 pounds or less maximum certificated takeoff weight.

CLEAR AIR TURBULENCE (CAT)− Turbulence encountered in air where no clouds are present. This term is commonly applied to high-level turbulence associated with wind shear. CAT is often encountered in the vicinity of the jet stream.

**7-3-92.** Also, separation, measured at the time the preceding aircraft is over the landing threshold, is provided to small aircraft:

**(a) Small** aircraft landing behind **heavy** jet − 6 miles.

**(b) Small** aircraft landing behind **B757** − 5 miles.

**(c) Small** aircraft landing behind **large** aircraft− 4 miles.

**3.** Additionally, appropriate time or distance intervals are provided to departing aircraft:

**(a)** Two minutes or the appropriate 4 or 5 mile radar separation when takeoff behind a **heavy/B757** jet will be:

**(1)** From the same threshold.

**(2)** On a crossing runway and projected flight paths will cross.

**(3)** From the threshold of a parallel runway when staggered ahead of that of the adjacent runway

by less than 500 feet and when the runways are separated by less than 2,500 feet.

**B.** A 3−minute interval will be provided when a **small** aircraft will takeoff:

**1.** From an intersection on the same runway (same or opposite direction) behind a departing **large** aircraft,

**C.** A 3−minute interval will be provided for all aircraft taking off when the operations are as described in subparagraph b1 and 2 above, the preceding aircraft is a **heavy/B757** jet, and the operations are on either the same runway or parallel runways separated by less than 2,500 feet. Controllers may not reduce or waive this interval.

**D.** Pilots may request additional separation i.e., 2 minutes instead of 4 or 5 miles for wake turbulence avoidance. This request should be made as soon as practical on ground control and at least before taxiing onto the runway.

**Icing –**

Chapter 19 NATOPS –

Most severe icing occurs at ambient temps of approximately 23°f (-5°C).

WARNING: With all anti-ice/deice systems operating normally, engine flameouts have occurred in icing conditions during moderate turbulence.

19.6.1 Allow thickness of ice to reach ½ to 1 inch before operating deicer boot cycle. This prevents balloon ice over the books. Use stall strips to approximate 1 inch of ice buildup.

19.1.6.1 Icing increases weight and changes aerodynamic characteristics of wings. AOA probe is not accurate in icing and shouldn’t be relied upon. Maintain a comfortable speed above normal stall speed and a minimum of 140 should be maintained to prevent or minimize ice accumulation on wing and empennage surfaces.

19.1.6.2 Extend ice vanes when ambient is 41°F (5°C) or below in visible moisture. Range decreases approximately 10 to 12 percent with ice vanes extended in moderate icing conditions.

19.6.1.3 Autoignition must be ARMED for all flights in visible moisture when 41°F or below.

19.1.6.10 If an obstruction is suspected in your static air ports. Verify by switching to alternate system and noting s sudden sustained change in rate indication. You will be lower and slower than indicated while using alternate air.

**Weight and Balance Form F –**

Required for every flight. Normally, the pre-computed Form F found in the back of the Aircraft Discrepancy Book (ADB) is sufficient. If carrying passengers or cargo, a Form F must be computed and on file to ensure the aircraft is under the structural weight limitation (check both the maximum takeoff weight and the maximum zero fuel weight) and has its center of gravity within limits for both takeoff and landing.

TOLD –

TOLD is computed for one situation: safe continued operation after an engine failure. The easiest way to improve our takeoff and climb performance is to reduce gross weight. Another option is to wait for better takeoff conditions such as lower temps, stronger headwinds, dry runways, etc. Accelerate stop distance is computed by distance to accelerate to rotation speed, lose and engine, and stop on the runway.