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



EVENT: **I4204**

**SYLLABUS NOTES:**

1. Each flight should consist of a mix of approaches flown in the I4100 block.
2. Events should have a minimum of four approaches per event and include at least two procedure turn approaches. Emergency procedures should be emphasized in this block.
3. Each event 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 two events, one of which should be GPS holding.
5. All events shall include a missed approach and should include at least two circling missed approaches in the block.
6. One approach per event with IP as PF and SMA as PM, emphasizing CRM callouts, radio communications, and emergency procedures.
7. SMAs shall bring one DD 175 per flight plan per SMA and one DD 175-1 per aircraft for their planned profile to every brief. SMAs shall draft a flight plan than will execute the required maneuvers for the events.

**DISCUSS ITEMS:** Enroute Weather Facilities, Hazardous Weather, 3710 Weather Filing Criteria

**Enroute Weather Facilities –**

FTI Info –

Ensure the weather forecast is updated at least once while enroute on all cross-country flights. If weather is deteriorating, it is often better to divert early in the flight rather than pressing on with decreasing fuel reserves. Utilize HIWAS, military Pilot to Metro Services (PMSV), Flight Service State (FSS 255.4), or Enroute Flight Advisory Service (EFAS or Flight Watch).

 FIH Info –

 Hazardous Inflight Weather Advisory Service (HIWAS)

A continuous broadcast of inflight weather advisories on VOR frequencies including summarized Severe Weather Forecast Alert (AWW), SIGMETs, Convective SIGMETs, Center Weather Advisories (CWA), AIRMETs, and PIREPs. HIWAS makes additional weather information available but is not a replacement for preflight or inflight briefings or real time weather updates from EFAS.

Pilot-to-Metro Service (PMSV)

Available from all Naval Meteorology and Oceanography Command and U.S. Marine Corps aviation weather activities. The primary purpose of PMSV is for communicating various types of weather information to pilots. PMSV is also used to update the Flight Weather Briefing From (DD-175-1) and to receive pilot weather reports (PIREPS) of significant or hazardous weather phenomena, which are entered into weather telecommunication networks. Map and frequencies of PMSV is in section C of FIH.

Enroute Flight Advisory Service (EFAS)

A service specifically designed to provide enroute aircraft with timely and meaningful weather advisories pertinent to the type of f light intended, route of flight, and altitude. Also a central collection and distribution point for pilot reported weather information. Normally available throughout the conterminous U.S. and Puerto Rico from 0600 to 2200. Provides communications capabilities for aircraft flying at 5,000 ft. to 17,500 ft on common freq of 122.0. Discrete freqs from FL180 to FL450.

**Hazardous Weather –** I’m assuming this is turbulence, thunderstorms, icing, microbursts, etc.

 SOPs –

 VT-31 – 8. Weather policy –

1. Pilots shall not fly through areas of known or suspected moderate or severe icing. Pilots shall circumnavigate areas with forecast or actual light icing whenever possible.

Weather Study Guide –

Thunderstorms are accompanied by some or all of the following hazards: extreme turbulence, hail, microbursts, severe icing, lightning, and tornadoes. Try to fly through the lower 1/3 of the storm at 153 kts. if you cannot circumvent it.

Turbulence – Light, Moderate, Severe, Extreme. Occasional, Intermittent, Continuous. For making PIREPS C-65 and C-66 in FIH.

Icing – Page C-66 for PIREPS in FIH.

NATOPs Ch. 19 –

When temperature is 41° F (5° C) and visible moisture exists, turn on all your deicing and anti-icing systems. Extending the ice vanes will decrease torque 40-60 pounds. Aircraft range decreases approximately 10 to 12 percent with ice vanes extended in moderate icing conditions. The most severe formation will generally occur at an ambient temperature of approximately 23° F (-5° C).

**Weather Filing Criteria –**

SOPs –

 TRAWING4 General SOPS:

1. General – All training flights shall be conducted in strict compliance with the applicable weather sections of this instruction and references. Non-training flights shall be conducted in strict compliance set forth solely by reference (d OPNAV 3710.7). Standard instrument rating takeoff minimums shall apply regardless of rating held for operational and training missions.
2. Cold Weather – Pilots shall not land or taxi on snow or ice covered runways, or taxi on snow or ice covered taxiways.
3. Authorized Weather Alternates – Regardless of actual/forecast weather conditions, all IFR flights shall establish an alternate weather destination when accomplishing a SMA syllabus-training event. The only authorized weather alternates for local coded IFR flight plans are KCRP and NAS Kingsville (KNQI). The use of any other alternate to meet filing minimums, as per reference (d OPNAV 3710.7), requires a DD-175.
4. Formation and VFR on Top – Formation flights in IMC should be avoided. Formation flights shall not enter IMC from VFR on top unless the reported weather at the destination airport meets circling approach minimums for the runway in use. If circling is not authorized, VMC shall prevail (1000 and 3) .
5. Flights through or within sigmets or convective sigmets – In addition to (d OPNAV 3710.7) and (f CNATRAINST 3710.8), the following applies to flights through or within SIGMETS of Convective SIGMETS
	1. When the National Weather Service (NWS) has issued a SIGMET or Convective SIGMET, training missions under the operational control of TRAWING4 shall not fly through these areas of severe weather unless one of the following criteria has been met:
		1. Aircraft on day local flights can maintain VMC at all times (whether on IFR or VFR flight plan) within the SIGMET or Convective SIGMET area and maintain separation from convective activity. Student solo aircraft are prohibited from launching into a SIGMET.
		2. Aircraft has an operable weather radar installed capable of allowing detection and avoidance of isolated thunderstorms (in IMC conditions on an IFR flight plan) within the SIGMET or Convective SIGMET.

NOTE: SIGMETS and Convective SIGMETS are issued for turbulence, icing, hail, poor visibility, and tornadoes in addition to thunderstorms. Weather radar will not provide detection for all weather phenomena; therefore sound judgment should prevail before entering such areas and should include information from a thorough weather brief.

Multi-Engine Procedures:

 5. Weather Procedures –

1. Single/Multi Piloted Approach Requirements.
	1. The T-44/TC-12 shall observe single-piloted aircraft approach clearance/criteria and approach minimums per reference (d OPNAV 3710.7) unless the other pilot is a:
		1. Military aviator with a minimum qualification as CP in type. NOTE: If the copilot is an NFO, single-piloted aircraft approach clearance/criteria and approach minimums shall apply per (d OPNAV 3710.7).
		2. SMA is I4390 complete.
		3. MT/TPS I4103 complete.
		4. IUT I4101 complete
	2. Satisfying the above criteria, training events in T-44/TC-12 may be considered multi-piloted for IFR filing, flight time limitations, approach clearance criteria and approach minimums. The intent is to allow the IP, when at the controls, to execute approaches at a destination airport down to approach minima if the weather is at or below landing mins. SMAs are limited to 200 and ½ when at the controls and executing an approach in actual instrument conditions. If approach minimums are below 200 and ½ , the IP shall be at the controls. This requirement does not prevent IPs from allowing SMAs to practice flying instrument approaches to lower minimums in VMC (1000 and 3).
2. Student Solo Weather Mins. – Student solo weather mins shall apply to weather at the time of takeoff and forecast weather for the entire period of flight plus one hour.
	1. Student Solo Wind Limits.
		1. 25 kts. steady state or 30 kts. gusting.
		2. 10 kts. crosswind.
	2. Contact Solo Weather Limits – Minimum ceiling of 1500 and 3 with a discernable horizon is required for all contact stage student solos to takeoff and remain in the local bounce pattern.
	3. Student Solo (I4901) Ceiling/Visibility – Minimum weather requirements for operations at KNGP (departure or recovery) are circling mins. Operations at destination and alternate airfields (departure or recovery) must be 500 and 1 above highest non-precision circling mins for ETA plus or minus one hour.

6. Training Procedures –

a. System Deactivation – TACAN No-Heading Simulation is prohibited in actual IMC for all “TACAN Only” approaches. All other malfunction control box simulations are permissible under IMC.

 VT-31 Instruction 3710.1U

5. System Deactivation – No system will be deactivated by circuit breaker or switch in other than VMC.

8. Weather Policy –

1. Pilots shall not fly through areas of known or suspected moderate or severe icing. Pilots shall circumnavigate areas with forecast or actual light icing whenever possible.
2. Weather Mins –
	1. VFR landing pattern at any airfield requires 1300 and 3.
	2. Student solo weather minima listed in reference (c CNATRA 3710.2) shall apply to weather at the time of take off and forecast weather for the entire period of flight plus one hour.

**Standard Instrument Takeoff Mins.**

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| --- | --- |
| **Non-Precision Approach** | **Precision Approach** |
| Published Mins ≥ 300-1\* | Published Mins ≥ 200-1/2 (24)\*\* |
| \*Note: Published Mins to the available non-precision approach.\*\*Note: Published Mins to the landing runway in use. (24) is standard IAP notation for prevailing vis/RVR in 100s of feet.  |

In the case of takeoff minimums, you take the higher of the field landing mins or the standard takeoff mins list above. So if you are trying to take off and the lowest compatible approach at the field lists its minimums as an ILS (precision approach) 200 and ¾ mile, your takeoff mins are now 200 (which is the same for the field and absolute mins listed) and ¾ (which is the higher of the two minimums listed for the field and absolute takeoff mins).

**IFR Filing Criteria**

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| **Destination WX (ETA ± 1 Hour)** | **Alternate EX (ETA ± 1 Hour)** |
| 1. WX ≤ Published Mins
 | WX ≥ 3000-3 |
| Published Mins ≤ WX ≤ 3000-3 | NP: WX ≥ Published Mins. + 300-1P: WX ≥ Published Mins. + 200-½  |
| WX ≥ 3000-3 | No Alt Required. |
| \*In the case of single — piloted or other aircraft with only one operable UHF/VHF transceiver, radar/airport surveillance approach (PAR/ASR) minimums may not be used as the basis for selection of an alternate airfield. |