Cold Weather Operation

General Policy Regarding Use of Anti-Ice Equipment

NOTE

Icing conditions exist when the OAT is +5 degrees C or below and visible moisture in any form is present (such as clouds, rain, snow, sleet, ice crystals or fog with visibility of one mile or less).

Icing conditions also exist when the OAT on the ground and for takeoff is +5 degrees C or below when operating on ramps, taxiways or runways where surface snow, ice, standing water or slush may be ingested by the engines, or freeze on engines, engine sensor probes, nacelles, wings, control surfaces or flaps.

Ignition

Continuous ignition must be used for takeoff and landings on contaminated runways (i.e., surface covered with standing water, slush or snow).

Continuous ignition must be used for flight through moderate or severe icing.

Wing/Engine Inlet De-Ice.

Allow ice accumulation to build approximately 1/2 inch prior to inflating the wing and engine inlet de-ice boots. When it is difficult to see the wing leading edge, or operating at night, an airspeed loss of 10 to 15 knots is a good indicator of ice accumulation.

CAUTION

Premature activation of the surface de-ice boots could result in ice forming the shape of an inflated de-ice boot, making further attempts to de-ice inflight impossible.

Windshield Heat

Select windshield heat ON prior to operating in icing conditions.

Cold Weather Operation

Descent and Landing

Pre-heat the windshield prior to entering icing conditions. Turning the windshield ice protection on immediately before descending into an undercast may not give the windshield enough time to fully heat.

Anytime ice is suspected of adhering to any aircraft surfaces, beware of clear ice runback.

Land with flaps 25 if ice is suspected on any aircraft surface. Use flaps 25 Vref +5.

Minimum holding speed in icing conditions: 160 Kts.

Maximum speed for windshield wiper operation: 160 Kts.

Landing

Landing on runways having a *Nil Braking Action* report are not authorized.

A positive touchdown should be made to loosen possible frozen brakes.

Following initial touchdown on a slippery runway, aileron and rudder, supplemented by asymmetrical power, are the primary controls for steering the aircraft. As soon as possible after main gear touchdown, lower the nosewheel and utilize smooth, even reverse.

Use of moderate reverse will aid in decelerating the aircraft. After wheel spinup, the anti-skid system will become effective. Brakes should be used with caution. Apply brakes smoothly, do not pump the brakes, as this causes the anti-skid system to readjust brake pressure to reestablish optimum braking, thereby lengthening the stopping distance.

Maneuvers and Procedures

*** Clean Configuration**

1. Select an altitude allowing recovery *no lower than* 3,000 feet AGL.

2. Stabilize the aircraft in level flight at 170 KIAS, *approximately* 35% torque *&* 85% Np.

3. Perform clearing turns checking area clear of other aircraft.

4. Configure the aircraft for the stall. The Pilot Flying will call, *flaps up, gear up, condition levers max, torque 15.* The Pilot Not Flying will verify flaps and gear up, slowly advance the condition levers to max, and select torque 15.

5. Maintain heading and altitude. Trim the aircraft as necessary.

NOTE

Do not trim below 120 KIAS. Trim adjustments below 120 KIAS may cause an excessive nose up tendency during stall recovery

6. At 120 KIAS, the Pilot Flying will place one hand on the Power Levers.

7. At the first indication of the stall, usually activation of the stick shaker, the Pilot Flying will advance the power levers and call, *set max power, flaps up.* The Pilot Not Flying will take control of the power levers, set the maximum takeoff power setting, and verify flaps up.

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8. Maintain heading, while simultaneously reducing pitch attitude to maintain altitude.

NOTE

With the addition of max power, significant right rudder may be required to maintain heading.

Additionally, the Brasilia will accelerate very rapidly. To maintain altitude during the stall recovery, it will be necessary to promptly reduce pitch attitude due to increased lift.

9. When an airspeed increase is observed, and the vertical speed is zero or indicating a climb, the Pilot Not Flying will call, *positive rate.*

10. After confirming the positive rate, the Pilot Flying will call, *gear up.* The Pilot Not Flying will select and confirm the landing gear up.

11. At V_2+20 the Pilot Not Flying will call, *V_2+20.* The Pilot Flying will call, *flaps up, climb power.* The Pilot Not Flying will confirm flaps up, and set appropriate climb power.

12. After accelerating to 170 KIAS, the Pilot Flying will call, *cruise power, cruise check, set torque 35.* The Pilot Not Flying will perform the cruise checklist, and set torque 35%.

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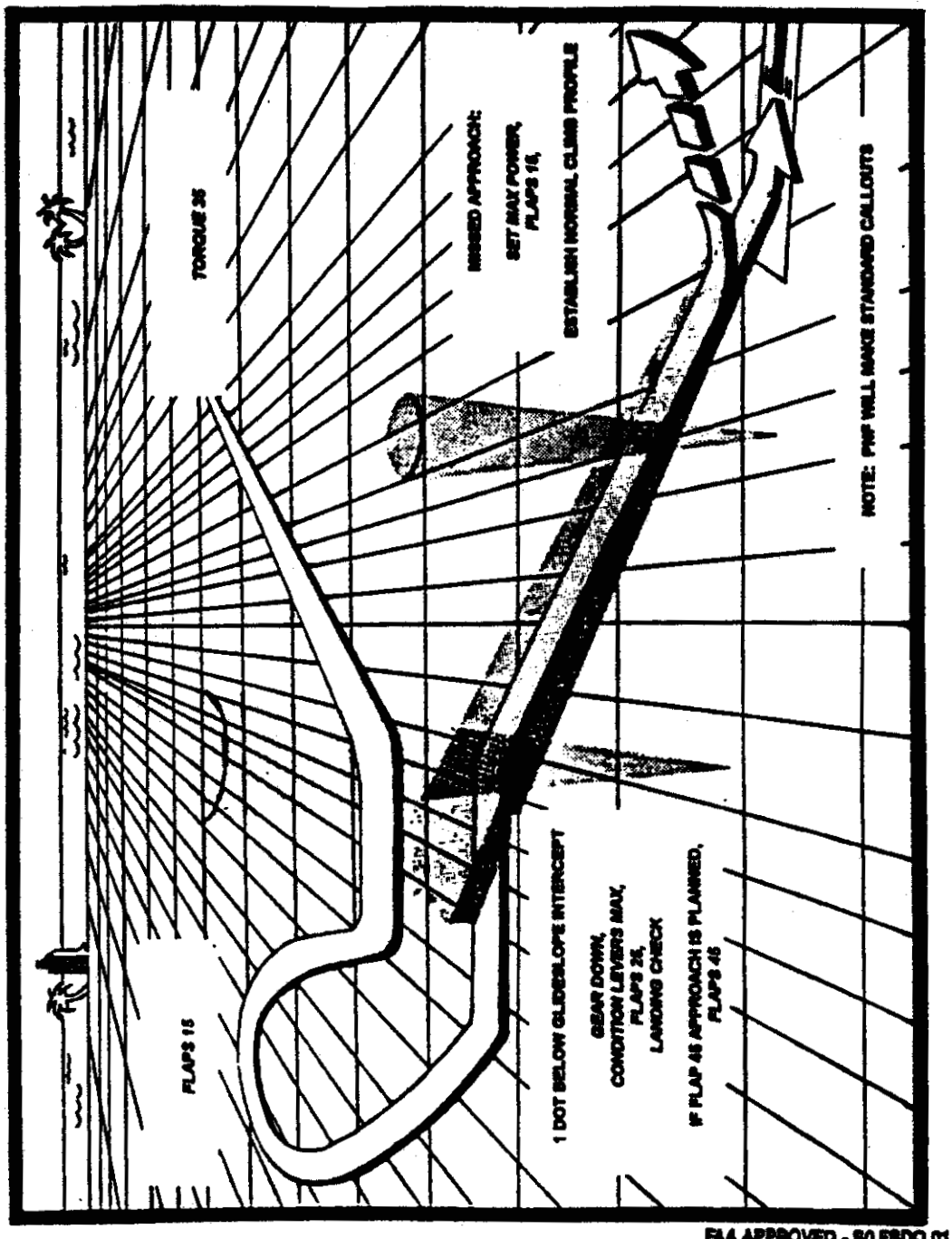
Maneuvers and Procedures

ILS Approach



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Maneuvers and Procedures

DESCRIPTION: * **Initial Approach Segment**

1. Comply with ATC clearances for the initial approach segment.

2. Complete the Approach checklist.

3. Before turning base leg or commencing the procedure turn, slow the aircraft to 170 KIAS.

NOTE

If performing an Autopilot coupled approach or using the Flight Director for course guidance, the aircraft will have a tendency to fly through the Localizer if GROUNDSPEED is above 180 knots.

4. While on the base leg vector, or procedure turn inbound, select flaps 15.

5. When weather conditions are reported less than 1000 foot ceiling, and/or 3 miles visibility, the aircraft will be configured for landing when passing the Final Approach Fix.

NOTE

During the Approach Briefing, the crew will brief the flap setting to be used for the approach. Weather, field length, field conditions or other existing factors, will be considered.

If a flap 45 landing is planned, the aircraft must be configured passing the FAF. This will eliminate changing the flap setting below 500 feet AGL and the ballooning tendency associated with reconfiguring on short final.

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