MOORING - MAINTENANCE PRACTICES

1. General

- A. Mooring procedures must be utilized when the airplane is to be parked for an extended period of time or during existing or expected bad weather.
- CAUTION: Any time the airplane is loaded heavily, the footprint pressure (pressure of the airplane wheels upon the contact surface of the parking area or runway) will be extremely high, and surfaces such as hot asphalt or damp sod may not adequately support the weight of the airplane. Precautions should be taken to avoid airplane parking or movement on such surfaces.
- B. The best protection against storm damage is to fly the airplane out of the impending storm area, provided there is sufficient time. The next best procedure is to secure the airplane in a storm-proof hangar or shelter. The last alternative is to adequately tie down the airplane.
- C. Three fixed mooring points are provided on the airplane. Two are located on the underside of the wings at the wing-strut intersect, and the third is located on the underside of the tailcone. On the Model 208, the tail skid serves as the mooring point; on the Cargomaster, 208B Super Cargomaster and 208B Passenger, a ring is furnished.

2. Temporary and Mild Weather Mooring

- A. Mooring Procedures (Refer to Figure 201).
 - (1) Position airplane on level surface headed into wind.
 - (a) In fixed parking areas, use ground anchor points which are located outboard or aft of airplane mooring points. It may be necessary to use two parking spaces to get adequate spacing between ground anchor points.

CAUTION: Do not set parking brake during cold weather, when accumulated moisture may freeze brakes, or when brakes are overheated.

- (2) Set parking brake or chock main gear wheels.
- (3) Install control column lock.
- (4) Set rudder gust lock in accordance with the Pilot s Operating Handbook and FAA Approved Airplane Flight Manual.
- CAUTION: Never attach mooring lines directly to struts. Use designated tie down rings to prevent possible damage to struts.
- (5) Connect mooring lines to mooring rings and tail skid. A tie-down rope requires using a secure antislip knot such as the bowline or square knot. Refer to Figure 203 for antislip knot configurations.
 - NOTE: During existing or expected gusty or high wind conditions, mooring lines should have slack taken out of them to prevent excessive movement of airplane resulting in high shock load on airplane and moorings.
- (6) Install the following protective covers (as required) to prevent entry of foreign material:
 - (a) Induction air inlet cover.
 - (b) Pitot tube cover.
 - (c) Bypass air outlet cover.
 - (d) Oil cooler air inlet cover.
- (7) Secure propeller with propeller anchor assembly.
- (8) Attach static ground cable securely to the tie-down ring on the wing and the ground anchor.

3. Long Term and Severe Weather Mooring

- A. Mooring Procedures (Refer to Figure 202).
 - (1) Position airplane on level surface headed into wind.
 - (a) In fixed parking areas, use multiple ground anchor points for each mooring point on the airplane. Ensure that all ground anchor points are outboard (or aft) of airplane mooring points. It may be necessary to use two parking spaces to get adequate spacing between ground anchor points.

CAUTION: Do not set parking brake during cold weather, when accumulated moisture may freeze brakes, or when brakes are overheated.

- (2) Set parking brake or chock main gear wheels.
- (3) Install control column lock.

- (4) Set rudder gust lock in accordance with the Pilot s Operating Handbook and FAA Approved Airplane Flight Manual.
- CAUTION: Never attach mooring lines directly to struts. Use designated tie-down rings to prevent possible damage to struts.
- (5) Connect mooring lines to airplane mooring points using tie-down ropes. A tie-down rope requires using a secure antislip knot such as the bowline or square knot. Refer to Figure 203 for antislip knot configurations.
 - NOTE: During existing or expected gusty or high wind conditions, mooring lines should have slack taken out of them to prevent excessive movement of airplane resulting in high shock load on airplane and moorings.
- (6) Install the following protective covers (as required) to prevent entry of foreign material:
 - (a) Induction air inlet cover.
 - (b) Pitot tube cover.
 - (c) Bypass air outlet cover.
 - (d) Oil cooler air inlet cover.
- (7) Secure propeller with propeller anchor assembly.
- (8) Attach static ground cable securely to the tie-down ring on the wing and the ground anchor.

4. Temporary Stake Tie-Down Installation

- A. Temporary Tie-Down Procedures on Sod Surfaces (Refer to Figure 204).
 - CAUTION: Stake driven tie- downs will often pull out when the ground becomes soaked from heavy and torrential rains. Wooden stakes also suffer from rot and reduced resiliency when subjected to severe moisture conditions.
 - (1) Drive metal anchor stakes into ground to provide an approximate 45-degree angle between airplane mooring points and anchor stakes.
 - (2) Use multiple anchor stakes for each airplane mooring point. Refer to Figure 202 for approximate location of anchor stakes in relation to airplane mooring points.

CAUTION: Never attach mooring lines directly to struts. Use designated tie-down rings to prevent possible damage to struts.

- (3) Connect mooring lines to airplane mooring points using tie-down ropes. A tie-down rope requires using a secure antislip knot such as the bowline or square knot. Refer to Figure 203 for antislip knot configurations.
 - NOTE: During existing or expected gusty or high wind conditions, mooring lines should have slack taken out of them to prevent excessive movement of airplane resulting in high shock load on airplane and moorings.

5. Permanent Ground Anchor Construction

A. Anchor Fabrication (Refer to Figure 204).

NOTE: Tie down anchors should provide a minimum holding power of approximately 3,000 pounds.

- (1) Determine placement of anchors according to mooring requirements.
 - (a) Three anchors are required for temporary and mild weather mooring. Refer to Figure 201 for approximate anchor locations.
- (2) Six anchors are required for long term and severe weather mooring. Refer to Figure 202 for approximate anchor locations.
- (3) Fabricate and embed ground anchors according to type of surface being used. Refer to Figure 204 for construction details.





Figure 201 : Sheet 2 : Temporary and Mild Weather Mooring







Figure 202 : Sheet 2 : Long Term and Severe Weather Mooring

Figure 203 : Sheet 1 : Tying Antislip Knots A22904 **TYING A BOWLINE** TYING A SQUARE KNOT 2680C1031





