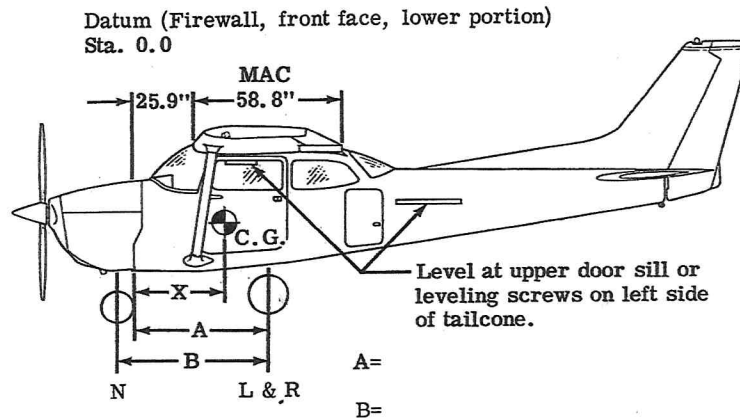


# Weighing Procedure

MODEL 172M

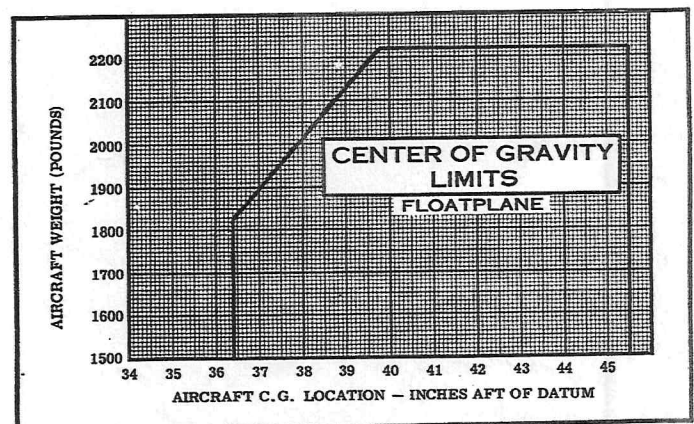
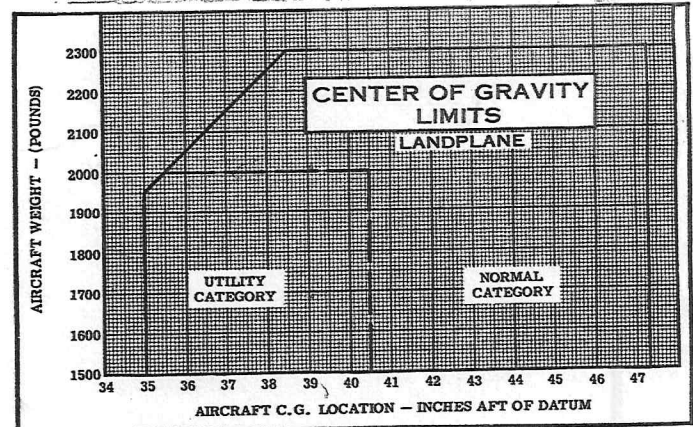
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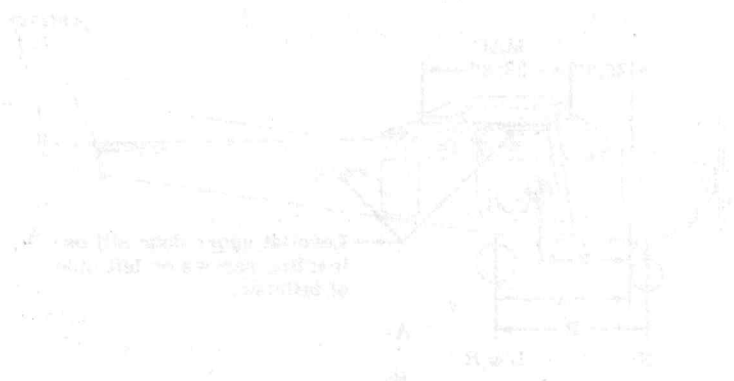
| Scale Position                     | Scale Reading | Tare | Symbol | Net Weight |
|------------------------------------|---------------|------|--------|------------|
| Left Wheel                         |               |      | L      |            |
| Right Wheel                        |               |      | R      |            |
| Nose Wheel                         |               |      | N      |            |
| Aircraft Empty Weight (As Weighed) |               |      | W      |            |

$$X = \text{ARM} = (A) - \frac{(N) \times (B)}{W}; X = ( \quad ) - \frac{( \quad ) \times ( \quad )}{( \quad )} = ( \quad ) \text{ IN.}$$

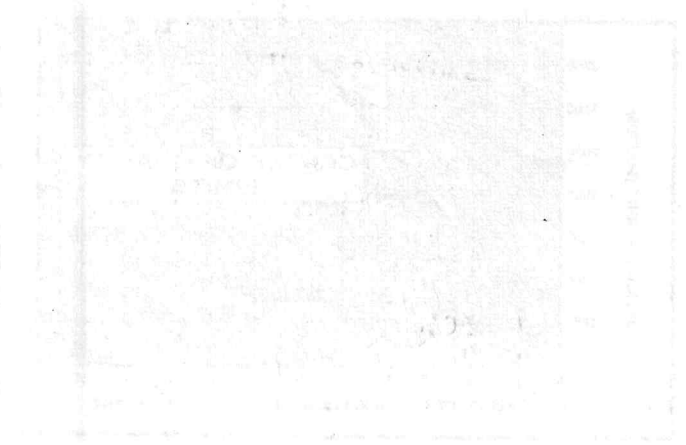
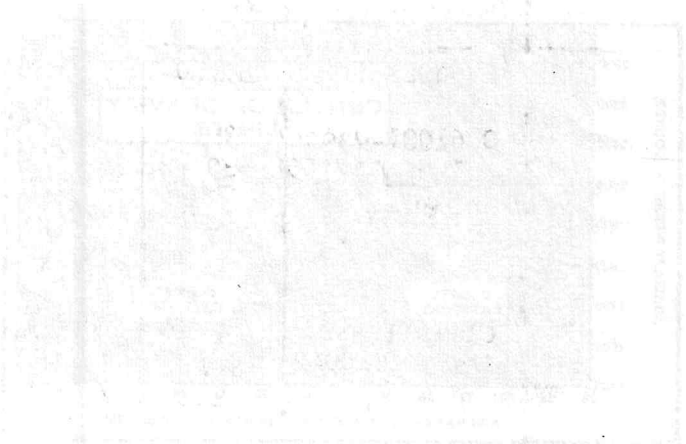
- Preparation:
  - Inflate tires to recommended operating pressures.
  - Remove all wing tank drain plugs to remove all fuel.
  - Remove oil sump drain plug to drain all oil.
  - Move all sliding seats to the most forward position. All seat backs should be in the most nearly vertical position.
  - Put flaps in the fully retracted position.
  - Place all control surfaces in neutral position.
- Leveling:
  - Place scales under each wheel (500# nose, 1000# each main, minimum capacity for scales).
  - Deflate nose tire to center bubble on level (See Diagram).
- Weighing:
  - With the airplane level and brakes released, record the weight shown on each scale. Deduct the tare, if any, from each reading.
- Measuring:
  - Obtain measurement "A" by measuring horizontally (along the airplane center line) from a line stretched between the main wheel centers to a plumb bob dropped from the firewall.
  - Obtain measurement "B" by measuring horizontally and parallel to the airplane center line, from center of nose-wheel axle, left side, to a plumb bob dropped from the line between the main wheel centers. Repeat on right side and average the measurements.
- Completing the Form:
  - Using weights from (3) and measurements from (4) the airplane weight and C.G. can be determined.
  - Obtain licensed empty weight by adding weight and moment of unusable fuel to airplane empty weight and moment. There are 4 gallons of unusable fuel (Weight = 24 Lbs, Moment = 1104 Lb. In.) in airplane with either the 42 gallon or 52 gallon capacity wing located fuel systems.



# Weighing Procedure



| Weight | Volume | Temperature | Notes |
|--------|--------|-------------|-------|
| 100g   | 100ml  | 20°C        |       |
| 50g    | 50ml   | 20°C        |       |
| 20g    | 20ml   | 20°C        |       |
| 10g    | 10ml   | 20°C        |       |
| 5g     | 5ml    | 20°C        |       |
| 2g     | 2ml    | 20°C        |       |
| 1g     | 1ml    | 20°C        |       |



The following text describes the procedure for weighing and measuring the volume of a substance. It includes instructions on how to use the scale and how to calculate the density of the substance.

1. Weighing: Place the substance in the weighing pan. Add weights to the right pan until the balance is level. Record the weight.

2. Measuring Volume: Pour the substance into a graduated cylinder. Read the volume at the bottom of the meniscus.

3. Calculating Density: Divide the weight by the volume to find the density.

4. Results: The density of the substance is 1.0 g/ml.

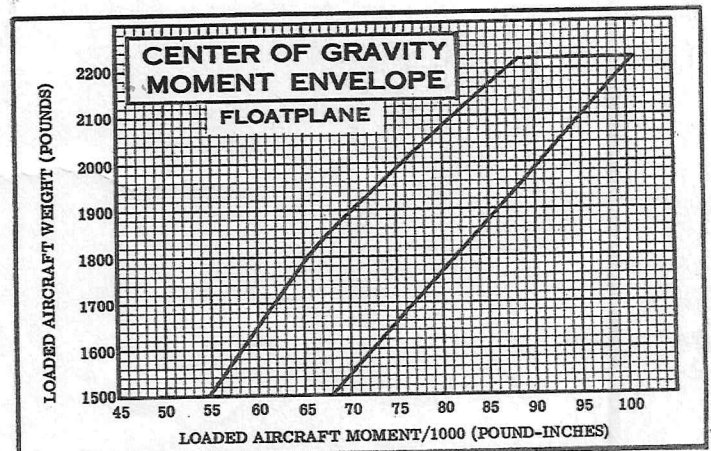
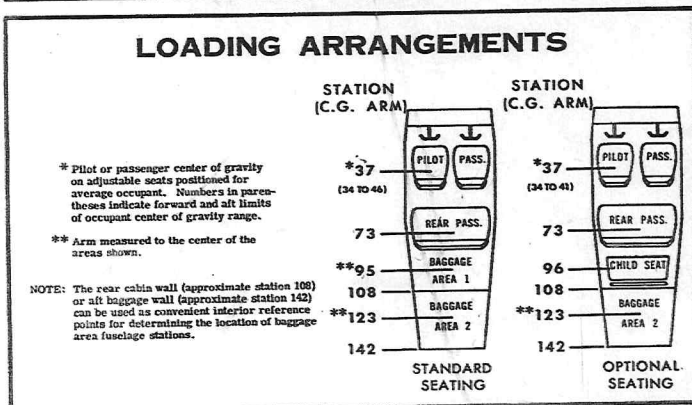
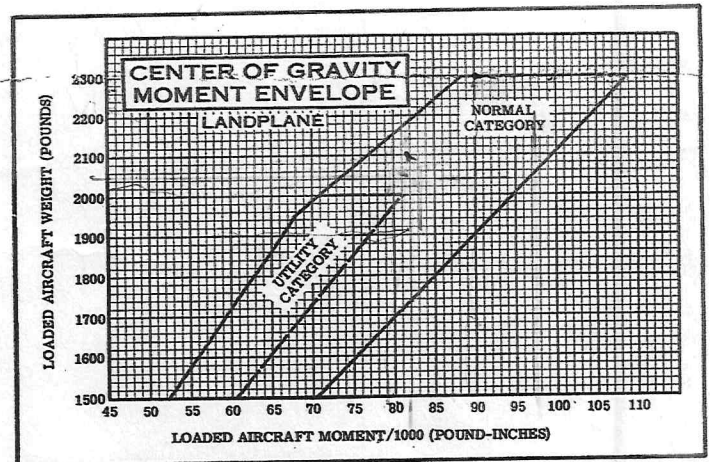
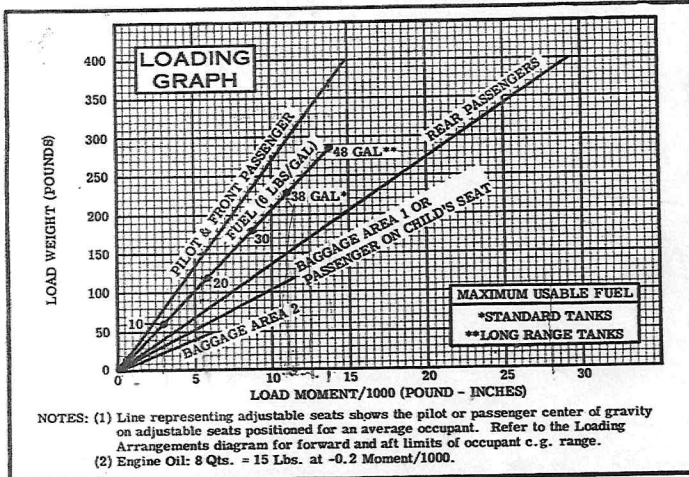
# Loading and Center of Gravity Charts

IT IS THE RESPONSIBILITY OF THE PILOT AND AIRCRAFT OWNER TO ENSURE THAT THE AIRCRAFT IS LOADED PROPERLY.

When computing aircraft loading requirements, refer to the Weight and Balance and Installed Equipment Data sheet in the aircraft file for the licensed empty weight, arm and moment of the aircraft as delivered from the factory. (If alterations have been made to the aircraft, refer to Aircraft Records for the latest empty weight, arm and moment.) The aircraft weight and balance may then be determined using the Loading Graph and Center of Gravity Moment Envelope as indicated in the Sample Loading Problems below.

| SAMPLE LOADING PROBLEM<br>(NORMAL CATEGORY)                                                                                                               | SAMPLE AIRPLANE  |                           | YOUR AIRPLANE    |                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------|------------------|---------------------------|
|                                                                                                                                                           | Weight<br>(lbs.) | Moment<br>(lb.-ins./1000) | Weight<br>(lbs.) | Moment<br>(lb.-ins./1000) |
| 1. Licensed Empty Weight (Use the data pertaining to your airplane as it is presently equipped. Includes unusable fuel.)                                  | 1366             | 53.8                      |                  |                           |
| 2. Oil (8 Qts. - The weight of full oil may be used for all calculations. 8 Qts. = 15 Lbs. at -0.2 Moment/1000.)                                          | 15               | -0.2                      | 15               | -0.2                      |
| 3. Usable Fuel (At 6 Lbs./Gal.)                                                                                                                           |                  |                           |                  |                           |
| Standard Tanks (38 Gal. Maximum)                                                                                                                          | 228              | 10.9                      | 204              | 10.9                      |
| Long Range Tanks (48 Gal. Maximum)                                                                                                                        |                  |                           |                  |                           |
| 4. Pilot and Front Passenger (Station 34 to 46)                                                                                                           | 340              | 12.6                      |                  |                           |
| 5. Rear Passengers                                                                                                                                        | 340              | 24.8                      |                  |                           |
| 6. *Baggage Area 1 or Passenger on Child's Seat (Station 82 to 108) 120 Lbs. Max.                                                                         | 11               | 1.0                       |                  |                           |
| 7. *Baggage Area 2 (Station 108 to 142) 50 Lbs. Max.                                                                                                      |                  |                           |                  |                           |
| 8. TOTAL WEIGHT AND MOMENT                                                                                                                                | 2300             | 102.9                     |                  |                           |
| 9. Locate this point (2300 at 102.9) on the Center of Gravity Moment Envelope, and since this point falls within the envelope, the loading is acceptable. |                  |                           |                  |                           |
| NOTE<br>*The maximum allowable combined weight capacity for baggage areas 1 and 2 is 120 lbs.                                                             |                  |                           |                  |                           |

| SAMPLE LOADING PROBLEM<br>(UTILITY CATEGORY)                                                                                                             | SAMPLE AIRPLANE  |                           | YOUR AIRPLANE    |                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------|------------------|---------------------------|
|                                                                                                                                                          | Weight<br>(lbs.) | Moment<br>(lb.-ins./1000) | Weight<br>(lbs.) | Moment<br>(lb.-ins./1000) |
| 1. Licensed Empty Weight (Use the data pertaining to your airplane as it is presently equipped. Includes unusable fuel.)                                 | 1366             | 53.8                      |                  |                           |
| 2. Oil (8 Qts. - The weight of full oil may be used for all calculations. 8 Qts. = 15 Lbs. at -0.2 Moment/1000.)                                         | 15               | -0.2                      | 15               | -0.2                      |
| 3. Usable Fuel (At 6 Lbs./Gal.)                                                                                                                          |                  |                           |                  |                           |
| Standard Tanks (38 Gal. Maximum)                                                                                                                         | 228              | 10.9                      |                  |                           |
| Long Range Tanks (48 Gal. Maximum)                                                                                                                       |                  |                           |                  |                           |
| 4. Pilot and Front Passenger (Station 34 to 46)                                                                                                          | 340              | 12.6                      |                  |                           |
| 5. TOTAL WEIGHT AND MOMENT                                                                                                                               | 1949             | 77.1                      |                  |                           |
| 6. Locate this point (1949 at 77.1) on the Center of Gravity Moment Envelope, and since this point falls within the envelope, the loading is acceptable. |                  |                           |                  |                           |

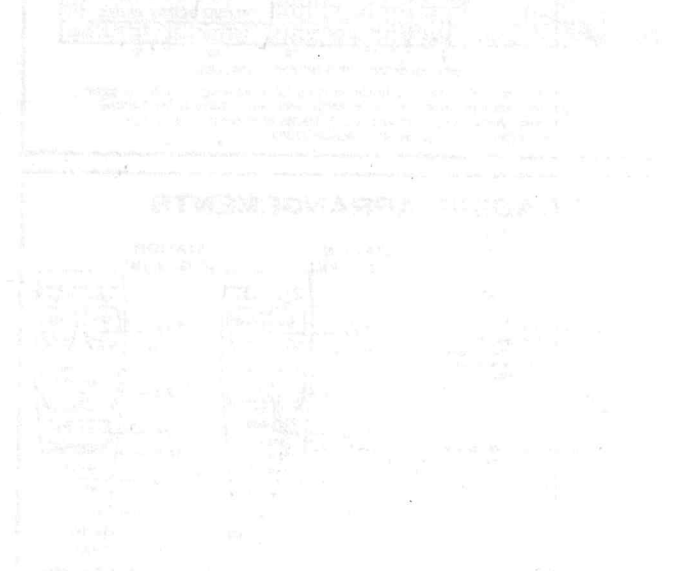
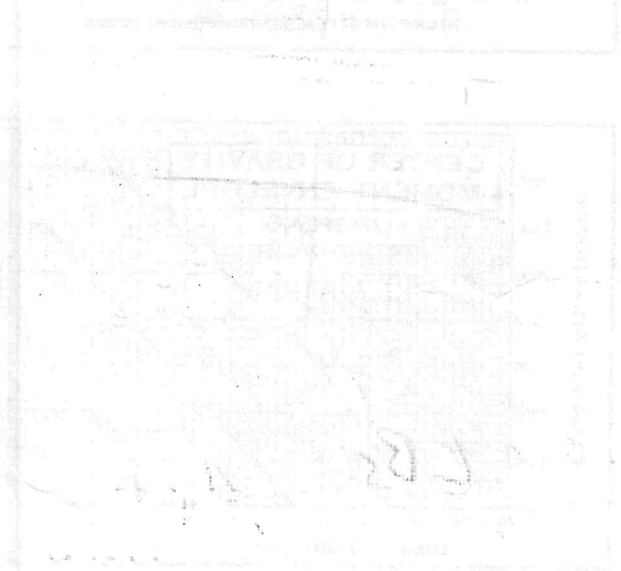
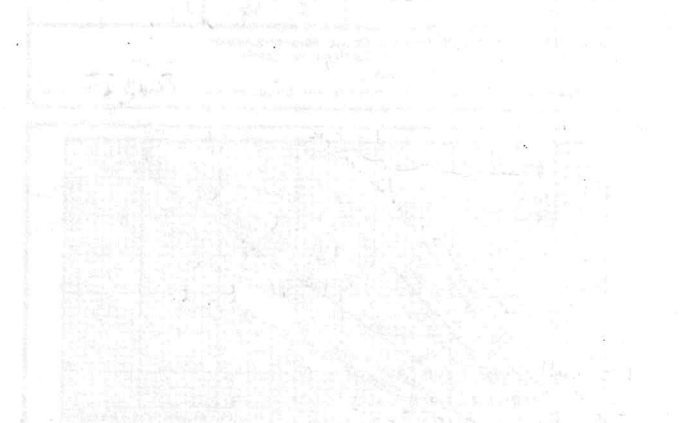
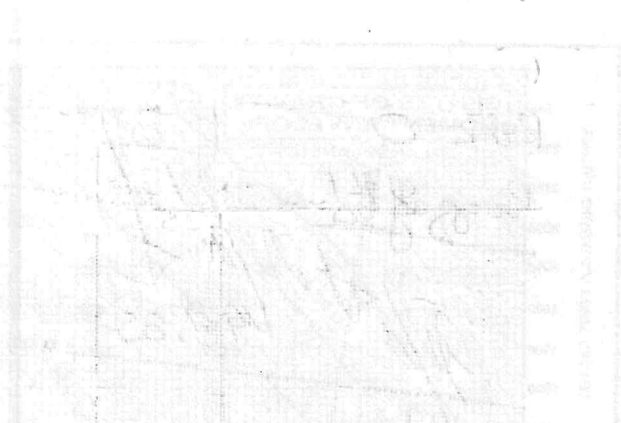


# Engineering and Center of Gravity Control

THE PURPOSE OF THIS REPORT IS TO PRESENT THE RESULTS OF THE RESEARCH CONDUCTED BY THE WICHITA AIRCRAFT COMPANY IN THE FIELD OF CENTER OF GRAVITY CONTROL. THE RESEARCH WAS CONDUCTED IN ORDER TO DETERMINE THE EFFECTS OF VARIOUS FACTORS ON THE CENTER OF GRAVITY OF AN AIRCRAFT AND TO DEVELOP METHODS FOR CONTROLLING THE CENTER OF GRAVITY.



| Weight | Center of Gravity |
|--------|-------------------|
| 100    | 10                |
| 200    | 20                |
| 300    | 30                |
| 400    | 40                |
| 500    | 50                |
| 600    | 60                |
| 700    | 70                |
| 800    | 80                |
| 900    | 90                |
| 1000   | 100               |







CESSNA AIRCRAFT CO

EQUIPMENT LIST  
MODEL 172M (1975)

WICHITA, KANSAS

## NOTES

1. Suffix letter to item numbers:  
 -R = Required items of equipment for FAA certification  
 -S = Standard equipment items  
 -O = Optional equipment items replacing required or standard items  
 -A = Optional equipment items which are in addition to required or standard items
2. Refer to the sheet titled "Weight and Balance and Installed Equipment Data" for a listing of equipment installed on your aircraft at the factory.
3. Unless otherwise indicated, true values (not net change values) for weight and arm are shown. Positive arms are distances aft of datum; negative arms are distances forward of datum (see "Weighing Procedures" sheet for datum location).
4. A separate FAA approval must be obtained if the following items are not installed per applicable Cessna drawings or accessory kit instructions.
- \* Complete assembly installations are indicated by asterisks after the item weight and arm. Some major components of the assembly are listed on the lines immediately following. The summation of these major components does not necessarily equal the complete assembly installation.

| ITEM NO | DESCRIPTION                                                                                                 | REF DRAWING                                    | WT LBS                    | ARM INS                           |
|---------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------------|-----------------------------------|
| 001-R   | Engine, Lycoming O-320-E2D (includes all electric starter and vacuum pad)                                   | 0550319                                        | 266.0                     | -20.0                             |
| 002-R   | Propeller Assy. (Fixed Pitch-Landplane)<br>Propeller (McCauley)<br>3.5 Inch Prop Spacer Adaptor (McCauley)  | C161001-0306<br>1C160/DTM7553<br>C4516         | 35.9*<br>30.1<br>3.6      | -38.5*<br>-39.1<br>-35.4          |
| 002-O   | Propeller Assy. (Fixed Pitch-Floatplane)<br>Propeller (McCauley)<br>3.5 Inch Prop Spacer Adaptor (McCauley) | C161001-0307<br>1A175/ETM8042<br>C4516         | 37.2*<br>31.5<br>3.6      | -38.6*<br>-39.1<br>-35.4          |
| 003-R   | Spinner Installation, Propeller<br>Spinner Dome<br>Fwd Spinner Bulkhead<br>Aft Spinner Bulkhead             | 0550320<br>0550236-8<br>0550321-4<br>0550321-1 | 2.0*<br>1.2<br>0.3<br>0.4 | -41.4*<br>-43.1<br>-40.8<br>-37.3 |
| 004-R   | Alternator 14 Volt, 60 Amp (Belt Drive)                                                                     | C611501-0102                                   | 10.8                      | -29.0                             |
| 006-R   | Regulator, 14 Volt, 60 Amp Alternator                                                                       | C611001-0102                                   | 0.5                       | 3.0                               |
| 007-R   | Battery, 12 Volt, 25 Amp Hour                                                                               | 0511319                                        | 23.0                      | 0.0                               |
| 008-R   | Filter, Carburetor Air                                                                                      | C294510-0301                                   | 0.5                       | -26.0                             |
| 009-R   | Heating System, Cabin & Carburetor Air (includes exhaust system)                                            | 0550319<br>0506000                             | 17.5                      | -21.0                             |

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 Cessna Aircraft Co., Pawnee Div.  
 Delegation Option Manufacturer, CE-1

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REVISED:

APPROVED:

Date

Executive Engineer

SHT 1 OF 11



# Cessna.

## EQUIPMENT LIST (CONT'D) MODEL 172M (1975)

CESSNA AIRCRAFT CO

WICHITA, KANSAS

| ITEM NO                                                                                                                                               | DESCRIPTION                                                                                                                                                                                       | REF DRAWING                                                                                  | WT LBS                                   | ARM INS                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------------------|
| 010-R                                                                                                                                                 | Oil Cooler Installation<br>Oil Cooler (Harrison ) or<br>(Stewart Warner)                                                                                                                          | 0550319<br>8526250<br>8406E                                                                  | 2.5*<br>2.1<br>2.1                       | -2.5*<br>-2.5<br>-2.5                         |
| <p>09-28-17 <i>Wichita</i> <i>AP 2841230</i><br/> <i>(TSO 626a) Installed Parker Cleveland 199-08401 Wheel + Brake Assys</i><br/> <i>same w/b</i></p> |                                                                                                                                                                                                   |                                                                                              |                                          |                                               |
| 020-R                                                                                                                                                 | Wheel, Brake, & Tire Assy, 6.00x6 Main (2)<br>Wheel Assy., McCauley D30260 (each)<br>Brake Assy., McCauley (left)<br>Brake Assy., McCauley (right)<br>Tire, 4-Ply Blackwall (each)<br>Tube (each) | C163015-0201<br>C163003-0105<br>C163032-0106<br>C163030-0112<br>C262003-0101<br>C262023-0102 | 41.7*<br>6.4<br>1.8<br>1.9<br>8.5<br>1.8 | 57.8*<br>58.2<br>54.5<br>54.5<br>58.2<br>58.2 |
| 021-R-1                                                                                                                                               | Wheel & Tire Assy, 5.00 x 5 Nose<br>Wheel Assy, McCauley C30174 (each)<br>Tire, 4-Ply Blackwall (each)<br>Tube (each)                                                                             | C163015-0101<br>C163003-0201<br>C262003-0102<br>C262023-0101                                 | 9.3*<br>3.0<br>4.7<br>1.2                | -6.8*<br>-6.8<br>-6.8<br>-6.8                 |
| 021-0                                                                                                                                                 | Wheel & Tire Assy, 6.00 x 6 H.D. Nose<br>Wheel Assy, McCauley D-30255 (each)<br>Tire, 4-Ply Blackwall (each)<br>Tube (each)<br>Nose Wheel Fork & Barrel, Heavy Duty                               | C163015B0105<br>C163003-0301<br>C262003-0101<br>C262023-0102<br>0543062                      | 17.5*<br><br>8.5<br>1.8<br>2.5           | -6.5*<br>-6.8<br>-6.8<br>-6.8<br>-5.0         |
| 022-0                                                                                                                                                 | Whitewall Tires (Replaces Blackwall Tires)<br>of items 020-R and 021-R (Net Weight<br>Change)<br>Main Tire, 4-Ply Whitewall (each)<br>Nose Tire, 4-Ply Whitewall (each)                           | 0501024<br><br>C262004-0102<br>C262004-0101                                                  | 0.8*<br><br>8.8<br>4.9                   | 42.0*<br><br>58.2<br>-6.8                     |
| 030-R                                                                                                                                                 | Altimeter                                                                                                                                                                                         | C661012-0101                                                                                 | 0.7                                      | 15.0                                          |
| 030-0                                                                                                                                                 | Altimeter (Sensitive)                                                                                                                                                                             | C661071-0101                                                                                 | 1.0                                      | 14.0                                          |
| 030-0-1                                                                                                                                               | Altimeter (Sensitive) Feet & Millibars                                                                                                                                                            | C661071-0102                                                                                 | 1.0                                      | 14.0                                          |
| 030-0-2                                                                                                                                               | Altimeter (Sensitive) 20 ft. Markings                                                                                                                                                             | C661025-0102                                                                                 | 1.0                                      | 14.0                                          |
| 030-0-3                                                                                                                                               | Altimeter, Encoding (Used with Altitude<br>reporting Transponder) (requires a<br>backup Altimeter - Weight Not. Includ.)                                                                          | 0501047                                                                                      |                                          |                                               |
| 031-R                                                                                                                                                 | Ammeter                                                                                                                                                                                           | S-1320-5                                                                                     | 0.5                                      | 16.0                                          |
| 032-R                                                                                                                                                 | Compass, Magnetic - Installation                                                                                                                                                                  | 0513262-1                                                                                    | 0.5                                      | 14.0                                          |
| 033-R                                                                                                                                                 | Indicator, Airspeed                                                                                                                                                                               | C661060-0109                                                                                 | 0.6                                      | 16.2                                          |
| 033-0                                                                                                                                                 | Indicator, True Airspeed                                                                                                                                                                          | 0513236                                                                                      | 0.7                                      | 16.3                                          |
| 034-R                                                                                                                                                 | Indicator, Audible Pneumatic Stall Warning                                                                                                                                                        | 0523112                                                                                      | 0.2                                      | 28.5                                          |
| 035-R                                                                                                                                                 | Instrument Cluster, Engine LH Fuel Oil Pres.                                                                                                                                                      | C669504-0103                                                                                 | 0.5                                      | 16.5                                          |
| 036-R                                                                                                                                                 | Instrument Cluster, Engine RH Fuel Oil Temp.                                                                                                                                                      | C669505-0101                                                                                 | 0.5                                      | 16.5                                          |
| 037-R                                                                                                                                                 | Tachometer Installation, Engine<br>Recording Tach Indicator (SW 551-RB)<br>Tach Flexible Shaft (ASES 1605-31)                                                                                     | 0506000<br>C668020-0102<br>S-1605-8                                                          | 1.0*<br>0.7<br>0.3                       | 12.1*<br>16.0<br>3.0                          |
| 038-S                                                                                                                                                 | Overvolt Sensing Switch                                                                                                                                                                           | C593001-0101                                                                                 | 0.1                                      | 14.0                                          |

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SHT 2 OF 11





# EQUIPMENT LIST (CONT'D)

CESSNA AIRCRAFT CO

MODEL 172M (1975)

WICHITA, KANSAS

| ITEM NO | DESCRIPTION                                                                                                             | REF DRAWING | WT LBS | ARM INS |
|---------|-------------------------------------------------------------------------------------------------------------------------|-------------|--------|---------|
| 050-R   | Seat, Adjustable Fore & Aft Pilot                                                                                       | 0514093     | 12.6   | 44.0    |
| 050-0   | <del>Seat, Infinite Adjusting Pilot</del>                                                                               | 0514077     | 23.0   | 41.5    |
| 051-S   | Seat, Adjustable Fore & Aft Co-Pilot                                                                                    | 0514093     | 12.6   | 44.0    |
| 051-0   | <del>Seat, Infinite Adjusting Co-Pilot</del>                                                                            | 0514077     | 23.0   | 41.5    |
| 052-S   | Seat, Rear (One Piece Back Cushion)                                                                                     | 0514081     | 22.0   | 79.5    |
| 052-0   | <del>Seat, Rear (Two Piece Back Cushion)</del>                                                                          | 0514082     | 23.0   | 79.5    |
| 053-R   | Belt Assy., Pilot Lap                                                                                                   | S-2070-103  | 1.0    | 37.0    |
| 054-S   | Shoulder Harness Assy, Pilot                                                                                            | S-2070-201  | 0.6    | 37.0    |
| 054-0   | <del>Belt &amp; Shoulder Harness Assy, Pilot</del><br>(For Australia & New Zealand) Net Change                          | S-2070-3VH  | Neg.   | -       |
| 055-S   | Belt & Shoulder Harness Assy, Co-Pilot Lap                                                                              | S-2070-3    | 1.6    | 37.0    |
| 055-0   | <del>Belt &amp; Shoulder Harness Assy, Co-Pilot</del><br>(For Australia & New Zealand) Net Change                       | S-2070-3VH  | Neg.   | -       |
| 056-S   | Belt Assy, Rear Occupant Lap (Set of Two)                                                                               | S-1746-13   | 2.0    | 70.0    |
| 056-0   | <del>Belt &amp; Shoulder Harness Assy, Rear</del><br>Occupant Lap (Set of Two)                                          | S-2070-8    | 3.2    | 70.0    |
| 056-0-1 | Belt & Shoulder Harness Assy, Rear (Set of two) for Australia & New Zealand                                             | S-2070-8VH  | 3.2    | 70.0    |
| 057-0   | <del>Shoulder Harness Inertia Reel Installation</del><br>Replaces Std. belts & harness-Net Change<br>(Pilot & Co-Pilot) | 0501046-1   | 2.0    | 82.0    |
| 060-S   | <del>Baggage Net</del>                                                                                                  | 2015009     | 0.5    | 95.0    |
| 061-S   | <del>Paint, Standard Stripe Exterior</del>                                                                              | 0504025     | 1.5    | 96.9    |
| 061-0   | <del>Paint, Overall Exterior</del><br>Overall White Base                                                                | 0504025     | 9.6*   | 91.4*   |
|         | Color Stripe                                                                                                            | 0504025     | 8.2    | 90.5    |
| 061-0-1 | Paint Scheme - Skyhawk II<br>(Includes overall white base)                                                              | 0504025     | 1.4    | 96.9    |
| 062-0   | <del>Fuel System, Long Range Wing Tanks</del><br>(Net Change)                                                           | 0520013     | 9.5    | 48.0    |
| 063-0   | Heating System, Pitot (Net Change)                                                                                      | 0422355     | 0.6    | 24.4    |
| 070-R   | Placard, Operational Limitations for Day VFR only.                                                                      | 1205001     | 0.0    | -       |
| 070-0   | Placard, Operational Limitations for Day Night VFR (Requires Item 235-A or 236A)                                        | 1205001     | 0.0    | -       |
| 070-0-1 | Placard, Operational Limitations for Day Night VFR-IFR (Requires Items 235-A or 236-A, gyros and Nav-Com radio)         | 1205001     | 0.0    | -       |
| 070-0-2 | Placard, Operational Limitations, Float-plane (Required with float installation)                                        | 1205001     | 0.0    | -       |
| 071-S   | Pilot's Checklist and Holder (Stowed)                                                                                   | 0505049     | --     | --      |

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SHT 3 OF 11





# Cessna.

## EQUIPMENT LIST (CONT'D)

CESSNA AIRCRAFT CO

MODEL 172M (1975)

WICHITA, KANSAS

| ITEM NO | DESCRIPTION                                                                        | REF DRAWING       | WT LBS              | ARM INS     |
|---------|------------------------------------------------------------------------------------|-------------------|---------------------|-------------|
| 200-A   | Arm Rests-Rear Seat (Set of 2)                                                     | 0715039           | 1.5                 | 72.5        |
| 201-A   | Clock, Electric                                                                    | C664508-0101      | 0.4                 | 16.3        |
| 202-A   | Cables, Corrosion Resistant Control<br>(Net Change)                                | 0500036           | 0.0                 | -           |
| 203-A   | Controls Installations, Dual                                                       | 0513335           | 4.9                 | 12.4        |
| 204-A   | <del>Corrosion Proofing, Internal</del>                                            | 0500036           | 10.0                | 77.0        |
| 205-A   | <del>Detectors, Navigation Light (Set of 2)</del>                                  | 0701013-1, -2     | 0.0                 | -           |
| 206-A   | Fairing Installation, Wheel (Set of 3)                                             | 0541225-1         | 17.8*               | 46.1*       |
|         | Nose Wheel Fairing <i>Removed 5-26-06</i>                                          | <i>AP 2841230</i> | <i>4.0</i>          | <i>-4.9</i> |
|         | Main Wheel Fairing (each)                                                          | <i>AP 2841230</i> | <i>14.7</i>         | <i>60.3</i> |
| 207-A   | Filter Installation, Full Flow Engine Oil                                          | 1756004-1         | 4.5*                | -5.0*       |
|         | Adaptor Assembly (Lycoming)                                                        | 755288            | 0.8                 | -6.5        |
|         | Filter Can Assembly (AC 6436992)                                                   |                   | 1.8                 | -3.3        |
|         | Filter Element Kit (AC 6435683)                                                    |                   | 0.3                 | -3.3        |
| 208-A   | Fire Extinguisher Installation                                                     | 0501011           | 3.0*                | 43.8*       |
|         | Fire Extinguisher                                                                  | C421001-0101      | 2.6                 | 44.0        |
|         | Fire Extinguisher Bracket                                                          | C421001-0102      | 0.3                 | 42.2        |
|         | <i>Removed 5-5-09</i>                                                              | <i>AP 2841230</i> | <i>Revised with</i> | <i>8</i>    |
| 210-A   | Gage, Outside Air Temperature                                                      | C668507-0101      | 0.1                 | 28.6        |
| 211-A   | <del>Ground Service Plug Receptacle</del>                                          | 0513229           | 2.7                 | -2.6        |
| 212-A   | <del>Gage, Carburetor Air Temperature</del>                                        | 0513339           | 1.0                 | 14.0        |
| 213-A   | Gyros, Horizon & Directional                                                       | 0513407-4         | 5.8                 | 14.0        |
| 214-A   | <del>Gyros, Horizon &amp; ARC Directional</del><br>(for NOM 300 use)               | 0513398-9         | 6.9                 | 13.4        |
|         |                                                                                    | 1201126-1         |                     |             |
| 215-A   | <del>Headrest, Front (Set of 2)</del>                                              | 1215073-11        | 1.5                 | 47.0        |
| 216-A   | <del>Headrest, Rear (Set of 2)</del>                                               | 1215073-11        | 1.5                 | 86.0        |
| 217-A   | <del>Hook, Glider Tow (Installed)</del><br>(Stowed)                                | 0500228           | 0.5                 | 229.0       |
|         |                                                                                    |                   | 0.5                 | 95.0        |
| 220-A   | Indicator, Rate of Climb                                                           | C661080-0101      | 1.0                 | 14.9        |
| 221-A   | Indicator, Turn Coordinator                                                        | C661003-0504      | 1.3                 | 15.8        |
| 222-A   | <del>Indicator, Turn Coordinator (for use with</del><br>Nav-O-Matic 200A and 300A) | 42320-0014        | 1.9                 | 14.6        |
| 223-A   | <del>Indicator, Turn and Bank (Not Computable</del><br>with Nav-O-Matic)           | S-1413N2          | 2.0                 | 14.5        |
| 224-A   | <del>Leather Seating (Net Change)</del>                                            | CES-1151          | 2.0                 | 62.0        |
| 230-A   | Light Installation, Cowl Landing<br>Lamp, 250 Watt (G.E.)                          | 0501016           | 1.9*                | -27.1*      |
|         |                                                                                    | 4522              | 0.8                 | -29.0       |
| 231-A   | <del>Lights, Dual Cowl Mounted Landing</del><br>Lamp, 250 Watt (G.E.) (each)       | 0552141           | 3.2*                | -23.0*      |
|         |                                                                                    | 4509              | 0.5                 |             |
| 232-A   | <del>Light, Map (Control Wheel Mounted)</del>                                      | 0570087           | 0.2                 | 21.5        |
| 233-A   | Light, Map and Instrument Panel<br>(Doorpost Mounted)                              | 0700149           | 0.3                 | 32.0        |
| 234-A   | Lights, Courtesy (Set of 2)                                                        | 0521101           | 0.5                 | 61.0        |

ISSUED: 4/16/74

REVISED:

SHT 4 OF 11





# EQUIPMENT LIST (CONT'D)

CESSNA AIRCRAFT CO

MODEL 172M (1975)

WICHITA, KANSAS

| ITEM NO     | DESCRIPTION                                                                                                                        | REF DRAWING                                                             | WT LBS                           | ARM INS                               |
|-------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------|---------------------------------------|
| 1           |                                                                                                                                    |                                                                         |                                  |                                       |
| 235-A       | Light Installation, Omiflash Beacon<br>Beacon Light on Fin Tip<br>Flasher Power Supply<br>Resistor (Memcor)                        | 0506003<br>C621001-0103<br>C594502-0101<br>OR95-1.5                     | 2.1*<br>0.4<br>0.8<br>0.3        | 184.2*<br>243.0<br>205.8<br>208.1     |
| 236-A       | <del>Light Installation, Wing Tip Strobe</del><br>Flasher Power Supply (Set of 2 in Wing)<br>Strobe Light, Wing Tip (Set of 2)     | 0501027<br>C622007-0101<br>C622006                                      | 3.4*<br>2.3<br>0.2               | 43.3*<br>47.0<br>43.5                 |
| 240-A       | <del>Mirror, Rear View</del>                                                                                                       | 0500312                                                                 | 0.3                              | 15.9                                  |
| 241-A       | Oil Quick Drain Valve (Net Change)                                                                                                 | 1701015                                                                 | 0.0                              |                                       |
| 242-A / cyl | Primer System, Engine Three Cylinder                                                                                               | 1756003                                                                 | 0.5                              | -12.0                                 |
| 243-A       | Recorder Installation, Flight Hour                                                                                                 | 0501013                                                                 | 0.8                              | 12.3                                  |
| 244-A       | Rings, Cargo Tie-Down (Stowed) (Use ARM as installed with Cargo)                                                                   | 0500042                                                                 | 1.0                              |                                       |
| 245-A       | <del>Rings, Airplane Hoisting</del>                                                                                                | 0541115                                                                 | 1.1                              | 49.1                                  |
| 246-A / NA  | <del>Seat Installation, Child's Fold-Away</del><br>Lap Belt Assy<br>Seat Assy                                                      | 0501009<br>S-1746-5<br>0714005-1                                        | 8.4*<br>0.8<br>6.7               | 101.1*<br>100.8<br>100.8              |
| 247-A       | Shelf, Utility                                                                                                                     | 0500230                                                                 | 1.0                              | 103.0                                 |
| 248-A / NA  | <del>Stabilizer Abrasion Boots</del>                                                                                               | 0500041                                                                 | 2.7                              | 206.0                                 |
| 250-A       | Static Source, Alternate                                                                                                           | 0501017                                                                 | 0.2                              | 15.5                                  |
| 251-A       | Steps & Handle, Refueling                                                                                                          | 0513415                                                                 | 1.7                              | 17.8                                  |
| 252-A       | <del>Stretcher Installation (Boxed)</del>                                                                                          | 0700164-4                                                               | Use Actual Arm & Weight Change   |                                       |
| 253-A       | Sun Visors (Set of 2)                                                                                                              | 0500040                                                                 | 0.9                              | 32.8                                  |
| 254-A       | Tow Bar (Stowed)                                                                                                                   | 2001014                                                                 | 1.6                              | 95.0                                  |
| 255-A       | Vacuum System Installation<br>Dry Vacuum Pump Airborne 201CC<br>Airborne 205CC<br>Airborne 211CC<br>Edo Aire 1U228-001             | 0513407<br>C431003-0101<br>C431003-0101<br>C431003-0101<br>C431003-0301 | 4.3*<br>3.5<br>2.3<br>1.8<br>3.7 | -3.0*<br>-6.3<br>-6.3<br>-6.3<br>-6.3 |
|             | Filter                                                                                                                             | C294502-0101                                                            | 0.2                              | 4.7                                   |
|             | Gauge                                                                                                                              | C668509-0101                                                            | 0.1                              | 16.2                                  |
|             | Relief Valve                                                                                                                       | C482001-0401                                                            | 0.5                              | 4.5                                   |
| 256-A       | Ventilation System, Rear Seat                                                                                                      | 0501026                                                                 | 1.5                              | 60.0                                  |
| 257-A       | <del>Winterization Kit Installation, Engine</del><br>Breather Tube Insulation<br>Two Cowl Inlet Air Covers (Installed)<br>(Stowed) | 0501008-1<br>0552011<br>0552132-1, -2<br>0552132-1, -2                  | 0.8*<br>0.4<br>0.3<br>0.3        | -22.7*<br>-13.8<br>-32.0<br>95.0      |
| 258-A       | Winterization Kit Instl. - Floatplane only<br>Breather Tube<br>Cowl Outlet Cover (1) (Installed)<br>(Stowed)                       | 0552011                                                                 | 1.0*<br>0.4<br>0.6<br>0.6        | -7.2*<br>-12.0<br>-4.0<br>95.0        |
| 259-A       | Window, Right Door Hinged (Net Change)                                                                                             | 0511803                                                                 | 2.3                              | 47.0                                  |
| 260-A       | Windows, Overhead Cabin Top (Net Increase)                                                                                         | 0511800                                                                 | 0.9                              | 47.9                                  |
| 261-A       | Windows, Tinted Front, Rear & Side<br>(Net Change)                                                                                 | 0500267                                                                 | 0.0                              | -                                     |

ISSUED: 4/16/74

REVISED:

SHT 5 OF 11





# EQUIPMENT LIST (CONT'D)

## MODEL 172M (1975)

CESSNA AIRCRAFT CO

WICHITA, KANSAS

| ITEM NO | DESCRIPTION                                                                                                                                                                                                | REF DRAWING  | WT LBS                                     | ARM INS |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------------------|---------|
| 1       |                                                                                                                                                                                                            |              |                                            |         |
| 270-A   | Floatplane Fuselage Structural Modifications & Fittings (Option "C")                                                                                                                                       | 0500083      | 6.1                                        | 45.5    |
| 271-A   | Floatplane Cowl Deck V-Brace (Installed)                                                                                                                                                                   | 0513003      | 1.1                                        | 26.2    |
|         | (Stowed)                                                                                                                                                                                                   |              | 1.1                                        | 95.0    |
| 272-A   | Floatplane Aileron Rudder Interconnect (Floatplane only) (Installed arm)                                                                                                                                   | 0560012      | 0.4                                        | 69.6    |
|         | (Stowed arm)                                                                                                                                                                                               |              | 0.4                                        | 95.0    |
|         | Items 270-A & 271-A, are also approved for landplane operations.                                                                                                                                           |              |                                            |         |
| 273-A   | Floats & Attachments, (Edo Model 89A2000 Floats and Model 502 (Attach Gear)                                                                                                                                | Edo-36335    | 274.0                                      | 42.5    |
|         | Float Installation Consists of Items: 273-A and 404-A. Replaces Items: 020-R and 021-R Main Gear Assy, Nose Gear Assy, Brakes and Steering Mechanism. Replaces Items: 021-0, 205-A and 254-A if installed. | Edo-36335    | Use Actual Installed Weight and Arm Change |         |
| 400-A   | Primary Group Kit Equipment Consists of:                                                                                                                                                                   | 0501024      | 6.1*                                       | 5.7*    |
|         | 030-0 Sensitive Altimeter (Exchange)                                                                                                                                                                       | C661017-0102 | 0.2                                        | 10.5    |
|         | 201-A Electric Clock C664508-0101                                                                                                                                                                          |              | 0.4                                        | 16.3    |
|         | 210-A Outside Air Temperature Gauge                                                                                                                                                                        | C668507-0101 | 0.1                                        | 28.6    |
|         | 220-A Rate of Climb Indicator                                                                                                                                                                              | C661080-0101 | 1.0                                        | 14.9    |
|         | 221-A Turn Coordinator Indicator                                                                                                                                                                           | C661003-0504 | 1.3                                        | 15.8    |
|         | 230-A Landing Light, Cowl Mounted                                                                                                                                                                          | 0501016      | 1.9                                        | -27.1   |
|         | 233-A Map Light, Doorpost Mounted                                                                                                                                                                          | 0700149      | 0.3                                        | 32.0    |
|         | 253-A Sun Visors (Set of 2)                                                                                                                                                                                | 0715034      | 0.9                                        | 32.8    |
| 401-A   | Skyhawk Equipment Kit Consists of Items:                                                                                                                                                                   | 0500505      | 37.2*                                      | 31.8*   |
|         | 200-A Armrests, Rear Seat (Set of 2)                                                                                                                                                                       | 0514079      | 1.5                                        | 72.5    |
|         | 206-A Wheel Fairings (Set of 3)                                                                                                                                                                            |              | 17.8                                       | 46.1    |
|         | 213-A Gyros, Horizon & Directional                                                                                                                                                                         | 0513407      | 5.8                                        | 14.0    |
|         | 254-A Tow Bar (Stowed)                                                                                                                                                                                     | 0501019      | 1.6                                        | 95.0    |
|         | 255-A Vacuum System                                                                                                                                                                                        | 0513407      | 4.4                                        | -3.0    |
|         | 400-A Primary Group Kit                                                                                                                                                                                    | 0501024      | 6.1                                        | 5.7     |
|         | 061-0 Paint, Overall Exterior (This item is required by, but not included in Skyhawk Equipment Kit Weight)                                                                                                 |              |                                            |         |
| 402-A   | Skyhawk III Equipment Consists of Items:                                                                                                                                                                   | 0500505      | 47.3*                                      | 39.7*   |
|         | 401-A Skyhawk Kit                                                                                                                                                                                          |              | 37.2                                       | 31.8    |
|         | 033-0 True Air Speed Ind. (Net Change)                                                                                                                                                                     |              | 0.1                                        | 16.7    |
|         | 063-0 Heated Pitot System                                                                                                                                                                                  |              | 0.6                                        | 24.4    |
|         | 203-A Dual Controls                                                                                                                                                                                        |              | 4.9                                        | 12.4    |
|         | 205-A Nav Light Detectors                                                                                                                                                                                  |              | ---                                        | ----    |
|         | 234-A Courtesy Lights                                                                                                                                                                                      |              | 0.5                                        | 61.0    |
|         | 235-A Flashing Beacon Light                                                                                                                                                                                |              | 2.1                                        | 184.2   |
|         | 250-A Static Alternate Source                                                                                                                                                                              |              | 0.2                                        | 15.5    |
|         | 581-A E.L.T.                                                                                                                                                                                               |              | 1.7                                        | 117.0   |
|         | (Requires 060-0-1 Special Paint and Cessna Nav-Com, but weights are not included)                                                                                                                          |              |                                            |         |

ISSUED: 4/16/74

REVISED:

SHT 6 OF 11



# EQUIPMENT LIST

| REF     | DRAWING | DESCRIPTION |
|---------|---------|-------------|
| 0200001 |         | 0200001     |
| 0200002 |         | 0200002     |
| 0200003 |         | 0200003     |
| 0200004 |         | 0200004     |
| 0200005 |         | 0200005     |
| 0200006 |         | 0200006     |
| 0200007 |         | 0200007     |
| 0200008 |         | 0200008     |
| 0200009 |         | 0200009     |
| 0200010 |         | 0200010     |
| 0200011 |         | 0200011     |
| 0200012 |         | 0200012     |
| 0200013 |         | 0200013     |
| 0200014 |         | 0200014     |
| 0200015 |         | 0200015     |
| 0200016 |         | 0200016     |
| 0200017 |         | 0200017     |
| 0200018 |         | 0200018     |
| 0200019 |         | 0200019     |
| 0200020 |         | 0200020     |
| 0200021 |         | 0200021     |
| 0200022 |         | 0200022     |
| 0200023 |         | 0200023     |
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| 0200095 |         | 0200095     |
| 0200096 |         | 0200096     |
| 0200097 |         | 0200097     |
| 0200098 |         | 0200098     |
| 0200099 |         | 0200099     |
| 0200100 |         | 0200100     |



# EQUIPMENT LIST (CONT'D)

CESSNA AIRCRAFT CO

MODEL 172M (1975)

WICHITA, KANSAS

| ITEM NO | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                           | REF DRAWING                                                                                                   | WT LBS                                                                | ARM INS                                                                  |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------|
| 403-A   | Nav-Pak (Skyhawk II only) (Includes full<br>instl. weight not in Hawk II Kit)<br>550-A 300 ADF (R546A)<br>553-A 300 Nav/Com (308C)<br>554-A 300 Nav/Com (328D) (VOR/LOC)<br>560-A 300 Transponder (RT359A)                                                                                                                                                                                                                                            | 3910138-1<br>3910137-1<br>3910120-27<br>3910118-59<br>3910127-11                                              | 38.2*<br>8.8<br>8.7<br>9.0<br>4.9                                     | 24.7*<br>20.1<br>11.3<br>11.3<br>34.8                                    |
| 404-A   | Floatplane Equipment Kit, Cessna Complete<br>(Option "A") Consists of Items:<br>002-0 Propeller, Floatplane (Exchange)<br>070-0-1 Placard, Operational Floatplane<br>201-A Cables, Corrosion Resistant (Exch.)<br>203-A Corrosion Proofing, Internal<br>244-A Rings, Airplane Hoisting<br>251-A Steps & Handle, Refueling<br>270-A Fuselage Modification (Option "C")<br>271-A Cowl Deck V-Brace (Installed)<br>272-A Interconnect System (Installed) | 0500083<br>0550320<br>1205001-34<br>0500036<br>0500036<br>0541115<br>0513415<br>0500083<br>0513003<br>0560012 | 21.7*<br>1.3<br>0.0<br>0.0<br>10.0<br>1.1<br>1.7<br>6.1<br>1.1<br>0.4 | 52.3*<br>-41.4<br>-<br>-<br>77.0<br>49.1<br>17.8<br>45.5<br>26.2<br>69.6 |
| 405-A   | Floatplane Equipment Kit, Cessna Partial<br>(Option "B") Consists of Items:<br>070-0-1 Placard, Operational Floatplane<br>201-A Cables, Corrosion Resistant (Exch.)<br>203-A Corrosion Proofing, Internal<br>245-A Rings, Airplane Hoisting<br>251-A Steps & Handle, Refueling<br>270-A Fuselage Modification (Option "C")<br>271-A Cowl Deck V-Brace (Stowed)<br>272-A Interconnect System (Stowed)                                                  | 0500083<br>1205001-34<br>0500036<br>0500036<br>0541115<br>0513415<br>0500083<br>0513003<br>0560012            | 20.4*<br>0.0<br>0.0<br>10.0<br>1.1<br>1.7<br>6.1<br>1.1<br>0.4        | 62.5*<br>-<br>-<br>77.0<br>49.1<br>17.8<br>45.5<br>95.0<br>95.0          |
| 500-A   | Nav-O-Matic 200A (Not Interchangeable<br>with 1974 Model) on Skyhawk or Skyhawk III<br>Controller & Mount (CA-295B)<br>Turn Coordinator (Exchange) (G-300A)<br>Wing Installation<br>Servo Unit (PA-295B)                                                                                                                                                                                                                                              | 3910130-2                                                                                                     | 13.0*<br>1.6<br>0.0<br>8.0<br>(5.8)                                   | 48.3*<br>13.1<br>--<br>68.3<br>(68.9)                                    |
| 501-A   | Nav-O-Matic 300A<br>Controller-Amplifier & Mount (CA-395A)<br>Gyro Installation<br>Turn-Coordinator<br>Vacuum System<br>Wing Installation<br>Servo Unit<br>Relay Installation                                                                                                                                                                                                                                                                         |                                                                                                               | 24.8*<br>1.8<br>6.9<br>1.9<br>4.3<br>8.0<br>5.8<br>0.4                | 28.7*<br>13.1<br>13.4<br>14.6<br>-3.0<br>68.3<br>(68.9)<br>4.0           |

ISSUED: 4/16/74

REVISED:

SHT 7 OF 11





CESSNA AIRCRAFT CO

EQUIPMENT LIST (CONT'D)  
MODEL 172M (1975)

WICHITA, KANSAS

| ITEM NO | DESCRIPTION                                      | REF DRAWING | WT LBS | ARM INS |
|---------|--------------------------------------------------|-------------|--------|---------|
| 510-A   | Electronic Option A1 Nav/Com Provisions          | 3910147     | 6.4*   | 57.3*   |
|         | 520-A Antenna & Cable, Left VHF Com              |             | 0.8    | 46.6    |
|         | 521-A Antenna & Cable, VOR Nav                   |             | 1.4    | 181.5   |
|         | 524-A Audio Junction Box & Relay                 | 0570400-736 | 0.4    | 11.5    |
|         | 525-A Headset Installation                       | 0570400-704 | 0.2    | 14.2    |
|         | 526-A Microphone Instl., Hand-Held               | 0570400-713 | 0.3    | 17.2    |
|         | 528-A Noise Filter Audio (S-1915-1)              |             | 0.1    | -26.0   |
|         | 529-A Radio Cooling                              | 3910115     | 0.2    | 8.0     |
|         | 531-A Relay Installation, Split Bus Bar          | 0570400-744 | 0.3    | 6.4     |
|         | 532-A Speaker Instl., Cabin (596504-0201)        | 0570400-740 | 1.2    | 37.9    |
|         | 533-A 300 Nav Com Mtg. Box & Wiring              |             | 1.5    | 10.9    |
|         | Circuit Breaker 10 Amp                           | S-1360-10L  | 0.0    | 16.5    |
| 511-A   | Electronic Option B1 2nd Nav/Com Prov.           | 3910147     | 3.2*   | 20.1*   |
|         | 520-A Antenna & Cable, RH VHF Com                |             | 0.8    | 46.6    |
|         | 522-A Antenna Coupler & Cable (S-2086-1)         |             | 0.2    | 5.0     |
|         | 529-A Radio Cooling                              | 3910115     | 0.2    | 8.0     |
|         | 530-A Radio Selector Switches                    |             | 0.5    | 16.0    |
|         | 533-A 300 Nav Com Mtg. Box & Wiring              |             | 1.5    | 10.9    |
|         | Circuit Breaker - 10 Amp                         | S-1360-10L  | 0.0    | 16.5    |
| 512-A   | Electronic Option C ADF Provisions               | 3910147     | 4.6*   | 27.3*   |
|         | 534-A ADF Loop Antenna & Assoc. Wiring           |             | 1.9    | 31.9    |
|         | 535-A ADF Sense Antenna & Cables                 |             | 1.1    | 39.3    |
|         | 536-A ADF Receiver Mount & Wiring                |             | 1.5    | 11.1    |
|         | Circuit Breaker 5 Amp                            | S-1360-5L   | 0.0    | 16.5    |
| 513-A   | Electronic Option D Nav-O-Matic Wing Provisions  | 0522632-2   | 1.7    | 68.2    |
| 520-A   | Antenna & Cable, Left VHF Communications         |             | 0.8*   | 46.6*   |
|         | Antenna                                          |             | 0.4    | 62.5    |
| 521-A   | Antenna & Cable, VOR Navigation                  |             | 1.4    | 181.5   |
| 522-A   | Antenna Coupler & Cables, VOR (S-2086-1)         |             | 0.2    | 5.0     |
| 523-A   | <del>Audio Junction Box with Relay</del>         | 0570400-736 | 0.4    | 11.5    |
| 524-A   | Control Wheel Mike Switching                     | 0570087-2   | 0.5    | 20.0    |
| 525-A   | Headset Installation (C596501-0104)              | 0570400-704 | 0.2    | 14.2    |
| 526-A   | Microphone Installation, Hand-Held               | 0570400-713 | 0.3    | 17.2    |
| 527-A   | Microphone Headset Combination                   | 3970112-1   | 0.2    | 12.0    |
| 528-A   | Noise Filter Audio (S-1915-1)                    |             | 0.1    | -26.0   |
| 529-A   | Radio Cooling System (Each Transmitter)          | 3930115     | 0.2    | 8.0     |
| 530-A   | Radio Selector Switches                          |             | 0.5    | 16.0    |
| 531-A   | Relay Instl., Split Bus Bar                      | 0570400-744 | 0.3    | 6.4     |
| 532-A   | Speaker Instl., Cabin (C596504-0201)             | 0570400-740 | 1.2    | 37.9    |
| 533-A   | <del>300 Nav-Com Mounting Box &amp; Wiring</del> |             | 1.5    | 10.9    |
| 534-A   | <del>ADF Loop Antenna &amp; Assoc. Cables</del>  |             | 1.9    | 31.9    |
| 535-A   | <del>ADF Sense Antenna &amp; Cables</del>        | 0570400-632 | 1.1    | 39.3    |
| 536-A   | <del>ADF Revr. Mounting &amp; Wiring</del>       |             |        |         |

ISSUED: 4/16/74

REVISED:

SHT 8 OF 11





CESSNA AIRCRAFT CO

EQUIPMENT LIST (CONT'D)  
MODEL 172M (1975)

WICHITA, KANSAS

| ITEM NO | DESCRIPTION                                                                                                                                                                            | REF DRAWING                                                                                       | WT LBS                                         | ARM INS                                                |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------------------------------------------|
| 550-A   | Cessna 300 ADF (546A or 546E)<br>R-546A Receiver or<br>R-546E Receiver with BFO<br>M-346A Mounting Box<br>IN-546 Indicator<br>L-346A Antenna, Fixed Loop<br>Sense Antenna Installation | 3910137-1&-2<br>41240-1001<br>41240-0101<br>40900-0000<br>41250-1001<br>41000-1001<br>0570400-632 | 8.8*<br>3.3<br>3.3<br>0.5<br>0.9<br>1.4<br>0.2 | 20.1*<br>12.1<br>12.1<br>12.1<br>14.0<br>39.3<br>108.6 |
| 551-A   | Cessna 300 DME (KN-60C)<br>KN-60C Transceiver 066-1028-03<br>Mounting Box<br>KA-32 Antenna                                                                                             | 3910134-1<br>C582602-0301<br><br>3960106-1                                                        | 9.6*<br>6.8<br>0.6<br>0.4                      | 18.5*<br>11.3<br>11.3<br>86.1                          |
| 552-A   | Cessna 400 Marker Beacon (502B)<br>R-502B Receiver<br>Antenna, "L" Shaped Rod                                                                                                          | 3910102<br>31240-0014<br>0770681-1                                                                | 2.6*<br>1.0<br>0.7                             | 51.9*<br>11.8<br>136.0                                 |
| 553-A   | Cessna 300 Nav/Com 360 Ch. (Voice Only)<br>RT-308C Receiver Transmitter<br>Mounting Box<br>IN-514R VOR Indicator                                                                       | 3910120-26<br>42450-1114<br>40550-0001<br>31630-0000                                              | 8.7*<br>6.3<br>0.8<br>0.9                      | 11.3*<br>10.7<br>10.7<br>16.3                          |
| 554-A   | Cessna 300 Nav/Com 720 Ch. (328D & IN-514R)<br>RT-328D Receiver Transmitter<br>Mounting Box<br>IN-514R VOR/LOC Indicator                                                               | 3910118-59<br>43340-1114<br>40550-0001<br>31640-0000                                              | 9.0*<br>6.6<br>0.8<br>0.9                      | 11.3*<br>10.7<br>10.7<br>16.3                          |
| 555-A   | Cessna 300 Nav/Com 720 Ch. (328D & IN-525A)<br>RT-328D Receiver Transmitter<br>Mounting Box<br>IN-525A VOR/ILS Indicator                                                               | 3910123-59<br>43340-1114<br>40550-0001<br>32350-0000                                              | 9.1*<br>6.6<br>0.8<br>1.0                      | 11.4*<br>10.7<br>10.7<br>16.3                          |
| 556-A   | Cessna 300 Nav/Com 360 Ch. (528E & IN-514R)<br>RT-528E Receiver Transmitter<br>Mounting Box<br>IN-514R VOR/LOC Indicator                                                               | 3910118-25<br>41380-1114<br>40550-0001<br>31640-0000                                              | 9.7*<br>7.3<br>0.8<br>0.9                      | 11.4*<br>10.7<br>10.7<br>16.3                          |
| 557-A   | Cessna 300 Nav/Com 360 Ch. (528E & IN-525A)<br>RT-528E Receiver Transmitter<br>Mounting Box<br>IN-525A VOR/ILS Indicator                                                               | 3910118-26<br>41380-1114<br>40550-0001<br>32350-0000                                              | 9.8*<br>7.3<br>0.8<br>1.0                      | 11.4*<br>10.7<br>10.7<br>16.3                          |
| 558-A   | Cessna 300 HF Transceiver (PT-10A)<br>PT-10A Transceiver<br>Mounting Box<br>PT-10-PS-14 Remote Power Supply<br>DX-10-RL 14 Antenna Load Box<br>35 1/2 Inch Long Antenna Wire           | 3910135-1<br>C582103-0101<br><br>C582103-0201<br>C589502-0101                                     | 20.7*<br>4.2<br>0.5<br>8.6<br>4.2<br>0.3       | 86.0*<br>10.4<br>10.4<br>115.8<br>111.0<br>151.1       |
| 559-A   | Cessna 300 VHF Transceiver (524A)<br>RT-524A Transceiver<br>M-514R Mounting Box                                                                                                        | 3910133-1<br>31390-1114<br>30420-0000                                                             | 7.8*<br>6.6<br>0.7                             | 10.9*<br>10.7<br>10.7                                  |

ISSUED: 4/16/74

REVISED:

SHT 9 OF 11





WICHITA, KANSAS

| ITEM NO | DESCRIPTION                                                                                                                                                                           | REF DRAWING                                             | WT LBS                                   | ARM INS                                          |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------------|--------------------------------------------------|
| 560-A   | Cessna 300 Transponder (RT-359A)<br>Receiver Transmitter<br>Antenna (A-109A)                                                                                                          | 3910127-2<br>41420-1114<br>41530-0001                   | 4.9*<br>2.8<br>0.3                       | 34.8*<br>11.1<br>126.0                           |
| 561-A   | Cessna 400 Glideslope (443B)<br>R-443 Receiver<br>Mounting, Rigid<br>Antenna                                                                                                          | 3910119-2<br>42100-0000<br>36450-0000<br>1200098-2      | 4.3*<br>2.1<br>0.3<br>0.2                | 82.6*<br>117.3<br>117.3<br>30.0                  |
| 580-A   | Sunair SSB HF Transceiver (ASB-125)<br>RE-1200 Single Sideband Transceiver<br>Mounting Box<br>PA-1010A Remote Power Amplifier<br>CU-110 Antenna Coupler<br>351 Inch Long Antenna Wire | 3910136-1<br>99680<br><br>99682<br>99816<br>0570400-616 | 21.9*<br>4.5<br>0.7<br>8.9<br>4.9<br>0.3 | 86.3*<br>10.4<br>10.4<br>115.8<br>110.0<br>151.1 |
| 581-A   | Emergency Locator Transmitter<br>Transmitter (Leigh SHARC 7A)<br>Antenna                                                                                                              | 0401008<br>C589510-0202<br>C589510-0203                 | 1.9*<br>1.6<br>0.1                       | 116.9*<br>116.4<br>122.0                         |
| 1-30-15 | <p>INSTW a Pilot seat secondary<br/>seat stop JAW SB: SEB 01-5 Rev 5<br/>Kit SK 210-134 B no weight change required<br/>END APP 2891238 RPT 1/1/15</p>                                |                                                         |                                          |                                                  |
|         | CONT:                                                                                                                                                                                 |                                                         |                                          |                                                  |





# EQUIPMENT LIST (CONT'D) MODEL 172M (1975)

CESSNA AIRCRAFT CO

WICHITA, KANSAS

| ITEM NO         | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | REF DRAWING | WT LBS                                                                      | ARM INS                                                                               |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1               | <u>INSTRUCTIONS FOR USING RADIO EQUIPMENT LISTINGS:</u><br><br>Complete radio installations require certain supporting equipment in addition to the individual radio items listed. The following installation examples and notes should be used as a guide in the determination of complete installations.                                                                                                                                                                           |             |                                                                             |                                                                                       |
| 1.              | First Unit Cessna 300 Nav/Com 360 Channel with VOR/ILS Indicator Complete Installation. Consists of Items:<br>555-A Cessna 300 Nav/Com 360 Channel (328D & IN-525A)<br>520-A Antenna & Cable, Left VHF Communications<br>521-A Antenna & Cable, VOR Navigation<br>523-A Audio Junction Box with Relay<br>526-A Headset Installation<br>527-A Microphone Installation, Hand-Held<br>528-A Noise Filter - Audio<br>529-A Radio Cooling<br>531-A Relay, Bus Bar<br>532-A Speaker, Cabin |             | 14.0*<br>9.1<br>0.8<br>1.4<br>0.4<br>0.2<br>0.3<br>0.1<br>0.2<br>0.3<br>1.2 | 32.4*<br>11.4<br>46.4<br>181.5<br>11.5<br>14.2<br>17.2<br>-26.0<br>8.0<br>6.4<br>37.9 |
| 2.              | Second Unit Cessna 300 Nav/Com 200 Channel with VOR Indicator Complete Installation. Consists of Items:<br><del>553-A Cessna 300 Nav/Com 200 Channel (308C)</del><br>520-A Antenna & Cable, Right VHF Communication<br>522-A Antenna Coupler & Cables, VOR<br>529-A Radio Cooling<br>530-A Radio Selector Switches                                                                                                                                                                   |             | 10.4*<br>8.7<br>0.8<br>0.2<br>0.2<br>0.5                                    | 14.0<br>11.3<br>46.4<br>5.0<br>8.0<br>16.0                                            |
| 3.              | Second Unit Cessna 300 ADF with BFO Complete Installation Consists of Items:<br>550-A Cessna 300 ADF (546E)<br>530-A Radio Selector Switches                                                                                                                                                                                                                                                                                                                                         |             | 9.3*<br>8.8<br>0.5                                                          | 19.9*<br>20.1<br>16.0                                                                 |
| 4.              | Third Unit Cessna 400 Marker Beacon Receiver Complete Installation. Consists of Item 552-A only.                                                                                                                                                                                                                                                                                                                                                                                     |             | 2.3                                                                         | 57.1                                                                                  |
| 5.              | Fourth Unit Cessna 400 Glideslope Receiver Complete Installation. Consists of Item 561-A only.                                                                                                                                                                                                                                                                                                                                                                                       |             | 4.3                                                                         | 82.6                                                                                  |
| <u>NOTES:</u>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |                                                                             |                                                                                       |
| 1.              | All panel-mounted transmitters require Item 529-A (Radio Cooling System)                                                                                                                                                                                                                                                                                                                                                                                                             |             |                                                                             |                                                                                       |
|                 | - <del>NEW AUDIO PANEL WITH MARKER BEACON</del>                                                                                                                                                                                                                                                                                                                                                                                                                                      |             | 2.3                                                                         | 9.7                                                                                   |
|                 | - <del>NEW GPS 155 WITH EXISTING GPS ANTENNA INSTALLED</del>                                                                                                                                                                                                                                                                                                                                                                                                                         |             | 3.2                                                                         | 9.7                                                                                   |
|                 | <del>* SEE NEW WEIGHT &amp; BALANCE *</del>                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |                                                                             |                                                                                       |
| ISSUED: 4/16/74 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             | REVISED:                                                                    |                                                                                       |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             | SHT 11 OF 11                                                                |                                                                                       |

# EQUIPMENT LIST (CONT'D)

MODEL 112M (2-22)

WMA, AIRTEL, CO

SEE DRAWING

DESCRIPTION

## INSTRUCTIONS FOR USING RADIO EQUIPMENT LISTINGS:

The following listing of equipment is intended to provide a general indication of the types of equipment available. The listing is not intended to be a complete listing of all equipment available. The listing is intended to be a guide to the selection of equipment.

1. 100 Watt 2000 Hz Channel with VOR Indicator  
 2. 100 Watt 2000 Hz Channel with VOR Indicator  
 3. 100 Watt 2000 Hz Channel with VOR Indicator  
 4. 100 Watt 2000 Hz Channel with VOR Indicator  
 5. 100 Watt 2000 Hz Channel with VOR Indicator  
 6. 100 Watt 2000 Hz Channel with VOR Indicator  
 7. 100 Watt 2000 Hz Channel with VOR Indicator  
 8. 100 Watt 2000 Hz Channel with VOR Indicator  
 9. 100 Watt 2000 Hz Channel with VOR Indicator  
 10. 100 Watt 2000 Hz Channel with VOR Indicator

11. 100 Watt 2000 Hz Channel with VOR Indicator  
 12. 100 Watt 2000 Hz Channel with VOR Indicator  
 13. 100 Watt 2000 Hz Channel with VOR Indicator  
 14. 100 Watt 2000 Hz Channel with VOR Indicator  
 15. 100 Watt 2000 Hz Channel with VOR Indicator  
 16. 100 Watt 2000 Hz Channel with VOR Indicator  
 17. 100 Watt 2000 Hz Channel with VOR Indicator  
 18. 100 Watt 2000 Hz Channel with VOR Indicator  
 19. 100 Watt 2000 Hz Channel with VOR Indicator  
 20. 100 Watt 2000 Hz Channel with VOR Indicator

21. 100 Watt 2000 Hz Channel with VOR Indicator  
 22. 100 Watt 2000 Hz Channel with VOR Indicator  
 23. 100 Watt 2000 Hz Channel with VOR Indicator  
 24. 100 Watt 2000 Hz Channel with VOR Indicator  
 25. 100 Watt 2000 Hz Channel with VOR Indicator  
 26. 100 Watt 2000 Hz Channel with VOR Indicator  
 27. 100 Watt 2000 Hz Channel with VOR Indicator  
 28. 100 Watt 2000 Hz Channel with VOR Indicator  
 29. 100 Watt 2000 Hz Channel with VOR Indicator  
 30. 100 Watt 2000 Hz Channel with VOR Indicator

31. 100 Watt 2000 Hz Channel with VOR Indicator  
 32. 100 Watt 2000 Hz Channel with VOR Indicator  
 33. 100 Watt 2000 Hz Channel with VOR Indicator  
 34. 100 Watt 2000 Hz Channel with VOR Indicator  
 35. 100 Watt 2000 Hz Channel with VOR Indicator  
 36. 100 Watt 2000 Hz Channel with VOR Indicator  
 37. 100 Watt 2000 Hz Channel with VOR Indicator  
 38. 100 Watt 2000 Hz Channel with VOR Indicator  
 39. 100 Watt 2000 Hz Channel with VOR Indicator  
 40. 100 Watt 2000 Hz Channel with VOR Indicator

41. 100 Watt 2000 Hz Channel with VOR Indicator  
 42. 100 Watt 2000 Hz Channel with VOR Indicator  
 43. 100 Watt 2000 Hz Channel with VOR Indicator  
 44. 100 Watt 2000 Hz Channel with VOR Indicator  
 45. 100 Watt 2000 Hz Channel with VOR Indicator  
 46. 100 Watt 2000 Hz Channel with VOR Indicator  
 47. 100 Watt 2000 Hz Channel with VOR Indicator  
 48. 100 Watt 2000 Hz Channel with VOR Indicator  
 49. 100 Watt 2000 Hz Channel with VOR Indicator  
 50. 100 Watt 2000 Hz Channel with VOR Indicator

United States of America  
Department of Transportation — Federal Aviation Administration  
**Supplemental Type Certificate**

Number SA1225CE

160 HP  
Revision

This certificate, issued to Schneck Aviation Inc.  
Greater Rockford Airport  
P. O. Box 6417  
Rockford, Illinois 61125

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 3 of the Civil Air Regulations.

Original Product — Type Certificate Number: 3A12  
Make: Cessna  
Model: 172I, K, L, M Landplane

Description of Type Design Change: Installation of Lycoming O-320-E2D/STC SE1226CE or O-320-D2G engine and McCauley 1C160/CTM 7557 or 1C160/DTM 7557 propeller.

Data Required: 1. A copy of this STC and continuation sheets.  
2. Pearce Aeronautics Drawing List dated May 25, 1976, and Drawing No. 110001, Revision B, or later revisions stamped "FAA Approved."

Limitations and Conditions: This approval should not be extended to other specific airplanes of these models on which other previously approved modifications are incorporated unless it is determined that the interrelationship between this change and any of those other previously approved modifications will introduce no adverse effect upon the airworthiness of the airplane.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: April 28, 1976

Date issued: April 25, 1984

Date of issuance: May 28, 1976

Date amended: March 18, 1977



By direction of the Administrator

Robert A. Gambrill, Jr.  
(Signature)

Robert A. Gambrill, Jr., Manager  
Wichita Aircraft Certification Office  
(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.



Supplemental Report

160 119  
Revision

Department of Health  
Washington, D.C. 20001

DATE: 1/15/71  
BY: [illegible]  
FOR: [illegible]

1. The purpose of this report is to provide information on the results of the study conducted by the [illegible] in the [illegible] area.

2. The study was conducted in the [illegible] area, and the results are presented in the following sections.

3. The study was conducted in the [illegible] area, and the results are presented in the following sections.

4. The study was conducted in the [illegible] area, and the results are presented in the following sections.

5. The study was conducted in the [illegible] area, and the results are presented in the following sections.

6. The study was conducted in the [illegible] area, and the results are presented in the following sections.

7. The study was conducted in the [illegible] area, and the results are presented in the following sections.

8. The study was conducted in the [illegible] area, and the results are presented in the following sections.

9. The study was conducted in the [illegible] area, and the results are presented in the following sections.

10. The study was conducted in the [illegible] area, and the results are presented in the following sections.

United States of America  
Department of Transportation—Federal Aviation Administration  
**Supplemental Type Certificate**  
(Continuation Sheet)

*Number* SA1225CE

TCDS No. 3A12 applies except as noted below:

Engine: Lycoming O-320-E2D/STC SE1226CE or O-320-D2G

Fuel: 100/130 Minimum grade aviation gasoline

Engine Limits: Takeoff (five minutes) 2700 r.p.m. (160 h.p.)  
Maximum continuous 2500 r.p.m. (150 h.p.)

Propeller and  
Propeller Limits:

1. Propeller approved on 172I, K, L, M

(a) McCauley 1C160/CTM 7557 - static r.p.m.  
at maximum permissible throttle setting.

Not over 2400, Not under 2280.

No additional tolerance permitted.

Diameter: Not over 75 in., not under 74 in.

(b) Cessna spinner - Drawing No. 0550320 required.

2. Propeller approved on 172M

(a) McCauley 1C160/DTM 7557 - static r.p.m.  
at maximum permissible throttle setting.

Not over 2400, Not under 2280.

No additional tolerance permitted.

Diameter: Not over 75 in., not under 74 in.

(b) Cessna spinner - Drawing No. 0550320 required.

The following placards must be displayed as indicated:

Near fuel tank filler caps: 100/130 Minimum Octane Aviation Grade Gasoline

*Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.*

FAA FORM 8110-2-1 (10-69)

*This certificate may be transferred in accordance with FAR 21.47.*

PAGE 2 OF 3 PAGES March 18, 1977

Reissued April 25, 1984

C FAA AC 73-2651

Supplemental Type Certificate  
(Continued)

Amended

1. The following amendments are hereby adopted:

2. The following amendments are hereby adopted:

3. The following amendments are hereby adopted:

4. The following amendments are hereby adopted:

5. The following amendments are hereby adopted:

6. The following amendments are hereby adopted:

7. The following amendments are hereby adopted:

8. The following amendments are hereby adopted:

9. The following amendments are hereby adopted:

10. The following amendments are hereby adopted:

11. The following amendments are hereby adopted:

12. The following amendments are hereby adopted:

13. The following amendments are hereby adopted:

14. The following amendments are hereby adopted:

15. The following amendments are hereby adopted:

16. The following amendments are hereby adopted:

17. The following amendments are hereby adopted:

18. The following amendments are hereby adopted:

19. The following amendments are hereby adopted:

20. The following amendments are hereby adopted:

21. The following amendments are hereby adopted:

22. The following amendments are hereby adopted:

United States of America  
Department of Transportation—Federal Aviation Administration  
**Supplemental Type Certificate**  
(Continuation Sheet)

*Number* SA1225CE

On Tachometer: (A) If graduated dial is marked, yellow arc between 2500 and 2700.

Optional:

(B) If glass is marked, yellow arc between 2500 and 2700, white slip mark, and "Maximum Continuous R.P.M. 2500."

-- END --

*Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.*

FAA FORM 8110-2-1 (10-69)

*This certificate may be transferred in accordance with FAR 21.47.*

PAGE 3 OF 3 PAGES March 18, 1977  
Reissued April 25, 1984

C FAA AC 73-9

Department of Justice  
Federal Bureau of Investigation  
Fingerprint Division  
Washington, D.C.

Special Agent in Charge

(A) If requested data is not available, please advise the Bureau.

(B) If requested data is not available, please advise the Bureau.

(C) If requested data is not available, please advise the Bureau.

END

FAA APPROVED FLIGHT MANUAL SUPPLEMENT  
KNS 80 NAVIGATION SYSTEM

| Rev.<br>No. | Page<br>Number (s) | Description | Date of<br>Revision | Approved<br>By* |
|-------------|--------------------|-------------|---------------------|-----------------|
|             |                    |             |                     |                 |





King Radio Corporation  
Olathe, Kansas 66061

LIST OF CONTENTS OF THIS SUPPLEMENT

|             |                      |         |
|-------------|----------------------|---------|
| SECTION I   | LIMITATIONS          | PAGE 2  |
| SECTION II  | OPERATION            | PAGE 2  |
| SECTION III | EMERGENCY PROCEDURES | PAGE 10 |
| SECTION IV  | PERFORMANCE          | PAGE 10 |
| SECTION V   | INSTALLATION NOTES   | PAGE 10 |

King Radio Corporation  
Olathe, Kansas 66061

LIST OF CONTENTS OF THIS SUPPLEMENT

|         |                      |             |
|---------|----------------------|-------------|
| PAGE 2  | LIMITATIONS          | SECTION I   |
| PAGE 2  | OPERATION            | SECTION II  |
| PAGE 10 | EMERGENCY PROCEDURES | SECTION III |
| PAGE 10 | PERFORMANCE          | SECTION IV  |
| PAGE 10 | INSTALLATION NOTES   | SECTION V   |

## SECTION I - LIMITATIONS

1. IFR approaches must be conducted in accordance with FAA Approved instrument approach procedures.
2. IFR Enroute use of the RNAV must be conducted in accordance with FAA approved RNAV routes or with a flight plan filed with and accepted by the applicable A.T.C. facility.

## SECTION II - OPERATION

### 2.1 HORIZONTAL SITUATION OR COURSE DEVIATION INDICATOR

1. COURSE SELECTOR Control - Used to set the magnetic course to the waypoint in either RNAV ENR or APR mode. Sets the magnetic course to the VOR ground station in VOR and VOR PAR modes.
2. VERTICAL DEVIATION Bar - Represents deviation from the selected magnetic course. Pointer moves left or right of the center line as airplane deviates from the selected magnetic course. Course width is 20 degrees in VOR mode, 10 nautical miles in RNAV ENR mode and 2-1/2 nautical miles in RNAV APR mode.
3. HORIZONTAL DEVIATION Bar\* - When the KNS 80 is tuned to a ILS frequency, the horizontal deviation bar represents the deviation from the suggested glidepath. If the airplane is above the glidepath, the horizontal bar is displaced downward. If below the glidepath, the horizontal bar is displaced upward.
4. TO/FROM Pointer - Indicates whether the selected magnetic course is TO to FROM the destination. The pointer reverses direction as the destination is passed.
5. WARNING Flag - Shows if the Course Deviation data is unreliable. A black background appears if the Course Deviation data is reliable. If the data is not reliable, the TO/FROM flag disappears from view, and a red NAV flag appears.
6. LIGHTING - The CDI lighting is controlled by an instrument lighting rheostat which controls all instrument panel lighting.

\*Not applicable to systems without a glideslope.

## SECTION I - LIMITATIONS

1. IFR approaches must be conducted in accordance with TAA Approved instrument approach procedures.
2. IFR Enroute use of the RNAV must be conducted in accordance with FAA approved RNAV routes or with a flight plan filed with and accepted by the applicable A.T.C. facility.

## SECTION II - OPERATION

### 2.1 HORIZONTAL SITUATION OR COURSE DEVIATION INDICATOR

1. COURSE SELECTOR Control - Used to set the magnetic course to the waypoint in either RNAV ENR or APR mode. Sets the magnetic course to the VOR ground station in VOR and VOR APR modes.
2. VERTICAL DEVIATION Bar - Represents deviation from the selected magnetic course. Pointer moves left or right of the center line as airplane deviates from the selected magnetic course. Course width is 30 degrees in VOR mode, 10 nautical miles in RNAV ENR mode and 2-1/2 nautical miles in RNAV APR mode.
3. HORIZONTAL DEVIATION Bar\* - When the KMS 80 is tuned to a ILS frequency, the horizontal deviation bar represents the deviation from the suggested glidepath. If the airplane is above the glidepath, the horizontal bar is displaced downward. If below the glidepath, the horizontal bar is displaced upward.
4. TO/FROM Pointer - Indicates whether the selected magnetic course is TO or FROM the destination. The pointer reverses direction as the destination is passed.
5. WARNING Flag - Shows if the Course Deviation data is unreliable. A black background appears if the Course Deviation data is reliable. If the data is not reliable, the TO/FROM flag disappears from view, and a red NAV flag appears.
6. LIGHTING - The CDI lighting is controlled by an instrument lighting rheostat which controls all instrument panel lighting.

\*Not applicable to systems without a glideslope.

## 2.2 KNS 80 OPERATION

### 2.2.1 GENERAL

The KNS 80 can be operated in any one of 3 basic modes: (a) VOR, (b) RNAV, or (c) ILS. To change from one mode to another, the appropriate pushbutton switch is pressed, except that the ILS mode is entered automatically whenever an ILS frequency is channeled in the USE waypoint. The display will announce the mode by lighting a message above the pushbutton. In addition to the standard VOR and RNAV enroute (RNV ENR) modes, the KNS 80 has a constant course width or parallel VOR mode (VOR PAR) and an RNAV approach mode (RNV APR). To place the unit in either of these secondary modes, the VOR pushbutton or the RNAV pushbutton, as the case may be, is pushed a second time. Repetitive pushing of the VOR button will cause the system to alternate between the VOR and VOR PAR modes, while repetitive pushing of the RNAV button causes the system to alternate between RNV ENR and RNV APR modes.

A description of the RNAV and VOR modes is as follows:

#### 1. VOR

This is the conventional VOR/DME mode. The NM, KT and MIN displays are DME outputs and the CDI is displaying conventional cross track deviation information (i.e.  $\pm 10^\circ$  full scale).

#### 2. VOR PAR

This is like the above mode except that the CDI is now displaying constant course width information with a full scale deflection of  $\pm 5$  NM. In this mode, a DME "unlock" will cause a CDI flag. Rechanneling the VOR with the HOLD button depressed will also cause a CDI flag. It is recommended that the VOR mode be used instead of VOR PAR for approaches since in this mode the course indication is more accurate at distances less than 28 miles.

#### 3. RNV ENR

This RNAV mode has a CDI sensitivity of  $\pm 5$  NM full scale. The NM, KT and MIN displays as well as the CDI are now with respect to the waypoint as defined by the data stored in the USE waypoint location.

#### 4. RNV APR

This is like the above except that the CDI sensitivity is  $\pm 1.25$  NM full scale.

All waypoint information, station frequency, waypoint distance, and waypoint radial is entered with the increment/decrement rotary switch on the right side of the panel and displayed in the right hand readout. The small knob affects the lower significant digits while the large knob changes the most significant digits. The tenth's position of waypoint radial and distance can be changed by pulling the small knob to the out position. The type of

## 2.2 KNS 80 OPERATION

### 2.2.1 GENERAL

The KNS 80 can be operated in any one of 3 basic modes: (a) VOR, (b) RNAV, or (c) ILS. To change from one mode to another, the appropriate pushbutton switch is pressed, except that the ILS mode is entered automatically when ever an ILS frequency is channelled in the USE waypoint. The display will announce the mode by lighting a message above the pushbutton. In addition to the standard VOR and RNAV enroute (RVN ENR) modes, the KNS 80 has a constant course width or parallel VOR mode (VOR PAR) and an RNAV approach mode (RVN APR). To place the unit in either of these secondary modes, the VOR pushbutton or the RNAV pushbutton, as the case may be, is pushed a second time. Repetitive pushing of the VOR button will cause the system to alternate between the VOR and VOR PAR modes, while repetitive pushing of the RNAV button causes the system to alternate between RVN ENR and RVN APR modes.

A description of the RNAV and VOR modes is as follows:

#### 1. VOR

This is the conventional VOR/DME mode. The NM, KT and MIN displays are DME outputs and the CDI is displaying conventional cross track deviation information (i.e.  $\pm 100$  full scale).

#### 2. VOR PAR

This is like the above mode except that the CDI is now displaying constant course width information with a full scale deflection of  $\pm 5$  NM. In this mode, a DME "unlock" will cause a CDI flag. Rechanneling the VOR with the HOLD button depressed will also cause a CDI flag. It is recommended that the VOR mode be used instead of VOR PAR for approaches since in this mode the course indication is more accurate at distances less than 28 miles.

#### 3. RVN ENR

This RNAV mode has a CDI sensitivity of  $\pm 5$  NM full scale. The NM, KT and MIN displays as well as the CDI are now with respect to the waypoint as defined by the data stored in the USE waypoint location.

#### 4. RVN APR

This is like the above except that the CDI sensitivity is  $\pm 1.25$  NM full scale.

All waypoint information, station frequency, waypoint distance, and waypoint radial is entered with the increment/decrement rotary switch on the right side of the panel and displayed in the right hand readout. The small knob affects the lower significant digits while the large knob changes the most significant digits. The tenth's position of waypoint radial and distance can be changed by pulling the small knob to the out position. The type of



data being displayed is indicated by the illuminated messages (FRQ, RAD, DST) located directly below the displayed data. Frequency, radial, or distance information for a waypoint can be displayed sequentially by pressing the "DATA" pushbutton. The increment/decrement switch changes only the information being displayed.

The KNS 80 can store frequency, radial, and distance information for up to 4 waypoints. The waypoint number of the data being displayed is located above the message DSP. The DSP waypoint number is changed by pressing DSP button. The number of the waypoint being used for navigation is indicated by the number above the message USE. If the waypoint in use is different from the displayed waypoint, the DSP waypoint number blinks. Pressing the USE button causes the waypoint in use to match the displayed waypoint.

Normally, the DME is tuned to the station paired with the VOR frequency. The tuning of the DME may be frozen by depressing the HOLD button. Subsequent rechanneling of the NAV receiver will cause the HLD light to come on. The DME will "hold" the frequency it was tuned to at the time the button was depressed.

## 2.3 DETAILED FUNCTION DESCRIPTION

### 2.3.1 SYSTEM MODES

VOR, VOR PAR, RNV ENR and RNV APR are selected modes and have equal precedence. If an ILS frequency is placed in the active data, the system will automatically go to the ILS mode. When switched out of an ILS frequency, the system will revert back to the mode in which it was at the time the ILS frequency was selected.

### 2.3.2 DISPLAYS

#### 2.3.2.1 NM DISPLAY

##### 1. VOR and VOR PAR Modes

Displays DME distance.

0 to 99.9NM in 0.1NM steps, 100 to 200NM in 1NM steps.

Displays dashes whenever DME goes into search.

##### 2. RNV APR and RNV ENR Modes

Displays RNAV distance to waypoint.

0 to 99.9NM in 0.1NM steps, 100 to 400NM in 1NM steps.

Displays dashes if DME is in search, if VOR flags, or if the VOR is rechanneled with the HOLD button depressed.

data being displayed is indicated by the illuminated messages (PRO, RAD, DST) located directly below the displayed data. Frequency, radial, or distance information for a waypoint can be displayed sequentially by pressing the "DATA" pushbutton. The increment/decrement switch changes only the information being displayed.

The KNS 80 can store frequency, radial, and distance information for up to 4 waypoints. The waypoint number of the data being displayed is located above the message DSP. The DSP waypoint number is changed by pressing DSP button. The number of the waypoint being used for navigation is indicated by the number above the message USE. If the waypoint in use is different from the displayed waypoint, the DSP waypoint number blinks. Pressing the USE button causes the waypoint in use to match the displayed waypoint.

Normally, the DME is tuned to the station paired with the VOR frequency. The tuning of the DME may be frozen by depressing the HOLD button. Subsequent rechanneling of the NAV receiver will cause the HLD light to come on. The DME will "hold" the frequency it was tuned to at the time the button was depressed.

## 2.3 DETAILED FUNCTION DESCRIPTION

### 2.3.1 SYSTEM MODES

VOR, VOR PAR, RNV PAR and RNV APR are selected modes and have equal precedence. If an ILS frequency is placed in the active data, the system will automatically go to the ILS mode. When switched out of an ILS frequency, the system will revert back to the mode in which it was at the time the ILS frequency was selected.

### 2.3.2 DISPLAYS

#### 2.3.2.1 NM DISPLAY

##### 1. VOR and VOR PAR Modes

Displays DME distance.  
0 to 99.9NM in 0.1NM steps, 100 to 200NM in 1NM steps.  
Displays dashes whenever DME goes into search.

##### 2. RNV PAR and RNV APR Modes

Displays RNV distance to waypoint.  
0 to 99.9NM in 0.1NM steps, 100 to 400NM in 1NM steps.  
Displays dashes if DME is in search, if VOR flag, or if the VOR is rechannelled with the HOLD button depressed.

2.3.2.2 KT DISPLAY

1. VOR and VOR PAR Modes

Displays ground speed to the DME ground station.  
0 to 999 knots in 1 knot steps.  
Update rate is once per second.  
Displays dashes whenever DME goes into search.

2. RNV APR and RNV ENR Modes

Displays ground speed to the active waypoint.  
0 to 999 knots in 1 knot steps.  
Update rate is once per second.  
Displays dashes whenever DME goes into search, if VOR  
flags or if the VOR is rechanneled with the HOLD button  
depressed.

2.3.2.3 MIN DISPLAY

1. VOR and VOR PAR Modes

Displays time to DME ground station.  
0 to 99 minutes in 1 minute steps.  
Displays dashes whenever DME goes into search or when  
calculated value exceeds 99 minutes.

2. RNV APR and RNV ENR Modes

Displays time to the active waypoint.  
0 to 99 minutes in 1 minute steps.  
Displays dashes if DME is in search, if VOR flags, if the  
VOR is rechanneled with the HOLD button depressed, or if  
calculated value exceeds 99 minutes.

2.3.2.4 FRQ, RAD, DST DISPLAY

1. FRQ Mode

Displays frequency from 108.00 to 117.95MHz.  
1MHz digit overflows into (or underflows from) 10MHz digit.  
Roll over from 117 to 108 or vice versa.  
Least significant digit displays only zero or five.

2. RAD Mode

Displays ground station radial on which the waypoint is  
located from 0.0 to 359.9 degrees.  
10 degree digit overflows into (or underflows from) 100 degree  
digit.

### 2.3.2.2 RT DISPLAY

#### 1. VOR and VOR PAR Modes

Displays ground speed to the DME ground station.  
0 to 999 knots in 1 knot steps.  
Update rate is once per second.  
Displays dashes whenever DME goes into search.

#### 2. RNV APR and RNV ENR Modes

Displays ground speed to the active waypoint.  
0 to 999 knots in 1 knot steps.  
Update rate is once per second.  
Displays dashes whenever DME goes into search, if VOR  
flaps or if the VOR is rechannelled with the HOLD button  
depressed.

### 2.3.2.3 MIN DISPLAY

#### 1. VOR and VOR PAR Modes

Displays time to DME ground station.  
0 to 99 minutes in 1 minute steps.  
Displays dashes whenever DME goes into search or when  
calculated value exceeds 99 minutes.

#### 2. RNV APR and RNV ENR Modes

Displays time to the active waypoint.  
0 to 99 minutes in 1 minute steps.  
Displays dashes if DME is in search, if VOR flaps, if the  
VOR is rechannelled with the HOLD button depressed, or if  
calculated value exceeds 99 minutes.

### 2.3.2.4 FREQ, RAD, DST DISPLAY

#### 1. FREQ Mode

Displays frequency from 108.00 to 117.95MHz.  
10MHz digit overflows into (or underflows from) 10MHz digit.  
Roll over from 117 to 108 or vice versa.  
Least significant digit displays only zero or five.

#### 2. RAD Mode

Displays ground station radial on which the waypoint is  
located from 0.0 to 359.9 degrees.  
10 degree digit overflows into (or underflows from) 100 degree  
digit.

2.3.2.4 (con'd)

3. DST MODE

Displays the distance offset of the waypoint from the ground station over range of 0.0 to 199.9NM. 10NM digit overflows into (or underflows from) 100NM digit. The two most significant digits roll over from 190 to 0NM and vice versa.

2.3.2.5 USE DISPLAY

Displays waypoint number of data actually being used by system. In VOR MODES only the frequency has meaning. Range 1 to 4. When changed always takes on new value equal to DSP value.

2.3.2.6 DSP DISPLAY

Displays waypoint number of data being displayed. Range 1 to 4. When changed, increments by 1. Rolls over from 4 to 1 and blinks when not equal to USE value.

2.3.2.7 PAR, VOR, ENR, APR, RNV DISPLAYS

Systems status lights.

2.3.2.8 HLD DISPLAY

Indicates when the station to which the DME is actually tuned is different than the station to which the VOR is tuned.

2.3.2.9 DATA DISPLAY

Display waypoint data:  
The messages FRQ, DST, and RAD tell what is being displayed at any one time.

2.3.2.10 ILS DISPLAY

Indicates that the frequency in use is an ILS frequency.

2.3.2.11 COURSE DEVIATION INDICATOR

1. VOR Mode

Full scale sensitivity equals  $\pm 100$ .

2.3.2.4 (con'd)

3. DST MODE

Displays the distance offset of the waypoint from the ground station over range of 0.0 to 199.9NM. 10NM digit overflows into (or underflows from) 100NM digit. The two most significant digits roll over from 199 to 000 and vice versa.

2.3.2.5 USE DISPLAY

Displays waypoint number of data actually being used by system. In VOR MODES only the frequency has meaning. Range 1 to 4. When changed always takes on new value equal to DSP value.

2.3.2.6 DSP DISPLAY

Displays waypoint number of data being displayed. Range 1 to 4. When changed, increments by 1. Rolls over from 4 to 1 and blinks when not equal to USE value.

2.3.2.7 PAR, VOR, ENR, APR, RW DISPLAYS

Systems status lights.

2.3.2.8 HD DISPLAY

Indicates when the station to which the DME is actually tuned is different than the station to which the VOR is tuned.

2.3.2.9 DATA DISPLAY

Display waypoint data. The messages FRQ, DST, and RAD tell what is being displayed at any one time.

2.3.2.10 IIS DISPLAY

Indicates that the frequency in use is an IIS frequency.

2.3.2.11 COURSE DEVIATION INDICATOR

1. VOR Mode

Full scale sensitivity equals  $\pm 100$ .

DATE

2.3.2.11 (con't)

2. VOR PAR Mode

Full scale sensitivity equals +5NM.  
Flagged if VOR or DME data is invalid.  
Flagged if the VOR is rechanneled with the DME HOLD button depressed.

3. RNV ENR Mode

Full scale sensitivity equals +5NM.  
Flagged if VOR or DME data is invalid.  
Flagged if the VOR is rechanneled with the DME HOLD button depressed.

4. RNV APR Mode

Full scale sensitivity equals +1.25NM.  
Flagged if VOR or DME is invalid.  
Flagged if the VOR is rechanneled with the DME HOLD button depressed.

5. ILS Mode

Full scale sensitivity equals 3 to 6 degrees (depending upon ground facility)  
Flagged if localizer or glideslope data is invalid.

2.3.3 CONTROLS

2.3.3.1 VOR BUTTON

Momentary pushbutton

When pushed while system is in either RNV mode causes system to go to VOR mode. Otherwise the button causes system to toggle between VOR and VOR PAR modes.

2.3.3.2 RNAV BUTTON

Momentary pushbutton.

When pushed while system is in either VOR mode causes system to go to RNV ENR mode. Otherwise the button causes system to toggle between RNV ENR and RNV APR modes.

2.3.3.3 HOLD BUTTON

Two position pushbutton.

When in depressed position, inhibits DME from channeling to a new station when the VOR frequency is changed. Pushing the button again releases the button and channels the DME to the station paired with the VOR station.

2.3.3.1.1 (cont.)

2. VOR PAR Mode

Full scale sensitivity equals  $\pm 5\text{NM}$ .  
Flagged if VOR or DME data is invalid.  
Flagged if the VOR is rechannelled with the DME HOLD  
button depressed.

3. RNV ENR Mode

Full scale sensitivity equals  $\pm 5\text{NM}$ .  
Flagged if VOR or DME data is invalid.  
Flagged if the VOR is rechannelled with the DME HOLD  
button depressed.

4. RNV APR Mode

Full scale sensitivity equals  $\pm 1.25\text{NM}$ .  
Flagged if VOR or DME data is invalid.  
Flagged if the VOR is rechannelled with the DME HOLD  
button depressed.

5. ILS Mode

Full scale sensitivity equals 3 to 6 degrees (depending  
upon ground facility).  
Flagged if localizer or glide slope data is invalid.

2.3.3 CONTROLS

2.3.3.1 VOR BUTTON

Momentary pushbutton.  
When pushed while system is in either RNV mode causes system to  
go to VOR mode. Otherwise the button causes system to toggle  
between VOR and VOR PAR modes.

2.3.3.2 RNV BUTTON

Momentary pushbutton.  
When pushed while system is in either VOR mode causes system to  
go to RNV mode. Otherwise the button causes system to toggle  
between RNV ENR and RNV APR modes.

2.3.3.3 HOLD BUTTON

Two position pushbutton.  
When in depressed position, inhibits DME from channeling to a new  
station when the VOR frequency is changed. Pushing the button  
again releases the button and channels the DME to the station paired  
with the VOR station.



2.3.3.4 USE BUTTON

Momentary pushbutton.

Causes active waypoint to take same value as displayed  
waypoint and data display to go to FRQ mode.

2.3.3.5 DSP BUTTON

Momentary pushbutton.

Causes displayed waypoint to increment by 1 and data display  
to go to frequency mode.

2.3.3.6 DATA BUTTON

Momentary pushbutton.

Causes waypoint data display to change from FRQ to RAD to DST  
and back to FRQ.

2.3.3.7 OFF/PULL ID CONTROL

1. Rotate counterclockwise to switch off power to KNS 80.
2. Rotate clockwise to increase audio level.
3. Pull switch out to hear VOR Ident.

2.3.3.8 DATA INPUT CONTROL

Dual concentric knobs. Center knob has "in" and "out" positions.

1. Frequency Data

Outer knob varies 1MHz digit.

A carryover occurs from the tens to hundreds place.

Rollover occurs from 117 to 108.

Center knob varies frequency in .05MHz steps regardless  
of whether the switch is in its in or out position.

2. Radial Data

Outer knob varies 10 degree digit.

A carryover occurs from units to tens to hundreds positions.

A rollover to zero occurs at 360 degrees.

Center knob "in" position varies 1 degree digit.

Center knob "out" position varies 0.1 degree digit.

3. Distance Data

Outer knob varies 10NM digit.

A carryover occurs from the tens to hundreds place.

A rollover to zero occurs at 200NM.

Center knob "in" position varies 1NM digit.

Center knob "out" position varies 0.1NM digit.

#### 2.3.3.4 USE BUTTON

Momentary pushbutton.  
Causes active waypoint to take same value as displayed  
waypoint and data display to go to FREQ mode.

#### 2.3.3.5 DSP BUTTON

Momentary pushbutton.  
Causes displayed waypoint to increment by 1 and data display  
to go to frequency mode.

#### 2.3.3.6 DATA BUTTON

Momentary pushbutton.  
Causes waypoint data display to change from FREQ to RAD to DSP  
and back to FREQ.

#### 2.3.3.7 OFF/PULL ID CONTROL

1. Rotate counterclockwise to switch off power to KNS 80.
2. Rotate clockwise to increase audio level.
3. Pull switch out to hear VOR Ident.

#### 2.3.3.8 DATA INPUT CONTROL

Deal concentric knobs. Center knob has "in" and "out" positions.

##### 1. Frequency Data

Outer knob varies 1MHz digit.  
A carryover occurs from the tens to hundreds place.  
Roller occurs from 117 to 108.  
Center knob varies frequency in .05MHz steps regardless  
of whether the switch is in its in or out position.

##### 2. Radial Data

Outer knob varies 10 degree digit.  
A carryover occurs from units to tens to hundreds positions.  
A rollover to zero occurs at 360 degrees.  
Center knob "in" position varies 1 degree digit.  
Center knob "out" position varies 0.1 degree digit.

##### 3. Distance Data

Outer knob varies 10NM digit.  
A carryover occurs from the tens to hundreds place.  
A rollover to zero occurs at 200NM.  
Center knob "in" position varies 1NM digit.  
Center knob "out" position varies 0.1NM digit.

#### 2.3.3.9 COURSE SELECT KNOB

Located in CDI unit.

Selects desired course through the VOR ground station or waypoint.

#### 2.3.4 LIGHTING

Display lighting is automatically controlled by ambient light conditions.

Button backlighting is controlled by an instrument lighting rheostat which controls all instrument panel lighting.

#### 2.4 BATTERY REPLACEMENT

The waypoint memory is kept alive by two silver oxide watch cells located in the lower left hand corner of the front panel. Typical life of the cell is two years although high temperature and humidity conditions can shorten this period. If the battery should become weak, waypoint storage will be lost and the radio will "wake up" tuned to 110.00MHz in the VOR mode. The cells can be replaced by opening the battery pocket with a thin blade screwdriver. The holder was designed so that the cells can only be inserted with the correct polarity.

#### 2.5 SYSTEM PERFORMANCE GROUND CHECK

The following test can be used to determine if the system is operating properly.

1. Tune the KNS 80 to a VORTAC (VOR/DME) within 25NM of the airplane.
2. Place the KNS 80 in VOR mode and rotate the OBS until the course deviation needle centers with the TO/FROM flag giving a "from" indication.
3. Using the appropriate controls, select a value for the waypoint radial equal to the OBS value determined in Step 2. In addition, select a value for the waypoint distance equal to the indicated DME value in Step 2.
4. Place the KNS 80 in RNAV ENR mode.

The system is operating properly if the distance to station is  $0 \pm 1.0$  NM and the course deviation needle is within a dot of being centered.

### 2.3.3.9 COURSE SELECT KNOB

Located in CDI unit.  
Selects desired course through the VOR ground station or waypoint.

### 2.3.4 LIGHTING

Display lighting is automatically controlled by ambient light conditions.  
Button backlighting is controlled by an instrument lighting rheostat which controls all instrument panel lighting.

### 2.4 BATTERY REPLACEMENT

The waypoint memory is kept alive by two silver oxide watch cells located in the lower left hand corner of the front panel. Typical life of the cell is two years although high temperature and humidity conditions can shorten this period. If the battery should become weak, waypoint storage will be lost and the radio will "wake up" tuned to 110.00MHz in the VOR mode. The cells can be replaced by opening the battery pocket with a thin blade screwdriver. The holder was designed so that the cells can only be inserted with the correct polarity.

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The following test can be used to determine if the system is operating properly.

1. Tune the KNS 80 to a VORTAC (VOR/DME) within 25NM of the airplane.
2. Place the KNS 80 in VOR mode and rotate the OBS until the course deviation needle centers with the TO/FROM flag giving a "from" indication.
3. Using the appropriate controls, select a value for the waypoint radial equal to the OBS value determined in step 2. In addition, select a value for the waypoint distance equal to the indicated DME value in step 2.
4. Place the KNS 80 in RNAV ENR mode.

The system is operating properly if the distance to station is 0 + 1.0NM and the course deviation needle is within a dot of being centered.

King Radio Corporation  
Olathe, Kansas 66061

SECTION III - EMERGENCY PROCEDURES

.NONE

SECTION IV - PERFORMANCE

NO CHANGE

SECTION V - INSTALLATION NOTES

DATE \_\_\_\_\_

King Radio Corporation  
Olathe, Kansas 66061

SECTION III - EMERGENCY PROCEDURES

NONE

SECTION IV - PERFORMANCE

NO CHANGE

SECTION V - INSTALLATION NOTES



***ELECTRONIC AND AVIONICS SYSTEMS***

***INSTALLATION MANUAL***

***BENDIX/KING®***

***KMA 24***

***AUDIO PANEL/MARKER  
BEACON RECEIVER***

***MANUAL NUMBER 006-00180-0001  
REVISION 1 JANUARY, 1982***



ELECTRONIC AND AVIONICS SYSTEMS

## INSTALLATION MANUAL

**BENDIX/KING®**

**KMA 24**

**BEACON RECEIVER  
AUDIO PANEL/MARKER**

MANUAL NUMBER 006-00180-0001  
REVISION 1, JANUARY, 1982





***ELECTRONIC AND AVIONICS SYSTEMS***

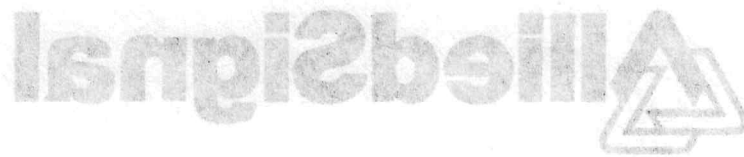
***INSTALLATION MANUAL***

***BENDIX/KING®***

***KY 196/197***

***VHF COMMUNICATIONS  
TRANSCEIVERS***

***MANUAL NUMBER 006-00169-0003  
REVISION 3 SEPTEMBER, 1983***



ELECTRONIC AND AVIONICS SYSTEMS

## INSTALLATION MANUAL

BENDIX/KING

KNS 80

DIGITAL AREA NAVIGATION  
SYSTEM

MANUAL NUMBER 006-00154-0000  
REVISION 3 JULY, 1981



GENERAL AVIATION AVIONICS

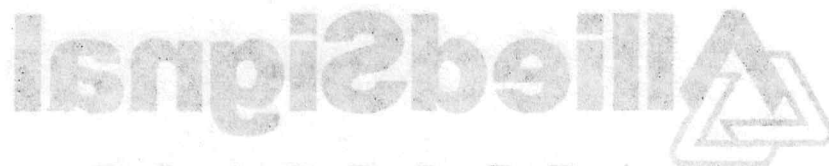
## **INSTALLATION MANUAL**

**BENDIX/KING<sup>®</sup>**

**KX 155/165**

VHF NAV/COMM  
TRANSCEIVERS

MANUAL NUMBER 006-00179-0006  
REVISION 6 OCTOBER, 1994



A E R O S P A C E

GENERAL AVIATION AVIONICS

## INSTALLATION MANUAL

**BENDIX/KING®**

**KX 155/165**

VHF NAV/COMM  
TRANSCIVERS

MANUAL NUMBER 006-00179-0006  
REVISION 6 OCTOBER, 1994

# **Honeywell**

## ***INSTALLATION MANUAL***

### ***BENDIX/KING<sup>®</sup>***

### ***KT 76A/78A***

### ***ATCRBS TRANSPONDER***

***MANUAL NUMBER 006-00143-0007***

***REVISION 7 JULY, 2002***

**Honeywell**

**INSTALLATION MANUAL**

**BENDIX/KING**

**KT 76A/78A**

**ATCRBS TRANSPONDER**

**MANUAL NUMBER 006-00143-0007  
REVISION 7 JULY 2005**



Minimum Equipment List Updated March 9th 2010  
*Altal* 3384054 APP IDA

| YEAR<br>20 | RECORDING<br>TACH<br>TIME | TODAY'S<br>FLIGHT | TOTAL<br>TIME IN<br>SERVICE | Description of Inspections, Tests, Repairs and Alterations<br>Entries must be endorsed with Name, Rating and Certificate Number of<br>Technician or Repair Facility. (See back pages for other specific entries.) |
|------------|---------------------------|-------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |                           |                   |                             |                                                                                                                                                                                                                   |

SARASOTA AVIONICS INC 8191 N TAMAMI TRAIL HNGR B-2 SARASOTA, FL 34243 QVOR957X  
 LOG ID# 180 09-March-2010 WO# 176/1 AC TT 8079.5  
 N8922V S/N 17264279 CESSNA 172M TACH 1843.9

Pg 1 / 1

INSTALLED KING RADIO STACK IAW INSTALLATION MANUALS. WIRED TO EXISTING CIRCUIT BREAKERS AND GROUNDING BLOCK. PERFORMED ALL REQUIRED GROUND AND FLIGHT OPERATIONAL CHECKS. REWIRED PILOT AND CO-PILOT HEADSET JACKS TO CONFORM WITH STANDARD WIRING PRACTICES. PLACARD PANEL WITH REQUIRED LABEL FOR KNS-80 INSTALLATION PER MANUAL. PLACARD STATES "AREA NAV USE APPROVED FOR IFR ENROUTE AND APPROACH CATEGORIES". VERIFIED ELECTRICAL LOAD CAPABILITIES FALL WITHIN THE LIMITS OF THE AIRCRAFT'S ELECTRICAL GENERATING SYSTEM. COMPLIED WITH WEIGHT & BALANCE AND EQUIPMENT LIST UPDATES. NEW W&B DATED 3-9-10 SUPERCEDES W&B DATED 5-5-09. PROVIDED ALL PILOT'S OPERATING HANDBOOKS FOR INSTALLED EQUIPMENT TO OWNER.

INSTALLED ITEMS:  
 KMA-24 SN 105813 KY-197 SN 77487  
 KNS-80 SN 11184 KX-155 SN 18027  
 KT-76A SN 48317 KI-209  
 KI-208 SN 59857 CI-105 SN 47551

THE AUTOMATIC PRESSURE ALTITUDE REPORTING EQUIPMENT WAS TESTED AND FOUND TO COMPLY WITH APPENDIX E OF 14 CFR 43. CALIBRATION IS IN COMPLIANCE WITH 14 CFR 91.217(B). THE ATC TRANSPONDER WAS TESTED, INSPECTED AND FOUND TO COMPLY WITH APPENDIX F OF CFR 43 AND 14 CFR 91.413.

Signed 3128684 WILLIAM M THOMPSON

Date

*WFR*  
*cert*

SARASOTA AVIONICS INC 8191 N TAMAMI TRAIL  
 LOG ID# 232 28-May-2010 WO# 245/1 AC TT  
 N8922V S/N 17264279 CESSNA 172M

THE ALTIMETER HAS BEEN TESTED TO AN ALTT APPENDIX E OF 14 CFR 43. AUTOMATIC PRESS COMPLY WITH APPENDIX E OF 14 CFR 43 AND C TRANSPONDER WAS TESTED, INSPECTED AND FOL 91.413.  
 THE STATIC PRESSURE SYSTEM WAS TESTED AND

TRANSPONDER: (PN: KT-76A) (SN: 48317)  
 CODER: (PN: AK-350) (SN: 57289)  
 TIMETER: (PN: ) (SN: B1452)

3128684 WILLIAM M THOMPSON

Tail #: N8922V

Date: 03/26/2010  
 Work Order #: 6083  
 Tach: 1856.5  
 Total Time: 8086.7

Annual Due: 08/10  
 WFR Cert Due: ~~04/10~~ 3-  
 ELT Batt Due: 06/11

Performed a 10 all controls, pu test IAW FAR and treated batt AD87-20-03r2 R/H seat tracks Checked AD's certify this airf mitted to be in 2012 *WFR* Matt Mall

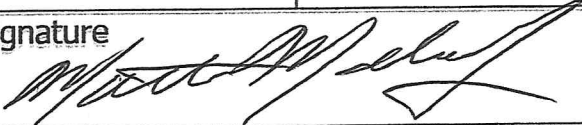
The following information was obtained from the records of the  
 Department of the Interior, Bureau of Land Management, at  
 Washington, D. C., on the 10th day of March, 1964.  
 The records show that the following land was owned by the  
 United States Government on the 1st day of January, 1964:  
 1. 100.00 acres of land in the County of [County Name],  
 State of [State Name], containing [Description of Land]  
 2. 100.00 acres of land in the County of [County Name],  
 State of [State Name], containing [Description of Land]  
 3. 100.00 acres of land in the County of [County Name],  
 State of [State Name], containing [Description of Land]  
 4. 100.00 acres of land in the County of [County Name],  
 State of [State Name], containing [Description of Land]  
 5. 100.00 acres of land in the County of [County Name],  
 State of [State Name], containing [Description of Land]  
 6. 100.00 acres of land in the County of [County Name],  
 State of [State Name], containing [Description of Land]  
 7. 100.00 acres of land in the County of [County Name],  
 State of [State Name], containing [Description of Land]  
 8. 100.00 acres of land in the County of [County Name],  
 State of [State Name], containing [Description of Land]  
 9. 100.00 acres of land in the County of [County Name],  
 State of [State Name], containing [Description of Land]  
 10. 100.00 acres of land in the County of [County Name],  
 State of [State Name], containing [Description of Land]

| DATE     | BY          | REMARKS                                                                                                      |
|----------|-------------|--------------------------------------------------------------------------------------------------------------|
| 10/1/64  | J. L. Smith | 100.00 acres of land in the County of [County Name], State of [State Name], containing [Description of Land] |
| 10/2/64  | J. L. Smith | 100.00 acres of land in the County of [County Name], State of [State Name], containing [Description of Land] |
| 10/3/64  | J. L. Smith | 100.00 acres of land in the County of [County Name], State of [State Name], containing [Description of Land] |
| 10/4/64  | J. L. Smith | 100.00 acres of land in the County of [County Name], State of [State Name], containing [Description of Land] |
| 10/5/64  | J. L. Smith | 100.00 acres of land in the County of [County Name], State of [State Name], containing [Description of Land] |
| 10/6/64  | J. L. Smith | 100.00 acres of land in the County of [County Name], State of [State Name], containing [Description of Land] |
| 10/7/64  | J. L. Smith | 100.00 acres of land in the County of [County Name], State of [State Name], containing [Description of Land] |
| 10/8/64  | J. L. Smith | 100.00 acres of land in the County of [County Name], State of [State Name], containing [Description of Land] |
| 10/9/64  | J. L. Smith | 100.00 acres of land in the County of [County Name], State of [State Name], containing [Description of Land] |
| 10/10/64 | J. L. Smith | 100.00 acres of land in the County of [County Name], State of [State Name], containing [Description of Land] |

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 Department of the Interior, Bureau of Land Management, at  
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 10. 100.00 acres of land in the County of [County Name],  
 State of [State Name], containing [Description of Land]



## Aircraft Weight and Balance Revision

|                                                                                                                                                                       |                                         |                                                                                                                                            |                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Tail Number: <b>N8922V</b>                                                                                                                                            |                                         | Date: 09/28/2017                                                                                                                           |                                    |
| Prepared by: Tampa Bay Aviation Inc.                                                                                                                                  |                                         | Work Order No: N/A                                                                                                                         |                                    |
|                                                                                                                                                                       |                                         | Type Certificate<br>Data No:                                                                                                               |                                    |
| Aircraft Make:<br>Cessna                                                                                                                                              | Model:<br>172M                          | Serial No:<br>17264279                                                                                                                     | Time:                              |
| Registered Owner:<br>Clearwater Helicopters Inc.                                                                                                                      |                                         | Address:<br>1000 N Hurcules Ave.<br>Clearwater Fl. 33765                                                                                   |                                    |
| Maximum Weight 2300                                                                                                                                                   |                                         | CG Range FWD 35 AFT 47.3                                                                                                                   |                                    |
| As Received; Date of Previous Weight and Balance:<br>02/07/2014                                                                                                       | Useful Load:<br>835.5                   | EW:<br>1464.5                                                                                                                              | EWCG:<br>37.28 Moment:<br>54600.14 |
| Notes: Removed wet vacuum pump and installed dry vacuum pump.<br>Installed Cleveland Parker, Wheel and brake assys. (TSO 626a) No weight and balance change required. |                                         |                                                                                                                                            |                                    |
|                                                                                                                                                                       | Weight                                  | Arm                                                                                                                                        | Moment                             |
| Removed Airwolf Air/ oil Separator, STC# SA02268CH                                                                                                                    | -2.2                                    | 1.00                                                                                                                                       | -2.20                              |
| Removed King KNS 80 Nav unit for repair                                                                                                                               | -6.0                                    | 12.00                                                                                                                                      | -72.00                             |
|                                                                                                                                                                       | 0.00                                    | 0.00                                                                                                                                       | 0.00                               |
|                                                                                                                                                                       | 0.00                                    | 0.00                                                                                                                                       | 0.00                               |
|                                                                                                                                                                       | 0.00                                    | 0.00                                                                                                                                       | 0.00                               |
|                                                                                                                                                                       | 0.00                                    | 0.00                                                                                                                                       | 0.00                               |
|                                                                                                                                                                       | 0.00                                    | 0.00                                                                                                                                       | 0.00                               |
|                                                                                                                                                                       | 0.00                                    | 0.00                                                                                                                                       | 0.00                               |
|                                                                                                                                                                       | 0.00                                    | 0.00                                                                                                                                       | 0.00                               |
|                                                                                                                                                                       | 0.00                                    | 0.00                                                                                                                                       | 0.00                               |
|                                                                                                                                                                       | 0.00                                    | 0.00                                                                                                                                       | 0.00                               |
|                                                                                                                                                                       | 0.00                                    | 0.00                                                                                                                                       | 0.00                               |
| <input checked="" type="checkbox"/> As Calculated<br><input type="checkbox"/> As Weighed                                                                              | Moment 54525.94<br><hr/> Weight 1456.30 | New Empty Weight CG<br><b>37.44</b>                                                                                                        | New Useful Load<br><b>843.70</b>   |
|                                                                                                                                                                       |                                         | Signature <br>Repair Agency or License No: A&P 2841230 |                                    |