

Air Plains Services Corp.
P.O. Box 541
Wellington Airport
Wellington, Ks. 67152

Supplements

FAA Approved
Supplemental Airplane Flight Manual

For

Cessna Model 172M
Serial No. 17260759 to 17265684
Serial No 17262723 N 13391

The information contained in this Manual is FAA Approved Material, which, along with the FAA Approved placards and instrument markings, is applicable to the operation of the airplane when modified in accordance with STC SA2196CE, which increases maximum certificated takeoff weight to 2550 lbs. The airplane must have been previously modified in accordance with STC SA4428SW which installs 180hp. Lyc. O-360 series engines and fixed pitch propellers, and limits flap travel to 30 deg.

1. GENERAL
2. LIMITATIONS
3. EMERGENCY PROCEDURES
4. NORMAL PROCEDURES
5. PERFORMANCE
6. WEIGHT AND BALANCE

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Log of Revisions

Rev.	Pages Affected	Description	FAA Approved	Date
0	1-8	New Issue		
1	3&4	Added 0360A4N		

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SECTION 1. General

DESCRIPTIVE DATA

ENGINE

Engine Model Number: O-360-A2F, A3A, A4A, A4M, and A4N
Engine Type: Normally aspirated, direct drive, air cooled,
horizontally opposed, carburetor equipped,
four cylinder engine with 360 cu.in.
displacement.

Horsepower Rating and Engine Speed 180 rated BHP at 2700RPM.
Maximum Continuous RPM: 2540 RPM

MAXIMUM CERTIFICATED WEIGHTS

Takeoff, Normal	2550lbs.
Utility	2000lbs.
Landing, Normal	2550lbs.
Utility	2000lbs.

SECTION 2. Limitations

AIRSPPEED INDICATOR MARKINGS

Airspeed must be replaced with Air Plains Services airspeed
P/N 1728803-1 or remarked as follows:

MARKING	MPH CAS VALUE OR RANGE
White Arc	56-100 mph
Green Arc	64-145 mph
Yellow Arc	145-182 mph
Red Line	182 mph

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AIRSPEED LIMITATIONS

VA Maneuvering Speed: 112MPH CAS
2550 Pounds

POWER PLANT LIMITATIONS

Engine Model Number: O-360-A2F, A3A, A4A, A4M and A4N
Maximum Power: 180 BHP rating
Maximum Continuous RPM: 2540 RPM

WEIGHT LIMITS

Maximum Takeoff Weight, Normal	2550lbs.
Utility	2000lbs.
Maximum Landing Weight, Normal	2550lbs.
Utility	2000lbs.

FLAP TRAVEL - Limited to 30 deg.

CENTER OF GRAVITY LIMITS - NORMAL CATEGORY

Center of Gravity Range:
Forward: 35 inches aft of datum at 1950 lbs. or less,
with straight line variation to 41.0 inches
aft of datum at 2550 lbs.
Aft: 47.3 inches aft of datum at all weights.

UTILITY CATEGORY

Center of Gravity:
Forward: 35 inches aft of datum at 1950lbs. or less,
with straight line variation to 35.5 inches
aft of datum at 2000lbs.
Aft: 40.5 inches aft of datum at all weights.

FLIGHT LOAD FACTORS

NORMAL CATEGORY

Flight Load Factors (Maximum Takeoff Weight - 2550lbs.):
Flaps Up.....+3.8g, -1.52g
Flaps Down.....+3.5g

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SECTION 3. Emergency Procedures

AIRSPEEDS FOR EMERGENCY OPERATION

Engine Failure After Takeoff:
Wing Flaps Up.....79-88MPH IAS
Wing Flaps Down.....71-83MPH IAS
Maneuvering Speed:
2550 lbs.....112MPH IAS
2150 lbs.....109MPH IAS
1750 lbs.....98MPH IAS
Maximum Glide:
2550 lbs.....78MPH IAS
Precautionary Landing With Engine Power.....75MPH IAS
Landing Without Engine Power:
Wing Flaps Up.....79-88MPH IAS
Wing Flaps Down.....71-83MPH IAS

DITCHING

If no power is available, approach at 76 MPH IAS with flaps at 30 deg.

FLIGHT IN ICING CONDITIONS

Approach at 92 to 104 MPH IAS, depending on the accumulation

SECTION 4. Normal Procedures

NORMAL PROCEDURES

SPEEDS FOR NORMAL OPERATION

Unless otherwise noted, the following speeds are based on a maximum weight of 2550 pounds and may be used for any lesser weight.

Takeoff:

Normal Climb Out.....86-98MPH IAS
Short Field Takeoff, Flaps 10 deg, Speed at 50 ft....66MPH IAS

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Date

Page 5 of 8

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Cessna Model 172M

SPEEDS FOR NORMAL OPERATION, CONT.

Enroute Climb, Flaps Up:	
Normal, Sea Level.....	86-98MPH IAS
Normal, 10,000 Feet.....	81-92MPH IAS
Best Rate of Climb, Sea Level.....	84MPH IAS
Best Rate of Climb, 10,000 Feet.....	83MPH IAS
Best Angle of Climb, Sea Level.....	71MPH IAS
Landing Approach:	
Normal Approach, Flaps Up.....	75-86MPH IAS
Normal Approach, Flaps 30 deg.....	69-81MPH IAS
Balked Landing:	
Maximum Power, Flaps 20 deg.....	69MPH IAS
Maximum Recommended Turbulent Air Penetration Speed:	
2550 lbs.....	112MPH IAS
2150 lbs.....	109MPH IAS
1750 lbs.....	98MPH IAS

Section 5

LANDING DISTANCE - SHORT FIELD

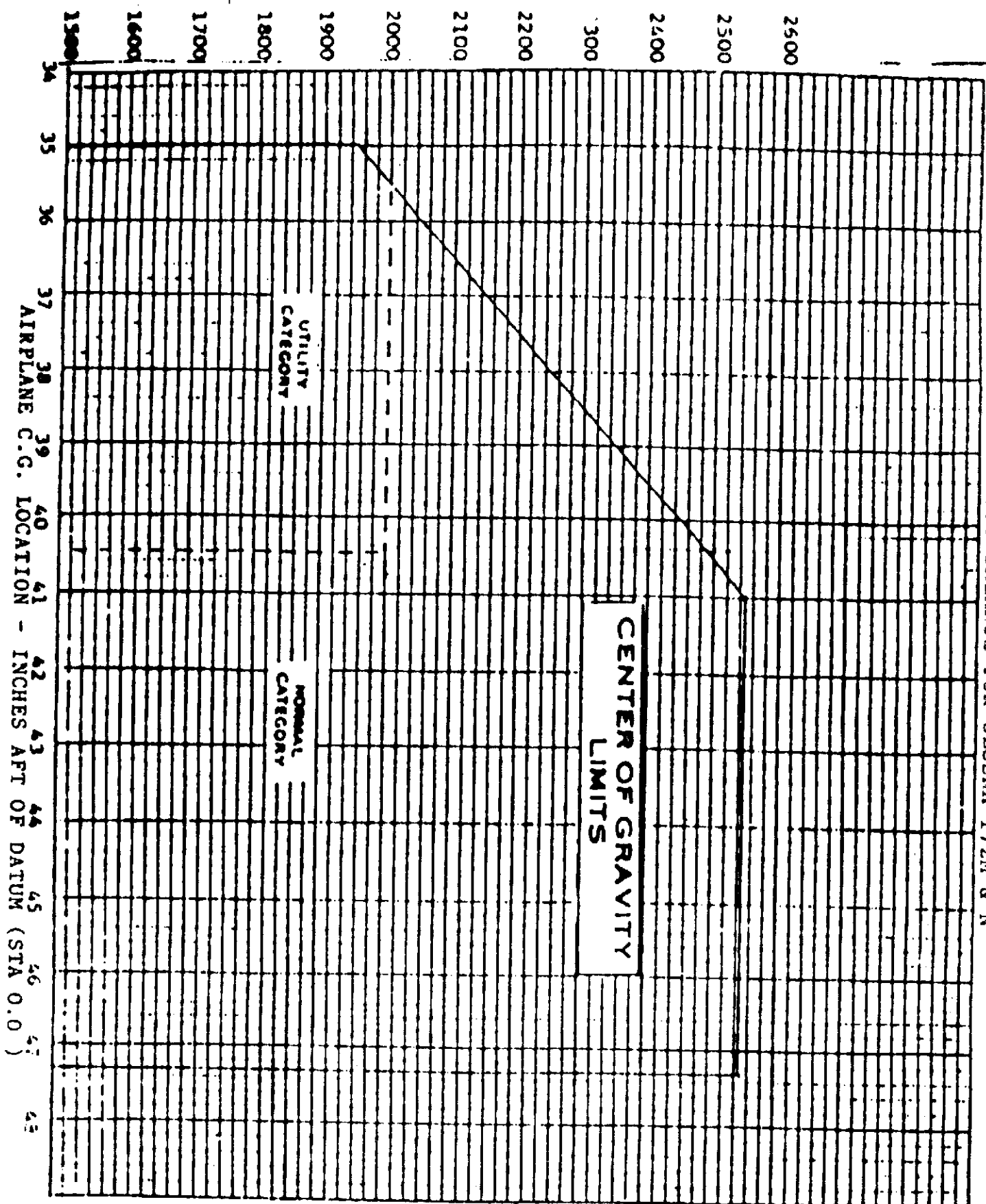
CONDITIONS

Flaps Down 30 deg.

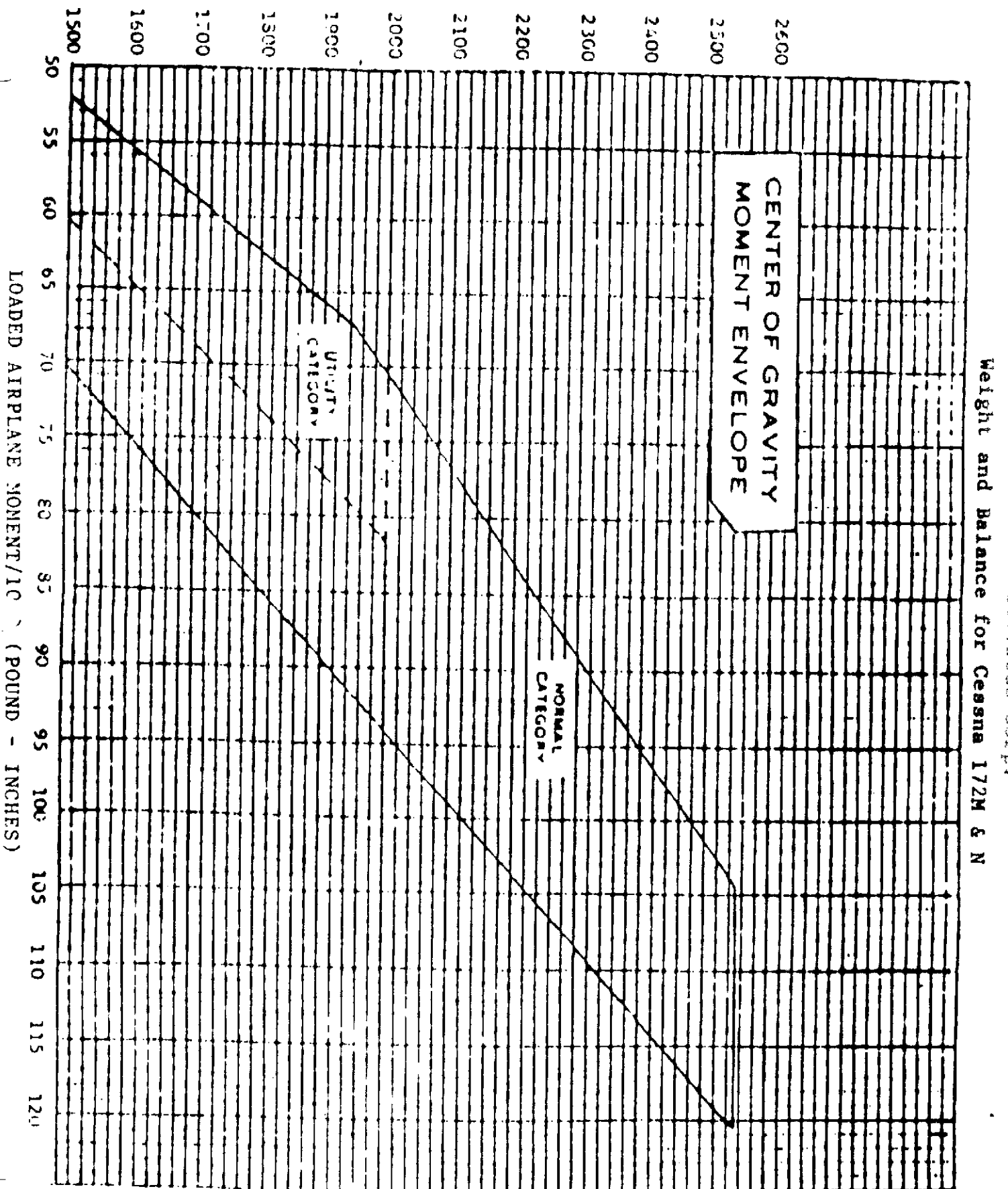
If a landing with flaps up is necessary, increase approach speed by 10 mph IAS and allow for 35% longer distance.

LOADED AIRPLANE WEIGHT (POUNDS)

WEIGHT AND BALANCE FOR CESSNA 172M & N



LOADED AIRPLANE WEIGHT (POUNDS)



Weight and Balance for Cessna 172M & N

2500
 2600