

Stevensville Police Officer-Provided W&B Information

[The pilot] advised that he had not unloaded the luggage that he retrieved from the crash site from the back of his truck so all the luggage was still in its original condition. [The pilot and police officer] weighed the luggage using a Police Department spring type scale.

[The pilot] said that he had two items that were not his on the plane, a suitcase and a golf bag. [The pilot] said that the suitcase that he no longer had possession of weighed 38 pounds. [The pilot] said that he did not have possession of the golf bag and did not know the weight of the bag.

[The pilot and police officer] weighed 5 suitcases, 1 bag, 1 boxed flat screen television, 1 decorative wall hanging mirror, and 1 oxygen tank. There was 6 quarts of oil that were left on the plane and various small items which [the police officer] did not weigh. Those items were headsets, gloves, glasses, etc. [The police officer] estimated the weight of the ancillary items to be less than 20 pounds. The estimated oil weight was approximately 10 pounds.

Based on information retrieved from the internet, [the police officer] estimated the bag of golf clubs to be approximately 30 pounds. The pilot weighs 200 pounds and his wife weighs 120 pounds. The total estimated weight of the occupants and cargo is 645 pounds. [The pilot] said that the heaviest items were placed behind the pilot and passenger seats about midway in the interior of the plane.

Cargo + People = 645

People = 320 lbs

Cargo = 325 lbs

Cargo weighed + (bag + golf) = 345

Bag = 38

Golf = 30

Cargo weighed = $345 - 30 - 38 = 285$

Weight / Balance & Equipment List Revision**FLITE ELECTRONICS, INC. - DG2R767K**

ADDISON TX 75001-3363

A/C Tail # : N3803J

Register Name : PAUL POGUE / BRANDON POGUE

Name 2 :

Address 1 : THE POGUE GROUP

Address 2 :

City, State, PC : MCKINNEY, TX 75071-1830

A/C Make : BEECHCRAFT

A/C Model : A36TC

A/C Serial # : EA-171

WO Ref # : 13529

WB Date : May-18-2007

WB ID # : 476

Previous data taken from document dated May-04-2006

Model / Part #	Description	(LB / IN)	Weight	CG/Arm	Moment
	Previous data ->		2719.90	81.44	221500.70
* REMOVED					
GNS-530	GPS/NAV/COMM p/n 011-00550-10		-8.50	54.00	-459.00
GA-56	GPS ANTENNA p/n 011-00134-00		-0.40	201.00	-80.40
CI-119	COM ANTENNA p/n ci-119		-1.25	84.00	-105.00
REMOVED	3 Items @		-10.15	63.49	-644.40
* INSTALLED					
GNS-530W	WAAS GPS/NAV/COM p/n		8.20	54.00	442.80
GA-35	GPS ANTENNA WAAS p/n		0.50	84.00	42.00
CI-122	COMM ANTENNA BENT p/n CI-122		1.00	103.00	103.00
MD41-1488W	ANNUNCIATOR p/n MD41-1488W		0.13	57.00	7.41
GDC-31	GPSS CONVERTER p/n 1049-4000-03		0.40	54.00	21.60
INSTALLED	5 Items @		10.23	60.29	616.81
NEW DATA >>			2719.98	81.42	221473.11

This weight and balance document modifies past existing weight and balance data contained in the aircraft records. This facility cannot verify that the existing weight and balance data contained in the aircraft records reflect the correct weight and balance of this aircraft. Any inaccuracies in past data will be mathematically carried forward with this document. This facility cannot verify the accuracy of past data and is not responsible for any past weight and balance data or computations. It is the responsibility of the airplane owner and/or pilot to ensure that the aircraft is loaded properly for flight.

Authorized Individual : DG2R767K MARK PLEDGER for Flite Electronics

Aircraft Weight and Balance Revision

Tail Number: N3803J		Date: 6-14-2008	
Prepared by: WILLIAM FRITSCH [REDACTED] ADDISON TX 75001		Work Order No: 1894	
Aircraft Make: BEECH		Type Certificate Data No: 3A15	
Model: A36TC		Serial No: EA-171	
Registered Owner: AIR CONSTRUCTION INC		Time: 2081.65	
Address: [REDACTED] MCKINNEY TX 75071			
As Received; Date of Previous Weight and Balance: 5-18-2007			
Notes:		EW: 2719.98	EWCG: 81.42
		Moment: 221473.11	
	Weight	Arm	Moment
REMOVED EXISTING TIP TANKS	-15.45	89.1	-1376.59
INSTALLED NEW GENESIS AERO 20 GAL TIP TANKS	+19.85	89.1	1768.64
	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
☒ As Calculated	Moment	221865.15	
☐ As Weighed	Weight	2724.38	
New Empty Weight CG		81.44	
Signature WILLIAM FRITSCH [REDACTED]			
Repair Agency or License No: [REDACTED]			

Katy, TX 77450

FAA APPROVED
PILOT'S OPERATING HANDBOOK AND
FAA APPROVED AIRPLANE FLIGHT MANUAL SUPPLEMENT
FOR
BEECHCRAFT MODEL A36TC

NORMAL CATEGORY
(Operation in excess of 3650 lb. Max Gross Weight, or with Fuel in Tip Tanks)

UTILITY CATEGORY
(Operation in excess of 3650 lb. Max Gross Weight or Less - Tip Tanks Empty)

REG. NO. N380SJSER. NO. EA-171

This supplement must be attached to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual when two 20 gallon auxiliary wing tip fuel tanks are installed in accordance with STC SA02460CH. The information contained herein supplements or supersedes the basic handbook only in those areas listed herein. For limitations, procedures, and performance information not contained in this supplement, consult the basic Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

FAA APPROVED: 

Charles L. Smalley, Manager
Systems and Flight Test Branch
Federal Aviation Administration
Department of Transportation
Federal Aviation Administration
Des Plaines, IL

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This document is limited to the following aircraft:
Model A36TC
Serial Number EA171
N-Number N380SJ
Kit Number REF EAT1

Date: JUL 14 2007

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Genesis Aero

Katy, TX 77450

Document No: FMS-20TT-36TC

Beechcraft A36TC

20 Gallon Tip Tanks

S/N EA-171 R/N 3803J

LOG OF REVISIONS

Revision	Description	Date	FAA Approved
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Date: JUL 14 2007

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Genesis Aero
Katy, TX 77450

Document No: FMS-20TT-36TC
Beechcraft A36TC
20 Gallon Tip Tanks
S/N EA171 R/N 3803T

SECTION I GENERAL

This supplement contains revised information for the basic airplane when modified by the addition of two auxiliary wing tip fuel tanks installed in accordance with STC. The information contained herein supplements or supersedes the basic handbook only in those areas listed herein. Consult the Pilot's Operating Handbook and FAA Approved Flight Manual for limitations, procedures, and performance information not contained herein.

Added tip tank fuel capacity

Total capacity.....40 gal.
Total usable.....40 gal.

MAXIMUM CERTIFIED WEIGHT

Maximum Ramp Weight.....3849 lb.
Maximum Take-off Weight.....3833 lb.
Maximum Landing Weight.....3833 lb.
Maximum Zero Fuel Weight.....No Structural Limitation

SECTION II LIMITATIONS

AIRSPED LIMITATIONS

Maneuvering Speed (V_A).....CAS 132 KCAS
IAS 132 KIAS

WEIGHT LIMITATIONS

Maximum Ramp Weight.....3849 lb.
Maximum Take-off Weight.....3833 lb.
Maximum Landing Weight.....3833 lb.
Maximum Zero Fuel Weight.....No Structural Limitation
Maximum Weight in Baggage/Cargo
Rear Cabin Compartment.....400 lb.
Aft Compartment.....70 lb.

ENGINE LIMITATIONS

None

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20 Gallon Tip Tanks
S/N EA-171 R/N 3803T

CENTER OF GRAVITY LIMITS (Landing Gear Extended)

FORWARD LIMITS

74.0 inches aft datum to 3100 pounds with straight line variation to 83.4 inches at 3833 pounds.

AFT LIMIT

87.7 inches aft datum, all weights.

MANEUVER LIMITS

This is a NORMAL CATEGORY airplane when operated in excess of 3650 lb. or with fuel in Tip Tanks. Spins and acrobatic maneuvers are prohibited. Normal category airplanes are limited to Non-acrobatic operation. Non-acrobatic operation includes;

- (1) Any maneuver incident to normal flying.
- (2) Stalls (except whip stalls).
- (3) Lazy eights, chandelles, and steep turns in which the angle of bank is not more than 60°.

FLIGHT LOAD FACTORS

Positive Maneuvering Load Factors

Flaps Up.....	3.8 G
Flaps Down.....	2.0 G

FUEL

In addition to the basic airplane fuel system, two auxiliary wing tip fuel transfer tanks are installed with a capacity of 20 gallons each, all of which is usable.

FUEL MANAGEMENT

Takeoffs are prohibited with more than 1/4 tank difference in tip fuel quantity. During flight if tip fuel quantity gauges indicate more than 3/4 tank difference the landing should be made with flaps up.

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20 Gallon Tip Tanks
S/N EA171 R/N 3703J

PLACARDS

In full view of the pilot:

FUEL CONSUMPTION MAY EXCEED TIP TANK TRANSFER RATE. INITIATE TRANSFER WITH BOTH MAINS AT LEAST 1/4 FULL. MONITOR MAIN TANK GAUGES TO PREVENT OVERFLOW.

On left side panel (Airspeed values are CAS)

NORMAL CATEGORY AIRPLANE
(WHEN OPERATED IN EXCESS OF 3650 LB. MAX GROSS WEIGHT,
OR WITH FUEL IN TANKS)

AIRSPPEED LIMITATION (NORMAL CAT. OPERATIONS)

MAXIMUM DESIGN MANEUVERING SPEED 132 MPH

OPERATE IN ACCORDANCE WITH FAA APPROVED FLIGHT
MANUAL / PILOT'S OPERATING HANDBOOK. INTENTIONAL SPINS ARE
PROHIBITED. NO AEROBATIC MANEUVERS APPROVED
Genesis Aero STC

SECTION III EMERGENCY PROCEDURES

If for any reason it is necessary to land with more than 1/2 tank difference in tip tank quantities, the landing should be made with flaps in the up position.

SECTION IV NORMAL PROCEDURES

AIRSPPEEDS FOR SAFE OPERATION

Maximum Turbulent Air Penetration.....132 KCAS
134 KIAS

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- Fuel drains are located on the lower surface of each tip tank. Drain these points daily before the first flight to purge any water from the system.
- Check security of flush mounted tip tank filler caps during preflight inspection. A special opening key is required to remove and secure the filler.
- Before flight, check the tip tanks for unsymmetrical loading. If fuel tank capacities differ more than 1/4 tank, relocate fuel prior to takeoff.
- Tip tank fuel is transferred into its respective main tank by an electric pump at a rate of approximately 15 gallons per hour. At higher power settings, fuel consumption may exceed the transfer rate to the main tank selected.
- Fuel transfer from tip tanks should be accomplished simultaneously to maintain symmetrical wing tip fuel loading. Initiate transfer with the left main feeding the engine and when both main tanks are 3/4 full. Stop transfer when either tank indicates near full.

SECTION V PERFORMANCE

The performance of this airplane operated according to STC is equal to or better than the performance listed in the original Airplane Flight Manual (AFM) except that take-off and landing distance, and rate-of-climb charts originally presented for this model do not apply to this STC modification. Increase AFM/POH take-off and landing chart values by 11%, and decrease rate-of-climb chart values by 5% when operating at the new maximum gross weight.

In addition, range and endurance information in the original Airplane Flight Manual (AFM) does not apply to this STC modification. When operating at maximum gross weight with no tip tank fuel, decrease AFM/POH range data by 5%, and endurance information by 8%. These percentages do not account for additional range and endurance allowed by tip tank fuel.

SECTION VI WEIGHT AND BALANCE

Weight Condition	Forward CG Limit	Aft CG Limit
3833 lb. (Max. take-off)	83.4	87.7
3650 lb.	81.0	87.7
3100 lb. or less	74.0	87.7

(continued)

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Beechcraft A36TC

20 Gallon Tip Tanks

S/N EA 171 R/N 3803J

Following is a table of moment limits versus weight for gross weights between 3650 and 3833 lb.

Weight(lb.)	Minimum Moment/100	Maximum Moment/100
3650	2957	3201
3660	2970	3210
3670	2984	3219
3680	2996	3227
3690	3009	3236
3700	3021	3245
3710	3033	3254
3720	3047	3262
3730	3059	3271
3740	3072	3280
3750	3086	3289
3760	3098	3298
3770	3111	3306
3780	3124	3315
3790	3138	3324
3800	3150	3333
3810	3164	3341
3820	3176	3350
3830	3190	3359
3833	3196	3361

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Katy, TX 77450

Document No: FMS-20TT-36TC

Beechcraft A38TC

20 Gallon Tip Tanks

S/N EA 171 R/N 38030Weight and Balance Loading FormModel:
Serial No: CD-Date:
Reg. No.:

Item	Weight	Mom. /100
1. Basic Empty Weight		
2. Front Seat Occupants		
3. 3rd. and 4th. Seat Occupants		
4. 5th. and 6th. Seat Occupants		
5. Baggage		
6. Cargo		
7. Sub Total Zero Fuel Condition		
8. Basic Fuel Loading		
9. Tip Tank Fuel Loading		
10. Sub Total Ramp Condition		
11. * Less Fuel for Start, Taxi, and Take-off		
12. Sub Total Take Off Condition		
13. Less Fuel to Destination		
14. Landing Condition		

* Fuel for start, taxi, and take-off is normally 13 lb. at an average Mom. /100 of 9.

Usable tip tank fuel is located at an average arm of 87 inches aft datum.

SECTION VII SYSTEMS DESCRIPTIONFuel System

In addition to the basic airplane fuel system, two auxiliary wing tip fuel transfer tanks are installed. Each tip tank has a capacity of 20 gallons. (continued)

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Beechcraft A36TC

20 Gallon Tip Tanks

S/N EA 171 R/N 3803J

Tip tank fuel is transferred into its respective main tank by an electric pump at a rate of approximately 15 gallons per hour. The transfer pump and a solenoid valve are mounted inside the wheel well of each wing on the rib at wing station 66.

Tip tank transfer pump switches are located either on the face of the instrument panel or between the front seats on the partition assembly forward of the main spar truss. The pump and solenoid valve circuit breaker is installed adjacent to the pump switches.

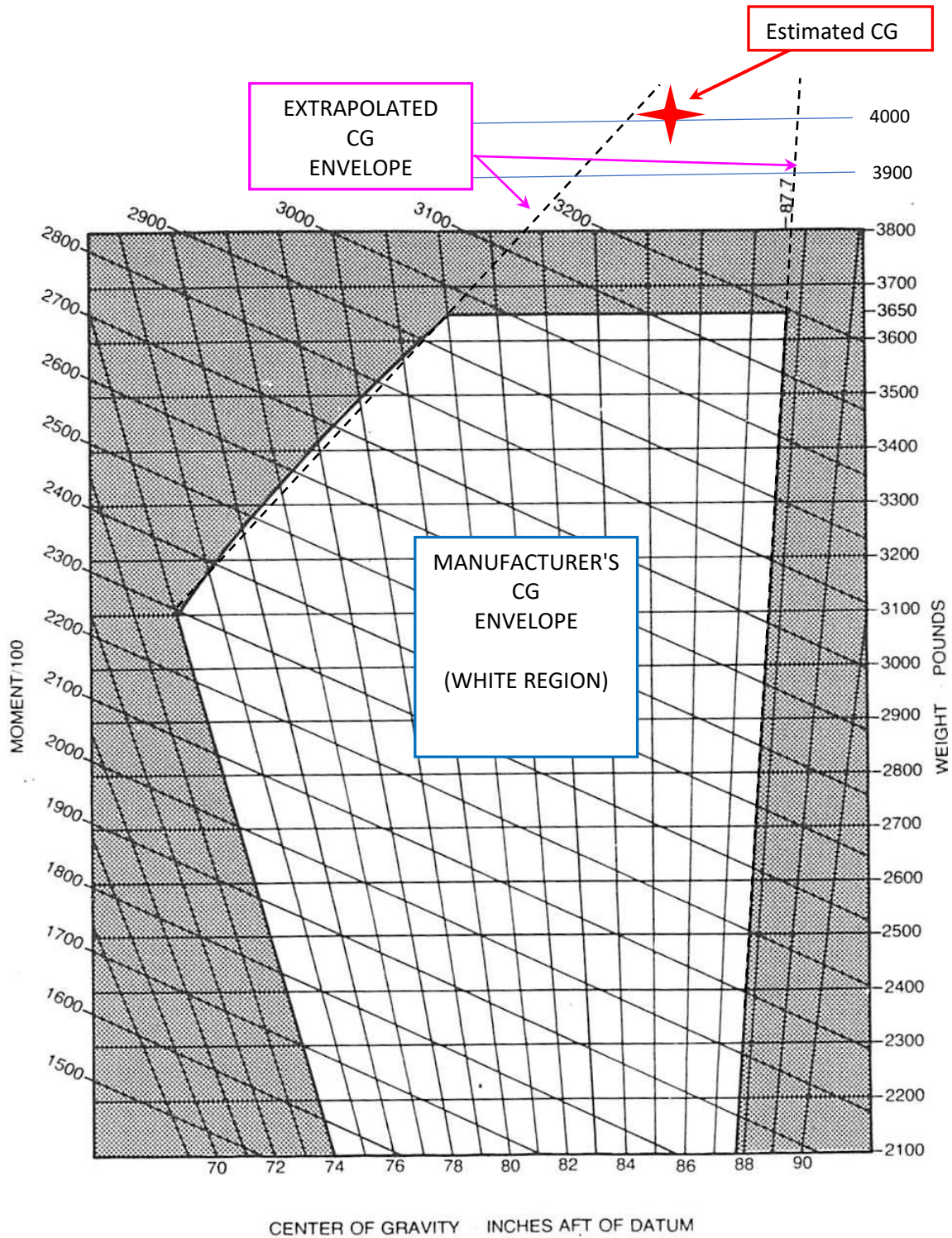
A fuel drain is provided on the lower surface of each tip tank.

Fuel quantity is measured by observing the fuel level on sight gauge located on the inboard side of each tip tank.

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WPR17LA064 W&B Extrapolated



NTSB TAKEOFF Wt & CG

Item	Station	Weight	Max Wt	Moment
EW	81.44	2724.38		221873.5072
Pilot & Pax	78.5	320		25120
Baggage/Misc	140	325		45500
Wing Main Fuel	75	444	80g T	33300
Wing Tip Fuel	87	240	40g T	20880
TOTAL	85.53	4053.38	3833	346673.5072