



# StaggerEZ

**Steve Wright**

**July 26<sup>th</sup>, 2007**

**2:30 PM – 3:45 PM**

**Forum Tent 06 – Sporty's Pavilion**

# The StaggerEZ Story



- Steve Wright Personal History

- Degree: BS Business
- Built “to the plans” Vari-Eze; first flight 1982
- Canard flying time; over 1000 hrs.
- Designed Wright Nose lift, late 80’s; first unit shipped 1995
- Designed and built StaggerEZ; first flight 2003
- Awards:
  - Grand Champion Plans Built for StaggerEZ, S&F 2005
  - Rutan Designer’s Award for Vari-Eze, 1986



**After 6500 man hours of work and 14 years the first flight occurred in the spring of 2003**

# StaggerEZ Design Goals



- Comfortable and Roomy Cabin
- Outstanding Visibility
- 160 kt. Cruise w/ good fuel economy
- EZ open cowl and inspection hatch
- User-friendly systems
  - No nose ballast for solo
  - No in flight fuel management
  - Simple fuel system; one fuel tank, one fuel cap
  - EZ entry/exit
  - EZ open canopy – no forward obstructions for taxi

# Comfortable Seating



- Staggered Seats – right seat 13.5” aft of left
- 42” wide fuselage
- Large canopy for good visibility
- Staggered seats – good vis. to right for pilot
- No shoulder interference, but good vis. of panel and outside for both
- Easy entry to rear seat between front seats
- Roomy 3-seater with loads of baggage space – relocated main gear / off-center nose gear allow more storage
- I like more upright seating than Long-EZ or COZY

# Weight Distribution



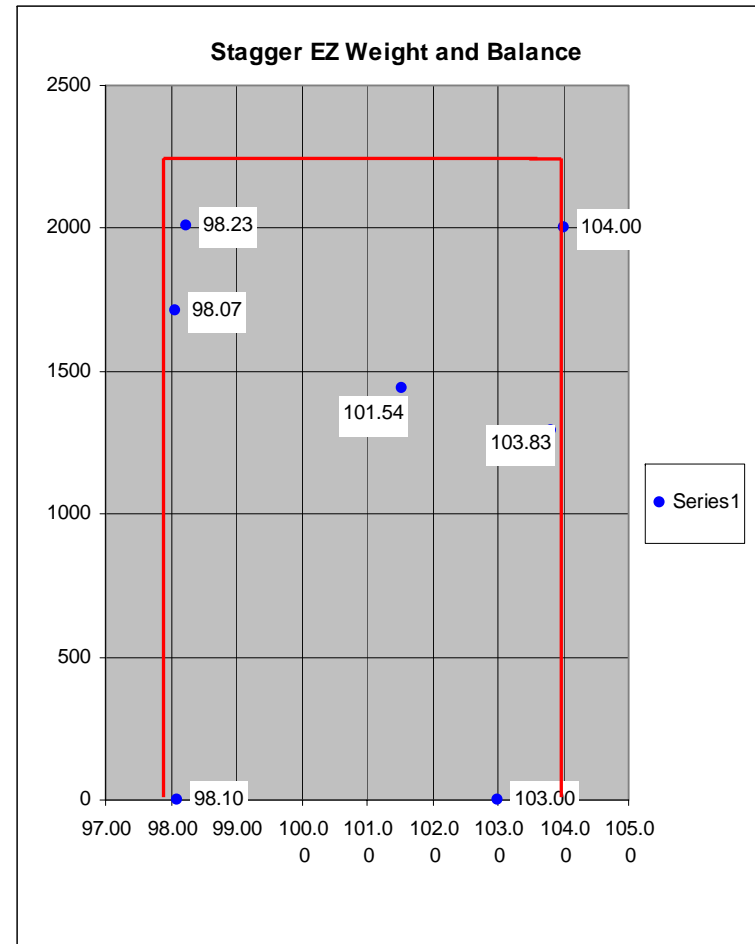
- Staggered Seating – any combo of pilot > 160 lb. and passenger < 240 lb.
- No ballast if within those limits
- Cozy needs ballast shift for same weight distributions

## Max fwd cg

<u>Item</u>	<u>Weight</u>	<u>Station</u>	<u>Moment</u>
Empty Airplane	1100.00	110.89	121976
oil included	0.00	140.00	0
fuel	200.00	102.45	20490
Pilot	190.00	54.10	10279
Right seat co-pilot	220.00	68.00	14960
Rear Passenger	0.00	103.00	0
<b>Total</b>	<b>1710.00</b>	<b>98.07</b>	<b>167705</b>

## Max aft cg full fuel (NO BALLAST)

<u>Item</u>	<u>Weight</u>	<u>Station</u>	<u>Moment</u>
Empty Airplane	1100.00	110.89	121976
Fuel	40.00	102.45	4098
Pilot	155.00	54.10	8385.5
Rear Passenger	0	103.00	0
<b>Total</b>	<b>1295.00</b>	<b>103.83</b>	<b>134460</b>



# Controls



- Pilot side - copy of Long-EZ
- Sticks on left for front seat passenger staggered 13.5" to rear of pilot's stick
- No rudder pedals on passenger side



# EZ Entry / Exit



- Nose-Lift lifts fully loaded aircraft
- Rear Hinged electrically actuated canopy allows access from both sides
- Canopy 20% higher and wider than COZY canopy



# Sod Runways / Offset Nose Gear



- Main Gear outboard of prop arc – no debris into prop
- Aircraft sits at +1.5 deg incidence attitude on ground
- Nose Gear 5” right of centerline – out of pilot’s way
- Passenger’s feet behind nose wheel
- Same nose wheel as on COZY MKIV





# Single Fuel Tank / Single Point Fueling



- Single 40 gallon tank, one fuel cap
- Filler on left
- Tanks in each strake connected with central sump
- Trap doors in sump prevent sloshing
- Sight gauges marked with “time to empty”



# Speed?



- Can cruise 175 kts TAS @ 2700 RPM / 75% power using 10.5 gal/hr.
- Usually fly 150 kts TAS @ 2300 RPM / 60% power using 6.8 gal/hr.



# Questions? (& Answers)



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