

Citabria

N5038M



NORTH STAR FLYERS FLYING CLUB

Anoka County/Blaine Airport (KANE)

**14708 Yancy Street NE
Ham Lake, MN 55304
(763) 458-2923**

**DO NOT REMOVE FROM
AIRCRAFT**

**Bellanca Citabria 7ECA
N5038M s/n 1290-79**





EMERGENCY CONTACT NUMBERS

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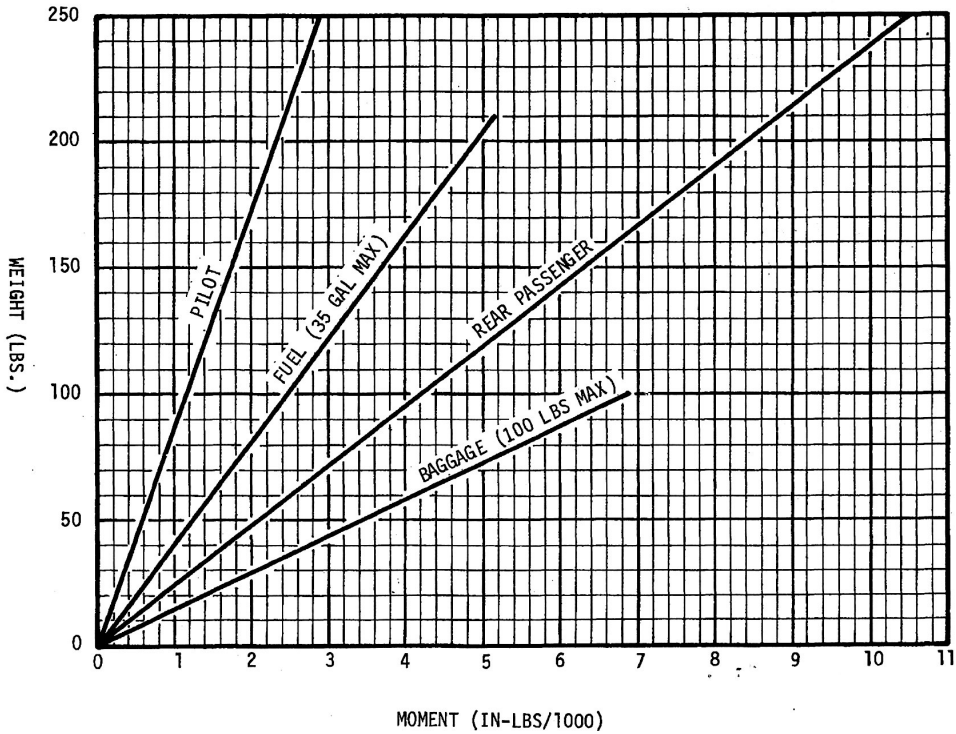
AIRSPEEDS FOR SAFE OPERATION

(Note: V speeds are book values in MPH.)

V_{SO}	50
V_R	55
V_X	58
V_Y	69
V_A (MGW)	120
V_{NO}	120
V_{NE}	162
V_{ref}	70
V_G	65
Max demonstrated crosswind (kt)	17

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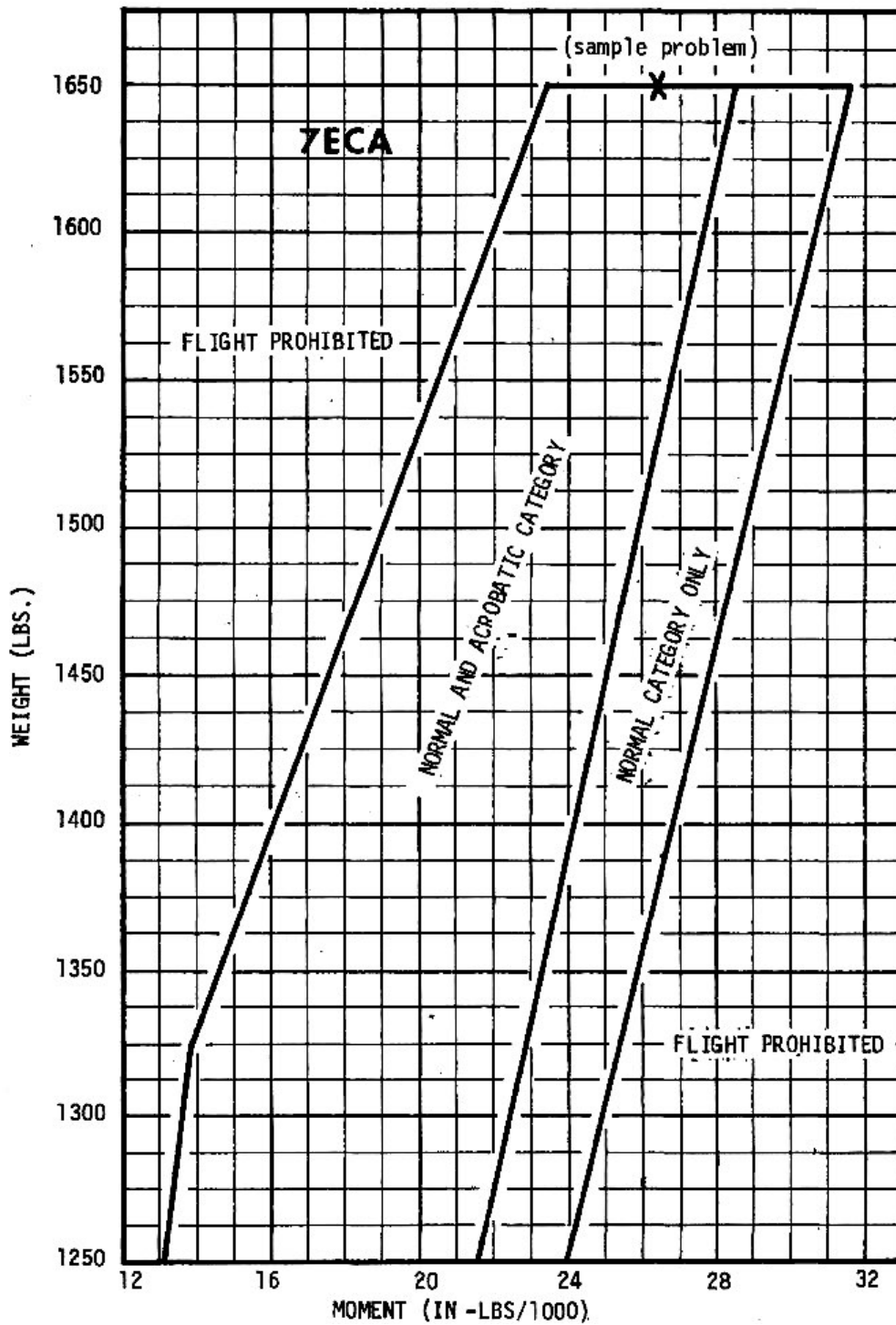
LOADING CHART

	<u>Weight</u>	<u>Moment/1000</u>
Empty Weight	1178	14.52
Oil	9	-0.34
Front Seat	_____	_____
Rear Seat	_____	_____
Baggage (100# max)	_____	_____
Fuel (35 gal/210# max)	_____	_____
TOTAL	_____	_____

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Citabria



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PREFLIGHT PROCEDURES

CABIN

Door pin.....CHECK
Fuel quantityCHECK
Electrical switches.....OFF
Magneto switchesOFF
Flight controls.....CHECK
Rear seat belt.....SECURE
(if solo flight)
ELTARMED

RIGHT WING

Aileron and spadeCHECK
Wing tip and light.....CHECK
Wing and strutsCHECK
Tiedown.....REMOVE
Pitot-static tubeCHECK
Fuel.....CHECK

RIGHT MAIN GEAR

ChocksREMOVE
TiresCHECK (24 PSI)
BrakesCHECK

NOSE

WindshieldCHECK
OilCHECK (5 QT)
Cowl, door.....SECURED
Alternator beltCHECK
Propeller, spinnerCHECK
Air filterCHECK
Landing lightCHECK
GascolatorDRAIN

LEFT MAIN GEAR

ChocksREMOVE
TiresCHECK (24 PSI)
BrakesCHECK

LEFT WING

Same as right wing, plus:

Fuel ventCLEAR

LEFT FUSELAGE

FabricCHECK
Windows.....CHECK
Fuel belly drain.....DRAIN
AntennasCHECK

EMPENNAGE

StabilizersCHECK
Bracing wiresCHECK
Control surfaces.....CHECK
Trim tabCHECK
LightCHECK
TailwheelCHECK (40 PSI)
Tiedown.....REMOVE

RIGHT FUSELAGE

FabricCHECK
Windows.....CHECK
Antennas.....CHECK

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FLIGHT PROCEDURES

BEFORE STARTING

Towbar, Chocks.....STOWED
HarnessesFASTEN
Fuel shutoff valveON
Brakes.....SET
Cabin doorCLOSED

ENGINE START (COLD)

Beacon.....ON
Master switchON
Magneto switchesON
ThrottleCLOSED
Carburetor heatOFF
MixtureFULL RICH
PrimeAS REQUIRED
Propeller.....CLEAR
Starter.....PUSH

ENGINE START (FLOODED)

MixtureIDLE CUT-OFF
ThrottleFULL OPEN
Magneto switchesOFF
Starter.....ENGAGE (5-10 sec)

Repeat normal starting
procedure without priming

AFTER STARTING

Throttle.....1000 RPM
Oil pressure.....CHECK
Nav/com radio.....ON
Transponder.....ON

BEFORE TAKEOFF

Brakes.....SET
Elevator trimTAKEOFF
Fuel shutoff valveON
MixtureFULL RICH
Flight controls.....CHECK
Instruments/radiosSET
Throttle.....1800 RPM
MagnetosCHECK
Carburetor heat CHECK, OFF
Engine instruments...CHECK
Throttle.....1000 RPM
Lights.....AS REQUIRED
Window.....CLOSED
Cabin door, top latch CLOSED

TAKEOFF

BrakesHEELS ON FLOOR
ThrottleFULL OPEN
Liftoff55-60 MPH
ClimbV_x 58 MPH
V_y 69 MPH

CRUISE

PowerSET
MixtureSET
Lights.....AS REQUIRED

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FLIGHT PROCEDURES

DESCENT

Mixture.....RICH

LANDING

Carb heat.....AS REQUIRED

Mixture.....RICH

HarnessesFASTEN

BrakesHEELS ON FLOOR

Lights.....AS REQUIRED

Airspeed70 MPH Normal
60 MPH Obstacle

Gusty winds: increase 5 MPH

AFTER LANDING

Transponder.....OFF

Lights.....AS REQUIRED

SHUTDOWN

Nav/com switch.....OFF

MixtureIDLE CUT-OFF

MagnetosOFF

LightsOFF

Master switchOFF

Write down times, fuel added

AIRSPEED CORRECTION	
IAS	CAS
50	58
60	66
70	75
80	83
90	92
100	100
110	109
120	117
130	125
140	134
150	142
160	150
170	159

STALL SPEEDS (CAS)	
Bank Angle	MPH
0	51
20	53
40	58
60	72

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TAKEOFF/CLIMB PERFORMANCE

Max gross weight, hard dry runway, zero wind

PA (ft)	Temp (°F)	T/O (ft)	50 ft Obst	ROC (fpm)
S.L.	0	340	716	800
	20	372	768	775
	40	415	832	750
	60	455	895	725
	80	496	961	700
	100	544	1034	675
2000	0	407	860	685
	20	444	929	660
	40	492	1004	635
	60	543	1086	610
	80	597	1174	585
	100	655	1269	433
4000	0	482	1043	575
	20	538	1147	360
	40	589	1239	520
	60	640	1329	495
	80	690	1432	470
	100	788	1580	450
6000	0	576	1301	385
	20	640	1432	435
	40	707	1562	410
	60	789	1716	385
	80	858	1858	365
	100	968	2058	340
8000	0			350
	20			325
	40			300
	60			275
	80			245
	100			225

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CRUISE PERFORMANCE

Max gross weight, no reserve

ALT. Feet	RPM	BHP %	TAS MPH	GPH	ENDUR- ANCE	RANGE Sta. Mi.
2500	2800	90	122	9.6	3.6	445
	2700	76	117	8.0	4.4	510
	2600	66	113	5.9	5.9	670
	2500	59	108	5.2	6.7	725
	2400	53	104	4.7	7.4	770
	2300	49	100	4.3	8.1	810
	2200	45	96	4.0	8.8	840
5000	2800	83	123	8.9	3.9	480
	2700	72	118	6.3	5.6	655
	2600	63	114	5.6	6.3	710
	2500	56	108	4.9	7.1	770
	2400	51	104	4.5	7.8	805
	2300	47	99	4.1	8.5	845
	2200	43	94	3.8	9.2	865
7500	2800	77	124	8.2	4.3	525
	2700	67	119	5.9	5.9	705
	2600	60	114	5.2	6.7	765
	2500	53	109	4.7	7.4	810
	2400	48	103	4.3	8.1	835
	2300	44	98	3.9	9.0	875
	2200	41	92	3.6	9.7	890
10000	2800	70	124	6.2	5.6	700
	2700	62	119	5.5	6.4	755
	2600	56	114	4.9	7.1	810
	2500	50	107	4.4	8.0	855
	2400	46	101	4.0	8.8	880
	2300	42	93	3.7	9.5	880

- Notes: (1) 75% power maximum cruise
(2) Leaned at 75% or lower power settings
(3) Full rich above 75% power settings

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LANDING DISTANCE

60 MPH, hard dry runway, MGW, zero wind

Altitude (feet)	Temp (°F)	Ground roll (feet)	Over 50 ft. obstacle (ft.)
S.L.	59	400	775
2500	50	430	805
5000	41	465	840
7500	32	500	875

MANEUVER ENTRY SPEEDS (CAS)

Chandelle, lazy eights	120 MPH
Barrel or slow roll	120 MPH
Immelman	145 MPH
Loop or cloverleaf	140 MPH
Split S	80 MPH
Snap roll	85 MPH
Vertical reverse	85 MPH
Cuban eight	145 MPH
Spins	Slow deceleration

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EMERGENCY PROCEDURES

ENGINE FIRE DURING START

CrankingCONTINUE
MixtureIDLE CUT-OFF
ThrottleFULL OPEN

If fire persists:

Fuel shut-off valveOFF
Electrical switchesOFF
Magneto switchesOFF

Abandon aircraft

ENGINE FIRE IN FLIGHT

MixtureIDLE CUT-OFF
Fuel shut-off valveOFF
Electrical switchesOFF
Magneto switchesOFF
Cabin heatOFF (front/rear)
FireEXTINGUISH

ELECTRICAL FIRE

Electrical switchesOFF
Air ventsAS REQUIRED
FireEXTINGUISH

If fire is out:

Master switchON
Electrical switchesON

ALTERNATOR FAILURE

Master switchCYCLE

If battery discharge continues:

Nonessential electricsOFF

Land as soon as practicable.

If only one circuit appears to be inoperative, remove and replace the suspected fuse.

ENGINE FAILURE ON TAKEOFF

If sufficient runway remains:

ThrottleCLOSED
Land straight ahead

If airborne and sufficient altitude permits, attempt an engine restart:

Fuel shut-off valveON
MixtureFULL RICH
Carburetor heatON (Full)
Magneto switchesON

If power is not restored, proceed with forced landing.

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EMERGENCY PROCEDURES

ENGINE AIR RESTART

Airspeed65 MPH minimum
Magneto switchesON
Mixture.....RICH or AS REQ'D
Fuel shut-off valve.....ON
Carburetor heatON
Engine primerOFF
StarterENGAGE
(if propeller not windmilling)

If restart does not occur,
change throttle, mixture,
primer, magneto, and
carburetor heat settings

If still no restart, proceed with
forced landing.

PRECAUTIONARY LANDING

Airspeed65 MPH
ThrottleCLOSED
(within gliding distance)

FORCED LANDING

Airspeed.....65 MPH
MixtureIDLE CUT-OFF
Fuel shut-off valve.....OFF
RadioMAYDAY CALL
Electrical switches.....OFF

After landing, if necessary,
remove and activate ELT

DITCHING

Cabin side door.....JETTISON

Land parallel to swells, except
land into high winds

Contact water at minimum
speed without stalling

SPIN RECOVERY

ThrottleCLOSED
Rudder.....FULL OPPOSITE
Elevator .SLIGHT FORWARD
AileronsNEUTRAL

When rotation stops:

RudderNEUTRALIZE
Elevator ..SMOOTHLY RAISE

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