



N79567



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**



Cessna Skyhawk C-172K

N79567 s/n 17258181



EMERGENCY CONTACT NUMBERS

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AIRPLANE-SPECIFIC NOTES

Tire Pressures: Nose - 26 PSI, Main - 24 PSI

Fuel: 19 gallons (each tank)

GPU plug inside left cowling door.

Ensure 12V/14V when using GPU or charging battery.

Fill oil in full quart increments only.

Transponder should remain on ALT at all times. Ensure 1200 after flight to prevent problems for the next pilot.

Do not leave towbar attached to nose wheel unattended.



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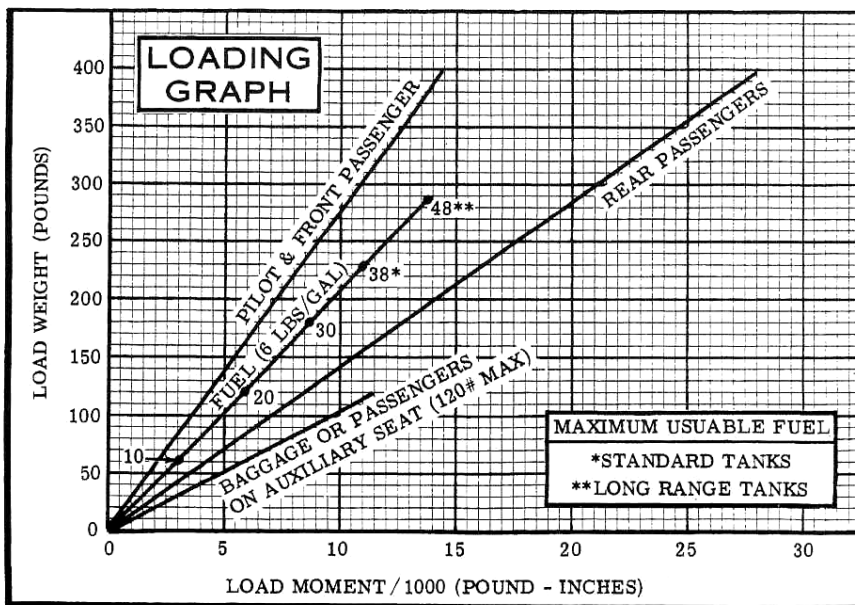


AIRSPEDS FOR SAFE OPERATION (MPH)

(Note: V speeds are book values and do not account for the BUSH STOL conversion kit.)

V_{SO}		52
V_{SI}		59
V_R		60
V_X		68
V_Y		85
V_F		100
V_A (MGW)		122
V_{NO}		140
V_{NE}		174
V_{ref}	(flaps up)	80
	(flaps down)	70
V_G		80
Max demonstrated crosswind		13*

* Per the POH, “with average pilot technique, direct crosswinds of 15 mph can be handled with safety.” This is a guideline, not a published limit.

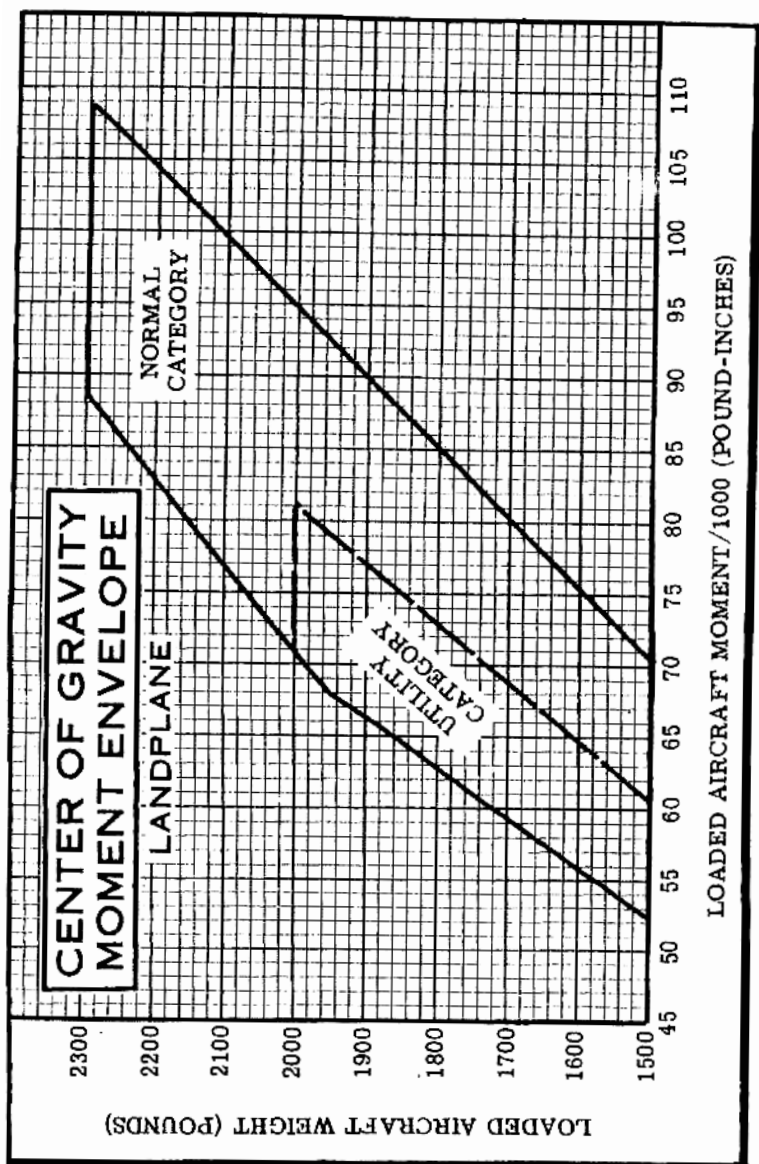


LOADING CHART

	<u>Weight</u>	<u>Mom/1000</u>
Empty Weight	1396.13	53.25
Oil	15	-0.2
Front Seats	_____	_____
Rear Seats	_____	_____
Baggage (120 lbs max)	_____	_____
Fuel (38 gal/228 lb max)	_____	_____
TOTAL	_____	_____



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PREFLIGHT INSPECTION

COCKPIT

Control Lock REMOVED
Magnetos OFF
Electrical Switches OFF
Circuit Breakers CHECK
Carburetor Heat OFF
Throttle CLOSED
Mixture FULL LEAN
Trim Tab T/O RANGE
Fuel Selector BOTH
Master Switch ON
Fuel Gauges CHECK
Lights, Pitot Heat CHECK
Flaps EXTEND
Master Switch OFF

LEFT FUSELAGE

Baggage Door CLOSED
Antennas CHECK

EMPENNAGE

Control Surfaces CHECK
Tiedown REMOVE
Lights CHECK

RIGHT WING

Flap and Aileron CHECK
Wing Tip and Light CHECK
Tiedown REMOVE
Tire, Brake CHECK
Fuel Sump DRAIN
Fuel CHECK, CAP SECURE

NOSE

Oil CHECK (6 QT MIN)
Strainer Knob PULL (4 SEC)
Fuel Sump DRAIN
Propeller, Spinner CHECK
Air Intakes, Filter CHECK
Alternator Belt CHECK
Strut, Tire CHECK
Engine Compartment ... CLEAR
Cowl Doors SECURED
Static Port CHECK

LEFT WING

Fuel CHECK, CAP SECURE
Fuel Vent CHECK
Pitot Tube CHECK
Tiedown REMOVE
Landing/Taxi Lights CHECK
Wing Tip and Light CHECK
Aileron and Flap CHECK
Tire, Brake CHECK
Fuel Sump DRAIN



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PREFLIGHT PROCEDURES

BEFORE STARTING ENGINE

Seats, Stops, Belts..... ADJUST
Brakes..... TEST AND SET
Primer.....IN AND LOCKED
Carburetor Heat.....OFF
Throttle.....CLOSED
Mixture.....RICH
Propeller Area..... CLEAR
Master Switch ON
Beacon ON

ENGINE START (COLD)

Throttle.....CLOSED
Prime 1-3 STROKES
StarterENGAGE
Throttle..... IDLE

ENGINE START (FLOODED)

Throttle..... FULL OPEN
Mixture.....IDLE CUT-OFF
StarterENGAGE
Mixture..... ADVANCE AS
ENGINE FIRES
Throttle..... IDLE

ENGINE START (GPU)

Alternator Switch ON
GPU...OFF, CONNECT, 14V, ON
StarterENGAGE
GPU OFF, DISCONNECT

BEFORE TAXI

Oil Pressure CHECK
Radio Master Switch..... ON
Directional Gyro.....SET
Lights AS REQUIRED
Mixture..... LEAN FOR TAXI
Flaps UP
Brakes..... TEST

ENGINE RUN-UP

Flight Controls..... CORRECT
InstrumentsCHECK, SET
Mixture.....RICH
Throttle..... 1700 RPM
MagnetosCHECK (125/50)
Carburetor Heat CHECK
Mixture.....LEAN CHECK
Engine Instruments CHECK
Ammeter CHECK
Suction..... CHECK (4.6-5.4")
Throttle..... 1000 RPM

BEFORE TAKEOFF

Doors and WindowCLOSED
Seats, Belts SECURE
Lights..... AS REQUIRED
Radios, Transponder.....SET
Carburetor Heat.....OFF
Mixture.....RICH
Flaps AS REQUIRED
TrimTAKEOFF RANGE
Fuel Selector..... BOTH
Brakes..... RELEASE



FLIGHT PROCEDURES

NORMAL TAKEOFF

Flaps UP
Throttle..... FULL OPEN
Engine Instruments CHECK
Rotation Speed 60 MPH
Climb..... 68 MPH (V_x)
85 MPH (V_y)

SHORT FIELD TAKEOFF

Flaps UP
Brakes..... HOLD
Throttle..... FULL OPEN
Brakes..... RELEASE
Rotation Speed 60 MPH
Climb..... 68 MPH (V_x)
Obstacles Clear... 85 MPH (V_y)

SOFT FIELD TAKEOFF

Flaps 10 DEGREES
Throttle..... FULL OPEN
Elevator UP
After Liftoff..... 68 MPH (V_x)
85 MPH (V_y)
Flaps RETRACT >80 MPH

CLIMB (1000 FT CHECKS)

Airspeed 90-100 MPH
Flaps UP
Lights..... AS REQUIRED

CRUISE

Power..... AS REQUIRED
Mixture..... LEAN (100° ROP)

**Note: 75% maximum
continuous cruise power**

DESCENT

Altimeter SET
Carburetor Heat..... AS REQ'D
Power..... AS REQUIRED
Mixture..... ENRICH AS REQ'D

BEFORE LANDING

Fuel Selector..... BOTH
Mixture..... RICH/AS REQ'D
Carburetor Heat..... ON
Seats, Belts SECURED
Brakes..... RELEASED
Lights..... AS REQUIRED

NORMAL LANDING

Flaps . DOWN (100 MPH MAX)
Airspeed 80 MPH CLEAN
70 MPH DIRTY

SHORT FIELD LANDING

Flaps . DOWN (100 MPH MAX)
Airspeed 69 MPH
Flaps RETRACT ON RWY



FLIGHT PROCEDURES

BALKED LANDING

Carburetor Heat.....OFF
Power.....FULL THROTTLE
Flaps 20 DEGREES
Airspeed 85 MPH (Vy)
FlapsRETRACT

AFTER LANDING

FlapsUP
Carburetor Heat.....OFF
Transponder.....1200
Lights..... AS REQUIRED
Mixture..... LEAN FOR TAXI

SECURING AIRCRAFT

Radio Master Switch.....OFF
Electrical Switches.....OFF
Lights....OFF EXCEPT BEACON
Magnetos GROUND CHECK
Mixture.....IDLE CUT-OFF
MagnetosOFF
Master SwitchOFF
Control Lock AS REQUIRED
Oil Heater..... AS REQUIRED
TimesNOTE

**Note aircraft tach and Hobbs
times and any squawks in
aircraft book and on
electronic chit form**



EMERGENCY PROCEDURES

ENGINE FIRE DURING START

Engine. CONTINUE CRANKING

If Engine Starts:

Power..... 1700 RPM (1-2 MIN)

Engine...NORMAL SHUTDOWN

If Engine Fails to Start:

Throttle..... FULL OPEN

Mixture..... IDLE CUT-OFF

Master Switch OFF

Magneto Switch..... OFF

Fuel Selector..... OFF

Aircraft..... ABANDON

Fire..... EXTINGUISH

ENGINE FIRE IN FLIGHT

Fuel Selector..... OFF

Mixture..... IDLE CUT-OFF

Magneto Switch..... OFF

Throttle..... CLOSE

Cabin Air..... OFF

Master Switch OFF

Do not attempt engine restart

ELECTRICAL FIRE (SMOKE IN CABIN)

Master Switch OFF

Electrical Switches..... OFF

Vents..... CLOSED

Cabin Heat OFF

Fire..... EXTINGUISH

ELECTRICAL FIRE (CONTINUED)

If fire is extinguished:

Circuit Breakers..... CHECK

Master Switch ON

Electrical Switches..... ON

Vents..... OPEN

WING FIRE

Navigation Lights..... OFF

Landing/Taxi Lights OFF

Pitot Heat..... OFF

**Sideslip to keep flames away
from fuel tank and cabin
Land as soon as possible**

ENGINE FAILURE - TAKEOFF

Throttle..... CLOSED

Brakes..... APPLY

ENGINE FAILURE - FLIGHT

If sufficient altitude:

Airspeed 80 MPH

Carburetor Heat ON

Mixture..... ADJUST

Fuel Selector... LEFT OR RIGHT

Magnetos CHECK

Primer..... LOCKED

**Attempt air start procedure
(see next page)**



EMERGENCY PROCEDURES

AIR START PROCEDURE

Fuel Selector..... BOTH
Throttle..... HALF OPEN
Mixture..... FULL RICH
Carburetor Heat..... ON
Starter ENGAGE AS REQ'D
Throttle..... ADJUST
Mixture..... LEAN AS REQ'D

POWER OFF LANDING

Airspeed . 80 MPH (FLAPS UP)
70 MPH (FLAPS DN)
Throttle..... CLOSED
Fuel Selector..... OFF
Mixture..... IDLE CUT-OFF
Magnetos Switch..... OFF
Seat Belts..... SECURE
Doors..... UNLATCH
Flaps AS REQUIRED
Master Switch OFF

Glide Range: 1.7 nm/1000 ft

ENGINE DISCREPANCIES

Rough Running Engine:

Mixture..... FULL RICH then
LEAN AS REQUIRED
Magnetos ... LEFT, RIGHT, BOTH

Partial Loss of Engine Power:

Carburetor Heat..... ON
Primer..... LOCKED
Magnetos CHECK
Fuel Selector... LEFT OR RIGHT

EMERGENCY DESCENT

Throttle..... IDLE
Airspeed 140 MPH

ALTERNATOR FAILURE

Circuit Breakers..... CHECK
Master Switch CYCLE

If condition persists/recurs:

Master Switch OFF
Nonessential Electrics OFF

Land as soon as practical.

SPIN RECOVERY

Throttle..... IDLE
Flaps UP
Rudder..... FULL OPPOSITE

When Rotation Stops:

Elevator FORWARD
Rudder..... NEUTRAL
Recover from dive

NOTE: Intentional spins are prohibited

LANDING WITH FLAT TIRE

Approach..... NORMAL
Land..... GOOD TIRE FIRST



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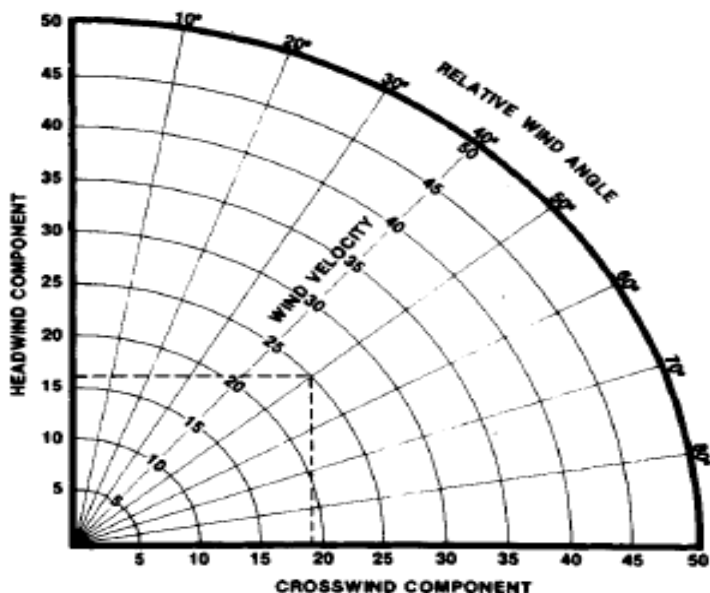


STALL SPEED VERSUS ANGLE OF BANK:

POWER OFF STALLING SPEEDS MPH - CAS

		ANGLE OF BANK			
	CONDITION	0°	20°	40°	60°
2300 LBS. GROSS WEIGHT	FLAPS UP	57	59	65	81
	FLAPS 10°	52	54	59	74
	FLAPS 40°	49	51	56	69

Crosswind Component Chart



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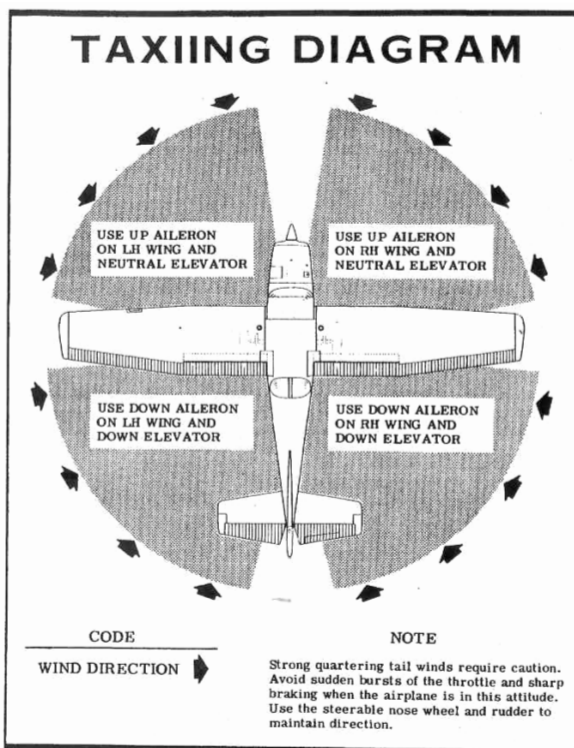
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AIRSPEED CORRECTION TABLE

	IAS	40	50	60	70	80	90	100	110	120	130	140
FLAPS UP	CAS	55	58	65	72	82	91	101	110	120	129	139
FLAPS DOWN	CAS	48	54	63	72	82	93	105	•	•	•	•

TAXIING DIAGRAM





TAKE-OFF DATA

TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS UP

GROSS WEIGHT POUNDS	IAS AT 50' MPH	HEAD WIND KNOTS	AT SEA LEVEL & 59°			AT 2500 FT. & 50°F			AT 5000 FT. & 41°F			AT 7500 FT. & 32°F		
			GROUND RUN	TOTAL TO CLEAR 50 FT OBS		GROUND RUN	TOTAL TO CLEAR 50 FT OBS		GROUND RUN	TOTAL TO CLEAR 50 FT OBS		GROUND RUN	TOTAL TO CLEAR 50 FT OBS	
2300	68	0	865	1525		1040	1910		1255	2480		1565	3855	
		10	515	1170		750	1485		920	1955		1160	3110	
2000	63	0	405	850		505	1100		630	1480		810	2425	
		20	630	1095		755	1325		905	1625		1120	2155	
1700	58	0	435	820		530	1005		645	1250		810	1885	
		20	275	560		340	720		425	910		585	1255	
		0	435	780		520	920		625	1085		765	1370	
		20	280	570		355	680		430	820		535	1040	
		0	175	385		215	470		270	575		345	745	
		20												

- NOTES: 1. Increase distance 10% for each 25°F above standard temperature for particular altitude.
 2. For operation on a dry, grass runway, increase distances (both "ground run" and "total to clear 50 ft. obstacle") by $\frac{1}{2}$ of the "total to clear 50 ft. obstacle" figure.



MAXIMUM RATE-OF-CLIMB DATA

GROSS WEIGHT POUNDS	AT SEA LEVEL & 59°F			AT 5000 FT. & 41°F			AT 10,000 FT. & 23°F			AT 15,000 FT. & 5°F		
	IAS MPH	RATE OF CLIMB FT. MIN	GAL. OF FUEL USED	IAS MPH	RATE OF CLIMB FT. MIN	FROM S.L. FUEL USED	IAS MPH	RATE OF CLIMB FT. MIN	FROM S.L. FUEL USED	IAS MPH	RATE OF CLIMB FT. MIN	FROM S.L. FUEL USED
2300	82	645	1.0	81	435	2.6	79	230	4.8	78	22	11.5
2000	79	840	1.0	79	610	2.2	76	380	3.6	75	155	6.3
1700	77	1085	1.0	76	825	1.9	73	571	2.9	72	315	4.4

NOTES: 1. Flaps up, full throttle, mixture leaned for smooth operation above 5000 ft.

2. Fuel used includes warm up and take-off allowance.

3. For hot weather, decrease rate of climb 20 ft. min. for each 10°F above standard day temperature for particular altitude.



CRUISE & RANGE PERFORMANCE SKYHAWK

Gross Weight- 2300 Lbs.
Standard Conditions
Zero Wind Lean Mixture

NOTE: Maximum cruise is normally limited to 75% power. Cruise speed for the standard Model 172 is approximately one MPH less than shown below for the Skyhawk configuration.

ALT.	RPM	% BHP	TAS MPH	GAL / HOUR	38 GAL (NO RESERVE)		48 GAL (NO RESERVE)	
					ENDR. HOURS	RANGE MILES	ENDR. HOURS	RANGE MILES
2500	2700	86	134	9.7	3.9	525	4.9	660
	2600	79	129	8.6	4.4	570	5.6	720
	2500	72	123	7.8	4.9	600	6.2	760
	2400	65	117	7.2	5.3	620	6.7	780
	2300	58	111	6.7	5.7	630	7.2	795
	2200	52	103	6.3	6.1	625	7.7	790
5000	2700	82	134	9.0	4.2	565	5.3	710
	2600	75	128	8.1	4.7	600	5.9	760
	2500	68	122	7.4	5.1	625	6.4	790
	2400	61	116	6.9	5.5	635	6.9	805
	2300	55	108	6.5	5.9	635	7.4	805
	2200	49	100	6.0	6.3	630	7.9	795
7500	2700	78	133	8.4	4.5	600	5.7	755
	2600	71	127	7.7	4.9	625	6.2	790
	2500	64	121	7.1	5.3	645	6.7	810
	2400	58	113	6.7	5.7	645	7.2	820
	2300	52	105	6.2	6.1	640	7.7	810
10,000	2650	70	129	7.6	5.0	640	6.3	810
	2600	67	125	7.3	5.2	650	6.5	820
	2500	61	118	6.9	5.5	655	7.0	830
	2400	55	110	6.4	5.9	650	7.5	825
	2300	49	100	6.0	6.3	635	8.0	800
12,500	2600	63	123	7.0	5.4	665	6.8	840
	2500	57	115	6.6	5.8	665	7.3	835
	2400	51	105	6.2	6.1	645	7.8	815

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LANDING DATA

LANDING DISTANCE ON HARD SURFACE RUNWAY
NO WIND - 40° FLAPS - POWER OFF

GROSS WEIGHT LBS.	APPROACH IAS MPH	@ S.L. & 59° F		@ 2500 ft. & 50° F		@ 5000 ft. & 41° F		@ 7500 ft. & 32° F	
		GROUND ROLL	TOTAL TO CLEAR 50' OBS.	GROUND ROLL	TOTAL TO CLEAR 50' OBS.	GROUND ROLL	TOTAL TO CLEAR 50' OBS.	GROUND ROLL	TOTAL TO CLEAR 50' OBS.
2300	69	520	1250	560	1310	605	1385	650	1455

NOTES: 1. Reduce landing distance 10% for each 5 knot headwind.
2. For operation on a dry, grass runway, increase distances (both "ground roll" and "total to clear 50 ft. obstacle") by 20% of the "total to clear 50 ft. obstacle" figure.