Learjet 25
Operating Handbook

CAE SimuFlite

Use of Operating Handbook

The CAE SimuFlite Operating Handbook is both a training aid for the simulator and a practical tool for the cockpit. This handbook is comprised of four sections.

- **The aircraft preflight section (PF-pages) are inserted in vinyl sleeves for increased durability and ease of page replacement. This section is an abbreviated listing of major items to be checked on preflight inspection.**
- **The normal procedures section (N-pages) are inserted in vinyl sleeves for increased durability and ease of page replacement. The checklists provided are SimuFlite-developed Standard Operating Procedures (SOP). If your company has its own SOP, you may replace the SimuFlite SOP with your own SOP.**
- **The flight planning section (F-pages) contains charts and graphs to facilitate flight planning.**
- **The emergency/abnormal procedures section (E-pages) contains checklists for emergency and abnormal situations. All immediate action (memory) items are printed in red; procedures with immediate action items also have red titles.**

  This section may be accessed in one of three ways: by table of contents (EMER tab, front), by system tab (front), or by numbered tab (back).

DEFINITIONS

Land As Soon As Possible: Land at the nearest suitable airport. Extreme situations could require an off-airport landing. Primary consideration is safety of occupants.

Land As Soon As Practical: Land at a suitable airport. Primary consideration is the urgency of the emergency or abnormal situation. Continuing to the destination or an alternate with appropriate service facilities may be an option.

WARNING: **An operating procedure, technique, etc., that may result in personal injury or loss of life if not carefully followed.**

CAUTION: **An operating procedure, technique, etc., that may result in damage to equipment if not carefully followed.**

NOTE: **An operating procedure, technique, etc., considered essential to emphasize.**

NOTICE: This Learjet 25 Operating Handbook is to be used for aircraft familiarization and training purposes only. It is not to be used as, nor considered a substitute for, the manufacturer's Pilot or Maintenance Manuals.

CAE SimuFlite

Printed in the United States of America.

PF . . . . . Pilot Flying. The pilot responsible for controlling the aircraft. Performs tasks and responds to checklist challenges.
PM . . . . . Pilot Monitoring. Reads checklist challenges.
◗ . . . . Through flight items.

BEFORE STARTING ENGINES (POWER OFF)

PM PF

◗ Safety Belts/Shoulder Harnesses . . . . . SECURED
◗ Seats . . . . . ADJUSTED
◗ Control Locks . . . . . REMOVED
◗ Flight Controls . . . . . CHECKED
◗ Oxygen Masks/Valves/Pressure . . . . . CHECKED
◗ Emergency Air Pressure . . . . . CHECKED
◗ Circuit Breakers . . . . . IN
Alternate Static Source . . . . . CLOSED
◗ Panel Switches/Avionics . . . . . OFF/SET
(except anti-skid, pitch trim, jet pumps, bleed air)
SOV Lights . . . . . OUT
Emergency Pressure Override Switches . . . . . GUARD DN
Gear Handle . . . . . DOWN
Temperature Controls . . . . . SET
Pressurization Controls . . . . . SET
- CAB AIR—OFF
- AUTO-MAN—AUTO
◗ - Cabin Altitude—SET
- RATE KNOB—9 O'CLOCK

Defog Knob . . . . . IN NORMAL
Thrust Levers . . . . . CUTOFF
Drag Chute . . . . . STOWED
◗ TOLD Card/Bugs . . . . . COMPUTED/SET

BEFORE STARTING ENGINES (POWER ON)

◗ Batteries . . . . . CHECKED/ON
◗ Emergency Power . . . . . CHECKED/ON
Batteries . . . . . OFF
GPU . . . . . CONNECTED
Batteries . . . . . ON/CHECKED
◗ Inverters (AUX/SEC/PRI) . . . . . CHECKED/ON
Ice Detect Lights . . . . . CHECKED
Annunciators . . . . . CHECKED
◗ Hydraulic Pressure . . . . . CHECKED
- Auxiliary Pump—ON
◗ - Parking Brake—SET
- Auxiliary Pump—OFF

Gear Horn/Lights . . . . . TEST

continued on next page

PM PF

Warning Systems . . . . . TEST

- No Smoke/Fasten Seat Belts Switch—ON
- Fire Det—TEST
- Cab Alt Horn/Mute—TEST
- Stall Warning Switches—ON
- Stick Puller/Horn—TEST
- L/R Stall Warning—TEST
- Stall Bias—TEST
- Stall Warning Switches—OFF

Emergency/Normal Trims . . . . . CHECKED/3 SET/NORM

- P Trim
- EMER—Back 7 + Interrupts
- OFF—Back 7
- NORM—Back 7 + Interrupts + Overrides
- Overspeed Check—TEST
- Roll—CHECKED
- Yaw—CHECKED
- 3 Gages Set—P TRIM NORM

Flaps . . . . . SET FOR TAKEOFF

Fuel Panel . . . . . SET/CHECKED/SET

Autopilot . . . . . CHECKED

- ADI/HSI Flags—PULLED
- Turn Knob/Pitch Wheel—CENTERED
- AFC/SS Test Switch—TEST/HORN
- Autopilot Engage—HORN/OFF
- Roll Mon—TEST < 8 SEC
- Trim Mon—TEST < 5 SEC
- Trim Mon—TEST < 5 SEC
- Turn Knob/Pitch Wheel—USE
- Disengage—3 TIMES

Yaw Dampers (Secondary/Primary) . . . . . CHECKED

Flight Instruments . . . . . CHECKED

(IAS, ADI, ALT, IVSI, HSI, RMI, standby gyro, clock)

STARTING ENGINES

Passengers/Baggage . . . . . BRIEFED/SECURED

Cabin Door . . . . . TWO HANDLES FORWARD/LIGHT OUT

Air Conditioning/Auxiliary Heat . . . . . OFF/FAN

Electrical Panel . . . . . SET

Thrust Levers . . . . . CUTOFF

Beacon . . . . . ON

Primary Inverter . . . . . ON

Right Engine . . . . . START

- Fuel Pressure Light—OUT
- Thrust Lever—IDLE AT 10% (Ignition Lights ON)
- Fuel Flow and EGT Rise—MONITORED
- Start Switch—OFF AT IDLE
- Hydraulic Pressure—CHECKED

Left Engine (or go to Before Taxi One Engine, N-8) . . . . START

GPU . . . . . DISCONNECTED

Start-Gen Switch . . . . . GEN

BEFORE TAXI

PM PF

Inverter Switches . . . . . ALL ON
Engine Instruments . . . . . CHECKED
Current Limiters . . . . . CHECKED
Radar/Avionics . . . . . STBY/SET
External Lights . . . . . ON/OFF
Spoilers . . . . . CHECKED/RET/LIGHT OUT
Emergency Lights, (If Installed) . . . . . TESTED/OFF/ARMED
Stab/Wing Heat . . . . . CHECKED

- Cabin Air—ON
- Switch On—CAB VSI RISE
- STAB HT Annunciator—ON
- Amp Meter—NO RISE
- Cabin Air—OFF/ON

Nacelle Heat . . . . . CHECKED
Windshield Heat . . . . . CHECKED/PURGED
Parking Brake . . . . . RELEASED
Anti-Skid . . . . . ON/LIGHTS OUT

TAXI

Brakes and Steering . . . . . CHECKED
Flight Controls . . . . . CHECKED
Thrust Reversers . . . . . CHECKED

BEFORE TAKEOFF

Cabin . . . . . SET
No Smoking/Fasten Seat Belts Switch . . . . . ON
Circuit Breakers . . . . . IN L/IN R
Anti-Ice . . . . . OFF
Cabin Air . . . . . NORM/ON
External Lights . . . . . ON
Navigation Equipment/Transponder/Radar . . . . . SET
Flight Instruments . . . . . CHECKED
Spoilers . . . . . RETRACTED/LIGHT OUT
Flaps/Trims . . . . . SET ____°/3 SET/NORM
Fuel Balance . . . . . CHECKED
Coffee/Oven . . . . . SET
Crew Briefing . . . . . COMPLETED

TAKEOFF

Steer Lock . . . . . OFF
Parking Brake . . . . . OFF
Anti-Skid . . . . . ON
Air Ignition Switches . . . . . ON
Stall Warning Switches . . . . . ON
Pitot Heat Switches . . . . . CHECKED/ON
Thrust Reversers . . . . . ARMED
Warning Lights . . . . . OUT
Strobe/Recognition/Landing Lights . . . . . ON

AFTER TAKEOFF

PM	PF
At positive rate of climb:	
Gear	UP
Yaw Damp PRI or SEC	ON
Anti-Ice Systems	AS REQUIRED
At V_{FS}:	
Flaps	UP
Air Ignition Switches	OFF
Thrust Reversers	OFF
Cabin Pressure	CHECKED
Landing Lights	OFF
AOA Gages	CROSS-CHECKED
No Smoking/Fasten Seat Belts Switch	OFF

CLIMB

Altimeters (transition level)	29.92 L/R
Pressurization	MONITORED
Air Conditioner (18,000 ft maximum)	OFF
Recognition Lights	OFF
Windshield Heat	AS DESIRED
Crew Masks	QUICK DON POSITION

CRUISE

Windshield Heat	AS DESIRED
Engine Instruments	MONITORED
Pressurization	MONITORED
Fuel Panel	MONITORED
AFC/SS	ENGAGED

DESCENT

Windshield Heat	ON
Pressurization	SET FOR LANDING ELEVATION
Anti-Ice Systems	AS REQUIRED
Fuel Quantities	CHECKED
Hydraulic Pressure	CHECKED
TOLD Card/Bugs	COMPUTED/SET
Crew Briefing	COMPLETED

TRANSITION LEVEL FL 180

Altimeters	SET XX.XX L/R
Air Conditioner (18,000 ft maximum)	ON
Recognition Lights	ON

MACH NUMBER – TRUE

INDICATED RAM AIR TEMPERATURE – °C

Mach		–10	–12	–14	–16	–18	–20	–22	–24	–26	–28	–30	–32	–34	–36	–38	–40	–42	–44	–46	–48	–50	–52	–54	–56	–58	–60
.60	OAT	–27	–29	–31	–33	–35	–37	–39	–40	–42	–44	–46	–48	–50	–52	–53	–55	–57	–59	–61	–63	–65	–67	–68	–70	–72	–74
	KTAS	367	365	364	362	361	359	358	357	355	354	352	351	349	348	346	345	344	342	341	339	338	336	334	333	331	330
.62	OAT	–28	–30	–32	–34	–36	–38	–40	–41	–43	–45	–47	–49	–51	–53	–54	–56	–58	–60	–62	–64	–66	–67	–69	–71	–73	–75
	KTAS	378	376	375	374	372	371	369	368	366	365	363	362	360	359	357	356	354	353	351	350	348	346	345	343	342	340
.64	OAT	–30	–31	–33	–35	–37	–39	–41	–43	–44	–46	–48	–50	–52	–54	–55	–57	–59	–61	–63	–65	–67	–68	–70	–72	–74	–76
	KTAS	389	388	386	385	383	382	380	379	377	376	374	373	371	369	368	366	365	363	362	360	358	357	355	354	352	350
.66	OAT	–31	–33	–34	–36	–38	–40	–42	–44	–45	–47	–49	–51	–53	–55	–56	–58	–60	–62	–64	–66	–68	–69	–71	–73	–75	–77
	KTAS	400	399	397	396	394	393	391	390	388	386	385	383	382	380	379	377	375	374	372	370	369	367	365	364	362	360
.68	OAT	–32	–34	–36	–37	–39	–41	–43	–45	–47	–48	–50	–52	–54	–56	–58	–59	–61	–63	–65	–67	–69	–70	–72	–74	–76	–78
	KTAS	412	410	408	407	405	404	402	400	399	397	396	394	392	391	389	387	386	384	382	381	379	377	376	374	372	370
.70	OAT	–33	–35	–37	–39	–40	–42	–44	–46	–48	–49	–51	–53	–55	–57	–59	–60	–62	–64	–66	–68	–70	–71	–73	–75	–77	–79
	KTAS	423	421	419	418	416	415	413	411	410	408	406	405	403	401	400	398	396	394	393	391	389	387	386	384	382	380
.72	OAT	–34	–36	–38	–40	–42	–43	–45	–47	–49	–51	–52	–54	–56	–58	–60	–62	–63	–65	–67	–69	–71	–72	–74	–76	–78	–80
	KTAS	434	432	430	429	427	425	424	422	420	419	417	415	413	412	410	408	406	405	403	401	399	398	396	394	392	390
.74	OAT	–36	–37	–39	–41	–43	–45	–46	–48	–50	–52	–54	–55	–57	–59	–61	–63	–64	–66	–68	–70	–72	–73	–75	–77	–79	–81
	KTAS	445	443	441	439	438	436	434	433	431	429	427	426	424	422	420	418	417	415	413	411	409	407	406	404	402	400
.76	OAT	–37	–39	–40	–42	–44	–46	–48	–49	–51	–53	–55	–57	–58	–60	–62	–64	–66	–67	–69	–71	–73	–74	–76	–78	–80	–82
	KTAS	455	454	452	450	448	447	445	443	441	439	438	436	434	432	430	429	427	425	423	421	419	417	416	414	412	410
.78	OAT	–38	–40	–42	–43	–45	–47	–49	–51	–52	–54	–56	–58	–59	–61	–63	–65	–67	–68	–70	–72	–74	–76	–77	–79	–81	–83
	KTAS	466	464	462	461	459	457	455	453	452	450	448	446	444	442	441	439	437	435	433	431	429	427	425	423	421	419
.80	OAT	–39	–41	–43	–45	–46	–48	–50	–52	–54	–55	–57	–59	–61	–62	–64	–66	–68	–70	–71	–73	–75	–77	–78	–80	–82	–84
	KTAS	477	475	473	471	469	468	466	464	462	460	458	456	454	453	451	449	447	445	443	441	439	437	435	433	431	429
.82	OAT	–41	–42	–44	–46	–48	–49	–51	–53	–55	–57	–58	–60	–62	–64	–65	–67	–69	–70	–72	–74	–76	–78	–80	–81	–83	–85
	KTAS	487	485	484	482	480	478	476	474	472	470	468	466	464	463	461	459	457	455	453	451	449	447	445	443	441	438

SPEED, DISTANCE LANDING
PART 91, 121/135

GROSS WEIGHT		9	10	11	12	13	13.3	14	15
RUNWAY ELEVATION X 1000	V_{REF}	103	109	114	119	123	124	127	131
	V_{AC}	108	114	119	124	129	130	133	137
SL	100°	2348 (3913)	2491 (4152)	2626 (4377)	2760 (4600)	2893 (4820)	2933 (4888)	. . . .	. . . .
	75°	2296 (3827)	2434 (4057)	2565 (4275)	2694 (4490)	2824 (4707)	2862 (4770)		
	50°	2244 (3740)	2378 (3963)	2504 (4173)	2629 (4382)	2754 (4590)	2791 (4652)		
	25°	2192 (3653)	2321 (3868)	2442 (4070)	2563 (4227)	2684 (4473)	2720 (4533)		
	0°	2139 (3565)	2263 (3772)	2380 (3967)	2497 (4162)	2613 (4355)	2648 (4413)		
2	100°	2439 (4065)	2590 (4317)	2732 (4553)	2873 (4788)	3014 (5023)	3056 (5093)		
	75°	2383 (3972)	2529 (4215)	2667 (4445)	2803 (4672)	2939 (4898)	2980 (4967)		
	50°	2328 (3880)	2468 (4113)	2601 (4335)	2733 (4555)	2865 (4775)	2904 (4840)		
	25°	2272 (3787)	2407 (4012)	2535 (4225)	2663 (4438)	2789 (4648)	2827 (4712)		
	0°	2216 (3693)	2346 (3910)	2469 (4115)	2592 (4320)	2714 (4523)	2751 (4585)		
4	100°	2537 (4228)	2697 (4495)	2847 (4745)	2996 (4993)	3152 (5253)	3208 (5347)		
	75°	2478 (4130)	2632 (4387)	2777 (4628)	2921 (4868)	3065 (5108)	3114 (5190)		
	50°	2418 (4030)	2567 (4278)	2707 (4512)	2846 (4743)	2985 (4975)	3026 (5043)		
	25°	2358 (3930)	2501 (4168)	2636 (4393)	2771 (4618)	2904 (4840)	2944 (4907)		
	0°	2298 (3830)	2436 (4060)	2566 (4277)	2695 (4492)	2823 (4705)	2862 (4770)		
6	100°	2644 (4407)	2813 (4688)	2972 (4953)	3130 (5217)				
	75°	2580 (4300)	2743 (4572)	2897 (4828)	3049 (5082)	3216 (5360)	3275 (5458)		
	50°	2516 (4193)	2673 (4455)	2822 (4703)	2969 (4948)	3117 (5195)	3173 (5288)		
	25°	2452 (4087)	2603 (4338)	2746 (4577)	2880 (4813)	3028 (5047)	3072 (5120)		
	0°	2387 (3978)	2533 (4222)	2670 (4450)	2806 (4677)	2942 (4903)	2982 (4970)		
8	100°	2759 (4598)	2939 (4898)	3107 (5178)					
	75°	2691 (4485)	2864 (4773)	3027 (5045)	3188 (5313)				
	50°	2622 (4370)	2789 (4648)	2946 (4910)	3101 (5168)	3281 (5468)	3341 (5568)		
	25°	2553 (4225)	2714 (4523)	2865 (4775)	3014 (5023)	3173 (5288)	3230 (5383)		
	0°	2484 (4140)	2638 (4397)	2783 (4638)	2927 (4878)	3070 (5117)	3120 (5200)	. . . .	. . . .

V_{ZF} = V_{REF} + 40 KIAS
Runway PART 91 TOP
Runway PART 121/135 ( )
Landing Field Lengths for Aircraft with Century IIIs (Softflite) – Normal Surface (Part 121 & 135 Operation)
Contaminated runway factor:

Part 91
Wet = Dry X 1.4
Freezing = Dry X 1.7
Frozen = Unknown

Part 121/135
Scheduled and Alternate
Wet = Dry X 1.15

Learjet 25 B/C/D/F Century III with Softflite

APPROACH

PM	PF
Fuel Balance	CHECKED
TOLD Card/Bugs	CHECKED/SET
Circuit Breakers	IN L/IN R
Thrust Reversers	CHECKED/ARMED
Hydraulic/Emergency Air Pressure	CHECKED
Baro/Radio Altimeter/Radios	SET
No Smoke/Fasten Seat Belts Switch	ON
Cabin Pressurization	CHECKED
Engine Sync	OFF
Spoilers	RETRACTED
Crew Briefing	COMPLETED

BEFORE LANDING

Gear	DOWN
Landing/Taxi Lights	ON
Parking Brake/Anti-Skid	OFF/ON/LIGHTS OUT
Flaps	DOWN
Hydraulic Pressure	CHECKED
Air Ignition Switches	ON
Yaw Damper (in landing flare)	OFF

GO-AROUND/MISSED APPROACH

AFC/SS	DISENGAGED
Thrust Levers	T.O. POWER
Spoilers	CHECKED RETRACTED
Flaps 20°	CHECKED/SET
At positive rate of climb, Gear	UP
Yaw Damper	ON
Airspeed	V_{AC} MIN
When clear of obstacles, Airspeed	V_{REF} + 30
Flaps	UP

AFTER LANDING

Thrust Reversers	OFF
Air Ignition Switches	OFF
Landing/Taxi Lights	TAXI/OFF
Recognition/Strobe Lights	OFF
Radar/Transponder	OFF
Stall Warnings	OFF
Anti-Ice Systems	AS REQUIRED/OFF
Unnecessary Avionics	OFF
Cabin Air	OFF
Emergency Lights (if installed)	DISARMED
Spoilers	RETRACTED
Flaps	UP
Trims	RESET
After One Engine Off, Hydraulic Pressure	CHECKED
Fuel Transfer	AS REQUIRED
Coffee/Oven Switches	OFF

SHUT DOWN

PM — PF

Chocks in Place/Parking Brake . . . . . OFF/ON
Emergency Power/Standby Gyro . . . . . OFF/CAGED
Panel Switches/Avionics . . . . . OFF
Thrust Levers . . . . . CUTOFF
All Inverters . . . . . OFF
Generators . . . . . OFF
Fuel Panel . . . . . SET
- Crossflow Valve—CLOSED
- XFER VLV—OFF
- FUS VLV—CLOSED

Hydraulic Pressure . . . . . BLEED TO ZERO
Batteries . . . . . OFF
Controls . . . . . LOCKED

BEFORE TAXI ONE ENGINE

Engine Instruments . . . . . NORM
GPU . . . . . DISCONNECTED
Start-Gen Switch . . . . . GEN
Radios/Avionics . . . . . ON/SET
External Lights . . . . . AS REQUIRED
Spoilers . . . . . CHECKED/RETRACTED/LIGHT OUT
Emergency Lights, (If Installed) . . . . . TESTED/ARMED
Parking Brake . . . . . RELEASED
Anti-Skid . . . . . CHECKED

TAXI ONE ENGINE

Brakes/Steering . . . . . CHECKED
Flight Controls . . . . . FREE
Thrust Reversers . . . . . CHECKED

SECOND ENGINE START

Second Engine . . . . . START
Start-Gen Switch . . . . . GEN
All Inverters . . . . . ON
Engine Instruments . . . . . CHECKED
Current Limiters . . . . . CHECKED
Radar . . . . . ON
Spoilers . . . . . CHECKED/RETRACTED/LIGHT OUT
Stab/Wing Heat . . . . . CHECKED
- Cabin Air—ON
- Switch On—CAB VSI RISE
- STAB HT Annunciator—ON
- Amp Meter—NO RISE
- Cabin Air—OFF/ON

Nacelle Heat . . . . . CHECKED
Windshield Heat . . . . . CHECKED/PURGED

Go To BEFORE TAKEOFF (N-3)

LOCAL TRAINING CHECKLIST

TAXI BACK

PM	PF
Stall Warning	OFF
Air Ignition	OFF
Radar	STANDBY
Thrust Reversers	OFF
Cabin Air	AS DESIRED
Recognition/Landing Lights	AS REQUIRED
Spoilers	RETRACTED
Flaps	SET FOR TAKEOFF
Trims	SET FOR TAKEOFF
Pitot Heat	OFF
Anti-Ice	AS REQ'D
Fuel Balance	CHECKED
Takeoff Data/Bugs	COMPUTED/SET
Nav Equipment	AS DESIRED
Crew Briefing	COMPLETED
Cabin	CHECKED

BEFORE TAKEOFF

Parking Brake Handle	IN
Pitot Heat	ON
Anti-Ice	AS REQ'D
Anti-Collision/Recognition/Landing Lights	ON
Air Ignition	ON
Thrust Reversers	(Dee Howard – ARMED)
Radar	AS REQ'D
Stall Warning	ON
Warning Lights	APPROPRIATE
Cabin Air	ON
Steer Lock	OFF

AFTER TAKEOFF/TRAFFIC PATTERN

Gear	UP
Yaw Damper	ENGAGED
Thrust Reversers	OFF
Flaps	UP
Air Ignition	AS REQ'D
Fuel Balance	CHECKED
Radio Altimeter	SET
Approach Briefing/Bugs	COMPLETE/SET

BEFORE LANDING

Gear	DOWN
Engine Sync	OFF
Anti-Skid	ON/LIGHTS OUT
Air Ignition	ON
Landing/Taxi Lights	ON
Thrust Reversers	(Dee Howard – ARMED)
Flaps	DOWN
Hydraulic Pressure	CHECKED
Yaw Damper	OFF

MAXIMUM WEIGHTS	
RAMP	_____
TAKEOFF	_____
min fuel	_____
LANDING	_____
with max tip fuel	_____
ZERO Wing + Tip Fuel	_____

MAXIMUM SPEEDS	
M_{MO}	_____
without A/P-BLEs	_____
without PULL	_____
M/VTURB	_____
Drift Down	_____
VMO (high)	_____
ALT	_____
V_{MO} (low)	_____
V_A Max Wt	_____
V_A Min Wt	_____
GEAR	
V_{LE}	_____
V_{LO}	_____
FLAPS	
V_{FE} – 8°	_____
V_{FE} – 20°	_____
V_{FE} – 40°	_____
V_{MCA}	_____
V_{MCG}	_____
V_{TIRE}	_____
V_{CHUTE}	_____
Aircraft Max Crosswind	_____
T/R Max Crosswind	_____
Chute Max Crosswind	_____

Climb Gradients

1st Seg = POSITIVE 2nd Seg = 2.4% Final Seg = 1.2%
LAND = 3.2% APPR = 2.1 %
Published SID = 3.3% IFR Dep Procedure = 2.5%

Definitions

V2 = 1.2 VSO or 1.1 VMCA
VFS = 1.4 VSO VREF = 1.3 V_{SO}

OTHER LIMITS	
Max Certified Altitude	_____
Max Dirty Altitude	_____
Max Field Elev	_____
Temp Limits	_____
G Loads	Clean +3 to −1 <70 Dirty +2 to −0 <60

EQUIPMENT LIMITS green/yellow/red/trans	
Battery	_____
GPU	_____
Generator	_____
Inverter	_____
RPM	_____
time limits	_____
EGT	_____
IGN	_____
Oil Pressure	_____
Oil Temp	_____
Hydraulic	_____
Aux	_____
Eng Sync	_____
Emer Air	_____
TRs	_____
Oxygen	_____
Cabin PSID	_____

Fuel System

PRIST concentration = 104 gal to 1 can to 260 gal OR
1 can per 1,200 lbs of gas

TIPS	_____	_____
WINGS	_____	_____
FUSELAGE		_____
TOTAL		_____

Landing Gear System

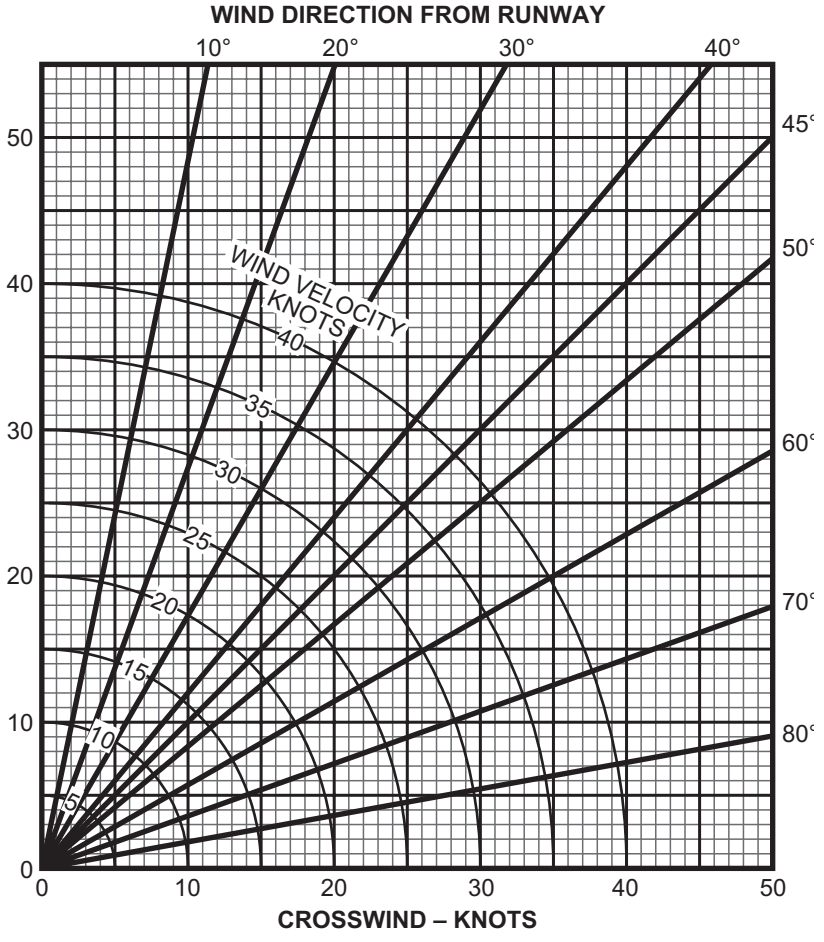
GEAR	STRUT	TP	9x√TP	7.7x√TP
Main	3 1/4	115	97	83
Nose	5 1/2	105	92	79
	inches	PSI	knots	knots

Weight and Balance

24 MAC = 84.49 LEMAC = 210.04
25 MAC = 84.49 LEMAC = 360.02
% MAC = [(ARM-LEMAC)/MAC] x 100

Intentionally left blank.

TAKEOFF CROSSWIND



FLAP 8° PA SL TAKEOFF

				TEMPERATURE				
			°F	0°	25°	50°	75°	100°
			°C	−17°	−4°	10°	24°	38°
		GW X 1000		TAKEOFF POWER (EPR) SETTING				
				2.48	2.44	2.36	2.28	2.16
V_R	130	15	V_1	118	119	120	123	127
V_2	129		Runway					
V_{FS}	159		Length	3300	3450	3750	4275	4900
V_R	128	14.5	V_1	115	116	117	120	124
V_2	127		Runway					
V_{FS}	157		Length	3075	3225	3525	4025	4625
V_R	126	14	V_1	111	112	114	117	120
V_2	125		Runway					
V_{FS}	155		Length	2850	3025	3300	3750	4325
V_R	124	13.5	V_1	108	109	111	113	117
V_2	123		Runway					
V_{FS}	153		Length	2675	2825	3075	3500	4025
V_R	122	13	V_1	104	105	107	110	113
V_2	121		Runway					
V_{FS}	151		Length	2475	2625	2875	3250	3725
V_R	119	12.5	V_1	100	102	104	106	110
V_2	118		Runway					
V_{FS}	148		Length	2325	2425	2675	3000	3425
V_R	119	12	V_1	100	100	100	103	107
V_2	116		Runway					
V_{FS}	146		Length	2175	2275	2450	2750	3150
V_R	119	11.5	V_1	100	100	100	100	104
V_2	114		Runway					
V_{FS}	144		Length	2150	2250	2400	2650	2900
V_R	119	11	V_1	100	100	100	100	101
V_2	114		Runway					
V_{FS}	144		Length	2125	2200	2350	2550	2825
V_R	119	10.5	V_1	100	100	100	100	100
V_2	114		Runway					
V_{FS}	144		Length	2075	2150	2300	2525	2775
V_R	119	10	V_1	100	100	100	100	100
V_2	114		Runway					
V_{FS}	144		Length	2025	2125	2250	2475	2725

V_{ENR} = 220 KIAS (Learjet 25 D/F) V_{ENR} = 225 KIAS (Learjet 25 B/C)

Zero wind, zero runway gradient, anti-skid operative and anti-ice systems off.

V_1 ,V_R, V_2 and V_{FS} = KIAS

GW x 1000	15	14	13	12	11	10	9
V_{REF}	131	127	123	119	114	109	103

TAKEOFF FLAP 8° PA 1,000 FT

				TEMPERATURE				
			°F	0°	25°	50°	75°	100°
			°C	−17°	−4°	10°	24°	38°
				TAKEOFF POWER (EPR) SETTING				
	GW X 1000			2.53	2.44	2.36	2.28	2.16
V_R 130 V_2 129 V_{FS} 159	**15**	V_1 Runway Length		118 3425	120 3600	121 4075	124 4600	128 5400
V_R 128 V_2 127 V_{FS} 157	**14.5**	V_1 Runway Length		115 3200	117 3400	118 3825	121 4375	125 5100
V_R 126 V_2 125 V_{FS} 155	**14**	V_1 Runway Length		112 3000	113 3200	115 3600	118 4075	121 4725
V_R 124 V_2 123 V_{FS} 153	**13.5**	V_1 Runway Length		108 2775	110 2975	111 3350	114 3800	118 4350
V_R 122 V_2 121 V_{FS} 151	**13**	V_1 Runway Length		105 2575	106 2775	108 3125	111 3500	115 4025
V_R 119 V_2 118 V_{FS} 148	**12.5**	V_1 Runway Length		101 2425	103 2550	105 2875	107 3225	111 3700
V_R 119 V_2 116 V_{FS} 146	**12**	V_1 Runway Length		100 2250	100 2350	101 2650	104 2950	108 3400
V_R 119 V_2 114 V_{FS} 144	**11.5**	V_1 Runway Length		100 2225	100 2325	100 2540	100 2750	105 3175
V_R 119 V_2 114 V_{FS} 144	**11**	V_1 Runway Length		100 2175	100 2275	100 2460	100 2700	103 3000
V_R 119 V_2 114 V_{FS} 144	**10.5**	V_1 Runway Length		100 2125	100 2250	100 2435	100 2675	101 2900
V_R 119 V_2 114 V_{FS} 144	**10**	V_1 Runway Length		100 2100	100 2200	100 2400	100 2650	100 2800

V_{ENR} = 220 KIAS (Learjet 25 D/F) V_{ENR} = 225 KIAS (Learjet 25 B/C)

Zero wind, zero runway gradient, anti-skid operative and anti-ice systems off.

V_1 ,V_R, V_2 and V_{FS} = KIAS

GW x 1000	15	14	13	12	11	10	9
V_{REF}	131	127	123	119	114	109	103

FLAP 8° PA 2,000 FT TAKEOFF

				TEMPERATURE				
			°F	0°	25°	50°	75°	100°
			°C	−17°	−4°	10°	24°	38°
		GW X 1000		TAKEOFF POWER (EPR) SETTING				
				2.53	2.44	2.36	2.28	2.16
V_R	130	15	V_1	119	120	122	126	130
V_2	129		Runway					
V_{FS}	159		Length	3575	3925	4425	5000	6000
V_R	128	14.5	V_1	116	117	119	123	127
V_2	127		Runway					
V_{FS}	157		Length	3325	3675	4150	4700	5550
V_R	126	14	V_1	112	114	116	119	123
V_2	125		Runway					
V_{FS}	155		Length	3150	3450	3900	4375	5150
V_R	124	13.5	V_1	109	111	113	116	120
V_2	123		Runway					
V_{FS}	153		Length	2900	3225	3625	4075	4750
V_R	122	13	V_1	106	107	109	112	116
V_2	121		Runway					
V_{FS}	151		Length	2700	3000	3350	3775	4350
V_R	119	12.5	V_1	102	104	105	109	112
V_2	118		Runway					
V_{FS}	148		Length	2525	2775	3100	3475	4000
V_R	119	12	V_1	100	100	102	105	109
V_2	116		Runway					
V_{FS}	146		Length	2325	2525	2825	3175	3675
V_R	119	11.5	V_1	100	100	100	102	106
V_2	114		Runway					
V_{FS}	144		Length	2300	2475	2675	2925	3425
V_R	119	11	V_1	100	100	100	100	104
V_2	114		Runway					
V_{FS}	144		Length	2225	2425	2600	2850	3225
V_R	119	10.5	V_1	100	100	100	100	100
V_2	114		Runway					
V_{FS}	144		Length	2200	2375	2575	2800	3050
V_R	119	10	V_1	100	100	100	100	100
V_2	114		Runway					
V_{FS}	144		Length	2175	2325	2550	2750	2950

V_{ENR} = 220 KIAS (Learjet 25 D/F) V_{ENR} = 225 KIAS (Learjet 25 B/C)

Zero wind, zero runway gradient, anti-skid operative and anti-ice systems off.

V_1 ,V_R, V_2 and V_{FS} = KIAS

GW x 1000	15	14	13	12	11	10	9
V_{REF}	131	127	123	119	114	109	103

TAKEOFF FLAP 8° PA 4,000 FT

				TEMPERATURE				
				°F 0°	25°	50°	75°	100°
				°C –17°	–4°	10°	24°	38°
				TAKEOFF POWER (EPR) SETTING				
		GW X 1000		2.53	2.44	2.36	2.28	2.16
V_R	130	**15**	V_1	121	123	126	128	–
V_2	129		Runway					
V_{FS}	159		Length	4100	4500	5100	6050	–
V_R	128	**14.5**	V_1	118	120	123	125	–
V_2	127		Runway					
V_{FS}	157		Length	3850	4250	4800	5600	–
V_R	126	**14**	V_1	115	117	119	121	126
V_2	125		Runway					
V_{FS}	155		Length	3600	3950	4450	5150	6050
V_R	124	**13.5**	V_1	112	113	116	118	123
V_2	123		Runway					
V_{FS}	153		Length	3375	3700	4125	4725	5525
V_R	122	**13**	V_1	108	110	112	115	119
V_2	121		Runway					
V_{FS}	151		Length	3125	3425	3825	4325	5050
V_R	119	**12.5**	V_1	105	106	109	111	115
V_2	118		Runway					
V_{FS}	148		Length	2900	3175	3550	4000	4625
V_R	119	**12**	V_1	101	102	105	108	111
V_2	116		Runway					
V_{FS}	146		Length	2650	2900	3225	3650	4275
V_R	119	**11.5**	V_1	100	100	102	105	108
V_2	114		Runway					
V_{FS}	144		Length	2550	2700	2975	3400	3975
V_R	119	**11**	V_1	100	100	100	103	106
V_2	114		Runway					
V_{FS}	144		Length	2500	2650	2875	3200	3750
V_R	119	**10.5**	V_1	100	100	100	101	104
V_2	114		Runway					
V_{FS}	144		Length	2450	2625	2825	3050	3525
V_R	119	**10**	V_1	100	100	100	100	103
V_2	114		Runway					
V_{FS}	144		Length	2400	2575	2750	2950	3375

V_{ENR} = 220 KIAS (Learjet 25 D/F) V_{ENR} = 225 KIAS (Learjet 25 B/C)

Zero wind, zero runway gradient, anti-skid operative and anti-ice systems off.

V_1 ,V_R, V_2 and V_{FS} = KIAS

GW x 1000	15	14	13	12	11	10	9
V_{REF}	131	127	123	119	114	109	103

FLAP 8° PA 6,000 FT TAKEOFF

				TEMPERATURE				
			°F	0°	25°	50°	75°	100°
			°C	−17°	−4°	10°	24°	38°
		GW X 1000		TAKEOFF POWER (EPR) SETTING				
				2.53	2.44	2.36	2.28	2.16
V_R	130	15	V_1	124	126	128	–	–
V_2	129		Runway					
V_{FS}	159		Length	4800	5375	6300	–	–
V_R	128	14.5	V_1	121	123	125	128	–
V_2	127		Runway					
V_{FS}	157		Length	4500	5000	5800	6850	–
V_R	126	14	V_1	118	120	122	125	–
V_2	125		Runway					
V_{FS}	155		Length	4200	4550	5300	6100	–
V_R	124	13.5	V_1	114	116	118	121	–
V_2	123		Runway					
V_{FS}	153		Length	3925	4325	4850	5525	–
V_R	122	13	V_1	111	113	115	118	122
V_2	121		Runway					
V_{FS}	151		Length	3625	3975	4475	5050	6175
V_R	119	12.5	V_1	107	109	111	114	118
V_2	118		Runway					
V_{FS}	148		Length	3350	3650	4100	4625	5525
V_R	119	12	V_1	103	105	108	110	114
V_2	116		Runway					
V_{FS}	146		Length	3050	3350	3375	4275	5025
V_R	119	11.5	V_1	100	102	105	107	111
V_2	114		Runway					
V_{FS}	144		Length	2800	3125	3500	3975	4650
V_R	119	11	V_1	100	100	103	105	108
V_2	114		Runway					
V_{FS}	144		Length	2750	2975	3300	3750	4350
V_R	119	10.5	V_1	100	100	101	103	107
V_2	114		Runway					
V_{FS}	144		Length	2700	2875	3150	3525	4125
V_R	119	10	V_1	100	100	100	102	106
V_2	114		Runway					
V_{FS}	144		Length	2675	2800	3075	3375	3975

V_{ENR} = 220 KIAS (Learjet 25 D/F) V_{ENR} = 225 KIAS (Learjet 25 B/C)

Zero wind, zero runway gradient, anti-skid operative and anti-ice systems off.

V_1 ,V_R, V_2 and V_{FS} = KIAS

GW x 1000	15	14	13	12	11	10	9
V_{REF}	131	127	123	119	114	109	103

TAKEOFF FLAP 8° PA 8,000 FT

				TEMPERATURE				
			°F	0°	25°	50°	75°	100°
			°C	−17°	−4°	10°	24°	38°
				TAKEOFF POWER (EPR) SETTING				
	GW X 1000			2.53	2.44	2.36	2.28	2.16
V_R 130 V_2 129 V_{FS} 159	**15**	V_1 Runway Length		128 5880	129 6750	– –	– –	– –
V_R 128 V_2 127 V_{FS} 157	**14.5**	V_1 Runway Length		124 5450	126 6150	128 7000	– –	– –
V_R 126 V_2 125 V_{FS} 155	**14**	V_1 Runway Length		121 5050	122 5550	124 6250	– –	– –
V_R 124 V_2 123 V_{FS} 153	**13.5**	V_1 Runway Length		119 4650	119 5050	121 5700	124 6900	– –
V_R 122 V_2 121 V_{FS} 151	**13**	V_1 Runway Length		114 4250	115 4650	117 5200	121 6025	– –
V_R 119 V_2 118 V_{FS} 148	**12.5**	V_1 Runway Length		111 3925	112 4250	114 4750	117 5450	– –
V_R 119 V_2 116 V_{FS} 146	**12**	V_1 Runway Length		108 3580	108 3930	110 4350	113 4975	– –
V_R 119 V_2 114 V_{FS} 144	**11.5**	V_1 Runway Length		105 3350	106 3680	107 4100	110 4625	117 5600
V_R 119 V_2 114 V_{FS} 144	**11**	V_1 Runway Length		102 3150	103 3450	104 3850	107 4325	114 5200
V_R 119 V_2 114 V_{FS} 144	**10.5**	V_1 Runway Length		100 3000	101 3275	103 3630	106 4125	112 4880
V_R 119 V_2 114 V_{FS} 144	**10**	V_1 Runway Length		100 2900	100 3150	102 3450	105 3925	111 4700

V_{ENR} = 220 KIAS (Learjet 25 D/F) V_{ENR} = 225 KIAS (Learjet 25 B/C)

Zero wind, zero runway gradient, anti-skid operative and anti-ice systems off.

V_1 ,V_R, V_2 and V_{FS} = KIAS

GW x 1000	15	14	13	12	11	10	9
V_{REF}	131	127	123	119	114	109	103

TIME/FUEL/DISTANCE CLIMB
ISA

ALT X 1000 FT RAT °C		INITIAL CLIMB WEIGHT AT SEA LEVEL – 1000 LBS					
		15	**14**	**13**	**12**	**11**	**10**
51 -34	Time	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
	Fuel	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
	Dist	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
47 -34	Time	. . . .	. . . .	. . . .	. . . .	23.9	17.8
	Fuel	. . . .	. . . .	. . . .	. . . .	837	670
	Dist	. . . .	. . . .	. . . .	. . . .	160	118
45 -35	Time	. . . .	. . . .	32.9	22.0	17.3	14.2
	Fuel	. . . .	. . . .	1136	845	700	596
	Dist	. . . .	. . . .	218	145	114	94
43 -34	Time	. . . .	27.8	20.8	17.0	14.3	12.2
	Fuel	. . . .	1081	866	733	633	549
	Dist	. . . .	184	137	112	94	80
41 -35	Time	24.5	19.7	16.5	14.2	12.3	10.6
	Fuel	1050	881	761	665	583	512
	Dist	162	130	104	93	80	70
39 -35	Time	18.7	16.1	14.0	12.3	10.8	9.4
	Fuel	893	783	692	613	543	479
	Dist	123	105	92	80	70	62
37 -35	Time	15.7	13.9	12.3	10.9	9.6	8.5
	Fuel	806	718	641	572	509	451
	Dist	103	91	80	71	63	55
35 -33	Time	13.8	12.3	10.9	9.8	8.7	7.7
	Fuel	742	666	598	536	479	425
	Dist	90	80	71	63	56	50
31 -24	Time	10.9	9.8	8.9	8.0	7.1	6.4
	Fuel	637	577	522	470	422	377
	Dist	71	64	57	51	46	41
25 -12	Time	7.7	7.0	6.4	5.8	5.2	4.7
	Fuel	498	454	414	375	338	303
	Dist	49	44	40	36	33	29
21 -6	Time	5.7	5.3	4.8	4.4	3.9	3.5
	Fuel	394	362	330	300	271	244
	Dist	35	32	29	26	24	21
11 +8	Time	2.4	2.2	2.1	1.9	1.7	1.5
	Fuel	191	175	161	147	133	120
	Dist	14	12	11	10	9	9
5 +19	Time	1.0	1.0	0.9	0.8	0.7	0.7
	Fuel	84	78	71	65	59	53
	Dist	6	5	5	4	4	4

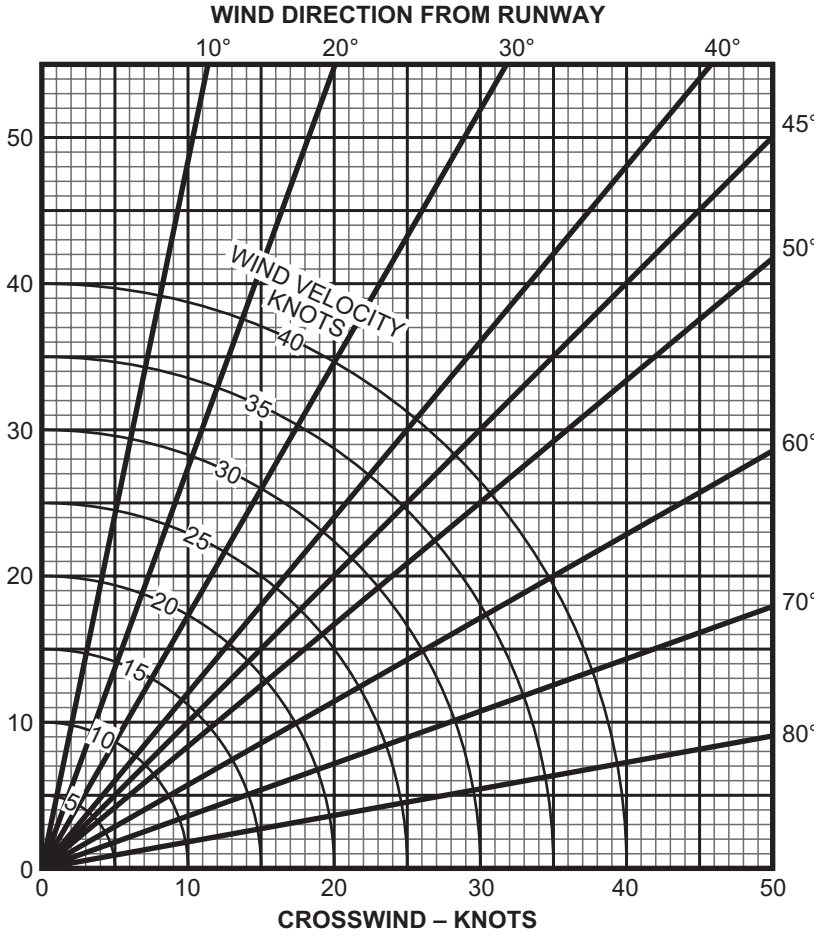
300 KIAS up to 24,500

MI 0.70 to 45,000 feet

MI 0.72 above 45,000 feet

BOTH ENGINES OPERATING

TAKEOFF CROSSWIND



FLAP 8° PA SL TAKEOFF

				TEMPERATURE				
			°F	0°	25°	50°	75°	100°
			°C	−17°	−4°	10°	24°	38°
				TAKEOFF POWER (EPR) SETTING				
	GW X 1000			2.48	2.44	2.36	2.28	2.16
V_R 132	**15**	V_1		119	120	122	125	131
V_2 132		Runway						
V_{FS} 162		Length		3400	3520	3870	4440	5550
V_R 130	**14.5**	V_1		116	117	119	122	127
V_2 130		Runway						
V_{FS} 160		Length		3100	3400	3650	4150	5050
V_R 128	**14**	V_1		113	114	116	119	123
V_2 128		Runway						
V_{FS} 158		Length		2860	3080	3320	3890	4680
V_R 126	**13.5**	V_1		109	110	113	115	120
V_2 125		Runway						
V_{FS} 155		Length		2680	2875	3080	3620	4330
V_R 124	**13**	V_1		106	107	109	112	116
V_2 123		Runway						
V_{FS} 153		Length		2500	2680	2880	3360	3970
V_R 122	**12.5**	V_1		103	104	106	108	112
V_2 121		Runway						
V_{FS} 151		Length		2330	2500	2700	3110	3660
V_R 119	**12**	V_1		100	101	102	105	108
V_2 119		Runway						
V_{FS} 149		Length		2180	2330	2540	2880	3340
V_R 119	**11.5**	V_1		100	100	100	101	104
V_2 116		Runway						
V_{FS} 146		Length		2150	2280	2460	2720	3140
V_R 119	**11**	V_1		100	100	100	100	101
V_2 115		Runway						
V_{FS} 145		Length		2125	2240	2400	2580	2950
V_R 119	**10.5**	V_1		100	100	100	100	100
V_2 115		Runway						
V_{FS} 145		Length		2075	2180	2350	2525	2840
V_R 119	**10**	V_1		100	100	100	100	100
V_2 115		Runway						
V_{FS} 145		Length		2025	2130	2300	2475	2740

V_{ENR} = 220 KIAS (Learjet 25 D/F) V_{ENR} = 225 KIAS (Learjet 25 B/C)

Zero wind, zero runway gradient, anti-skid operative and anti-ice systems off.

V_1 ,V_R, V_2 and V_{FS} = KIAS

GW x 1000	15	14	13	12	11	10	9
V_{REF}	138	131	127	122	117	112	106

Learjet 25 Century III Wing without Softflite

TAKEOFF FLAP 8° PA 1,000 FT

				TEMPERATURE				
			°F	0°	25°	50°	75°	100°
			°C	−17°	−4°	10°	24°	38°
				TAKEOFF POWER (EPR) SETTING				
	GW X 1000			2.53	2.44	2.36	2.28	2.16
V_R 132 V_2 132 V_{FS} 162	**15**	V_1 Runway Length		120 3540	121 3830	123 4160	127 4800	131 6000
V_R 130 V_2 130 V_{FS} 160	**14.5**	V_1 Runway Length		117 3340	118 3540	120 3900	124 4490	127 5500
V_R 128 V_2 128 V_{FS} 158	**14**	V_1 Runway Length		114 3050	114 3280	117 3620	121 4200	124 5030
V_R 126 V_2 125 V_{FS} 155	**13.5**	V_1 Runway Length		110 2860	111 3040	114 3350	117 3890	120 4630
V_R 124 V_2 123 V_{FS} 153	**13**	V_1 Runway Length		107 2670	108 2840	110 3130	113 3600	116 4270
V_R 122 V_2 121 V_{FS} 151	**12.5**	V_1 Runway Length		104 2510	105 2670	107 2900	110 3340	112 3940
V_R 119 V_2 119 V_{FS} 149	**12**	V_1 Runway Length		101 2320	101 2480	103 2720	106 3100	109 3620
V_R 119 V_2 116 V_{FS} 146	**11.5**	V_1 Runway Length		100 2280	100 2430	100 2600	102 2890	105 3340
V_R 119 V_2 115 V_{FS} 145	**11**	V_1 Runway Length		100 2230	100 2370	100 2500	100 2750	101 3130
V_R 119 V_2 115 V_{FS} 145	**10.5**	V_1 Runway Length		100 2180	100 2320	100 2435	100 2650	100 2990
V_R 119 V_2 115 V_{FS} 145	**10**	V_1 Runway Length		100 2130	100 2270	100 2400	100 2600	100 2900

V_{ENR} = 220 KIAS (Learjet 25 D/F) V_{ENR} = 225 KIAS (Learjet 25 B/C)

Zero wind, zero runway gradient, anti-skid operative and anti-ice systems off.

V_1 ,V_R, V_2 and V_{FS} = KIAS

GW x 1000	15	14	13	12	11	10	9
V_{REF}	138	131	127	122	117	112	106

Learjet 25 Century III Wing without Softflite

FLAP 8° PA 2,000 FT TAKEOFF

				TEMPERATURE				
			°F	0°	25°	50°	75°	100°
			°C	−17°	−4°	10°	24°	38°
				TAKEOFF POWER (EPR) SETTING				
	GW X 1000			2.53	2.44	2.36	2.28	2.16
V_R 132 V_2 132 V_{FS} 162	**15**	V_1 Runway Length		121 3790	122 4010	125 4490	130 5470	132 6460
V_R 130 V_2 130 V_{FS} 160	**14.5**	V_1 Runway Length		118 3510	119 3730	122 4250	126 5000	129 5980
V_R 128 V_2 128 V_{FS} 158	**14**	V_1 Runway Length		114 3250	116 3470	119 3930	122 4600	126 5420
V_R 126 V_2 125 V_{FS} 155	**13.5**	V_1 Runway Length		111 3010	113 3225	115 3660	119 4250	122 5070
V_R 124 V_2 123 V_{FS} 153	**13**	V_1 Runway Length		108 2810	109 3000	112 3390	115 3920	119 4620
V_R 122 V_2 121 V_{FS} 151	**12.5**	V_1 Runway Length		105 2630	106 2800	108 3130	111 3630	115 4290
V_R 119 V_2 119 V_{FS} 149	**12**	V_1 Runway Length		101 2460	102 2620	105 2920	107 3300	111 3910
V_R 119 V_2 116 V_{FS} 146	**11.5**	V_1 Runway Length		100 2400	100 2530	101 2720	104 3120	107 3650
V_R 119 V_2 115 V_{FS} 145	**11**	V_1 Runway Length		100 2350	100 2450	100 2600	100 2920	104
V_R 119 V_2 115 V_{FS} 145	**10.5**	V_1 Runway Length		100 2300	100 2390	100 2575	100 2820	102
V_R 119 V_2 115 V_{FS} 145	**10**	V_1 Runway Length		100 2240	100 2350	100 2550	100 2750	100 3080

V_{ENR} = 220 KIAS (Learjet 25 D/F) V_{ENR} = 225 KIAS (Learjet 25 B/C)

Zero wind, zero runway gradient, anti-skid operative and anti-ice systems off.

V_1 ,V_R, V_2 and V_{FS} = KIAS

GW x 1000	15	14	13	12	11	10	9
V_{REF}	138	131	127	122	117	112	106

Learjet 25 Century III Wing without Softflite

TAKEOFF FLAP 8° PA 4,000 FT

				TEMPERATURE				
			°F	0°	25°	50°	75°	100°
			°C	−17°	−4°	10°	24°	38°
				TAKEOFF POWER (EPR) SETTING				
	GW X 1000			2.53	2.44	2.36	2.28	2.16
V_R 132 V_2 132 V_{FS} 162	**15**	V_1 Runway Length		124 4280	126 4750	130 5560	132 6450	– –
V_R 130 V_2 130 V_{FS} 160	**14.5**	V_1 Runway Length		121 4000	123 4430	126 5100	129 5900	– –
V_R 128 V_2 128 V_{FS} 158	**14**	V_1 Runway Length		117 3740	119 4140	122 4680	125 5400	128 6590
V_R 124 V_2 123 V_{FS} 153	**13.5**	V_1 Runway Length		114 3480	116 3830	119 4310	121 4970	125 6030
V_R 122 V_2 121 V_{FS} 151	**13**	V_1 Runway Length		111 3240	112 3570	115 3480	117 4590	121 5460
V_R 119 V_2 119 V_{FS} 149	**12.5**	V_1 Runway Length		107 3000	108 3290	111 3640	113 4220	117 4990
V_R 119 V_2 119 V_{FS} 149	**12**	V_1 Runway Length		104 2800	105 3040	107 3370	109 3840	113 4530
V_R 119 V_2 116 V_{FS} 146	**11.5**	V_1 Runway Length		100 2660	101 2880	104 3130	106 3570	109 4160
V_R 119 V_2 115 V_{FS} 145	**11**	V_1 Runway Length		100 2530	100 2720	100 2950	102 3310	106 3850
V_R 119 V_2 115 V_{FS} 145	**10.5**	V_1 Runway Length		100 2460	100 2625	100 2825	100 3150	103 3630
V_R 119 V_2 115 V_{FS} 145	**10**	V_1 Runway Length		100 2420	100 2575	100 2750	100 3030	102 3490

V_{ENR} = 220 KIAS (Learjet 25 D/F) V_{ENR} = 225 KIAS (Learjet 25 B/C)

Zero wind, zero runway gradient, anti-skid operative and anti-ice systems off.

V_1 ,V_R, V_2 and V_{FS} = KIAS

GW x 1000	15	14	13	12	11	10	9
V_{REF}	138	131	127	122	117	112	106

Learjet 25 Century III Wing without Softflite

FLAP 8° PA 6,000 FT TAKEOFF

				TEMPERATURE				
			°F	0°	25°	50°	75°	100°
			°C	−17°	−4°	10°	24°	38°
		GW X 1000		TAKEOFF POWER (EPR) SETTING				
				2.53	2.44	2.36	2.28	2.16
V_R	132	15	V_1	127	130	132	–	–
V_2	132		Runway					
V_{FS}	162		Length	5100	5820	6440	–	–
V_R	130	14.5	V_1	124	126	128	–	–
V_2	130		Runway					
V_{FS}	160		Length	4730	5320	5900	–	–
V_R	128	14	V_1	121	123	124	128	–
V_2	128		Runway					
V_{FS}	158		Length	4350	4870	5500	6540	–
V_R	126	13.5	V_1	117	119	120	125	–
V_2	125		Runway					
V_{FS}	155		Length	4060	4490	5010	5990	–
V_R	124	13	V_1	113	115	117	120	124
V_2	123		Runway					
V_{FS}	153		Length	3760	4120	4670	5410	6900
V_R	122	12.5	V_1	109	111	113	117	120
V_2	121		Runway					
V_{FS}	151		Length	3440	3800	4240	4950	6060
V_R	119	12	V_1	106	107	109	113	116
V_2	119		Runway					
V_{FS}	149		Length	3210	3500	3910	4500	5340
V_R	119	11.5	V_1	102	104	106	109	112
V_2	116		Runway					
V_{FS}	146		Length	2990	3260	3610	4180	4900
V_R	119	11	V_1	100	100	102	106	109
V_2	115		Runway					
V_{FS}	145		Length	2810	3070	3380	3850	4510
V_R	119	10.5	V_1	100	100	100	103	107
V_2	115		Runway					
V_{FS}	145		Length	2710	2930	3200	3630	4270
V_R	119	10	V_1	100	100	100	102	106
V_2	115		Runway					
V_{FS}	145		Length	2675	2840	3080	3500	4090

V_{ENR} = 220 KIAS (Learjet 25 D/F) V_{ENR} = 225 KIAS (Learjet 25 B/C)

Zero wind, zero runway gradient, anti-skid operative and anti-ice systems off.

V_1 ,V_R, V_2 and V_{FS} = KIAS

GW x 1000	15	14	13	12	11	10	9
V_{REF}	138	131	127	122	117	112	106

Learjet 25 Century III Wing without Softflite

TAKEOFF FLAP 8° PA 8,000 FT

				TEMPERATURE				
				°F 0°	25°	50°	75°	100°
				°C −17°	−4°	10°	24°	38°
				TAKEOFF POWER (EPR) SETTING				
		GW X 1000		2.53	2.44	2.36	2.28	2.16
V_R	132	**15**	V_1	131	132	–	–	–
V_2	132		Runway					
V_{FS}	162		Length	6230	7000	–	–	–
V_R	130	**14.5**	V_1	127	129	–	–	–
V_2	130		Runway					
V_{FS}	160		Length	5700	6390	–	–	
V_R	128	**14**	V_1	123	125	128	–	–
V_2	128		Runway					
V_{FS}	158		Length	5250	5830	6850	–	–
V_R	126	**13.5**	V_1	120	122	125	–	–
V_2	125		Runway					
V_{FS}	155		Length	4840	5380	6200	–	–
V_R	124	**13**	V_1	116	118	120	123	–
V_2	123		Runway					
V_{FS}	153		Length	4440	4910	5660	6900	–
V_R	122	**12.5**	V_1	112	114	116	119	–
V_2	121		Runway					
V_{FS}	151		Length	4130	4530	5130	6060	–
V_R	119	**12**	V_1	108	110	112	115	117
V_2	119		Runway					
V_{FS}	149		Length	3780	4130	4640	5340	6300
V_R	119	**11.5**	V_1	105	106	108	112	113
V_2	116		Runway					
V_{FS}	146		Length	3520	3820	4290	4900	5740
V_R	119	**11**	V_1	101	103	105	109	111
V_2	115		Runway					
V_{FS}	145		Length	3250	3550	3940	4510	5350
V_R	119	**10.5**	V_1	100	101	103	107	108
V_2	115		Runway					
V_{FS}	145		Length	3110	3340	3720	4275	5070
V_R	119	**10**	V_1	100	100	102	105	107
V_2	115		Runway					
V_{FS}	145		Length	3000	3180	3580	4090	4850

V_{ENR} = 220 KIAS (Learjet 25 D/F) V_{ENR} = 225 KIAS (Learjet 25 B/C)

Zero wind, zero runway gradient, anti-skid operative and anti-ice systems off.

V_1 ,V_R, V_2 and V_{FS} = KIAS

GW x 1000	15	14	13	12	11	10	9
V_{REF}	138	131	127	122	117	112	106

Learjet 25 Century III Wing without Softflite

TIME/FUEL/DISTANCE CLIMB
ISA

ALT X 1000 FT RAT °C		INITIAL CLIMB WEIGHT AT SEA LEVEL – 1000 LBS					
		15	**14**	**13**	**12**	**11**	**10**
51 -34	Time	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
	Fuel	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
	Dist	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
47 -34	Time	. . . .	. . . .	. . . .	. . . .	23.9	17.8
	Fuel	. . . .	. . . .	. . . .	. . . .	837	670
	Dist	. . . .	. . . .	. . . .	. . . .	160	118
45 -35	Time	. . . .	. . . .	32.9	22.0	17.3	14.2
	Fuel	. . . .	. . . .	1136	845	700	596
	Dist	. . . .	. . . .	218	145	114	94
43 -34	Time	. . . .	27.8	20.8	17.0	14.3	12.2
	Fuel	. . . .	1081	866	733	633	549
	Dist	. . . .	184	137	112	94	80
41 -35	Time	24.5	19.7	16.5	14.2	12.3	10.6
	Fuel	1050	881	761	665	583	512
	Dist	162	130	104	93	80	70
39 -35	Time	18.7	16.1	14.0	12.3	10.8	9.4
	Fuel	893	783	692	613	543	479
	Dist	123	105	92	80	70	62
37 -35	Time	15.7	13.9	12.3	10.9	9.6	8.5
	Fuel	806	718	641	572	509	451
	Dist	103	91	80	71	63	55
35 -33	Time	13.8	12.3	10.9	9.8	8.7	7.7
	Fuel	742	666	598	536	479	425
	Dist	90	80	71	63	56	50
31 -24	Time	10.9	9.8	8.9	8.0	7.1	6.4
	Fuel	637	577	522	470	422	377
	Dist	71	64	57	51	46	41
25 -12	Time	7.7	7.0	6.4	5.8	5.2	4.7
	Fuel	498	454	414	375	338	303
	Dist	49	44	40	36	33	29
21 -6	Time	5.7	5.3	4.8	4.4	3.9	3.5
	Fuel	394	362	330	300	271	244
	Dist	35	32	29	26	24	21
11 +8	Time	2.4	2.2	2.1	1.9	1.7	1.5
	Fuel	191	175	161	147	133	120
	Dist	14	12	11	10	9	9
5 +19	Time	1.0	1.0	0.9	0.8	0.7	0.7
	Fuel	84	78	71	65	59	53
	Dist	6	5	5	4	4	4

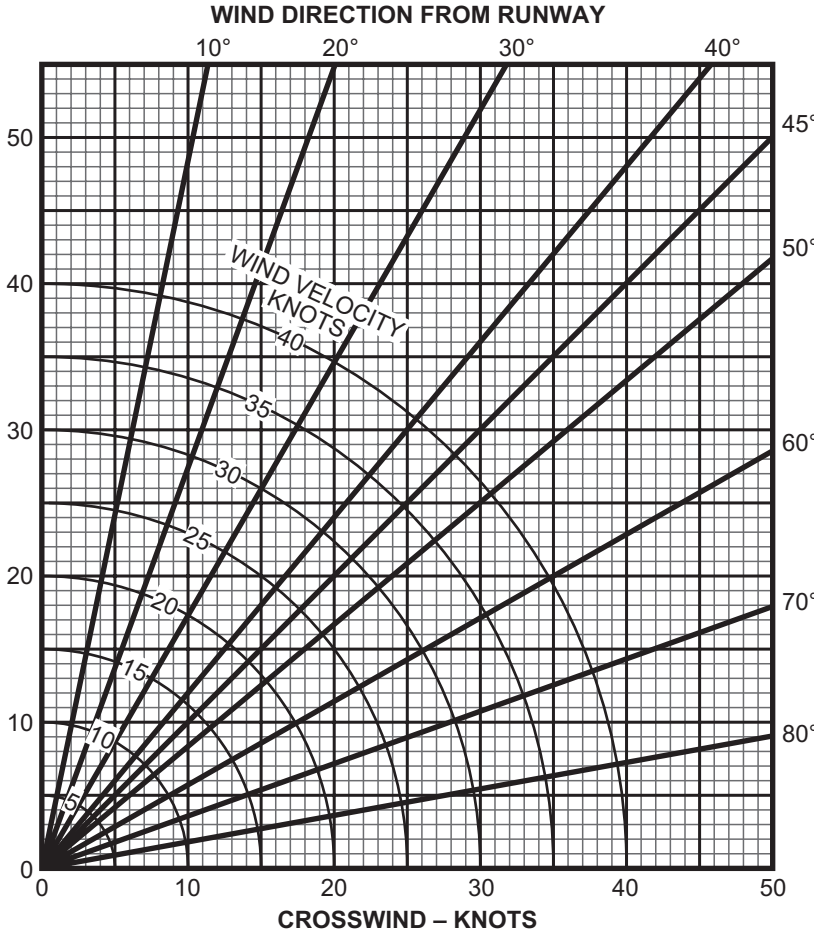
300 KIAS up to 24,500

MI 0.70 to 45,000 feet

MI 0.72 above 45,000 feet

BOTH ENGINES OPERATING

TAKEOFF CROSSWIND



FLAP 10° PA SL TAKEOFF

GW x 1000		TEMPERATURE					
		°F	0	25	50	75	100
		°C	−17	−4	10	24	38
		EPR	2.48	2.44	2.36	2.28	2.16
15	V_1		124	126	128	130	–
	V_R		131	132	133	134	–
	V_2		135	135	135	135	–
	V_{FS}		165	165	165	165	–
	RUNWAY		3905	4180	4620	5225	–
14	V_1		117	118	121	123	126
	V_R		125	126	127	129	130
	V_2		130	130	130	130	130
	V_{FS}		160	160	160	160	160
	RUNWAY		3300	3410	4125	4510	5280
13	V_1		110	112	114	117	120
	V_R		120	120	121	123	124
	V_2		125	125	125	125	125
	V_{FS}		155	155	155	155	155
	RUNWAY		2915	3080	3410	3850	4620
12	V_1		110	109	106	109	113
	V_R		114	114	115	117	119
	V_2		120	120	120	120	120
	V_{FS}		150	150	150	150	150
	RUNWAY		2860	2948	3190	3300	4070
11	V_1		110	109	109	110	112
	V_R		110	109	109	111	112
	V_2		120	117	116	115	115
	V_{FS}		150	147	146	145	145
	RUNWAY		2750	2750	2970	3080	3465
10	V_1		110	109	105	101	96
	V_R		110	109	105	103	105
	V_2		121	119	114	111	111
	V_{FS}		151	149	144	141	141
	RUNWAY		2640	2640	2860	2915	3190
9	V_1		110	109	105	101	96
	V_R		110	109	105	101	97
	V_2		123	120	115	110	105
	V_{FS}		153	150	145	140	135
	RUNWAY		2530	2530	2860	2915	3080

CONDITIONS ZERO WINDS
ZERO GRADIENT
ANTI SKID ON
ANTI-ICE OFF

Chart complies with AD Note 80-19-11

GW x 1000	14	13	12	11	10	9
V_{REF}	132	128	123	119	114	109

Learjet 25 B/C with Raisbeck Mark II Wing

TAKEOFF FLAP 10° PA 2,000 FT

GW x 1000		TEMPERATURE °F	0°	25°	50°	75°	100°
		°C	−17°	−4°	10°	24°	38°
		EPR	2.48	2.44	2.36	2.28	2.16
15	V_1		127	129	130	–	–
	V_R		132	133	134	–	–
	V_2		135	135	135	–	–
	V_{FS}		165	165	165	–	–
	RUNWAY		4400	4840	5390	–	–
14	V_1		120	121	123	126	–
	V_R		127	127	128	130	–
	V_2		130	130	130	130	–
	V_{FS}		160	160	160	160	–
	RUNWAY		3850	4200	4730	5280	–
13	V_1		113	115	117	119	122
	V_R		121	122	123	124	126
	V_2		126	126	125	125	126
	V_{FS}		156	156	155	155	156
	RUNWAY		3300	3740	4070	4675	5445
12	V_1		107	107	109	112	116
	V_R		115	115	117	118	120
	V_2		120	120	120	120	120
	V_{FS}		150	150	150	150	150
	RUNWAY		3025	3300	3520	3960	4730
11	V_1		107	105	101	104	107
	V_R		109	109	111	112	113
	V_2		116	116	116	115	115
	V_{FS}		146	146	146	145	145
	RUNWAY		2860	2970	3080	3300	4070
10	V_1		107	105	101	98	99
	V_R		109	105	103	105	107
	V_2		116	113	110	111	111
	V_{FS}		146	143	140	141	141
	RUNWAY		2750	2838	2860	3080	3465
9	V_1		107	105	101	98	98
	V_R		109	105	102	98	99
	V_2		116	116	110	105	105
	V_{FS}		146	146	140	135	135
	RUNWAY		2640	2750	2860	3025	3135

CONDITIONS ZERO WINDS
ZERO GRADIENT
ANTI SKID ON
ANTI-ICE OFF

Chart complies with AD Note 80-19-11

GW x 1000	14	13	12	11	10	9
V_{REF}	132	128	123	119	114	109

Learjet 25 B/C with Raisbeck Mark II Wing

FLAP 10° PA 4,000 FT TAKEOFF

GW x 1000		TEMPERATURE °F	0°	25°	50°	75°	100°
		°C	−17°	−4°	10°	24°	38°
		EPR	2.48	2.44	2.36	2.28	2.16
15	V_1		129	131	133	–	–
	V_R		133	134	135	–	–
	V_2		135	135	135	–	–
	V_{FS}		165	165	165	–	–
	RUNWAY		5060	5445	6105	–	–
14	V_1		122	124	126	128	–
	V_R		128	129	130	131	–
	V_2		130	130	130	130	–
	V_{FS}		160	160	160	160	–
	RUNWAY		4400	4840	5445	6160	–
13	V_1		116	117	119	122	–
	V_R		122	122	124	124	–
	V_2		126	126	126	126	–
	V_{FS}		156	156	156	156	–
	RUNWAY		3960	4180	4730	5390	–
12	V_1		108	110	112	114	117
	V_R		116	116	118	119	121
	V_2		120	120	120	120	120
	V_{FS}		150	150	150	150	150
	RUNWAY		3300	3630	4070	4730	5445
11	V_1		104	102	104	107	110
	V_R		110	111	111	113	114
	V_2		115	115	116	116	116
	V_{FS}		145	145	146	146	146
	RUNWAY		2970	3080	3410	4070	4620
10	V_1		104	101	98	96	101
	V_R		104	104	105	106	107
	V_2		111	111	110	111	110
	V_{FS}		141	141	140	141	140
	RUNWAY		2860	2970	3080	3410	3960
9	V_1		104	101	98	95	95
	V_R		104	101	98	98	100
	V_2		113	110	105	105	105
	V_{FS}		143	140	135	135	135
	RUNWAY		2750	2860	3080	3190	3300

CONDITIONS ZERO WINDS
ZERO GRADIENT
ANTI SKID ON
ANTI-ICE OFF

Chart complies with AD Note 80-19-11

GW x 1000	14	13	12	11	10	9
V_{REF}	132	128	123	119	114	109

Learjet 25 B/C with Raisbeck Mark II Wing

TAKEOFF FLAP 10° PA 6,000 FT

GW x 1000		TEMPERATURE °F	0°	25°	50°	75°	100°
		°C	−17°	−4°	10°	24°	38°
		EPR	2.48	2.44	2.36	2.28	2.16
15	V_1		131	132	–	–	–
	V_R		134	135	–	–	–
	V_2		135	135	–	–	–
	V_{FS}		165	165	–	–	–
	RUNWAY		5720	6325	–	–	–
14	V_1		124	126	–	–	–
	V_R		129	130	–	–	–
	V_2		130	130	–	–	–
	V_{FS}		160	160	–	–	–
	RUNWAY		5005	5500	–	–	–
13	V_1		118	120	122	–	–
	V_R		123	124	125	–	–
	V_2		125	125	125	–	–
	V_{FS}		155	155	155	–	–
	RUNWAY		4400	4840	5500	–	–
12	V_1		110	112	114	116	–
	V_R		117	118	119	120	–
	V_2		120	120	120	120	–
	V_{FS}		150	150	150	150	–
	RUNWAY		3850	4070	4840	5390	–
11	V_1		102	104	106	109	112
	V_R		111	112	113	114	115
	V_2		116	116	116	116	116
	V_{FS}		146	146	146	146	146
	RUNWAY		3300	3520	4125	4620	5445
10	V_1		100	97	98	101	104
	V_R		104	105	106	107	109
	V_2		111	111	111	111	111
	V_{FS}		141	141	141	141	141
	RUNWAY		3025	3080	3465	3905	4565
9	V_1		100	97	94	95	96
	V_R		100	97	98	100	101
	V_2		108	106	106	106	106
	V_{FS}		138	136	136	136	136
	RUNWAY		2970	3080	3245	3300	3740

CONDITIONS ZERO WINDS
ZERO GRADIENT
ANTI SKID ON
ANTI-ICE OFF

Chart complies with AD Note 80-19-11

GW x 1000	14	13	12	11	10	9
V_{REF}	132	128	123	119	114	109

Learjet 25 B/C with Raisbeck Mark II Wing

FLAP 10° PA 8,000 FT TAKEOFF

GW x 1000		TEMPERATURE °F	0°	25°	50°	75°	100°
		°C	−17°	−4°	10°	24°	38°
		EPR	2.48	2.44	2.36	2.28	2.16
15	V_1		134	–	–	–	–
	V_R		136	–	–	–	–
	V_2		135	–	–	–	–
	V_{FS}		165	–	–	–	–
	RUNWAY		6600	–	–	–	–
14	V_1		127	–	–	–	–
	V_R		131	–	–	–	–
	V_2		130	–	–	–	–
	V_{FS}		160	–	–	–	–
	RUNWAY		5775	–	–	–	–
13	V_1		120	122	–	–	–
	V_R		125	125	–	–	–
	V_2		125	125	–	–	–
	V_{FS}		155	155	–	–	–
	RUNWAY		5060	5500	–	–	–
12	V_1		113	115	116	–	–
	V_R		119	119	120	–	–
	V_2		120	120	120	–	–
	V_{FS}		150	150	150	–	–
	RUNWAY		4400	4840	5445	–	–
11	V_1		105	107	109	111	–
	V_R		112	113	114	115	–
	V_2		115	115	115	115	–
	V_{FS}		145	145	145	145	–
	RUNWAY		3740	4070	4730	5280	–
10	V_1		96	98	101	103	–
	V_R		105	106	107	108	–
	V_2		111	111	111	111	–
	V_{FS}		141	141	141	141	–
	RUNWAY		3190	3410	3960	4510	–
9	V_1		96	93	92	94	–
	V_R		98	98	100	101	–
	V_2		106	106	106	106	–
	V_{FS}		136	136	136	136	–
	RUNWAY		3080	3190	3300	3685	–

CONDITIONS ZERO WINDS
ZERO GRADIENT
ANTI SKID ON
ANTI-ICE OFF

Chart complies with AD Note 80-19-11

GW x 1000	14	13	12	11	10	9
V_{REF}	132	128	123	119	114	109

Learjet 25 B/C with Raisbeck Mark II Wing

TAKEOFF

FLAP 20° PA SL

GW x 1000		TEMPERATURE °F	0°	25°	50°	75°	100°
		°C	−17°	−4°	10°	24°	38°
		EPR	2.48	2.44	2.36	2.28	2.16
15	V_1		118	119	121	124	–
	V_R		123	124	125	127	–
	V_2		127	127	127	128	–
	V_{FS}		157	157	157	158	–
	RUNWAY		3410	3960	4400	4840	–
14	V_1		112	113	114	118	121
	V_R		117	119	120	121	123
	V_2		122	122	122	122	124
	V_{FS}		152	152	152	152	154
	RUNWAY		3300	4290	3850	4290	4840
13	V_1		112	109	109	111	114
	V_R		112	113	114	115	118
	V_2		118	118	118	118	118
	V_{FS}		148	148	148	148	148
	RUNWAY		3080	3740	3410	3740	4180
12	V_1		112	108	108	104	117
	V_R		112	108	107	109	111
	V_2		118	113	113	113	113
	V_{FS}		148	143	143	143	143
	RUNWAY		2970	2970	3080	3300	3630
11	V_1		112	108	108	101	99
	V_R		113	107	105	103	105
	V_2		118	113	112	112	112
	V_{FS}		148	143	142	142	142
	RUNWAY		2860	2860	2970	3080	3300
10	V_1		112	108	108	101	99
	V_R		113	107	105	103	98
	V_2		112	112	112	109	109
	V_{FS}		142	142	142	139	139
	RUNWAY		2750	2750	2915	2976	3190
9	V_1		112	108	108	101	99
	V_R		113	107	105	103	96
	V_2		112	112	112	107	102
	V_{FS}		142	142	142	137	132
	RUNWAY		2640	2750	2860	2860	2970

CONDITIONS ZERO WINDS
ZERO GRADIENT
ANTI SKID ON
ANTI-ICE OFF

Chart complies with AD Note 80-19-11

GW x 1000	14	13	12	11	10	9
V_{REF}	132	128	123	119	114	109

Learjet 25 B/C with Raisbeck Mark II Wing

FLAP 20° PA 2,000 FT TAKEOFF

GW x 1000		TEMPERATURE °F	0°	25°	50°	75°	100°
		°C	−17°	−4°	10°	24°	38°
		EPR	2.48	2.44	2.36	2.28	2.16
15	V_1		120	122	124	–	–
	V_R		124	125	127	–	–
	V_2		127	127	127	–	–
	V_{FS}		157	157	157	–	–
	RUNWAY		4180	4510	4950	–	–
14	V_1		114	115	117	120	–
	V_R		119	120	121	123	–
	V_2		122	122	122	123	–
	V_{FS}		152	152	152	153	–
	RUNWAY		3630	4070	4950	5720	–
13	V_1		107	109	111	113	117
	V_R		113	114	115	117	119
	V_2		117	117	117	117	119
	V_{FS}		147	147	147	147	147
	RUNWAY		3080	3520	3740	4400	4500
12	V_1		107	109	103	108	109
	V_R		107	108	109	111	113
	V_2		113	113	113	113	113
	V_{FS}		143	143	143	143	143
	RUNWAY		2970	3245	3300	3850	4400
11	V_1		107	109	103	98	111
	V_R		107	108	103	104	106
	V_2		113	113	112	112	112
	V_{FS}		143	143	142	142	142
	RUNWAY		2860	3190	3245	3410	3740
10	V_1		107	109	103	98	94
	V_R		107	108	103	98	99
	V_2		113	113	112	104	104
	V_{FS}		143	143	142	134	134
	RUNWAY		2750	3025	3080	3190	3300
9	V_1		107	109	103	98	94
	V_R		107	108	103	98	95
	V_2		113	113	112	104	99
	V_{FS}		143	143	142	134	129
	RUNWAY		2750	2860	2970	3080	3190

CONDITIONS ZERO WINDS
ZERO GRADIENT
ANTI SKID ON
ANTI-ICE OFF

Chart complies with AD Note 80-19-11

GW x 1000	14	13	12	11	10	9
VREF	132	128	123	119	114	109

TAKEOFF FLAP 20° PA 4,000 FT

GW x 1000		TEMPERATURE °F	0°	25°	50°	75°	100°
		°C	−17°	−4°	10°	24°	38°
		EPR	2.48	2.44	2.36	2.28	2.16
15	V_1		123	125	–	–	–
	V_R		126	128	–	–	–
	V_2		127	128	–	–	–
	V_{FS}		157	158	–	–	–
	RUNWAY		4785	5280	–	–	–
14	V_1		116	118	120	–	–
	V_R		120	121	123	–	–
	V_2		122	123	123	–	–
	V_{FS}		152	153	153	–	–
	RUNWAY		4290	4510	5170	–	–
13	V_1		110	112	110	116	–
	V_R		115	116	117	119	–
	V_2		118	118	118	118	–
	V_{FS}		148	148	148	148	–
	RUNWAY		3740	3850	4510	5170	–
12	V_1		103	104	106	109	111
	V_R		108	109	110	112	115
	V_2		113	113	113	113	114
	V_{FS}		143	143	143	143	144
	RUNWAY		3300	3410	3850	4510	5170
11	V_1		103	100	98	101	106
	V_R		103	103	104	105	107
	V_2		109	109	109	109	109
	V_{FS}		139	139	139	139	139
	RUNWAY		3190	3290	3410	3850	4400
10	V_1		103	100	97	94	96
	V_R		103	100	98	99	101
	V_2		110	106	104	104	104
	V_{FS}		140	136	134	134	134
	RUNWAY		2970	3080	3190	3410	3630
9	V_1		103	100	97	94	89
	V_R		103	100	97	95	95
	V_2		111	108	104	99	99
	V_{FS}		141	138	134	129	129
	RUNWAY		2915	2970	3080	3190	3300

CONDITIONS ZERO WINDS
ZERO GRADIENT
ANTI SKID ON
ANTI-ICE OFF

Chart complies with AD Note 80-19-11

GW x 1000	14	13	12	11	10	9
V_{REF}	132	128	123	119	114	109

FLAP 20° PA 6,000 FT TAKEOFF

GW x 1000		TEMPERATURE °F	0°	25°	50°	75°	100°
		°C	−17°	−4°	10°	24°	38°
		EPR	2.48	2.44	2.36	2.28	2.16
15	V_1		126	–	–	–	–
	V_R		128	–	–	–	–
	V_2		128	–	–	–	–
	V_{FS}		158	–	–	–	–
	RUNWAY		5390	–	–	–	–
14	V_1		118	121	–	–	–
	V_R		112	123	–	–	–
	V_2		122	123	–	–	–
	V_{FS}		152	153	–	–	–
	RUNWAY		4620	5280	–	–	–
13	V_1		112	114	116	–	–
	V_R		116	117	119	–	–
	V_2		117	117	119	–	–
	V_{FS}		147	147	149	–	–
	RUNWAY		3740	4510	5280	–	–
12	V_1		105	106	108	112	–
	V_R		110	111	112	114	–
	V_2		113	113	113	114	–
	V_{FS}		143	143	143	144	–
	RUNWAY		3410	3850	4400	5060	–
11	V_1		99	99	101	104	107
	V_R		103	104	105	107	110
	V_2		108	108	108	108	110
	V_{FS}		138	138	138	138	140
	RUNWAY		3190	3410	3850	4290	4840
10	V_1		99	99	104	96	99
	V_R		99	98	99	101	102
	V_2		105	104	104	104	104
	V_{FS}		135	134	134	134	134
	RUNWAY		2970	3190	3410	3630	4070
9	V_1		99	99	104	89	91
	V_R		96	96	95	95	95
	V_2		107	103	99	99	99
	V_{FS}		137	133	129	129	129
	RUNWAY		2915	2970	3245	3300	3410

CONDITIONS ZERO WINDS
ZERO GRADIENT
ANTI SKID ON
ANTI-ICE OFF

Chart complies with AD Note 80-19-11

GW x 1000	14	13	12	11	10	9
V_{REF}	132	128	123	119	114	109

Learjet 25 B/C with Raisbeck Mark II Wing

TAKEOFF FLAP 20° PA 8,000 FT

GW x 1000		TEMPERATURE °F	0°	25°	50°	75°	100°
		°C	−17°	−4°	10°	24°	38°
		EPR	2.48	2.44	2.36	2.28	2.16
15	V_1		129	–	–	–	–
	V_R		131	–	–	–	–
	V_2		130	–	–	–	–
	V_{FS}		160	–	–	–	–
	RUNWAY		6380	–	–	–	–
14	V_1		121	124	–	–	–
	V_R		124	125	–	–	–
	V_2		124	125	–	–	–
	V_{FS}		154	155	–	–	–
	RUNWAY		5500	6270	–	–	–
13	V_1		115	117	–	–	–
	V_R		118	119	–	–	–
	V_2		118	119	–	–	–
	V_{FS}		148	149	–	–	–
	RUNWAY		4620	5500	–	–	–
12	V_1		107	109	112	–	–
	V_R		111	113	114	–	–
	V_2		113	113	114	–	–
	V_{FS}		143	143	144	–	–
	RUNWAY		4070	4620	5280	–	–
11	V_1		99	101	103	106	–
	V_R		105	106	107	109	–
	V_2		113	113	113	114	–
	V_{FS}		143	143	143	144	–
	RUNWAY		3520	3960	4400	4840	–
10	V_1		95	94	96	98	–
	V_R		99	99	100	101	–
	V_2		104	104	104	104	–
	V_{FS}		134	134	134	134	–
	RUNWAY		3300	3410	3630	3740	–
9	V_1		95	93	90	90	–
	V_R		95	95	95	95	–
	V_2		102	99	99	99	–
	V_{FS}		132	129	129	129	–
	RUNWAY		3080	3300	3300	3410	–

CONDITIONS ZERO WINDS
ZERO GRADIENT
ANTI SKID ON
ANTI-ICE OFF

Chart complies with AD Note 80-19-11

GW x 1000	14	13	12	11	10	9
V_{REF}	132	128	123	119	114	109

TIME/FUEL/DISTANCE CLIMB
ISA

ALT X 1000 FT RAT °C		INITIAL CLIMB WEIGHT AT SEA LEVEL – 1000 LBS					
		15	**14**	**13**	**12**	**11**	**10**
51 -34	Time	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
	Fuel	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
	Dist	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
47 -34	Time	. . . .	. . . .	. . . .	. . . .	23.9	17.8
	Fuel	. . . .	. . . .	. . . .	. . . .	837	670
	Dist	. . . .	. . . .	. . . .	. . . .	160	118
45 -35	Time	. . . .	. . . .	32.9	22.0	17.3	14.2
	Fuel	. . . .	. . . .	1136	845	700	596
	Dist	. . . .	. . . .	218	145	114	94
43 -34	Time	. . . .	27.8	20.8	17.0	14.3	12.2
	Fuel	. . . .	1081	866	733	633	549
	Dist	. . . .	184	137	112	94	80
41 -35	Time	24.5	19.7	16.5	14.2	12.3	10.6
	Fuel	1050	881	761	665	583	512
	Dist	162	130	104	93	80	70
39 -35	Time	18.7	16.1	14.0	12.3	10.8	9.4
	Fuel	893	783	692	613	543	479
	Dist	123	105	92	80	70	62
37 -35	Time	15.7	13.9	12.3	10.9	9.6	8.5
	Fuel	806	718	641	572	509	451
	Dist	103	91	80	71	63	55
35 -33	Time	13.8	12.3	10.9	9.8	8.7	7.7
	Fuel	742	666	598	536	479	425
	Dist	90	80	71	63	56	50
31 -24	Time	10.9	9.8	8.9	8.0	7.1	6.4
	Fuel	637	577	522	470	422	377
	Dist	71	64	57	51	46	41
25 -12	Time	7.7	7.0	6.4	5.8	5.2	4.7
	Fuel	498	454	414	375	338	303
	Dist	49	44	40	36	33	29
21 -6	Time	5.7	5.3	4.8	4.4	3.9	3.5
	Fuel	394	362	330	300	271	244
	Dist	35	32	29	26	24	21
11 +8	Time	2.4	2.2	2.1	1.9	1.7	1.5
	Fuel	191	175	161	147	133	120
	Dist	14	12	11	10	9	9
5 +19	Time	1.0	1.0	0.9	0.8	0.7	0.7
	Fuel	84	78	71	65	59	53
	Dist	6	5	5	4	4	4

300 KIAS up to 24,500

MI 0.70 to 45,000 feet

MI 0.72 above 45,000 feet

BOTH ENGINES OPERATING

CLIMB TIME/FUEL/DISTANCE ISA +15°C

ALT X 1000 FT RAT °C		INITIAL CLIMB WEIGHT AT SEA LEVEL – 1000 LBS					
		15	**14**	**13**	**12**	**11**	**10**
51 -34	Time	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
	Fuel	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
	Dist	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
47 -34	Time	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
	Fuel	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
	Dist	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
45 -35	Time	. . . .	. . . .	. . . .	. . . .	28.1	20.6
	Fuel	. . . .	. . . .	. . . .	. . . .	961	759
	Dist	. . . .	. . . .	. . . .	. . . .	192	140
43 -34	Time	. . . .	. . . .	. . . .	26.2	20.4	16.8
	Fuel	. . . .	. . . .	. . . .	982	804	680
	Dist	. . . .	. . . .	. . . .	179	139	114
41 -35	Time	. . . .	33.4	24.8	20.2	16.9	14.4
	Fuel	. . . .	1269	1005	846	726	627
	Dist	. . . .	228	169	137	115	97
39 -35	Time	29.4	23.7	19.9	17.0	14.7	12.7
	Fuel	1232	1029	884	767	670	584
	Dist	200	161	135	115	99	86
37 -35	Time	23.3	19.9	17.2	15.0	13.1	11.4
	Fuel	1066	925	810	712	626	549
	Dist	158	135	116	101	88	77
35 -33	Time	20.2	17.5	15.4	13.5	11.8	10.4
	Fuel	971	854	754	667	589	519
	Dist	135	118	104	91	80	70
31 -24	Time	15.9	14.1	12.5	11.1	9.8	8.7
	Fuel	827	736	657	585	520	460
	Dist	107	94	84	74	65	58
25 -12	Time	11.0	9.9	8.9	8.0	7.1	6.3
	Fuel	628	567	511	459	411	366
	Dist	72	64	58	52	46	41
21 -6	Time	7.8	7.1	6.4	5.8	5.2	4.6
	Fuel	478	435	394	357	321	287
	Dist	49	44	40	36	33	29
11 +8	Time	3.2	2.9	2.7	2.4	2.2	2.0
	Fuel	222	204	186	169	153	138
	Dist	18	17	15	14	13	11
5 +19	Time	1.3	1.2	1.1	1.0	0.9	0.8
	Fuel	97	89	82	74	67	61
	Dist	7	7	6	6	5	5

300 KIAS up to 24,500

MI 0.70 to 45,000 feet

MI 0.72 above 45,000 feet

BOTH ENGINES OPERATING

FF, KTAS
MACH 0.77

CRUISE FL 250

GW X 1000	ISA °C	-10	0	+10	+20
15	FF KTAS	2264 438	2359 447	2462 457	2560 466
14	FF KTAS	2211 438	2304 447	2405 457	2501 466
13	FF KTAS	2166 438	2258 447	2357 457	2451 466
12	FF KTAS	2123 438	2213 447	2310 457	2402 466
11	FF KTAS	2072 438	2159 447	2255 457	2344 466
10	FF KTAS	2032 438	2118 447	2211 457	2300 466
9	FF KTAS	1985 438	2069 447	2160 457	2247 466

FF = LB/HR

CRUISE FL 350

FF, KTAS
MACH 0.77

GW X 1000	ISA °C	-10	0	+10	+20
15	FF KTAS	1703 425	1783 435	1866 445	1949 455
14	FF KTAS	1629 425	1706 435	1785 445	1855 455
13	FF KTAS	1558 425	1632 435	1708 445	1784 455
12	FF KTAS	1499 425	1570 435	1643 445	1716 455
11	FF KTAS	1442 425	1510 435	1580 445	1651 455
10	FF KTAS	1387 425	1452 435	1520 445	1588 455
9	FF KTAS	1351 425	1415 435	1481 445	1547 455

FF = LB/HR

FF, KTAS
MACH 0.77

CRUISE FL 370

GW X 1000	ISA °C	-10	0	+10	+20
15	FF KTAS	1650 425	1729 434	1810 444	. . . .
14	FF KTAS	1569 424	1644 434	1721 444	. . . .
13	FF KTAS	1490 424	1561 434	1634 444	1707 454
12	FF KTAS	1429 424	1497 434	1567 444	1637 454
11	FF KTAS	1367 424	1432 434	1499 444	1566 454
10	FF KTAS	1311 424	1373 434	1437 444	1502 454
9	FF KTAS	1259 425	1319 434	1381 444	1443 454

FF = LB/HR

CRUISE FL 390

FF, KTAS
MACH 0.77

GW X 1000	ISA °C	-10	0	+10	+20
15	FF KTAS	1635 426	1713 436	1793 446	. . . .
14	FF KTAS	1542 426	1615 436	1690 446	. . . .
13	FF KTAS	1460 426	1530 436	1601 446	. . . .
12	FF KTAS	1387 426	1453 436	1521 446	1589 456
11	FF KTAS	1313 426	1375 436	1439 446	1503 456
10	FF KTAS	1255 426	1315 436	1376 446	1438 456
9	FF KTAS	1203 426	1260 436	1319 446	1378 456

FF = LB/HR

FF, KTAS
MACH 0.77

CRUISE FL 410

GW X 1000	ISA °C	-10	0	+10	+20
15	FF KTAS	1653 428	1727 437	. . . .	. . . .
14	FF KTAS	1541 428	1610 437	. . . .	. . . .
13	FF KTAS	1444 428	1509 437	1583 448	. . . .
12	FF KTAS	1358 428	1419 437	1488 448	. . . .
11	FF KTAS	1275 428	1332 437	1397 448	. . . .
10	FF KTAS	1210 428	1265 437	1327 448	1383 457
9	FF KTAS	1145 428	1197 437	1256 448	1309 457

FF = LB/HR

CRUISE FL 430

FF, KTAS
MACH 0.77

GW X 1000	ISA °C	-10	0	+10	+20
15	FF KTAS	. . . .	. . . .	. . . .	. . . .
14	FF KTAS	1561 429	. . . .	. . . .	. . . .
13	FF KTAS	1436 429	1504 439	. . . .	. . . .
12	FF KTAS	1336 429	1400 439	1465 449	. . . .
11	FF KTAS	1248 429	1307 439	1368 449	. . . .
10	FF KTAS	1174 429	1230 439	1287 449	. . . .
9	FF KTAS	1109 429	1161 439	1215 449	1269 459

FF = LB/HR

FF, KTAS
MACH 0.77

CRUISE FL 450

GW X 1000	ISA °C	-10	0	+10	+20
15	FF KTAS	. . . .	. . . .	. . . .	. . . .
14	FF KTAS	. . . .	. . . .	. . . .	. . . .
13	FF KTAS	1468 431	. . . .	. . . .	. . . .
12	FF KTAS	1345 431	1409 441	. . . .	. . . .
11	FF KTAS	1246 431	1305 441	. . . .	. . . .
10	FF KTAS	1151 431	1205 441	1261 451	. . . .
9	FF KTAS	1077 431	1128 441	1180 451	1233 461

FF = LB/HR

CRUISE FL 470

FF, KTAS
MACH 0.77

GW X 1000	ISA °C	-10	0	+10	+20
15	FF KTAS	. . . .	. . . .	. . . .	. . . .
14	FF KTAS	. . . .	. . . .	. . . .	. . . .
13	FF KTAS	. . . .	. . . .	. . . .	. . . .
12	FF KTAS	. . . .	. . . .	. . . .	. . . .
11	FF KTAS	1244 433	1303 443	. . . .	. . . .
10	FF KTAS	1140 433	1194 443	1249 453	. . . .
9	FF KTAS	1049 433	1099 443	1150 453	1201 463

FF = LB/HR

Data given above FL 450 is for D/F airplanes only.

KIAS/FF HOLDING

GW X 1000	ISA °C	-10	0	+10	+20
15	FF KTAS	. . . .	. . . .	. . . .	. . . .
14	FF KTAS	. . . .	. . . .	. . . .	. . . .
13	FF KTAS	. . . .	. . . .	. . . .	. . . .
12	FF KTAS	. . . .	. . . .	. . . .	. . . .
11	FF KTAS	1265 434	. . . .	. . . .	. . . .
10	FF KTAS	1142 434	1195 444	1253 455	. . . .
9	FF KTAS	1039 434	1088 444	1141 455	1191 465

FF = LB/HR

Data given above FL 450 is for D/F airplanes only.

DESCENT TIME/FUEL/DISTANCE

ALT X 1000	NORMAL DESCENT			MINIMUM FUEL DESCENT		
	Time Min	Dist Nm	Fuel Lbs.	Time Min	Dist Nm	Fuel Lbs.
51	17.0	119	377	15.3	102	249
49	16.3	114	370	14.6	97	242
47	15.7	109	362	13.9	92	234
45	15.0	104	354	13.3	86	226
43	14.3	98	345	12.6	81	217
41	13.7	93	335	11.9	76	207
39	13.0	88	324	11.3	71	196
37	12.3	83	312	10.6	66	184
35	11.7	78	299	9.9	60	170
33	11.0	72	283	9.3	55	155
25	8.3	51	200	7.2	40	112
20	6.7	38	137	5.9	31	89
10	3.3	15	44	3.4	15	44
4	1.3	5	17	1.3	6	18

BOTH ENGINES OPERATING

DESCENT
AVERAGE GW 11,000

MINIMUM FUEL DESCENT SPEEDS:

51,000 to 31,000 feet - M_{MO}
31,000 to 10,000 feet - 300 KIAS
10,000 to Sea Level - 250 KIAS

NORMAL DECSENT SPEEDS:

51,000 feet to 10,000 feet - M_{MO}/V_{MO}
10,000 feet to Sea Level - 250 KIAS

KIAS/FF HOLDING

ALT X 1000		GROSS WEIGHT – 1000 LBS						
		15	**14**	**13**	**12**	**11**	**10**	**9**
30	KIAS	200	190	180	170	160	150	140
	FF	1535	1425	1315	1205	1090	980	870
25	KIAS	200	190	180	170	160	150	140
	FF	1555	1455	1345	1240	1140	1038	930
20	KIAS	180	172	163	155	147	138	130
	FF	1580	1490	1390	1295	1200	1100	1005
15	KIAS	180	172	163	155	147	138	130
	FF	1630	1555	1455	1370	1275	1180	1090
10	KIAS	180	172	163	155	147	138	130
	FF	1755	1670	1570	1470	1375	1280	1190
5	KIAS	180	172	163	155	147	138	130
	FF	1940	1845	1730	1630	1535	1420	1320

Both Engines Operating

DESCENT TIME/FUEL/DISTANCE

ALT X 1000	NORMAL DESCENT		
	Time Min	Dist Nm	Fuel Lbs.
45	15.0	105	297
43	14.3	100	288
41	13.7	94	278
39	13.0	89	266
37	12.3	84	254
35	11.7	79	242
33	11.0	74	230
25	8.3	52	166
20	6.7	39	114
10	3.3	15	62
4	1.3	6	44

BOTH ENGINES OPERATING

DESCENT SPEEDS:

45,000 to 10,000 feet - MMO/VMO
10,000 feet to sea level - 250 KIAS

AVERAGE DESCENT GW 11,000

KIAS/FF HOLDING

ALT X 1000		GROSS WEIGHT – 1000 LBS						
		15	**14**	**13**	**12**	**11**	**10**	**9**
30	KIAS	200	190	180	170	160	150	140
	FF	1535	1425	1315	1205	1090	980	870
25	KIAS	200	190	180	170	160	150	140
	FF	1555	1455	1345	1240	1140	1038	930
20	KIAS	180	172	163	155	147	138	130
	FF	1580	1490	1390	1295	1200	1100	1005
15	KIAS	180	172	163	155	147	138	130
	FF	1630	1555	1455	1370	1275	1180	1090
10	KIAS	180	172	163	155	147	138	130
	FF	1755	1670	1570	1470	1375	1280	1190
5	KIAS	180	172	163	155	147	138	130
	FF	1940	1845	1730	1630	1535	1420	1320

Both Engines Operating

LANDING

SPEED, DISTANCE
PART 91, 121/135

GROSS WEIGHT		9	10	11	12	13	13.3	14	15
RUNWAY ELEVATION X 1000	V_{REF}	103	109	114	119	123	124	127	131
	V_{AC}	108	114	119	124	129	130	133	137
SL	100°	2348 (3913)	2491 (4152)	2626 (4377)	2760 (4600)	2893 (4820)	2933 (4888)	. . . .	. . . .
	75°	2296 (3827)	2434 (4057)	2565 (4275)	2694 (4490)	2824 (4707)	2862 (4770)		
	50°	2244 (3740)	2378 (3963)	2504 (4173)	2629 (4382)	2754 (4590)	2791 (4652)		
	25°	2192 (3653)	2321 (3868)	2442 (4070)	2563 (4227)	2684 (4473)	2720 (4533)		
	0°	2139 (3565)	2263 (3772)	2380 (3967)	2497 (4162)	2613 (4355)	2648 (4413)		
2	100°	2439 (4065)	2590 (4317)	2732 (4553)	2873 (4788)	3014 (5023)	3056 (5093)		
	75°	2383 (3972)	2529 (4215)	2667 (4445)	2803 (4672)	2939 (4898)	2980 (4967)		
	50°	2328 (3880)	2468 (4113)	2601 (4335)	2733 (4555)	2865 (4775)	2904 (4840)		
	25°	2272 (3787)	2407 (4012)	2535 (4225)	2663 (4438)	2789 (4648)	2827 (4712)		
	0°	2216 (3693)	2346 (3910)	2469 (4115)	2592 (4320)	2714 (4523)	2751 (4585)		
4	100°	2537 (4228)	2697 (4495)	2847 (4745)	2996 (4993)	3152 (5253)	3208 (5347)		
	75°	2478 (4130)	2632 (4387)	2777 (4628)	2921 (4868)	3065 (5108)	3114 (5190)		
	50°	2418 (4030)	2567 (4278)	2707 (4512)	2846 (4743)	2985 (4975)	3026 (5043)		
	25°	2358 (3930)	2501 (4168)	2636 (4393)	2771 (4618)	2904 (4840)	2944 (4907)		
	0°	2298 (3830)	2436 (4060)	2566 (4277)	2695 (4492)	2823 (4705)	2862 (4770)		
6	100°	2644 (4407)	2813 (4688)	2972 (4953)	3130 (5217)				
	75°	2580 (4300)	2743 (4572)	2897 (4828)	3049 (5082)	3216 (5360)	3275 (5458)		
	50°	2516 (4193)	2673 (4455)	2822 (4703)	2969 (4948)	3117 (5195)	3173 (5288)		
	25°	2452 (4087)	2603 (4338)	2746 (4577)	2880 (4813)	3028 (5047)	3072 (5120)		
	0°	2387 (3978)	2533 (4222)	2670 (4450)	2806 (4677)	2942 (4903)	2982 (4970)		
8	100°	2759 (4598)	2939 (4898)	3107 (5178)					
	75°	2691 (4485)	2864 (4773)	3027 (5045)	3188 (5313)				
	50°	2622 (4370)	2789 (4648)	2946 (4910)	3101 (5168)	3281 (5468)	3341 (5568)		
	25°	2553 (4225)	2714 (4523)	2865 (4775)	3014 (5023)	3173 (5288)	3230 (5383)		
	0°	2484 (4140)	2638 (4397)	2783 (4638)	2927 (4878)	3070 (5117)	3120 (5200)	. . . .	. . . .

V_{ZF} = V_{REF} + 40 KIAS
Runway PART 91 TOP
Runway PART 121/135 ( )
Landing Field Lengths for Aircraft with Century IIIs (Softflite) – Normal Surface (Part 121 & 135 Operation)
Contaminated runway factor:

Part 91	Part 121/135
Wet = Dry X 1.4	Scheduled and Alternate
Freezing = Dry X 1.7	Wet = Dry X 1.15
Frozen = Unknown	

Learjet 25 B/C/D/F Century III with Softflite

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LANDING SPEED, DISTANCE PART 91, 121/135

GROSS WEIGHT		9	10	11	12	13	13.3	14	15
RUNWAY ELEVATION X 1000	V_{REF}	106	112	117	122	127	128	131	135
	V_{AC}	109	115	121	126	130	132	134	138
SL	100°	2400 (4000)	2541 (4235)	2682 (4470)	2821 (4702)	2961 (4835)	3002 (5003)	. . . .	. . . .
	75°	2346 (3910)	2483 (4138)	2619 (4365)	2754 (4590)	2889 (4815)	2929 (4882)	. . . .	. . . .
	50°	2292 (3820)	2424 (4040)	2555 (4258)	2686 (4477)	2816 (4693)	2855 (4758)	. . . .	. . . .
	25°	2238 (3730)	2365 (3942)	2491 (4152)	2617 (4362)	2743 (4572)	2781 (4635)	. . . .	. . . .
	0°	2183 (3638)	2306 (3843)	2427 (4045)	2549 (4248)	2670 (4450)	2706 (4510)	. . . .	. . . .
2	100°	2494 (4157)	2644 (4407)	2792 (4653)	2939 (4898)	3086 (5143)	3141 (5235)	. . . .	. . . .
	75°	2437 (4062)	2581 (4302)	2724 (4540)	2867 (4778)	3009 (5015)	3051 (5085)	. . . .	. . . .
	50°	2379 (3965)	2518 (4197)	2656 (4427)	2794 (4657)	2931 (4885)	2972 (4953)	. . . .	. . . .
	25°	2321 (3868)	2455 (4092)	2588 (4313)	2721 (4535)	2853 (4755)	2775 (4625)	. . . .	. . . .
	0°	2262 (3770)	2391 (3985)	2520 (4200)	2647 (4412)	2893 (4822)	2813 (4688)	. . . .	. . . .
4	100°	2597 (4328)	2754 (4590)	2911 (4852)	3067 (5112)	3242 (5403)	3303 (5505)	. . . .	. . . .
	75°	2535 (4225)	2687 (4478)	2839 (4732)	2989 (4982)	3146 (5243)	3203 (5338)	. . . .	. . . .
	50°	2473 (4122)	2620 (4367)	2766 (4610)	2911 (4852)	3056 (5093)	3105 (5175)	. . . .	. . . .
	25°	2411 (4018)	2552 (4253)	2693 (4488)	2833 (4722)	2972 (4953)	2888 (5023)	. . . .	. . . .
	0°	2348 (3913)	2484 (4140)	2619 (4365)	2754 (4458)	3014	2928	. . . .	. . . .
6	100°	2708 (4513)	2875 (4792)	3041 (5068)	3206 (5343)			. . . .	. . . .
	75°	2641 (4402)	2803 (4672)	2963 (4938)	3122 (5203)	3310 (5517)	3373 (5622)	. . . .	. . . .
	50°	2575 (4292)	2730 (4550)	2885 (4808)	3038 (5063)	3206 (5343)	3265 (5442)	. . . .	. . . .
	25°	2508 (4180)	2678 (4430)	2806 (4677)	2954 (4923)	3103 (5172)	3158 (5263)	. . . .	. . . .
	0°	2441 (4068)	2585 (4308)	2728 (4547)	2870 (4783)	3011 (5018)	3054 (5090)	. . . .	. . . .
8	100°	2828 (4713)	3005 (5008)	3181 (5302)				. . . .	. . . .
	75°	2757 (4595)	2928 (4880)	3098 (5163)	3273 (5455)			. . . .	. . . .
	50°	2685 (4475)	2850 (4750)	3014 (5023)	3176 (5293)	3378 (5630)	3443 (5738)	. . . .	. . . .
	25°	2614 (4357)	2772 (4620)	2929 (4882)	3086 (5143)	3264 (5440)	3325 (5542)	. . . .	. . . .
	0°	2541 (4235)	(4490)	2845 (4742)	2995 (4992)	3152 (5253)	3209 (5348)	. . . .	. . . .

V_{ZF} = V_{REF} + 40 KIAS

Runway PART 91 TOP _____

Runway PART 121/135 (_____)

Landing Field Lengths for aircraft without Century IIIs (Softflite) – Normal Surface (Part 121 & 135 operation)

Contaminated runway factor:

Part 91
Wet = Dry X 1.4
Freezing = Dry X 1.7
Frozen = Unknown

Part 121/135
Scheduled and Alternate
Wet = Dry X 1.15

Learjet 25 Century III Wing without Softflite

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LANDING

SPEED, DISTANCE
PART 91, 121/135

GROSS WEIGHT		9	10	11	12	13	MAX WEIGHT 13.3	14
	V_{REF}	109	114	119	123	128	129	132
ALT X 1000	V_{AC}	118	123	130	135	140	141	144
SL	100°	2461 (4173)	2664 (4419)	2868 (4815)	3050 (5136)	3210 (5350)	3317 (5511)	
	75°	2408 (4013)	2568 (4280)	2761 (4601)	2969 (4933)	3103 (5190)	3210 (5350)	
	50°	2333 (3906)	2493 (4184)	2675 (4494)	2836 (4708)	2996 (5029)	3103 (5190)	
	25°	2247 (3745)	2418 (4155)	2579 (4333)	2755 (4601)	2889 (4815)	2996 (4986)	
	0°	2194 (3638)	2333 (3863)	2515 (4194)	2654 (4398)	2782 (4622)	2868 (4762)	
2	100°	2648 (4408)	2836 (4708)	3050 (5136)	3210 (5350)	3231 (5564)	3296 (5671)	
	75°	2547 (4227)	2702 (4408)	2943 (4922)	3103 (5190)	3210 (5350)	3296 (5511)	
	50°	2461 (4130)	2622 (4387)	2836 (4708)	2996 (5029)	3124 (5243)	3189 (5339)	
	25°	2354 (3959)	2547 (4280)	2729 (4548)	2889 (4836)	3050 (5136)	3082 (5050)	
	0°	2301 (3852)	2461 (4087)	2622 (4387)	2782 (4655)	2943 (4922)	2996 (5029)	
4	100°	2761 (4601)	2975 (4976)	3157 (5297)	3424 (5725)	3585 (5992)	3799 (6313)	
	75°	2675 (4441)	2868 (4762)	3050 (5136)	3296 (5511)	3478 (5778)	3692 (6099)	
	50°	2568 (4280)	2782 (4601)	2943 (4922)	3183 (5297)	3371 (5564)	3531 (6185)	
	25°	2515 (5243)	2675 (4494)	2868 (4762)	3050 (5136)	3210 (5350)	3424 (5725)	
	0°	2408 (4013)	2568 (4280)	2761 (4601)	2943 (4922)	3103 (5190)	3296 (5457)	
6	100°	2943 (4922)	3157 (5297)	3403 (5671)	3585 (5992)	3777 (6313)	4013 (6741)	
	75°	2836 (4762)	3050 (5083)	3364 (5457)	3478 (5778)	3638 (6046)	3895 (6527)	
	50°	2729 (4548)	2943 (4922)	3157 (5297)	3317 (5511)	3531 (5885)	3745 (7276)	
	25°	2654 (4441)	2868 (4762)	3050 (5083)	3210 (5350)	3403 (5671)	3617 (5992)	
	0°	2547 (4280)	2761 (4601)	2943 (4922)	3103 (5190)	3296 (5478)	3510 (5832)	
8	100°	3157 (5243)	3403 (5650)	3595 (5992)	3852 (6420)	4066 (6848)	4387 (7330)	
	75°	3050 (5083)	3264 (5657)	3504 (5799)	3745 (6206)	3959 (6634)	5297 (7062)	
	50°	2943 (4922)	3157 (5264)	3338 (5564)	3585 (5992)	3799 (6313)	4066 (6795)	
	25°	2836 (4708)	3050 (5083)	3338 (5404)	3478 (5778)	3638 (6046)	3906 (6527)	
	0°	2729 (4548)	2943 (4922)	3157 (5243)	3317 (5521)	3531 (5885)	3745 (6206)	

CONDITIONS: **FLAPS FULL**
0 WINDS $V_{ZF} = V_{REF} + 40$
0 GRADIENT
ANTI SKID ON

RUNWAY PART 91 _____
RUNWAY PART 121/135 ( )

PART 91 RUNWAY
WET = DRY X 1.4
FREEZING = DRY X 1.7
FROZEN = UNKNOWN
PART 121/135 RUNWAY
WET = DRY X 1.15

CHART COMPLIES WITH AD NOTE 80–19–11

Learjet 25 B/C with Raisbeck Mark II Wing

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ABORTED TAKEOFF — ENGINE FAILURE DURING TAKEOFF BELOW V_1

1. Thrust Levers — IDLE
2. Wheel Brakes — APPLY
3. Spoilers — EXTEND
4. Drag Chute Or Thrust Reversers (if installed) — DEPLOY IF NECESSARY

ENGINE FAILURE DURING TAKEOFF ABOVE V_1

1. Rudder/Ailerons — AS REQUIRED FOR DIRECTIONAL CONTROL
2. Accelerate To V_R
   Keep nose wheel on runway to improve directional control.
3. Rotate At V_R; Climb At V_2

At positive rate of climb:

4. Gear — UP

When clear of obstacles:

5. Accelerate To V_2 + 30; Retract Flaps
   Lateral control is improved with tip tanks empty.
6. FUEL JTSN Switch — ON
7. Refer To ENGINE FAILURE — SHUTDOWN IN FLIGHT Checklist (below) Or ENGINE FIRE — SHUTDOWN Checklist (page E-4).

ENGINE SHUTDOWN IN FLIGHT

Affected engine:

1. Thrust Lever — CUTOFF

CAUTION: The engine fuel and hydraulic pumps continue to operate with a windmilling engine. Prolonged operation without fluid available to the pumps may cause damage. Do not depress the FIRE warning light, therefore, unless a fuel or hydraulic leak is suspected.

2. ENG SYNC Switch — OFF
3. Yaw Damper — OFF/RETRIM/RE-ENGAGE
4. START-GEN Switch — OFF
5. Electrical Load — REDUCE

CAUTION: The COOL-FAN switch should be off to prevent generator overload.

6. BLEED AIR Switch (if installed) — OFF
7. CROSSFLOW Switch — OPEN/MONITOR FUEL BALANCE

NOTE: Maintain slip indicator ball centered.

8. Refer To SINGLE ENGINE LANDING Checklist (below)

SINGLE ENGINE LANDING

1. Final Approach Configuration — GEAR DN/FLAPS 20°
2 Final Approach Speed — V_{REF} + 10
3. Landing Distance — MULTIPLY BY 1.2

ENGINE FAILURE DURING APPROACH

1. Control Wheel Master Switch — DEPRESS
2. Thrust (operating engine) — INCREASE AS REQUIRED
3. Flaps — 20° MAXIMUM

NOTE: If configured with landing flaps (DN), increase thrust and retract flaps simultaneously.

4. Airspeed — V_{REF} +10 MINIMUM
5. Rudder Trim — AS REQUIRED

NOTE: Full rudder trim may be required. Use rudder pedal force as necessary to maintain slip indicator ball centered.

6. Yaw Damper — RE-ENGAGE
7. Refer To SINGLE ENGINE LANDING Checklist (page E-2), GO- AROUND (below), and ENGINE FAILURE — SHUT-DOWN IN FLIGHT (page E-2) As Applicable

NOTE: Autopilot may be re-engaged, if desired. Disengage at a minimum of 200 ft AGL.

GO-AROUND (one engine)

WARNING: With less than 600 lbs of fuel in either wing tank, prolonged nose-up attitude of 10° or more may cause fuel starvation and engine flameout.

On first steady illumination of LOW FUEL annunciator, reduce climb attitude and thrust to a minimum required.

1. Autopilot — DISENGAGE
2. Thrust Lever — TAKEOFF POWER OR AS REQUIRED
3. SPOILER Switch — CHECK/RET
4. Flaps — 20°

At positive rate of climb:

5. Gear — UP
6. Climb At Approach Climb Speed (approximately V_{REF} + 5)

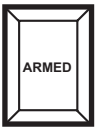
When clear of obstacles:

7. Accelerate To V_{REF} + 30; Retract Flaps

① 

Flashes red when sensing elements in nacelle indicate overheating in the affected engine. Depressing the FIRE warning light:

- closes fuel and hydraulic firewall shut-off valves
- shuts off bleed air from engine (510 system only)
- arms engine fire extinguisher system.

② 

Illuminates when engine fire extinguishing system is armed by FIRE warning light. Because the armed circuit does not perform a test of the system, the lights illuminate even when the fire extinguisher is inoperative or has been discharged previously. Push an ARMED light to discharge extinguisher contents.

ENGINE FIRE — SHUTDOWN

An engine fire is usually accompanied by other indications such as excessive EGT, erratic or rough engine operation, fluctuating engine indications, or smoke in the cabin.

Affected engine:

1. **Thrust Lever — CUTOFF (unless a critical thrust situation exists)**
2. **FIRE Warning Light — LIFT GUARD/DEPRESS**

NOTE: Depressing the FIRE light stops flow of fuel and hydraulic fluid to the engine (SOV light illuminates) and arms the fire extinguishing system. *On S/Ns 227 and subsequent* (510 system), it also shuts off bleed air from the engine.

3. **ARMED Light — DEPRESS ONE**

If fire continues:

4. **Remaining ARMED Light — DEPRESS**

If fire continues:

5. **Land As Soon As Possible**
6. ENG SYNC Switch — OFF
7. Yaw Damper — OFF/RETRIM/RE-ENGAGE
8. JET PUMP Switch — OFF
9. STANDBY PUMP Switch — OFF
10. START-GEN Switch — OFF
11. Electrical Load — REDUCE

CAUTION: The COOL-FAN switch should be off to prevent generator overload.

12. CROSSFLOW Switch — OPEN/MONITOR FUEL BALANCE

NOTE: Maintain slip indicator ball centered.

13. Refer to SINGLE ENGINE LANDING Checklist (page E-2).

③

Illuminates to indicate oil pressure in one or both engines is below 5 PSI. Operates independently of oil pressure gages on center instrument panel.

SB 25-31-1 modified annunciator by eliminating LO.

1. Oil Pressure Gage — CHECK PRESSURE OF BOTH ENGINES
2. Oil Pressure CB — CHECK

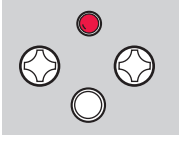
If flight conditions permit:

3. Precautionary Engine Shutdown — ADVISED

④

Illuminates to indicate nose landing gear is down and locked with engine synchronization switch in SYNC. Turn engine synchronization system off when gear is down and during single engine operations.

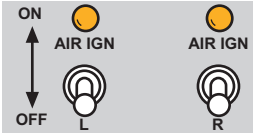
⑤



Illuminates to indicate firewall fuel valve switch has been depressed.

Depress FIRE switch to extinguish red firewall fuel valve (pinhead) light.

⑥

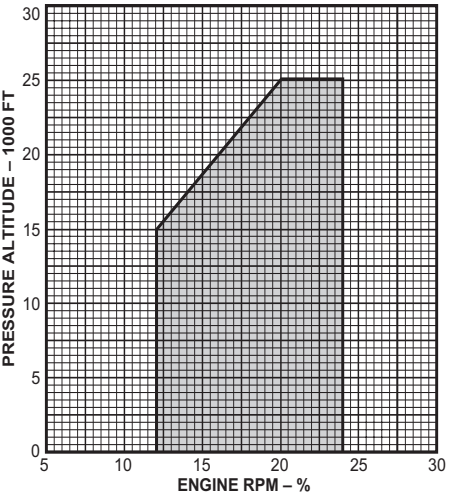


Illuminates to indicate air ignition system is operating. AIR IGN switch is in the ON position or system is in start cycle. AIR IGN switches should be in OFF when not required. Light also illuminates in conjunction with engine stall warning and shaker stall warning, when installed (see E-34).

ENGINE AIRSTARTS

WARNING: **Do not attempt an airstart following an engine failure accompanied by indication of internal engine damage or fire.**

RELIGHT ENVELOPE



NORMAL AIRSTART — STARTER ASSIST

Affected engine:

1. **Relight Envelope — CHECK (if conditions permit)**
2. **Thrust Lever — CUTOFF (wait 10 seconds)**
3. **Fuel Supply — CHECK (fuel available from wing tank)**
4. **Firewall Fuel Valve — OPEN (SOV light extinguished)**
5. **JET PUMP or STANDBY PUMP Switch — ON**
   - **CROSSFLOW Switch — CLOSE**
   - **FUS TANK XFER-FILL Switch — OFF**
   - **FUS VALVE Switch (if installed) — CLOSE**
6. **Electrical Load — REDUCE**
7. **NAC HEAT Switch — OFF**
8. **BLEED AIR Switch (if installed) — OFF**
9. **START-GEN Switch — START**
10. **Thrust Lever — IDLE**
11. **START-GEN Switch — GEN AT IDLE**
12. **BLEED AIR Switch (if installed) — ON**
13. **NAC HEAT Switch — AS REQUIRED**

If no light-off in 30 seconds:

14. **Thrust Lever — CUTOFF**
15. **START-GEN Switch — OFF**
16. **Repeat Procedure**

CAUTION: **Attempt no more than three consecutive starter assist airstarts to avoid generator burnout and severe battery drain.**

If engine does not restart:

17. **Perform WINDMILLING AIRSTART Checklist (page E-7)**

WINDMILLING AIRSTART

Affected engine:

1. Relight Envelope — CHECK
2. Thrust Lever — CUTOFF (wait 10 seconds)
3. Fuel Supply — CHECK (fuel available from wing tank)
4. Firewall Fuel Valve — OPEN (light extinguished)
5. JET PUMP Switch — OFF
   - STANDBY PUMP Switch — ON
   - CROSSFLOW Switch — CLOSE
   - FUS TANK XFER-FILL Switch — OFF
   - FUS VALVE Switch (if installed) — CLOSE
6. START-GEN Switch — OFF
7. Electrical Load — REDUCE
8. NAC HEAT Switch — OFF
9. BLEED AIR Switch (if installed) — OFF
10. AIR IGN Switch/Light — ON
11. Thrust Lever — IDLE/CHECK FOR FUEL FLOW

At idle:

12. AIR IGN Switch/Light — OFF
13. START-GEN Switch — GEN
14. JET PUMP Switch — ON
    - STANDBY PUMP Switch — OFF
    - CROSSFLOW Switch — AS DESIRED
    - FUS TANK XFER-FILL Switch — AS DESIRED
    - FUS VALVE (if installed) Switch — AS DESIRED
15. Bleed Air Switch — ON
16. NAC HEAT Switch — AS REQUIRED

If no light-off in 30 seconds:

17. Thrust Lever — CUTOFF
18. AIR IGN Switch — OFF
19. Repeat WINDMILLING Or NORMAL AIRSTART-STARTER AIRSTART Checklist

If engine does not restart:

20. Perform ENGINE SHUTDOWN IN FLIGHT Checklist (page E-2)

INADVERTENT THRUST REVERSER DEPLOYMENT DURING TAKEOFF BELOW V_1

1. Thrust Lever — IDLE
2. Wheel Brakes APPLY
3. Spoilers — EXTEND
4. Thrust Reversers — DEPLOY BOTH

INDICATION OF THRUST REVERSER DEPLOYMENT DURING TAKEOFF ABOVE V_1

1. Rudder/Ailerons — AS REQUIRED
2. Affected Thrust Lever — IDLE
3. T/R Arming Switches — OFF
4. NORMAL-EMER Stow Switch (affected engine) — EMER STOW

If DEPLOY or UNSAFE light remains illuminated (stow is unsuccessful):

5. ENGINE SHUTDOWN IN FLIGHT Checklist — PERFORM (page E-2)
6. Rotate At V_R /Climb At V_2
   Increased rudder and aileron necessary immediately after liftoff to maintain controllability.

When airspeed permits:

7. Gear — UP
8. Flaps — UP
9. Affected T/R Power CB (PRI LATCH) — PULL
10. Affected T/R Aux Latch CB (AUX LATCH) — PULL
11. Land As Soon As Possible

If DEPLOY light extinguishes and UNSAFE light illuminates, then extinguishes (stow is successful):

5. Thrust (affected engine) — FORWARD IDLE TO CONTINUE TAKEOFF

UNSAFE OR ARM LIGHTS ILLUMINATED — IN FLIGHT

Affected engine:

1. T/R Arming Switch — OFF
2. NORMAL-EMER Stow Switch — EMER STOW
3. T/R CONT, PWR (Pri Latch), AUX (Aux Latch) CBs — PULL

UNSUCCESSFUL STOW — GROUND OPERATIONS

Affected engine:

1. T/R Arming Switches — OFF
2. NORMAL-EMER Stow Switch — EMER STOW

CAUTION: If above steps do not result in a successful stowing, shut down engine as soon as practical, observing the 3-minute time limit.

⑦ ARM — Illumination indicates thrust reversers are armed and aircraft is on the ground.

⑧ UNSAFE — Illumination indicates thrust reverser buckets are in transit. Normal indication during thrust reverser deployment on ground.

⑨ DEPL — Illumination indicates that the thrust reverser buckets are fully deployed and that sub-throttles are unlocked and can be moved. Normal indication during thrust reverser operation.

INADVERTENT THRUST REVERSER DEPLOYMENT IN FLIGHT

Cycling illumination of UNSAFE light during flight indicates reverser is drifting from the stow position and being re-stowed by auto-stow system.

Affected engine:

1. Thrust Lever — IDLE
2. NORMAL-EMER Stow Switch — EMER STOW
3. Airspeed — BELOW 200 KIAS
4. Affected T/R Power CB (PRI LATCH) — PULL
5. Affected T/R Aux Latch CB (AUX LATCH) — PULL

If DEPLOY light extinguishes and UNSAFE light illuminates, then extinguishes (stow is successful):

6. Thrust (affected engine) — FORWARD THRUST MAY BE USED (see LANDING WITH T/R DEPLOYED OR DISABLED Checklist below)

If DEPLOY or UNSAFE lights remain illuminated (stow is unsuccessful):

6. ENGINE SHUTDOWN IN FLIGHT Checklist — PERFORM (page E-2)
7. Land At Nearest Suitable Airport (see LANDING WITH T/R DEPLOYED OR DISABLED Checklist below)

LANDING WITH ONE T/R DEPLOYED OR DISABLED

1. NORMAL-EMER Stow Switch (unaffected engine) — NORMAL
2. T/R Arming Switches — OFF

After touchdown with nose wheel on ground:

3. Thrust Lever (affected engine) — IDLE

Unaffected engine:

4. T/R Arming Switch — ARM
5. T/R Sub-throttle — REVERSE IDLE/DEPLOY
6. T/R Sub-throttle — REVERSE (observe limits)

NOTE: Maintain directional control by regulating reverse thrust and using differential braking and nosewheel steering.

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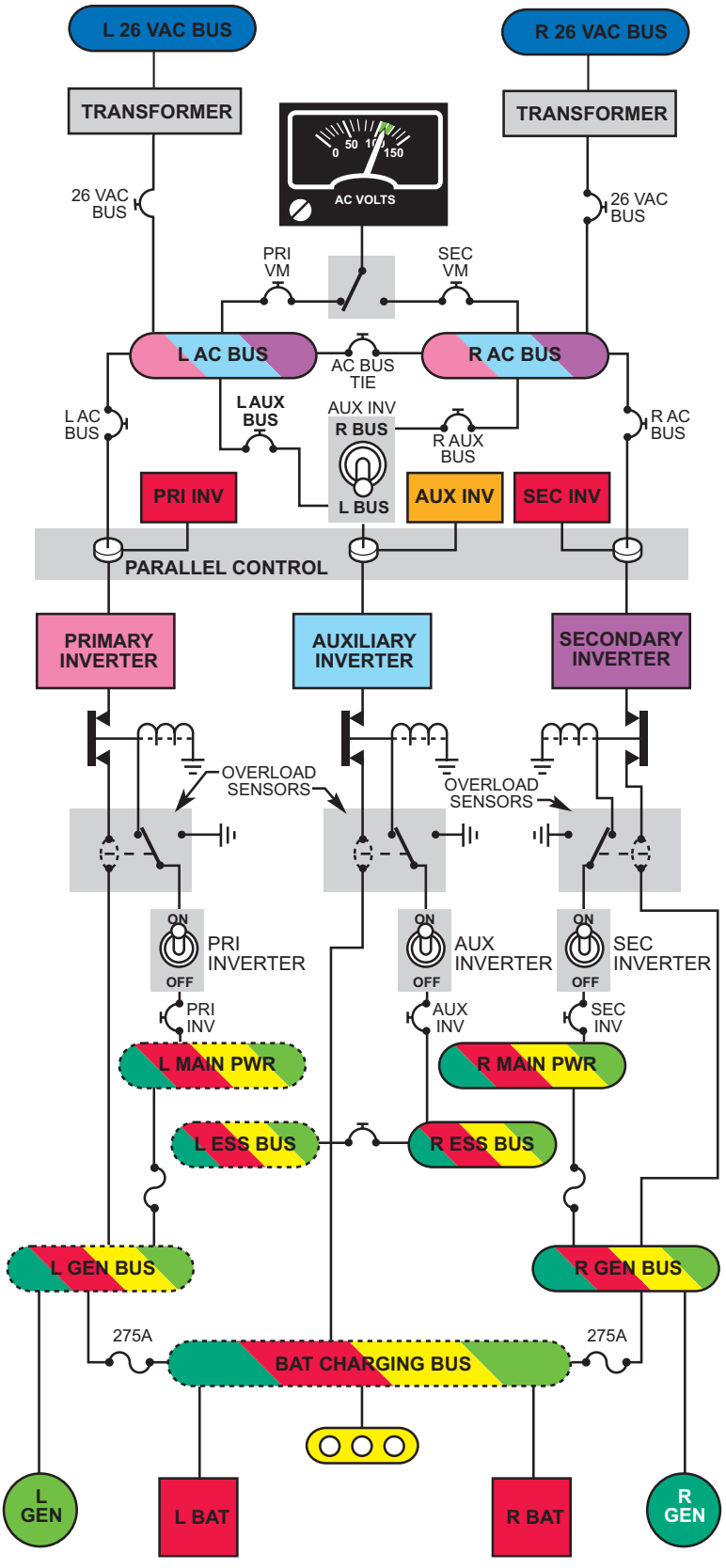
AC ELECTRICAL SCHEMATIC



⑩ 

Illumination indicates the designated inverter is off or voltage and/or current flow on the corresponding AC bus is below minimum. The most likely cause is either an inverter failure, INV CB or AC BUS CB open. The PRI and SEC INV lights also illuminate whenever battery switches are on and respective inverter switches off.

The AUX INV annunciator illuminates only when switch is on and the inverter has failed.

COMPLETE AC POWER FAILURE

1. Aircraft Control — MAINTAIN BY REFERENCE TO EMERGENCY GYRO
2. Instrument Flight Conditions — AVOID
3. INV And AC BUS CBs — RESET IF OPEN
4. AC BUS TIE CB — PULL IF NOT OPEN
5. AC Electrical Load — REDUCE
6. INVERTER Switches — OFF/THEN ON ONE AT A TIME

If AC power not regained:

7. INV CBs — PULL/RESET

If AC power not regained:

8. Airspeed — MAINTAIN AT LEAST 250 KIAS UNTIL APPROACH IMPROVES STABILITY

If AC power not regained, partial list of inoperative equipment.. Do not use:

- *vertical and directional gyros*
- *autopilot and yaw dampers*
- *avionics displays*
- *EPR indicators*
- *electrical servoed altimeter(s)*
- *engine oil pressure indicators*
- *nosewheel steering*

NOTE: If auxiliary inverter installed, it should remain off until checklist is complete. After checklist complete, turn auxiliary inverter on.

PARTIAL AC POWER FAILURE

PRI or SEC annunicator illuminated:

1. INV and AC BUS CBs — CHECK/RESET

NOTE: Allow approximately one minute cooling before resetting either CB.

2. Failed INVERTER Switch — OFF/THEN ON
3 Failed INV CB — PULL/THEN RESET

If malfunction does not clear:

4. Failed INVERTER Switch — OFF
5. Corresponding AC BUS CB — PULL
6. AC BUS TIE CB — CHECK/RESET

NOTE: If AC BUS TIE CB remains in and only one inverter operational, reduce load on both AC buses.

If AC BUS TIE CB opens:

7. Leave Open

If auxiliary inverter system installed:

8. AUX INVERTER Switch — SELECT FAILED BUS
   Malfunction of the auxiliary system (after being connected to the failed AC bus) indicates a fault on the AC bus.

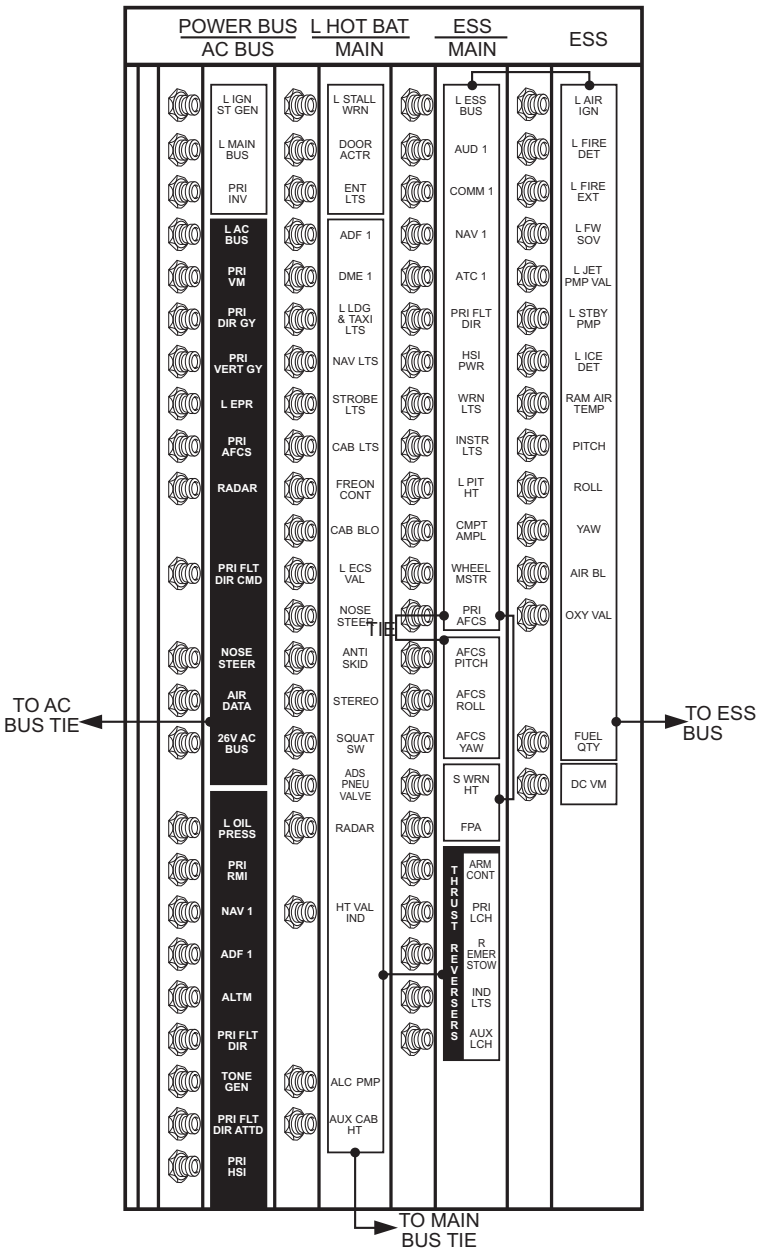
If auxiliary inverter system malfunctions:

9. Corresponding AUX AC BUS CB — PULL
10. Aux Inverter Bus Switch — SELECT OPPOSITE AC BUS
11. Aux INV CB — CHECK/RESET
    Allow approximately one minute cooling before resetting an inverter CB.

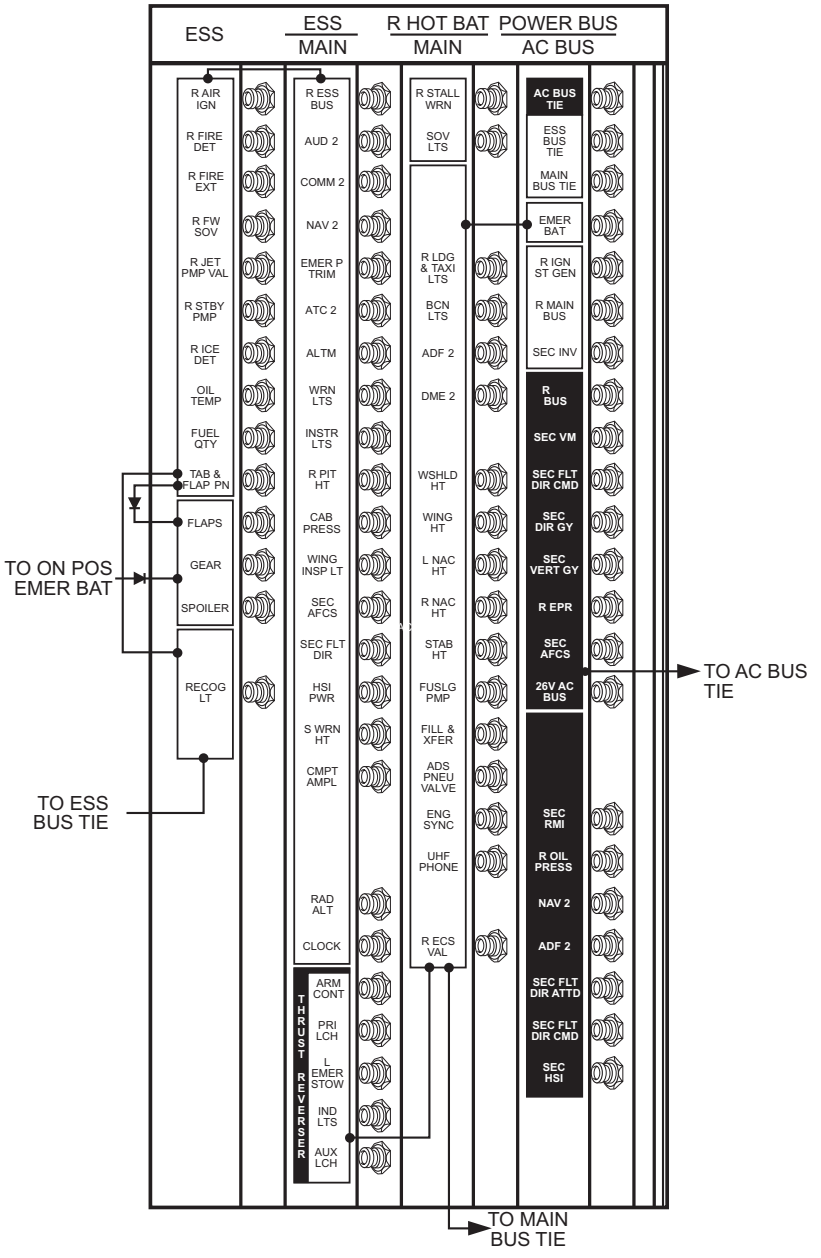
AUX INV annunciator illuminated:

1. AUX INVERTER Switch — OFF
2. L/R AUX AC BUS CBs — PULL

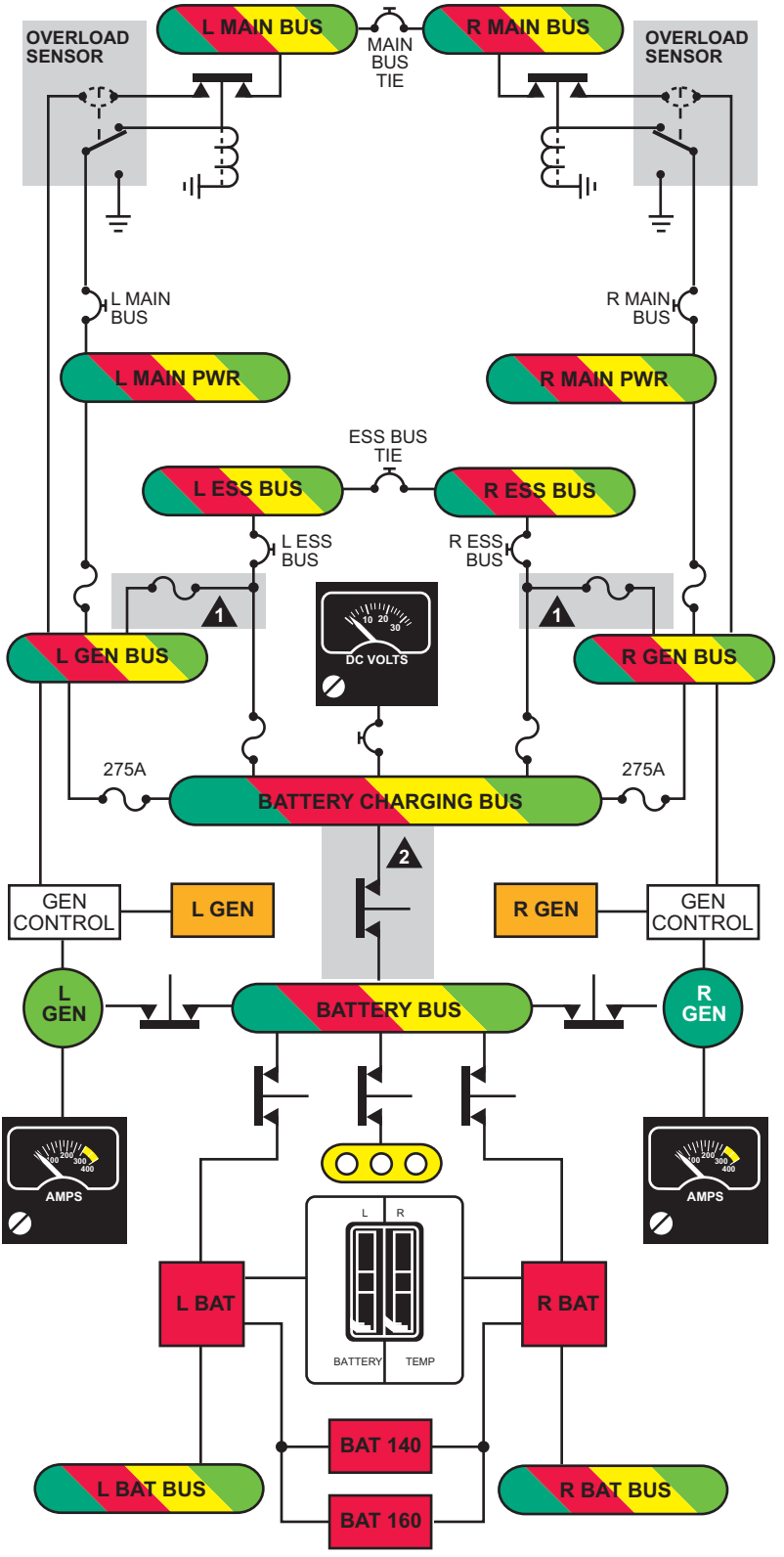
PILOT CB PANEL



COPILOT CB PANEL



DC ELECTRICAL SCHEMATIC



1 LEAR 25D 368 AND SUBS. OR INCORPORATING AMK 85-1.

2 SINGLE BATTERY SWITCH RELAY LOCATION.

DC POWER LOSS — ESSENTIAL BUS

If an ESS BUS CB opens in flight:

1. ESS BUS TIE CB — PULL IF NOT ALREADY OPEN

NOTE: Do not reset ESS BUS TIE circuit breaker.

2. Essential Bus Electrical Load — REDUCE
   - AFCS PITCH CB — PULL
   - AFCS ROLL CB — PULL
   - instrument panel rheostats — OFF (if conditions permit)
   - Restrict operation of the following to one at a time:
     - pitch, roll, and yaw trims
     - communication transmissions
     - fuel transfer and standby pumps
     - flaps
     - landing gear
3. ESS BUS CB — RESET

If ESS BUS CB does not hold:

4. Wait At Least One Minute Before Attempting Another Reset

If ESS BUS CB holds after reset:

4. Electrical Load — ADD LOADS ONLY AS NECESSARY

NOTE: Do not reset ESS BUS TIE circuit breaker.

If ESS BUS CB opens again:

5. Essential Bus Electrical Load — REDUCE
   - AFCS PITCH CB — PULL
   - AFCS ROLL CB — PULL
   - PHONE — SELECT ON BOTH AUDIO PANELS (use headphones for communications)
   - instrument panel rheostat — OFF (if conditions permit)
   - Restrict operation of the following to one at a time:
     - pitch, roll, and yaw trims
     - communication transmissions
     - fuel transfer and standby pumps
     - flaps
     - landing gear
6. CBs On Failed ESS BUS — PULL
   - COMM
   - S WARN HT
   - PITOT HT
   - yaw damper
7. Primary Or Secondary Systems — SELECT
   - Pitch trim
   - Transponder (if dual)
   - Communications (COMM 1 or COMM 2)
   - Yaw Damper
8. ESS BUS TIE CB — RESET

NOTE: Frequently crosscheck airspeed/Mach, altitude and angle-of-attack displays against opposite system. Use reference from system on remaining essential bus if differences exist and icing conditions are present.

⑪ 

Illuminates to indicate temperature on one or both of the main electrical system batteries reaches 140°F.

Illuminates to indicate temperature on one or both of the main electrical system batteries reaches 160°F.

NOTE: If either light illuminates during flight, both batteries must be checked per Chapter 12 of the Maintenance Manual after landing.

BATTERY OVERHEAT

Aircraft with nickel-cadmium batteries.

1. BATT TEMP Indicator — MONITOR TO DETERMINE AFFECTED BATTERY
2. Affected Battery Switch — OFF

With BAT 140 annunciator illuminated:

3. Land as Soon as Practical

With BAT 160 annunciator illuminated:

3. LAND AS SOON AS POSSIBLE

SINGLE GENERATOR FAILURE

Monitor DC voltmeter. A malfunctioning generator may have caused an overvoltage condition that could drop the good generator off-line (voltage should be above normal volts).

1. Electrical Load — REDUCE
   - COOL-FAN Switch — OFF
   - Other Loads — SHED AS REQUIRED
2. START-GEN Switch — GEN
   - Switches must be in GEN for RESET switch to be effective.
3. GEN RESET Switch — RESET MOMENTARILY

If generator does not reset:

4 START-GEN Switch — OFF/THEN GEN
5. GEN RESET Switch — RESET MOMENTARILY

If generator still does not reset:

6. START-GEN Switch — OFF

⑫ 

Illuminates to indicate designated generator has failed, or is not on-line because of incorrect voltage, or generator switch in OFF or START.

DUAL GENERATOR FAILURE

1. Electrical Load — REDUCE
   - COOL-FAN Switch — OFF
   - AUX HT Switch (if installed) — OFF
   - NAC HT Switches — OFF
   - STAB & WING HEAT Switch — OFF
2. START-GEN Switches — GEN
   Switches must be in GEN for RESET switch to be effective.
3. GEN RESET Switches — RESET MOMENTARILY

If generators do not reset:

4. START-GEN Switches — OFF/THEN GEN
5. GEN RESET Switches — RESET MOMENTARILY

If generators still do not reset:

6. START-GEN Switches — OFF
7. JET PUMP Switches — CHECK/ON

If fuel in fuselage tank:

Without FUS VALVE Switch:

- TANK XFER-FILL Switch — XFER
- FUSLG PMP CB (copilot Main bus) — PULL

With FUS VALVE Switch:

- VALVE Switch — OPEN (approximately 162 lbs of fuel unusable)

8. Land as Soon as Practical
9. Electrical Loads — SELECTIVELY REDUCE
   Fully charged batteries should power minimum electrical equipment for night instrument flight for approximately 30 minutes.

If batteries depleted:

10. EMERGENCY Power Switch — STBY (prior to operating gear or flaps, EMERGENCY Power Switch to ON)
11. Secondary EMERGENCY Power Switch (if installed) — ON
12. Do Not Exceed M_{MO} (0.74 M_I)/Stick Puller Inoperative

For conditions with this configuration, see E-20.

CONDITIONS FOR DUAL GENERATOR FAILURE

- *flight control trim remains at last setting*
- *engine EGT and RPM function normally*
- *autopilot and yaw dampers inoperative; descend to 20,000 ft or lower when conditions permit*
- *jet pumps supply fuel to engines; fuel system valves remain in last position; fuel quantity, flow, and counter indicators inoperative*
- *stick puller inoperative; do not exceed M_{MO} (0.74 M_I)*
- *all AC electrical systems inoperative*
- *stall warning inoperative; reference airspeed indicator to maintain adequate margin above stall*
- *engine fire detect and extinguishing systems inoperative*
- *nosewheel steering and anti-skid inoperative for landing*
- *pressurization AUTO mode not affected; on S/Ns 25-206 through 226, cabin temperature remains at last setting, wing and windshield heat not available; on S/Ns 227 and subsequent, emergency pressurization valves reposition to emergency: bleed air for wing and windshield and temperature control not available.*

⑬ EMER PWR

Illuminates to indicate emergency battery is supplying power with normal electrical power failed.

OR

⑬ EMER PWR 1 EMER PWR 2

Dual emergency batteries, if installed. Illuminates to indicate designated emergency battery is supplying power with normal electrical recharge failed.

1. EMERGENCY Power Switch — STBY

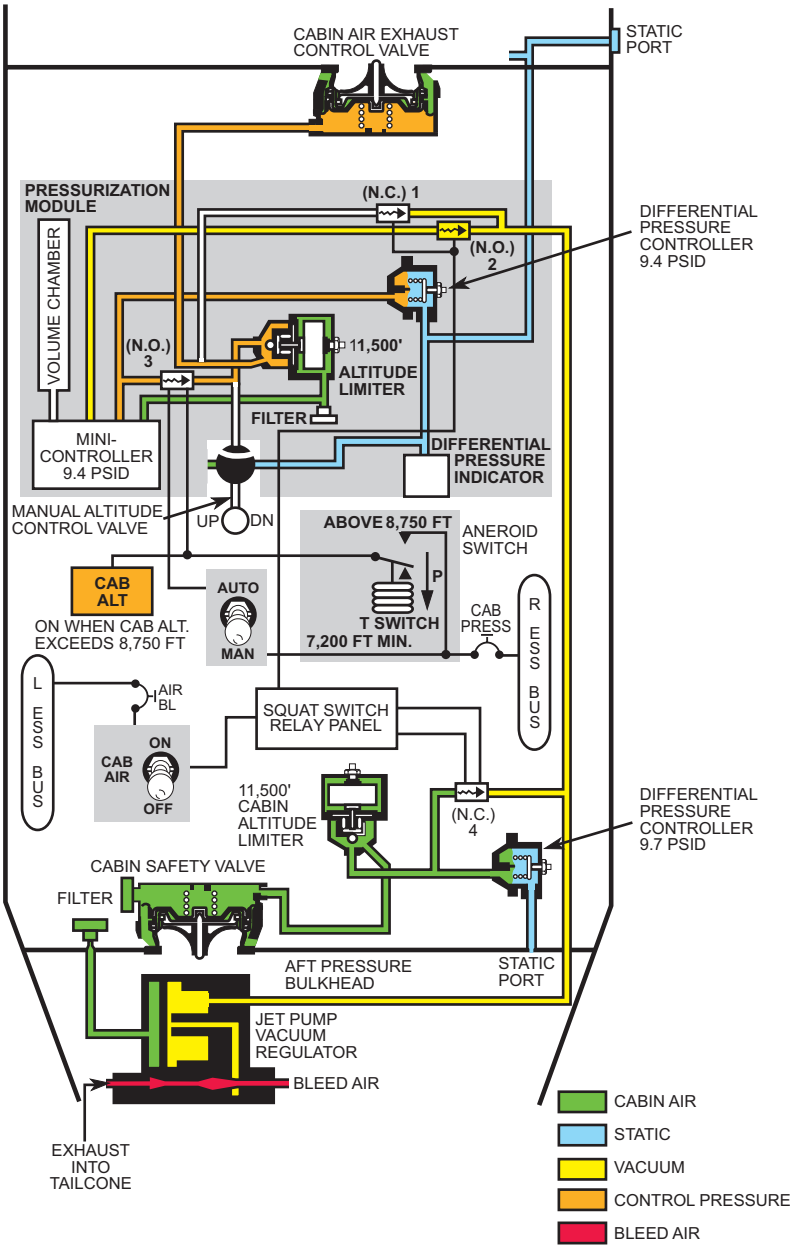
To lower gear and flaps:

2. Emergency Power 1 Switch — ON

SINGLE INSTALLATION				
Third Attitude Gyro	Gear	Spoilers	Flaps	Operating Time
●	●	●	●	30 min
●				3 hrs/45 min

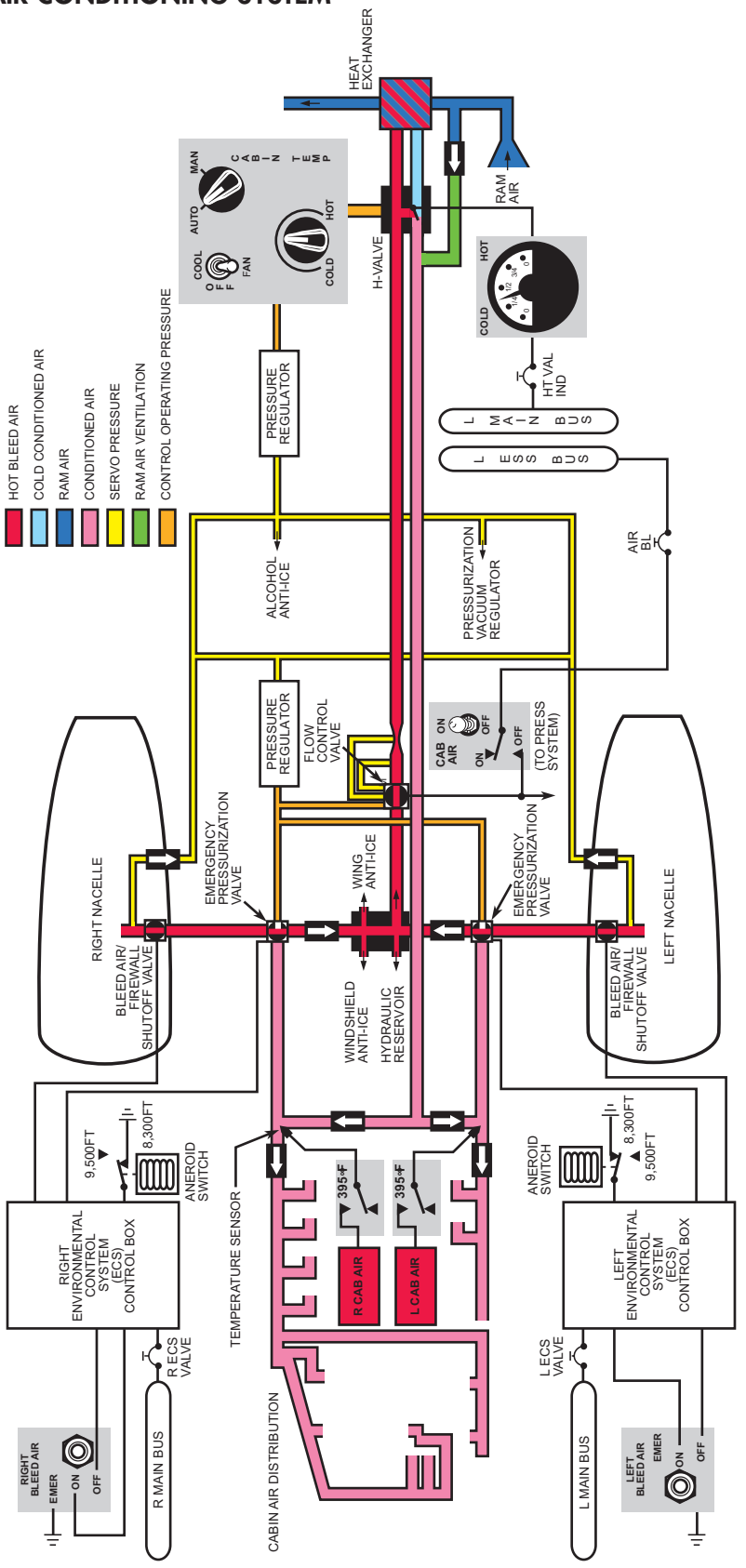
DUAL INSTALLATION					
Battery No.1			Battery No. 2		
Attitude Gyro	Gear Flaps Spars	Operating Time	Dir Gyro	Flaps	Operating Time
●	●	30 min	●	●	2 hrs/30 min
●		3 hrs/45 min	●		3 hrs/30 min

PRESSURIZATION SYSTEM



S/Ns 227 and subsequent (510 Pressurization System)

AIR CONDITIONING SYSTEM



S/Ns 227 and subsequent (510 Pressurization System)

CABIN ALTITUDE WARNING HORN ACTIVATES OR CABIN ALTITUDE EXCEEDS 10,000 FEET (EMERGENCY DESCENT)

1. Crew Oxygen Masks — DON/SELECT 100% OXYGEN
2. Thrust Levers — IDLE
3. Autopilot — DISENGAGE
4. SPOILER Switch — EXT
5. Gear — DOWN BELOW V_{LE} or M_{MO} AS APPROPRIATE FOR ALTITUDE (keep sideslip angles to a minimum [ball centered] when extending gear)
6. Descend At V_{LE} or M_{MO} As Appropriate, But NOT Below Minimum Safe Altitude
7. PASS OXY Valve — NORM
8. PASS MASK Valve — MAN

WARNING: If pressurization loss is due to structural failure, limit speeds and maneuvering loads as much as possible in descent.

NOTE:
- Descent from 45,000 ft to 15,000 ft requires approximately 2 minutes, 45 seconds
- Descent from 51,000 ft to 15,000 ft requires approximately 3 minutes.
- Hats and "ear-muff" type headsets must be removed prior to donning crew oxygen masks.
- The HORN SILENCE switch will mute the cabin altitude warning horn for 60 seconds.

9. Pilot and Copilot OXY-MIC Switches — ON

If time and conditions permit:

10. Transponder — EMERGENCY 7700
11. Notify Controlling Agency
12. Check Condition of Passengers and Provide Assistance (if conditions permit)

NOTE: Communication with passengers can be accomplished by using the PASS SPKR function on the AUDIO CONTROL panel.

CABIN OVERPRESSURIZATION

1. AUTO MAN Switch — MAN
2. UP DN Manual Control — UP AS REQUIRED

If no effect:

3. One BLEED AIR Switch — OFF
4. Power On Opposite Engine — ADJUST

FAILURE TO DEPRESSURIZE ON GROUND

1. CAB AIR Switch — OFF

S/Ns 227 and subsequent (510 Pressurization System)

CABIN/COCKPIT FIRE, SMOKE, OR FUMES

1. Oxygen Masks — DON/100%

NOTE: If 6600214 series mask regulator does not seal properly, select EMER or EMERGENCY on regulator.

2. Smoke Goggles (if available) — DON
3. PASS OXY/PASS MASK Valves — NORM/MAN
   Passengers must don masks and pull lanyard free. Masks should remain on until smoke or fumes eliminated.

NOTE: Because normal airflow evacuates smoke or fumes, no action is normally required by the crew.

4. OXY-MIC Switches — ON

NOTE: Accomplish communications between crew members with the INPH function on the audio control panel. Increase the MASTER VOL level.

If source not known or fire cannot be extinguished:

5. Land As Soon As Possible

If source known:

5. Extinguish Fire/Eliminate Smoke or Fumes
   - Land As Soon As Practical
6. Cockpit Door/Curtain — OPEN

If smoke or fumes continue:

7. One or Both Bleed Air Switches — EMER UNTIL SMOKE/FUMES ELIMINATED
   Advancing thrust levers increases airflow.
8. AUTO MAN Switch — MAN
9. UP DN Manual Control — UP 13,000 FT MAX ALT

If bleed air system is suspected source:

10. R BLEED AIR Switch — OFF

If smoke/fumes not reduced:

11. R BLEED AIR Switch — ON
12. L BLEED AIR Switch — OFF

If smoke/fumes reduced:

13. Continue Operation With Switch Off

continued on next page

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If electrical fire, smoke, or fumes:

11. All Non-Essential Electrical Equipment — OFF
12. Copilot CB Panel — PULL
    - Bus CBs (R MAIN, R AC, 26V AC, R AUX AC if installed, R ESS)
    - All bus tie CBs (AC, ESS, MAIN)
    - R IGN & ST
    - SEC INV
    - SOV LTS
    - R STALL WARN

NOTE: Allow time for smoke or fumes to dissipate.

If smoke and fumes continue:

13. All BUS TIE CBs — LEAVE PULLED
14. All Other R CB Panel CBs — RESET
15. Pilot CB Panel — PULL
    - All Bus CBs (L AC, L AUX AC if installed, 26V AC, L MAIN, L ESS)
    - L IGN & ST-GEN
    - PRI INV
    - L STALL WARN
    - DOOR ACTR
    - ENTRY LT

NOTE: Allow time for smoke or fumes to dissipate.

If smoke and fumes continue:

16. EMERGENCY Power Switch(es) — OFF

To restore unaffected electrical systems:

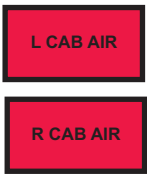
17. All BUS TIE CBs — LEAVE PULLED
18. All CBs On Unpowered Side — PULL
19. One DC Bus CB — RESET
20. Corresponding CBs For Bus — RESET ONE AT A TIME

NOTE: Pause after resetting to determine defective system. Whenever high electrical loads or smoke or fume occur, pull last CB reset.

Hot wired CBs should be reset in sequence with other CBs on that bus row (page E-14–15)

21. Repeat Steps 20 and 21 For Each Bus
22. R or L AC BUS Circuit Breaker (as applicable) — RESET
    Reset CBs powered by that AC bus CB.

S/Ns 227 and subsequent (510 Pressurization System)

⑭ 

Illuminates to indicate an overheat condition in the respective bleed air ducting.

1. Corresponding Bleed Air Switch — OFF

⑮ 

Illuminates to indicate cabin altitude above 8,750 ft ± 250 and automatic mode is deactivated. Control pressure to the outflow valve is trapped.

CAB ALT LIGHT ILLUMINATES OR CABIN ALTITUDE EXCEEDS 8500 FEET

1. Crew Oxygen Masks — DON/SELECT 100% OXY

NOTE: Whenever cabin altitude exceeds 8,750 (± 250) feet, control pressure to the outflow valve is trapped. This deactivates the Automatic Mode and stops cabin altitude from rising higher if the failure is in the automatic control system.

2. If Aircraft is Climbing, Stop Climbing and Level Off at (or descend to) the Nearest Appropriate Altitude
3. Pilot and Copilot OXY-MIC Switches — ON

NOTE: Communication between crew members can be accomplished by using the INPH function on the AUDIO CONTROL panel and increasing the MASTER VOL level.

4. CAB AIR Switch — ON
5. Both BLEED AIR Switches — ON
6. Cabin Altitude — CHECK
7. If cabin altitude continues to climb:
   a. AUTO/MAN Switch — MAN
   b. UP/DN Manual Control (red) — AS REQUIRED TO MAINTAIN SATISFACTORY PRESSURIZATION

   If cabin altitude continues to climb:
   c. Both BLEED AIR Switches — EMER

NOTE:
- Windshield and wing bleed air anti-ice are not available with both left and right bleed air systems in the emergency pressurization mode. Nacelle heat and windshield/radome alcohol anti-ice available.
- The emergency pressurization valves will automatically reposition to the emergency mode and route full bleed air into the cabin at 9,500 (± 250) feet cabin altitude.

continued on next page

S/Ns 227 and subsequent (510 Pressurization System)

continued from previous page

If cabin altitude stabilizes at a safe altitude:

a. Continue Flight (continued use of the oxygen system is at the crew's discretion.

b. If cabin temperature becomes hot from the use of Emergency Bleed Air:

(1) Set affected engine RPM to 90% or below
Ensure affected engine RPM is 90% or below before setting BLEED AIR switch OFF. This will prevent possible engine flameout.

(2) One BLEED AIR Switch — OFF. Ensure cabin pressure is maintained. It is recommended that the Left BLEED AIR switch be set to OFF first because the RH air distribution system delivers air more evenly to the crew compartment and cabin and is required for internal defog of the windshield.

(3) If temperature is still too high, reduce power on engine supplying bleed air.

TO RETURN TO NORMAL PRESSURIZATION AIRFLOW

NOTE: If cabin altitude exceeds 8,750 (± 250) feet, the Automatic Pressurization mode is deactivated and the amber CAB ALT light will illuminate. Automatic mode operation will not be available until cabin altitude is decreased to extinguish the CAB ALT light.

If normal operation is assured and the CAB ALT light is out, the following procedure accomplishes resetting emergency pressurization valves and reactivation of automatic pressurization mode.

1. CAB AIR Switch — ON
2. AUTO/MAN Switch — MAN
3. UP-DN Manual Control (red) — UP or DN (as required to maintain cabin altitude below 7,200 feet)
4. One BLEED AIR Switch — OFF/THEN ON
5. Other BLEED AIR Switch — OFF/THEN ON
6. UP-DN Manual Control (red) — UP or DN (as required to maintain cabin altitude appropriate for flight altitude)

To return to automatic mode if desired:

7. CABIN CONTROLLER — SET APPROPRIATE CABIN ALTITUDE FOR FLIGHT ALTITUDE (at or below 7,200 feet)
8. UP-DN Manual Control (red) — UP or DN (as required to obtain cabin altitude selected on CABIN CONTROLLER)
9. AUTO/MAN Switch — AUTO

S/Ns 227 and subsequent (510 Pressurization System)

INADVERTENT EMERGENCY AIRFLOW ACTIVATION

1. Engine Power — 90% RPM OR BELOW

Without AMK 90-3:

2. L Or R ECS VAL Circuit Breaker — RESET IF OPEN

With AMK 90-3:

2. L Or R EMER PRESS Circuit Breaker — RESET IF OPEN
   Loss of electrical power activates emergency airflow

If emergency airflow continues:

3. One BLEED AIR Switch — OFF
   If flow stops, continue with switch off.

If emergency airflow still continues:

4. BLEED AIR Switch — ON
5. Other BLEED Air Switch — OFF

S/Ns 227 and subsequent (510 Pressurization System)

⑯ 

Illuminates to indicate one or more cabin doorlatching pins are not fully engaged or that the lower door hooking mechanism has not been disengaged.

DOOR LIGHT ILLUMINATED

WARNING: Do not approach door. Failure may be indicated by loud noise, pressurization leak, or rumble emanating from door area.

If illumination accompanied by evidence of door failure:

1. Cabin Altitude — UP TO MAX POSSIBLE

NOTE: Increasing cabin altitude to 9,000 ft reduces differential pressure while avoiding actuation of the emergency pressurization system. The amber CAB ALT annunciator illuminates.

2. Airspeed — REDUCE
3. Descent — ESTABLISH
4. FASTEN SEAT BELT Switch — ON
5. Land as Soon as Practical

If illumination not accompanied by evidence of door failure:

1. FASTEN SEAT BELT Switch — ON
2. Flight — CONTINUE
   Most probable cause is a latch pin switch malfunction.

PITCH AXIS MALFUNCTION

WARNING: Do not extend spoilers during any nose-down pitch upset at any speed because of significant nose-down pitching moment associated with spoiler deployment.

On any speed excursion beyond M_{MO}, elevator control must be smoothly and steadily applied to prevent encountering excessive aileron activity and air frame buffet. Beyond M_{MO}, a 1.5 G pullup may be sufficient to excite aileron activity; the G level must be limited to that required to maintain lateral control.

Control Wheel Master Switch deactivates pusher/puller. If malfunction encountered near stall, deactivation may compound the problem.

1. Control Wheel Master Switch — DEPRESS/HOLD
   Yaw damper and autopilot disengage; stabilizer trim actuator inoperative when switch held; pitch torquer inoperative when switch held (i.e., pusher and puller).
2. Attitude Control — AS REQUIRED
   - If nose-up, roll into bank or maintain existing bank until nose passes through horizon.
   - If nose-down, level wings before pulling nose up.
3. Thrust Levers — AS DESIRED
   - If high-speed/nose-down, reduce to IDLE immediately.
   - If near stall, advance thrust levers to accelerate out of stall regime.
4. STALL WARNING Switches — OFF
5. Pitch Trim Selector Switch — OFF

After control regained:

6. AFCS PITCH CB (pilot Ess bus) — PULL
7. Control Wheel Master Switch — RELEASE
8. Yaw Damper — ENGAGE

If conditions permit:

9. Malfunction — ISOLATE
10. Pitch Trim Selector Switch — OPERATE TO NORM/THEN EMER TO ISOLATE MALFUNCTIONING TRIM SYSTEM

If malfunction recurs in NORM pitch trim:

- Pitch Trim Selector Switch — EMER
- EMERGENCY Pitch Trim Switch (pedestal) — RETRIM AS REQUIRED
- PITCH Trim CB (pilot Ess bus) — PULL
  Do not exceed M_{Mo} (0.78 M1) when A/P not engaged.

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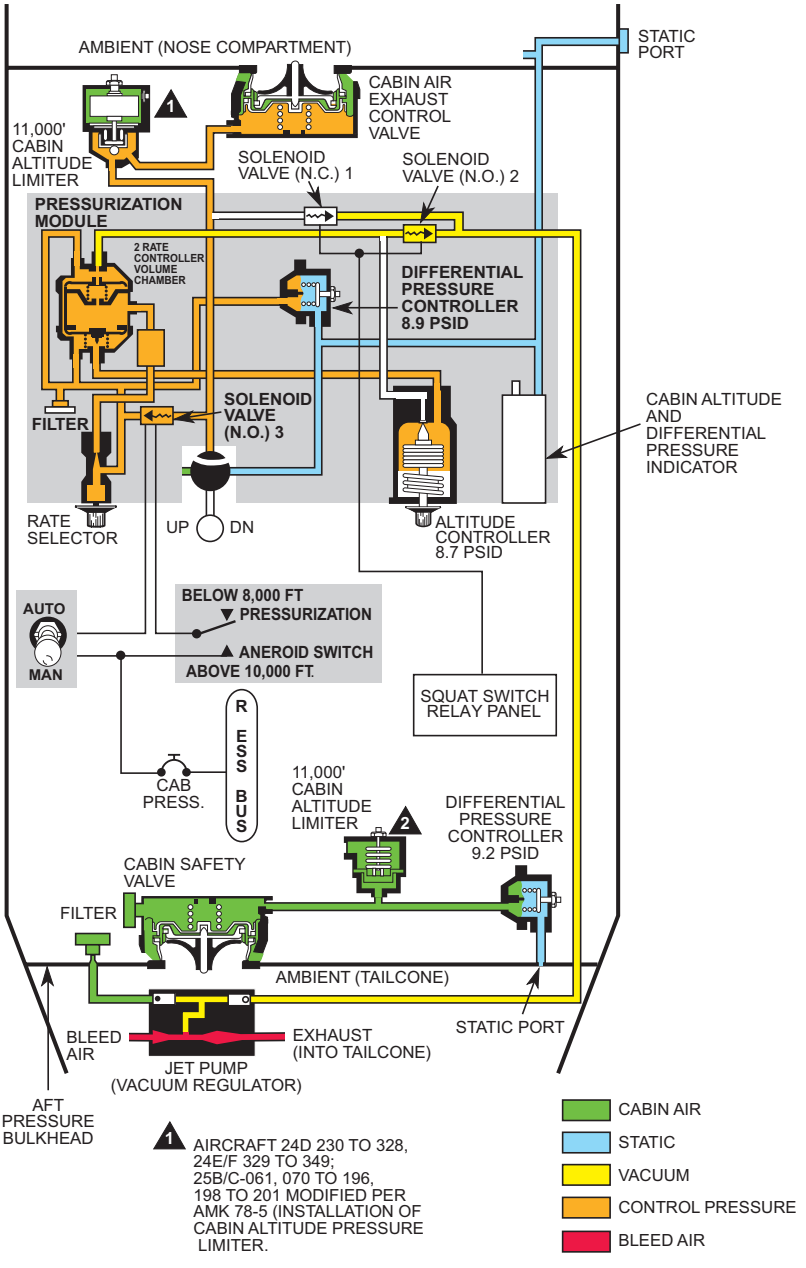
PRESSURIZATION SYSTEM



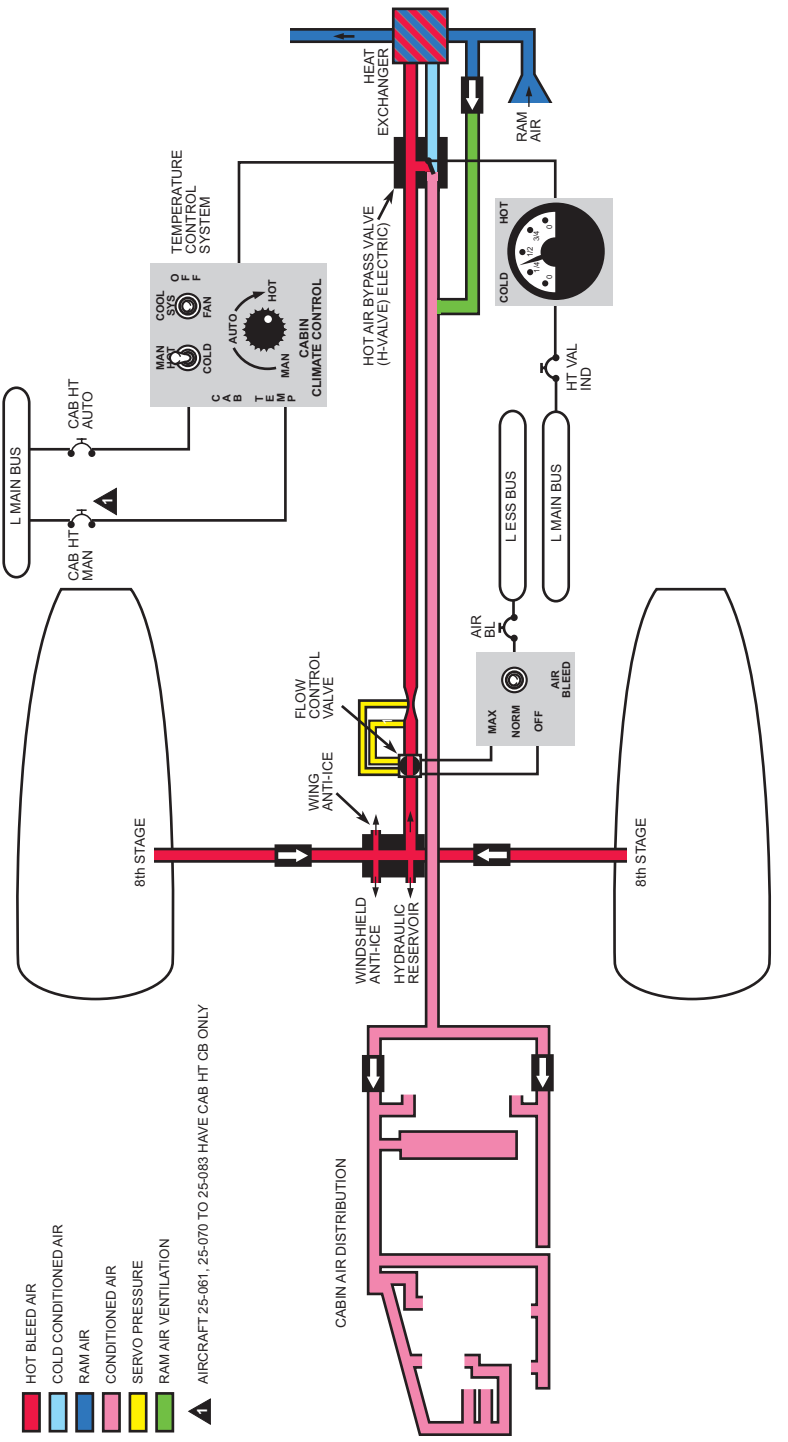
1 AIRCRAFT 24D 230 TO 328, 24E/F 329 TO 349; 25B/C-061, 070 TO 196, 198 TO 201 MODIFIED PER AMK 78-5 (INSTALLATION OF CABIN ALTITUDE PRESSURE LIMITER.

2 AIRCRAFT 24D 255 AND SUBSEQUENT, 24E/F.

AIRCRAFT 24D 230 TO 254; 25B/C-090, 25B/C-095 AND SUBSEQUENT AND PREVIOUS AIRCRAFT INCORPORATING AMK 72-3 (INSTALLATION OF CABIN ALTITUDE LIMITER).

S/Ns 061 to 226 (450 Pressurization System)

AIR CONDITIONING SYSTEM



S/Ns 061 to 226 (450 Pressurization System)

CABIN ALTITUDE WARNING HORN ACTIVATES OR CABIN ALTITUDE EXCEEDS 10,000 FEET (EMERGENCY DESCENT)

1. Crew Oxygen Masks — DON/SELECT 100% OXYGEN
2. Thrust Levers — IDLE
3. Autopilot — DISENGAGE
4. Spoilers — EXTEND
5. Landing Gear — DOWN BELOW V_{LE} or M_{MO} AS APPROPRIATE FOR ALTITUDE (keep sideslip angles to a minimum [ball centered] when extending gear)
6. Descend At V_{LE} or M_{MO} As Appropriate, But NOT Below Minimum Safe Altitude
7. Passenger Oxygen Masks — DEPLOY
   Refer to Section II of the AFM for manual deployment of the passenger oxygen masks.

WARNING: If pressurization loss is due to structural failure, limit speeds and maneuvering loads as much as possible in descent.

NOTE:
- Descent from 41,000 ft (45,000 ft for aircraft modified for 45,000 foot operation) to 15,000 ft requires approximately 2 minutes, 45 seconds
- *For aircraft certified for 51,000 feet:* Descent from 51,000 ft to 15,000 ft requires approximately 3 minutes.
- Hats and "ear-muff" type headsets must be removed prior to donning crew oxygen masks.
- The HORN SILENCE switch will mute the cabin altitude warning horn for 60 seconds.

8. Pilot and Copilot OXY-MIC Switches — ON

NOTE: Communication between crew members can be accomplished by using the appropriate function switch; INTER PH or INPH on the AUDIO CONTROL panel and increasing the MASTER VOL level.

If time and conditions permit:

9. Transponder — EMERGENCY 7700
10. Notify Controlling Agency
11. Check Condition of Passengers and Provide Assistance (if conditions permit)

NOTE: Communication with passengers can be accomplished by using the appropriate function switch; CABIN PA or PASS SPKR on the AUDIO CONTROL panel.

CABIN OVERPRESSURIZATION

1. AUTO MAN Switch — MAN
2. UP DN Manual Control — UP AS REQUIRED

If still unable to regulate pressure:

3. Engines — ADJUST POWER

FAILURE TO DEPRESSURIZE ON GROUND

1. AIR BLEED Switch — OFF

S/Ns 061 to 226 (450 Pressurization System)

CABIN/COCKPIT FIRE, SMOKE, OR FUMES

1. Oxygen Masks — DON/100%

NOTE: If 6600214 series mask regulator does not seal properly,select EMER or EMERGENCY on mask regulator.

2. Smoke Goggles (if available) — DON
3. PASS OXY/PASS MASK Valves — NORM/MAN
   Passengers must don masks and pull lanyard free. Masks should remain on until smoke or fumes eliminated.

NOTE: Because normal airflow evacuates smoke or fumes, no action is normally required by the crew.

4. OXY-MIC Switches — ON

NOTE: Accomplish communications between crew members with the INPH function on the audio control panel. Increase the MASTER VOL level.

If source not known or fire cannot be extinguished:

5. Land As Soon As Possible

If source known:

5. Extinguish Fire/Eliminate Smoke or Fumes
6. Land As Soon As Practical
7. Cockpit Door/Curtain — OPEN

If smoke or fumes continue:

8. AIR BLEED Switch — MAX
9. AUTO MAN Switch — MAN
10. UP DN Manual Control — UP 13,000 FT MAX

If bleed air system is suspected source:

11. R Engine Thrust — REDUCE

If smoke/fumes not reduced:

12. R Engine Thrust — RETURN TO ORIGINAL SETTING
13. L Engine Thrust — REDUCE

If smoke/fumes reduced:

14. Continue Operation With Reduce Setting

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If electrical fire, smoke, or fumes:

11. All Non-Essential Electrical Equipment — OFF
12. Copilot CB Panel — PULL
    - Bus CBs (R MAIN, R AC, 26V AC, R AUX AC, if installed, R ESS)
    - All bus tie CBs (AC, ESS, MAIN)
    - R IGN & ST
    - SEC INV
    - SOV LTS
    - R STALL WARN

NOTE: Allow time for smoke or fumes to dissipate.

If smoke and fumes continue:

13. All BUS TIE CBs — LEAVE PULLED
14. All Other R CB Panel CBs — RESET
15. Pilot CB Panel — PULL
    - All Bus CBs (L AC, L AUX AC if installed, 26V AC, L MAIN, L ESS)
    - L IGN & ST-GEN
    - PRI INV
    - L STALL WARN
    - DOOR ACTR
    - ENTRY LT

NOTE: Allow time for smoke or fumes to dissipate.

If smoke and fume continue:

16. EMERGENCY Power Switch(es) — OFF

To restore unaffected electrical systems

17. All BUS TIE CBs — LEAVE PULLED
18. All CBs On Unpowered Side — PULL
19. One DC Bus CB — RESET
20. Corresponding CBs For Bus — RESET ONE AT A TIME

NOTE: Pause after resetting to determine defective system. Whenever high electrical loads or smoke or fume occur, pull last CB reset.

Hot wired CBs should be reset in sequence with other CBs on that bus row (page E-14–15)

21. Repeat Steps 20 And 21 For Each Bus
22. R or L AC BUS Circuit Breaker (as applicable) — RESET
    Reset CBs powered by that AC bus CB.

⑮ 

If installed, illuminates to indicate cabin altitude above 10,000.

NOTE: This is an optional light and may or may not be installed.

CAB ALT LIGHT ILLUMINATES OR CABIN ALTITUDE EXCEEDS 8500 FEET

1. Crew Oxygen Masks — DON/SELECT 100% OXY

NOTE: **(Learjet Model 25)** Aircraft certified for 45,000 foot operation: In the event of cabin pressurization failure which causes cabin altitude to exceed 10,000 feet, an aneroid switch immediately closes the outflow valve. The outflow valve remains closed until cabin pressure returns to normal.

NOTE: **(Learjet Models 25 B/C)** In the event of cabin pressurization failure which causes cabin altitude to exceed 10,000 feet, an aneroid switch immediately closes the outflow valve and Automatic Mode is inoperative.

NOTE: **(Learjet 25D SNs 25-206 thru 25-226)** Whenever cabin altitude exceeds 8,750 (± 250) feet, the amber CAB ALT light illuminates and control pressure to the outflow valve is trapped. This deactivates the AUTO Mode and stops cabin altitude from rising higher if the failure is in the automatic control system.

2. If Aircraft is Climbing, Stop Climbing and Level Off at (or descend to) the Nearest Appropriate Altitude
3. Pilot and Copilot OXY-MIC Switches — ON

NOTE: **(Learjet Model 25)** Communication between crew members can be accomplished by using the appropriate function switch INTER PH or INPH on the AUDIO CONTROL panel and increasing the MASTER VOL level.

NOTE: **(Learjet Models 25 B/C, Models 25D SNs 25-206 thru 25-226)** Communication between crew members can be accomplished by using the INPH function on the AUDIO CONTROL panel and increasing the MASTER VOL level.

4. Air Bleed Switch — ON or NORM
5. Cabin Altitude — CHECK

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Learjet Model 25

6. If cabin altitude continues to climb:
   a. AUTO/MAN Switch — MAN
   b. CABIN ALT-MAN Switch, CABIN ALT-EMER Switch, or UP/DN Manual Control (red) — UP or DN (as required to maintain satisfactory pressurization)

   If cabin altitude continues to climb:
   c. Engine RPM — MAINTAIN
   d. Normal/Defog Knob — PUSH IN
   e. Windshield Heat Switch, ON/AUTO or Defog Switch — DEFOG (hold until maximum airflow is attained from footwarmer)

   If cabin altitude stabilizes at a safe altitude:
   a. Continue Flight (Continued use of the oxygen system is at the crew's discretion)

Learjet Models 25 B/C, Models 25D SNs 25-206 thru 25-226

7. If cabin altitude continues to climb:
   a. AUTO/MAN Switch — MAN
   b. UP/DN Manual Control (red) — UP or DN (as required to maintain satisfactory pressurization)

   If cabin altitude continues to climb:
   c. Engine RPM — MAINTAIN
   d. IN Normal/OUT DEFOG Knob — PUSH IN
   e. Windshield Heat Switch — AUTO
   f. AIRBLEED Switch — OFF

   If cabin altitude stabilizes at a safe altitude:
   a. Continue Flight (Continued use of the oxygen system is at the crew's discretion)

S/Ns 061 to 226 (450 Pressurization System)

TO RETURN TO NORMAL PRESSURIZATION AIRFLOW

If cabin pressurization control is regained in the manual mode and it is desired to return to Automatic Mode of operation, proceed as follows:

Learjet 25 Models 25 B/C

1. CABIN ALT Controller — SET AT OR BELOW 8,000 FEET

Learjet 25D SNs 25-206 thru 25-226

1. CABIN ALT Controller — SET AT OR BELOW 7,500 FEET
2. Rate Selector Knob — TURN TO FULL INCR
3. UP-DN Manual Control (red) — CONTROL TO ALTITUDE SELECTED ON CABIN ALT CONTROLLER
4. CABIN CLIMB Indicator — STABILIZE AT ZERO
5. RATE Knob — RESET TO NOMINAL POSITION
6. AUTO/MAN Switch — AUTO
7. CABIN ALT Controller — RESET (if required to appropriate cabin altitude for flight altitude)

S/Ns 061 to 226 (450 Pressurization System)

⑯ 

illuminates to indicate one or more cabin door latching pins are not fully engaged or that the lower door hooking mechanism has not been disengaged.

DOOR LIGHT ILLUMINATED

WARNING: Do not approach door. Failure may be indicated by loud noise, pressurization leak, or rumble emanating from door area.

If illuminated accompanied by evidence of door failure:

1. Cabin Altitude — UP TO MAX POSSIBLE

   Increasing cabin altitude to 9,000 ft reduces differential pressure while avoiding deactivation of the automatic pressurization system.

2. Airspeed — REDUCE
3. Descent — ESTABLISH
4. FASTEN SEAT BELT Switch — ON
5. Land as Soon as Practical

If illumination not accompanied by evidence of door failure:

1. FASTEN SEAT BELT Switch — ON
2. Flight — CONTINUE
   Most probable cause is a latch pin switch malfunction.

PITCH AXIS MALFUNCTION

WARNING: Do not extend spoilers during any nose-down pitch upset at any speed because of significant nose-down pitching moment associated with spoiler deployment.

On any speed excursion beyond M_{MO}, elevator control must be smoothly and steadily applied to prevent encountering excessive aileron activity and airframe buffet. Beyond M_{MO}, a 1.5 G pullup may be sufficient to excite aileron activity; the G level must be limited to that required to maintain lateral control.

Control Wheel Master Switch deactivates pusher/puller If malfunction encountered near stall, deactivation may compound the problem.

1. Control Wheel Master Switch — DEPRESS/HOLD
   Yaw damper and autopilot disengage; stabilizer trim actuator imperative when switch held; pitch torquer inoperative when switch held (e.g., pusher and puller).
2. Attitude Control — AS REQUIRED
   - If nose-up, roll into bank or maintain existing bank until nose passes through horizon.
   - If nose-down, level wings before pulling nose up.
3. Thrust Levers — AS DESIRED
   - If high-speed/nose-down, reduce to IDLE immediately.
   - If near stall, advance thrust levers to accelerate out of stall regime.
4. STALL WARNING Switches — OFF
5. Pitch Trim Selector Switch — OFF

After control regained:

6. AFCS PITCH CB (pilot Ess bus) — PULL
7. Control Wheel Master Switch — RELEASE
8. Yaw Damper — ENGAGE

If conditions permit:

9. Malfunction — ISOLATE
10. Pitch Trim Selector Switch — OPERATE TO NORM/THEN EMER TO ISOLATE MALFUNCTIONING TRIM SYSTEM

If malfunction recurs in NORM pitch trim:

- Pitch Trim Selector Switch — EMER
- EMERGENCY Pitch Trim Switch (pedestal) — RETRIM AS REQUIRED
- PITCH Trim CB (pilot Ess bus) — PULL
  Do not exceed M_{Mo} (0.78 M1) when A/P not engaged.

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If malfunction recurs in EMER pitch trim:

- Pitch Trim Selector Switch — NORM
- Control Wheel Trim Switch — RETRIM AS REQUIRED
- EMER P TRIM CB (copilot Ess bus) — PULL
  Do not exceed M_{Mo} (0.78 M_I); autopilot trim inoperative.

If malfunction does not recur:

- Pitch Trim Switch — NORM OR EMER AS DESIRED
- Trim — OPERATE AS REQUIRED
  Do not engage autopilot nor exceed M_{MO} (0.78 M_I).

If neither NORM nor EMER pitch trim restored:

- JAMMED STABILIZER LANDING Checklist (page E-53)

11. Stall Warning Switches — ON ONE AT A TIME
12. Appropriate Switch — OFF

If malfunction recurs:

NOTE: An abrupt nose-down control column movement is evidence of a stick pusher malfunction. A nose-up tendence below M_{MO} is evidence of a stick puller malfunction.

If malfunction in both stall:

- Airspeed — STALL + 30 (min)
- Bank Angles — LIMIT to 30° MAX
- Final Approach Speed — V_{REF} (landing configuration)

If malfunction in left stall

- Do Not Exceed M_{MO} (0.74 MI) (30,000 ft altitude for 25B/C). Stick puller is inoperative.

If malfunction does not recurs:

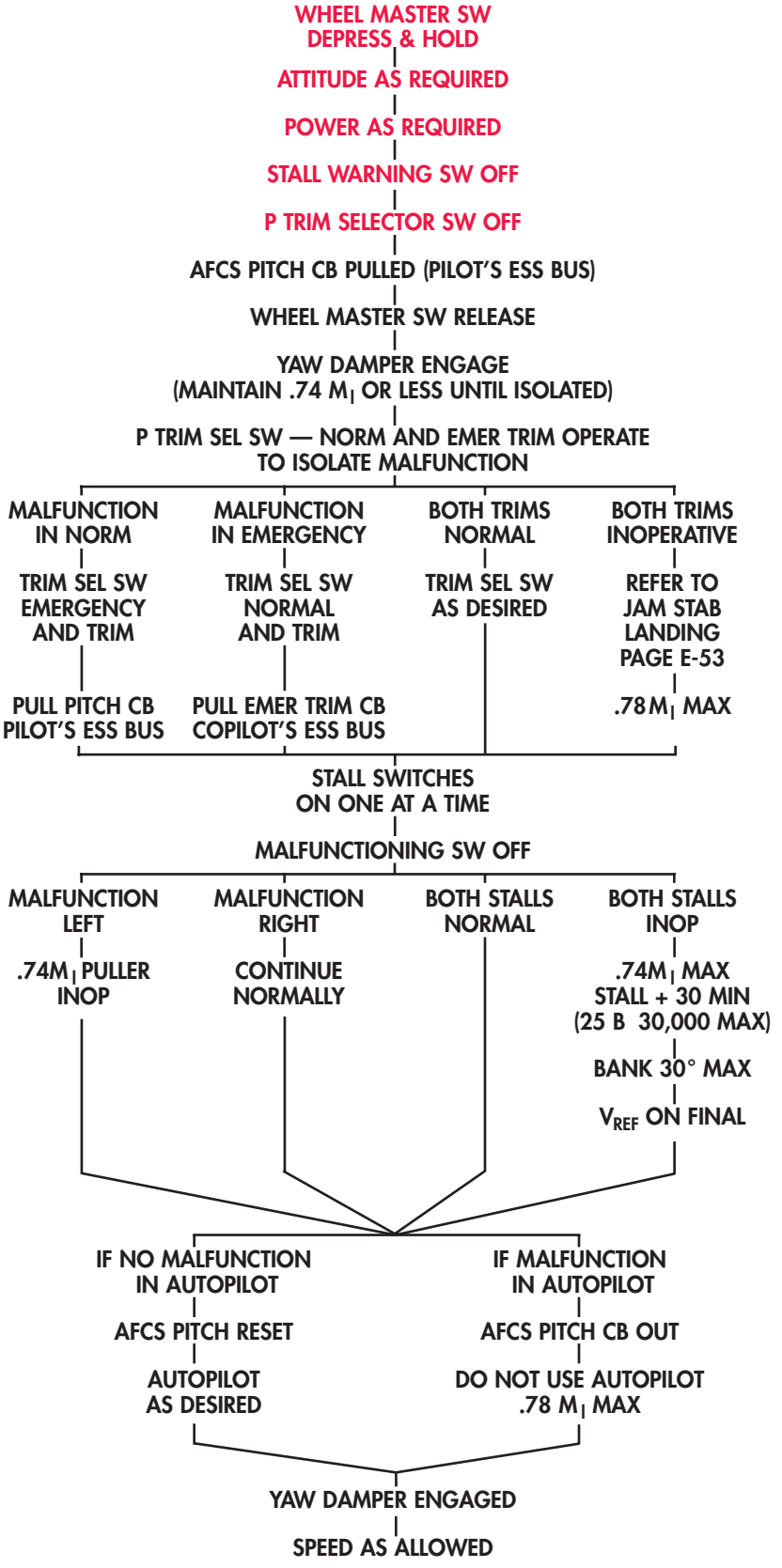
13. Do Not Engage Autopilot

If malfunction not isolated to autopilot:

- AFCS PITCH CB — RESET
- Autopilot — AS DESIRED

14. Yaw Damper (PRI or SEC) — CHECK ENGAGED

PITCH AXIS MALFUNCTION DECISION TREE



RECOVERY FROM INADVERTENT OVERSPEED

WARNING: Do not extend spoilers or operate aircraft with spoilers deployed at speeds above V_{MO}/M_{MO} due to significant nose-down pitching moment associated with spoiler deployment.

1. Thrust Levers — IDLE
2. Autopilot — DISENGAGE
3. Pitch And Roll Attitude — IDENTIFY

NOTE: Attitude may be difficult to identify from visual and instrument references in an extreme nose-down condition. Do not apply elevator force until bank angle is reduced to less than 90°. A pull elevator force when bank angle is greater than 90° increases the nose-down attitude.

4. Wings — LEVEL
5. Elevator And Pitch Trim — AS REQUIRED TO RAISE NOSE

WARNING: On any speed excursion beyond M_{MO}, elevator control must be smoothly and steadily applied to prevent encountering excessive aileron activity and air frame buffet. Beyond M_{MO}, a 1.5 G pullup may be sufficient to excite aileron activity; the G level must be limited to that required to maintain lateral control

If Mach or airspeed severe, or if pitch and/or roll attitude extreme or unknown:

6. Gear — DN

   Lowering gear at high speed increases drag and causes a moderate nose-up pitching moment that can be controlled, if anticipated.

CAUTION: Do not retract gear for remainder of flight. Minor damage to the landing gear door may occur when gear is lowered at very high speed. After landing, a thorough inspection of landing gear and doors must be made.

ROLL OR YAW AXIS MALFUNCTION

1. Control Wheel Master Switch — DEPRESS

Yaw damper and autopilot disengage and correct the malfunction if either was cause.

2. Attitude Control — AS REQUIRED

If force continues:

3. Airspeed — REDUCE TO DECREASE FORCE
4. Roll Or Yaw Trim CB pilot Essential bus) — PULL

If malfunction isolated to yaw damper:

5. Select Opposite Yaw Damper

If malfunction isolated to autopilot :

5. Do Not Engage Autopilot; Engage Yaw Damper

If malfunction isolated to roll or yaw trim:

5. Minimize Mistrim — USE ASYMMETRICAL THRUST AND FUEL IMBALANCE
6. Land As Soon as Practical
   A normal approach and landing can be made with only light control forces to overcome full roll or yaw trim.

TURBULENT AIR PENETRATION

1. Airspeed — 250 KIAS Or 0.73 M_I, WHICHEVER IS LESS
2. AIR IGN Switches — ON
   - Do not chase airspeed and altitude.
   - Thrust changes for extreme airspeed variation only.
   - Do not make sudden large control movements.
   - Do not change stab trim.
3. PRI Or SEC Yaw Damper — ENGAGE
4. Autopilot (if engaged) — DISENGAGE ALT, SPD HOLD MODES

SINGLE YAW DAMPER FAILURE

1. Remaining Yaw Damper — ENGAGE
2. Moderate/Severe Turbulence — AVOID
3. Before Next Flight — CORRECT PROBLEM

DUAL YAW DAMPER FAILURE

1. Airspeed — 250 KIAS OR HIGHER, WHERE APPLICABLE

NOTE: Airspeed improves Dutch roll stability. Landing with minimun tip fuel also improves Dutch roll stability and lateral control. With both yaw dampers inoperative, plan flight to land with both tip tanks empty.

2. Moderate/Severe Turbulence — AVOID
3. Land as Soon as Practical
4. Before Next Flight — CORRECT PROBLEM

⑰ PITCH TRIM OVSP

Illuminates to indicate trim speed monitor has detected a trim speed fault that allows high trim speed with flaps up.

1. Pitch Trim Selector Switch — EMER FOR REMAINDER OF FLIGHT
2. EMERGENCY Pitch Trim Switch (pedestal) — OPERATE TO MAINTAIN TRIM

⑱ TAKE-0FF TRIM

Illuminates to indicate horizontal stabilizer pitch trim setting is more than one-half degree outside the takeoff segment on the pitch trim indicator. Light does not illuminate during flight.

1. Horizontal Stabilizer — RETRIM TO WITHIN TAKEOFF SEGMENT ON INDICATOR

⑲ SPOILER

Illumination indicates either or both spoilers are not down and locked.

⑳ 

Steady illumination indicates a malfunction or loss of power to the affected stall warning system. Flashing illumination indicates actuation of the affected system shaker or pusher.

STALL WARNING SYSTEM FAILURE

If both systems failed or off:

1. Airspeed — STALL + 30 MIN
2. Bank Angle — 30° MAX
3. Final Approach Speed — V_{REF} MIN

If left systems failed and off:

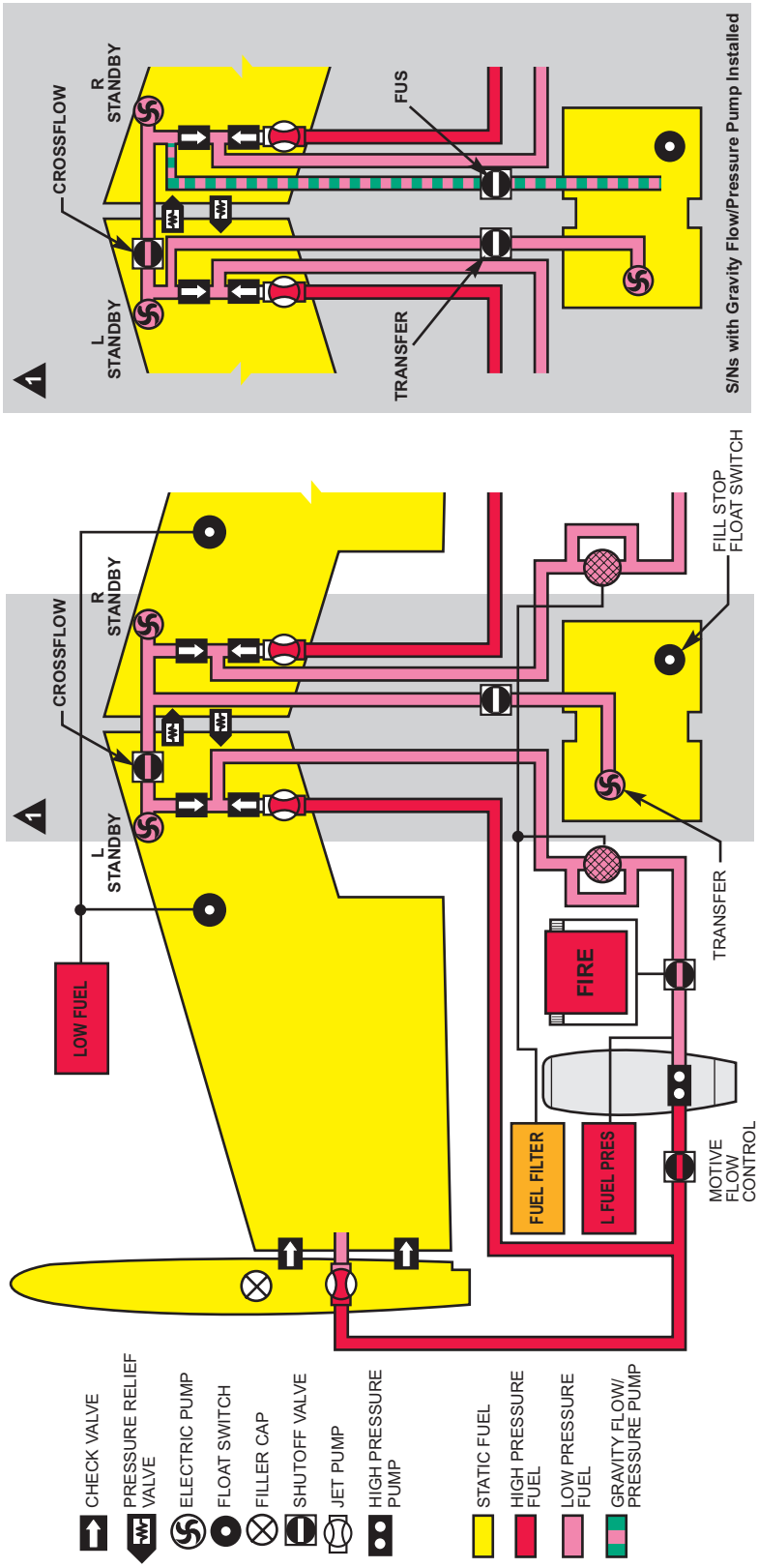
1. With Stick Puller Inop — DO NOT EXCEED M_{MO} (0.74M_I)

INADVERTENT ENGINE STALL WARNING
S/Ns 25-342, 363 and subsequent,: 25-230 through 341, 343 343 through 362 with AMK 81-12

Flashing STALL annunciators, shaker (if installed) actuation, and illumination of both AIR IGN annunciators indicate an inadvertent engine stall warning when airspeed is above aircraft and engine stall limits.

1. Airspeed — VERIFY ABOVE AIRCRAFT/ENGINE STALL LIMITS
2. R STALL Warning Switch — OFF
3. Engine Stall Warning CB (pilot's Main bus) — PULL
4. R STALL Warning Switch — ON

FUEL SYSTEM


CROSSFLOW
R STANDBY
L STANDBY
FUS
TRANSFER
S/Ns with Gravity Flow/Pressure Pump Installed
1
CROSSFLOW
R STANDBY
L STANDBY
FILL STOP FLOAT SWITCH
TRANSFER
LOW FUEL
FIRE
FUEL FILTER
L FUEL PRES
MOTIVE FLOW CONTROL
CHECK VALVE
PRESSURE RELIEF VALVE
ELECTRIC PUMP
FLOAT SWITCH
FILLER CAP
SHUTOFF VALVE
JET PUMP
HIGH PRESSURE PUMP
STATIC FUEL
HIGH PRESSURE FUEL
LOW PRESSURE FUEL
GRAVITY FLOW/ PRESSURE PUMP

㉑ 

Illuminates to indicate loss of fuel pressure to the engine. Probable cause is jet pump failure.

FUEL PRESS LIGHT ILLUMINATED

Affected engine:

1. STANDBY PUMP Switch — ON
2. AIR IGN Switch — ON
3. CROSSFLOW Switch — CLOSE
4. FUS TANK XFER-FILL Switch — OFF

NOTE: Fuselage fuel transfer deactivates wing standby pumps. Fuel in fuselage tank not available above 25,000 ft. Below 25,000 ft, the engine fuel pump suction feeds sufficient fuel to supply the engine; fuselage fuel transfer can be accomplished. Replan flight accordingly.

5. FUS VALVE Switch (if installed) — CLOSE
6. JET PUMP Switch — ON FOR TIP TANK FUEL TRANSFER

If FUEL PRESS annunciator does not extinguish:

7. JET PUMP Switch — OFF

If FUEL PRESS annunciator still does not extinguish:

8. Descent — 25,000 FT OR LOWER

NOTE: Record time engine operating with low fuel pressure indication. Engine operation with low fuel pressure limited to a maximum of 10 hours between engine overhauls.

㉒ 

If replaceable paper fuel filter: illumination indicates a filter element is clogging. Elements should be replaced prior to next flight.

If cleanable metal fuel filter: illumination indicates a primary filter element is clogged and being bypassed. Secondary element still filters fuel. Fuel filter elements should be cleaned prior to next flight.

FUEL FILTER LIGHT ILLUMINATED

1. STANDBY PUMP Switches — ON WHEN POSSIBLE

㉓ 

Illumination indicates fuel level in either wing tank is below 400 to 500 lbs in level flight. Transfer fuel, if practical, and land as soon as possible. Limit pitch-up to less than 10°. No intentional go-around permitted.

TIP TANK FAILS TO TRANSFER FUEL

Maximum demonstrated fuel imbalance for landing is approximately 600 lbs (one tip tank half full and other empty). For best lateral control, fuel jettison, if installed, is recommended (see below) especially if landing is to be made in strong, gusty crosswinds.

If fuel jettison accomplished:

1. FUEL JTSN Switch — OFF PRIOR TO LANDING
2. L/R FUEL JTSN Lights — CHECK BOTH EXTINGUISHED
3. Approach And Landing — NORMAL

If fuel jettison not accomplished:

1. Final Approach Configuration — GEAR-DN/FLAPS 40° DN
2. Final Approach Speed — V_{REF} + 10
3. Landing Distance — MULTIPLY BY 1.10

(24) 

Steady illumination indicates fuel jettison in progress.

FUEL JETTISON (IF INSTALLED)

Applicable to tip tanks only. Accomplish with any combination of flaps, landing gear and speeds. If aircraft is in a nose-up attitude, fuel jettison is more efficient and quicker. Time to jettison fuel from tip tanks is approximately five minutes.

1. FUEL JTSN Switch — ON
2. L/R FUEL JTSN Lights — CHECK BOTH ILLUMINATED
   If only one light illuminates:
   - FUEL JTSN Switch — OFF
   - CB — CHECK
   - Attempt Procedure Again
3. Fuel Jettison — OBSERVE/MONITOR

When jettison complete:

4. FUEL JTSN Switch — OFF
5. L/R FUEL JTSN Lights — CHECK BOTH EXTINGUISHED

NOTE: Jettisoned fuel is not recorded on fuel counter. Do not use fuel counter reading to compute fuel remaining or aircraft weight after jettisoning fuel.

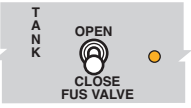
(25) 

Illumination indicates disagreement between crossflow valve and switch position.

Illumination indicates crossflow valve open. Monitor fuel balance.

㉖ 

Steady amber illumination indicates disagreement between transfer valve and switch position.

㉗ 

Illuminates to indicate fuselage valve not in selected position.

NORMAL FUEL TRANSFER SYSTEM FAILURE

S/Ns with FUS VALVE switch:

1. FUS VALVE Switch — OPEN
   Approximately 162 lbs of fuselage fuel is unusable.

Prior to approach, or when gravity transfer complete:

2 FUS VALVE Switch — CLOSE

S/Ns without FUS VALVE switch:

If transfer valve light remains illuminated:

1. XFER-FILL Switch — OFF
2. Flight — REPLAN

NOTE: If valve is stuck in an intermediate position, crossflow is inoperative.

If transfer valve light extinguishes:

Probable cause of malfunction is fuselage pump failure. Fuel gravity flows at a reduced rate. Approximately 162 lbs of fuselage fuel is unusable.

1. FUSLG PUMP Circuit Breaker — PULL
2. XFER-FILL Switch — XFER

Prior to approach, or when gravity transfer complete:

3. XFER-FILL Switch — OFF

TRANSFER VALVE FAILS TO CLOSE

1. Crossflow Operations — CONDUCT WITH CAUTION
2. Periodically Transfer Fuel Back into Wings

NOTE: Because continuous operation of a standby pump may not be possible, a descent to 25,000 ft or below is required if a jet pump should fail. If normal transfer/fill valve is stuck in the intermediate position, crossflow valve is inoperative.

Left transfer valve (XFER-FILL) fails to close:

Crossflow valve remains open. Operation of either standby pump transfers fuel back into fuselage tank. Fuel may gravity flow from both wings into fuselage tank.

Right transfer valve (FUS VALVE) fails to close:

Crossflow valve closes normally. Operation of right standby pump transfers fuel from right wing into fuselage tank. Fuel may gravity flow from right wing into fuselage tank.

FUEL IMBALANCE DURING TRANSFER

1. FUS TANK XFER-FILL Switch — OFF
   - STANDBY PUMP Switch (heavy wing) — ON
   - STANDBY PUMP Switch (light wing) — OFF
   - CROSSFLOW Switch — OPEN
2. Fuel Balance — MONITOR

If fuel balances:

3. CROSSFLOW Switch — CLOSE
4. STANDBY PUMP Switch — OFF
5. Fuel Balance — MONITOR WHEN TRANSFERRING FUSELAGE FUEL

If fuel does not balance:

3. STBY PMP CB (light wing) — PULL
4. STANDBY PUMP (heavy wing) — CHECK ON
5. CROSSFLOW Switch — CHECK OPEN
6. Fuel Balance — MONITOR

If fuel balances:

7. CROSSFLOW Switch — CLOSE
8. STANDBY PUMP Switches — OFF

If fuel still does not balance:

7. CROSSFLOW Switch — CLOSE
8. STANDBY PUMP Switches — OFF

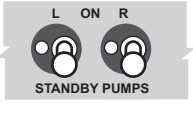
***NOTE*:** This problem is a system failure allowing the standby pump to run whenever the CB is in. Use the CB to affect operation of the pump, when necessary.

- Fuselage fuel transfer may be used while affected STBY PMP CB pulled. If R STBY PMP CB pulled, fuel transfer is by gravity only.
- STBY PMP CB must be reset for conditions requir ing use of standby pump (e.g., air starts and loss of fuel pressure.
- STBY PMP CB must be reset to transfer fuel from the affected wing (crossflow).

NOTE: Fuel cannot be transferred to the affected wing and fuselage fuel transfer aggravates fuel imbalance. Unequal power settings may be used to balance fuel load.

9. Flight—REPLAN

STANDBY PUMP



(28) *S/Ns with SB 24/25-28-4*

Illuminates to indicate the designated standby pump is working.

1. Affected STANDBY PUMP Switch — CYCLE
2. Affected STBY PMP CB — PULL

HEAVY ICE ACCUMULATION

CAUTION: If enroute and destination temperatures remain below freezing, consider landing with ice on wings. Refer to WING HEAT FAILURE Checklist, page E-43.

If attempting to remove heavy ice accumulation:

1. AIR IGN Switches — ON
2. Engine RPM — LOW AS POSSIBLE (not less than 80%)
   Maintain anti-icing heat and cabin pressure.
3. NAC HEAT Switch (for one engine) — ON

Wait until satisfactory engine operation apparent:

4. Opposite Engine NAC HEAT Switch — ON
   Observe ammeters for operation of inlet heaters and EPR drop for operation of engine anti-ice.
5. STAB & WING HEAT Switch — ON

Wait until satisfactory engine operation apparent:

6. Remaining Anti-Ice Systems — ON ONE AT A TIME

ENGINE ICE INGESTION

1. AIR IGN Switches — ON
2. Thrust Lever Movements — SLOW AND CAUTION
3. ENGINE RPM LOW AS POSSIBLE (not less than 80% or more than 87%)
   Maintain anti-icing heat and cabin pressure.
4. Abrupt Attitude Changes — AVOID

To determine extent of engine damage:

5. Thrust Levers (one at a time) — ADVANCE CAUTIOUSLY TO 87% RPM.
   If compressor stall encountered, retard thrust lever until smooth operation obtained.

If either engine flames out:

6. Airstart — PERFORM (page E-6)
   Remain below engine speed where flameout occurred.

If ice damage experienced:

7. Land as Soon as Practical; Stay Within Engine Operating Capacity

NOTE: After landing, inspect engine for damage.

ANTI-ICE SYSTEM FAILURE

1. Failed System CB — CHECK/RESET, IF NECESSARY

S/Ns 25-001 to 226 (450 System Only):
If bleed air failure results in cabin altitude climbing:

2. AIR BLEED Switch — MAX
3. Descend To Acceptable Level

If WSHLD OV HT illuminates after shutdown procedures:

2. Engine Power — REDUCE
   and/or
3. IN NORMAL OUT DEFOG Knob — REDUCE HOT AIR FLOW TO WINDSHIELD

WING HEAT FAILURE

WING TEMP remains in red or blue range (below 35°F [1.7°C]) and visual indication of ice accumulation.

WARNING: Even small accumulations of ice on wing leading edge can cause aerodynamic stall prior to activation of stick shaker and/or pusher. Angle-of-attack information may be unreliable.

If approach and landing to be made with any ice or suspected ice, refer to WING HEAT FAILURE LANDING Checklist, page E-55.

NOTE: If aircraft cabin altitude above 9,500 ft or if both bleed air switches are in emergency, wing anti-ice is in operative.

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If NAC HEAT switch is on, illumination indicates insufficient bleed air pressure in engine anti-ice system for designated engine.

ENG ICE LIGHT ILLUMINATED

If NAC HEAT switch in ON:

1. Corresponding Engine RPM — INCREASE TO IMPROVE AIRFLOW

If annunciator remains illuminated:

2. Icing Conditions — AVOID

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Annunciator inoperative during flight. On ground, illumination indicates either nacelle inlet temperature above 190°F.

1. Nacelle Heat Switches — OFF

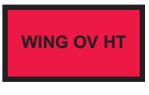
㉛ 

If STAB & WING HEAT switch on, illumination during flight indicates a stabilizer heat failure. On the ground, illumination is normal because stab heat is disabled by squat switch.

STABILIZER HEAT FAILURE

Ice accumulation on stabilizer may cause deterioration in trim speeds and changes in handling characteristics. Low speed flight should be approached with care so that detection of abnormal flying qualities can be obtained. It may be necessary to land with flaps at 20° because some buffet and/or nose pitch may be encountered with flaps full down.

1. STABILIZER HEAT FAILURE LANDING Checklist — ACCOMPLISH (page E-53)

㉜ 

Illuminates to indicate temperature of the wing leading edge has reached 215°F (102°C).

WING OV HT LIGHT ILLUMINATED

1. STAB & WING HEAT Switch — OFF
2. WING TEMP Indicator — MONITOR

㉝ 

Illumination indicates malfunction in designated pitot system or that one pitot heat switch is off.

If installed, the L and R PITOT HT annunciators illuminates to indicate designated pitot heat has failed or designated pitot heat switch is off.

1. Both Pitot Heat Switches — CHECK ON
2. Pitot/Copilot Air Data Instruments — CROSSCHECK

If annunciator remains illuminated:

3. Check At Earliest Maintenance

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Illuminates to indicate alcohol reservoir is empty.

1. Windshield Alcohol Anti-Ice System — OFF
2. Reservoir — SERVICE PRIOR TO NEXT FLIGHT

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Normal indication when windshield heat valves are open.

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Illumination in flight indicates windshield duct temperature of 250°F. Illumination on ground indicates duct temperature 215°F. Green WSHLD HEAT annunciator should be extinguished.

If windshield heat does not automatically shut off:

1. WSHLD HEAT Switch — MAN
2. Windshield Heat — OFF/THEN ON AT LESSER SETTING

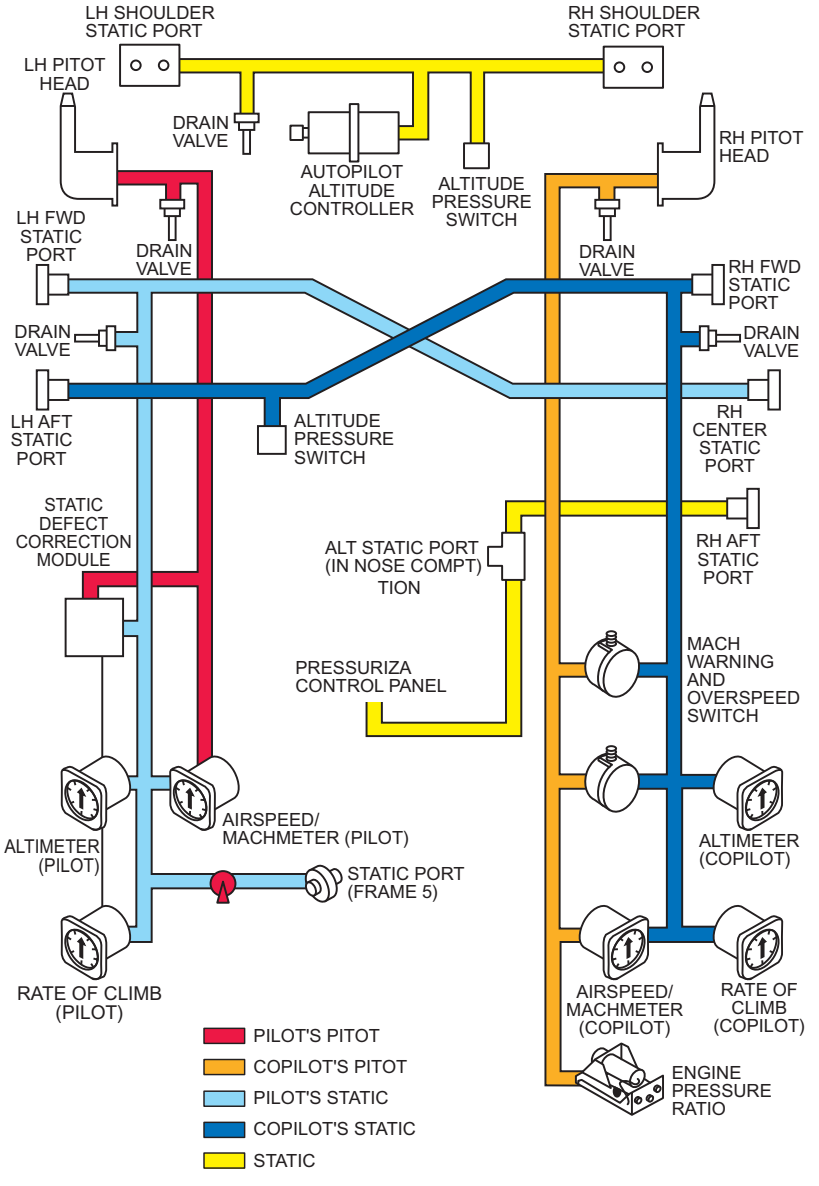
If annunciator remains illuminated:

3. Engine Power — REDUCE

and/or

4. IN NORMAL/OUT DEFOG Knob — IN

PITOT/STATIC SYSTEM



(37) DH

Illuminates to indicate aircraft has reached or is below decision height altitude set in the radio altimeter.

If runway not in sight or unable to make a safe landing:

1. **Missed Approach — EXECUTE**

(38) V.G. MON V.G. MON

Illuminates to indicate one wheel of designated gyro failed. The remaining wheel is operative so the gyro could be reliable.

1. **Affected Gyro — REPLACE AS SOON AS PRACTICAL**

㉝ 

Illumination indicates malfunction in designated pitot system or that one pitot heat switch is off.

If installed, the L and R PITOT HT annunciators illuminate to indicate designated pitot heat has failed or designated pitot heat switch is off.

1. Both Pitot Heat Switches — CHECK ON
2. Pitot/Copilot Air Data Instruments — CROSSCHECK

If annunciator remains illuminated:

3. Check At Earliest Maintenance

㉞ 

Illuminates to indicate windshield alcohol is low. If float switch level during preflight inspection, alcohol available is 120 minutes with switch in RAD or 45 minutes with switch in BOTH.

1. Windshield Alcohol Anti-Ice System — OFF
2. Reservoir — SERVICE PRIOR TO NEXT FLIGHT

㉟ 

Normal indication when windshield heat valves are open.

㊱ 

Illumination in flight indicates windshield duct temperature of 250°F. Illumination on ground indicates duct temperature 215°F. Green WSHLD HEAT annunciator should be extinguished.

If windshield heat does not automatically shut off:

1. WSHLD HEAT Switch — MAN
2. Windshield Heat — OFF/THEN ON AT LESSER SETTING

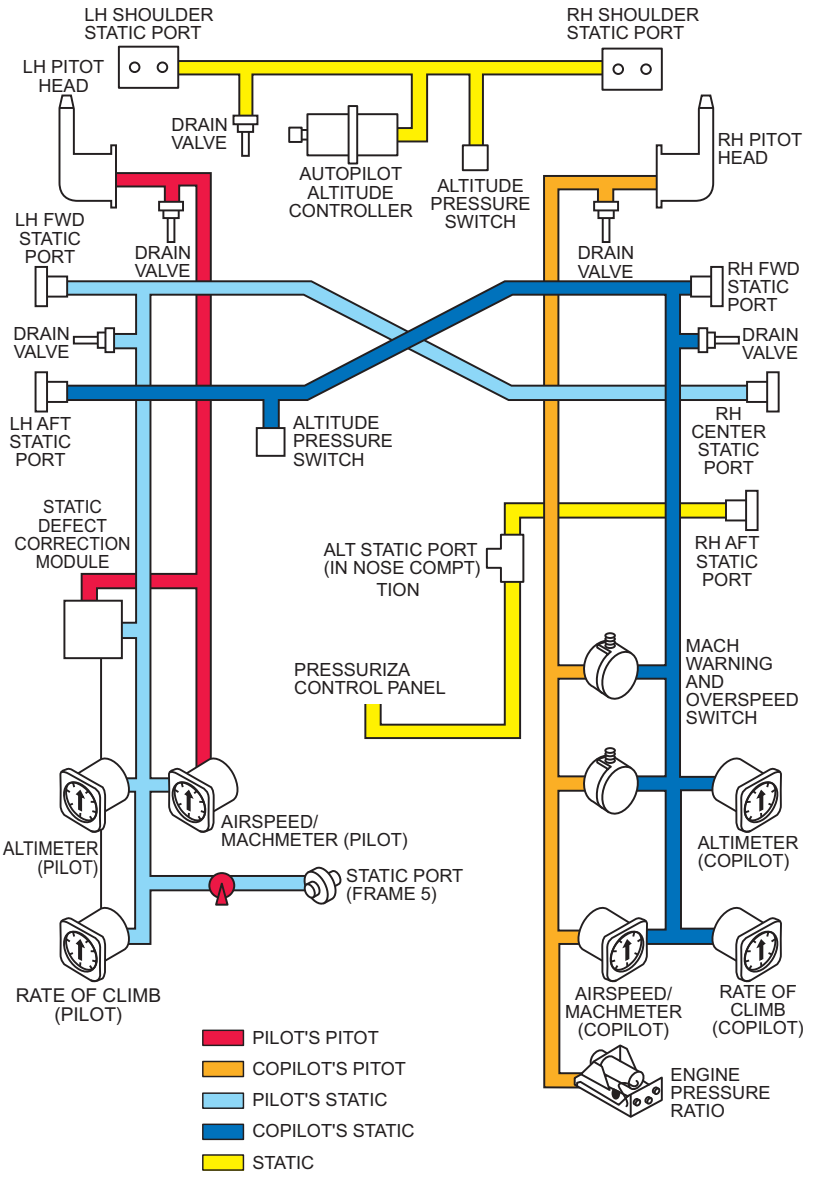
If annunciator remains illuminated:

3. Engine Power — REDUCE

and/or

4. IN NORMAL/OUT DEFOG Knob — IN

PITOT/STATIC SYSTEM



(37) DH

Illuminates to indicate aircraft has reached or is below decision height altitude set in the radio altimeter.

If runway not in sight or unable to make a safe landing:

1. **Missed Approach — EXECUTE**

(38) V.G. MON V.G. MON

Illuminates to indicate one wheel of designated gyro failed. The remaining wheel is operative so the gyro could be reliable.

1. **Affected Gyro — REPLACE AS SOON AS PRACTICAL**

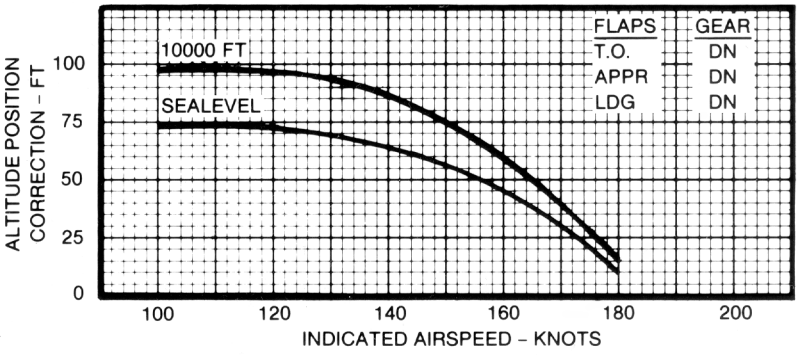
STATIC AIR SOURCE MALFUNCTION

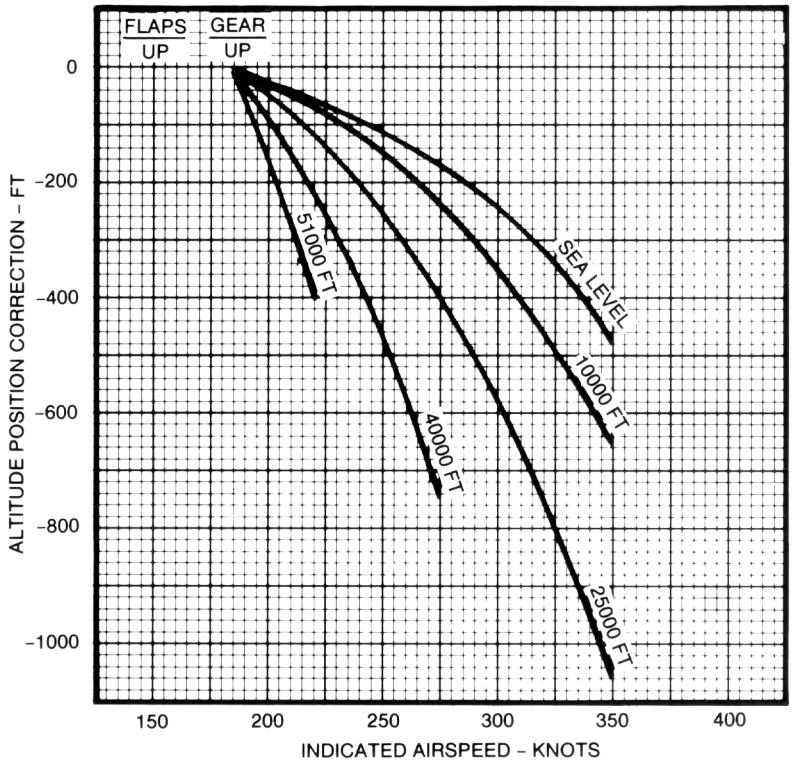
Incorrect readings of altimeter and/or rate-of-climb indicator signal instrument static source blockage.

1. **ALT INSTR STATIC VALVE Handle — OPEN**
2. **Pilot Altimeter — STBY**

NOTE: **With alternate instrument static source valve open, refer to charts below for altitude position correction.**

Altitude Position Correction Charts





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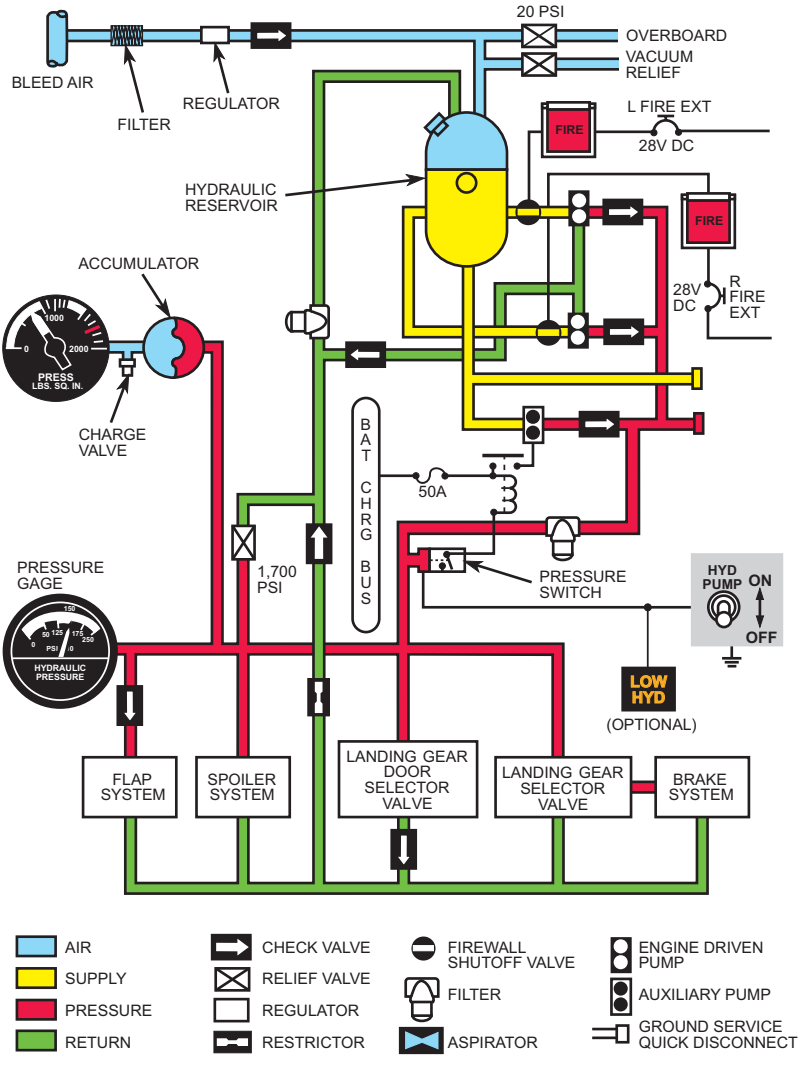
HYDRAULIC SYSTEM



(39) LOW HYD

Illuminates to indicate hydraulic system pressure falls below approximately 1,125 PSI.

1. **Gear — EXTEND WITH ALT EXTENSION** (page E-48)
   Turning on auxiliary hydraulic pump prior to checklist step could cause pressure loss for any remaining fluid. Dee Howard thrust reversers have a separate accumulator and should deploy. The auxiliary pump can provide pressure for the following systems:
   - **spoiler**
   - **flaps**
   - **brakes**

Learjet 25 B/C S/Ns 181 and subsequent

HYDRAULIC FAILURE/ALTERNATE GEAR EXTENSION

1. SPOILER Switch — RET

On approach (prior to final approach fix):

2. Airspeed — V_{LO} OR LESS (V_{REF} + 30 recommended)
3. Gear — DN
4. GEAR Circuit Breaker (copilot Essential bus) — PULL
5. FLAP Switch — DN
6. EMER GEAR EXT Lever — PUSH FULL DOWN
7. Gear Down/Locked — CHECK (3 GREEN/2 RED)

NOTE: The two red unsafe lights illuminate because the inboard gear doors remain open in emergency mode.

CAUTION: Do not retract gear once emergency gear extension selected. To do so may cause excessive air pressure to be introduced into the hydraulic return lines, rupturing the reservoir.

8. EMER GEAR EXT Lever — RETURN TO FULL UP

WARNING: The EMER GEAR lever must be returned to the UP position so air pressure for emergency braking is available if a leak in the air lines occur.

9. HYD PUMP Switch (if installed) — ON

When maximum flap angle obtained:

10. FLAP Switch — NEUTRAL
11. HYD PUMP Switch — OFF
12. Final Approach Speed — AS APPROPRIATE (page E-49)
13. Emergency Brake Handle — BREAK SAFETY WIRE

Just prior to landing:

14. HYD PUMP Switch (if installed) — ON

After touchdown:

With hydraulic pressure:

15. SPOILER Switch — EXT
16. Brakes — AS REQUIRED

Without hydraulic pressure:

17. Emergency Braking Handle — PUSH DOWNWARD
    Use of drag chute or thrust reverser recommended.

ELECTRIC MALFUNCTION ALTERNATE GEAR EXTENSION

1. Airspeed — V_{LO} OR LESS
2. Gear — DN
3. GEAR Circuit Breaker (copilot Essential bus) — PULL
4. EMER GEAR EXT Lever — PUSH FULL DOWN
5. Gear Down/Locked — CHECK (3 GREEN/2 RED)

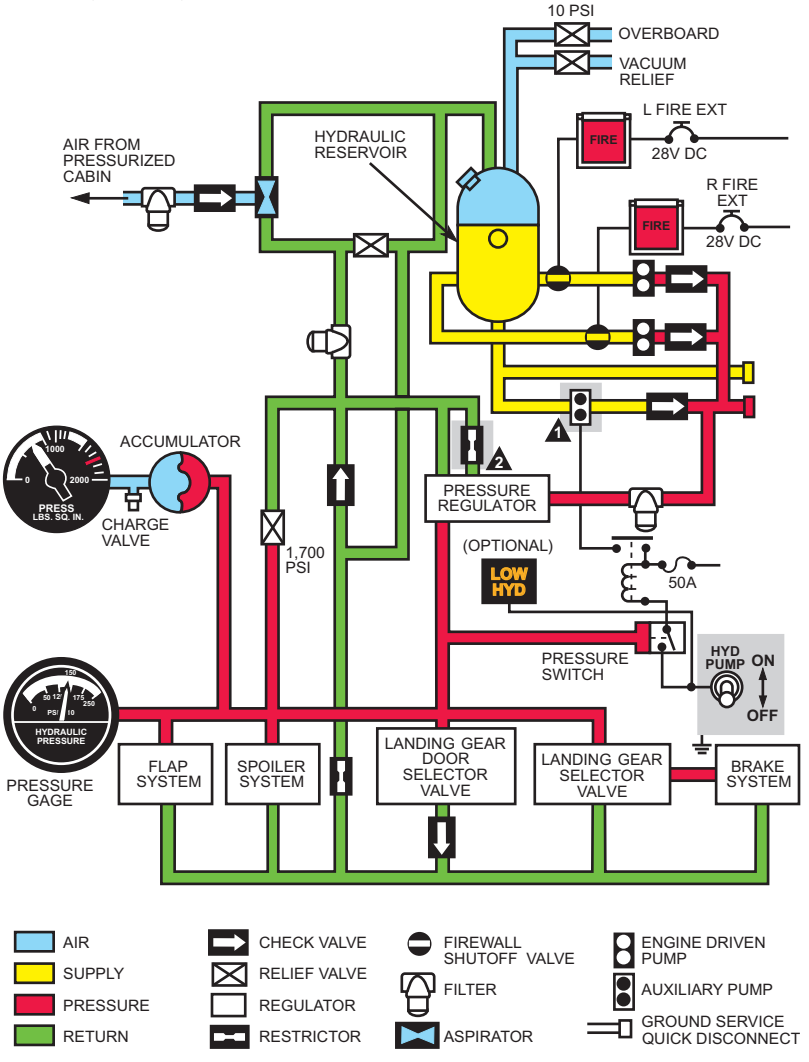
NOTE: The two red unsafe lights illuminate because the inboard gear doors remain open in the emergency mode.

CAUTION: Do not retract gear once emergency gear extension selected. To do so may cause excessive air pressure to be introduced into the hydraulic return lines, rupturing the reservoir.

HYDRAULIC SYSTEM

1 25B/C/D WHEN INSTALLED

2 25B/C; S/N 25-090, 101 TO 153 AND AIRCRAFT WITH AAK 73-7



(39) LOW HYD

Illuminates to indicate hydraulic system pressure falls below approximately 1,125 PSI.

1. **Gear — EXTEND WITH ALT EXTENSION (page E-48) Turning on auxiliary hydraulic pump prior to checklist step could cause loss of any remaining fluid. Dee Howard thrust reversers have a separate accumulator and should deploy. The auxiliary pump can provide pressure for the following systems:**
   - **spoiler**
   - **flaps**
   - **brakes**

HYDRAULIC FAILURE/ALTERNATE GEAR EXTENSION

1. SPOILER Switch — RET

On approach (prior to final approach fix):

2. Airspeed — V_{LO} OR LESS (V_{REF} + 30 recommended)
3. Gear — DN
4. GEAR Circuit Breaker (copilot Essential bus) — PULL
5. EMER GEAR EXT Lever — PUSH FULL DOWN
6. Gear Down/Locked — CHECK (3 GREEN/2 RED)

NOTE: The two red unsafe lights illuminate because the inboard gear doors remain open in emergency mode.

CAUTION: Do not retract gear once emergency gear extension selected. To do so may cause excessive air pressure to be introduced into the hydraulic return lines rupturing the reservoir.

7. EMER GEAR EXT Lever — RETURN TO FULL UP

WARNING: The EMER GEAR lever must be returned to the UP position so air pressure for emergency braking is available if a leak in the air line occurs.

8. FLAP Switch — DN
   S/Ns with Mark II Wings:
   Preselect Normal/Alternate Switch — ALTERNATE
   Manual Flap Switch — DOWN
9. HYD PUMP Switch (if installed) — ON

When maximum flap angle obtained:

10. FLAP Switch — NEUTRAL
11. HYD PUMP Switch — OFF
12. Final Approach Speed — AS APPROPRIATE (page E-49)
13. Emergency Brake Handle — BREAK SAFETY WIRE

Just prior to landing:

14. HYD PUMP Switch (if installed) — ON

After touchdown:

With hydraulic pressure:

15. SPOILER Switch — EXT
16. Brakes — AS REQUIRED

Without hydraulic pressure:

17. Emergency Braking Handle — PUSH DOWNWARD
    Use of drag chute or thrust reverser recommended.

ELECTRIC MALFUNCTION ALTERNATE GEAR EXTENSION

1. EMER PWR Switch — ON
2. Airspeed — V_{LO} OR LESS
3. Gear — DN
4. GEAR Circuit Breaker (copilot Essential bus) — PULL
5. MER GEAR EXT Lever — PUSH FULL DOWN
6. Gear Down/Locked — CHECK (3 GREEN/2 RED)

CAUTION: Do not retract gear once emergency gear extension selected. To do so may cause excessive air pressure to be introduced into the hydraulic return lines rupturing the reservoir.

Learjet 25 B/C S/Ns 070 through 180

Rwy Factor x Landing Distance (page F-21) = Runway Required Increase V_{REF} as indicated below.

CORRECTION FACTORS								
CONDITION	Century III Wing/RAS KIT and Softflite				Original/Softflite I Mark II Wing			
	Anti/Skid ON		OFF		Anti-Skid ON		OFF	
	RWY	V_{REF}	RWY	V_{REF}	RWY	V_{REF}	RWY	V_{REF}
Emer braking flap/spoilers retracted	--	--	2.0	+30	--	--	1.6	+20
Flaps retracted	1.35	+30	--	--	1.35 *	+20 *	--	--
Jammed stabilizer landing (PULL force)	1.30	+20	--	1.30	+20	--	--	
One or both spoilers extended	1.55	+40	--	--	1.40	+40	1.55	+40
Tip tank jet pump failure (no jettison)	1.10	+10	--	--	1.10	+10	--	--
Stab heat failure (flaps 20)	1.15	+10	--	--	1.15	+10	--	--
Wing heat failure	1.20	+15	--	--	1.15	+10	--	--
Wing & Stab heat failure (flaps 20)	1.35	+25	--	--	1.30	+20	--	--

*** Original or Softflite I V_{REF} + 30**

FINAL APPROACH SPEEDS		
Condition	Bank less than 15°	Bank more than 15°
One or both Spoilers up	V_{REF} + 40	V_{REF} + 50
Flaps UP	V_{REF} + 30 (Mark II wings VREF + 20)	V_{REF} + 40
Flaps 8	V_{REF} + 20	V_{REF} + 30
Flaps 20	V_{REF} + 10	V_{REF} + 20
Flaps 40	V_{REF}	V_{REF} + 10

EMERGENCY BRAKING

With emergency braking, anti-skid protection is not available.

1. EMER BRAKE Handle — PUSH DOWNWARD TO APPLY BRAKE PRESSURE

NOTE: Braking action does not begin until handle pushed down approximately 2 inches.

Small movements of the handle produce improved feel and reduce probability of tire skid; this does not significantly reduce emergency air bottle pressure.

2. Rudder And/Or Nosewheel Steering AS REQUIRED

⑩ 

Illumination of any ANTI-SKID GEN light indicates a problem with the associate wheel. If ANTI-SKID switch is off, all four lights illuminate.

1. ANTI-SKID Switch — OFF/THEN ON

If any light remains illuminated:

2. Landing Distance — CHECK

With two of three right lights illuminated:

3. Nosewheel Steering — 10 KTS MAX

Ensure parking brake handle full down or lights do not illuminate.

⑪ 

Normal indication. Illumination indicates nosewheel steering engaged on the ground. Push and release either control wheel master switch if steering not desired.

BOTH ENGINES INOPERATIVE LANDING

Airplane best glide speed in the clean configuration is V_{REF} + 55.

1. Time Permitting:
   - Transponder — 7700
   - ATC — ADVISE
   - Passengers — PREPARE
   - NO SMOKING/FASTEN SEAT BELT Sign — ON
2. FUEL JTSN Switch — ON
   (OFF when jettison complete or prior to touchdown)
3. HYD PUMP Switch — ON
4. Gear — DN
5. Flaps — DN
6. FIRE Warning Lights — LIFT GUARD/DEPRESS

NOTE: Depressing FIRE light stops the flow of fuel and hydraulic fluid to the engine (SOV light illuminates) and arms the engine fire extinguisher system. On S/Ns with 510 system, depressing the light also shuts off bleed air from the engines.

7. START-GEN Switches — OFF
8. Battery Switches — OFF

Prior to touchdown:

9. Emergency Power Switches — OFF
10. Touchdown — NORMAL LANDING ATTITUDE

After touchdown:

11. Cabin Door and Emergency Exit — OPEN

GO-AROUND (one engine)

WARNING: With less than 600 lbs of fuel in either wing tank, prolonged nose-up attitude of 10°or more may cause fuel starvation and engine flameout.

On first steady illumination of LOW FUEL annunciator, reduce climb attitude and thrust to a minimum required.

1. Autopilot — DISENGAGE
2. Thrust Lever — TAKEOFF POWER OR AS REQUIRED
3. SPOILER Switch — CHECK RET
4. Flaps — 20°

At positive rate of climb:

5. Gear — UP
6. Climb At Approach Climb Speed
   (approximately V_{REF} + 5)

When clear of obstacles:

7. Accelerate to V_{REF} + 30; Retract Flaps

SINGLE ENGINE LANDING

1. Final Approach Configuration — GEAR DN/FLAPS 20°
2. Final Approach Speed — V_{REF} + 10
   When landing assured:
3. Landing Distance - Multiply by 1.2

DITCHING

This aircraft has not been certified for ditching under all the applicable provisions of FAR 25.

1. Time and conditions permitting:
   - Head toward nearest land or vessel
   - ATC — NOTIFY
   - Transponder — 7700
   - ELT Switch, if installed — ON
   - Life Vests — ON
   - Do not inflate while inside aircraft.
   - Brief passengers:
     - Use of flotation equipment
     - Location and operation of emergency exits; do not lower cabin door at any time
     - Securing loose items
     - Emergency landing brace position; do not release seat belts after first impact
   - NO SMOKING/FASTEN SEAT BELT Sign — ON
   - Seat Belts — RETAIN UNTIL AT COMPLETE STOP
   - FUEL JTSN Switch — ON
   - (OFF when jettison complete or prior to touchdown)
2. Gear — UP
3. Flaps — DN
   The gear warning horn sounds with gear up and flaps down.
4. Cabin Air Switch — OFF
5. Emergency Power Switches — OFF
6. Normal Power-On Approach At V_{REF} — PERFORM

CAUTION: Plan landing direction as follows:
- Calm Seas — INTO WIND
- Moderate Swells — PARALLEL TO SWELLS
- High Winds — INTO WIND ATTEMPTING TO
- LAND ON UPWARD (FAR) SIDE OF SWELL

At touchdown:

7. Thrust Levers — CUTOFF
8. FIRE Warning Lights — LIFT GUARD/DEPRESS
9. Battery Switches — OFF
10. Emergency Exit(s) — OPEN
    Do not open lower cabin door at any time.

FLAPS UP LANDING

1. Final Approach Configuration — GEAR-DN/FLAPS-UP
2. Final Approach Speed — V_{REF} + 30
3. Landing Distance — MULTIPLY BY 1.35

Use of drag chute or thrust reversers recommended.

JAMMED STABILIZER LANDING

Elevator PULL Force:

WARNING: Control pressure will be heavy. Copilot assistance recommended. Anticipate highest pull forces (75 lbs) at landing flare.

1. CG — MOVE AFT
   Fuel to fuselage, if possible
2. Land As Soon As Practical
3. Final Approach Configuration — GEAR-DN/FLAPS-20°
4. Final Approach Speed — V_{REF} + 20
5. Landing Distance — MULTIPLY BY 1.30

Elevator PUSH Force:

1. CG — MOVE FORWARD
   Fuel to wings, if possible.
2. Final Approach Configuration — GEAR-DN/FLAPS-DN
3. Final Approach Speed — V_{REF}

ONE OR B0TH SPOILERS UP LANDING

1. Final Approach Configuration — GEAR-DN/FLAPS-UP
2. Final Approach Speed — V_{REF} + 40
3. Landing Distance — MULTIPLY BY 1.55
   Use of drag chute or thrust reversers recommended.

NOTE: Aerodynamic braking at higher speeds causes the aircraft to become airborne even with spoilers extended.

STABILIZER HEAT FAILURE LANDING

If buffet and/or nose pitch encountered with flaps full down, retract flaps to 20°.

1. Final Approach Configuration — GEAR-DN/FLAPS-20°
2. Final Approach Speed — V_{REF} + 10
3. Landing Distance — MULTIPLY BY 1.15

WING/STABILIZER HEAT FAILURE LANDING

If buffet and/or nose pitch not encountered with flaps full down, see WING HEAT FAILURE checklist below. If buffet and/or nose pitch encountered with flaps, retract flaps to 20°

1. Final Approach Configuration — GEAR-DN/FLAPS-20°
2. Final Approach Speed — V_{REF} + 25
3. Touchdown Speed — 25 KNOTS ABOVE NORMAL
4. Landing Distance — MULTIPLY BY 1.35

WING HEAT FAILURE LANDING

1. Final Approach Configuration — GEAR-DN/FLAPS-DN
2. Final Approach Speed — V_{REF} + 15
3. Touchdown Speed — 15 KTS ABOVE NORMAL
4. Landing Distance — MULTIPLY BY 1.20

Learjet 25 Century III Wing with Softflite

Cockpit Annunciators