 DC 9/80 OPERATIONS MANUAL	Operating Limitations Chapter 1 - 1/5	II	
		10/06/20	Rev 1

WEIGHT LIMITATIONS

STRUCTURAL WEIGHT LIMITS	KG
TAXI	68.265
TAKE-OFF (At Brake Released)	67.812
LANDING	58.967
ZERO FUEL	55.338


MAXIMUM OPERATING SPEED

a) Speed limits with full extended flaps

Flaps extension	SPEED LIMITS	
	KIAS	MACH
08°	280	0.57
11°	280	0.57
15°	240	0.57
28°	200	0.57
40°	195	0.57

b) Speed limits with full extended slats

Slats extension	KIAS	MACH
Mid position	280	0.57
Full position	240	0.57

 DC 9/80 OPERATIONS MANUAL	Operating Limitations Chapter 1 - 2/5	II	
		10/06/20	Rev 1

c) Landing gear speed limits

	KIAS	MACH
V_{Lo} / M_{Lo} RETRACTION	250	070
V_{Lo} / M_{Lo} EXTENSION	300	0.70
V_{Le} / M_{Le} EXTENDED	300	0.70

d) Speed limit in turbulence

Speed limit in turbulence is 285 kias or 0.79 MACH.

WIND LIMITS FOR TAKE-OFF AND LANDING

Maximum tail wind allowed both for landing and takeoff is 10 kts. Maximum transversal wind is 30 kts in dry conditions, and 19 kts in wet conditions.

AUTOPILOT

Autopilot can operate under 200 feet AGL.

AUXILIARY POWER

If starting aborted, engine must be left cooling off:

- 5 minutes before the first starting attempt.

AUTOLAND

During an autoland the wind limitations are:

- front: 25kts in CATII & IIIA e 15kts in CATIIIB
- tail: 10kts
- transversal: 15kts

ART


ART switch must be on OFF position for a T.O. FLX.

ELECTRICAL SYSTEM

CONDITION OR ITEM			LIMITS	
			MINIMUM	MAXIMUM
LEFT/RIGHT DC LOADMETERS*			0	1.0
LEFT/RIGHT DC BUS			22V	30V
GENERATORS	VOLTAGE		107V	123V
	FREQUENCY		380 CPS	420 CPS
AC LOADMETERS OF OPERATING GENERATORS NOTE: GENERATOR OVERLOAD RATINGS FOR SHORT TIME OPERATIONS ARE: A. 1.5 FOR 5 MINUTES B. OVER 1.5 FOR 5 SECONDS (THE OVERLOAD RATING OF THE GENERATORS IS 2.0 FOR 5 SECONDS)			ENGINE GENERATOR	
			0	1.0
			APU GENERATOR	
			GROUND OR FLIGHT	GROUND
			OVER 0	1.25
				FLIGHT
UNDER 1.0 BELOW 25000FT UNDER 0.7 AT OR ABOVE 25000FT				
CSD OIL TEMP RISE			-	11.2°C**
CSD OIL OUTLET TEMP			-	163°C
BATTERY	NO LOAD		25V	-
	UNDER CHARGE		25V	37.5V
	EMER PWR IN USE	VOLTAGE	25V	-
		AMPERS	10 TO 50 AMPS TO THE RIGHT	
	NOTE: DO NOT ATTEMPT TO RESET A TRIPPED BATTERY CHARGER C/B			

* The maximum difference between the two indications (on same instrument) should not exceed 0.3 and both load meters should indicate same load.

** Yellow radial on rise temp scale (11.2°C) indicates an operating point which, when exceeded, may indicate a system malfunction and should be recorded in the Technical Log Book.

 DC 9/80 OPERATIONS MANUAL	Operating Limitations Chapter 1 - 4/5	II	
		10/06/20	Rev 1

VERTICAL AND LATERAL NAVIGATION

LNAV function can't be activated under 400 feet AGL. VNAV function can't be activated under 1500 AGL.

FLIGHT CONTROLS

- Spoilers: don't activate spoilers before landing gear is fully extended
- Speedbrakes: use speedbrakes in "0 flap" condition, or without extended slats.
- Rudder: during takeoff rudder must be controlled through the hydraulic system "RUDDER POWER ON".

HYDRAULIC POWER

- | | |
|----------------------------|-----------------------|
| - Engine pump in high mode | from 2800 to 3200 psi |
| - Engine pump in low mode | from 1300 to 1700 psi |
| - Auxiliary pump | from 2800 to 3200 psi |
| - Transfer pump | from 2000 to 3100 psi |

Takeoff and landing

L & R HYD PUMPS

HI

AUX HYD PUMP

ON

TRANS HYD PUMP

ON


ICE AND RAIN PROTECTION

Engines anti ice must be activated for takeoff if ice formation is probable, or if conditions are imminent.

Airfoil must be activated if ice formation is probable, or if conditions are imminent.

Tail de-ice must be used at 20 minutes intervals in case of ice.

Wind shield heating must be ON in every condition of flying.

 DC 9/80 OPERATIONS MANUAL	Operating Limitations Chapter 1 - 5/5	II	
		10/06/20	Rev 1

POWERPLANT

EGT limits:

OPERATING CONDITIONS	TIME LIMIT	MAXIMUM EGT (°C)
Maximum Takeoff (*) (**)	5 Minutes 2 Minutes (**)	625 630
Normal Takeoff (***)	5 Minutes 2 Minutes (**)	590 595
Maximum Continuous Thrust (MCT)	Continuous	580
Starting (Ground) (Flight)	Momentary Momentary	475 625
Idle		480 (****)

(*) Every time maximum takeoff thrust is applied, either in takeoff or go-around, the following entry should be made in the Airplane Technical Logbook, as item No. 1, to allow statistical data collection by maintenance department: "MTOT applied".

(**) The sum of time must not exceed 5 minutes.

(***) In the event of an engine failure during takeoff or go-around, a total time of 10 minutes at normal and/or maximum takeoff thrust is allowed.

(****) 480 applies when air bleed or power extraction is being used.