WEATHER CONDITION — TYPE II (Continued)

Holdover time begins when the last anti–icing application commences.

FROST	FREEZING FOG	SNOW	LIGHT FREEZING RAIN	RAIN ON COLD SOAKED WING	AMBIENT TEMPERATURE	HOLDOVER TIME
			(1)		0 C & above (32 F & above)	:08–:20
			(2)			:04–:10
			(3)			:02–:05
				(1)		:24–1:00
				(2)		:18–:45
				(3)		:12–:30
(1)					–1 C to –7 C (31 F to 19F)	8:00
(2)						5:00
(3)						3:00
	(1)					:35–1:30
	(2)					:25–1:00
	(3)					:20–:45
		(1)				:20–:45
		(2)				:15–:30
		(3)				:05–:15
			(1)			:08–:20
			(2)			:04–:10
			(3)			:01–:03
(1)					–8 C to –25 C (18 F to 7 F)	8:00
(2)						5:00
	(1)					:35–1:30
	(2)					:25–1:00
		(1)				:20–:45
		(2)				:15–:30

Holdover time begins when the last anti–icing application commences.

FLUID/WATER MIX (1) 100/0% (2) 75/25% (3) 50/50%

LANDING TAILWIND RESTRICTIONS (10 KNOTS MAXIMUM)

	CLEAN & DRY	NOT CLEAN & DRY
NO TAILWIND PERMITTED	LESS THAN 5,000 FEET	LESS THAN 6,000 FEET
5 KNOTS ACTUAL COMPONENT AND 10 KNOTS REPORTED WIND		6,000–6,499 FEET
10 KNOTS ACTUAL COMPONENT	5,500 FEET & LONGER	6,500 FEET & LONGER

MAXIMUM TAILWIND (REPORTED WIND VS RELATIVE BEARING)

RELATIVE BEARING	100°	110°	120°	130°	140°	150°	160°	170°
10 KNOTS MAXIMUM	30	28	20	16	13	12	11	10
5 KNOTS MAXIMUM	28	14	10	8	7	6	6	5

CROSSWIND LIMITS

MAXIMUM	30 KNOTS
AUTOLAND	15 KNOTS
RUDDER TRAVEL UNRESTRICTED LIGHT NOT ON FOR LANDING	12 KNOTS
CATEGORY II OR III	10 KNOTS

MAXIMUM CROSSWIND (REPORTED WIND VS RELATIVE BEARING)

RELATIVE BEARING	20°	30°	40°	50°	60°	70°	80°	90°
30 KNOTS MAXIMUM	–	–	47	39	34	32	31	30
12 KNOTS MAXIMUM	35	25	18	16	14	13	12	12
10 KNOTS MAXIMUM	29	20	16	13	12	11	10	10

DC9 80 TWA FLIGHT CREW TRAINING POCKET REFERENCE

DECEMBER 92

MAXIMUM THRUST MUST BE USED IF:

THE RUNWAY IS CONTAMINATED WITH WATER, ICE, SLUSH, OR SNOW.
WINDSHEAR IS REPORTED OR SUSPECTED.
A WEIGHT PENALTY IS INCURRED.
AIRCRAFT HAS BEEN DE–ICED.
MINIMUM DIFFERENCE BETWEEN STANDARD THRUST AND LIMIT THRUST IS .06

ENGINE ANTI–ICE FOR TAXI AND TAKEOFF

USE ENGINE ANTI–ICE WHEN:
TEMPERATURE IS BELOW 42F (6C) AND:

DEW POINT IS WITHIN 5F OF AMBIENT TEMPERATURE OR
STANDING WATER OR WET SNOW ON RUNWAY OR
VISIBLE MOISTURE IS PRESENT.

VISIBLE MOISTURE IS DEFINED AS:

a. FOG OF 1 MILE VISIBILITY OR LESS
b. RAIN
c. DRIZZLE
d. SNOW

A 5–SECOND RUNUP OF 60% N_1 AT APPROXIMATELY 10–MINUTE INTERVALS, AND PRIOR TO BRAKE RELEASE FOR TAKEOFF SHALL BE MADE TO ENSURE STABILITY.

ANTI–ICE IN FLIGHT

USE ENGINE ANTI–ICE WHEN RAT IS BELOW +6C AND VISIBLE MOISTURE IS PRESENT. USE AIRFOIL ANTI–ICE IF AIRFRAME ICING CONDITIONS ARE ANTICIPATED OR ENCOUNTERED, BUT NOT BEFORE REACHING 800 FEET AFE. TURN AIRFOIL AND ENGINE ANTI–ICE OFF WHEN RAT IS ABOVE +10C.

OXYGEN BOTTLE PRESSURE

PORTABLE	1,750 PSI
CREW SYSTEM	1,300 PSI

PLANNING:	1–800–TWA–PLAN (892–7526) Outside N.Y.
DISPATCH:	1–800–TWA–DISP (892–3477) Outside N.Y.
MAINT COORDINATOR:	1–800–275–8922
If unable above:	816–891–4734 / 8968
SAFETY CODE–A–PHONE:	1–800–TWA–SFTY (892–7389)

IF ANY CONFLICT ARISES BETWEEN POCKET REFERENCE AND FHB, FHB PREVAILS.

CLIMB SPEEDS

250 KNOTS TO 10,000 FEET
PMS CLB OPT ABOVE 10,000 FEET PMS INOP: 280 KIAS TO MACH .74

TURBULENCE TARGET SPEEDS

IAS/MACH	280 KIAS/.75 to .79
BELOW 10,000 FEET	250 KIAS

DESCENT SPEEDS

CRUISE MACH/290 KIAS TO 10,000 FEET

MINIMUM AIRBORNE EQUIPMENT – CAT II/IIIA

IFR FLIGHT INSTRUMENTS/RADIO NAVIGATION EQUIPMENT REQUIRED BY FAR PART 121.
TWO GLIDE SLOPE AND LOCALIZER RECEIVERS.
TWO RADIO ALTIMETERS.
DECISION HEIGHT LIGHT FOR EACH PILOT.
TWO FLIGHT MODE ANNUNCIATORS.
INSTRUMENT FAILURE WARNING SYSTEM.
DIGITAL FLIGHT GUIDANCE COMPUTER.

CAT II (1,799–1,200 RVR)	CAT IIIA (1,199–700 RVR)
RAIN REMOVAL EQUIPMENT (WIPERS OR RAIN REPELLENT) AND AUTOPILOT, APPROACH COUPLER WITH AUTOPILOT WARN ANNUNCIATORS & SINGLE FLIGHT DIRECTOR WITH DUAL DISPLAYS. OR DUAL FLIGHT DIRECTOR SYSTEM AND AUTOTHROTTLE.	FLT DIRECTOR W/DUAL DISPLAY CENTRAL AURAL WARN SYSTEM DUAL AUTOPILOT WARN ANNUN AUTOPILOT W/AUTOLAND MODE RAIN REMOVAL SYSTEM (WIPERS AND RAIN REPELLENT). FOR COMPLETE LISTING REQUIRED EQUIPMENT REFER TO FHB CHAPTER 1.

ENGINE LIMITS

START	GROUND	FLIGHT
EGT	475C	625C
TAKEOFF	ART AUTO	ART OFF/ACTIVATED
EGT	2 MIN–595C 5 MIN–590C	2 MIN–630C 5 MIN–625C
N_1 N_2	98.3% 100.9%	101.6% 102.5%
MAX CONTINUOUS		
EGT	580C	
N_1 N_2	101.6% 102.5%	

MAXIMUM WEIGHTS AND FUEL CAPACITY

SERIES or AIRCRAFT	Taxi	Brake Release	Landing	Zero Fuel	Fuel Capacity
9000	150,500	149,500	130,000	122,000	39,128
9300	161,000	160,000	130,000	122,000	48,698

ASYMMETRY

LATERAL IMBALANCE BETWEEN L & R TANKS	– 1500 MAXIMUM
FORE AND AFT IMBALANCE	– 400 MAXIMUM

PLANNED ARRIVAL FUEL

NORMAL	(1:00)	5,600/6,200*
HIGH DENSITY	(1:15)	6,800/7,800*

* THIS RANGE REPRESENTS THE ARRIVAL FUELS FOR MINIMUM/MAXIMUM AIRCRAFT LANDING WEIGHTS AND INCLUDES FAA RESERVE.**

** FAA FUEL RESERVE 4,500
INTERNATIONAL (FHB SECTION 4.10)

Holdover time begins when the last anti–icing application commences.

WEATHER CONDITION TYPE I

FROST	FREEZING FOG	SNOW	LIGHT FREEZING RAIN	RAIN ON COLD SOAKED WING	AMBIENT TEMPERATURE	HOLDOVER TIME
■					0 C & above (32 F & above)	:18–:45
	■					:12–:30
		■		■		:06–:15
			■			:02–:05
■					–1C to –7 C (31F to 19F)	:18–:45
	■	■				:06–:15
			■			:01–:03
■					–8 C or below (18 F or below)	:12–:30
	■	■				:06–:15

WEATHER CONDITION TYPE II

FROST	FREEZING FOG	SNOW	LIGHT FREEZING RAIN	RAIN ON COLD SOAKED WING	AMBIENT TEMPERATURE	HOLDOVER TIME
(1)					0 C & above (32 F & above)	12:00
(2)						6:00
(3)						4:00
	(1)					1:15–3:00
	(2)					:50–2:00
	(3)					:35–1:30
		(1)				:25–1:00
		(2)				:20–:45
		(3)				:15–:30

FLUID/WATER MIX (1) 100/0% (2) 75/25% (3) 50/50%