DASSAULT AVIATION Mirage 2000 in Falcon 4.0 RV & OF

WARNING: Information included in this document are not related to any "Real Life" planes, but only to the flight model (FM) built to be used in the Falcon 4.0 simulator. This flight model has been built only from public data, it does not refer to any classified nor confidential information.

General Description.

Basic data

- Dry weight (-D, -N) : 7,900 kg (17439 lbs)
- Dry weight (-C, -5) : 7,500 kg (16556 lbs)
- Internal Fuel Capacity : 3150 kg (6966 lbs)
- External additional tanks CAPACITY (-D,-N,-5):
  - 2 wing tanks RPL-542: 6975lbs (3160 kg)
  - 1 fuselage tank RPL-522: 2,156lbs (980KG)
  - 3 tanks (2xRPL542 + 1xRPL-522) : 91540lbs (4140 KG)
  - Asymmetric (1xRPL542 + 1xRPL-522) : 5,650lbs (2560 Kg)
- Fuel Type: F-34 / F-35 / F-40 /F-43 / F-44.
- Maximum Take Off Weight : 38,500 lbs
- Maximum Landing On Weight : 24,000 lbs
- Max Mach Number : 2.2 (-B, -C, -5, -9), 1.45 (-D, -N) (36,000 ft)
- Max Indicated Air speed : 750 Kts
- Operational Ceil: 57,500 ft (FL500 without stratospheric equipment)
- Unofficial maximum altitude reached: 720,000 ft
- Approach speed: between 140Kts (min. weight) and 200Kts (max. weight)
- Max. Load Factor:
  - CAT-I +9 (Ultimate +11) / -3.2G, AoA 29deg (Ultimate +31);
  - CAT-III +5.5/-3.2G AoA 20deg
- Reference Area: 441 ft^2 (40.5 m^2)
- Length :14.94 m
- Wing Span : 9.13 m
- Height (with weight less than 25,000 lbs) : 5.20 m
- Maximum AoA for hard landing (rear contact) at weight of 21,800lbs :15°30'

Power Plant: 1 SNECMA M53-P2
- Dry Thrust : 65 kN
- AB Thrust:
  - Nominal: 97kN (21,800 lbs)
  - Null Air Speed, FL0 : 75kN (16,900 lbs)
  - Mach 0.9, FL0 : 106kN (23,850 lbs)
- Specific fuel flow with full AB: 2,12 kg/DANH.H
- Specific fuel flow with MIL power: 0.92 kg/DANH.H

Versions

The Mirage 2000 family contains the following version, available in F4:
- Mirage 2000-B Twin Seat French Air Force training version
- Mirage 2000-C (RDI) Single Seat AA for French Air Force
- Mirage 2000-N (N for Nuclear) Twin Seat French Air Force with Nuclear capacity
- Mirage 2000-D (D for Diversified) Twin Seat AG for French Air Force.
- Mirage 2000-5(F) Single Seat AA for French Air Force
- Mirage 2000-5 Mk2 Export version of -5, Single or Twin Seat.
- Mirage 2000-9 Single of Twin Seat Export version

Main differences are:

- Mirage 2000-C and –5 are mainly AA, -C is limited to Fox-1 capacity when –5 has Fox-3 (MICA-EM and MICA-IR since end of 2006) with multiple target tracking. ECM of the –5 has been significantly improved versus –C
- Mirage 2000-B is a twin seat version dedicated to training and pilot transformation, both seats are dedicated to pilots.
- Mirage 2000-D and –N, are twin seat, one pilot, one Weapon System Officer (WSO, called NOSA in French), they do not have internal DEFA gun, nor air intake mobile devices, so, mach number is limited to 1.45. As they are mainly dedicated to AG, they host the Antilope-5 TC (Coherent Processing) radar, with few little AA capabilities.

Radar:

- 2000-C : RDI: AA mode, Single target tracking , Look down-Shoot down, high range (60 Nm / 360 656 ft for SER of 5 m^2, over or under flight level) . Compatible with MATRA Super-530D (Fox1), No TFR nor TWS
- 2000-5 : RDY: AA mode, Multiple targets tracking , Look down-Shoot down, high range (70 Nm / 426 230 ft for SER of 5 m^2, over or under flight level) . Compatible with MICA ER (Fox-3) with LAM allowing shoot of 2 MICA before missile lock, others in Mad-Dog or Pit-Bull mode, TWS capable, but no TFR
- 2000-9 : RDY-2: AA mode, Multiple targets tracking , Look down-Shoot down, high range (80 Nm / 491 803 ft for SER of 5 m^2, over or under flight level) . Compatible with MICA ER (Fox-3) with LAM allowing shoot of 2 MICA before missile lock, others in Mad-Dog or Pit-Bull mode, TWS and TFR capable
- 2000-D : DASSAULT ELECTRONIQUE Antilope-5, mainly AG, allowing low altitude / high speed ground following (200 ft , 600Keas, +5.5G) with heavy loads (2 RPL-541/542 + 2 Magic-2 + 2 BGL-250 or 4 Mk82) but with few AA capability : AG range of 27Nm (163934 ft), AA range limited to 10 Nm in a mode close to F16's ACM), no TWS, nor NTCR capabilities.

Electronic Counter Measures:

Radar cross section (RCS) is assume to be less than the F-16 one a 80% is reasonable.

ECM are internal (no Pods) and combine passive sensor, active jamming and chaff / flare dispensers

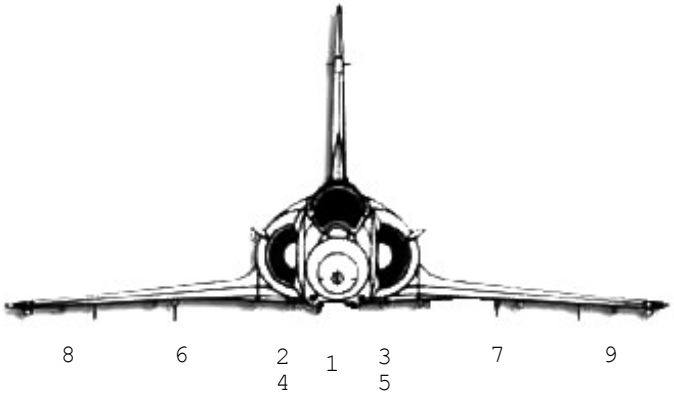
- Maximum chaff number set to 112 for all French 2000 variants
- Maximum flare number set to 64 for all French 2000 variants
- 2000-D has additional dorsal equipment allowing 48 more flare or chaff (160 / 64 or 112 / 112)

ECM Systems includes

- Thomson-CSF Serval radar warning receiver (antennae at each wingtip and on trailing-edge of fin, near tip, plus VCM-65 cockpit display);
- Thomson-CSF Caméléon (2000N), Caméléon C2 (2000D) or Sabre (2000C) jammer at base of fin (detector on fin leading-edge);
- Matra Bae Spirale, comprising chaff dispensers in Karman fairings at wing trailing-edge/fuselage intersection and flares in lower rear fuselage.

- French Air Force DDM (Détecteur Départ Missile) missile plume detector requirement satisfied by 1994 purchase of SAGEM SAMIR system for 1995 fitment in rear of Magic launch rails (2000D/N first, but also to 2000Cs patrolling Bosnia).
- Spirale fitted to 2000N-K2; retrofitted to 2000N-K1 and installed on 2000Cs from No. 93;
- Thomson-CSF Eclair system (Alkan LL5062 chaff and flare launcher) in place of braking parachute, lacking automatic operation on 2000C before Rank 93, can be installed on 2000-D and N if necessary

Weapon Loads



M2000-D Loads by Hard Points

Load	8	6	4	2	1	3	5	7	9
Max weight (kg)	300	1800	400	400	1800	400	400	1800	300
R 5 5 0 Magic-II	1								1
RPL-541 /RPL-542 (2000L)		1						1	
RPL-501/ RPL-502 (1700L)		1						1	
RPL-522 (1300L Supersonic)					1				
Mk-82 / BSU-49		4	1	1	4	1	1	4	
BGL-1000 / GBU-24		1			1			1	
BGL-250 / GBU-12		2			2			2	
BLU-107 DURANDAL			1	1	4	1	1		
BAP-100 / BAT-120					18				
BLG-66 BELOUGA		1	1	1	1	1	1	1	
Targeting Pod				1					
AS-30L(*)		1						1	
APACHE					1				
ARMAT AS-37		1						1	
EXOCET AM-39		1						1	
FLIR Pod				1					
SCALP-EG					1				
Recco Pod					1				
2x DEFA 30mm					1				
Refueling Pod					1				

M2000-C loads by Hard Points :

As Mirage 2000-C we mean French Air Force aircraft –C RDI with Fox-1 capacity by Matra Super-530D missile.
Internal loads are 2 DEFA-554 30mm guns with firing rate of 1500/1800 round per minutes each (30 per sec), so with 125 rounds per gun, firing time is about 4 to 5 seconds.

Load	8	6	4	2	1	3	5	7	9
Max weight (kg)	300	1800	400	400	1800	400	400	1800	300
R 5 5 0 Magic-II	1								1
Super 530D		1						1	
RPL-541 /RPL-542 (2000L)		1						1	
RPL-501/ RPL-502 (1700L)		1						1	
RPL-522 (1300L Supersonic)					1				
Mk-82 / BSU-49		4	1	1	4	1	1	4	

M2000-5 loads by Hard Points :

Load	8	6	4	2	1	3	5	7	9
Max weight (kg)	300	1800	400	400	1800	400	400	1800	300
R 5 5 0 Magic-II	1								1
Mica EM			1	1		1	1		
RPL-541 /RPL-542 (2000L)		1						1	
RPL-501/ RPL-502 (1700L)		1						1	
RPL-522 (1300L Supersonic)					1				
Mk-82 / BSU-49		4	1	1	4	1	1	4	

Drag Index of Standard Weapons

1 - Drag Index Values are those read in Falcon 4.0 "Ammunition panel", and are not to be compared with real-life Drag Index values using "DASSAULT AVIATION" nor "Armée de l'Air" convention.
2 – Drag index values are here to be understood including the related pylon.

- MATRA R550 Magic-II (with its pylon) : +7
- MICA (EM or IR) (with its pylon) : +8
- MATRA Super 530D (with its pylon) : +8
- RPL-541/542 : +30
- RPL-522 : +30
- AS-30 L (with its pylon) : +8
- 2 x GBU-12 (GP) : +37

Standard Configurations

Mirage 2000-C

Configuration Name : Fox   = 1xRPL-522 + 2xSuper-530D + 2xMagic-II
Configuration Name : Bravo = 2xRPL-541/542 + 2xMagic-II
Configuration Name : Kilo = 1xRPL-522 + 2xRPL-541/542 + 2xMagic-II

Mirage 2000-5

Configuration Name : Fox   = 1xRPL-522 + 4xMICA-EM + 2xMagic-II
Configuration Name : Bravo = 2xRPL-541/542 + 4xMICA-EM + 2xMagic-II
Configuration Name : Kilo = 1xRPL-522 + 2xRPL-541/542 + 4xMICA-EM + 2xMagic-II

Mirage 2000-D

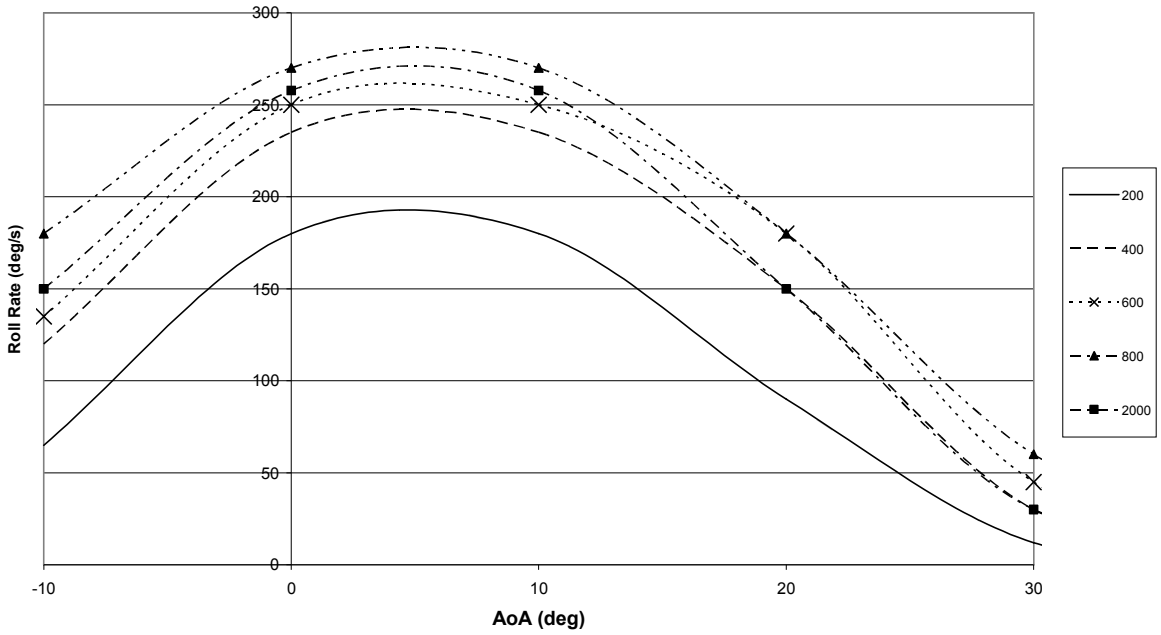
Loads : 2xRPL-541/542 + 2xMagic-II, 3,300lbs internal fuel:
      With flaps and gear down, minimum speed: 115Kts (CAS)
      Rotation speed (Take-Off) 145Kts
      Approach speed 155Kts with AoA of 12-14 deg (1,500lbs fuel remaining)
      Flaps and Gear up, 80% RPM give 350Kts (CAS) at sea level.
      VNE (Velocity Never Exceed) : 600 Kts / M=0.98 (Ultimate M=1.05)

All configurations involving RPL-541/542 are limited to M=0.98 (ultimate M=1.05), RPL-522 seems to be limited to M=1.6

Roll Rate

Set of curves giving Maximum roll rate (deg/sec) and time to roll 90deg at constant speed versus Angle of Attack

Peak Roll rate function of Angle of attack (for a given Dynamic pressure in QBar), Clean configuration, 50% internal fuel



Fuel Flow.

Fuel flow (Real Life Data, not F4)
Configuration: Mirage 2000-C, Full AB

- FL0, M=0.5 : 47,500 lbs/h (360 Kg/min)
- FL150, M=0.8 : 36,500 lbs/h (275 Kg/min)
- FL360, M=1.4 : 30,500 lbs/h (230 Kg/min)

Configuration: Mirage 2000-D, 2x2000L + 2xBGL-250 + 2xMagic, 100% internal Fuel

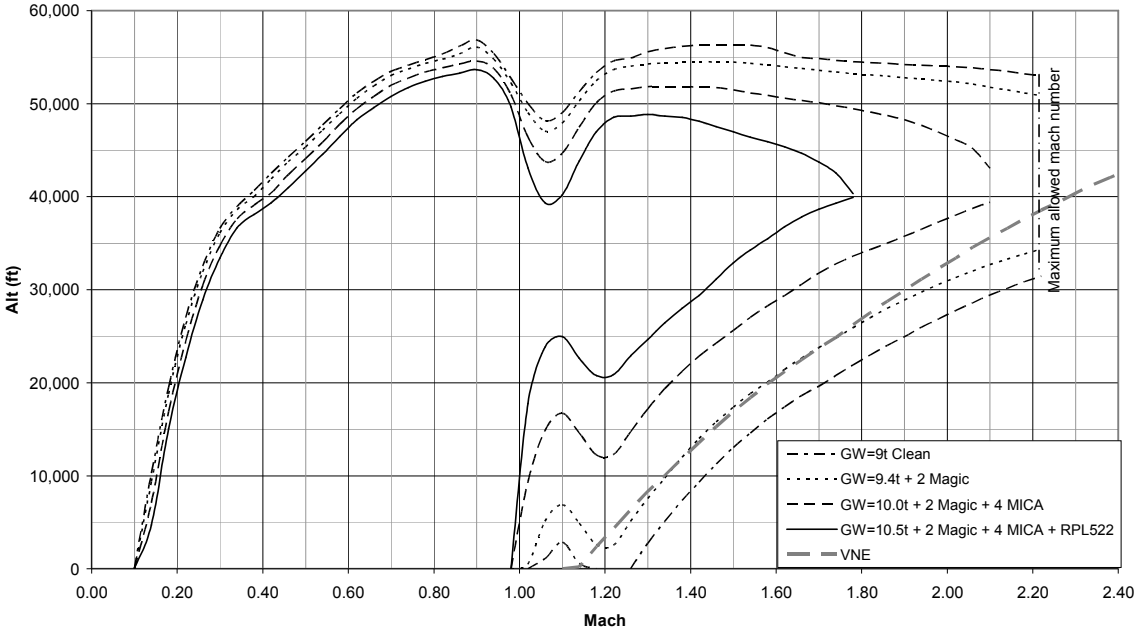
- Taxiway : 2,400 lbs/h (23 l/min, 18 Kg/min)
- FL400, M=0.8 : 3,950 lbs/h (38 l/min, 30 Kg/min)
- FL0, 450 Kts (RPM=86%) : 9,500 lbs/h (90 l/min, 72 Kg/min)

Level Flight Envelope
Mirage 2000-C
Mirage 2000-5F

Level Flight Envelope

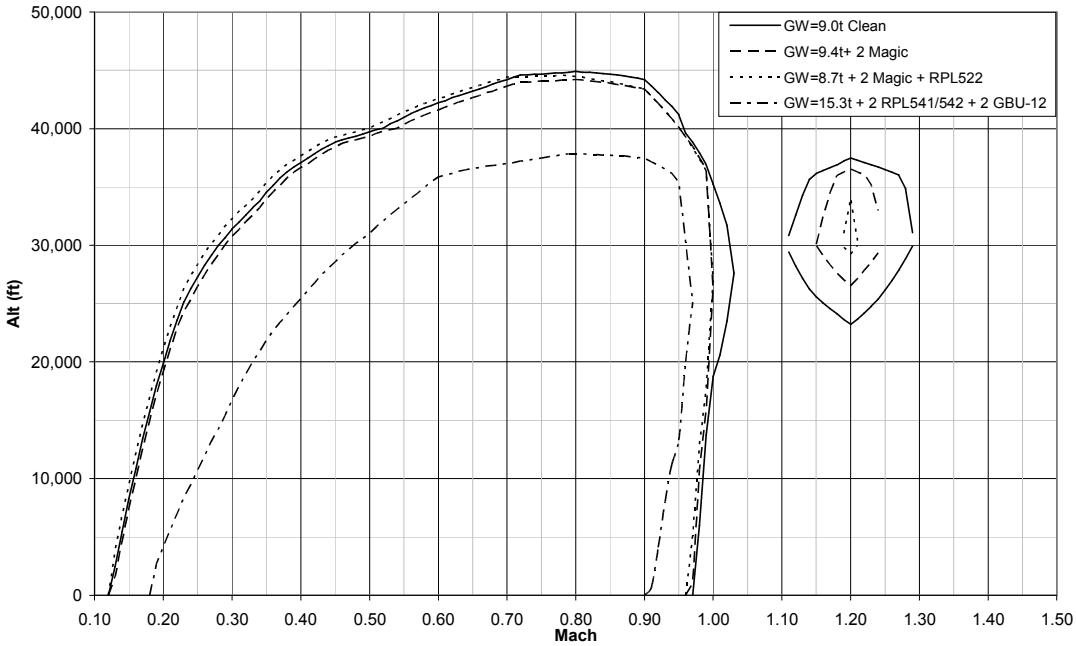
DATA BASIS : ESTIMATED
CONDITIONS:
•Standard Day
•Max AB

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2



DATA BASIS : ESTIMATED
CONDITIONS:
•Standard Day
•MILL Power

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

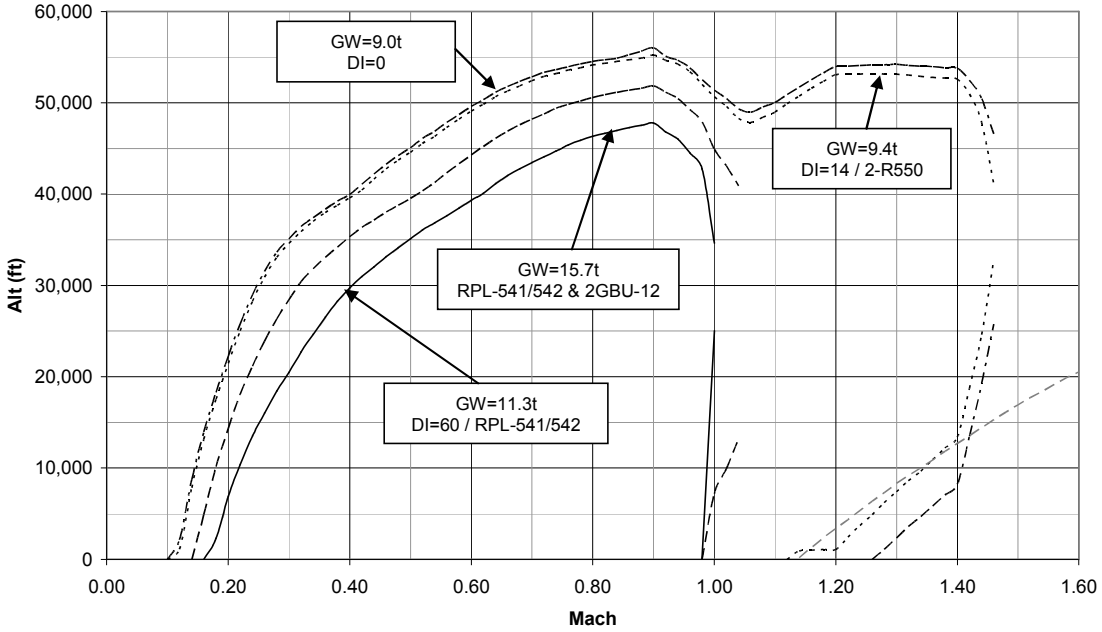


Level Flight Envelope
Mirage 2000-D
Mirage 2000-N

Level Flight Envelope

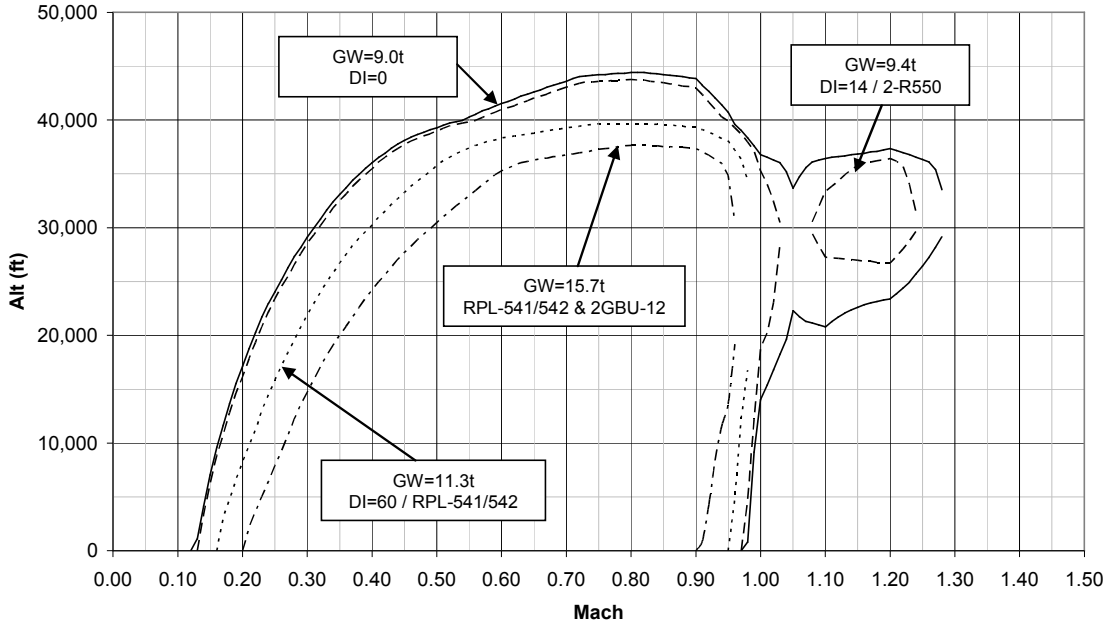
DATA BASIS : ESTIMATED
CONDITIONS:
•Standard Day
•Max AB

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2



DATA BASIS : ESTIMATED
CONDITIONS:
•Standard Day
•MILL Power

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2



Turn Performance

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

CONFIGURATIONS :
•DRAG INDEX = 0
•GW=23,500lbs / 10.6 t

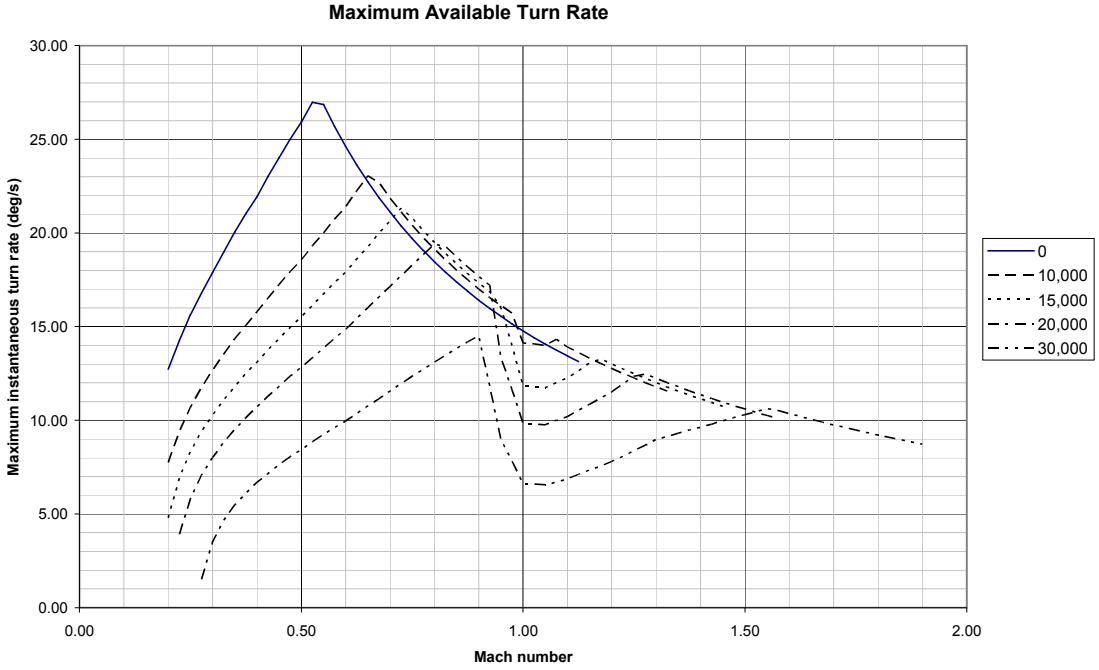
Turn Rate – Summary

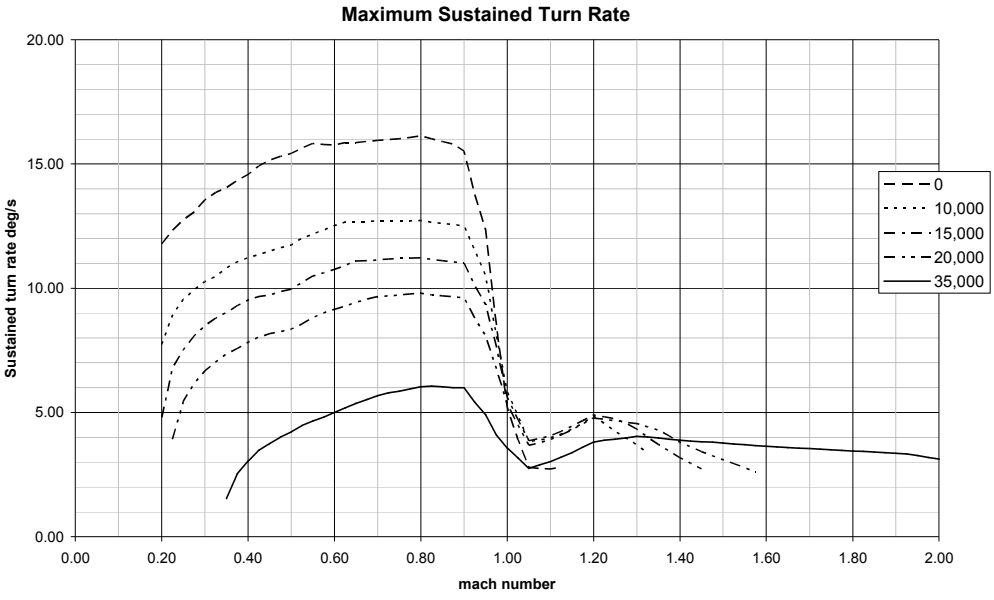
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 0
•GW=23,500lbs / 10.6 t





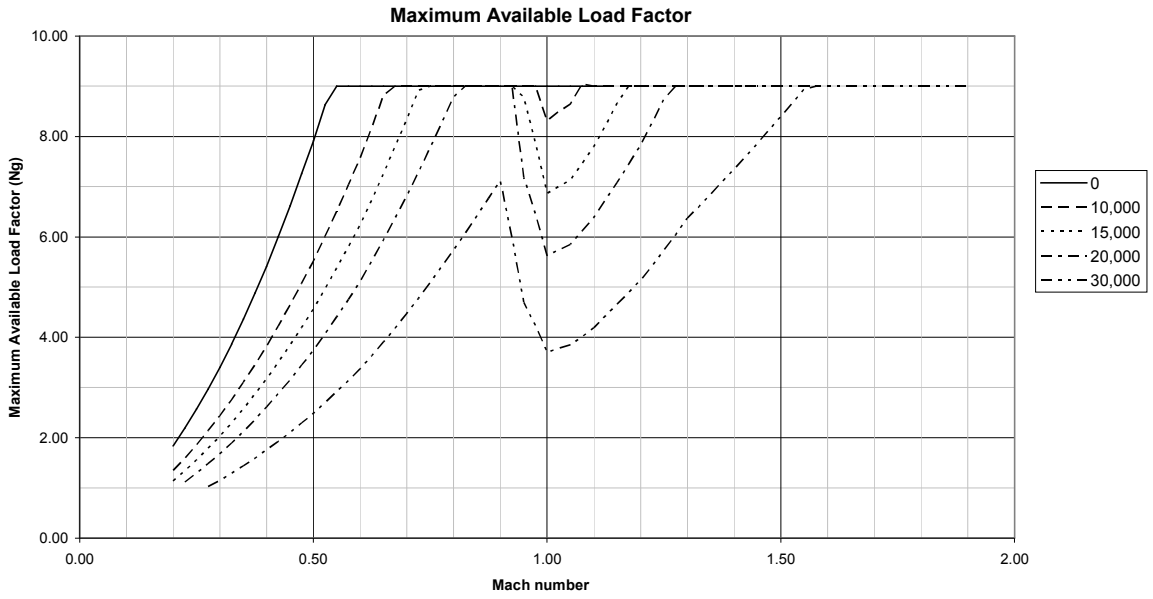
Load Factor – Summary

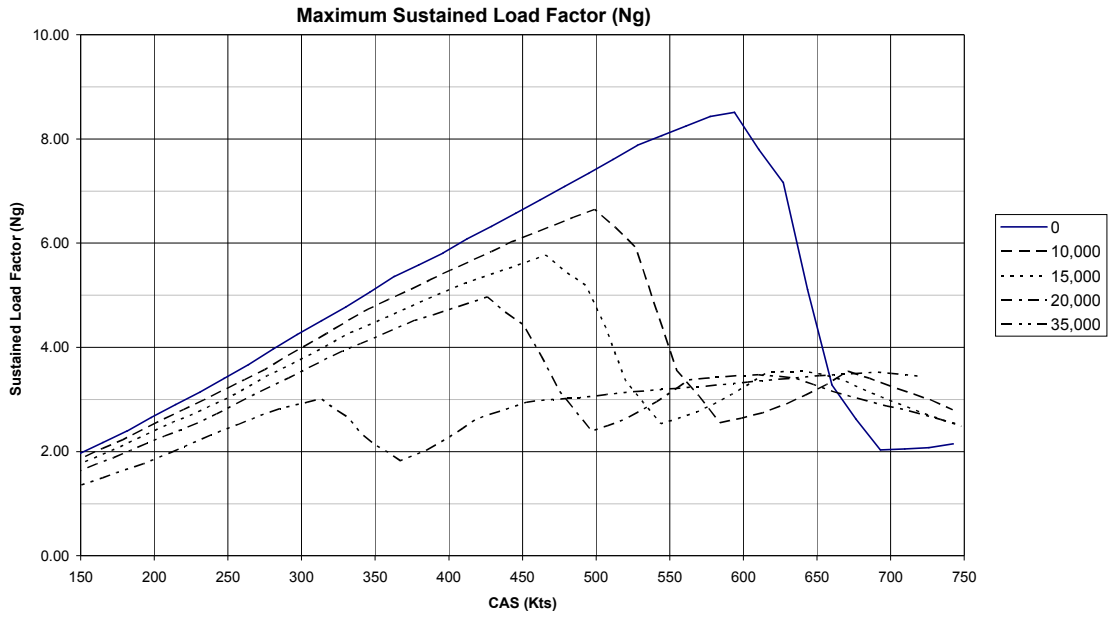
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 0
•GW=23,500lbs / 10.6 t





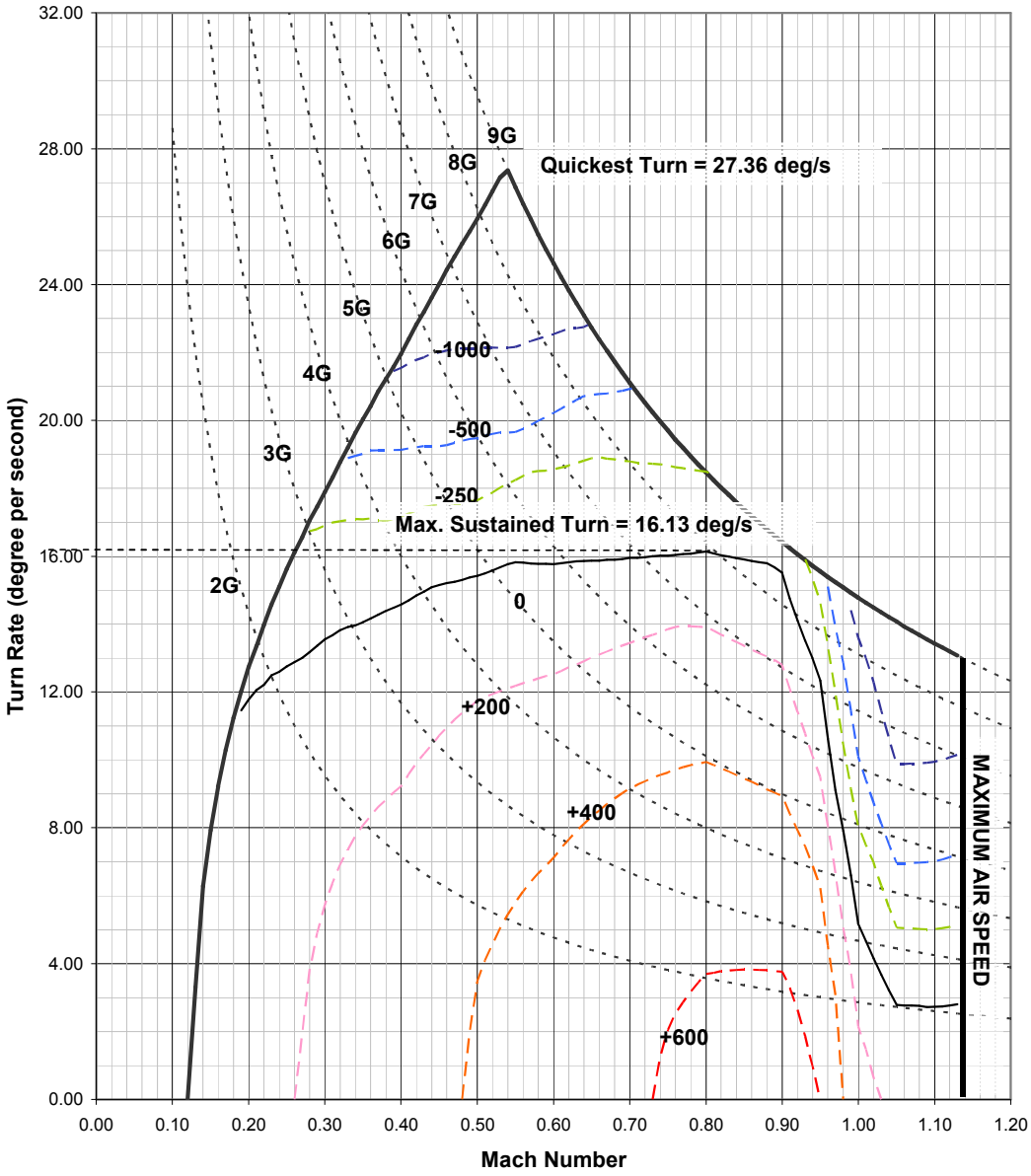
Turn Performance – Sea Level

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 0
•GW=23,500lbs / 10.6 t



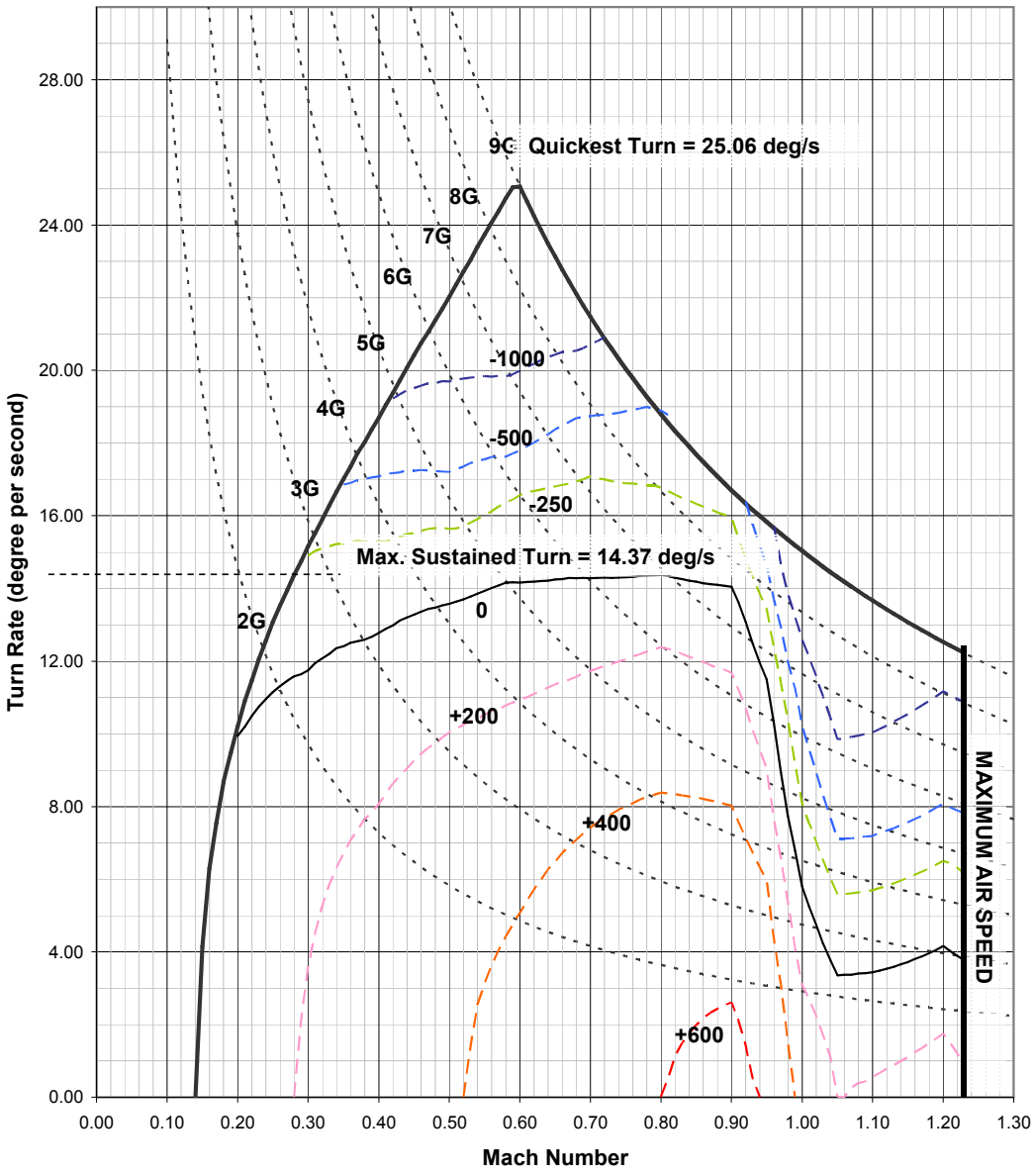
Turn Performance – 5,000 ft

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 0
•GW = 10.6t / 23,500 lbs



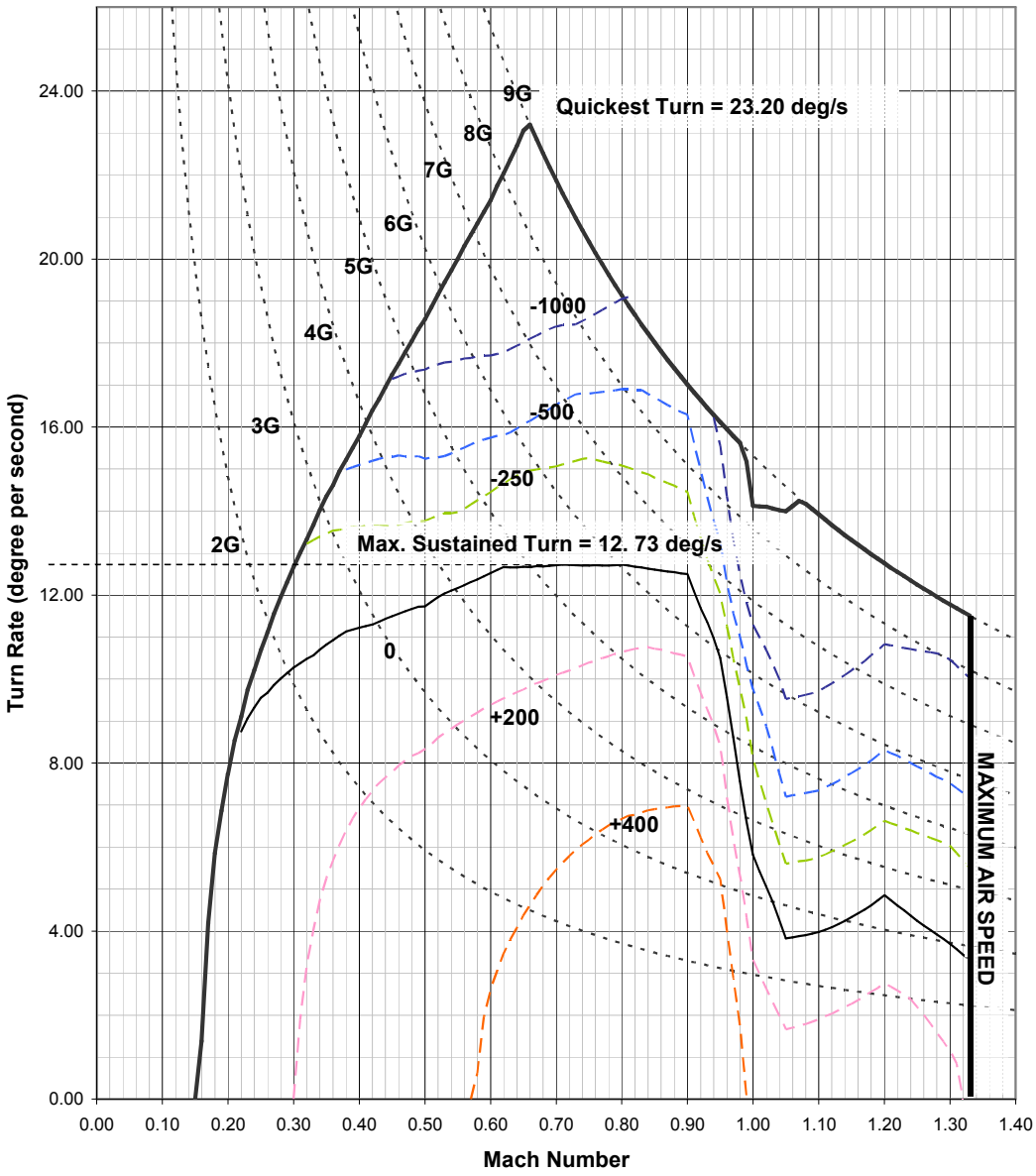
Turn Performance – 10,000 ft

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 0
•GW=23,500lbs / 10.6 t



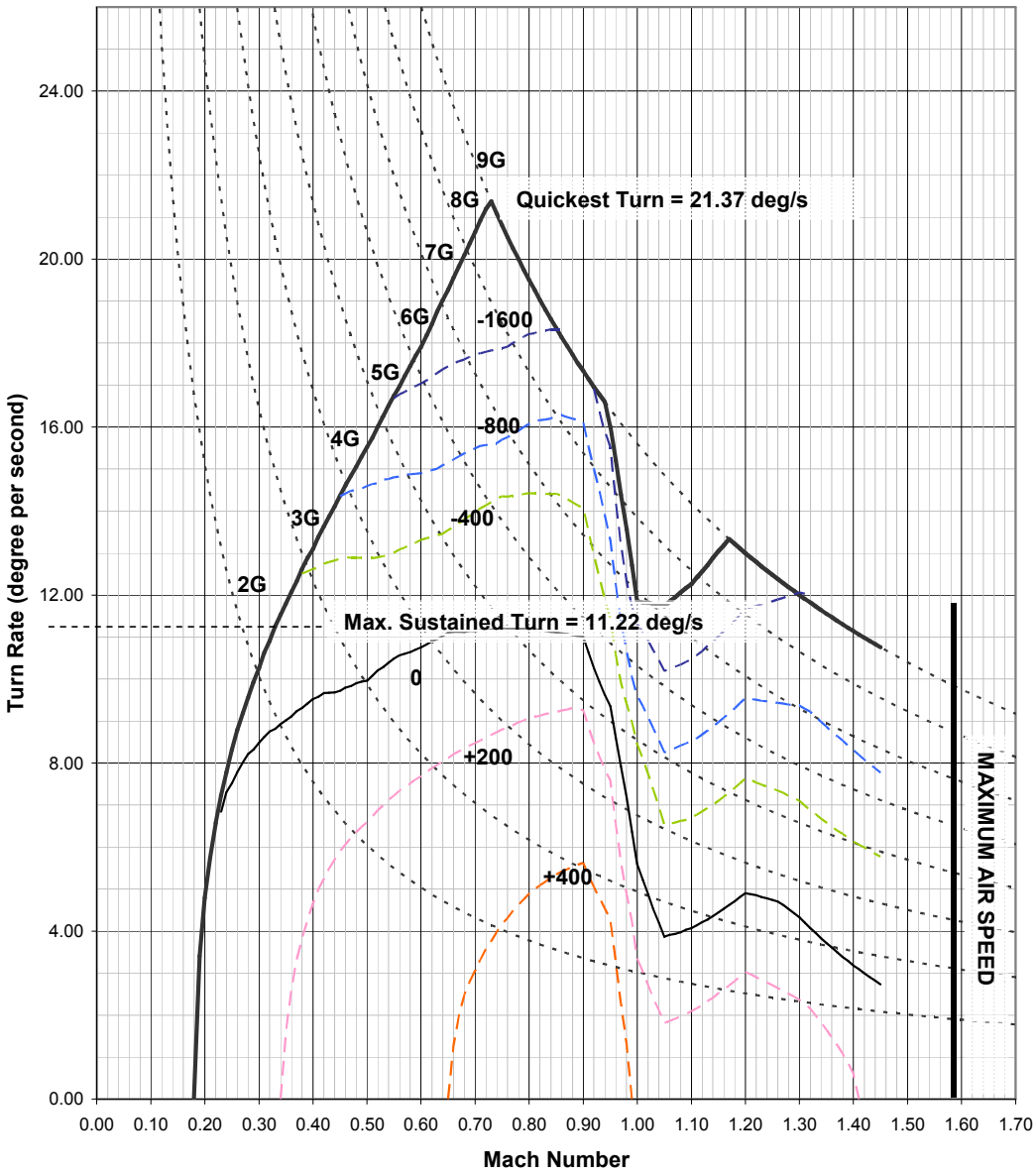
Turn Performance – 15,000 ft

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 0
•GW=23,500lbs / 10.6 t



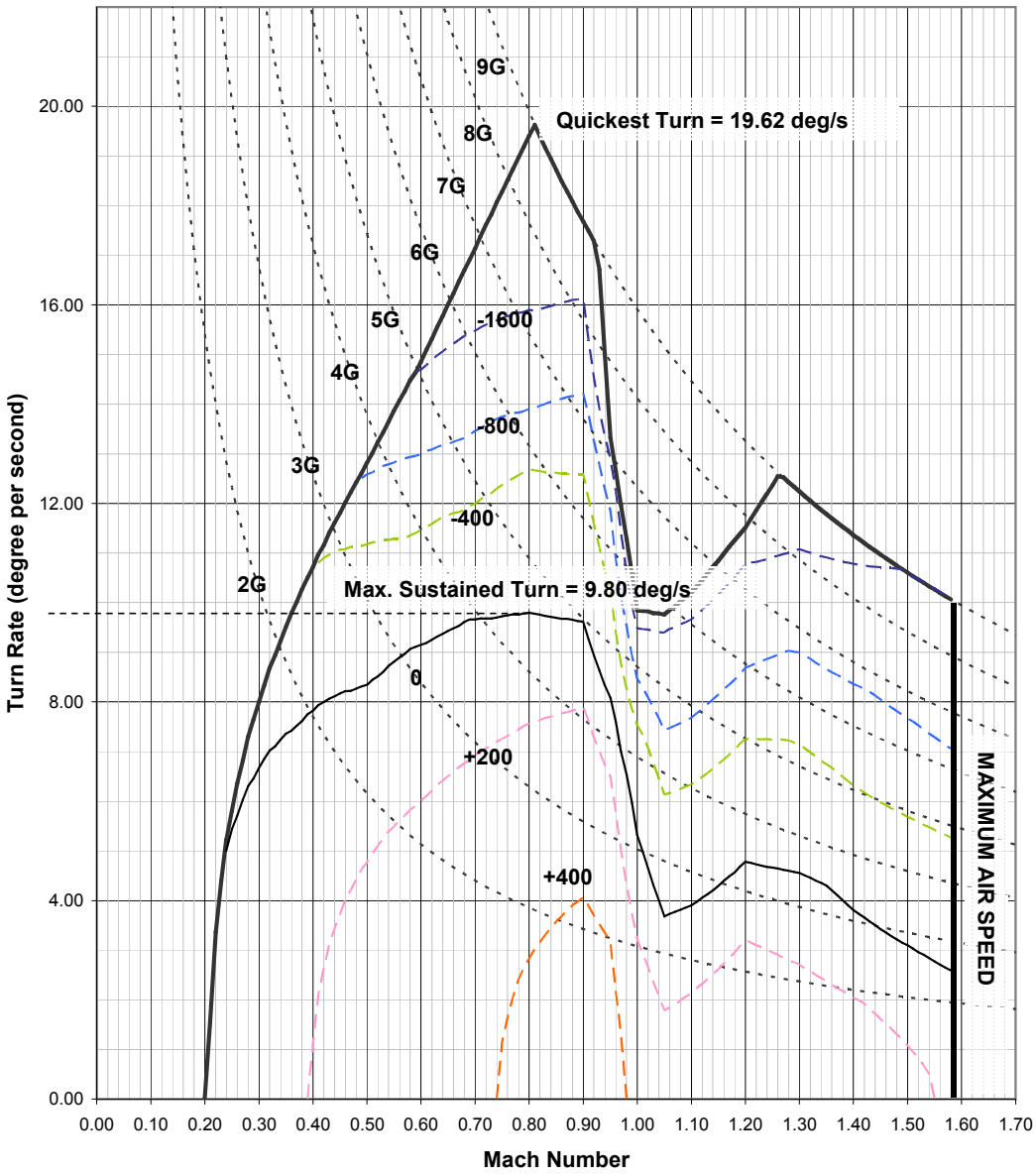
Turn Performance – 20,000 ft

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 0
•GW=23,500lbs / 10.6 t



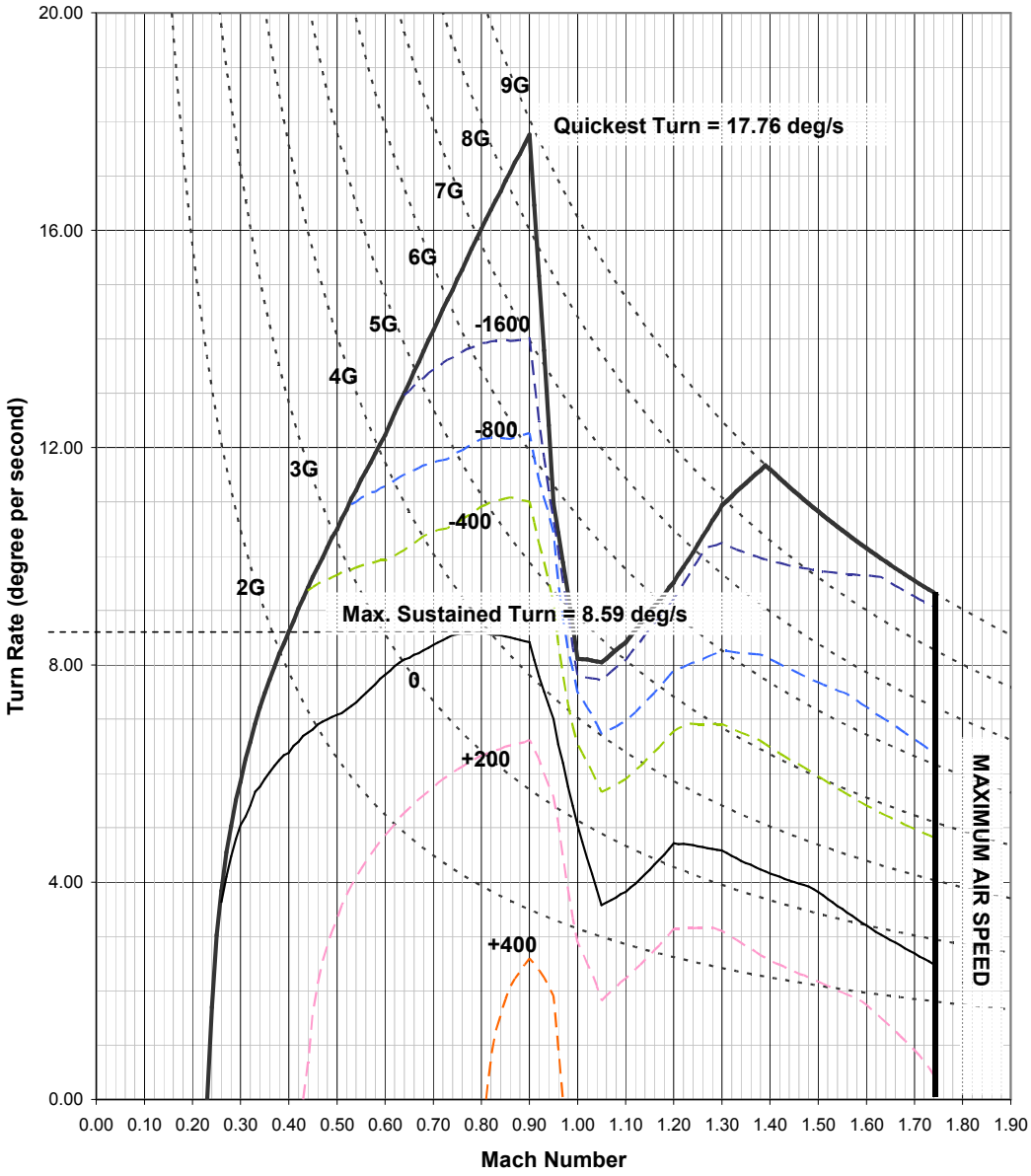
Turn Performance – 25,000 ft

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 0
•GW=23,500lbs / 10.6 t



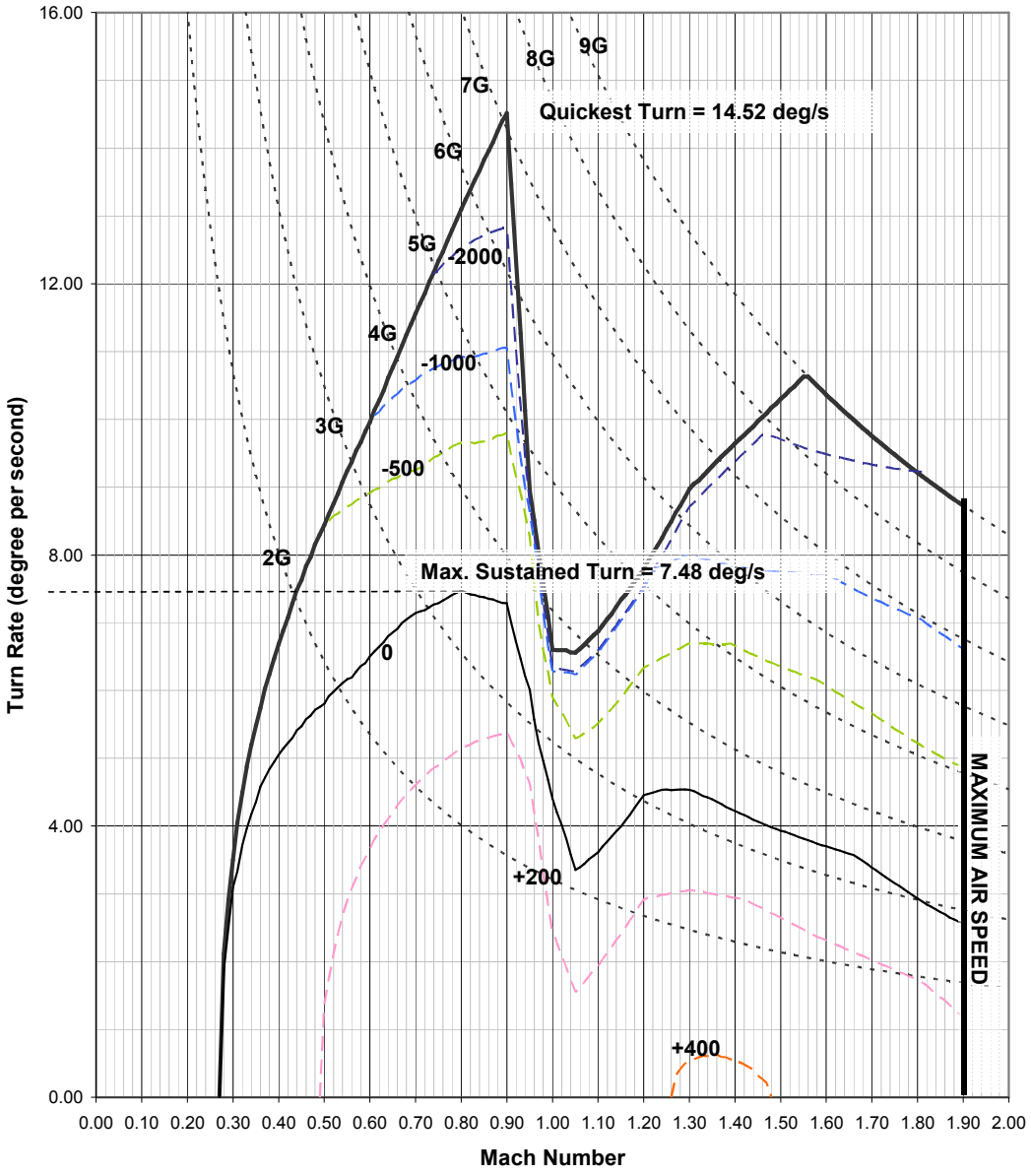
Turn Performance – 30,000 ft

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 0
•GW=23,500lbs / 10.6 t



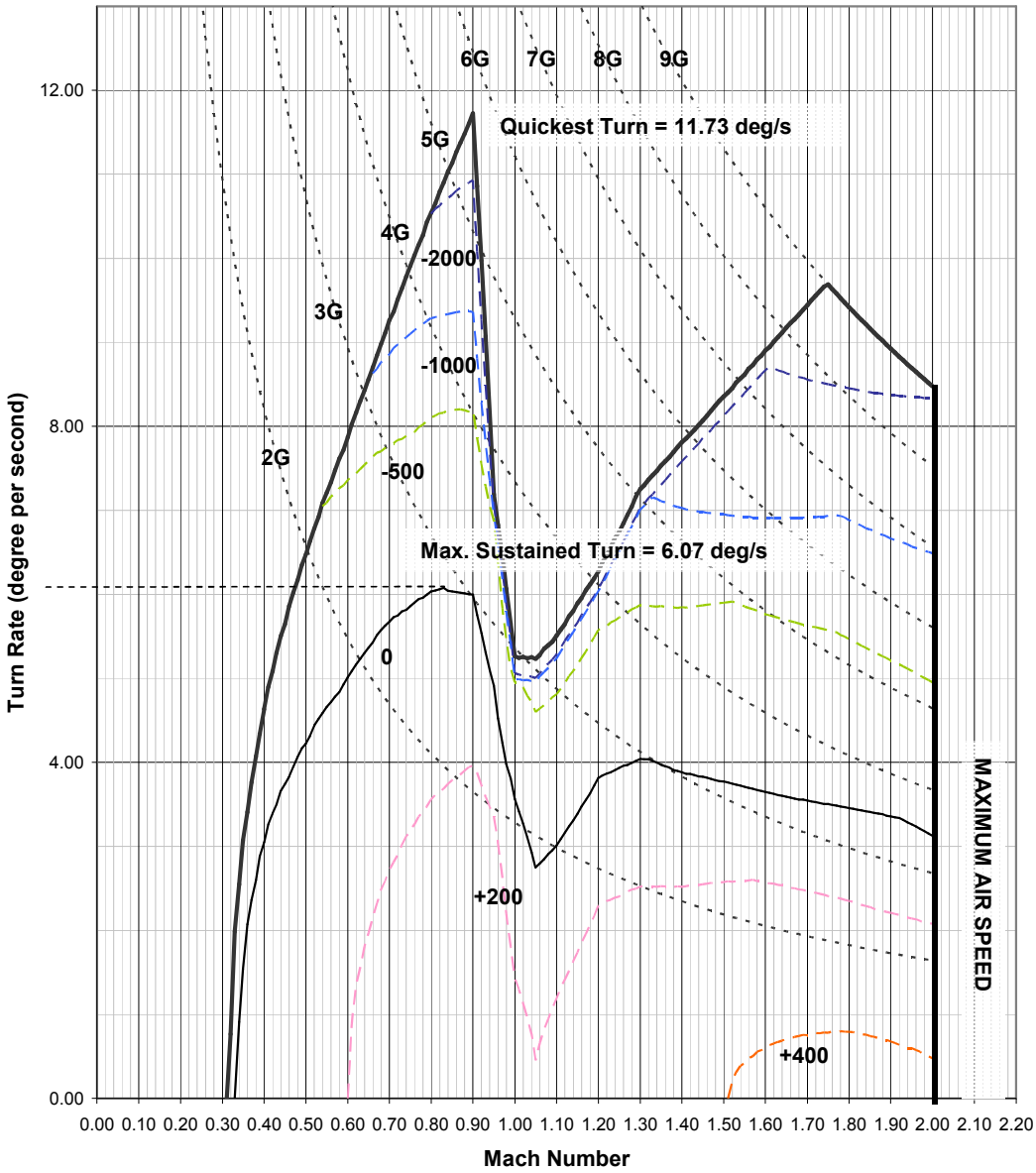
Turn Performance – 35,000 ft

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 0
•GW=23,500lbs / 10.6 t



Turn Performance

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

CONFIGURATIONS :
•DRAG INDEX = 60
•GW=28,000lbs / 12.7 t
•CdVE "Charges" (+5.5G – AoA < 20)

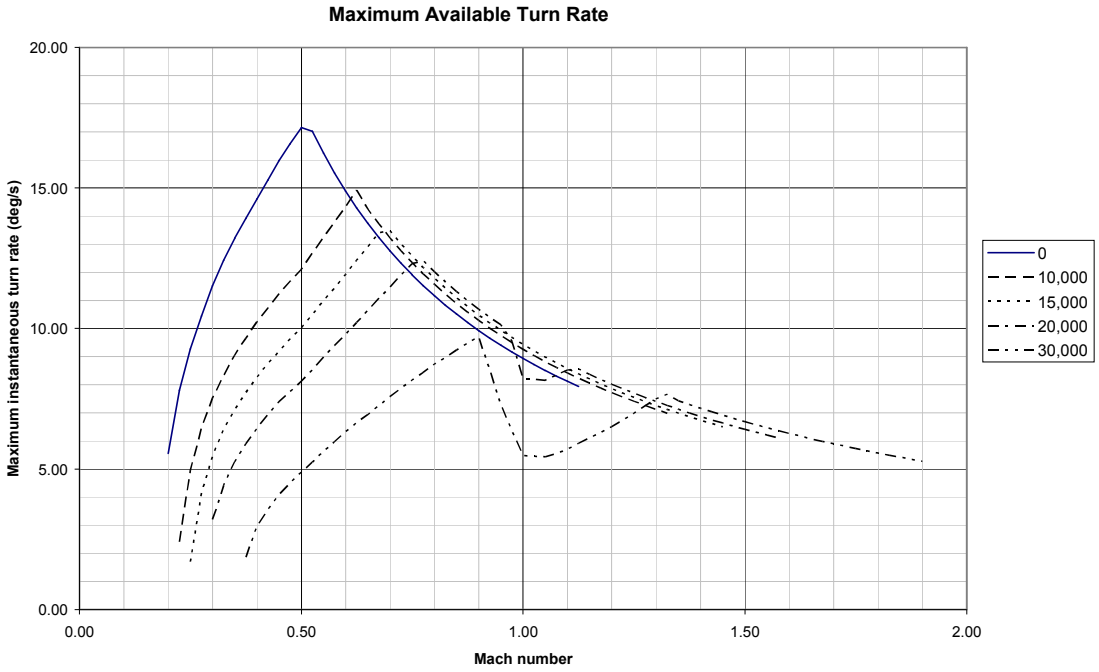
Turn Rate – Summary

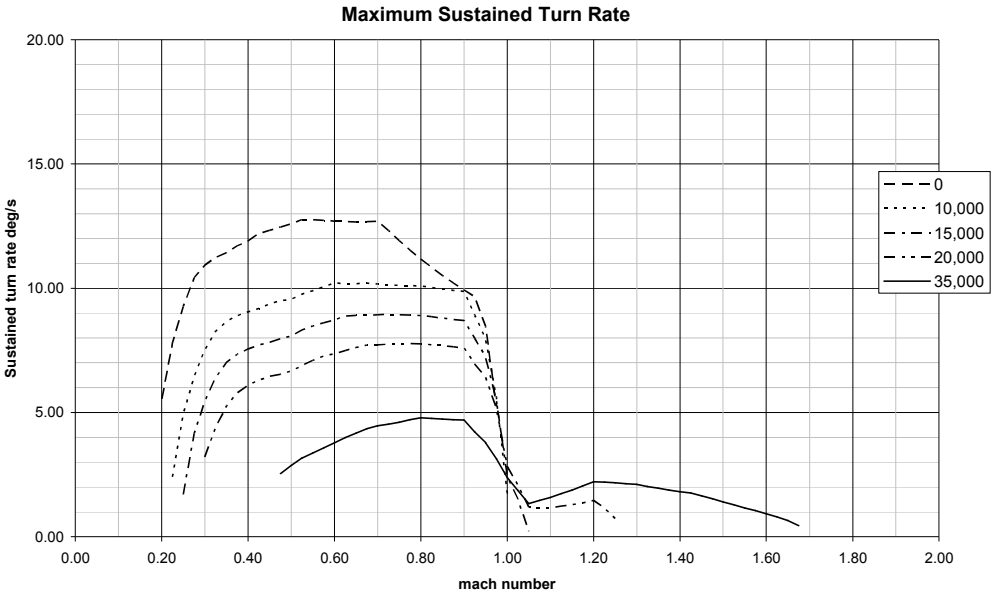
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 60 (2xR550+2xS530+RPL-522)
•GW=28,000lbs / 12.7 t
•CdVE "Charges" (+5.5G – AoA < 20)





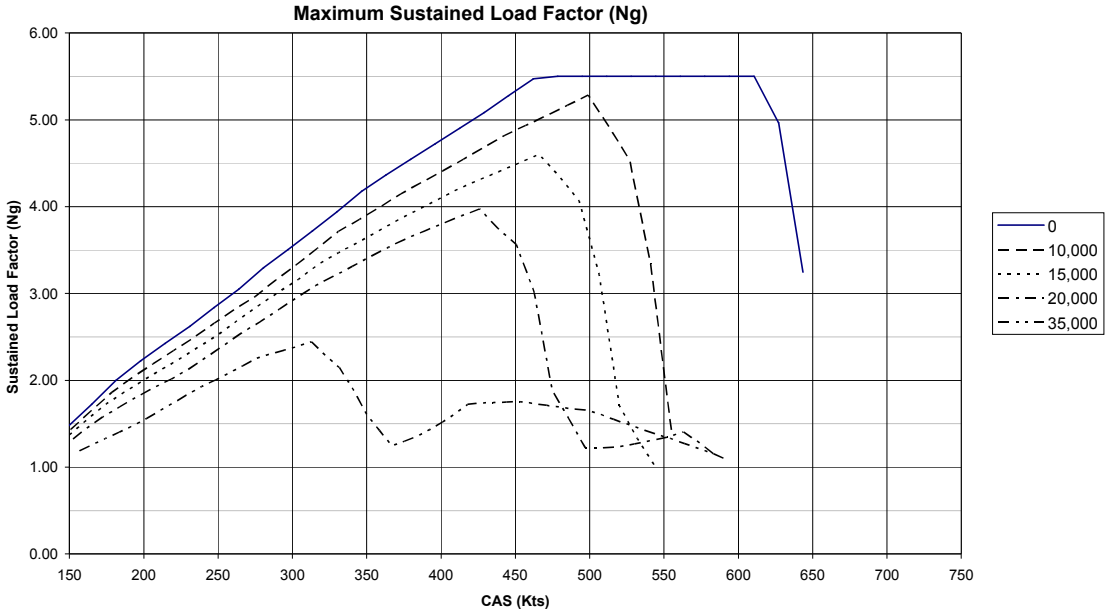
Load Factor – Summary

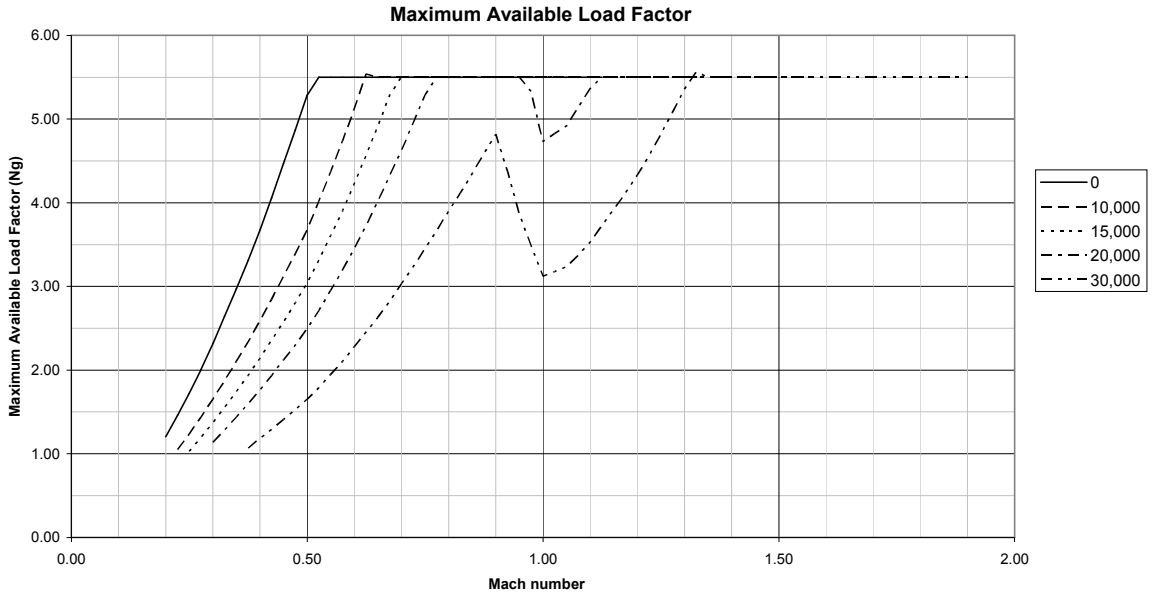
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 60 (2xR550+2xS530+RPL-522)
•GW=28,000lbs / 12.7 t
•CdVE "Charges" (+5.5G – AoA < 20)





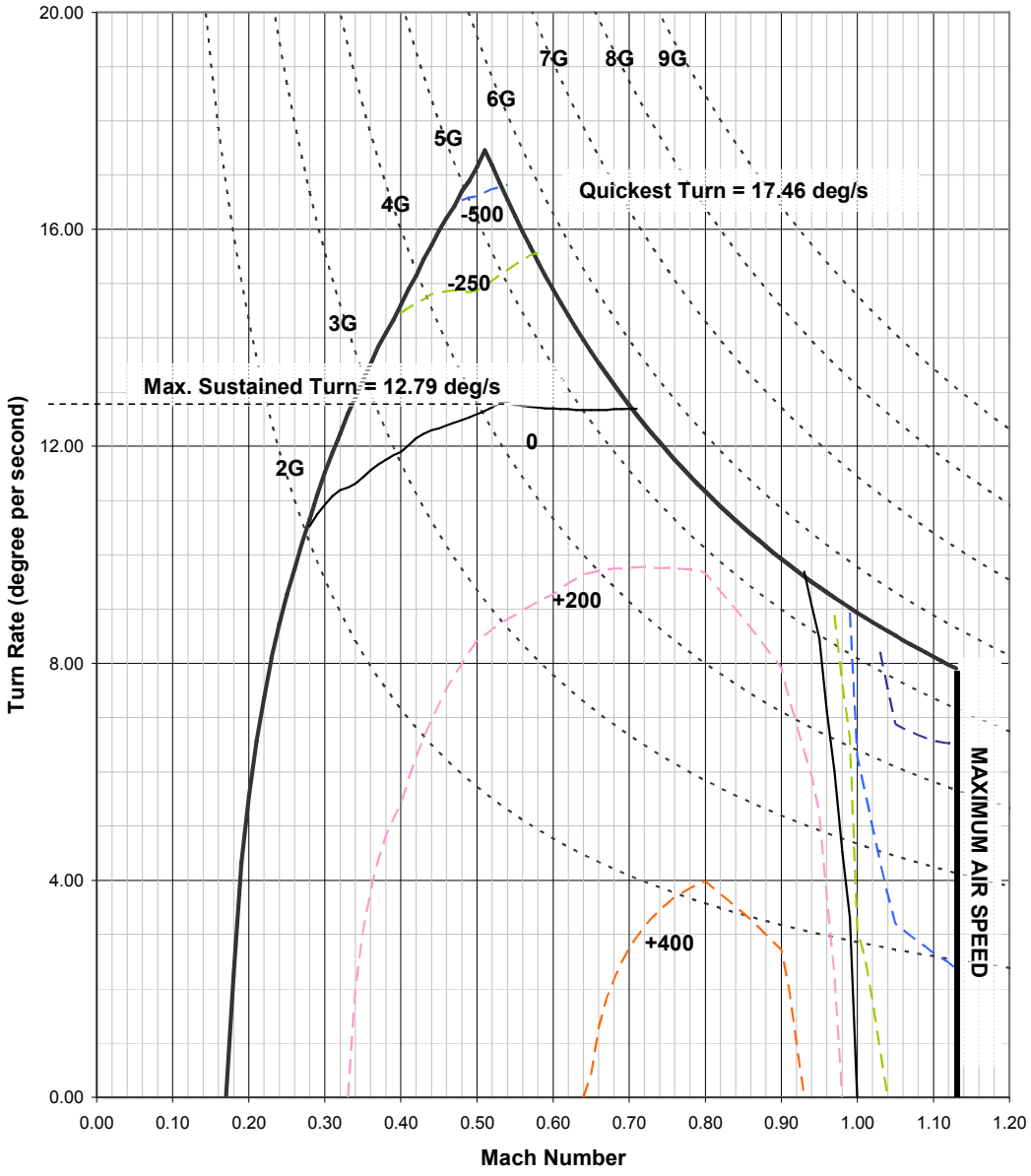
Turn Performance – Sea Level

DATA BASIS : ESTIMATED

CONDITIONS:
- **Standard Day**
- **Max AB**

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

CONFIGURATIONS :
- **DRAG INDEX = 60 (2xR550+2xS530+RPL-522)**
- **GW=28,000lbs / 12.7 t**
- **CdVE "Charges" (+5.5G – AoA < 20)**



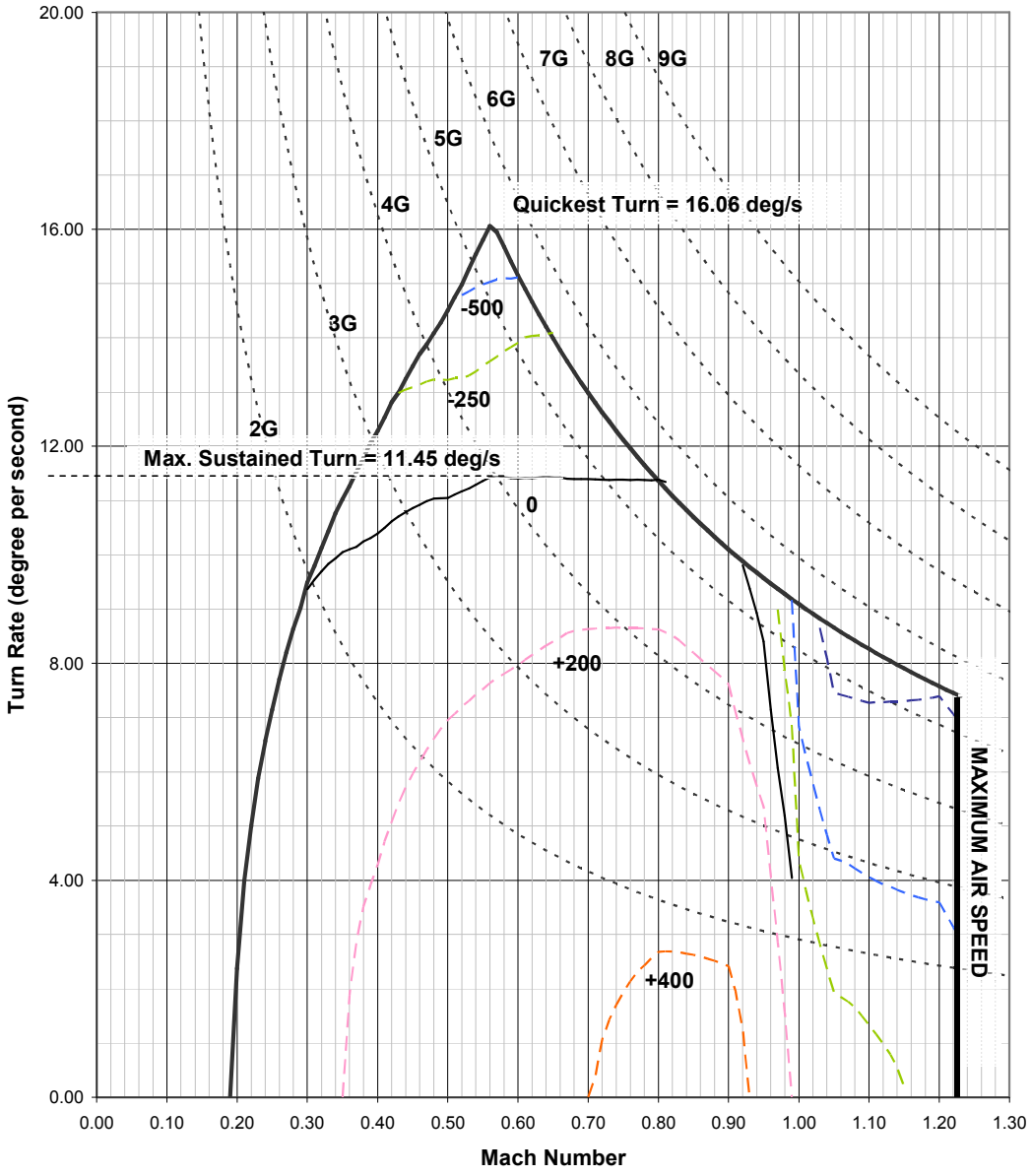
Turn Performance – 5,000 ft

DATA BASIS : ESTIMATED

CONDITIONS:
- **Standard Day**
- **Max AB**

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

CONFIGURATIONS :
- **DRAG INDEX = 60 (2xR550+2xS530+RPL-522)**
- **GW=28,000lbs / 12.7 t**
- **CdVE "Charges" (+5.5G – AoA < 20)**



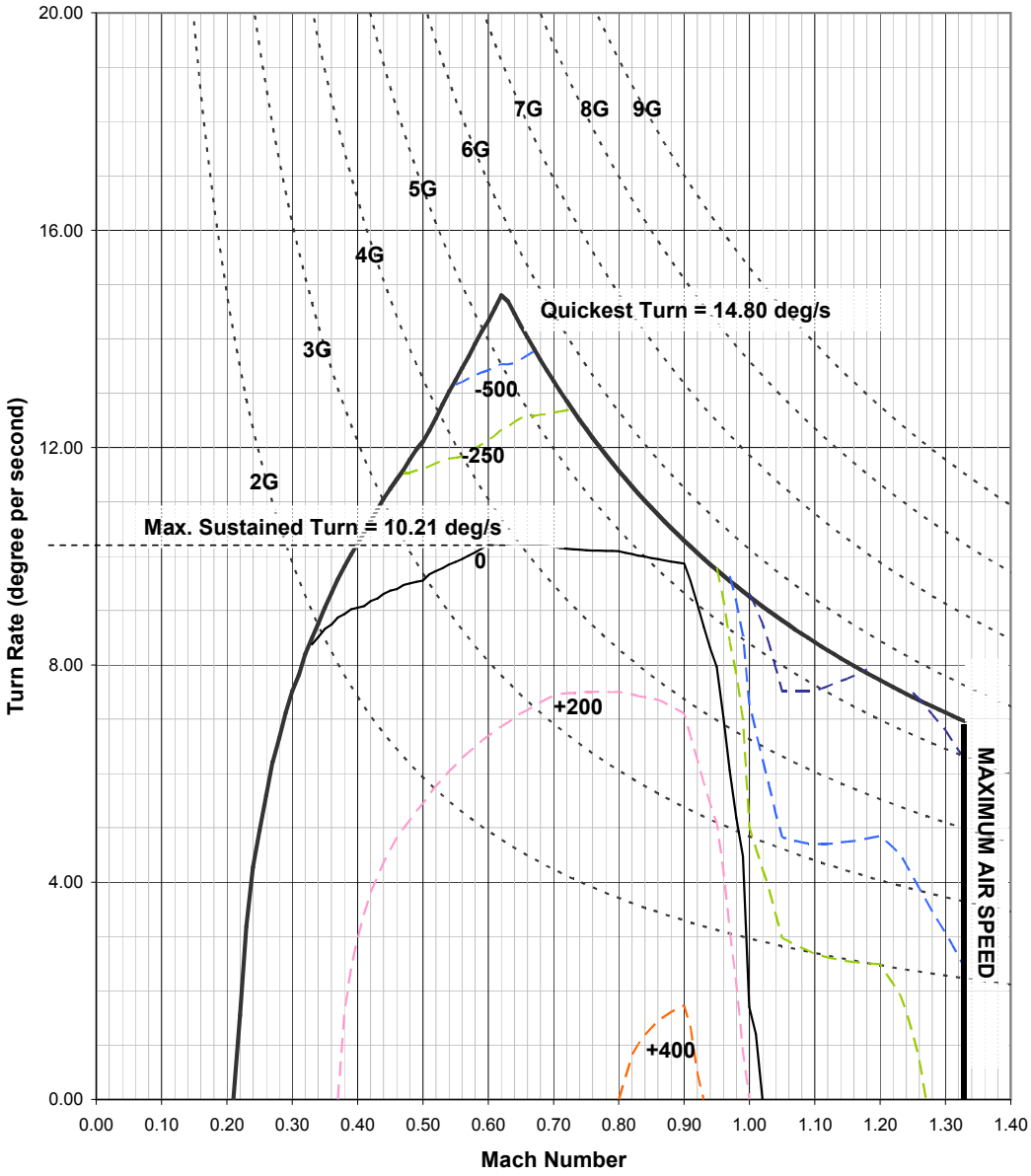
Turn Performance – 10,000 ft

DATA BASIS : ESTIMATED

CONDITIONS:
- **Standard Day**
- **Max AB**

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

CONFIGURATIONS :
- **DRAG INDEX = 60 (2xR550+2xS530+RPL-522)**
- **GW=28,000lbs / 12.7 t**
- **CdVE "Charges" (+5.5G – AoA < 20)**



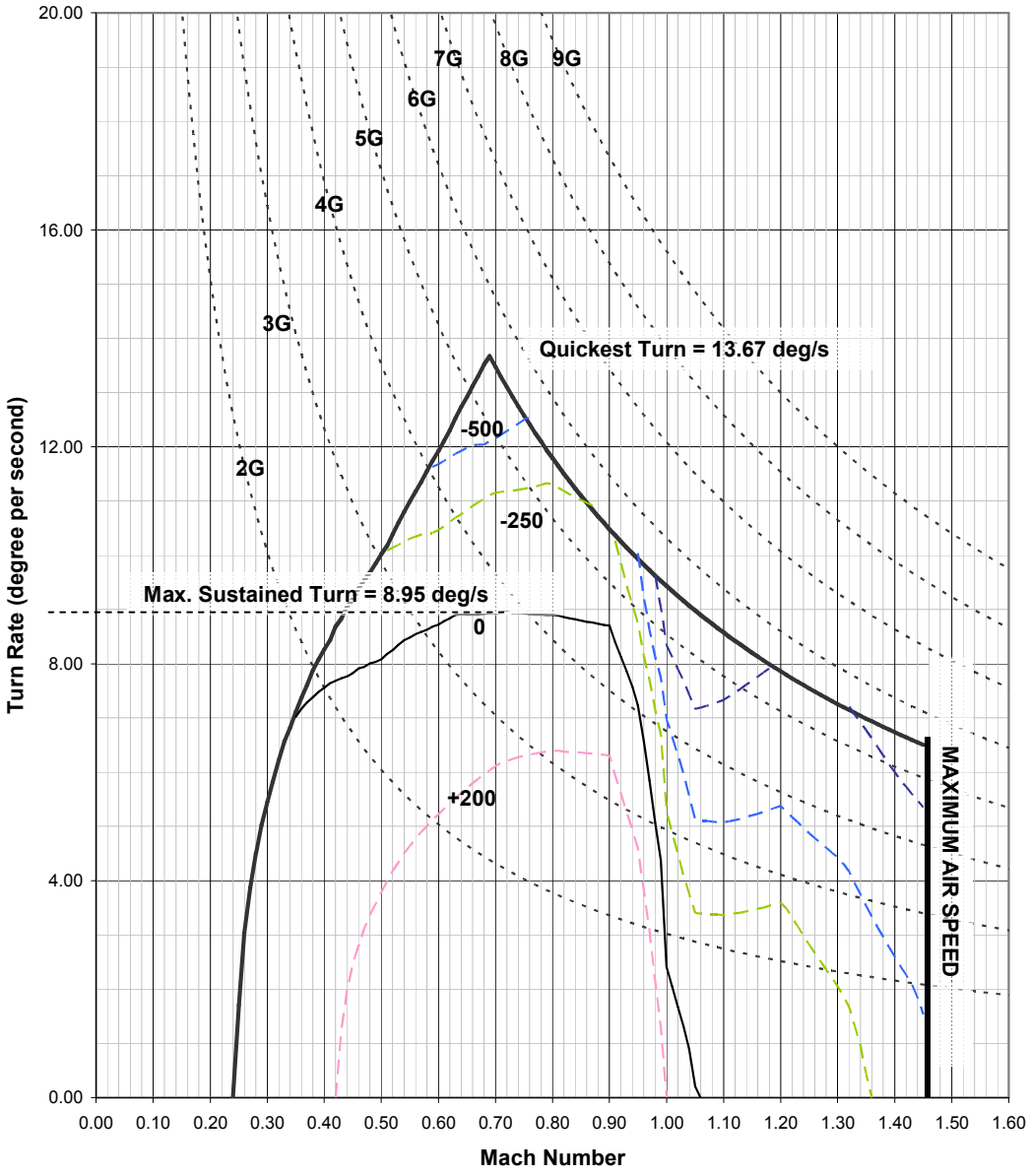
Turn Performance – 15,000 ft

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

DATA BASIS : ESTIMATED

CONFIGURATIONS :
•DRAG INDEX = 60 (2xR550+2xS530+RPL-522)
•GW=28,000lbs / 12.7 t
•CdVE "Charges" (+5.5G – AoA < 20)

CONDITIONS:
•Standard Day
•Max AB



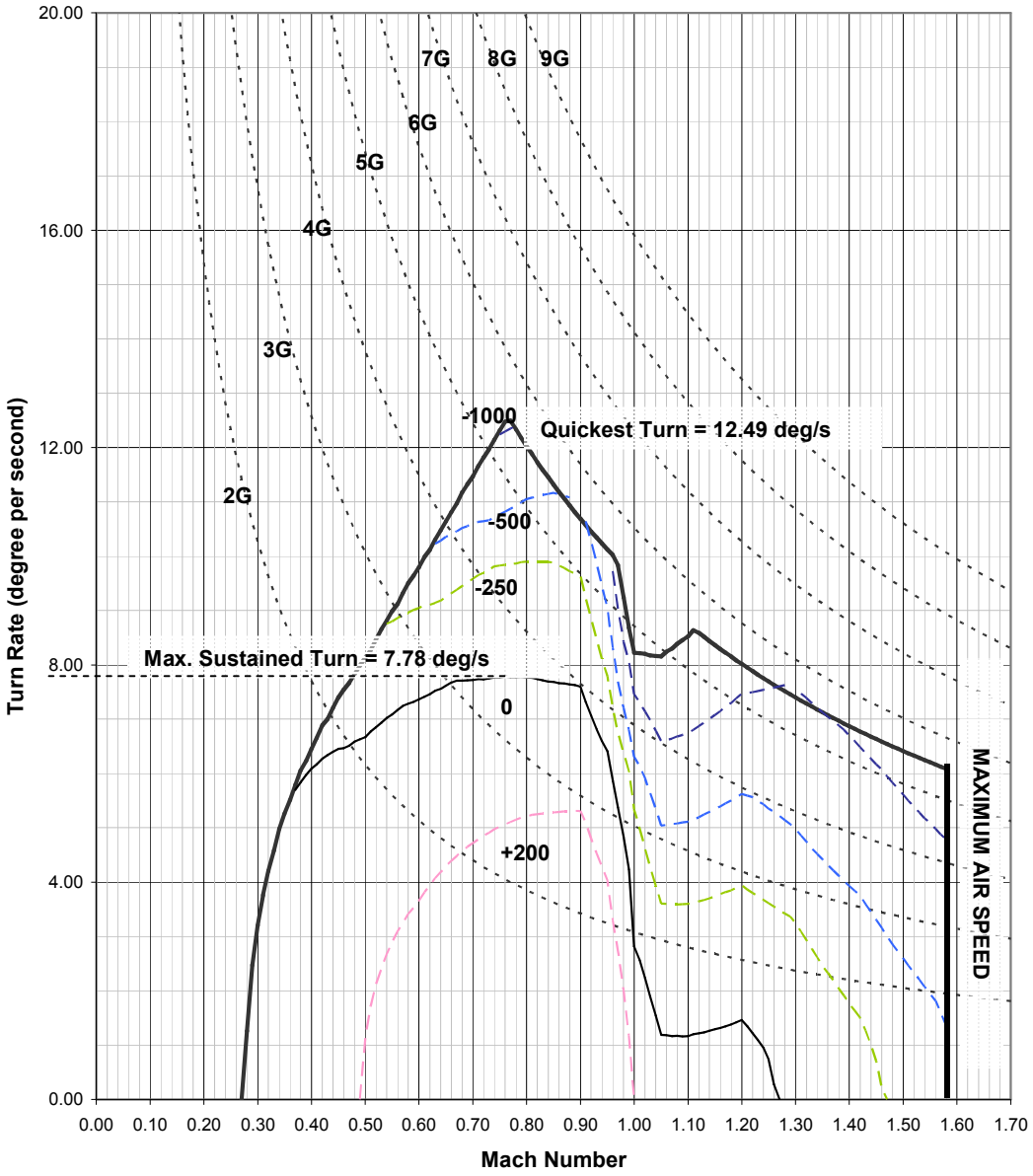
Turn Performance – 20,000 ft

DATA BASIS : ESTIMATED

CONDITIONS:
- **Standard Day**
- **Max AB**

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

CONFIGURATIONS :
- **DRAG INDEX = 60 (2xR550+2xS530+RPL-522)**
- **GW=28,000lbs / 12.7 t**
- **CdVE "Charges" (+5.5G – AoA < 20)**



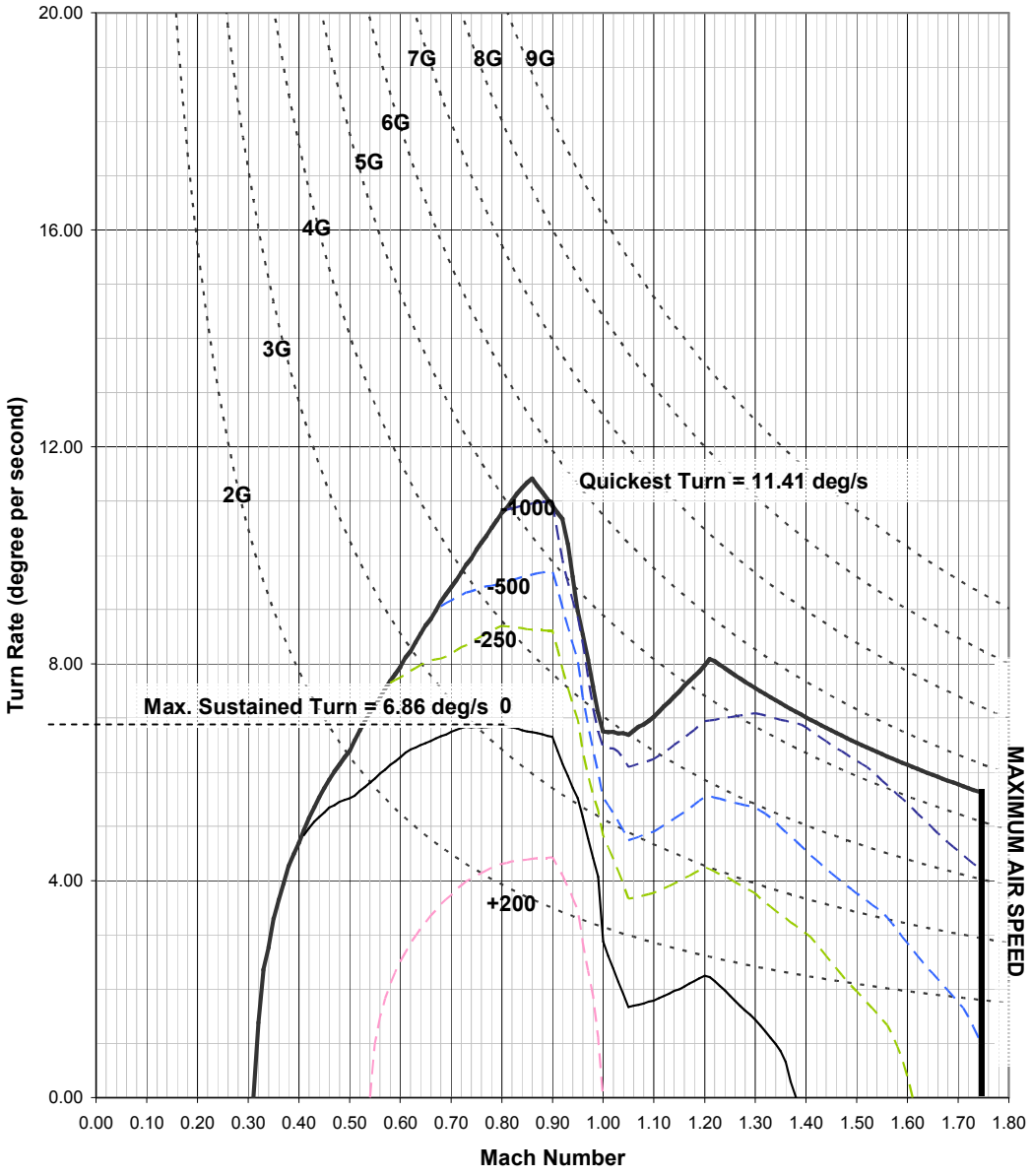
Turn Performance – 25,000 ft

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

DATA BASIS : ESTIMATED

CONFIGURATIONS :
•DRAG INDEX = 60 (2xR550+2xS530+RPL-522)
•GW=28,000lbs / 12.7 t
•CdVE "Charges" (+5.5G – AoA < 20)

CONDITIONS:
•Standard Day
•Max AB



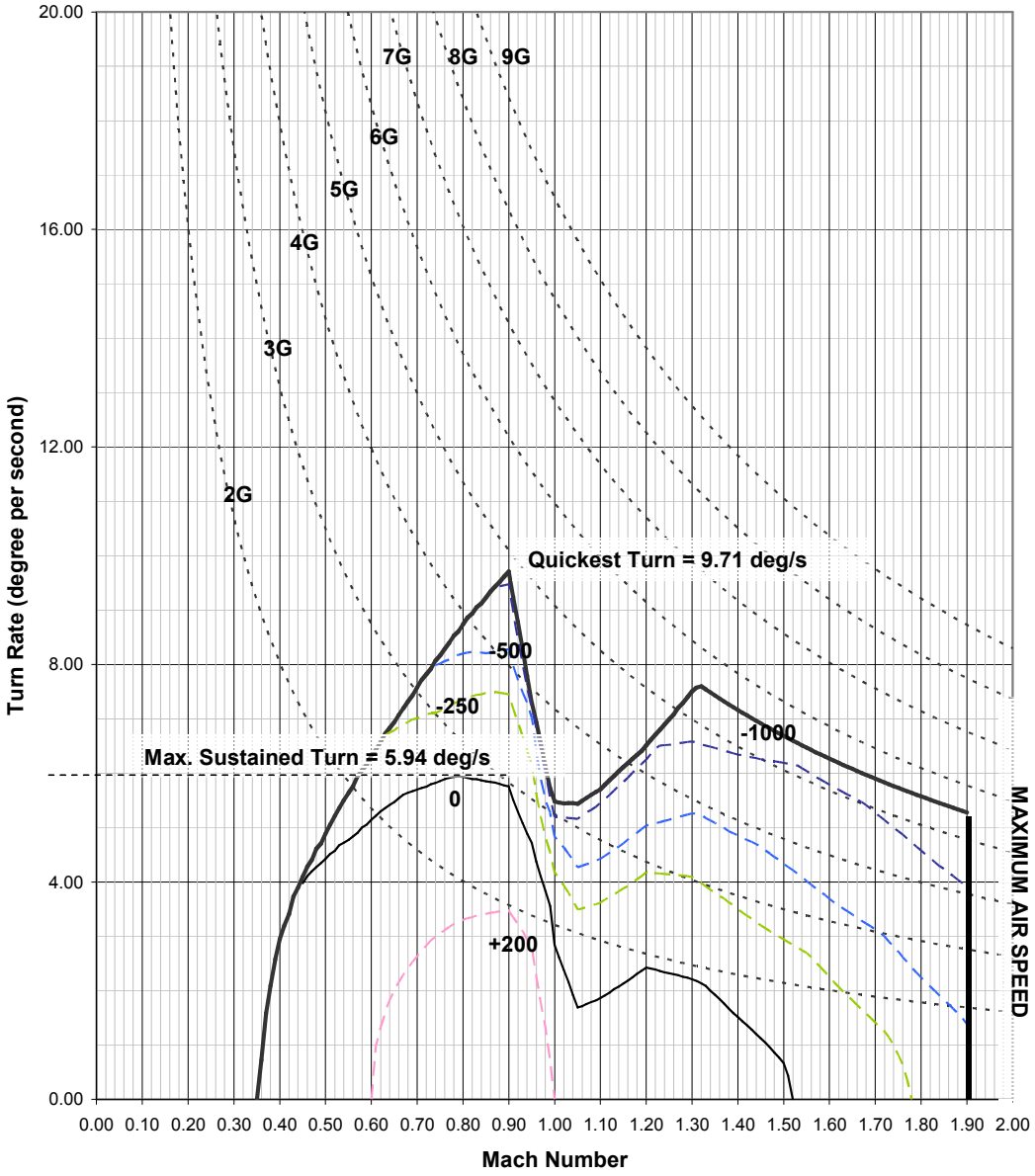
Turn Performance – 30,000 ft

DATA BASIS : ESTIMATED

CONDITIONS:
- **Standard Day**
- **Max AB**

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

CONFIGURATIONS :
- **DRAG INDEX = 60 (2xR550+2xS530+RPL-522)**
- **GW=28,000lbs / 12.7 t**
- **CdVE "Charges" (+5.5G – AoA < 20)**



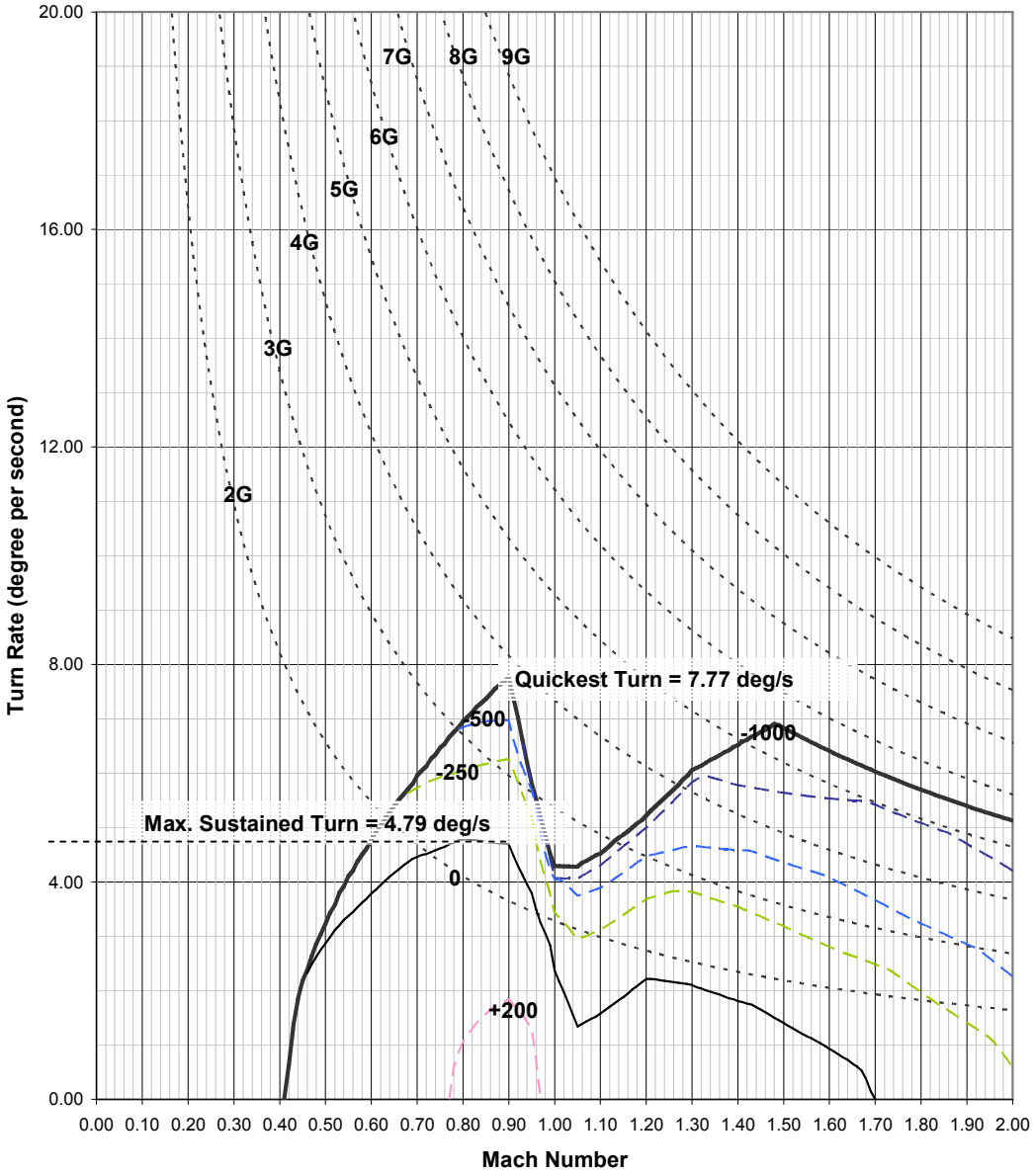
Turn Performance – 35,000 ft

DATA BASIS : ESTIMATED

CONDITIONS:
- **Standard Day**
- **Max AB**

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

CONFIGURATIONS :
- **DRAG INDEX = 60 (2xR550+2xS530+RPL-522)**
- **GW=28,000lbs / 12.7 t**
- **CdVE "Charges" (+5.5G – AoA < 20)**



Turn Performance

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

CONFIGURATIONS :
•RPL 541/542
•GW=27,500lbs / 12.4 t

Turn Rate – Summary

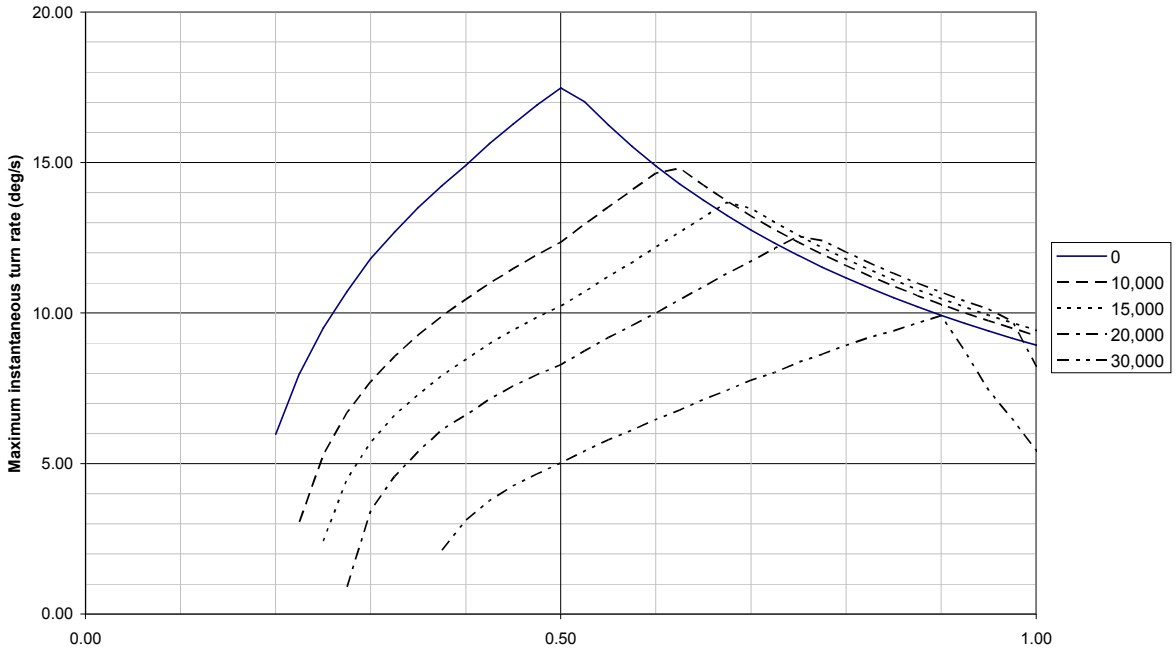
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

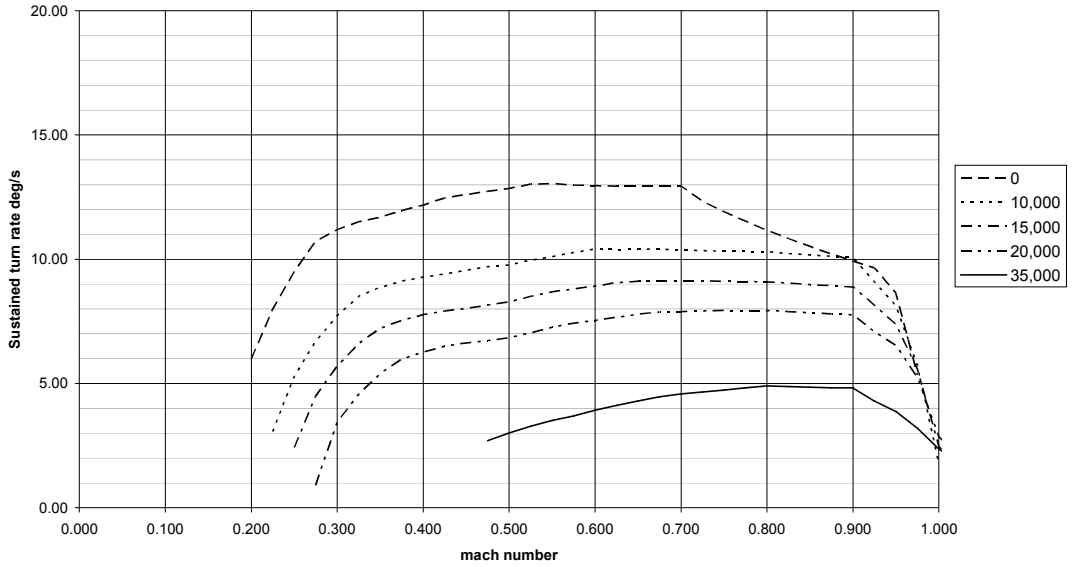
CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•RPL 541/542
•GW=27,500lbs / 12.4 t
•CdVE "Charges" (+5.5G – AoA < 20)

Maximum available Turn Rate



Sustained Turn Rate



Load Factor – Summary

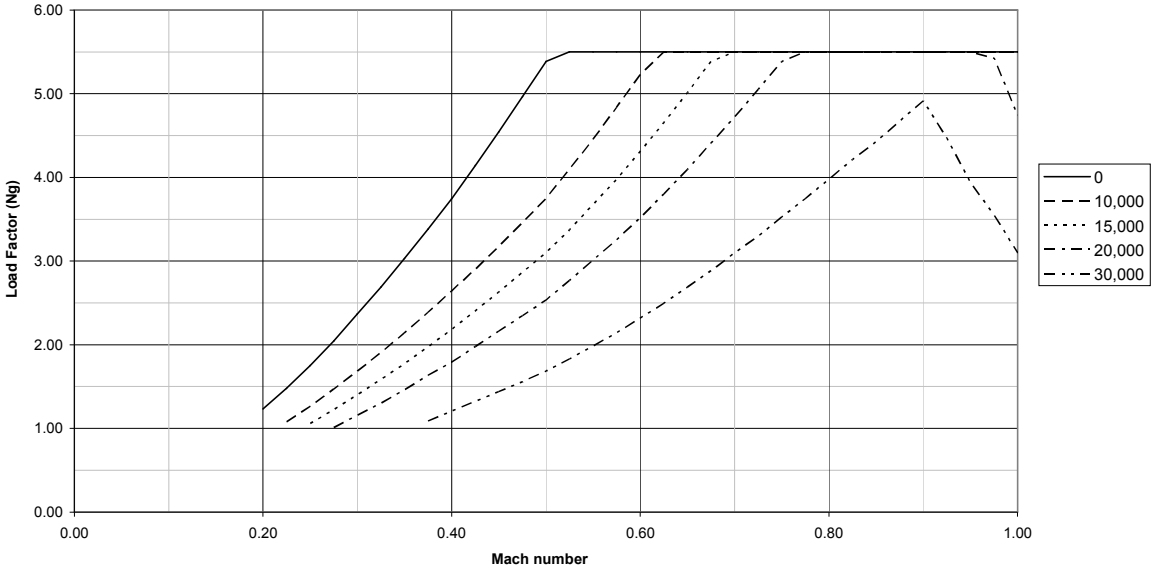
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

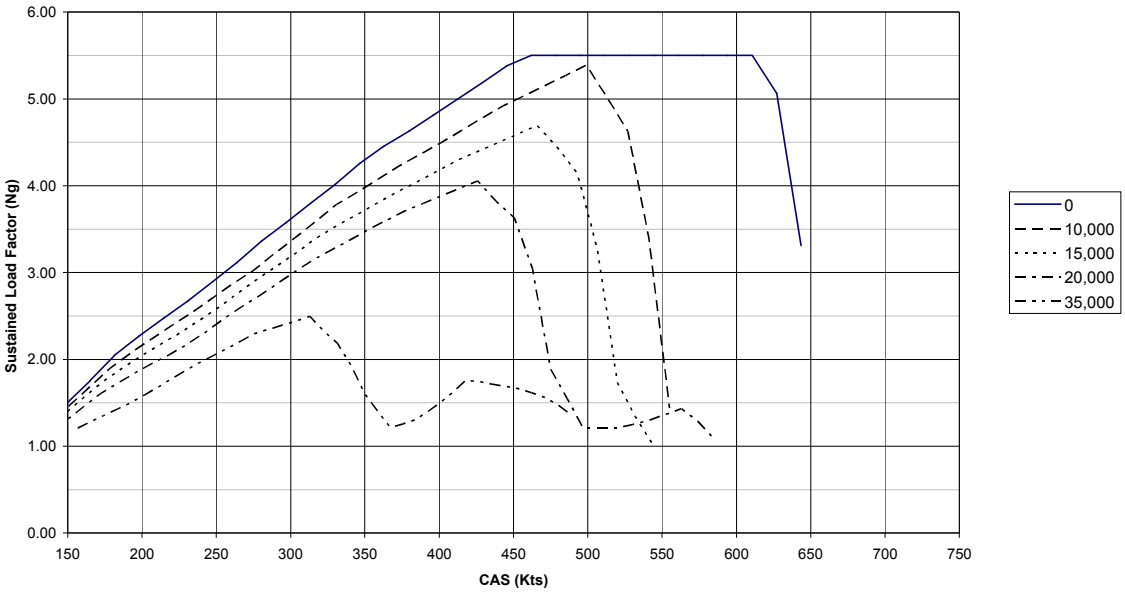
CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•RPL 541/542
•GW=27,500lbs / 12.4 t
•CdVE "Charges" (+5.5G – AoA < 20)

Maximum Available Load Factor



Sustained G



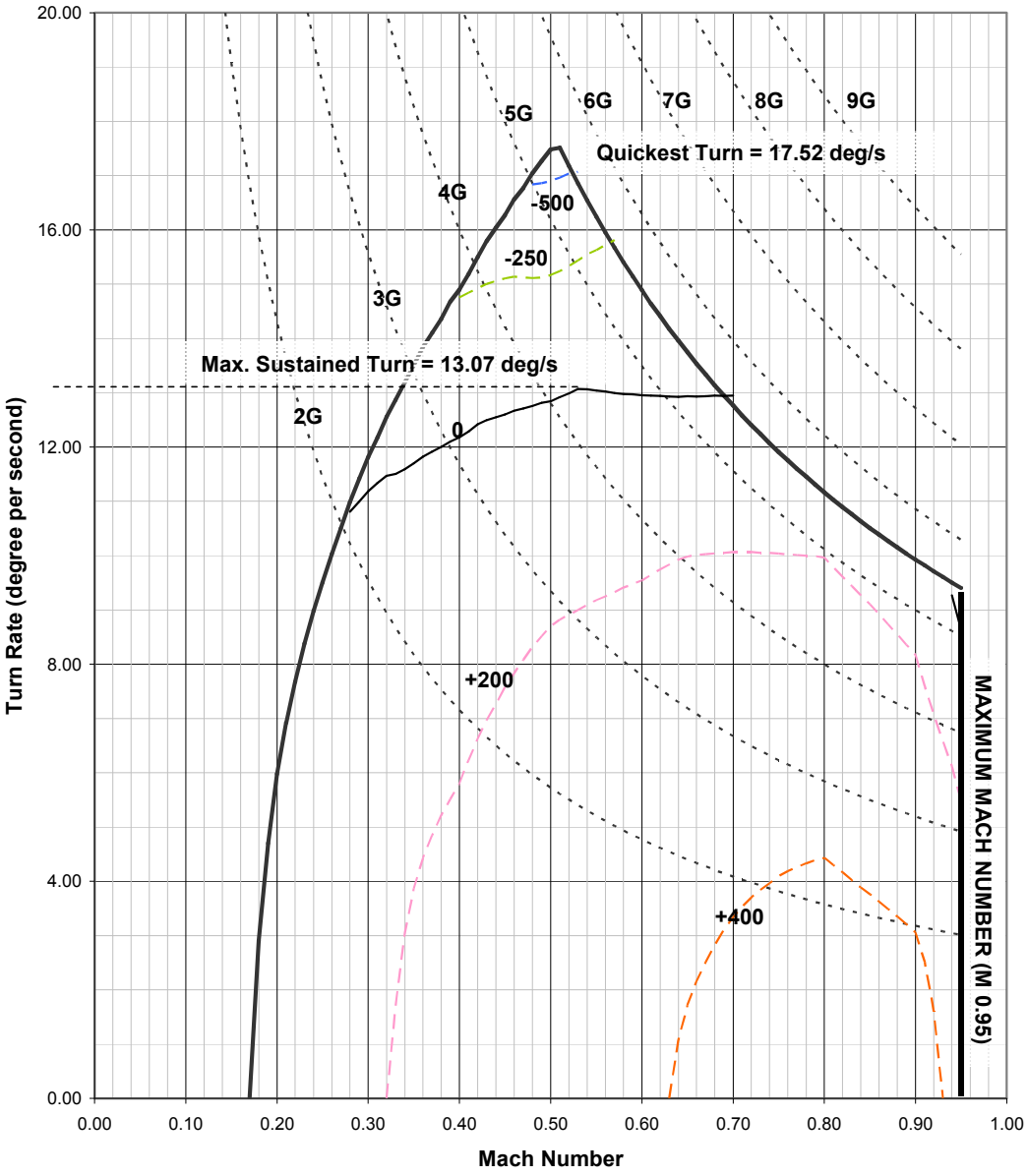
Turn Performance – Sea Level

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•RPL 541/542
•GW=27,500lbs / 12.4 t
•CdVE "Charges" (+5.5G – AoA < 20)



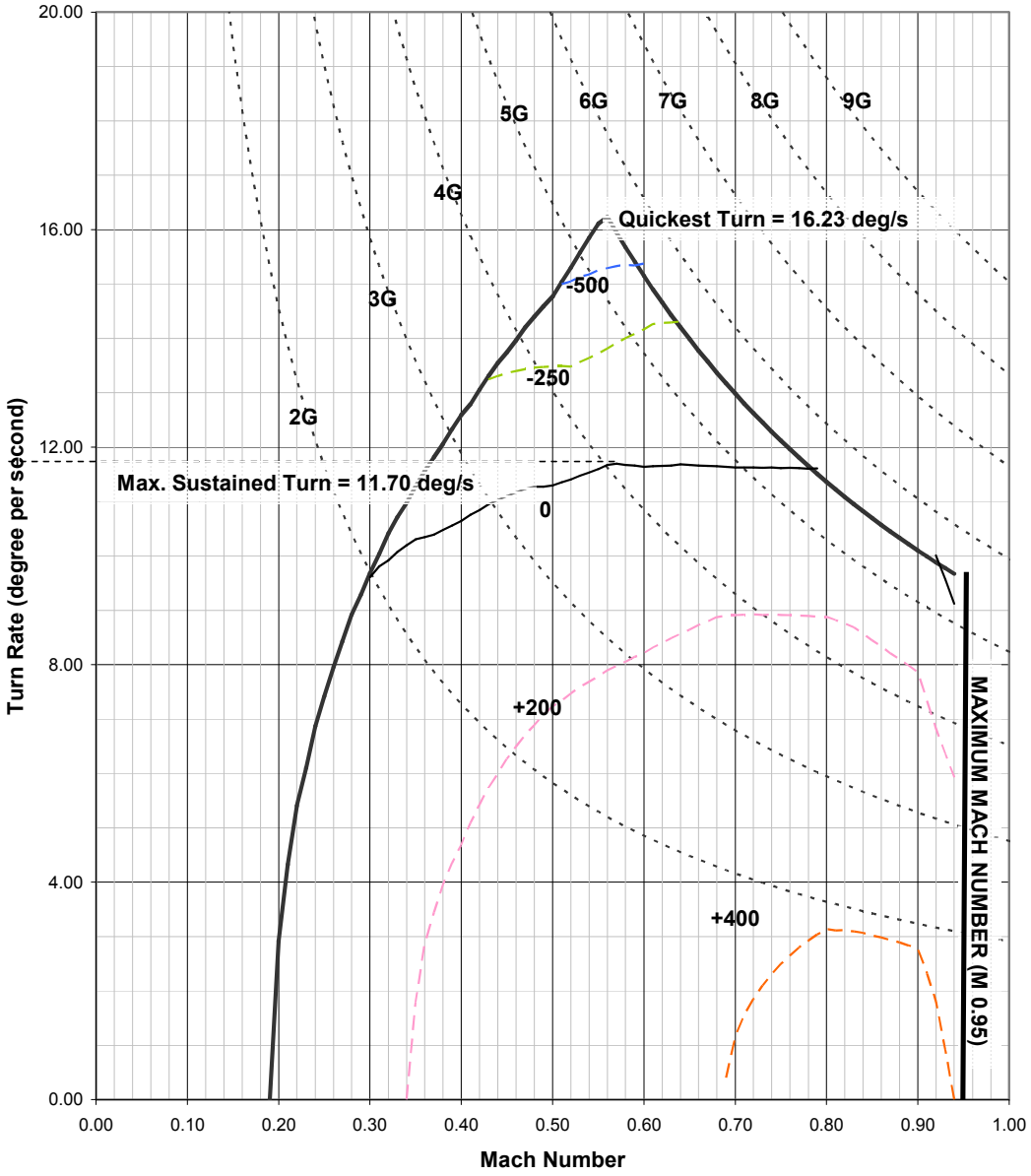
Turn Performance – 5,000 ft

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•RPL 541/542
•GW=27,500lbs / 12.4 t
•CdVE "Charges" (+5.5G – AoA < 20)



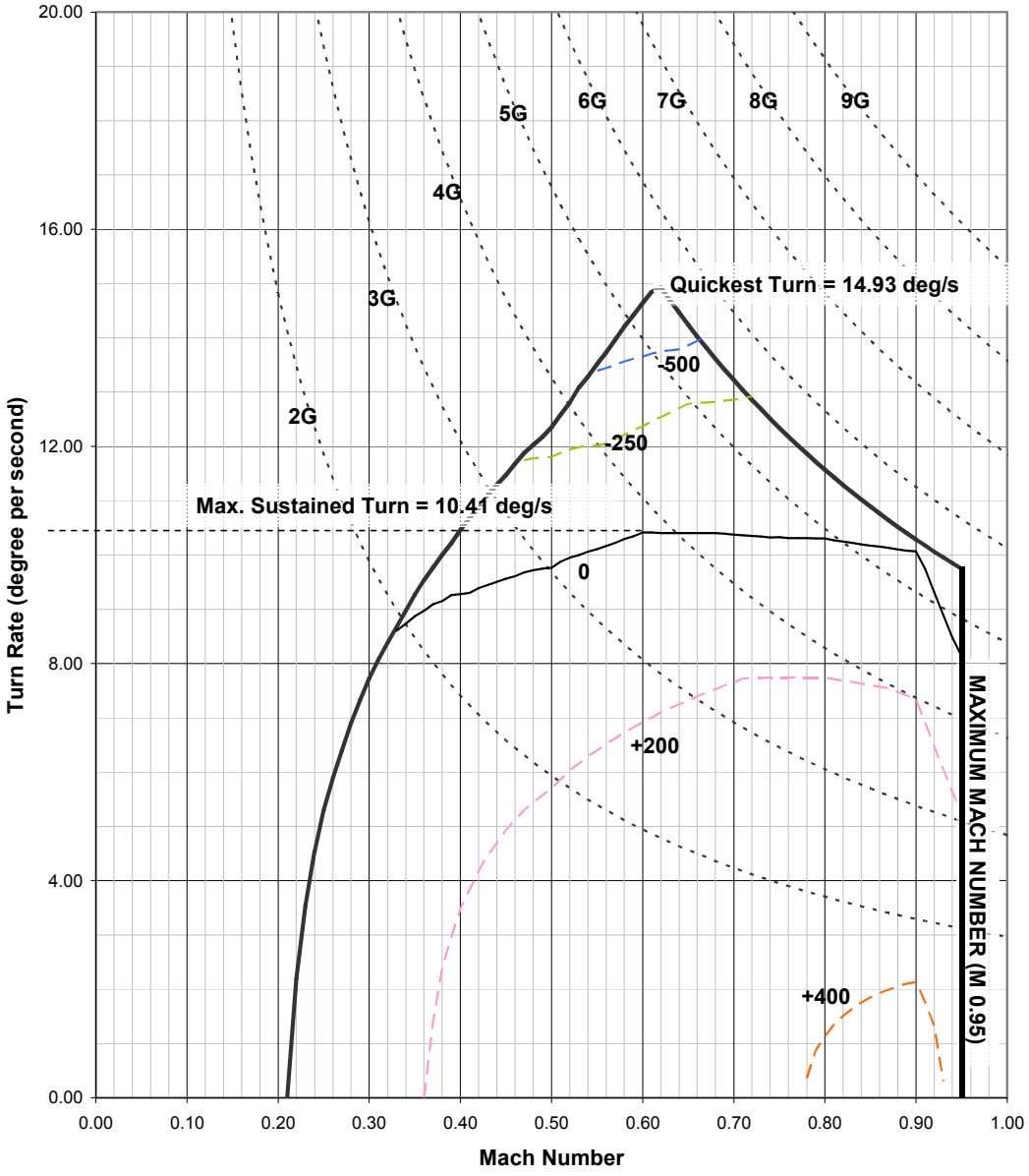
Turn Performance – 10,000 ft

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•RPL 541/542
•GW=27,500lbs / 12.4 t
•CdVE "Charges" (+5.5G – AoA < 20)



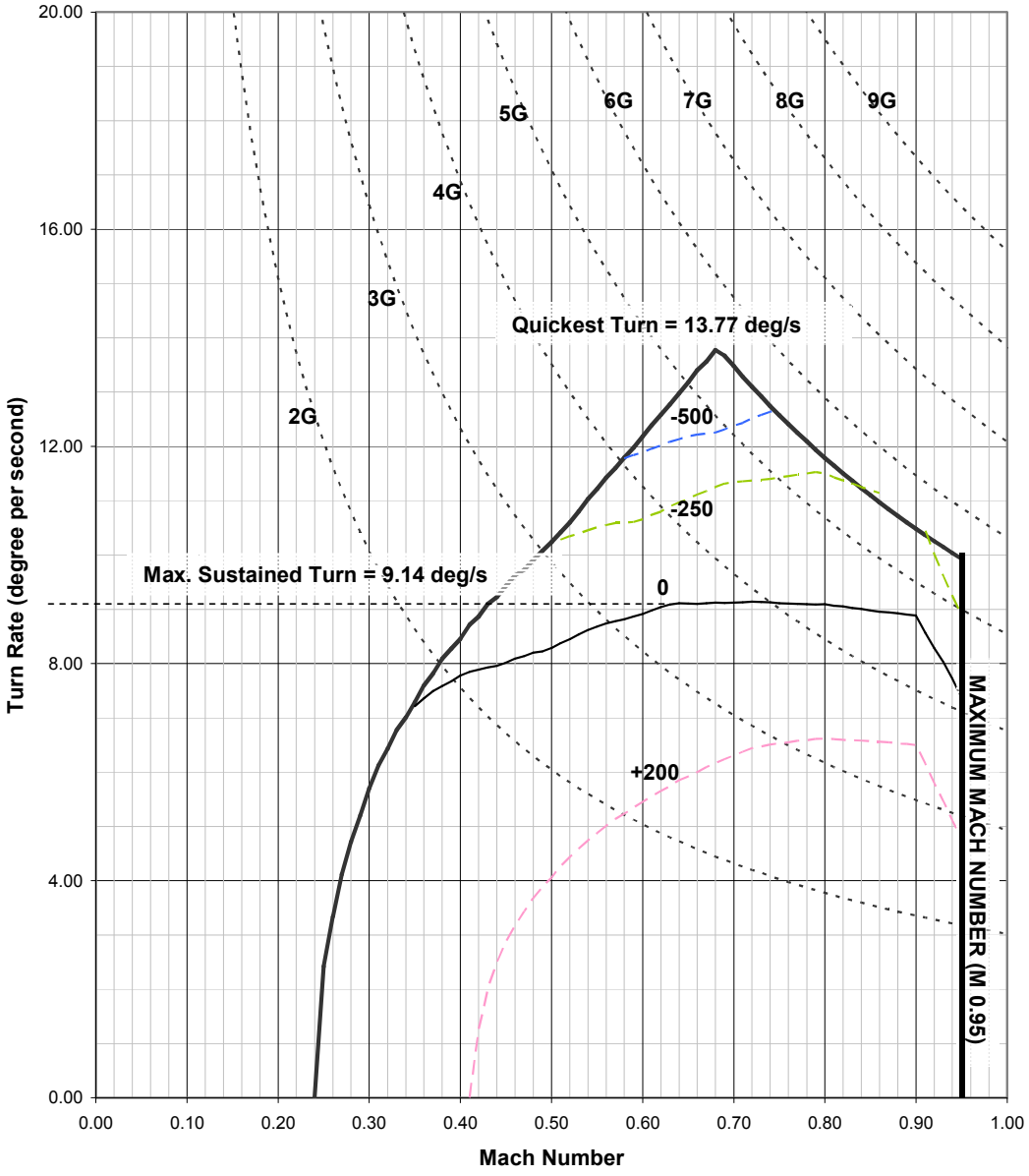
Turn Performance – 15,000 ft

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•RPL 541/542
•GW=27,500lbs / 12.4 t
•CdVE "Charges" (+5.5G – AoA < 20)



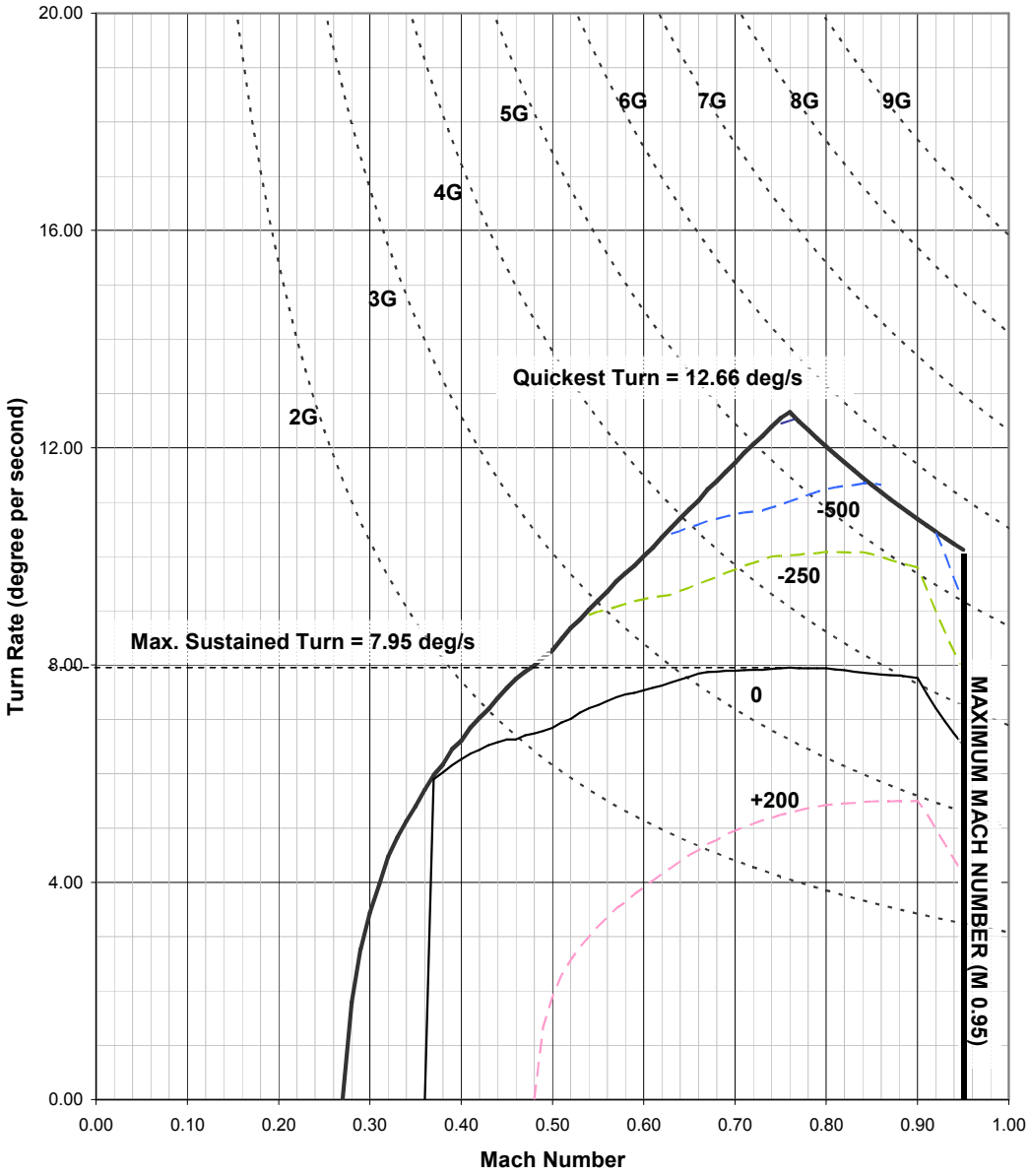
Turn Performance – 20,000 ft

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•RPL 541/542
•GW=27,500lbs / 12.4 t
•CdVE "Charges" (+5.5G – AoA < 20)



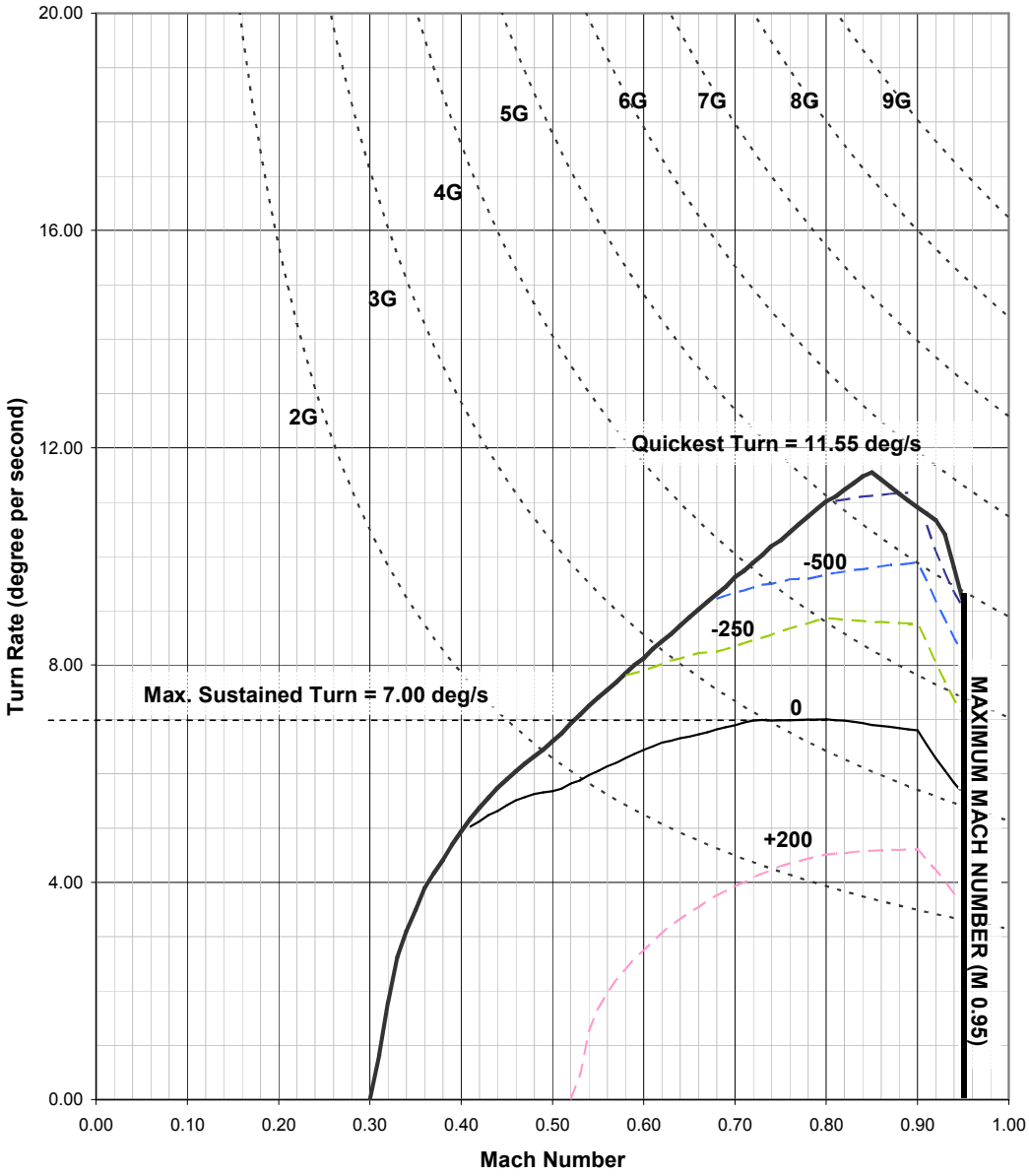
Turn Performance – 25,000 ft

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•RPL 541/542
•GW=27,500lbs / 12.4 t
•CdVE "Charges" (+5.5G – AoA < 20)



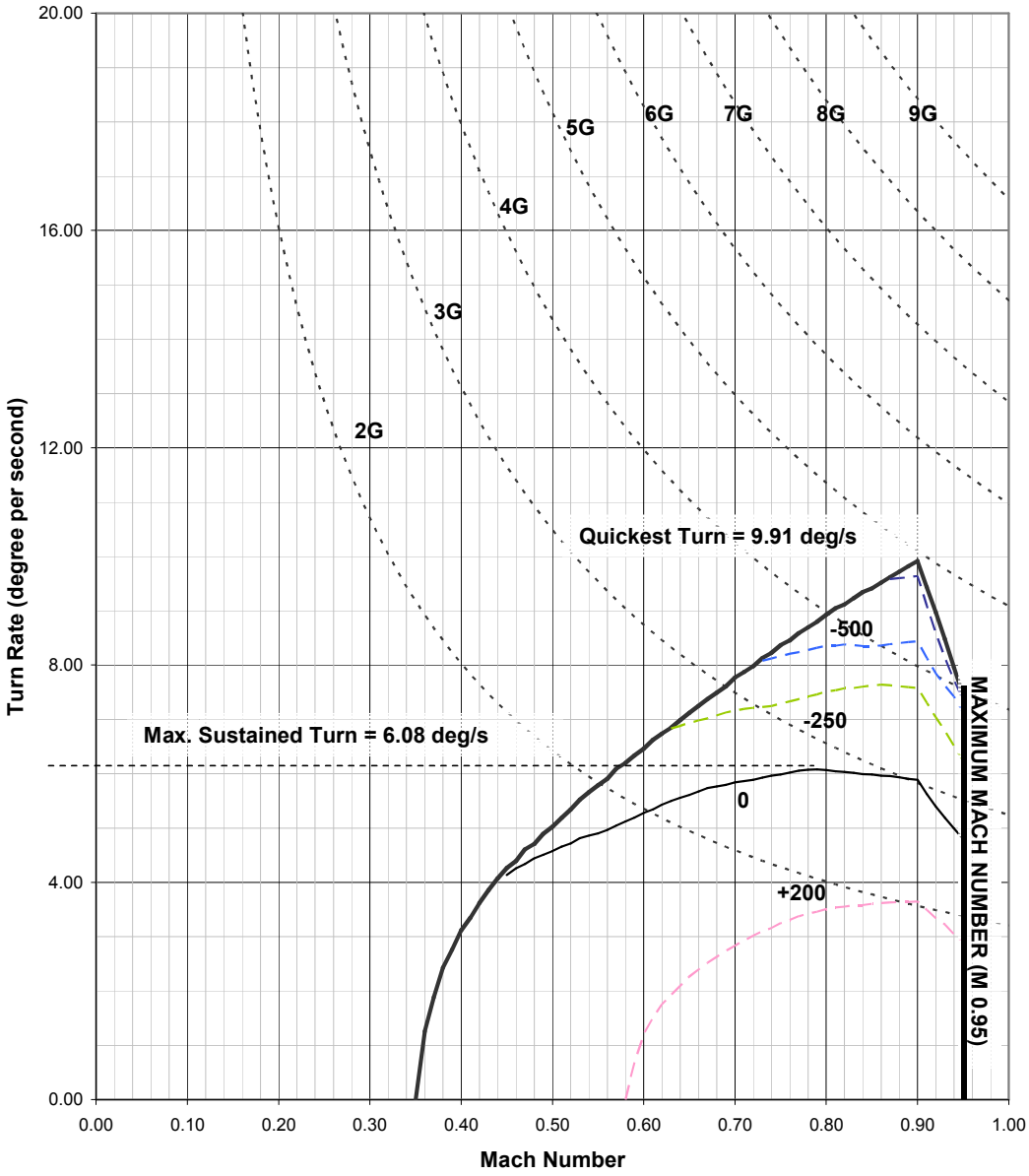
Turn Performance – 30,000 ft

DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•RPL 541/542
•GW=27,500lbs / 12.4 t
•CdVE "Charges" (+5.5G – AoA < 20)



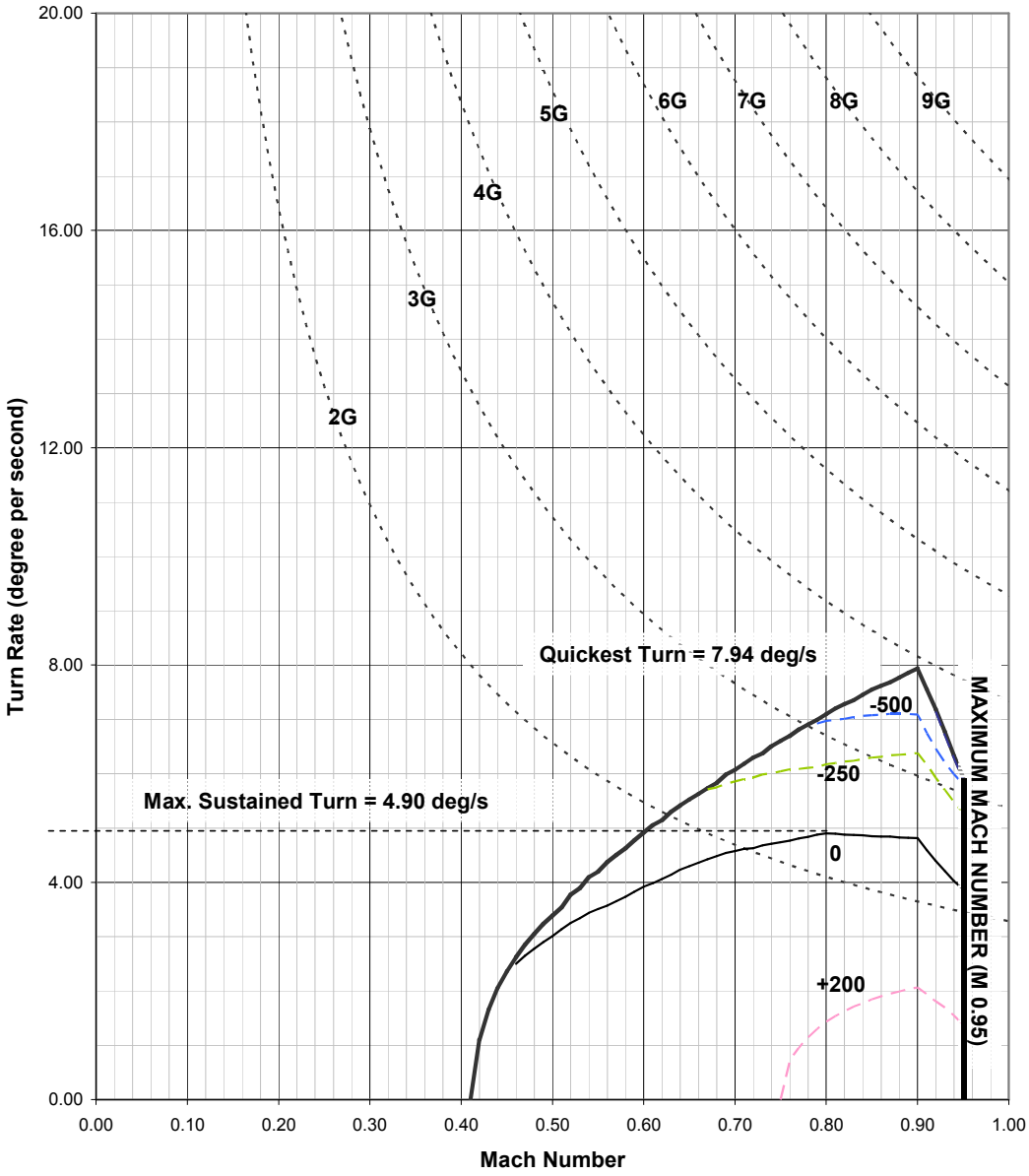
Turn Performance – 35,000 ft

DATA BASIS : ESTIMATED

CONDITIONS:
•Standard Day
•Max AB

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

CONFIGURATIONS :
•RPL 541/542
•GW=27,500lbs / 12.4 t
•CdVE "Charges" (+5.5G – AoA < 20)



Climb Performance

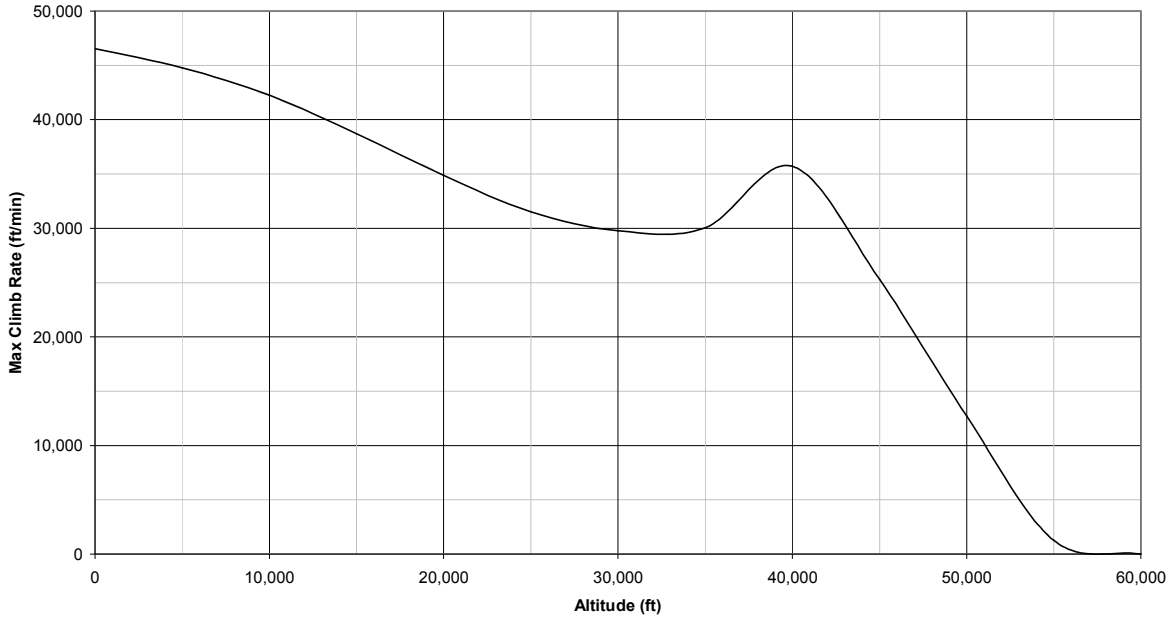
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

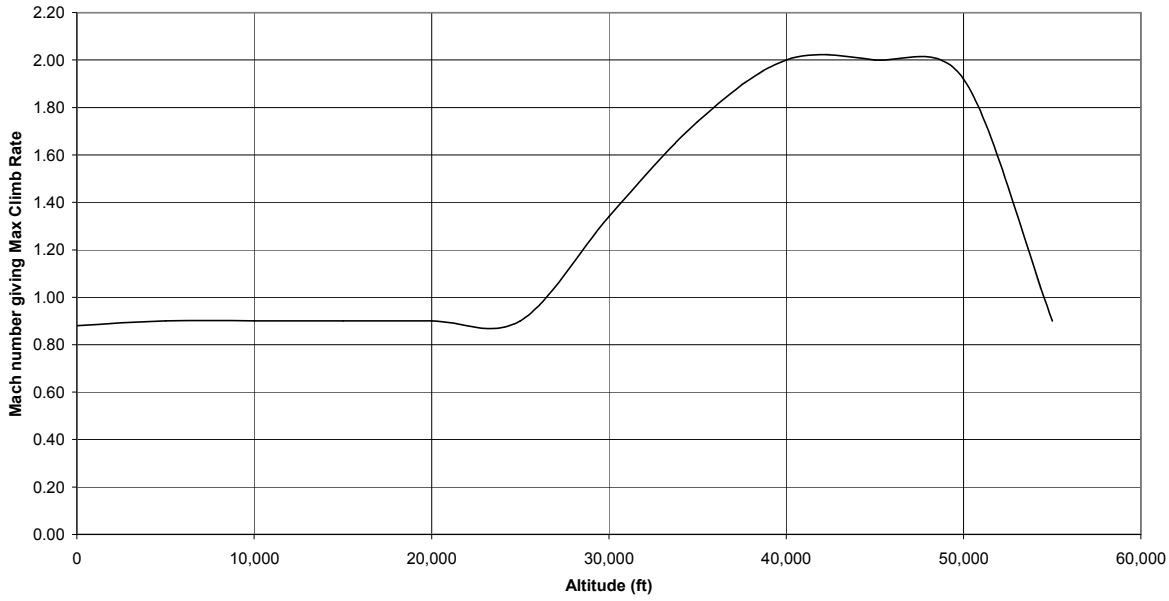
CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 14
•GW=20,500lbs / 9.3 t

Maximum Instantaneous Climb Rate



Mach number given best Climb Rate



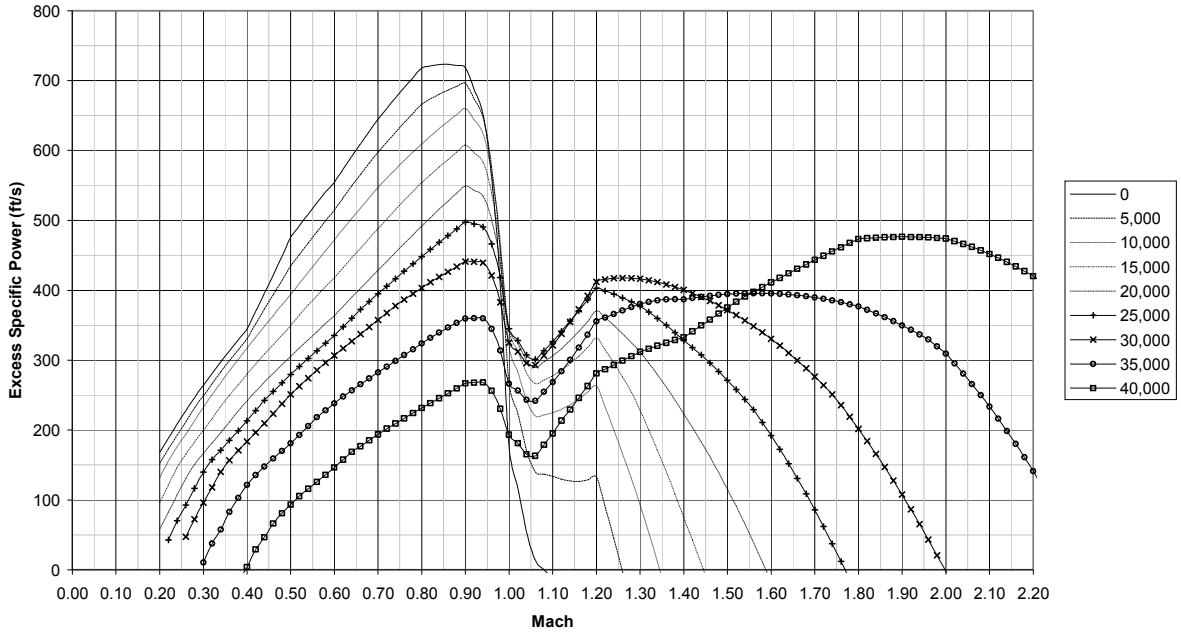
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

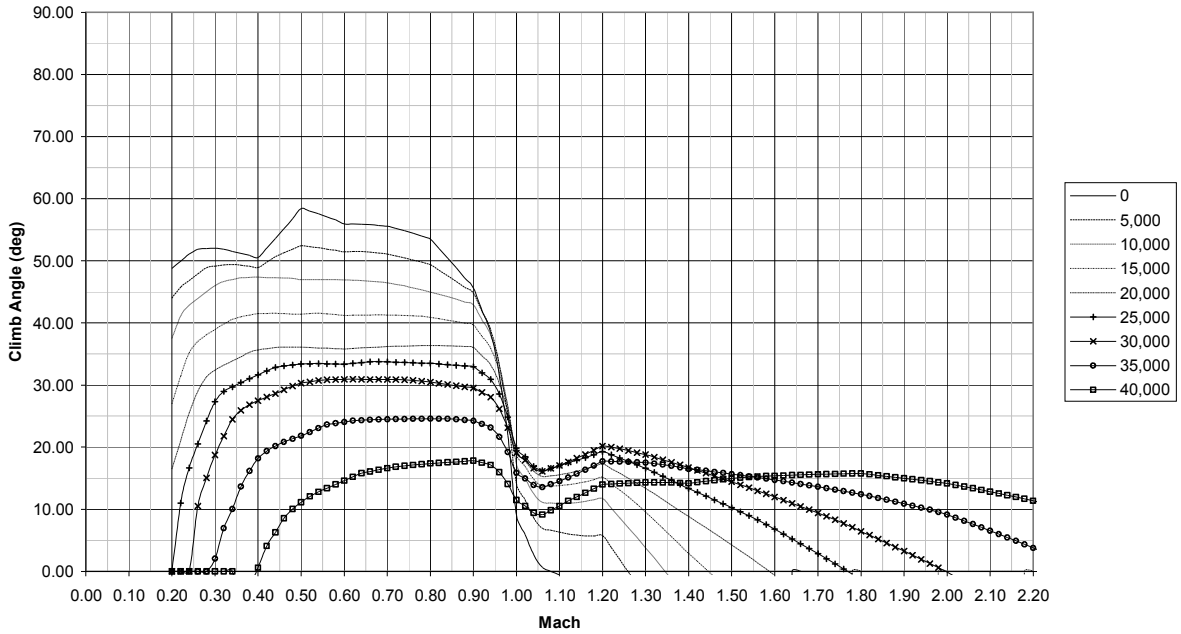
CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 14
•GW=20,500lbs / 9.3 t

Climb Rate



Climb Angle



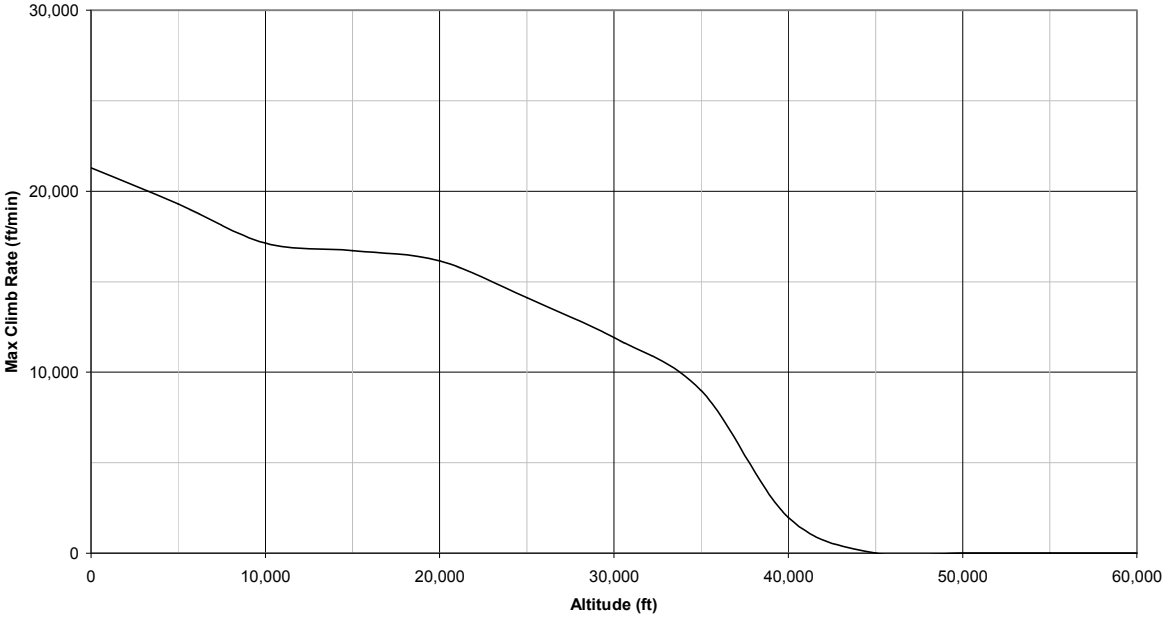
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

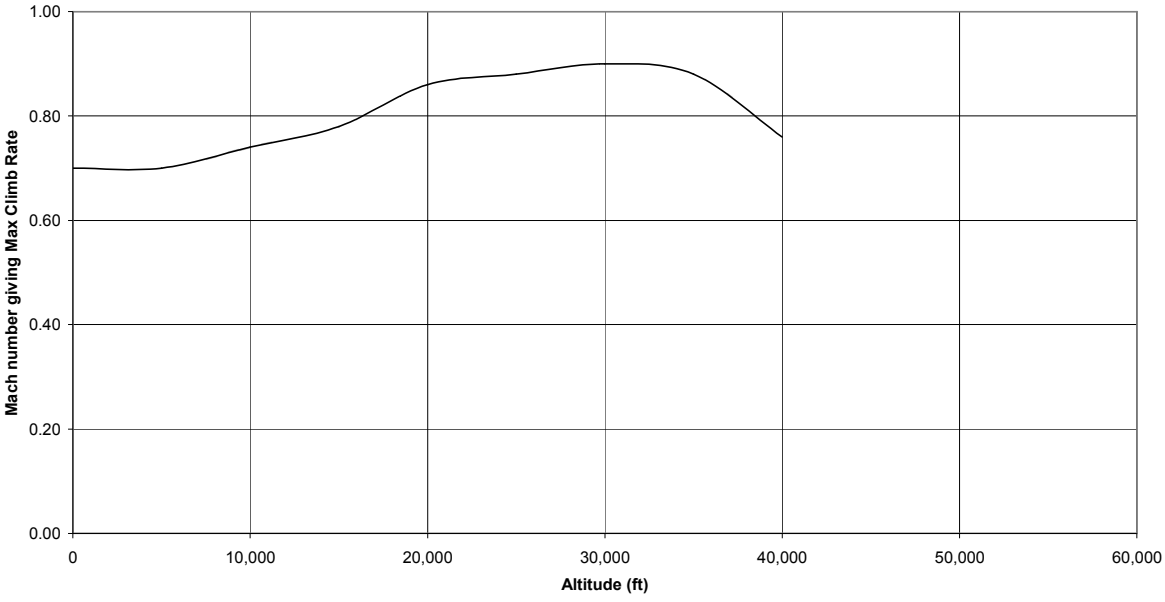
CONDITIONS:
•Standard Day
•MIL Power

CONFIGURATIONS :
•DRAG INDEX = 14
•GW=20,500lbs / 9.3 t

Maximum Instantaneous Climb Rate



Mach number given best Climb Rate



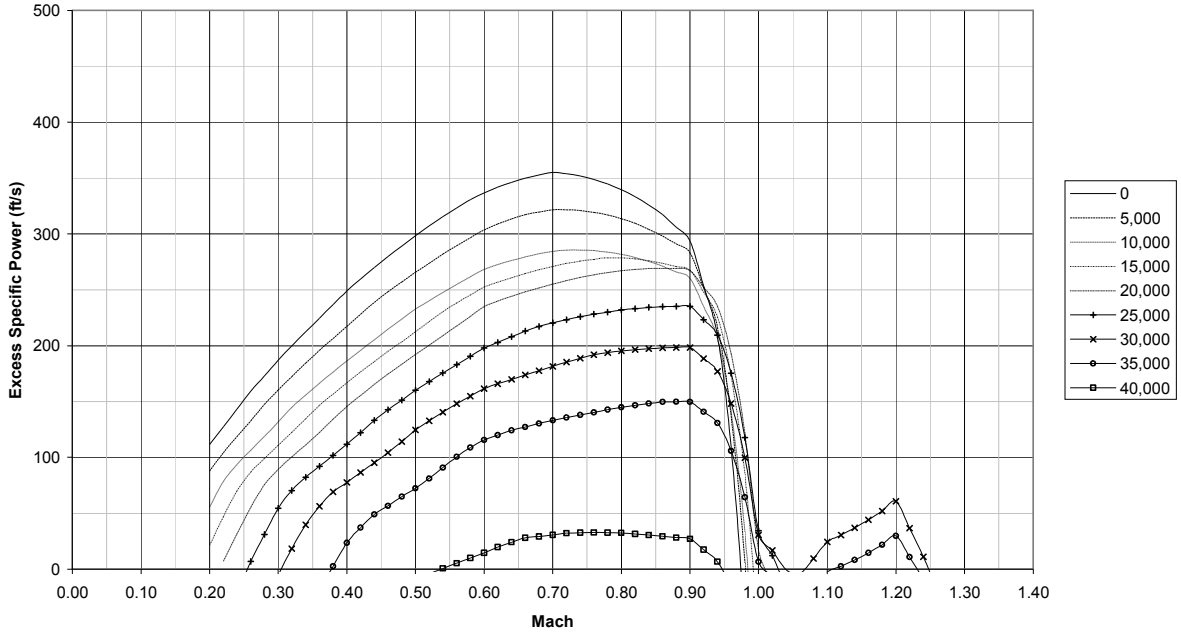
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

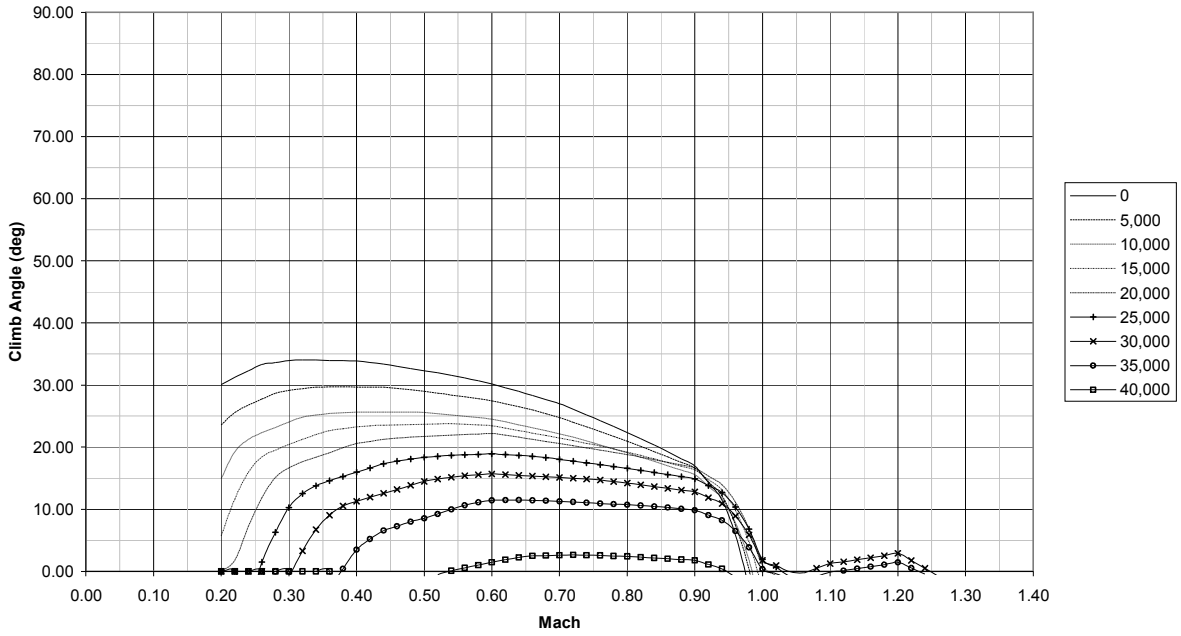
CONDITIONS:
•Standard Day
•MIL Power

CONFIGURATIONS :
•DRAG INDEX = 14
•GW=20,500lbs / 9.3 t

Climb Rate



Climb Angle



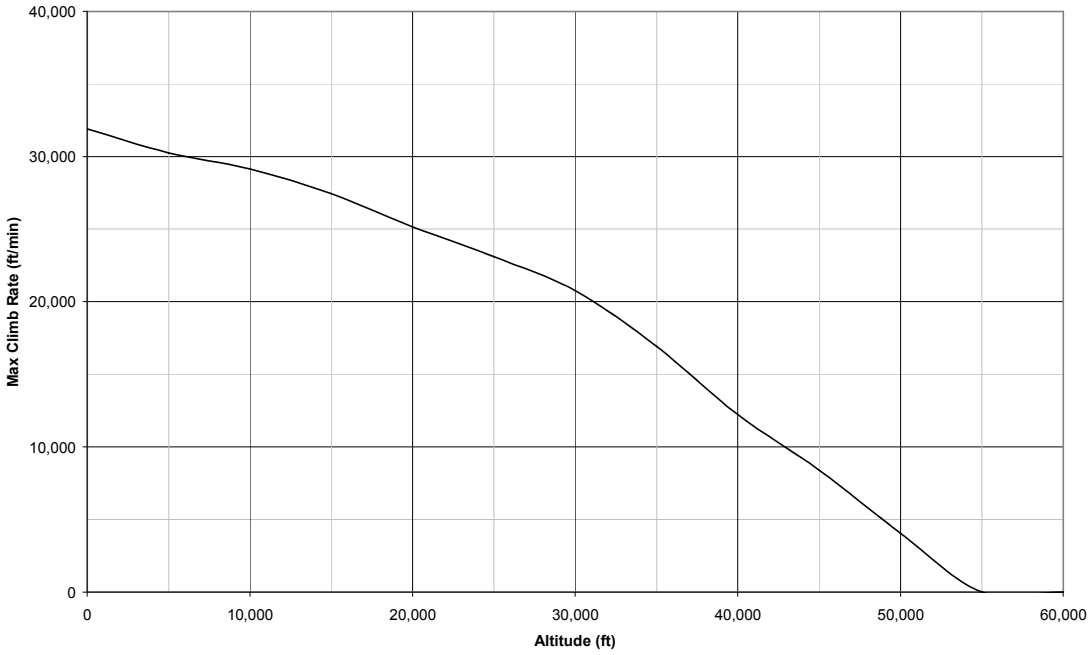
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

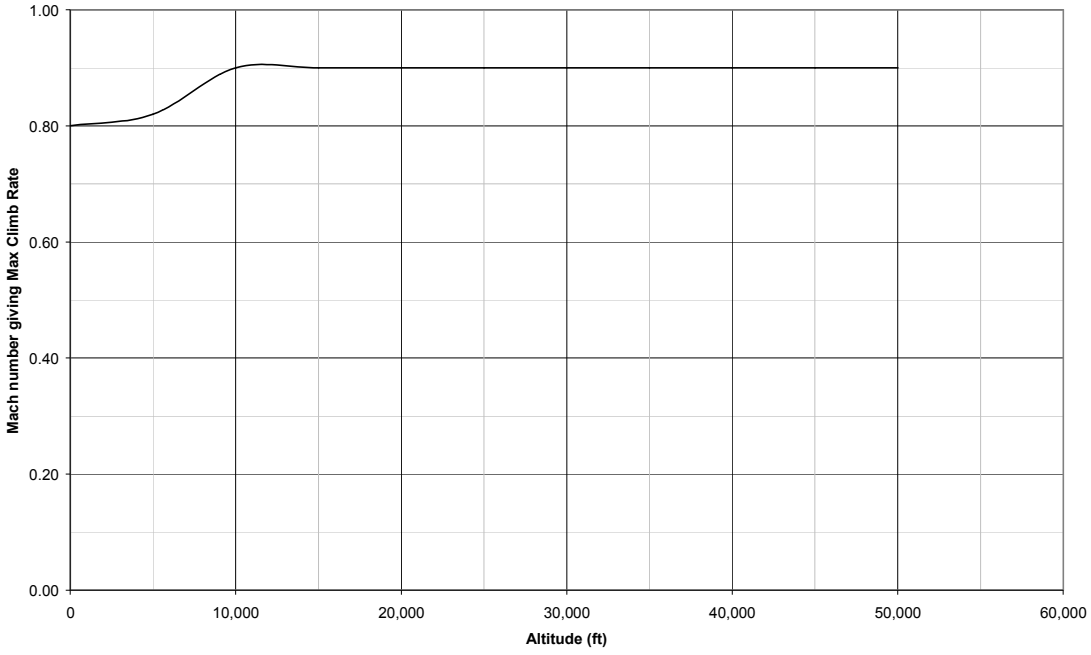
CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 76 (2xR550+4xMICA+RPL-522)
•GW=20,500lbs / 10.5 t

Maximum Instantaneous Climb Rate



Mach number given best Climb Rate



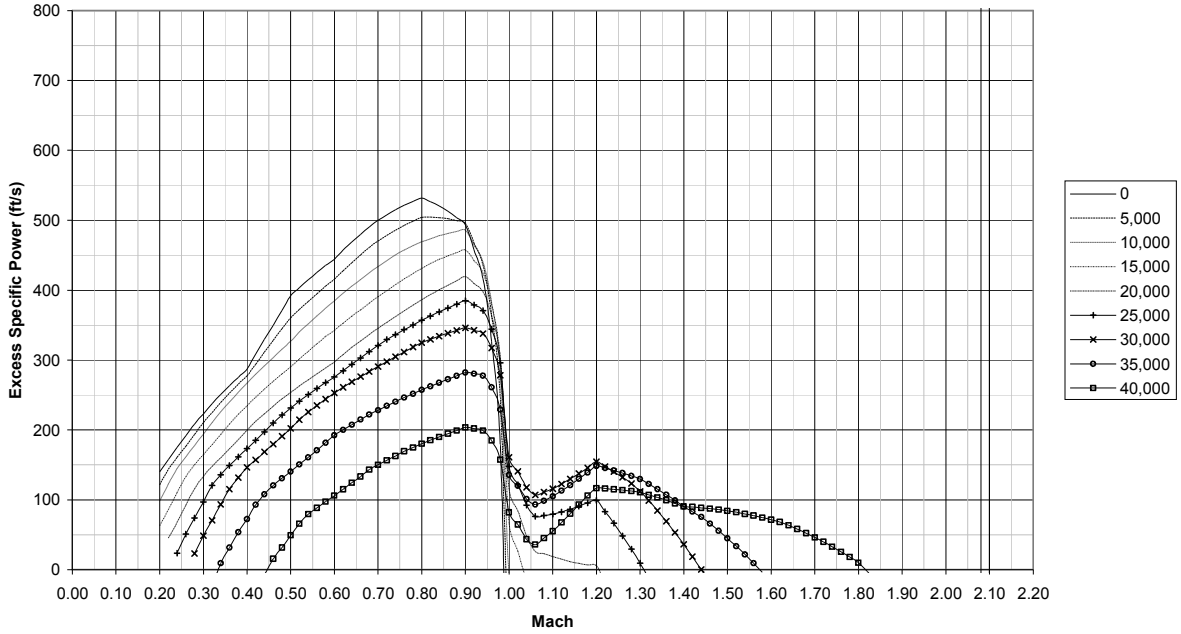
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

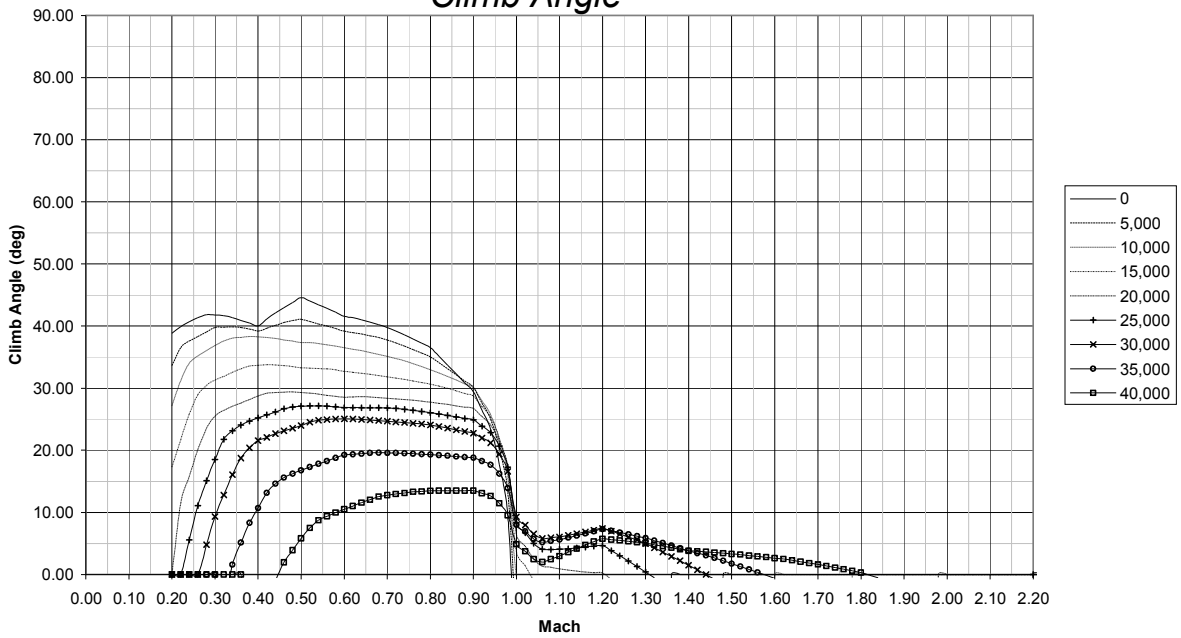
CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 76 (2xR550+4xMICA+RPL-522)
•GW=20,500lbs / 10.5 t

Climb Rate



Climb Angle



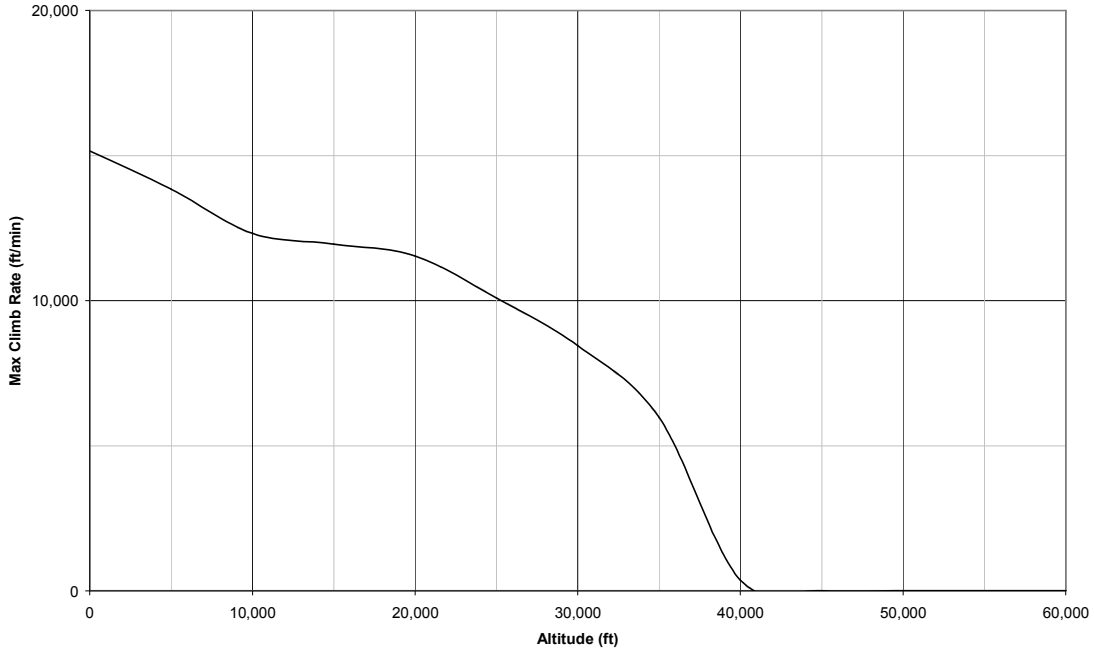
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

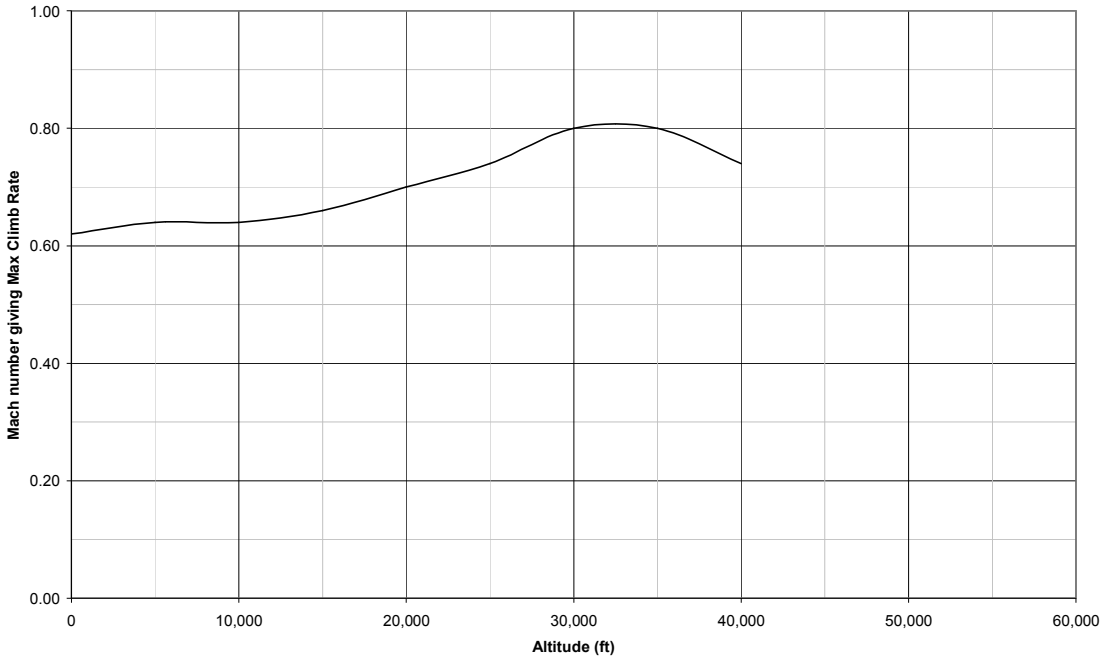
CONDITIONS:
•Standard Day
•MIL Power

CONFIGURATIONS :
•DRAG INDEX = 76 (2xR550+4xMICA+RPL-522)
•GW=20,500lbs / 10.5 t

Maximum Instantaneous Climb Rate



Mach number given best Climb Rate



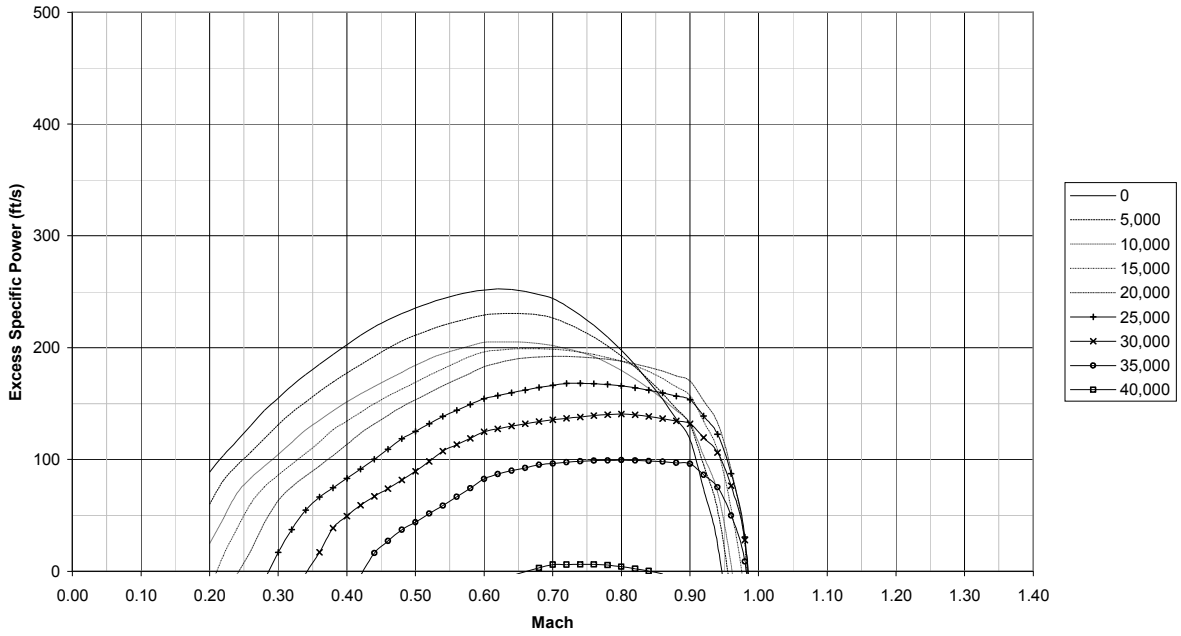
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

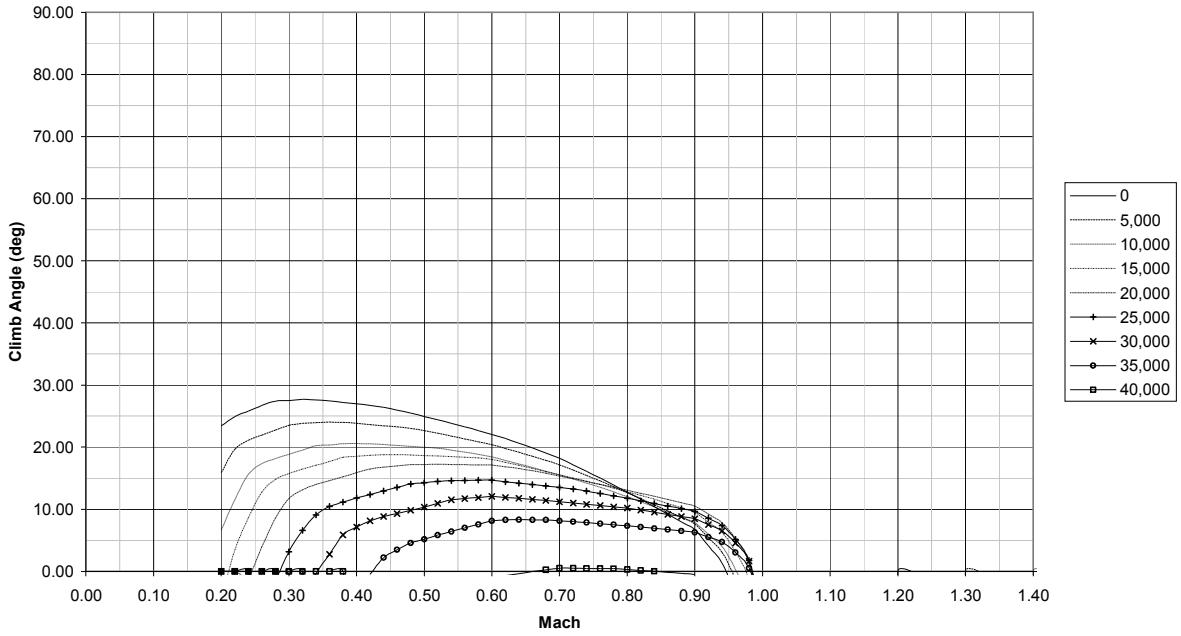
CONDITIONS:
•Standard Day
•MIL Power

CONFIGURATIONS :
•DRAG INDEX = 76 (2xR550+4xMICA+RPL-522)
•GW=20,500lbs / 10.5 t

Climb Rate



Climb Angle



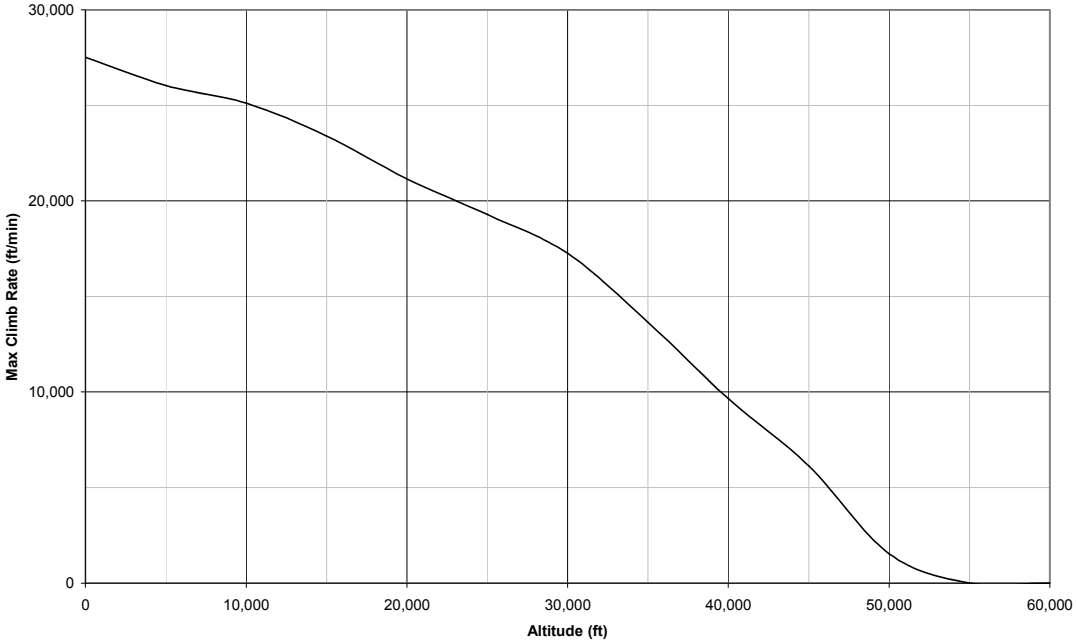
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

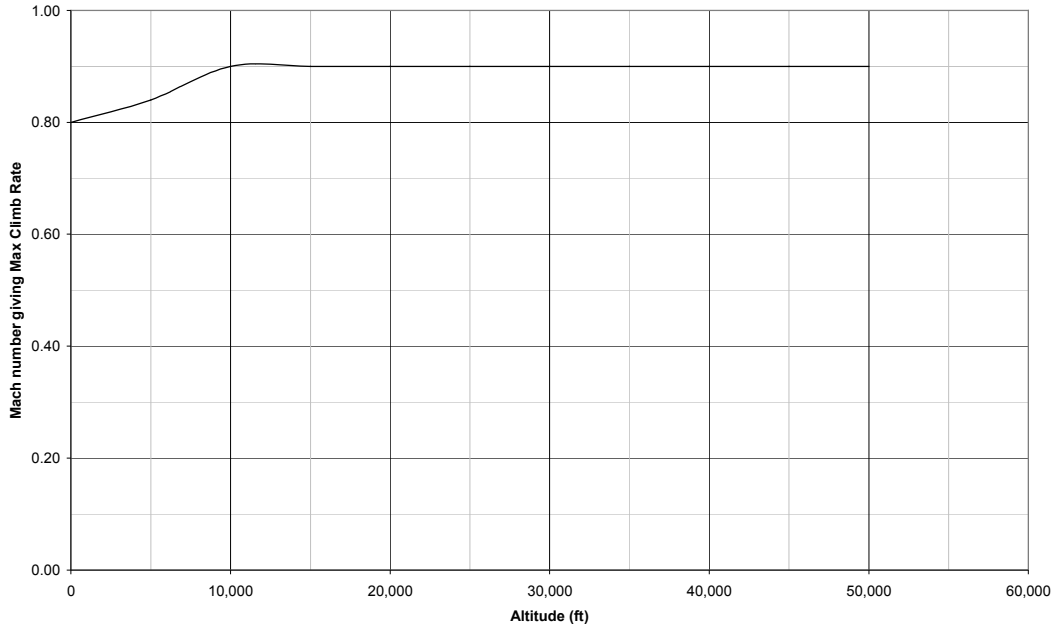
CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 60 (2xR550+2xS530+RPL-522)
•GW=28,000lbs / 12.7 t

Maximum Instantaneous Climb Rate



Mach number given best Climb Rate



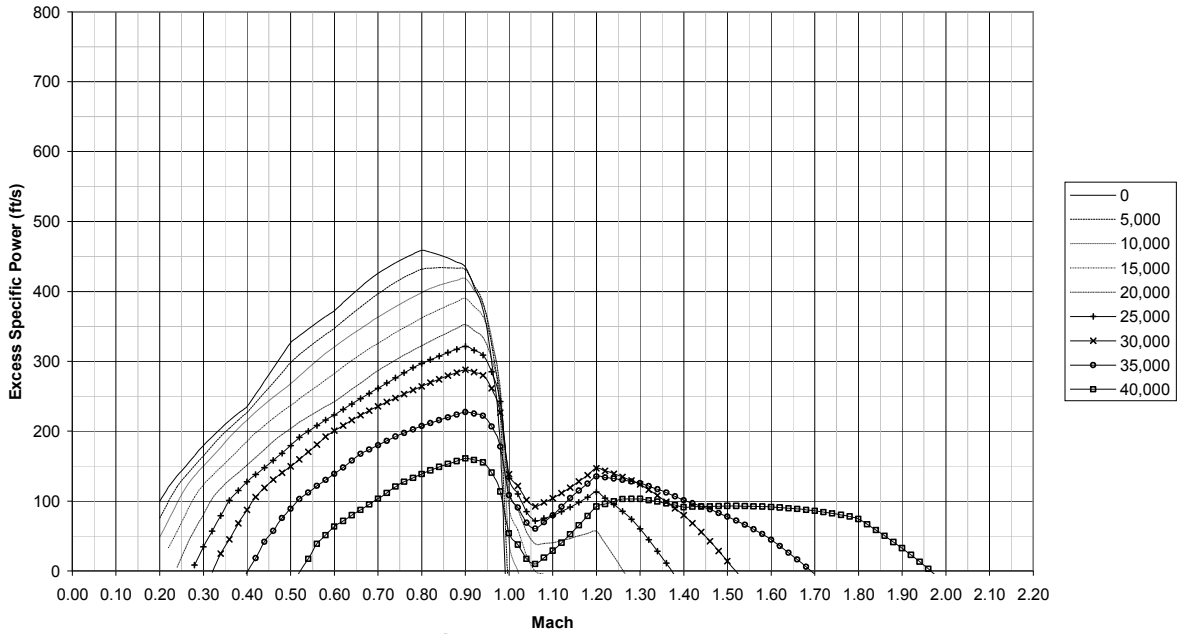
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

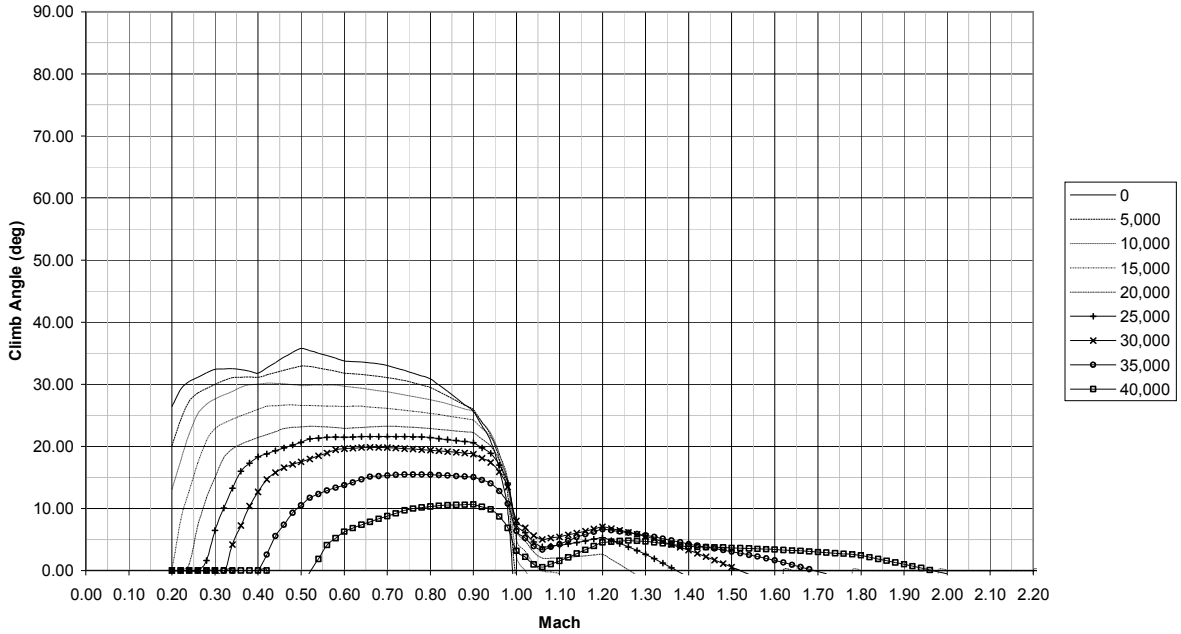
CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 60 (2xR550+2xS530+RPL-522)
•GW=28,000lbs / 12.7 t

Climb Rate



Climb Angle



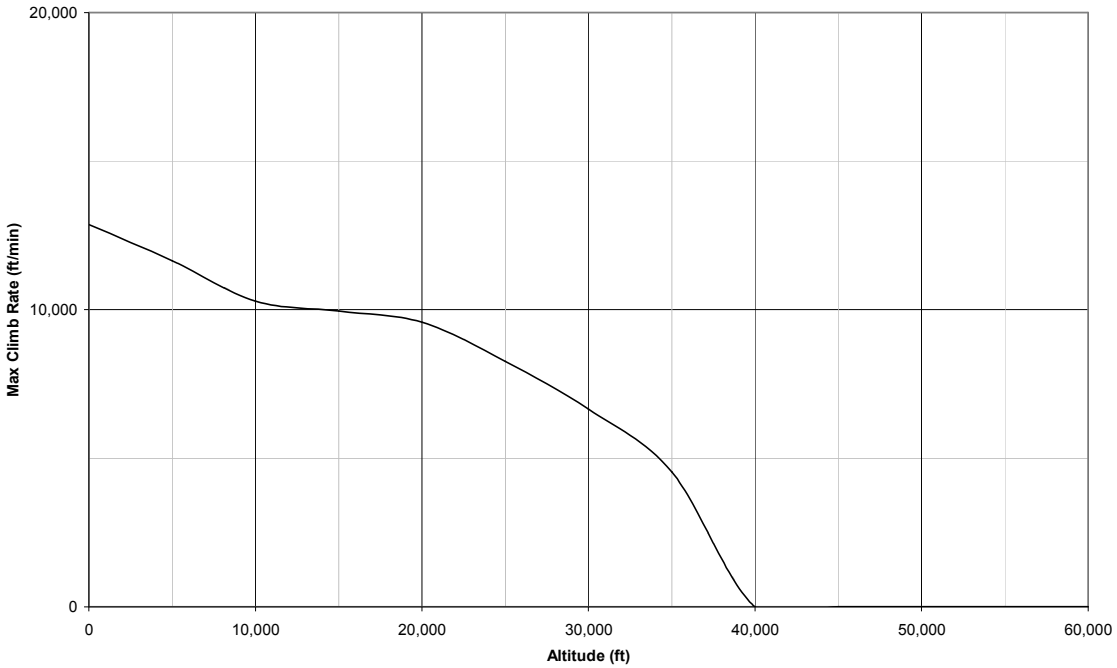
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

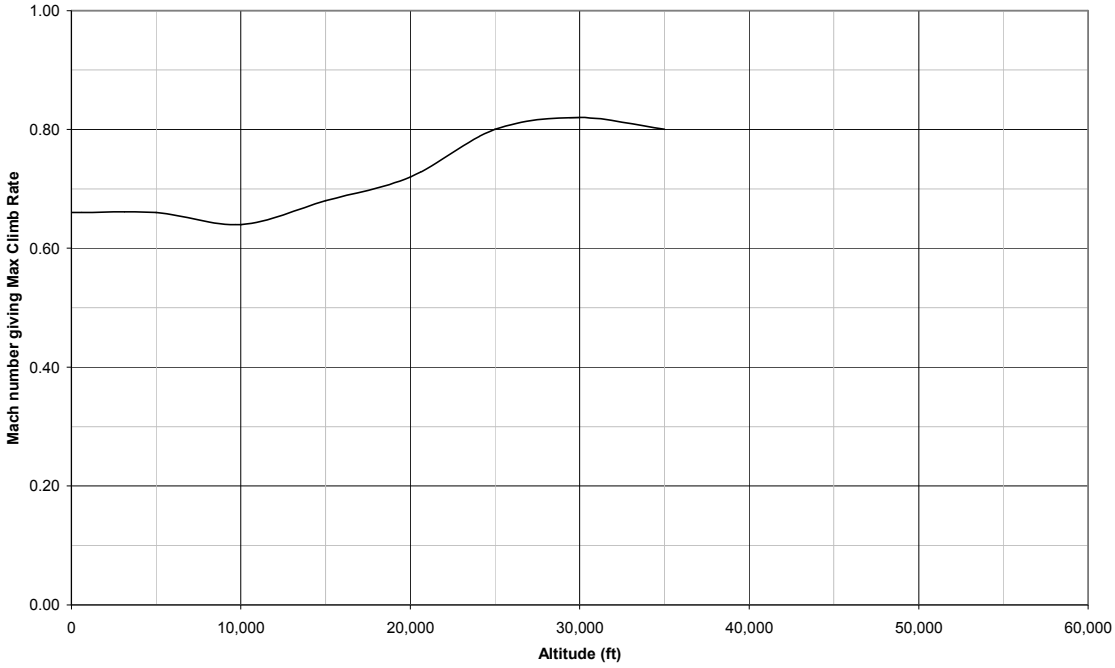
CONDITIONS:
•Standard Day
•MIL Power

CONFIGURATIONS :
•DRAG INDEX = 60 (2xR550+2xS530+RPL-522)
•GW=28,000lbs / 12.7 t

Maximum Instantaneous Climb Rate



Mach number given best Climb Rate



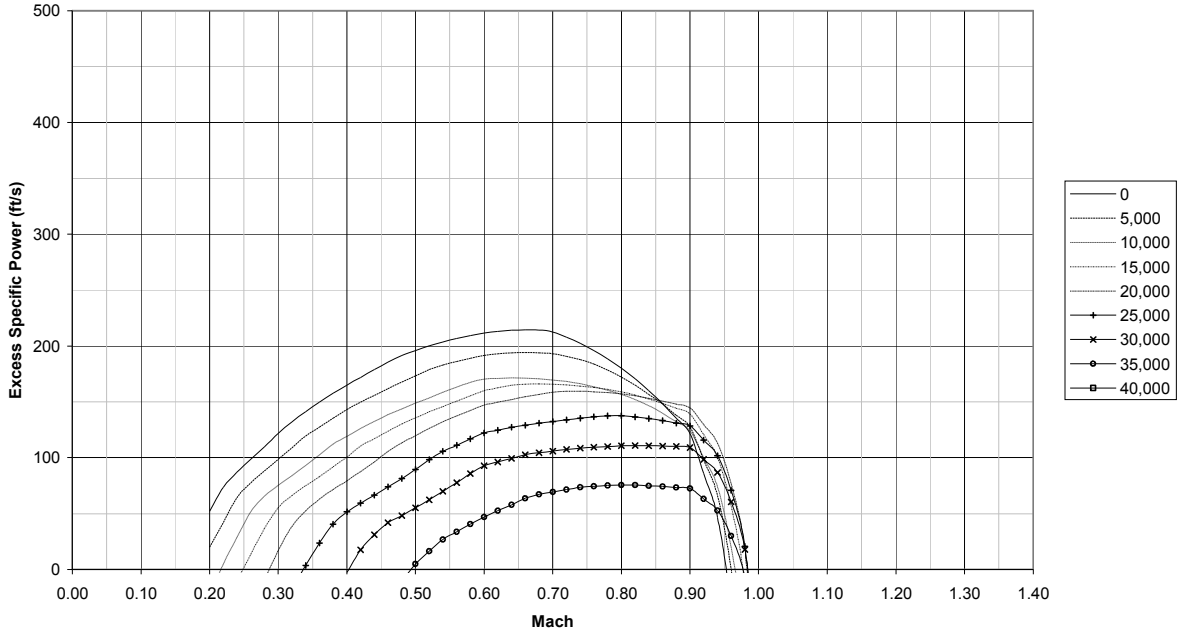
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

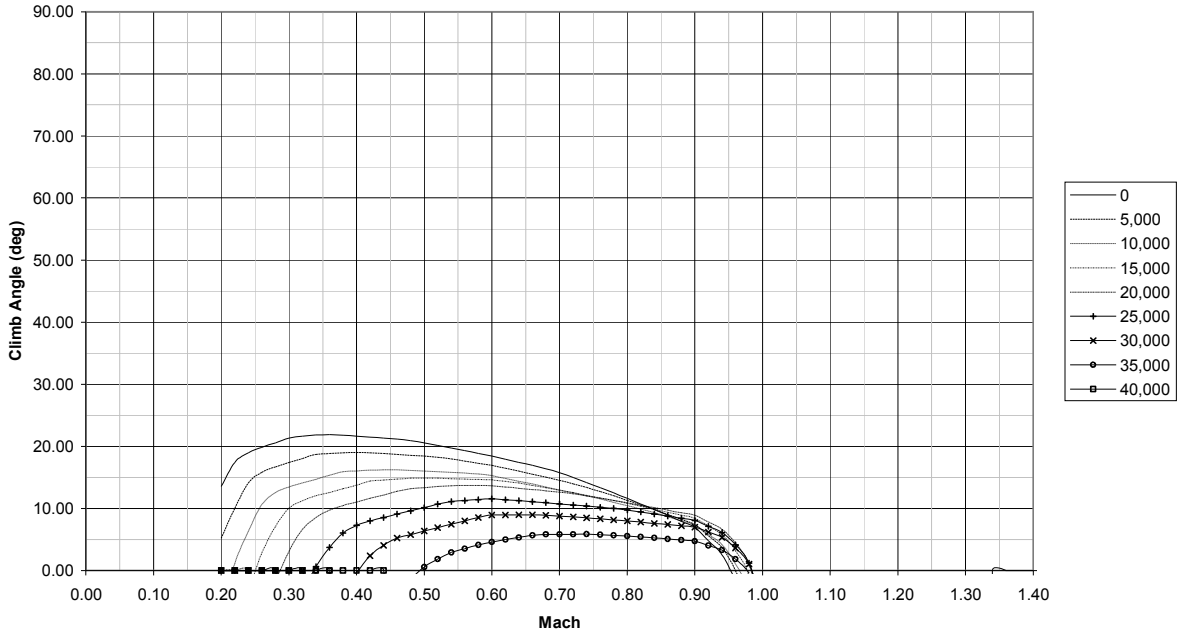
CONDITIONS:
•Standard Day
•MIL Power

CONFIGURATIONS :
•DRAG INDEX = 60 (2xR550+2xS530+RPL-522)
•GW=28,000lbs / 12.7 t

Climb Rate



Climb Angle



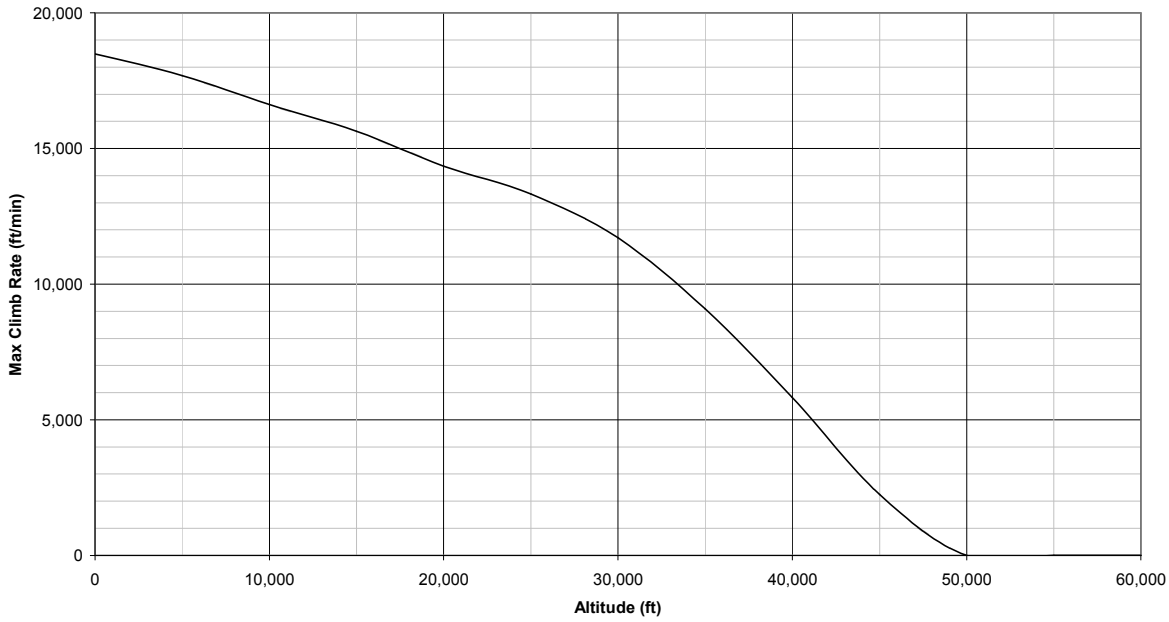
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

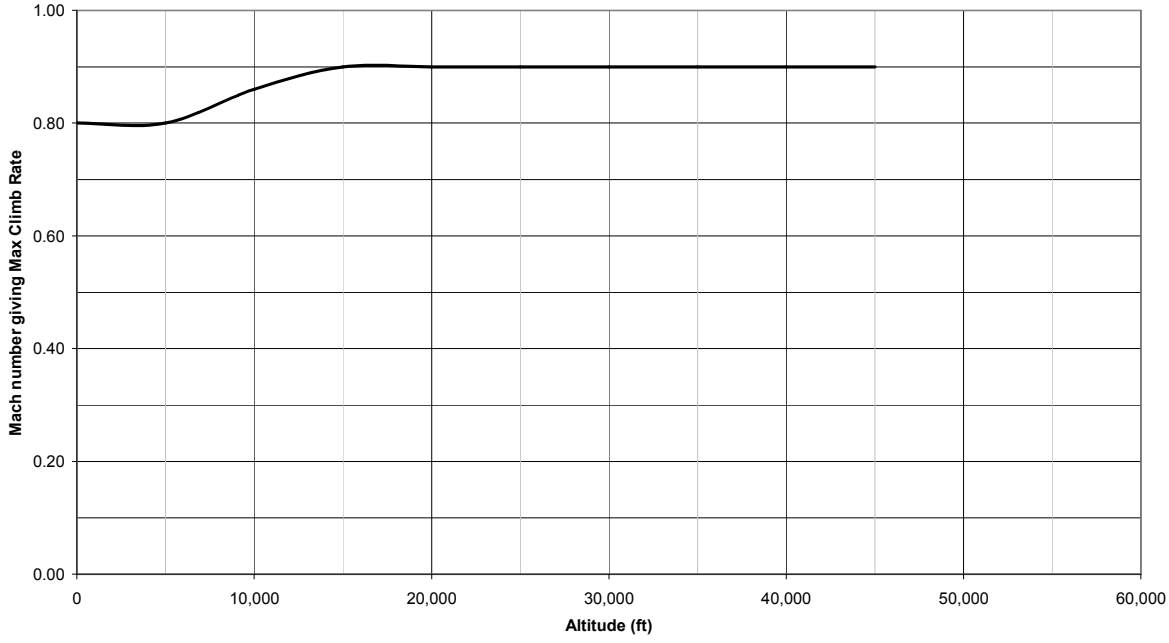
CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 111
2xR550 - 2xGBU-12- 2xRPL-541/542
•GW=33,750lbs / 15.7 t

Maximum Instantaneous Climb Rate



Mach number given best Climb Rate



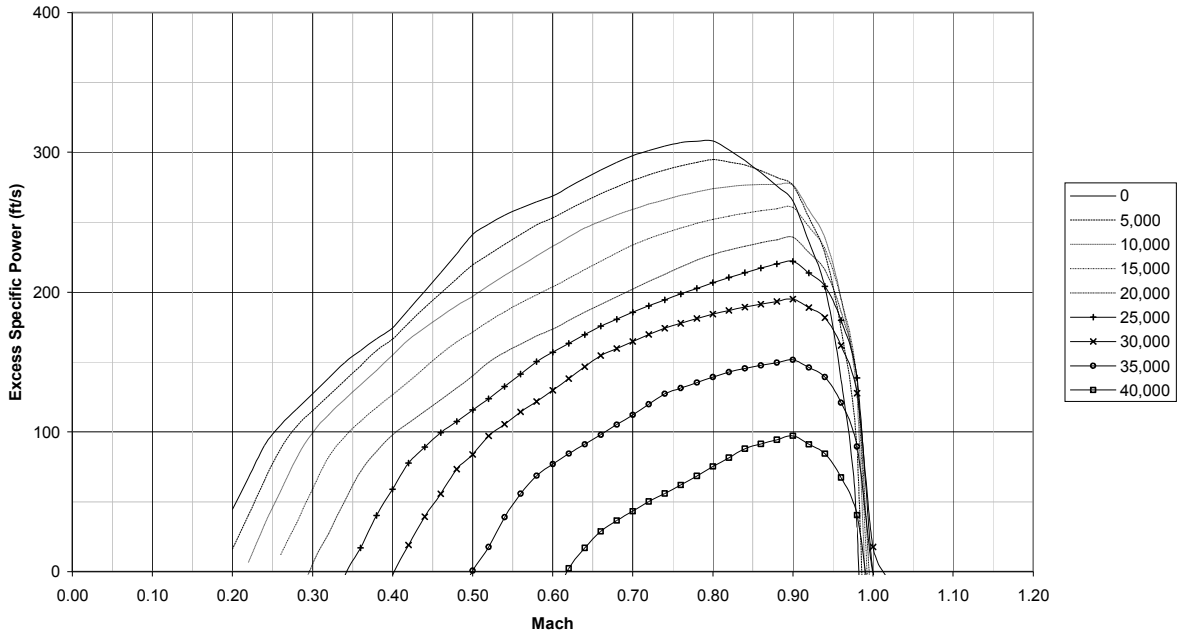
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

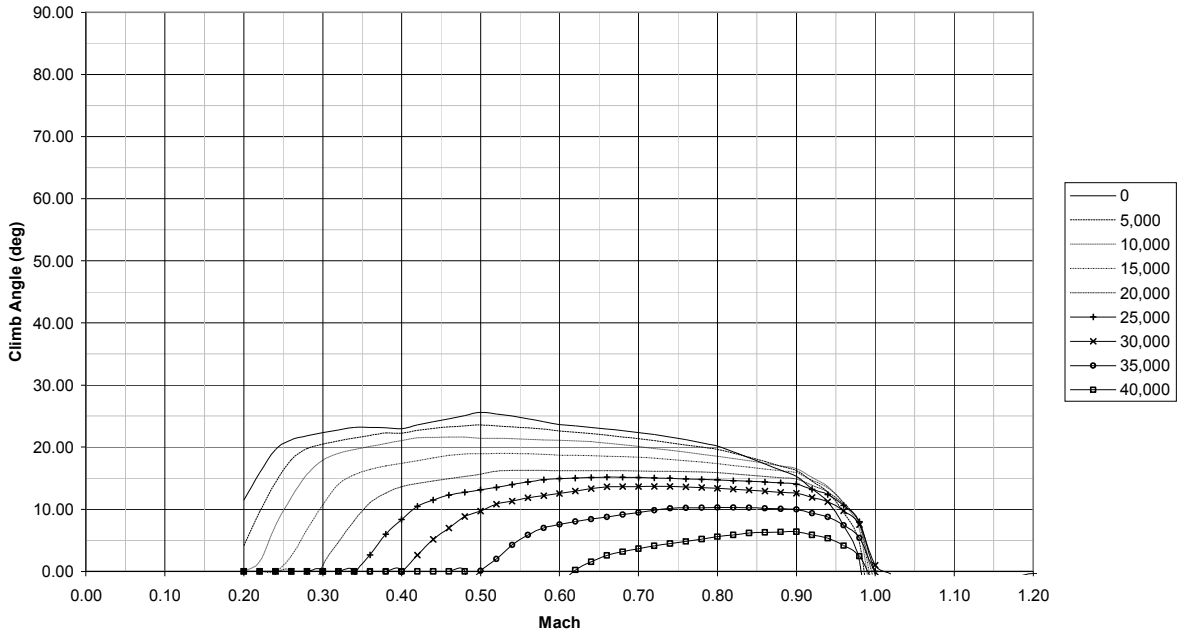
CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 111
2xR550 - 2xGBU-12- 2xRPL-541/542
•GW=33,750lbs / 15.7 t

Climb Rate



Climb Angle



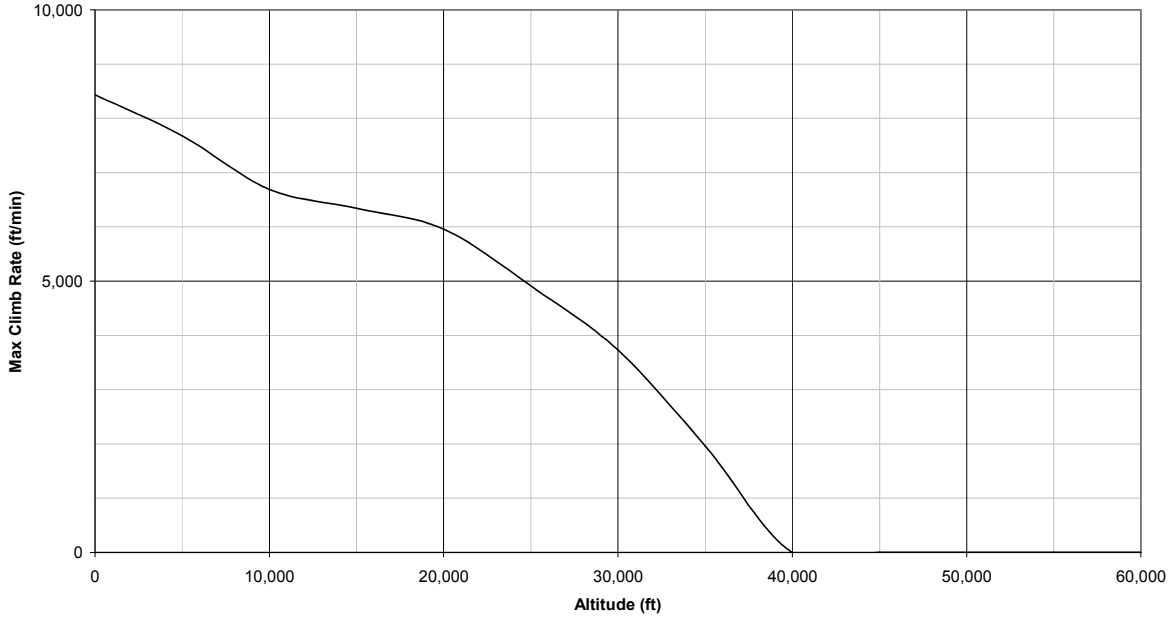
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

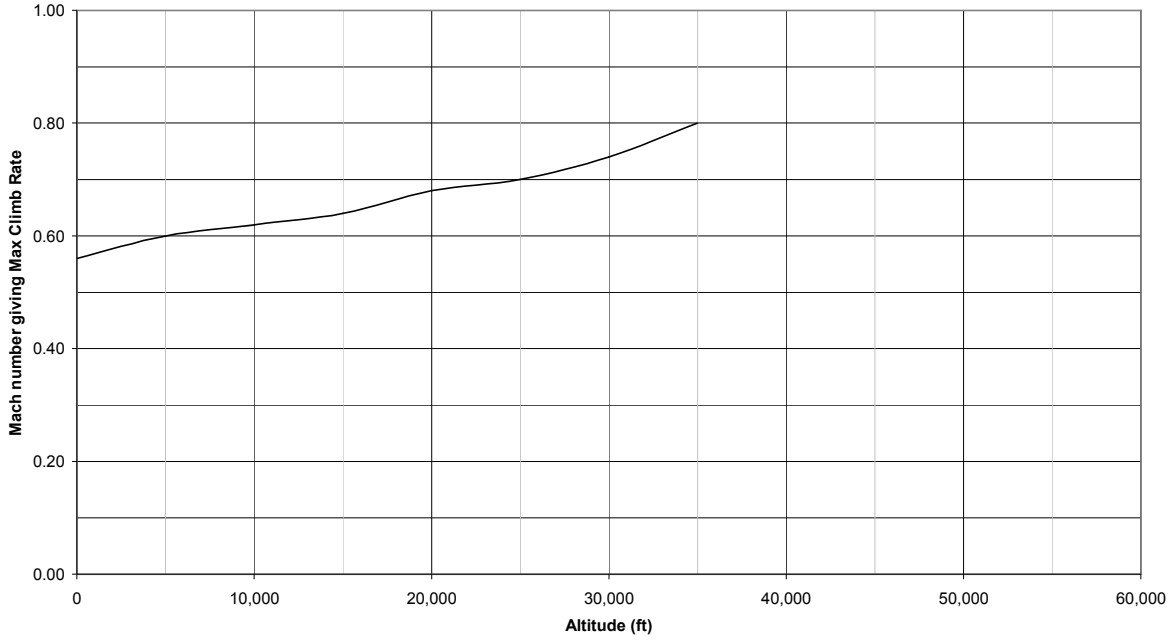
CONDITIONS:
•Standard Day
•MIL Power

CONFIGURATIONS :
•DRAG INDEX = 111
2xR550 - 2xGBU-12- 2xRPL-541/542
•GW=33,750lbs / 15.7 t

Maximum Instantaneous Climb Rate



Mach number given best Climb Rate



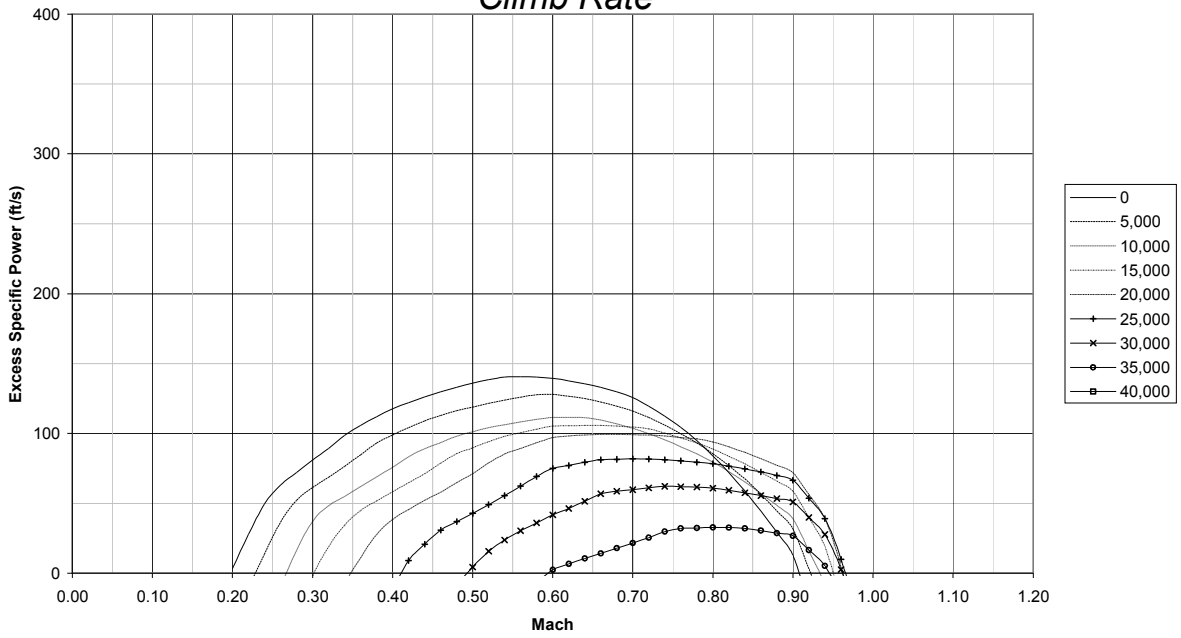
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

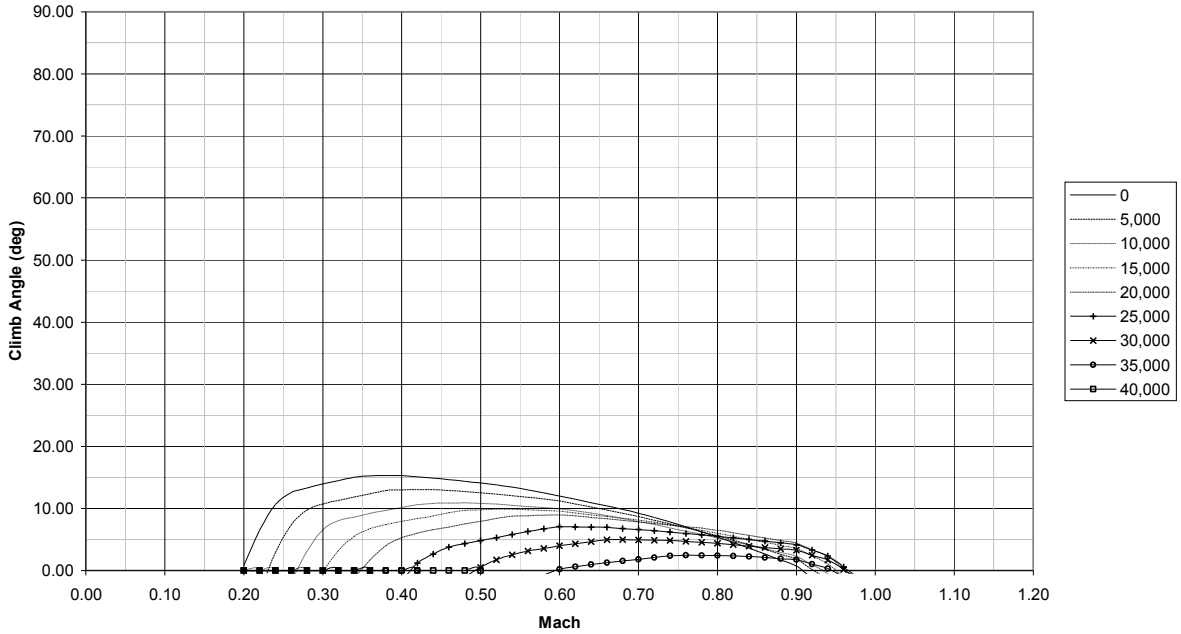
CONDITIONS:
•Standard Day
•MIL Power

CONFIGURATIONS :
•DRAG INDEX = 111
2xR550 - 2xGBU-12- 2xRPL-541/542
•GW=33,750lbs / 15.7 t

Climb Rate



Climb Angle



Acceleration & Deceleration Performances

Mirage 2000-C
Mirage 2000-5F

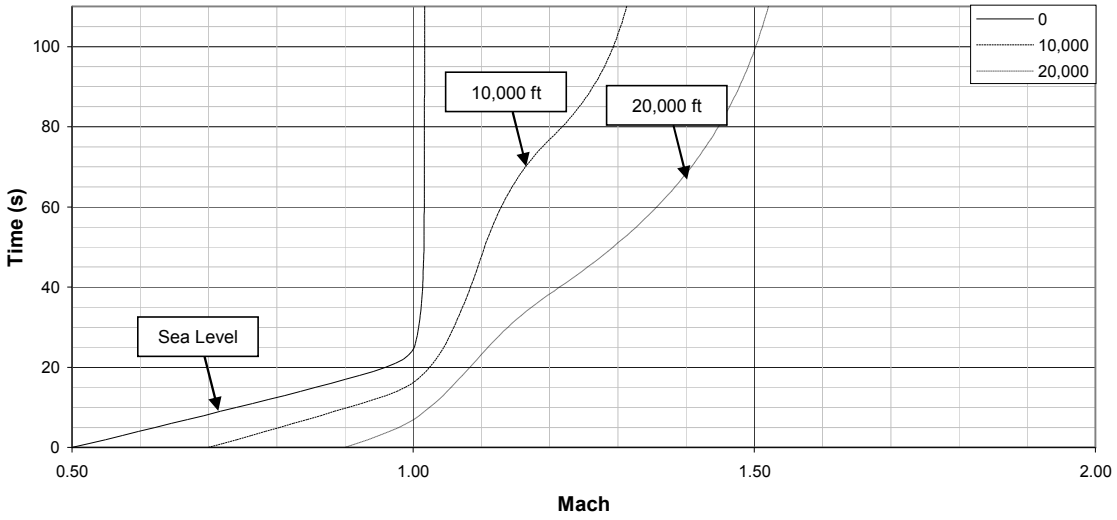
Acceleration Diagram

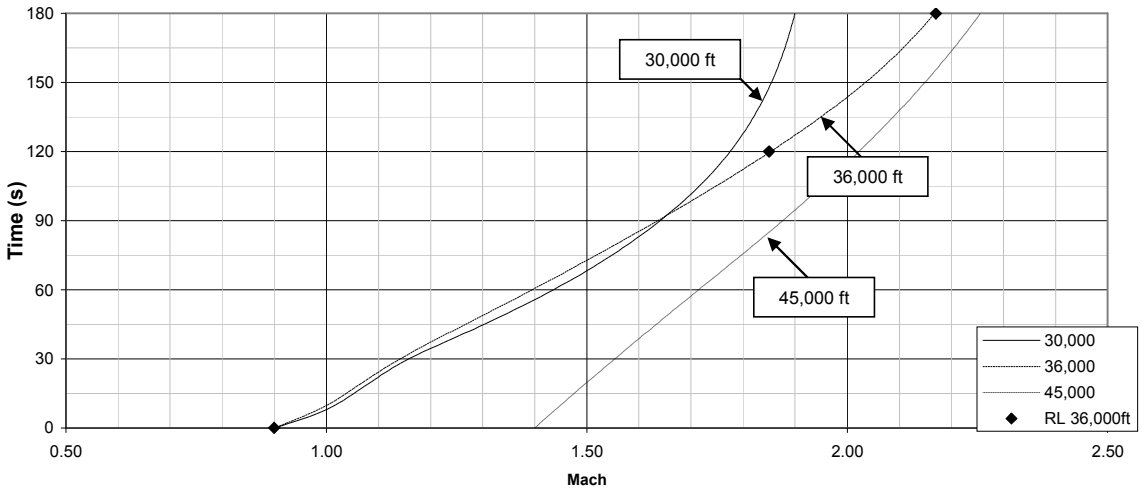
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•Max AB

CONFIGURATIONS :
•DRAG INDEX = 14
•GW=20,500lbs / 9.3 t





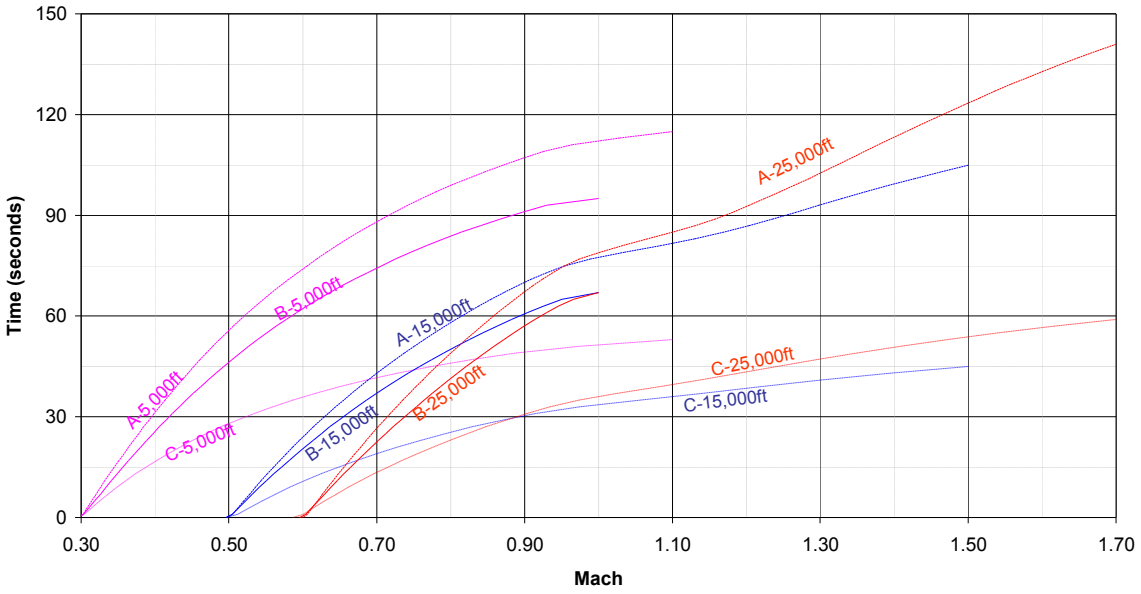
Deccelration Diagram - Throttle set to Idle

DATA BASIS : ESTIMATED

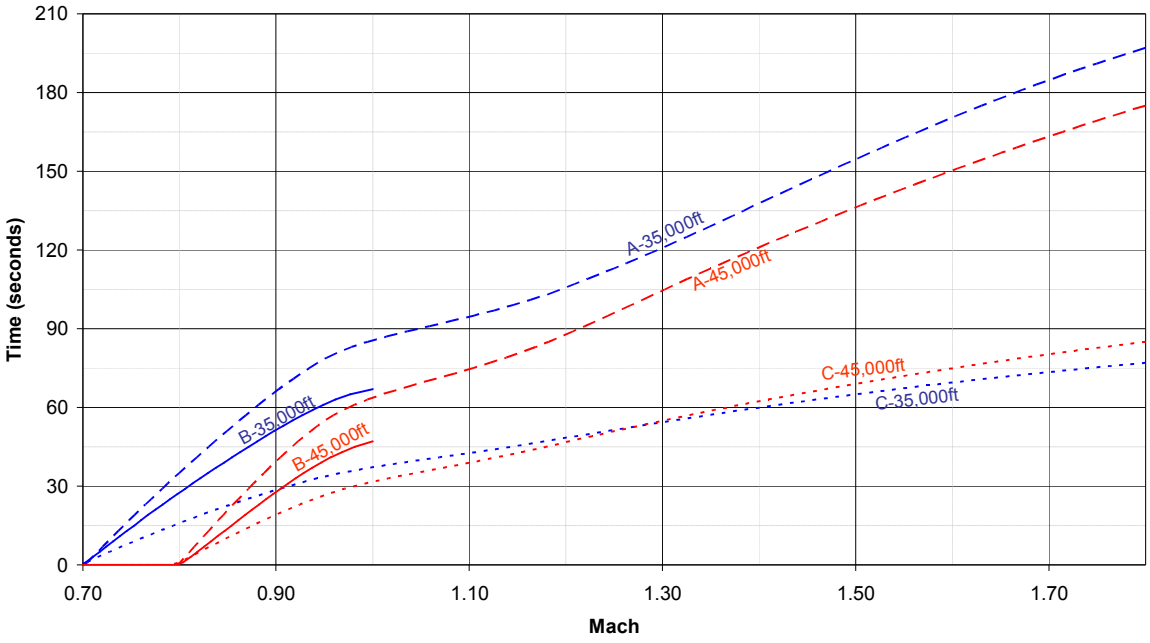
Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

CONDITIONS:
- **Standard Day**
- **Idle**

Conf A : GW = 20,500lbs/9.4t 2xR550
Conf B :GW = 26,600lbs/12t 2xRPL541/542 + 2xR550 + 4xMICA
Conf C : Conf A + Air Brakes



Conf A : GW = 20,500lbs/9.4t 2xR550
Conf B :GW = 26,600lbs/12t 2xRPL541/542 + 2xR550 + 4xMICA
Conf C : Conf A + Air Brakes



Fuel flow Endurance and Autonomy

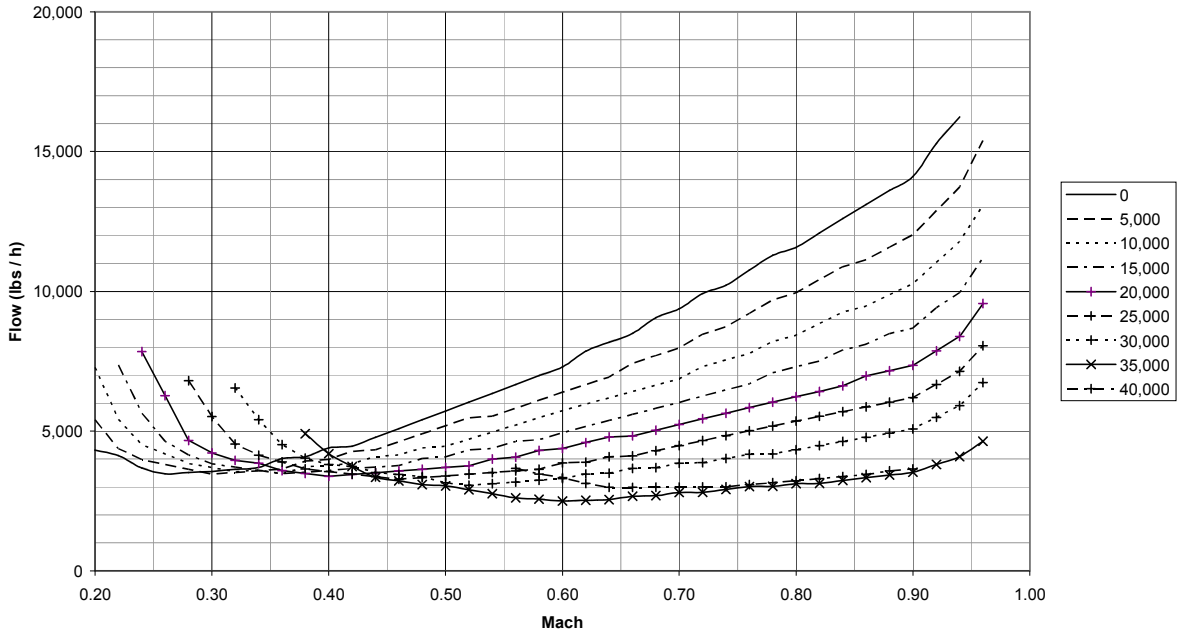
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

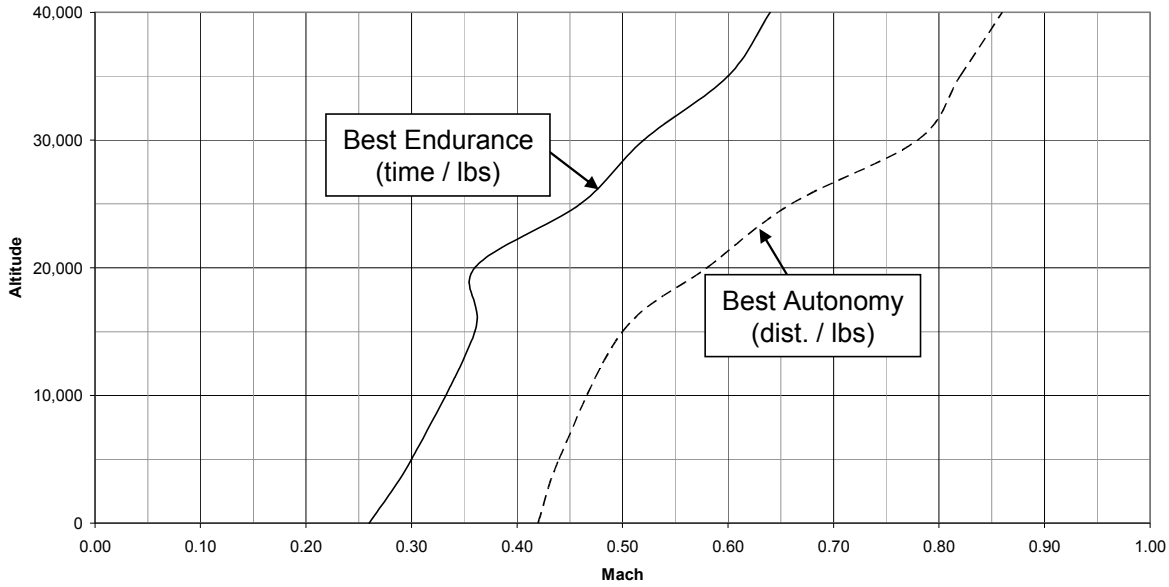
CONDITIONS:
•Standard Day
•MIL Power

CONFIGURATIONS :
•DRAG INDEX = 60 (2xR550+2xS530+RPL-522)
•GW=28,000lbs / 12.7 t

Fuel Flow for Sustained Mach number



Best Mach number for Endurance and Autonomy



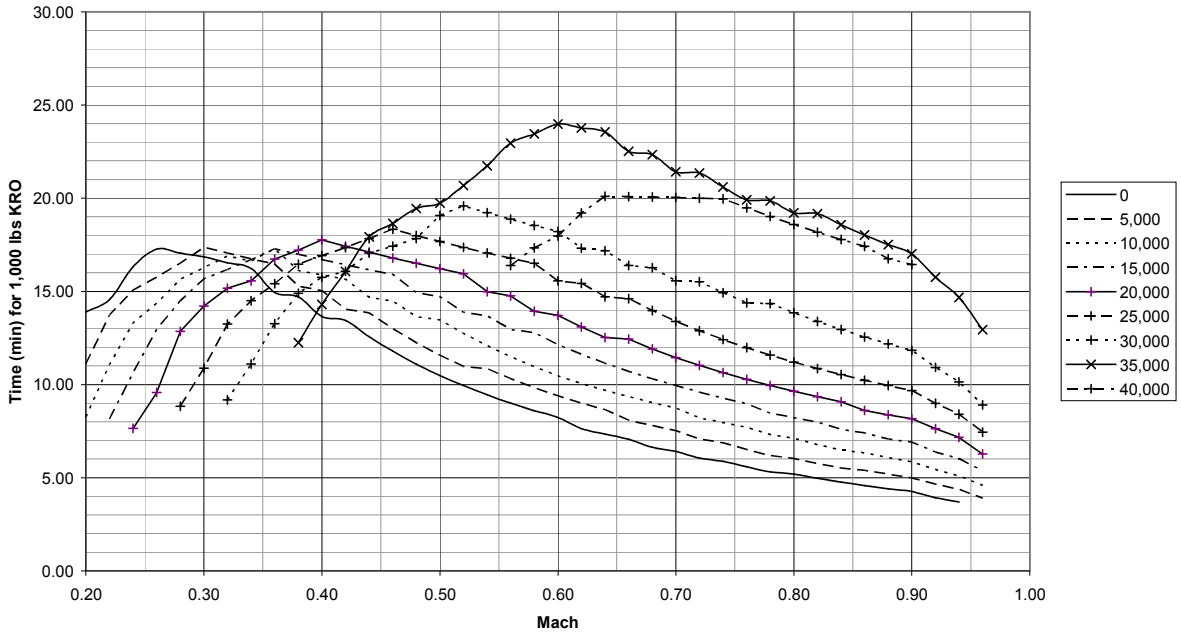
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-C
Engine :SNECMA M53-P2

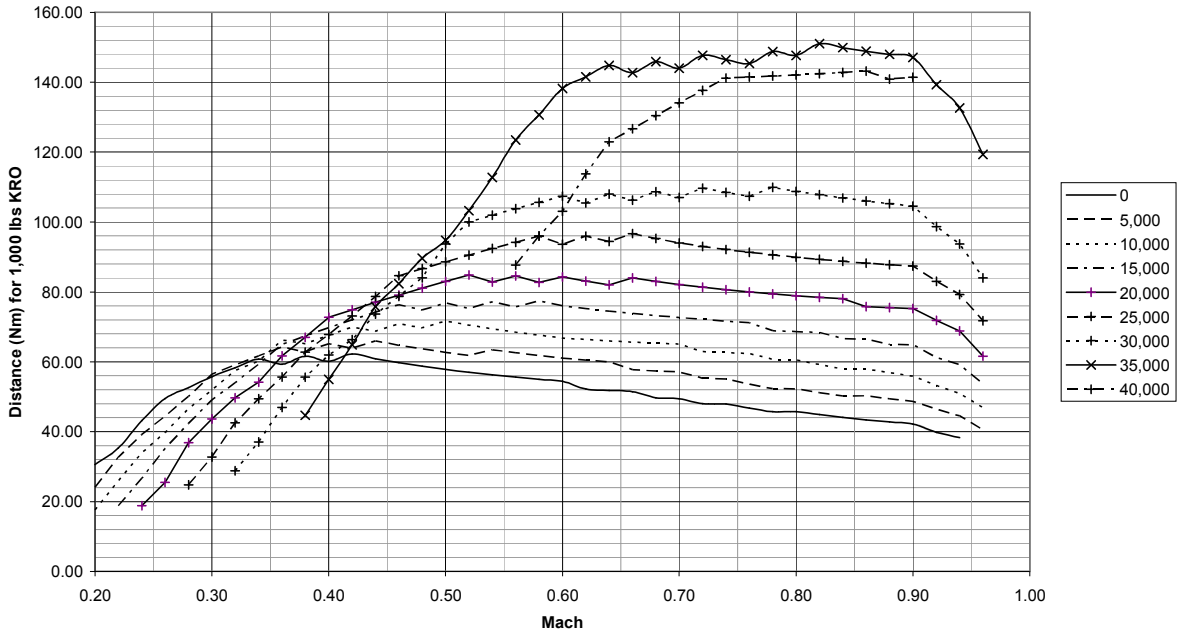
CONDITIONS:
•Standard Day
•MIL Power

CONFIGURATIONS :
•DRAG INDEX = 60 (2xR550+2xS530+RPL-522)
•GW=28,000lbs / 12.7 t

Endurance for Sustained Mach number



Autonomy for Sustained Mach number



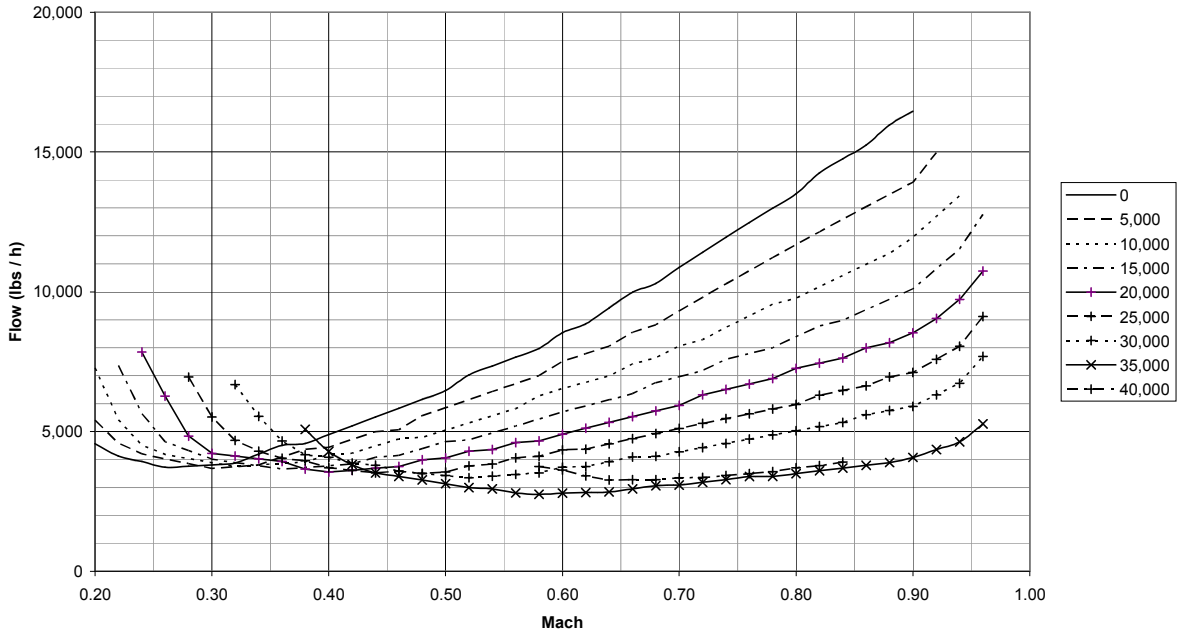
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

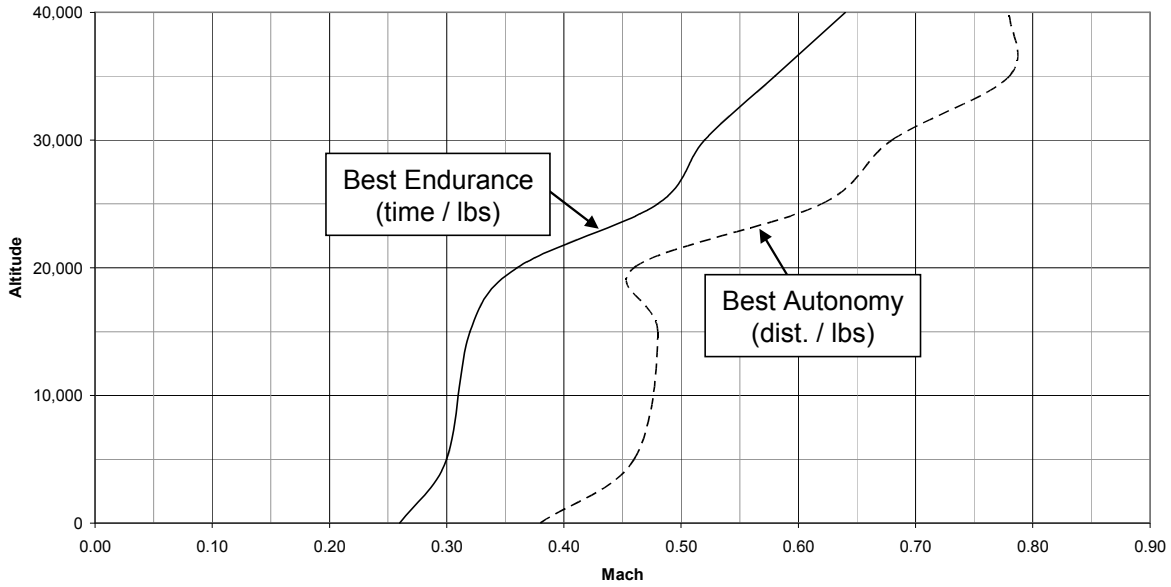
CONDITIONS:
•Standard Day
•MIL Power

CONFIGURATIONS :
•DRAG INDEX = 106
•2xR550 + 4xMICA + RPL-541/542
•GW=26,600lbs / 12.0 t

Fuel Flow for Sustained Mach number



Best Mach number for Endurance and Autonomy



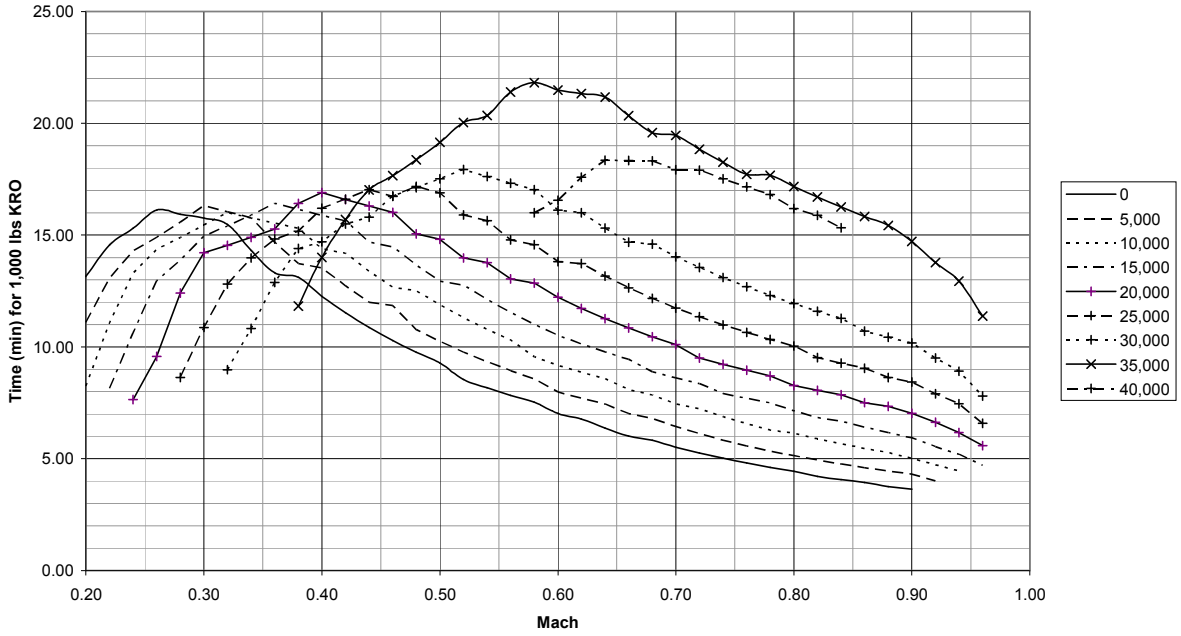
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-5F
Engine :SNECMA M53-P2

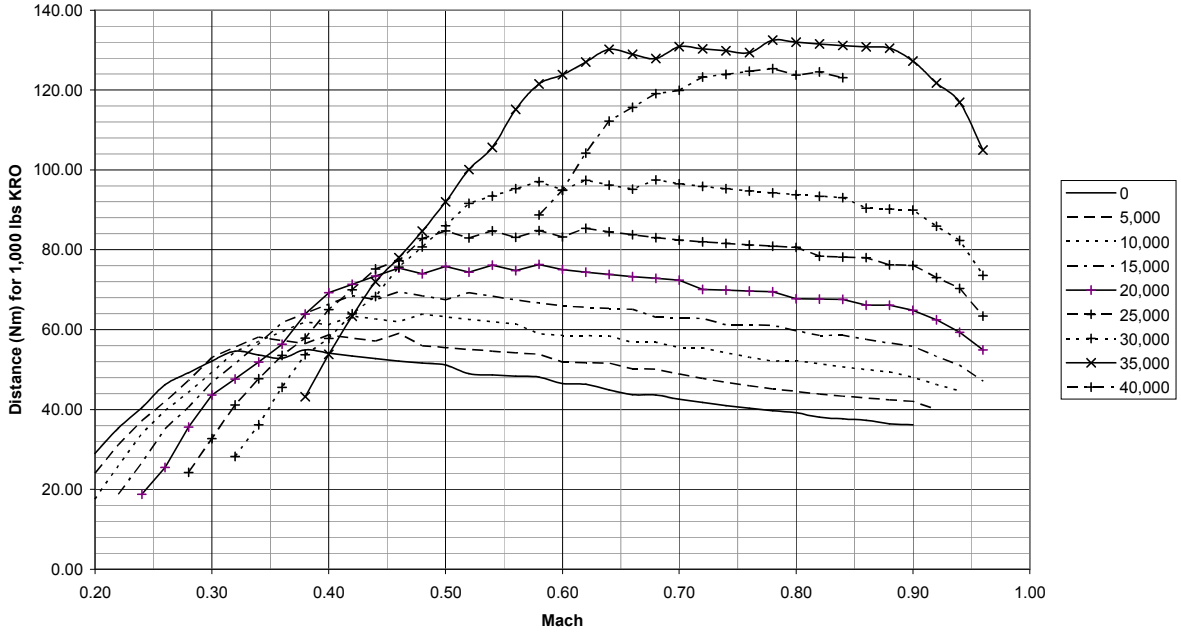
CONDITIONS:
•Standard Day
•MIL Power

CONFIGURATIONS :
•DRAG INDEX = 106
•2xR550 + 4xMICA + RPL-541/542
•GW=26,600lbs / 12.0 t

Endurance for Sustained Mach number



Autonomy for Sustained Mach number



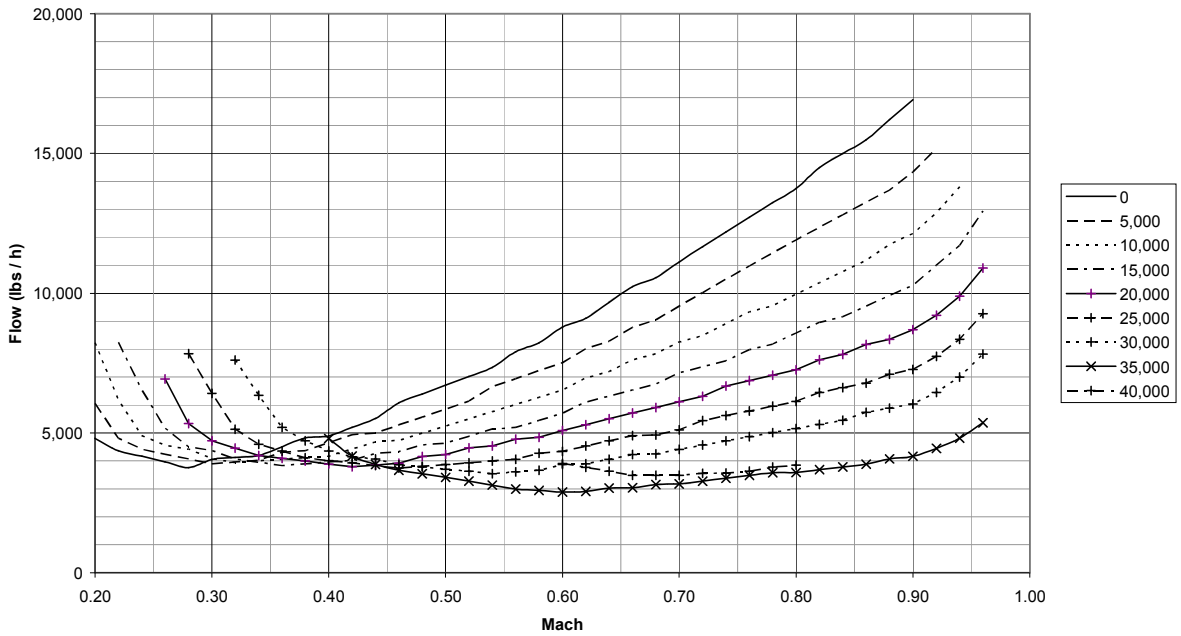
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

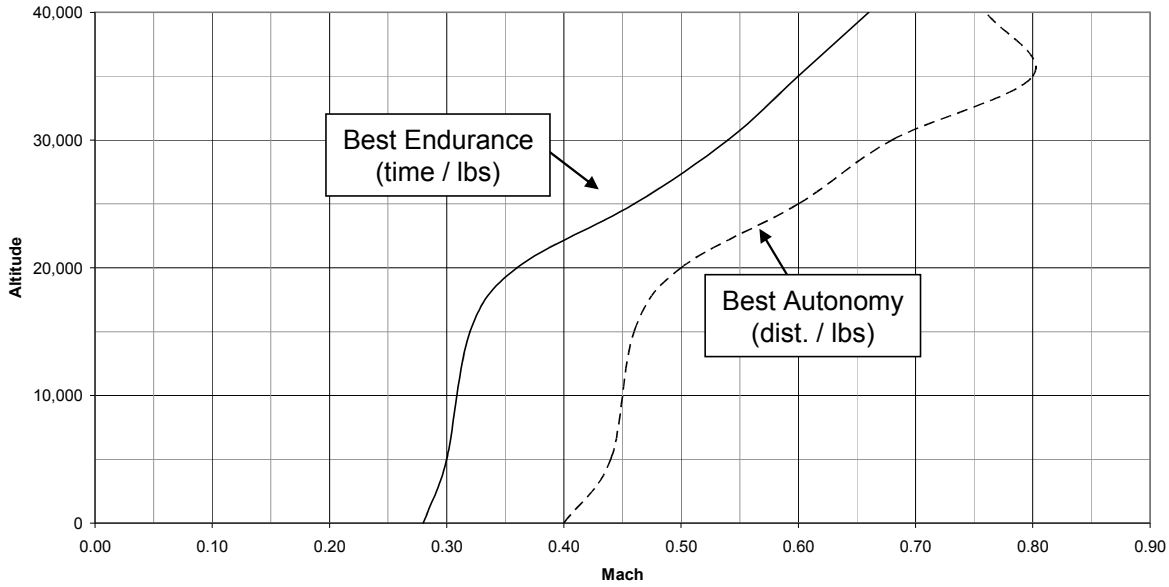
CONDITIONS:
•Standard Day
•MIL Power

CONFIGURATIONS :
•DRAG INDEX = 111
2xR550 - 2xGBU-12- 2xRPL-541/542
•GW=33,750lbs / 15.7 t

Fuel Flow for Sustained Mach number



Best Mach number for Endurance and Autonomy



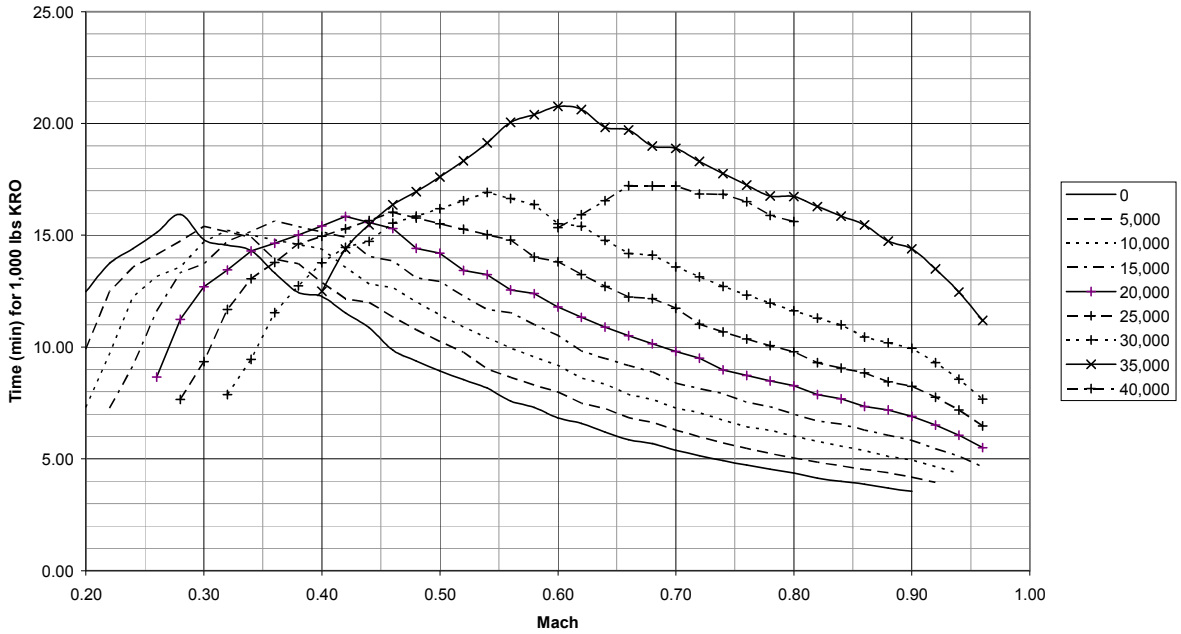
DATA BASIS : ESTIMATED

Aircraft : Mirage 2000-D
Engine :SNECMA M53-P2

CONDITIONS:
•Standard Day
•MIL Power

CONFIGURATIONS :
•DRAG INDEX = 111
2xR550 - 2xGBU-12- 2xRPL-541/542
•GW=33,750lbs / 15.7 t

Endurance for Sustained Mach number



Autonomy for Sustained Mach number