PART V

FLIGHT PLANNING DATA

List of Chapters

PART V

Chapter 1. LOADING AND C.G. DATA

List of Contents

1. C.G. limitations

The C.G. limits, undercarriage down, are as follows :

Forward limit . . . . . 2 ins. aft of datum.
Aft limit . . . . . 14·5 ins. aft of datum.

2. Effects of consumption of expendable stores

(*a*) *Ammunition*

Firing the guns causes the C.G. to move aft.

(*b*) *Fuel*

Consumption from	C.G. Movement
Outboard drop tanks	Forward
Inboard drop tanks	Negligible
Wing tanks	Slight aft
Rear tanks	Slight forward
Front tanks	Aft

(*c*) Bomb release or inboard tank jettison has a negligible effect on C.G.

(*d*) RP firing or outboard drop tank jettison causes a forward C.G. movement.

3. Loading data

(*a*) Weights fully loaded with fuel (at 7·7 lb./gall.) and ammunition (in lb.).

	Clean	2×100 gall. drop tanks	2×230 gall. drop tanks	2×100 and 2×230 gall. drop tanks
Basic	13,870	13,870	13,870	13,870
Pilot	180	180	180	180
Fuel	3,018	4,558	6,560	8,100
Ammo	582	582	582	582
Pylons	—	125	125	200
Drop tanks	—	300	508	808
Total	17,650	19,615	21,825	23,740

(*b*) Approx. max. fuel loads (lb.) for landing at 16,250 lb. assuming no RP's or bombs remaining.

Ammo	Clean	2×100 gall.	2×230 gall.	2×100 gall. 2×100 gall.
Full	1,600	1,200	1,000	600
None	2,200	1,800	1,600	1,200

(*c*) *Armament loads* (*inclusive of mountings and carriers*)

Store	Number off					
	2	4	6	8	16	24
12 lb. RPs	—	—	—	506	882	1,258
18 lb. RPs	—	—	—	554	978	1,402
25 lb. RPs	—	—	—	610	1,090	1,570
60 lb. RPs	—	—	—	760	—	—
HVAR 35 lb.	—	—	1,114	—	—	—
HVAR 52 lb.	—	—	1,250	—	—	—
1,000 lb. bombs	2,248	—	—	—	—	—
25 lb. bombs	—	148	—	—	—	—

The above weights should be added to the appropriate configuration in (*a*) above to obtain the relevant all-up weight.

PART V

Chapter 2. OPERATING DATA

List of Contents

1. **Pressure error corrections**

(*a*) The A.S.I. sea level pressure error corrections are as follows :

I.A.S.—Knots	200	300	400	500	600
Clean or without a port outboard drop tank ..	+1	+3	+4	+4	+1
With a port outboard drop tank	0	+4	+6	+9	+14

(*b*) The machmeter pressure error corrections are as follows:

Configuration	Height	Level Flight—I.M.N.				Diving—I.M.N.				
		0·7	0·89	0·85	0·9	0·93	0·94	0·985	1·0	1·1
Clean, or without a port outboard drop tank	All			Negligible				+0·015	+0·03	+0·13
With a port outboard drop tank	S.L.	+0·02	+0·03	+0·03	+0·05					
	40,000	Negligible		+0·02	+0·04			—	—	—
	—	—	—	—	—	+0·07	+0·09			

(c) *Altimeter pressure error corrections*

(i) The altimeter pressure error correction at approach speeds, clean or with drop tanks, are negligible.

(ii) The following are the p.e.c.'s, in feet at the higher speeds

		With a Port Outboard Drop Tank							
Mach. No.	Sea Level	5,000 ft.	10,000 ft.	15,000 ft.	20,000 ft.	25,000 ft.	30,000 ft.	35,000 ft.	40,000 ft.
0·7	+ 400	+ 370	+ 320	+ 260	+ 200	+ 120	+ 40	— 80	— 200
0·8	+ 670	+ 670	+ 340	+ 460	+ 390	+ 300	+ 200	+ 80	— 40
0·85	+1,000	+ 920	+ 820	+ 720	+ 620	+ 520	+ 400	+ 270	+ 140
0·87	+1,200	+1,120	1,020	+ 920	+ 800	+ 690	+ 560	+ 430	+ 300
0·88	+1,320	+1,240	+1,160	+1,060	+ 950	+ 860	+ 760	+ 640	+ 520
		Without a Port Outboard Drop Tank							
0·7	+ 190	+ 170	+ 150	+ 120	+ 90	+ 60	+ 20	— 20	— 60
0·8	+ 200	+ 170	+ 130	+ 90	+ 60	+ 10	— 20	— 50	— 90
0·85	+ 180	+ 140	+ 100	+ 50	+ 0	— 30	— 60	— 100	— 140
0·9	+ 40	+ 50	+ 50	— 40	— 50	— 80	— 110	— 160	— 200

2. Fuel consumption

The approximate fuel consumption in lb./hour for various RPM and altitudes are given below.

Height (feet)	8000 RPM	7600 RPM	7000 RPM	6750 RPM	6500 RPM	6250 RPM
Sea level	13,750	10,410	5,570	4,130	3,290	2,930
10,000	10,200	8,350	4,890	3,700	2,720	2,160
20,000	7,460	6,280	4,210	3,230	2,350	1,730
30,000	5,190	4,480	3,290	2,720	2,080	1,480
40,000	3,480	2,990	2,230	1,900	1,510	—

3. Take-off distances

The approximate take-off distances, in yards, ground run and to clear 50 feet, are given overleaf.

Temperature °C.	+15°C.				+30°C.				+45°C.			
	Zero Wind		30K Wind		Zero Wind		30K Wind		Zero Wind		30K Wind	
Configuration	G.R.	50 ft.	G.R.	50 ft.	G.R.	50 ft.	G.R.	50 ft.	G.R.	50 ft.	G.R.	50 ft.
Clean	715	1,160	410	530	810	1,300	480	860	900	1,460	550	980
2×100 I.G. Drop Tanks	900	1,420	555	990	1,000	1,580	630	1,090	1,130	1,770	710	1,230
2×100 I.G. + 2×230 I.G. Drop Tanks	1,280	1,900	860	1,360	1,450	2,120	960	1,520	1,650	2,400	1,090	1,700
2×230 I.G. Drop Tanks	1,120	1,740	730	1,250	1,270	1,920	810	1,370	1,440	2,160	910	1,540

4. Landing distances

The tables give the average landing distances in yards with brake parachute streamed for various runway, wind, temperature and weight conditions.

(*a*) *Dry runway*

(i) **At 16,000 lb.**

Temp. °C.	—15	0	+15	+30	+45
Zero wind G.R.	670	715	760	805	850
50ft.	1,110	1,165	1,220	1,275	1,330
30K wind G.R.	350	380	410	440	470
50 ft.	670	705	740	775	810

(ii) **At 17,000 lb.**

Temp. °C.	—15	0	+15	+30	+45
Zero wind G.R.	720	760	810	850	900
50 ft.	1,180	1,245	1,310	1,375	1,440
30K wind G.R.	380	410	440	470	500
50 ft.	720	750	780	810	880

(*b*) *Wet runway*

(i) **At 16,000 lb.**

Temp °C.	—15	0	+15	+30	+45
Zero wind G.R.	860	940	1,020	1,100	1,180
ft.	1,370	1,440	1,510	1,580	1,650
30K wind G.R.	470	515	560	605	650
50 ft.	810	855	900	945	990

(ii) **At 17,000 lb.**

Temp. °C.	—15	0	+15	+30	+45
Zero wind G.R.	1,000	1,065	1,130	1,195	1,260
50 ft.	1,450	1,530	1,610	1,690	1,770
30K wind G.R.	520	565	610	635	680
50 ft.	860	910	960	1,010	1,060

5. **Flight planning tables**

(*a*) The tables on the following pages show the flight planning data for :

(i) *Climbing*

The climb table gives the data for climbs using the speeds recommended in Part III, Chap. 3, para. 1.

(ii) *Cruising*

Each separate altitude block in the cruise table shows :

1. The speed for maximum range, the approximate A.N.M./100 lb. and the approximate fuel consumption for the particular height. In addition a 95% speed is given, use of any speed between which and the best range speed should not cause more than a 5% reduction in range.

2. The range obtainable for various amounts of available fuel when flying at the best range speed for the height The range given is to the point of let-down, allowance being made for the descent fuel required.

3. The range obtainable for various amounts of available fuel including the distance covered on the climb, if a climb is made to another altitude. In this case the climb must be made at the speed given in Part III, Chap. 3, para. 1, and the flight continued at the new altitude at the best range speed for that height.

NOTE : The range at any altitude is independent of temperature, but dependent on the weight of fuel carried.

(iii) *Descent*

The descent table gives the data for descending from one height to another.

(*b*) *Use of the tables*

NOTE : The ANM/100 lb. values in the tables are achieved figures arbitarily reduced by 5% to allow for variations between individual aircraft.

(i) *Pre-flight planning*

Enter the cruise data table in the sea level block at the fuel state applying immediately after take-off. Select the height at which maximum range is available at that fuel state. The distance available includes distance covered on the climb, but not on the descent. (Absolute maximum range is obtained by adding on the descent distance provided that the let-down is commenced at that distance from the destination). For short range flights inspect the sea level block and select the height at which the distance to be covered requires the least amount of fuel. This is the best altitude for flight.

(ii) *In-flight planning*

At any stage of a flight the available range may be ascertained by applying the fuel state to the level flight range in the particular altitude block. If increase in range is required, or if a climb has to be made, the new available range may be obtained by entering the existing altitude block at the particular fuel state and moving vertically downwards within the block until the new altitude is reached. Figures in heavy type indicate the best altitude for the maximum increase in range. Above these heights no further range increase is possible. If a descent is necessitated the new range is shown by moving direct from the existing altitude level flight range for the particular fuel state to the new altitude level flight range.

CLIMB DATA—CLEAN AIRCRAFT

Fuel contents	3,018 lb. AVTAG (7·7 lb./gall.)
Start-up and taxy allowance .	100 lb.
Take-off to climb speed . .	190 lb.
Landing allowance	620 lb.

From	To	Fuel (lb.)	Time (mins.)	Dist. (N.M.)
Sea leavel*	10,000 ft.	455	2¼	8
	20,000 ft.	590	3¼	17
	30,000 ft.	710	4½	28
	40,000 ft.	835	6½	44
	50,000 ft.	1,040	11	80

Climb at full throttle at 0·85M

*Fuel and time figures are from start up and wheels rolling respectively

CRUISE DATA—CLEAN AIRCRAFT

Fuel available—lb.		Gauged Fuel			
		2,730*	2,000	1,500	1,000
Sea Level	**Range**	230	150	95	40
ANM/100 lb.—10·8	10,000 ft.	285	180	110	35
lb./min.—53	20,000 ft.	350	215	120	25
Best range speed—330K	30,000 ft.	420	250	130	—
95% range speed—430K	40,000 ft.	470	270	125	—
	50,000 ft.	465	240	100	—
10,000 ft.	**Range**		190	120	50
ANM/100 lb.—14·3	20,000 ft.		235	140	45
lb./min.—41	30,000 ft.		275	155	35
Best range speed—295K	40,000 ft.		300	160	—
95% range speed—375K	50,000 ft.		290	140	—
20,000 ft.	**Range**		250	155	60
ANM/100 lb.—18·8	30,000 ft.		300	180	70
lb./min.—34	40,000 ft.		330	190	45
Best range speed—275K					
95% range speed—0·76K	50,000 ft.		320	175	
30,000 ft.	**Range**		315	195	75
ANM/100 lb.—24·1	40,000 ft.		355	210	65
lb./min.—30					
Best range speed—0·70M	50,000 ft.		345	195	—
95% range speed—0·82M					
40,000 ft.	**Range**		370	225	80
ANM/100 lb.—28.8					
lb./min.—27	50,000 ft.		360	215	60
Best range speed—0·81M					
95% range speed—0·86M					

CLIMB DATA—2×100 I.G. DROP TANKS

Fuel contents . . . . . 4,558 lb.
AVTAG (7·7 lb. gall.)
Start-up and taxy allowance . 100 lb.
Take-off and climb . . . . 220 lb.
Landing allowance . . . . 620 lb.

From	To	Fuel (lb.)	Time (mins.)	Dist. (N.M.)
*Sea level	10,000 ft.	505	2¾	9
	20,000 ft.	675	4	20
	30,000 ft.	825	5½	34
	40,000 ft.	990	8	54
	45,000 ft.	1,095	10	72

Climb at full throttle at 0·85M.
*Fuel and time figures are from start up and wheels rolling respectively.

CRUISE DATA—WITH 2×100 I.G. DROP TANKS

Fuel available—lb.		Full Fuel 4,240*	Gauged Fuel 2,620	2,000	1,500	1,000
Sea Level	**Range**	380	210	145	95	40
ANM/100 lb.—10·5	10,000 ft.	480	260	175	105	35
lb.min.—52	20,000 ft.	605	315	205	115	25
Best range speed—315K	30,000 ft.	715	375	235	120	—
95% range speed—385K	40,000 ft.	840	430	250	110	
	50,000 ft.	835	405	230	84	
10,000 ft.	**Range**		275	190	120	50
ANM/100 lb.—13·9	20,000 ft.		345	235	145	55
lb./min.—41	30,000 ft.		410	270	150	40
Best range speed—285K	40,000 ft.		460	290	140	
95% range speed—345K	50,000 ft.		450	275	130	
20,000 ft.	**Range**		360	245	155	60
ANM/100 lb.—18·3	30,000 ft.		430	290	175	60
lb./min.—34	40,000 ft.		485	320	180	40
Best range speed—270K						
95% range speed—325K	50,000 ft.		480	310	155	
30,000 ft.	**Range**		445	305	190	70
ANM/100 lb.—22·5	40,000 ft.		520	345	205	60
lb./min.—31						
Best range speed—255K	50,000 ft.		515	340	190	
95% rnge speed—0·80M						
40,000 ft.	**Range**		535	365	225	80
ANM/100 lb.—27·6	50,000 ft.		530	355	215	65
lb./min.—28						
Best range speed—0·80M						
95% range speed—0·85M						
50,000 ft.	**Range**		555	380	235	80
ANM/100 lb.—28·8						
lb./min.—27						
Best range speed—0.85M						
95% range speed—0·87M						

*Excludes start-up taxy and take-off allowance

CLIMB DATA 2×100 I.G. DROP TANKS AND 24 R.P.'s

Fuel contents . . . . . 4,558 lb.
AVTAG (7·7 lb./gall.)
Start-up and taxy allowance . 100 lb.
Take-off to climb speed . . 260 lb.
Landing allowance (excluding descent fuel) . . . . . 620 lb.

From	To	Fuel (lb.)	Time (mins.)	Dist. (N.M.)
*Sea level	10,000 ft.	600	3	12
	20,000 ft.	820	4¾	25
	30,000 ft.	1,040	6¾	43
	40,000 ft.	1,260	11½	70

Climb at full throttle at 0·85M.
*Fuel and time figures are from start-up and wheels rolling respectively

CRUISE DATA—WITH 2×100 I.G. DROP TANKS. AND 24×R.P.'s

Fuel available—Pounds		Fuel* fuel		Gauged Fuel (Actual fuel state)		
		4,200	2,620	2,000	1,500	1,000
Sea Level	**Range**	320	180	125	80	35
ANM/100 lb.—8·9	10,000 ft.	410	215	140	80	20
lb./min.—57	20,000 ft.	470	235	145	70	—
Best range speed—300K	30,000 ft.	530	255	145	55	—
95% range speed—350K	40,000 ft.	610	275	140	—	—
10,000 ft.	**Range**	—	235	160	100	40
ANM/100 lb.—12·1	20,000 ft.	—	260	170	95	—
lb./min.—41	30,000 ft.	—	285	175	85	—
Best range speed—260K	40,000 ft.	—	310	180	75	—
95% range speed—295K						
20,000 ft.	**Range**	—	280	190	115	40
ANM/100 lb.—14·7	30,000 ft.	—	310	200	110	25
lb./min.—37	40,000 ft.	—	345	215	110	—
Best range speed—240K						
95% range speed—290K						
30,000 ft	**Range**	—	330	220	135	45
ANM/100 lb.—17·6	40,000 ft.	—	375	245	135	30
lb./min.—37						
Best range speed—250K						
95% range speed —0·76M						
40,000 ft.	**Range**	—	395	265	155	50
ANM/100 lb.—21·2						
lb/min.—34						
Best range speed—0·79M						
95% range speed—0·85M						
Fuel available—Pounds		4,200*	2,620	2,000	1,500	1,000

*Excludes start-up, taxy and take-off allowance.

CLIMB DATA 4×100 I.G. DROP TANKS

Fuel contents . . . . . 6,098 lb.
AVTAG (7·7 lb./gall.)
Start-up and taxy allowance . 100 lb.
Take-off to climb speed . . 260 lb.
Landing allowance (excluding descent fuel) . . . . . 620 lb.

From	To	Fuel (lb.)	Time (mins.)	Dist. (N.M.)
*Sea level	10,000 ft.	565	2¾	10
	20,000 ft.	755	4	22
	30,000 ft.	925	6	36
	40,000 ft.	1,115	8½	58

Climb at full throttle at 0·82M.
*Fuel and time figures are from start-up and wheels rolling respectively.

CRUISE DATA—WITH 4×100 I.G. DROP TANKS

Fuel available—Pounds		Full* fuel	Out-boards empty	In-boards empty	Gauged Fuel (Actual fuel state)		
		5,740	4,160	2,620	2,000	1,500	1,000
Sea Level	**Range**	505	350	200	135	85	40
ANM/100 lb.—9·9 . .	10,000 ft.	650	440	240	155	90	25
lb./min.—54 . . .	20,000 ft.	795	530	275	170	90	—
Best range speed—310K .	30,000 ft.	910	600	295	175	75	—
95% range speed—380K	40,000 ft.	1,065	690	320	175	—	—
10,000 ft.	**Range**	—	455	255	175	105	40
ANM/100 lb.—13·1 .	20,000 ft.	—	555	300	195	110	25
lb./min.—39 . . .	30,000 ft.	—	630	325	205	105	—
Best range speed—265K .	40,000 ft.	—	725	360	210	95	—
95% range speed—330K .							
20,000 ft.	**Range**	—	575	315	215	130	45
ANM/100 lb.—16.7 .	30,000 ft.	—	655	350	230	130	30
lb./min.—35W . . .	40,000 ft.	—	760	395	245	125	
Best range speed—260K .							
95% range speed—310K .							
30,000 ft.	**Range**	—	675	370	250	150	50
ANM/100 lb.—19·8 .	40,000 ft.	—	790	420	270	155	35
lb./min.—36 . .							
Best range speed—0·72M							
95% range speed—0·8M .							
40,000 ft.	**Range**	—	810	445	295	175	55
ANM/100 lb.—23·8 .							
lb./min.—32 . . .							
Best range speed—0·79M .							
95% range speed—0·84M.							
Fuel available—Pounds .		5,470*	4,160	2,620	2,000	1,500	1,000

*Excludes start-up, taxy and take-off allowance.

CLIMB DATA—2×230 I.G. + 2×100 I.G. DROP TANKS

Fuel contents . . . . . 8,100 lb.
AVTAG (7·7 lb./gall.)
Start-up and taxy . . . . 100 lb.
Take-off to climb speed . . 250 lb.
Landing allowance . . . . 620 lb.

From	To	Fuel (lb.)	Time (mins.)	Dist. (N.M.)
*Sea level	10,000 ft.	490	3¼	13
	20,000 ft.	730	5½	30
	30,000 ft.	980	8	51
	40,000 ft.	1,410	13¼	92

Climb at full throttle at 0·80M.

*Fuel and time figures are from start-up and wheels rolling respectively.

CRUISE DATA—WITH 2×230 I.G. + 2×100 I.G, DROP TANKS

Fuel available—lb.		Full fuel 7,750*	Out-boards empty 6,140	In-boards empty 2,620	Gauged fuel 2,000	1,500	1,000
Sea Level	**Range**	635	495	185	125	80	**35**
ANM/100 lb.—8·0	10,000 ft.	825	640	230	150	95	30
lb./min.—64	20,000 ft.	1,065	825	280	180	100	20
Best range speed—295K	30,000 ft.	1,255	980	330	205	**100**	
95% range speed—370K	40,000 ft.	**1,415**	**1,115**	**360**	210	90	
10,000 ft.	**Range**		625	230	160	100	40
ANM/100 lb.—11·9	20,000 ft.		845	300	200	120	**40**
lb./min.—47	30,000 ft.		1,005	360	235	**125**	
Best range speed—280K	40,000 ft.		**1,150**	**390**	**245**		
95% range speed—350K							
20,000 ft.	**Range**		865	320	220	140	**55**
ANM/100 lb.—15·7	30,000 ft.		1,030	370	250	155	50
lb./min.—40	40,000 ft.		**1,180**	**425**	**275**	**155**	30
Best range speed—275K							
95% range speed—0·70M							
30,000 ft.	**Range**		1,060	390	260	170	**65**
ANM/100 lb.—19·6	40,000 ft.		**1,205**	**450**	**295**	**180**	60
lb./min.—35							
Best range speed—255K							
95% range speed—076M							
40,000 ft.	**Range**		1,220	480	320	200	**75**
ANM/100 lb.—22·1							
lb./min. 33							
Best range speed—0·76M							
95% range speed—0·82M							

*Excludes start-up, taxy and take-off allowance.

CLIMB DATA—2×230 I.G. DROP TANKS

Fuel contents . . . . . 6,560 lb. AVTAG (7·7 lb. /gall.)
Start-up and taxy allowance . 100 lb.
Take-off to climb speed . . 270 lb.
Landing allowance . . . . 620 lb.

From	To	Fuel (lb.)	Time (mins.)	Dist. (N.M.)
*Sea level	10,000 ft.	575	2¼	11
	20,000 ft.	715	4¾	22
	30,000 ft.	865	6	38
	40,000 ft.	1,055	8¾	62
	45,000 ft.	1,220	10	86

*Fuel and time figures are from start-up and wheels rolling respectively.

Climb at full throttle at 0.85m.

CRUISE DATA—WITH 2×230 I.G. DROP TANKS

Fuel available—lb.		Full Fuel 6,190*	Gauged Fuel* 2,620	2,000	1,500	1,000
Sea Level	**Range**	530	195	135	85	35
ANM/100 lb.—95	10,000 ft.	690	245	165	100	**35**
lb./min.—61	20,000 ft.	880	300	195	110	20
Best range speed—330K	30,000 ft.	1,050	360	225	**115**	
95% range speed—410K	40,000 ft.	1,230	405	245	110	
	45,000 ft.	**1,280**	**415**	**245**	100	
10,000 ft.	**Range**		255	175	110	**45**
ANM/100 lb.—12·8	20,000 ft.		320	125	130	40
lb./min.—47	30,000 ft.		385	250	140	30
Best range speed—300K	40,000 ft.		435	270	**140**	
95% range speed—370K	45,000 ft.		**450**	**275**	135	
20,000 ft.	**Range**		335	230	145	**55**
ANM/100 lb.—16·8	30,000 ft.		410	275	165	50
lb./min.—39	40,000 ft.		470	305	**175**	35
Best range speed—28K	45,000 ft.		**480**	**310**	170	
95% range speed—0.73M						
30,000 ft.	**Range**		430	295	185	**70**
ANM/100 lb.—21·0	40,000 ft.		490	330	195	60
lb./min.—37	45,000 ft.		**500**	**335**	**195**	50
Best range speed—0·76M						
95% range speed—0·85M						
40,000 ft.	**Range**		510	350	215	**75**
ANM/100 lb.—25·3	45,000 ft.		**520**	**355**	**215**	70
lb./min.—32						
Best range speed—0·84M						
95% range speed—0·88M						
45,000 ft.	**Range**		**530**	**365**	**220**	**80**
ANM/100 lb.—26·1						
lb./min.—31						
Best range speed—0·85M						
95% range speed—0·90M						

*Excludes start-up, taxy and take-off allowance.

DESCENT DATA (LONG RANGE)

Clean aircraft

2×230 I.G. Drop Tanks.

From	To	Fuel (lb.)	Time (mins.)	Dist. (N.M.)
50,000 ft.	2,000 ft.	125	9¾	75
40,000 ft.	2,000 ft.	100	7	54
30,000 ft.	2,000 ft.	80	4¾	37
20,000 ft.	2,000 ft.	55	3	25
10,000 ft.	2,000 ft.	30	1½	13

Speed 0·80M/400K.

Airbrake IN, Flaps UP.

Throttle closed.

DESCENT DATA (LONG RANGE)

2×230 I.G.+2×100 I.G. Drop Tanks.

From	To	Fuel (lb.)	Time (mins.)	Dist. (N.M.)
50,000 ft.	2,000 ft.	95	7¾	60
40,000 ft.	2,000 ft.	80	5½	42
30,000 ft.	2,000 ft.	60	3¾	28
20,000 ft.	2,000 ft.	40	2¼	18
10,000 ft.	2,000 ft.	20	1¼	9

Speed 0·80M/400K.

Airbrake IN, Flaps UP.

Throttle closed.