

A.P. 4326 B-P.N.

PILOT'S NOTES CANBERRA B. Mk. 2

Restricted

Restricted

MASTER COPY

AMENDMENTS

Am	dt. list	Signature	Date of Incorporation	Amd	t. list	Signature	Date of Incorporation
No.	Date	(Johnston	JUNE 64	No.	Date		
	1			7.	1.2		
2.			Sec. 1	8.			
3.				9.		1.14.11	
Mª.	100			10.	24		
5.		24		п.	2.4		Call State
6.				12.			

Comments and suggestions regarding Pilot's Notes should be forwarded to the Officer Commanding, Handling Squadron, Royal Air Force, Boscombe Down, Wiltshire. October, 1962

A.P.4326B-PN. 5th Edition.

PILOT'S NOTES

CANBERRA B. Mk. 2.

of the Minister of Aviation

Prepared by Direction Promulgated by Command of the Air Council

Henry Handmany h. J. bean.

Frontispiece



AP.4326B-PN.

NOTES TO USERS

1. These Notes are complementary to A.P. 129 (6th Edition) Flying and should be read in conjunction with A.P.4326B-OD (Operating Data). It is assumed that all concerned have a thorough knowledge of the Chapters of A.P. 129 relevant to the operation of this type of aircraft.

2. Throughout these Notes the following conventions apply:----

- (a) Unless otherwise stated, all speeds, Mach numbers and accelerometer readings quoted are "Indicated."
- (b) Words in capital letters in the text indicate the actual marking on the controls concerned.
- (c) Numbers quoted in brackets after items in the text of Part I, normally refer to the illustrations in Part V. The prefix letter refers to the illustration and the number to the item on that illustration, e.g., "(B.3)" refers to Fig. B. item 3.

3. The limitations quoted in Part II are mandatory and must never be exceeded except in an emergency. The contents of other Parts of the book are mainly advisory but instructions containing the work "must" are to be regarded as mandatory. (A.M.F.O. 24 refers).

4. Comments and suggestions should be forwarded to the Officer Commanding, Handling Squadron, Royal Air Force, Boscombe Down, Wilts.

FS/1

LIST OF ASSOCIATED AIR PUBLICATIONS

	Title			A.P. N	10.
Canberra B. Mk. 2	Aircra	aft		4326B	
Avon Mk. 1 Aero-	engine			4321A	
Electrical manual				4343 Series	
Engine starting syst	tems			1181	
Ejection seat equips	nent			4288A	
Gee-H				2557G	
Hydraulic equipment	nt			1803 Series	
IFF				2887D	
Instrument manual				1275 Series	
Intercomm. equipme	ent			2876B	
R.A.F. engineering				1464 Series	
Rebecca				2914Y	
Signal manual				1186 Series	
VHF equipment				2538HA	
Aircrew equipment	asseml	olies		1182 Series	
Navigation instrume	ents			1275B	
Oxygen equipment				1275G	
Pressurising and	air-con	ndition	ning		
equipment.				4340	

RESTRICTED

Art a strange

A.P.4326B-PN.

FS/2

MODIFICATIONS MENTIONED IN THE TEXT

Mod. No.	CANDERDA MODS	(Pt., Chap., para.)
5 432	CANDEDDA MODS	
5 432		
432	Introduction of cold air unit	I, 8, 2
424	Overload tank in homb-bay	1, 2, 1(c)
450	Emergency battery (24 volt)	I, 1, 5(a)
430	True speed drive generators	I. 1. 1(c)
/14	Two-speed drive generators	I. 3. 1
887	Main nydraulic pressure gauge	123
1480	Fuel recuperators	III 3 3(d)
₹2107	AE4021 Mk. 1 and a revised	111, 5, 5(u)
2260	Anti doggla lighting	I, 7, 7(b)(iii)
2360	Anti-dazzie lighting	I. 2. 5(a)(iii)
2/12	See BC mod. 90 below	1.7.6
3352	To introduce anti-conision lights	1,1,0
3367	capacitor belt studs in No. 3	1.2.7(b)
	fuel tank	1, 2, 7(0)
3391	Co-axial cable and fuel con-	
	tents gauge AG 144 for No. 5 fuel tank	I, 2, 7 (b)
3545	To revise the fuel pressure warning light setting	I, 2, 6(b)
3703	To delete the tank fire warning light	I, 7, 1(b)
3773	To permit the discharge of both heads of the dual headed fire	I, 7, 1
3005	To introduce UHE	1, 6, 7
3911	To revise fuel pressure warning light setting to $6-6\frac{1}{2}$ PSI	I, 2, 6(b) 🕨
	AVON MODS.	
542	Introduction of Avon 100 series	III. 3. 2(b)(ii)
857	Introduction of larger diameter	111,0, =(0)(11)
0.57	interconnectors	III 5 3(b)
861	Comparisation for changes in	111, 0, 0(0)
001	viscosity and density of fuel	II, 1, 3
	EJECTION SEAT MODS.	
544	Leg restraint	1,91(a)
545	Strengthened thigh-guards	I, 9 1(a)
577	Canopy breakers	I, 9 1(a)
	BOMBER COMMAND	
32	To lock open all fuel cocks	I. 2. 5(a)(ii)
90	To provide individual control of	1, 1, 0 (u) (u)
50	fuel cocke	I 2 5(a)(iii)

RESTRICTED

A.L.1, Mar. 64



A.P.4326B-PN.

FS/3

LEADING PARTICULARS

PRINCIPAL DIMENSIONS

			F1. 1	NO.
Span without tij	o tanks		64	0
Span with tip ta	inks		65	6
Length overall			65	6
Height to top of	fin		15	7
Height to top of	canony		8	8
Theight to top of	A CE	,		
UNDERCARRI	AGE			
Mainwheel unit			or 1 1 1	
Туре			single wheel retracting	inwards
Shock absorber			Oleo pneumatic	
Air pressure			Refer to Vol. 1	
Fluid			ом-15	
Capacity			12 pints	
Tyre pressures			AUW (lb.)	PSI
The probatos			30,000	65
			35,000	76)
			40,000	88 (+ 5
			45,000	100
			45,000	100)
Declara				
Brakes		ine		
Pressure at	reau	cing	2 500 (1 0 100)	DOT
valve			2,500(+0,-100)	PSI
Pressure at bi	rakes		1,500 (+150,-0)	PSI
Nosewheel unit				
Туре			Twin wheel, r castering, rear	ward retract-
Shook absorber			Levered susper	sion liquid
SHOCK absorber			spring.	ision, nquia
Pressure (w	heels	off		
ground)			1,500 PSI	
Fluid			ом 15	
Capacity			14 pints	
Tyre pressure			Up to 40,000 lb	. 68 PSI
The broostere			Over 40 000 lb."	74 PSI

HYDRAULIC SYSTEM

Fluid Pumps Maximum (relief) pre	 ssure	OM-15 Lockheed Mk. 9 2,500 PSI	
Accumulator, chargin Thermal relief valve so	g gas etting	Air 3,350 to 3,550 PSI (see Pt. 1,	
Number of pumps Capacity of system Accumulator inflation	 pressu	Two 33 pints (approx.) ures main and wheelbrakes:—	
	1, 1, 1,	300 (+50,-0) PSI at +5°C 350 (+50,-0) PSI at +15°C 400 (+50,-0) PSI at +25°C	
Cut-out valve setting Flaps relief valve se Header tank relief	etting valve	$\begin{array}{c} 2,500 \pm 100 \text{ psi} - \neq \circ \\ 2,850 \pm 50 \text{ psi} \end{array}$	19 6
setting		12 to 17 PSI	
Engines		A	
Type	•••	Avon MK. 1 Let turbine	
Fuel)	Refer to Part II	
Oil	}	Chapter 1	
Oil system capacity Oil sump capacity	····) ···	19 pints per engine including —16 pints per engine	
Starting system			
Туре		Rolls Royce turbo, type SBS 720 Mk. 3, 4 or 5	
Cartridge		No. 9 Mk. 1 (720 grammes).	
Accessories gearboxes		1748204	
Oil		OEP 71	
Oil sump capacity		$3\frac{1}{8}$ pints.	
ELECTRICAL SYST	EM	anan ann	
Voltage		28 volts	
Generators		2×30v, 6 Kw, Type P.3	
Aircraft battery		4×12v, 40 amp. hr. Type c	
Emergency battery		$2 \times 12v$, 4 amp. hr., connected in series.	

FS/4		A.P	.4326B-P.N.	-Leading Part	iculars.
FUEL SYST	ΈM				
Type of fuel			AVTUR/50), or avtag (jp	4) (See
			Pt. II,	Ch. 1).	
Tank capaci	ties		At 7.7 1	b./gall. 8.0 11	b./gall.
No. 1	520 g	all	4,004 lb	4,160	lb.
No. 2	317 g	all	2,441 lb	2,536	lb.
No. 3	540 g	all	4,158 lb	4,320	lb.
Total	1,377 g	all	10,603 lb	o. 11,016	lb.
Wing tip tan	ks				
Port	244 g	all	1,878.5	lb. 1,952	lb.
Starboard	244 g	all	1,878.5	lb. 1,952	lb.
Total	1,865 g	all	14,360 lb	. 14,920	lb.
Overload tar	nk (if fit	ted)			
300 gall.			2,310 lb	2,400	lb.
Total 2,165	galls.		16,670	17,320	

LIST OF CONTENTS

Introduction

FS/5

PART I-DESCRIPTION AND MANAGEMENT OF SYSTEMS

Chapter 1—Electrical S	ystem				Para.
DESCRIPTION					
Caparators				 	1
Generators				 	2
Ac supplies—inverters				 	3
External supply				 	4
Emergency hatteries				 	5
Circuit breakers and fuses				 	6
Inertia crash switches			***	 	7
CONTROLS AND INDIC	ATOR	s			
Generator controls				 	8
Ac supplies-inverter con	trols			 	9
Aircraft battery controls				 	10
Emergency battery contro	ols			 	11
NORMAL OPERATION					
Defers starting				 	12
Starting up	***				13
Bafora flight				 	14
During flight				 	15
After flight				 1.7.7	16
MALFUNCTION					
General failure				 	17
Inverter failure				 	18
Electrical loads				 	19
Chapter 2-Fuel System	n				
DESCRIPTION					
Fuel tanks				 	1
Fuel tank capacities				 	2
Fuel recuperators			4.4.4	 	3
Fuel feed to the engines			•••	 	4
CONTROLS AND INDIC	CATO	RS			
IP cock and pump contr	ols		***	 	5
Fuel pressure warning	lights			 	6
Fuel contents gauges			***	 •••	7
NORMAL USE OF THE	FUE	L SYS	STEM		
Checks of fuel pumps a	and co	ocks		 	8
Fuel management				 ***	9
Lise of different fuels	1.51			 	10

Fuel booster-pump failure 11 Bombs hang-up 12 ILLUSTRATION 12 Fuel system simplified 12 Chapter 3 — Hydraulic System DESCRIPTION General 1 Pumps and services 2 Accumulators 3 CONTROLS Controls 4 NORMAL MANAGEMENT 5 External checks 5 Before starting the engines 6 Checks during starting 7 After starting 8 Checks during shut down 9 MALFUNCTION 10 Hydraulic failure 10 ILLUSTRATION 10 Hydraulic system simplified 10 Chapter 4—Engine Systems and Controls 3 Avon Mk. 1 1 Engine fuel system 2 Variable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (up) fuel cocks 5 Engine fire extinguishers and incritia crash switches 9 Engine instr	MALFUNCTION						
Bombs hang-up 12 HLUSTRATION 12 General 1 Pumps and services 1 Pumps and services 3 CONTROLS 3 Controls 4 NORMAL MANAGEMENT 4 External checks 5 Before starting the engines 6 Checks during starting 7 After starting 7 After starting the engines 10 MLFUNCTION 9 MALFUNCTION 10 Hydraulic failure 10 Hydraulic failure 10 Hydraulic failure 10 Hydraulic system simplified 10 Chapter 4—Engine Systems and Controls 3 Avon Mk. 1 1 Engine fuel system 1 Variable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (IP) fuel cocks 5 Engine instruments 8 Engine handling procedures 10 Chapter 5—Aircraft Controls 6 Flying controls—general<	Fuel booster-pump failu	ire					11
Chapter 3—Hydraulic System DESCRIPTION General 1 Pumps and services 2 Accumulators 3 CONTROLS 3 Controls 4 NORMAL MANAGEMENT 4 External checks 5 Before starting the engines 6 Checks during starting 7 After starting 7 Checks during shut down 9 MALFUNCTION 10 Hydraulic system simplified 10 Chapter 4—Engine Systems and Controls 1 Avon Mk. 1 1 1 Engine fuel system 2 3 Yariable guide vanes and air bleed valves 3 Throttle controls 4 4 High pressure (HP) fuel cocks 5 Engine fuel system 7 7 Engine instruments 7 7 Engine instruments 7 7 Engine instruments 7 7 Engine fire extinguishers and inertia crash switches 9 Engine instrougishers and indicator 2 </td <td>Bombs hang-up ◀ILLUSTRATION Fuel system simplified</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>12</td>	Bombs hang-up ◀ILLUSTRATION Fuel system simplified						12
DESCRIPTION General 1 Pumps and services 2 Accumulators 3 CONTROLS 3 Controls 4 NORMAL MANAGEMENT 4 External checks 5 Before starting the engines 6 Checks during starting 7 After starting 7 After starting 7 MALFUNCTION 9 MALFUNCTION 10 Hydraulic failure 10 HLUSTRATION 10 Hydraulic system simplified 7 Chapter 4—Engine Systems and Controls 3 Avon Mk. 1 1 Engine fuel system 2 Variable guide vanes and air bleed valves 3 Throttle controls 7 Engine instruments 7 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls 7 Engine handling procedures 10 Chapter 5—Aircraft Controls 7 Flying controls extern	Chapter 3-Hydraulic	Syste	m				
General 1 Pumps and services 2 Accumulators 3 CONTROLS 3 Controls 4 NORMAL MANAGEMENT 4 External checks 5 Before starting the engines 6 Checks during starting 7 After starting 7 After starting 7 MALFUNCTION 9 MALFUNCTION 10 ILLUSTRATION 10 Hydraulic system simplified 10 Chapter 4—Engine Systems and Controls 3 Avon Mk. 1 1 Engine fuel system 1 Yariable guide vanes and air bleed valves 3 Throttle controls 5 Engine fuel system 7 Engine instruments 8 Engine instruments 8 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls 1 Flying controls—general 1 Variable-incidence tailplane and indicator 2	DESCRIPTION						
Accumulators 3 CONTROLS 4 NORMAL MANAGEMENT 4 External checks 5 Before starting the engines 7 After starting 7 After starting shut down 9 MALFUNCTION 8 Hydraulic failure 10 ¶ILUSTRATION 10 ¶Ivdraulic system simplified 10 Chapter 4—Engine Systems and Controls 3 Avon Mk. 1 1 Engine fuel system 1 Inplie fuel system 2 Variable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (HP) fuel cocks 5 Engine fire extinguishers and inertia crash switches 9 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls 1 Flying controls—general 1 Variable-incidence tailplane and indicator 2 Alleron trimming control and indicator 3 Rudder trimming control and indicator 4 Outderc	General						1
CONTROLS 4 NORMAL MANAGEMENT 5 External checks 5 Before starting the engines 6 Checks during starting 7 After starting 7 After starting 7 MALFUNCTION 9 MALFUNCTION 10 Hydraulic failure 10 Hydraulic system simplified 10 Chapter 4—Engine Systems and Controls 1 Avon Mk. 1 1 Engine fuel system 1 Variable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (HP) fuel cocks 5 Engine itstruments 7 Engine fire extinguishers and inertia crash switches 9 Engine fire extinguishers and indicator 10 Chapter 5—Aircraft Controls 10 Chapter trimming control and indicator 3 Rudder trimming control and indicator 3 C	Accumulators				***	•••	3
Controls 4 NORMAL MANAGEMENT 5 External checks 5 Before starting the engines 6 Checks during starting 7 After starting 7 After starting 7 MALFUNCTION 9 Hydraulic failure 10 ILLUSTRATION 10 Hydraulic system simplified 10 Chapter 4—Engine Systems and Controls 1 Avon Mk. 1 1 Engine fuel system 1 Variable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (HP) fuel cocks 5 Engine starting, relighting and stopping controls 6 Oil system 7 Engine fire extinguishers and inertia crash switches 9 Engine instruments 10 Chapter 5—Aircraft Controls 10 Flying controls—general 1 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 4 Control column snatch unit	CONTROLS						
NORMAL MANAGEMENT External checks 5 Before starting the engines 6 Checks during starting 7 After starting 7 MALFUNCTION 9 MALFUNCTION 10 Hydraulic failure 10 Hydraulic system simplified 10 Chapter 4—Engine Systems and Controls 2 Avariable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (HP) fuel cocks 5 Engine starting, relighting and stopping controls 6 Oil system 7 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls 1 Flying controls—general 1 Variable-incidence tailplane and indicator 3 Rudder trimming control and indicator 3 Rudder trimming control and indicator 7	Controls			***			4
External checks 5 Before starting the engines 6 Checks during starting 7 After starting 7 After starting 8 Checks during shut down 9 MALFUNCTION 9 Hydraulic failure 10 ILLUSTRATION 10 Hydraulic system simplified 10 Chapter 4—Engine Systems and Controls 2 Avon Mk. 1 1 Engine fuel system 1 Uariable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (HP) fuel cocks 5 Engine instruments 7 Engine instruments 8 Engine fire extinguishers and indicator 10 Chapter 5—Aircraft Controls 8 Flying controls—general 1 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 7 Flying controls external locking gear and picketing points 6 Undercarriage emergency lowering control 8	NORMAL MANAGEME	NT					
Before starting the engines 6 Checks during starting 7 After starting 7 Checks during shut down 9 MALFUNCTION 9 Hydraulic failure 10 ILLUSTRATION 10 Hydraulic system simplified 10 Chapter 4—Engine Systems and Controls 10 Avon Mk. 1 1 Engine fuel system 1 Uariable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (HP) fuel cocks 5 Engine instruments 7 Engine instruments 8 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls 10 Chapter 5—Aircraft Controls 10 Chapter controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Flap control and indicator 7 High control sextern	External checks						5
Checks during starting 7 After starting 8 Checks during shut down 9 MALFUNCTION 9 Hydraulic failure 10 ILLUSTRATION 10 Hydraulic system simplified 10 Chapter 4—Engine Systems and Controls 10 Avon Mk. 1 1 Engine fuel system 1 Introttle controls 1 High pressure (HP) fuel cocks 5 Engine fire extinguishers and inertia crash switches 9 Engine fire extinguishers and inertia crash switches 9 Engine fire extinguishers and indicator 2 Ariable-incidence tailplane and indicator 2 Ariable-incidence tailplane and indicator 3 Rudder trimming control and indicator 3 Rudder trimming control and indicator 7 Flying controls external locking gear and picketing points 6 Undercarriage emergency lowering control 8 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 High pontrol and indicator 7 Hidercar	Before starting the engine	s					6
After starting 8 Checks during shut down 9 MALFUNCTION 9 Hydraulic failure 10 ILLUSTRATION 10 Hydraulic system simplified 10 Chapter 4—Engine Systems and Controls 1 Avon Mk. 1 1 Engine fuel system 1 Variable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (HP) fuel cocks 5 Engine instruments 7 Engine fire extinguishers and inertia crash switches 9 Engine fire extinguishers and indicator 10 Chapter 5—Aircraft Controls 10 Chapter 5—Aircraft Controls 10 Flying controls—general 1 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 7 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 High pontrol and indicator 7 High pontrol and indicator 7 High	Checks during starting			-			7
Checks during shut down 9 MALFUNCTION Hydraulic failure Hydraulic failure 10 ILLUSTRATION Hydraulic system simplified Chapter 4—Engine Systems and Controls Avon Mk. 1 1 Engine fuel system 1 Engine fuel system 1 Yariable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (HP) fuel cocks 5 Engine starting, relighting and stopping controls 6 Oil system 7 Engine instruments 7 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls 1 Variable-incidence tailplane and indicator 2 Alleron trimming control and indicator 3 Rudder trimming control and indicator 3 Rudder trimming controls and indicator 7 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 High proteine and indicator 7 Chapter 5—Jying controls external locking gear an	After starting						8
MALFUNCTION Hydraulic failure 10 Hydraulic failure 10 Hydraulic system simplified 10 Chapter 4—Engine Systems and Controls 1 Avon Mk. 1 1 Engine fuel system 1 Yariable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (HP) fuel cocks 5 Engine instruments 7 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls 1 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 3 Rudder trimming control and indicator 7 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 High pontrol and indicator 7 High pontrol and indicator 7 High pontrol and indicator 7 Muder trimming control and indicator 7 Muder trimming control and indicator 7 Hi	Checks during shut dowr	1				• • • •	9
Hydraulic failure 10 ILLUSTRATION Hydraulic system simplified Hydraulic system simplified Image: Chapter 4—Engine Systems and Controls Avon Mk. 1 1mage: Chapter 4—Engine Systems and Controls Avon Mk. 1 1mage: Chapter 4—Engine System and air bleed valves Yariable guide vanes and air bleed valves 1 Engine fuel system 1 Yariable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (HP) fuel cocks 5 Engine starting, relighting and stopping controls 6 Oil system 7 Engine fire extinguishers and inertia crash switches 9 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls 1 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 7 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage emergency lowering control 8 Flap control and i	MALFUNCTION						
Hydraulic system simplified Chapter 4—Engine Systems and Controls Avon Mk. 1 1 Engine fuel system 1 Yariable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (HP) fuel cocks 5 Engine starting, relighting and stopping controls 6 Oil system 7 Engine instruments 7 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls 1 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 7 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage emergency lowering control 8 Flap control and indicator 7 Hord control and indicator 7 Aiber on trimming controls and indicator 7 Hord controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Hord	Hydraulic failure	••••	•••				10
Avon Mk. 1 1 Engine fuel system 1 Variable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (HP) fuel cocks 5 Engine starting, relighting and stopping controls 6 Oil system 7 Engine instruments 8 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls 10 Chapter 5—Aircraft Controls 1 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 7 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage emergency lowering control 8 Flap control and indicator 7 Wheelbrakes control 10	Chapter 4—Engine Syst	ems	and C	ontro	ls		
Avoin MR. 1 1 Engine fuel system 2 Variable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (HP) fuel cocks 5 Engine starting, relighting and stopping controls 6 Oil system 7 Engine instruments 8 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls 10 Chapter 5—Aircraft Controls 1 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 4 Control column snatch unit 5 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage emergency lowering control 8 Flap control and indicator 7 Micron and indicator 9 Flap control and indicator 10 Wheelbrakes control 11	Avon Mk 1						
Variable guide vanes and air bleed valves 3 Throttle controls 4 High pressure (HP) fuel cocks 5 Engine starting, relighting and stopping controls 6 Oil system 7 Engine instruments 8 Engine handling procedures 10 Chapter 5—Aircraft Controls 10 Chapter 5—Aircraft Controls 10 Chapter 10 10 Chapter 5—Aircraft Controls 11 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 4 Control column snatch unit 5 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 <td>Engine fuel system</td> <td></td> <td></td> <td>***</td> <td></td> <td>*** .</td> <td>1</td>	Engine fuel system			***		*** .	1
Throttle controls 4 High pressure (HP) fuel cocks 5 Engine starting, relighting and stopping controls 6 Oil system 7 Engine instruments 7 Engine instruments 7 Engine handling procedures 10 Chapter 5—Aircraft Controls Flying controls—general 1 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 4 Control column snatch unit 5 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage controls and indicator 7 High control and indicator 7 Undercarriage controls and indicator 7 Undercarriage controls and indicator 7 High control and indicator 7 High control and indicator 10 Wheelbrakes control 11	Variable guide vanes and	air b	pleed v	alves	* * * *	14.4	2
High pressure (HP) fuel cocks 5 Engine starting, relighting and stopping controls 6 Oil system 7 Engine instruments 7 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls 10 Chapter 5—Aircraft Controls 10 Chapter function of the system 10 Chapter trimming control and indicator 3 Rudder trimming control and indicator 4 Control column snatch unit 5 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage emergency lowering control 8 Flap control and indicator 9 Airbrakes control 10 Wheelbrakes control 11	Throttle controls	ant	steed vi	arres	***		4
Engine starting, relighting and stopping controls 6 Oil system 7 Engine instruments 7 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls 10 Chapter 5—Aircraft Controls 10 Chapter function 10 Wariable-incidence tailplane and indicator 10 Wariable-incidence tailplane and indicator 10 Wariable-incidence tailplane and indicator 10 Wariable-incidence callplane and indicator 10 Wheelbrakes control 11	High pressure (HP) fuel c	ocks					5
Oil system 7 Engine instruments 8 Engine fire extinguishers and inertia crash switches 9 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls Flying controls—general Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 4 Control column snatch unit 5 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage controls and indicator 9 Airbrakes control 10 Wheelbrakes control 11	Engine starting, relighting	and	stoppin	ng con	trols		6
Engine instruments 8 Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5 —Aircraft Controls Flying controls—general 1 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 4 Control column snatch unit 5 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage controls 8 Flap control and indicator 9 Airbrakes control 10 Wheelbrakes control 10	Oil system						7
Engine fire extinguishers and inertia crash switches 9 Engine handling procedures 10 Chapter 5—Aircraft Controls 10 Chapter 5—Aircraft Controls 1 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 4 Control column snatch unit 5 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage emergency lowering control 8 Flap control and indicator 9 Airbrakes control 10	Engine instruments						8
Engine handling procedures 10 Chapter 5—Aircraft Controls 11 Flying controls—general 1 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 3 Control column snatch unit 5 Flying controls external locking gear and picketing points 6 Undercarriage emergency lowering control 8 Flap control and indicator 9 Airbrakes control 10 Wheelbrakes control 11	Engine fire extinguishers	and in	nertia c	rash s	witches		9
Chapter 5—Aircraft Controls Flying controls—general 1 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 4 Control column snatch unit 5 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage emergency lowering control 8 Flap control and indicator 9 Airbrakes control 10 Wheelbrakes control 11	Engine handling procedu	res					10
Flying controls—general 1 Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 3 Rudder trimming control and indicator 4 Control column snatch unit 5 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage emergency lowering control 8 Flap control and indicator 9 Airbrakes control 10 Wheelbrakes control 11	Chapter 5—Aircraft Con	ntrols	5				
Variable-incidence tailplane and indicator 2 Aileron trimming control and indicator 3 Rudder trimming control and indicator 4 Control column snatch unit 5 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage emergency lowering control 8 Flap control and indicator 9 Airbrakes control 10 Wheelbrakes control 11	Flying controls-general						1
Aileron trimming control and indicator 3 Rudder trimming control and indicator 4 Control column snatch unit 5 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage emergency lowering control 8 Flap control and indicator 9 Airbrakes control 10 Wheelbrakes control 11	Variable-incidence tailplan	ne an	d indic	ator			2
Rudder trimming control and indicator 4 Control column snatch unit 5 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage emergency lowering control 8 Flap control and indicator 9 Airbrakes control 10 Wheelbrakes control 11	Aileron trimming control	and in	ndicato	Γ			3
Control column snatch unit 5 Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage emergency lowering control 8 Flap control and indicator 9 Airbrakes control 10 Wheelbrakes control 11	Rudder trimming control	and in	ndicato	Γ	1222	1000	4
Flying controls external locking gear and picketing points 6 Undercarriage controls and indicator 7 Undercarriage emergency lowering control 8 Flap control and indicator 9 Airbrakes control 10 Wheelbrakes control 11	Control column snatch un	nit				1000	5
Undercarriage controls and indicator	Flying controls external loo	cking	gear an	d picke	eting po	oints	6
Undercarriage emergency lowering control 8 Flap control and indicator 9 Airbrakes control 10 Wheelbrakes control 11	Undercarriage controls an	d ind	icator				7
Airbrakes control	Undercarriage emergency	lowe	ring co	ntrol			8
Wheelbrakes control 10	Flap control and indicator	Г	***				9
wheelbrakes control 11	Airbrakes control						10
	wheelbrakes control		•••		•••	***	11

A.L.1, Mar. 64

AP.4326B-PN List of Contents

Para.

Chapter 6-Flight Instruments, Radio and Radar

FLIGHT INSTRUMENTS

Compasses	***		***	2.2.2		2
Pitot and static pressure	system		***		***	43
Artificial horizon				***		1
Turn-and-slip indicator	***			111		5
Outside air temperature	gauge	***		***		5

RADIO AND RADAR

Intercommun	nicatio	n				+++	0
Radio install	ation				4.8-8	3.44	
Radio compa	ISS (AD	.7092D)				1.1.1	0
Gee-н				***	111	***	10
Rebecca					1111	4445	10
Rear warnin	g		***	***	444	***	11
IFF				***		444	12
API and AMU						114	15

Chapter 7-General Equipment and Controls

Fire extinguishers	and	warning	lights	***		144	1
Inertia crash switch	nes					***	2
Emergency equipm	ent			124		4.4.4	-
Cabin window				***		44.4	4
Folding seat					14.4.4	***	6
External lighting					+ 2.4		07
Internal lighting				1.5.5	4.9.9		1

Chapter 8-Air Conditioning, Pressurising, and Demisting

Systems

Air conditioning system (Pre-m	od. 5)				1
Air conditioning system (Post-I	mod. 5)				4
Pressurising system				***		3
Use of air conditioning a	nd pro	essurisin	g syst	ems		4
Malfunctioning of the pro-	essuris	sing syst	em	***		6
Camera bay heating			1.1.1		*.*.*	07
Demisting system					***	0
Direct vision (DV) panel	***			6.64	***	ô
Use of demisting system				419		10
Air ventilated suits		1.444		***	***	10

Chapter 9-Aircrew Equipment Assembly and Associated

Systems

EJECTION SEATS

General			 	1.444		1.4.9	1
Controls			 			***	2
Sequence of	on ejec	tion	 	* * *	111		3

RESTRICTED

A.L.1, Mar. 64

FS/6

DOORS AND EN	IERGE	ENCY E	XITS				
Entrance door							4
Canopy							5
Navigator's hatc	h						6
OXYGEN SYSTE	M						
DESCRIPTION							
Ovveen supplies	and co	intente a	011000				7
Oxygen regulato	rs and	supply	nointe	1.5.5	1.11	101	6
Oxygen emergen	CV SIID	nlies	points		2.2.2		o
Associated equir	ment	pries	100			1.8.4	10
1-1							10
OXYGEN SYSTE	M NO	RMAL (OPER.	ATIO	N		
Checks before fl	light						11
During flight	***		* * *	* * *			12
OXYGEN SYSTE	MMAI	FUNC	TION				
Loss of cabin pr	Pecure	LIONC	11014				12
Toxic fumes in c	ocknit		• • •	***		* * *	13
Flow indicator fa	ailure		* * *	***			15
Partial system fa	ilure		***	***			16
Oxygen failure					***	* * *	17
							.,
NORMAL USE O	F TH	E AIRC	REW	EOU	IPME	NT	
ASSEMBLY					0.000 0.000000	2021	
Strapping-in proc	edure						18
Normal exit from	the sea	at					10
<i>ILLUSTRATION</i>	S						19
Ejection seat Mk.	1CN						
Oxygen system sin	nplified	i					-
Chanter 10_Arm	omon	t and C	amor	Co	ntuala		
Chapter 10-Ain	lamen	t and C	amer	a Co	utrois		
Bomb safety switc	h		***				1
Bomb controls	***	***	***	***			2
Bombsight							3
Bomb doors contr	ntrois	i'lline.		***			4
Bomb doors amor	tor and	indicate	or			***	5
Camera controls	gency	control		***		***	6
Camera controis				111	***		/
PA	RT I	I-LIN	ITA	TION	NS		
Chapter 1—Engin	e Lim	utations	5				
Engine limitations-	-Avor	1 Mk. 1		in the second			1
Oil limitations							2
Fuel and oil specifi	ications	\$				121	3
Chapter 2Airfra	me an	d Mise	alland	one l	[imites	41.0mg	
Const	ane al	in misc	chant	ous I	Linnta	tions	
General		a			***		1
Speed and mach n	umber	limitatio	ons				2
Maximum weights	212.					1	3
teet aft (or datu	m)		***	***		4
L.1. Mar 64	1	RESTRICT	TED				

A.P.4326B-PN List of Contents

						Para.
Manoeuvre limitations						5
Jettisoning of wing tip tar	nks		111			6
Armament limitations		111				7
Pilot limitations				1.1.4		8
Aircraft approach limita	tions		1.10		(444)	10
Ejection seats	ent				***	11
Antester barner engagen	TTT	LEANI	DI IN	C		
PARI		HAN	ULIN	G		
Chapter 1—Preparation	for I	Flight				
External checks	***					1
Internal checks						2
Chapter 2-Starting, Ta	xying	g and	Take	-off		
Starting the engines						1
Failure to start						2
Checks before taxving						3
Taxving						4
Checks before take-off						5
Take-off						6
Chapter 3-Handling in	Flig	ht				
Climbing	0					1
Engine handling in flight					***	2
General flying						3
Elving at reduced airspee	d					4
Flying in conditions of se	evere	turbule	nce			5
Stalling						6
High speed flight						7
Descent						8
Chapter 4-Circuit and	Land	ling P	roced	ures		
Approach and landing		-				1
Flapless landing	14.57					2
Cross-wind landing						3
Landing with one wing-tir	tank	full				4
Braking						5
Instrument approach						6
Overshooting		***				7
Checks after landing						8
Shut-down procedure						9
◄ILLUSTRATION Approach Speeds						
Chapter E Acompositio	Els:					
Chapter 5—Asymmetric	riyn	ig				1
Stopping an engine in flig	int		***		* * *	1
Plying on one engine	1. della		***		* * * '	2
Relighting an engine in I	light		* * *			2
Asympatric landing and	aversh	oot				5
Asymmetric randing and o	Sversh	001				5
	RESTR	ICTED			A.L.1,	Mar. 64

PART IV-EMERGENCY PROCEDURES

Chapter 1-Engine emergency procedures

						Para	
Engine failure on take	-off	ff				1	
Engine failure in flight	111				1.1.6	4	
Engine fire	4.44	6.676	***		1.0.5	3	
Double flame-out		2.22		4.69		4	

Chapter 2-Aircraft Systems-Emergency Procedures

Action in the event of cabin fire			144	1220	1
Jettisoning the wing tip tanks					2
Entrance door, canopy and navi	igator's	hatch	jettis	oning	30
Jettisoning internal stores					4
Emergency operation of bomb of	doors				5
Emergency operation of the un	idercari	riage			6
Landing with a defective hydr	raulic s	system	or	wheel	-
brakes	1.1.1			***	6
Electrical system failure	122. 1				8
Cabin pressurisation failure at a	annude		1.1.1	***	10
Emergency use of oxygen	***	***			10

Chapter 3-Hazardous Landings, Abandoning, and Ditching

Preparation for hazardous	landings and	subseq	uent	
escape				1
Landing with the nosewheel n	ot locked dow	'n		2
Landing with one main-wheel	not locked do	wn		3
Landing with all wheels up				4
Forced landing				5
Abandoning the aircraft in flig	aht			6
Ditching	*** ***			7

PART V-ILLUSTRATIONS

Die

				TIR
Electrical control panel		 		 A
Cockpit—port console		 1.2.4		 в
Cockpit-forward view		 		 C
Cabin-port side		 		 D
Cabin-forward view	+.+.+.	 ***	+++	 E
Cabin-starboard side	1.1.1	 		 F

A.P. 4326B-P.N.

INTRODUCTION

1. General

The Canberra B. Mk. 2 is a light bomber powered by two Avon Mk. 1 engines each giving 6,500 lb. static thrust at sea level.

2. Armament

Bombs or flares may be carried in the bomb bay in the belly of the fuselage. Bomb controls are on the control column, and at the bomb aimer's rear and forward stations.

3. Crew accommodation

The crew cabin is pressurised and extends from the nose fairing to an aft sloping bulkhead which seals off the compartment from the remainder of the fuselage. Accommodation is provided for a crew of three seated in ejection seats. There is an alternative position in the nose for the bomb-aimer but no provision is made for his ejection from this station. A folding seat is provided for occasional use on the starboard side of the cockpit.

4. Entrances and emergency exits

Entrance for all crew members is through the entrance door on the starboard side in line with the pilot's seat. The canopy and navigator's hatch are jettisonable and provide emergency exits for crew members.

5. Fuselage

There are four bays, upper, lower, port and starboard immediately aft of the pressure bulkhead, containing various items of aircraft equipment.

6. Flying controls

The ailerons, elevators and rudder are all manually operated. The variable-incidence tail-plane, aileron trim and rudder trim are all electrically operated.

7. Layout of controls and instruments

(a) Pilot's station

The location of the flying controls is conventional, other controls and instruments are grouped as follows:—

(i) To the left of the pilot on the cockpit port wall, on the port console and on the engine controls quadrant. (Fig B).

(ii) In front of the pilot on the main instrument panel, on the coaming above this panel and on the engine starter panel. (Fig C). The main instrument panel is divided into three sections, from left to right; the flight instruments panel, the engine instruments panel and the miscellaneous instruments panel.

(b) Navigator's station

The navigator's controls and instruments are grouped around him on the cabin port wall, (Fig. D) on the forward instrument panel and equipment racks (Fig E) and on the electrical control panel (ECP) (Fig. A) between the cockpit and cabin.

(c) Bomb-aimer's stations

The bomb aimer's controls and equipment are grouped on the fuselage starboard wall (Fig. F) at the ejection seat position, also in the nose and on the port and starboard sides at the forward position.

(d) The location of all controls and instruments is given relative to the above positions.