A.P. 2351A, B, C & D.—P.N.

PILOT'S NOTES

FOR

CORSAIR I–IV

DOUBLE WASP R2800-8 OR R2800-8W ENGINE

PROMULGATED BY ORDER OF THE AIR COUNCIL

AIR DATA PUBLICATIONS, ST. ANNES ON SEA, LANCASHIRE.

AMENDMENTS

Amendment lists will be issued as necessary and will be gummed for affixing to the inside back cover of these notes.

Each amendment list will include all current amendments and will, where applicable, be accompanied by gummed slips for sticking in the appropriate places in the text.

Incorporation of an amendment list must be certified by inserting date of incorporation and initials below.

A.L. NO.	INITIALS	DATE	A.L. NO.	INITIALS	DATE
1	M.P.	2/3/45.	7		
2			8		
3	M.P.	30/11/46.	9		
4	M.P.	16/4/46	10		
5			11		
6			12		

NOTES TO USERS

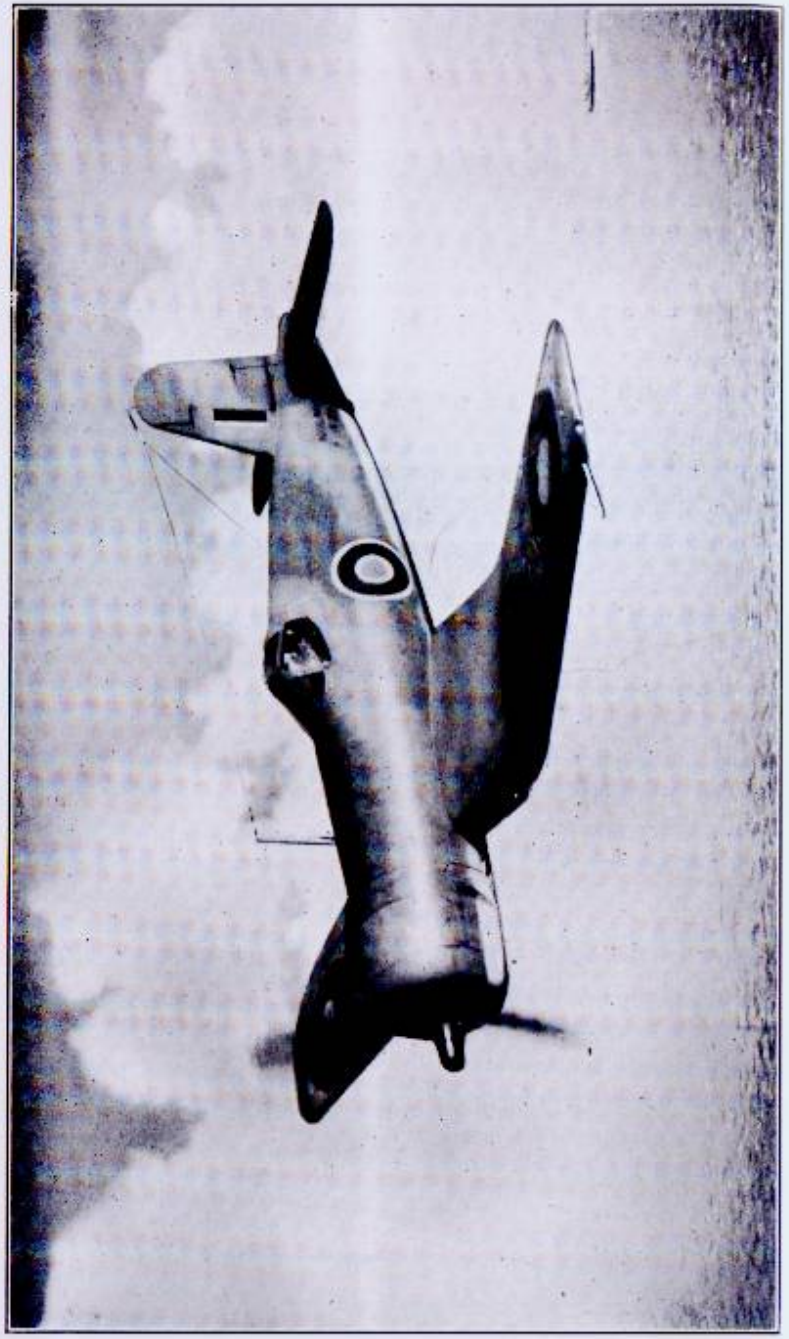
THIS publication is divided into five parts: Descriptive, Handling Instructions, Operating Data, Emergencies, and Illustrations. Part I gives only a brief description of the controls with which the pilot should be acquainted.

These Notes are complementary to A.P. 2095 Pilot's Notes General and assume a thorough knowledge of its contents. All pilots should be in possession of a copy of A.P. 2095 (*see* A.F.O. 3467/44).

Words in capital letters indicate the actual markings on the controls concerned.

Additional copies may be obtained from S.N.S.O., 191A Askew Road, Shepherd's Bush, London, W.12, by application on Royal Navy Forms S.134D or D397, or on R.A.F. Form 294A, in duplicate, quoting the number of this publication in full—A.P. 2351A, B, C & D—P.N.

Comments and suggestions should be forwarded through the usual channels to the Admiralty (D.A.W.T.).



CORSAIR

AIR MINISTRY
August 1944

AIR PUBLICATION 2351A, B, C & D—P.N.
Pilot's Notes

CORSAIR F, Mks. I, II, III & IV

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PART I

DESCRIPTIVE

INTRODUCTION

1. The Corsair F. Mks. I, II, III & IV, are low gull-wing monoplane fighters. They are fitted with a Pratt & Whitney R.2800–8 or R.2800–8W engine having two-speed two-stage supercharging and a Hamilton hydromatic propeller. They can operate from the deck of a carrier, provision being made for accelerating (by the tail-down method), arresting and wing folding. The main difference between the F. Mk. I and the F. Mk. II, is that the F. Mk. II, has a raised cockpit. The F. Mk. III & IV are similar to the F. Mk. II; but built by other manufacturers.

A.L.1 Part I Para. 2 (i)

MAIN SERVICES

2. **Fuel System**

(i) *Fuel tanks.*—Fuel is carried in one self-sealing main tank, which includes a standpipe reserve, and two wing tanks. The wing tanks are not self-sealing, and should not be filled for operational or practice flights, but only for reinforcing flights. The capacities are:

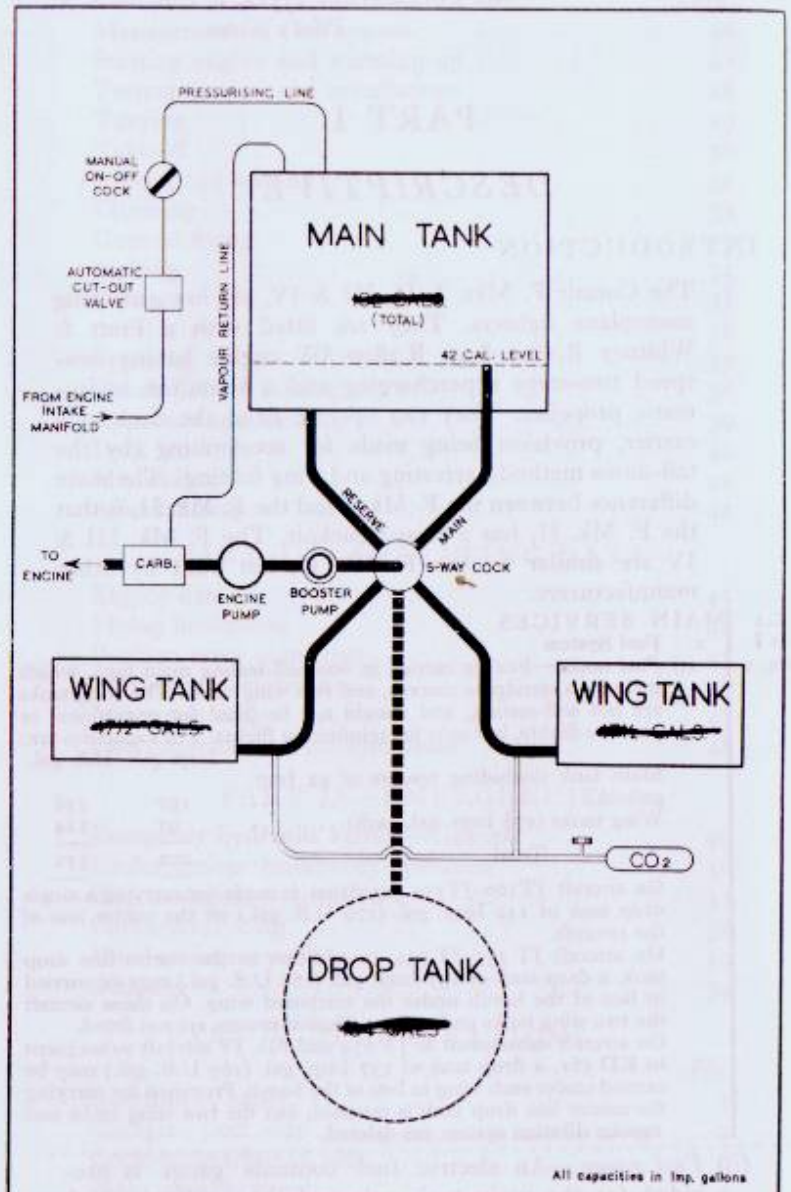
	Imp. gal.	U.S. gal.
Main tank (including reserve of 42 Imp. gallons)	197	236
Wing tanks (47½ Imp. gal. each)	95	114
Total	292	350

On aircraft JT100–JT554 provision is made for carrying a single drop tank of 142 Imp. gal. (170 U.S. gal.) on the centre line of the aircraft.

On aircraft JT 555–JT 634, in addition to the centre line drop tank, a drop tank of 137 Imp. gal. (165 U.S. gal.) may be carried in lieu of the bomb under the starboard wing. On these aircraft the two wing tanks and vapour dilution system are not fitted.

On aircraft subsequent to JT 634 and Mk. IV aircraft subsequent to KD 561, a drop tank of 137 Imp. gal. (165 U.S. gal.) may be carried under each wing in lieu of the bomb. Provision for carrying the centre line drop tank is retained, but the two wing tanks and vapour dilution system are deleted.

(ii) *Fuel gauge.*—An electric fuel contents gauge is provided for the main tank only and the reading, which is in U.S. gallons, includes the reserve.



SIMPLIFIED FUEL SYSTEM DIAGRAM

A.L.1

A.L.1 Part I Para. 2 (iii) to (viii)

(iii) *Fuel cock.*—The fuel cock has five positions. The markings vary with the actual combination of tanks carried. With this cock great care must be taken to ensure that the exact setting is obtained.

(iv) *Booster pump.*—The electric booster pump is operated by a switch marked EMERGENCY FUEL PUMP on the right-hand cockpit shelf. The pump should be switched on for engine starting, take-off and landing, and in the event of low fuel pressure or engine cutting, or failure of the engine-driven pump, and when changing tanks.

(v) *Vapour return line.*—The carburettor vapour return line is vented to the main tank. At normal temperatures, the return through this line is small, but will be considerable under tropical conditions.

(vi) *Wing tank vapour dilution.*—This is operated by a knob below the elevator trimming tab control which releases CO_2 into the two wing tanks as protection against fire. This does not force the fuel out of the tanks, but cuts off the supply to the engine, so that before operating the system the fuel cock should be set to MAIN and should not be turned back to either wing tank until the action of the vapour dilution system is finished. The system is not fitted on aircraft subsequent to JT.555 or KD.561.

(vii) *Pressurisation.*—To meet the possibility of engine cutting due to fuel boiling in warm weather at high altitudes, the main tank is pressurised (automatically operative above 12,000 feet). Pressurising, however, impairs the self-sealing of the tank, and the system can be cut off if required by a manual control above the right rudder pedal.

(viii) *Drop tank release.*—The release for the centre line drop tank is on the left-hand side of the instrument panel; it has three positions marked ATTACH, FLIGHT LOCK and RELEASE. When the centre line drop tank is carried, the control must be kept in the ATTACH position until the tank is released, after which the FLIGHT LOCK position must be used. Release of the underwing drop tanks is by means of the bomb release controls.

3. Oil system

(i) *Oil tanks.*—The maximum oil capacity is 22 Imp. gallons (26 U.S. gallons). The recommended capacity is, however, 18 Imperial gallons to allow greater air space, and the maximum oil capacity should only be used for long-range operations.

(ii) *Oil dilution* is provided. The switch is on the right-hand shelf.

4. Hydraulic system

(i) The following services are operated by the hydraulic system:

Cowling gills	Oil-cooler and intercooler
Undercarriage	Flaps shutters
Arrester gear	Wing folding and locking
Gun charging	Dive brake (the main wheels)

An engine-driven pump, pressure regulator, and accumulator combine to maintain a constant pressure of 950 to 1,125 lb./sq. in., indicated by the gauge located on the right side panel in the cockpit.

During the operation of any service the pressure will drop and vary, but will remain steady when the operation is complete. A handpump is provided for use when the engine is not running, or in the event of failure of the engine-driven pump.

(ii) *Handpump check valve.*—This is provided for use in conjunction with the handpump. On early aircraft the control is mounted forward of the undercarriage selector lever under the instrument panel. On later aircraft it is on the left-hand panel immediately below the ALTERNATE AIR control. When the aircraft is on the ground, and the engine is not running, the handpump can be used to maintain the accumulator pressure when the control is set to GROUND. In the air (in the event of failure of the engine-driven pump) the handpump can be used to operate any unit of the hydraulic system direct when the control is set to FLIGHT.

(iii) *Handpump.*—In the event of failure of a hydraulic pipe line, the engine-driven pump will pump to atmosphere all the fluid available to it, but the amount remaining in the tank will be sufficient for one handpump operation of undercarriage, flaps, cowling gills, oil cooler and intercooler shutters, and gun charging. The arrester hook does not require hydraulic pressure for extension.

5. **Electrical system**

The electrical system is 24 volt. The following services are electrically operated:

All lighting	Pitot-head heater
Cartridge starter	Gun-sight
Camera gun	Armament
Fuel pump	Radio

The main switch panel is on the right-hand cockpit shelf. Circuit breakers are installed for all main electrical services and these are either of the " push to reset " type or are incorporated in the " ON-OFF " switches, which will throw out in the event of a short circuit. To reset, either push the circuit-breaker button, or return the switch to ON.

AIRCRAFT CONTROLS

6. **Trimming tabs.**—Elevator, rudder and aileron trimming tab controls are mounted on the left-hand cockpit shelf. All work in the natural sense, and position indicators are provided.

7. **Undercarriage and dive brake control**

(i) On early aircraft the undercarriage control is a spring-loaded knob situated below the left-hand side of the instrument panel. To raise the undercarriage, pull out the control knob, release the safety catch, and move to UP. To lower the undercarriage, pull out the knob, and move to DOWN when the safety catch will be automatically engaged. After setting the control to UP or DOWN ensure that the pin on the knob engages with the hole in the quadrant. The main wheels are used as dive brakes and may be lowered or raised independently of the tailwheel by the control on the left of the undercarriage position indicator.

(ii) On later aircraft, the undercarriage and dive brake controls are combined in a forked quadrant on the left-hand cockpit shelf. To select undercarriage UP the button at the top of the lever must be depressed and the lever pulled to the rear of the quadrant. To select DOWN, the button is again depressed and the lever moved forward. The same lever operates the dive brake by movement in the inboard fork of the quadrant. With undercarriage UP and the lever at the rear of the quadrant a spring-loaded plunger on the lever is raised and the lever can then be moved into the inboard fork and moved forward to lower the main wheels only.

8. **Undercarriage indicator.**—The indicator is on the left-hand panel and consists of three luminous beads sliding in channels marked TAILWHEEL, MAIN LANDING GEAR—L. R. These beads indicate the position of the undercarriage at any point of its travel. No warning horn is fitted on later aircraft.

9. **Flaps.**—The flap control mechanism is designed so that any desired flap angle can be obtained by 10° steps to full down (50°) by corresponding setting of the flap control. There is no separate flap indicator. The flaps are maintained "in step" by means of a hydraulic flow equalizer which functions only during extension.

The flap system includes a mechanism which causes the flaps to "blow up" from the angle set by the control under excessive air loads. The flaps will return to the angle corresponding to the control setting when the air speed is reduced. The mechanism is set so that with flaps set fully down (50°) they begin to blow up at between 95 and 100 knots I.A.S.

A.L.2 Part I Para. 10

10. **Wing folding.**—Two controls are provided, an operating lever with positions marked SPREAD, STOP (on later aircraft this position is deleted) and FOLD and a manual wing hinge-pin locking handle.

These controls are to the left of the pilot's seat.

(*a*) *Folding.*—To fold the wings the locking handle *must* be released before the operating lever is set to FOLD otherwise the lock itself may be damaged. If the engine is not running the handpump may be used. After the operation is complete move the lever to STOP. The wings must not be left free in any intermediate position between fully spread and fully folded as air loads will cause the wings to shift position, blowing one down and the other up. When fully folded the wings should be locked by means of the jury struts provided. When the struts are installed the wings may be moved to the vertical for re-fuelling and gun servicing by the action of the accumulator if the pressure is up, or by the handpump. The struts are telescopic and are provided with a positive stop for the vertical position of the wings. If it is desired

to fold one wing only, hold the opposite wing down, then by locking the up wing with a jury strut the wings will remain in this position as long as the wing-folding lever is at STOP.

A.L.2 Part I Para. 10 (b)

(*b*) *Spreading.*—To spread the wings, move the operating lever to SPREAD. When the wings are fully spread, lock the pins mechanically by pulling and engaging the locking handle in the LOCK position. The operating lever must never be moved to FOLD if the pins are mechanically locked, as this will result in eventual failure of the lock. A visual check that the wings are fully spread is provided by the closing doors at the wing joint. These doors will not close until the outer panels are fully spread and the pins home. For all flight operation the lever must be kept in the SPREAD position.

A.L.3 Part I Para. 11

11. **Arrester gear.**—Three settings for the arrester gear control are provided—UP, DOWN, and PARK. When the aircraft is on the ground (hook retracted) the control should be placed in the PARK position. This seals the hydraulic fluid in the hook retracting system making it impossible for the hook to "creep" downward.

NOTE.—On early aircraft a mechanical interlock is provided between the arrester gear control and the undercarriage control; so that the arrester gear control cannot be moved to DOWN unless the undercarriage control is set at DOWN, *and the undercarriage control cannot be moved to UP unless the arrester gear control is set to UP.* This interlock guards against the undercarriage and tailwheel being retracted while the hook is down, thereby damaging the tailwheel fairing doors.
This interlock is deleted on aircraft subsequent to KD.358 on which Mod. 283 is embodied, but it is still essential to ensure retraction of the hook before selecting undercarriage UP.

12. **Wheel brakes.**—The hydraulic wheel brakes are toe-operated. The rudder pedals can be set for reach by means of a plunger catch outboard of each pedal and in addition angular adjustment of the brake pedals can be made by rotating the knobs at the top of each pedal.

13. **Tailwheel lock.**—The tailwheel is unlocked by pulling and turning the T handle control on the left-hand cockpit shelf.

ENGINE CONTROLS

14. **Engine control quadrant.**—The quadrant contains the throttle, supercharger, mixture, and propeller controls.

15. **Water injection.**—On R2800-8W engines, the use of higher boost than the normal combat figure of 52½ in. is made possible by the addition of water to the fuel-air mixture. This reduces the tendency of the fuel to detonate and makes it possible to reduce mixture strength to "best power". When emergency combat boost is used the water injection system comes into operation automatically as the throttle lever is moved to the fully open position, breaking the sealing wire if necessary and the anti-detonant is injected as the manifold pressure is reset to a higher limit. The supply should last approximately 8½ minutes. A green warning light is provided on the upper right-hand side of the main instrument panel and, as long as the throttle is fully open, indicates thus:

Flashing ..	3 minutes supply left
On	Supply exhausted

Once water is exhausted in HIGH or LOW blower the automatic supercharger regulator will prevent overboosting, but *when in NEUTRAL below* 3,000 *feet the throttle must be closed to prevent overboosting*. A carburettor air temperature of 43°C. may be exceeded when water injection is in use.

Water injection should not be used for starting or taxying, and in view of the relatively small quantity of water carried, as well as the appreciable sacrifice in engine reliability and possibility of engine hesitating, water injection should not be used for take-off A brief check of the system should, however, be made during run up.

16. **Propeller speed control.**—The control at the rear of the throttle quadrant is moved down to INCREASE R.P.M. and up to DECREASE R.P.M. A vernier control is provided for fine adjustment.

17. **Mixture control.**—The mixture control is automatic and there are four positions for the lever: FULL RICH (fully forward) which should only be used if the automatic

feature fails, AUTO RICH (centre forward), AUTO LEAN (centre aft), and IDLE CUT-OFF (fully aft in the red painted section of the quadrant).

18. **Supercharger**

(i) The supercharger is two-stage, two-speed. The main stage, which is driven direct from the engine, is in continuous operation at all times as in a single stage engine. This supercharger is situated between the carburettor and the cylinders. There is no boost control for this stage.

(ii) The auxiliary supercharger is separate from the main stage, and is driven through a two-speed gear, giving LOW and HIGH ratios. When the supercharger control lever is moved back from the NEUTRAL to the LOW position, auxiliary supercharger is engaged in addition to the MAIN stage. The fully aft position of the lever engages HIGH ratio.

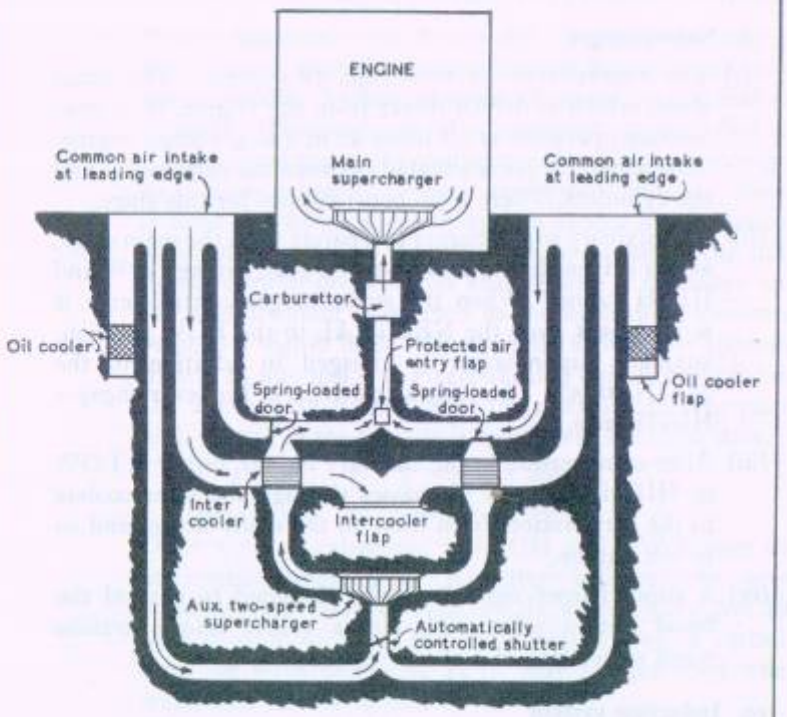
(iii) After compression in the auxiliary blower, either in LOW or HIGH ratio, the air passes through the inter-coolers to the carburettor, from there to the main blower and so to the engine.

(iv) A supercharger regulator valve designed to control the boost within permissible limits comes into operation when either HIGH or LOW ratio is engaged.

19. **Induction system**

(i) When operating in main stage blower, spring-loaded doors in the outboard section of the induction system allow rammed air from the leading edge scoops to enter direct to the carburettor, by-passing the auxiliary blower. When the auxiliary blower is engaged, however, the increase in internal pressure in the intake forces these doors shut and the air goes direct to the auxiliary supercharger, thence through the intercooler to the carburettor.

(ii) *Protected air* (*early aircraft only*).—This is controlled by a push-pull handle on the left-hand panel which opens an intake inside the engine compartment. The control is used at NEUTRAL blower heights when icing is



LEFT HAND SIDE OF DIAGRAM SHOWS AUXILIARY SUPERCHARGER IN OPERATION, INTERCOOLER FLAP OPEN, AND SPRING LOADED DOOR CLOSED.

RIGHT HAND SIDE OF DIAGRAM SHOWS MAIN SUPERCHARGER ONLY IN OPERATION, INTERCOOLER FLAP SHUT, AND SPRING LOADED DOOR OPEN.

AIR INTAKE DIAGRAM

suspected. At greater heights the auxiliary blower when engaged heats the air and prevents icing, and the intercooler flap may be closed to assist this. The push-pull control must not be left in an intermediate position.

A.L.1 Part I Para. 20

20. **Carburettor air temperature warning light.**—This light comes on if the carburettor air temperature exceeds the maximum limit of 43° C. If this temperature is exceeded without the use of water injection, detonation damage indicated by rough running may occur.

21. **Cowling gills, oil cooler and intercooler shutters.**—The control levers for the cowling gills, oil cooler and intercooler shutters are spring-loaded and must be held at either OPEN or CLOSE until the desired setting is obtained, then released. A pressure relief valve is incorporated to permit them to blow towards either closed or open under excessive air loads. They will *not* automatically return to the original setting when the speed decreases.

ANCILLARY CONTROLS & EQUIPMENT

22. **Gun charging.**—The guns are hydraulically charged. The top gun charging knob operates the charging and safetying of the right guns while the lower knob controls the left guns. To charge the guns: Rotate the knobs to CHARGE, then push in.

To render the guns "safe" :—Rotate the knobs to SAFE then push in.

On completion of the cycle of operation, the knobs will spring out. To arm the guns, ready for firing, after they have been charged and then set on SAFE, rotate the knobs to CHARGE. In the event of failure of the engine-driven pump, the guns may be charged by the handpump.

23. **Gun heating.**—A combustion heater is located in each wing gun compartment. Both heaters are set in operation by one switch located on the left-hand cockpit shelf. For gun heating :

(*a*) Master heat control switch .. .. .. ON

(*b*) Gun heater switch .. .. ON

24. **Windscreen defroster and cockpit heater.**—A combustion heater beneath the pilot's seat supplies hot air for defrosting the windscreen and/or heating the cockpit. The flow of fuel-air mixture to the heaters is induced by the difference between engine manifold pressure and atmospheric pressure. In order for the system to operate, it is necessary to maintain an engine manifold pressure of at least 4 in. Hg. above atmospheric pressure. The engine manifold pressure required varies from about 34 in. Hg. at sea level to 15 in. Hg. at 25,000 feet. An automatic device is provided which completely shuts off the system regardless of the position of the ON-OFF switches if there is insufficient engine manifold pressure to induce a flow of fuel to the heaters. A master heat-control switch located on the right-hand cockpit shelf sets the heating system in operation. An individual defroster switch is also located on the right-hand cockpit shelf and must be placed to ON before heat can be supplied. The regulator control (marked DEFROSTER) on the cockpit coaming operates a butterfly valve for directing the necessary amount of hot air to the windscreen. When the regulator control is not set for maximum heating for defrosting, the remaining hot air will be by-passed into the cockpit.

To operate the heater:

(*a*) Master heat control switch .. .. .. ON
(*b*) Defroster switch .. .. ON
(*c*) Then use regulator to control the flow of hot air to windscreen or cockpit.

25. **Stall warning device.**—A stall warning light mounted on the instrument panel is operated by the breakdown in air flow over the centre section. (*See* para. 34.) The stall warning light is deleted on later aircraft.

PART II
HANDLING INSTRUCTIONS

A.L.4 Part II | NOTE.—On aircraft KD868 and subsequent, oxygen should be used at all times during flight.

26. **Management of fuel system**

(i) Use main tank (RESERVE position of fuel cock) for landing and take-off, and for aerobatics and diving. Use 20 galls. from main tank before selecting wing tanks to accommodate any fuel returned through the vapour return lines. (In cold weather the return is small but may be considerable under tropical conditions and for this reason a frequent check on the contents of the main tank should be made.) Do not change over to wing tanks below 2,000 feet. Exhaust wing tanks then re-select main tank.

NOTE.—The wing tanks are only to be used for reinforcing flights. At all other times they should be kept absolutely dry, as the smallest amount of petrol may cause a serious explosion if the tanks are hit.

A.L.1 Part II Para. 26 (ii) | (ii) The fuel booster pump must always be switched on when making any change in the setting of the fuel cock. Care must be taken to ensure that the exact setting is obtained, for instance, if the cock is turned carelessly to the RESERVE position, fuel may drain from main to wing tanks.
When the centre line drop tank is fitted, the release control must be kept in the ATTACH position until the tank is released, after which the FLIGHT LOCK position must be used.

(iii) *Fuel tank pressurisation.*—This system operates on the main tank only and is controlled by the tank pressure manual control handle. It is advisable to have this OFF when in combat, as the self-sealing will not function satisfactorily when tanks are pressurised. In the event of a drop in fuel pressure when using wing tanks, turn over to main tank and switch on booster pump and/or pressurisation.

(iv) The fuel gauge indicates the contents of the main tank only. Pilots are warned that on early aircraft the fuel gauge may stick and that too much reliance should not be paid to the readings.

A.L.2 Part II Para. 27 (i) & (ii)

27. **Starting engine and warming up**

(i) Check :—Correct spread

Undercarriage lever	DOWN, safety catch engaged
Flaps	UP
All switches	OFF
Fuel	RESERVE

(ii) Turn engine over by hand 4 or 5 revolutions. Insert starter cartridge (type No. 3, Mark I). Lock breech.

NOTE.—On later Mk. IV aircraft the cartridge starter is replaced by a direct cranking electric starter. If a ground battery is being used the aircraft battery switch must be OFF.

A.L.3 Part II Para. 27 (iii)

(iii) Set:—

Mixture control	IDLE CUT-OFF
Throttle	OPEN to red line
Propeller ..	down (INCREASE R.P.M.)
Supercharger lever	NEUTRAL
Cowling gills ..	OPEN
Oil cooler shutters	OPEN
Intercooler shutters	CLOSED
Carb. alternate air	COLD (in)
Instrument and battery switches	ON

A.L.2 Part II Para. 27 (iv) & (v)

(iv) Switch ON the fuel booster pump and flick on the priming switch for one second at a time, about five times when warm and up to ten when cold. Overpriming must be avoided.

(v) Switch on ignition switch. Fire the starter cartridge (if cartridge misfires allow one minute before re-indexing) or set starter switch ON (turning periods should not exceed 20 seconds with 30-second intervals).

(vi) As soon as the engine fires move the mixture control slowly to the AUTO RICH position. Keep the firing switch depressed until the engine is running smoothly as it also operates the booster coil.

(vii) In cold weather it may be necessary to continue priming after the engine has fired and until it is running smoothly.

NOTE.—Do not attempt to keep the engine running by pumping the throttle.

(viii) Open up to 1,000 r.p.m. and warm up at this speed. The oil pressure should rise to normal within 10 seconds. If it does not do so, stop the engine. Do not exceed 1,000 r.p.m. until oil pressure falls below 100 lb./sq.in.

(ix) If the engine does not start on the first cartridge, ensure that the mixture control is *immediately* moved to IDLE CUT-OFF and the ignition is switched OFF before inserting a fresh cartridge.

(x) If difficulty is experienced in starting and this is thought to be due to overpriming, a wait of two to five minutes should be allowed before another attempt. If the engine is suspected of being over rich, blow out by turning the propeller in the direction of rotation.

28. **Testing engine and installations**

While warming up :

(i) Check temperatures and pressures and test each magneto in turn as a precautionary check before opening up.

(ii) Test operation of the hydraulic system by lowering and raising the flaps.

NOTE.—The following comprehensive checks should be carried out after repair, inspection other than daily, or otherwise at the pilot's discretion. On airfields they may be reduced in accordance with local instructions.

After warming up to at least 40° C oil temperature and 120° C cylinder temperature. (Do not attempt to warm up more quickly by closing the cowling gills as this may cause burning of the ignition system.)

(iii) Open up to 1,400 r.p.m. and exercise and check operation of the two-speed supercharger by moving the control from NEUTRAL to LOW and, after four or five seconds, from LOW to HIGH. R.p.m. and oil pressure should drop slightly. It is most important that each change be made smartly without a pause. Change back to NEUTRAL.

(iv) At 28 in. Hg. boost exercise and check operation of the constant-speed propeller. R.p.m. should fall to 1,400 with the control in the fully up position.

(v) With the propeller control in the fully down position open the throttle and check take-off boost and static r.p.m. which should be 2,700 at 54 in. Hg. Great care must be taken to hold the control column fully back as there is a strong tendency for the tail to lift.

(vi) Throttle back to 30 in. Hg. boost and test each magneto in turn. The drop in r.p.m. should not exceed 100.

(vii) If wing tanks are being used for the flight, switch to each wing tank during the run-up, using the fuel booster pump during the change-over. This test is necessary, as it is possible to get an air-lock in the fuel lines when re-fuelling a completely empty wing tank. Turn back to RESERVE.

(viii) *Ground test of water injection system.*—At 1,200 to 1,400 r.p.m. engage auxiliary LOW supercharger and wait about half a minute to allow full engagement. Open up to 2,000 r.p.m. and then operate the micro-switch at the forward end of the throttle quadrant. This switch can be made more accessible by removing the side plate of the quadrant. Proper action of the supercharger regulator reset mechanism which is actuated by the water pressure will be indicated by a sudden increase in boost of 2 to 3 inches.

29. Taxying

A.L.2 Part II Para. 29 (i)

(i) *Before taxying*

(*a*) Check that the wing folding lever is at SPREAD and that wing locking handle is engaged and LOCKED.

(*b*) Undercarriage lever safety catch engaged.

(ii) With the tailwheel unlocked, ground handling is difficult. If the tailwheel is locked, the aircraft is directionally stable, but it is then impossible to swing the nose in order to see ahead. It is, therefore, recommended that pilots keep the tailwheel locked for straight taxying—unlocking it momentarily to swing the aircraft to check the path ahead and also whenever it is necessary to change direction. Some practice is necessary to obtain satisfactory ground handling and the brakes must be used with care.

NOTE.—On all Mk. I aircraft, on Mk. II. aircraft prior to JT.425, and on Mk. III aircraft prior to JS. 604, it is possible to lock the control column behind the rudder pedals when taxying. This can occur if the control column is released or pushed forward when full rudder is being applied.

30. Take-off

(i) Check

T—Trim	Rudder: 6° RIGHT Aileron: 6° RIGHT WING DOWN Elevator: 1° NOSE UP
M—Mixture.. ..	AUTO RICH
P—Propeller.. ..	Fully down (INCREASE R.P.M.)
F—Fuel	Check contents (cock to RESERVE) Booster pump on
F—Flaps	UP (30° down for shortest run and for carrier take-off)
Cowling gills ..	Not more than 2/3 open
Intercooler shutters	CLOSED
Oil cooler shutters	As required
Supercharger lever	NEUTRAL
Carb. alternate air	In
Arrester hook control	UP (otherwise the undercarriage cannot be retracted after take-off)
Tailwheel	Locked

(ii) If trim tabs are correctly set, there is little tendency to swing, and the aircraft comes off the ground quickly.

A.L.1. (iii). Brake wheels before retracting undercarriage.

NOTE.—On Corsair aircraft Nos. JT.195–JT.269 it is necessary to lean very far forward into the cockpit to release the undercarriage lever catch, and a safe height should be gained before attempting to raise the undercarriage.

31. **Accelerated take-off**

Check

T —Trim	.. ..	Rudder : 6° RIGHT Aileron : 6° RIGHT WING DOWN Elevator : 6° NOSE UP
M—Mixture	.. ..	AUTO RICH
P —Propeller	.. ..	Fully down (INCREASE R.P.M.)
F —Fuel	.. ..	Check contents (cock to RESERVE) Booster pump on
F —Flaps	.. ..	Fully DOWN
Cowling gills	..	Not more than 2/3 OPEN
Intercooler shutters		CLOSED
Oil cooler shutters		As required
Supercharger lever		NEUTRAL
Carb. alternate air		In
Arrester hook control		UP (otherwise the undercarriage cannot be retracted after take-off)
Tailwheel	.. ..	UNLOCKED

A.L.1 Part II Para. 32 (i) to (iii)

32. **Climbing**

(i) The speed for maximum rate of climb is 125 knots I.A.S. from sea level up to 21,000 feet, reducing by 3 knots per 2,000 feet above that height.

(ii) Change to auxiliary LOW blower when the boost has dropped to 39 in. Hg. and from LOW to HIGH when the boost has dropped to 42 in. Hg. Set the mixture control to AUTO RICH and partially close the throttle when changing gear to avoid overboosting. Re-adjust the throttle and mixture control settings after the change has been made.

(iii) Adjust the cowling gills, oil and intercooler shutters as necessary to maintain temperatures within the limits. Do not open the cowling gills beyond ½ open, otherwise the rate of climb will be reduced and tail buffeting will be experienced. If cylinder temperatures exceed the limitations, climbing speed should be increased slightly.

(iv) Normal intercooler shutter positions are as follows:

Normal climb	Half open
Full power climb	Full open
Level flight	Shut

33. **General flying**

(i) *Stability*

The aircraft is stable about all axes.

(ii) *Change of trim*

Undercarriage down	Strongly nose down
Flaps down 30°	Slightly nose up
Flaps down 50°	Slightly nose down
Oil and intercooler shutters open	Slightly nose up
Cowling gills open	Nose down

(iii) *Flaps.*—The flaps may be lowered 20° to assist manœuvring at speeds up to 200 knots I.A.S.

(iv) *Flying at reduced air speeds.*—Lower flaps 10°–20°. Propeller speed control should be set to give 2,550 r.p.m. Speed may then be reduced to 110 knots I.A.S. Open the hood.

(v) *Auxiliary supercharger surging.*—Surging when using the auxiliary supercharger may be encountered under the following conditions :

(*a*) At about 25,000 feet.

(*b*) HIGH auxiliary supercharger engaged.

(*c*) R.p.m. and boost : 2,200 and below 30 in. Hg.
2,500 and below 33 in. Hg.

(*d*) Outside air temperature 10°–20° C below normal.

The surging is indicated by very rough engine running, probably accompanied by a rumbling or loud puffing sound. The condition can be immediately eliminated by either of the following methods :

(1) Change to LOW (auxiliary) gear, unless the tactical situation makes this undesirable.

(2) Open the throttle and reduce r.p.m.

(vi) When cruising for long periods in HIGH or LOW gear, a shift should be made to a lower ratio for five minutes once every hour in order to remove any sludge from the supercharger clutch plates and oil passages.

(vii) *Water injection.*—Water injection is intended primarily for intermittent use in combat. The water supply is limited, and it is important to save it until a sudden burst of power is required in emergency. AUTO RICH must be used. Opening the throttle *fully* operates the micro-switch, turning on the water pump and, in LOW or HIGH supercharger, resetting the supercharger regulator to control the higher boost permitted with water injection. The water supply should last approximately 8½ minutes, and the green light will flash when only 3 minutes supply is left, remaining steady when the supply is exhausted. When the water is exhausted in LOW or HIGH supercharger, the water pressure will drop and the supercharger regulator will return to the setting for normal combat power, but *in NEUTRAL below 3,000 ft. the throttle must be immediately retarded to prevent overboosting.* Carburettor air temperature of 43° may be exceeded with water injection, i.e. the carburettor air temperature warning light may be disregarded. For maximum speed or rate of climb at water injection combat power, the supercharger control should be used as follows:

Up to 2,000 ft.	NEUTRAL
2,000 ft. to 15,000 ft.	LOW
Above 15,000 ft.	HIGH

Little or no benefit is derived from the use of water at boosts below 45 to 50 inches, i.e. above about 20,000 ft. in LOW or 25,000 ft. in HIGH. As in normal operation without water, a severe surge in boost may be experienced when changing to a higher supercharger gear, and the precautions given in para. 32 (ii) must be followed. For operation of intercooler shutters *see* para. 32 (iv) which applies equally with water injection.

A.L.1 Part II Para. 33 (viii)

(viii) *Carburettor air temperature.*—If the red warning light comes on when operating in auxiliary supercharger at comparatively low air speed, immediately open the intercooler shutters fully. At high speeds little improvement is obtained by opening the shutters, and r.p.m. should be reduced. If this is still ineffective, change to a lower supercharger ratio.

34. **Stalling**

(i) At normal loadings the stall, both with undercarriage and flaps up and down, is preceded by slight buffeting and pitching. Under overload conditions or with an aft C.G. position there

is little warning of the stall other than that given by the stall warning light. At the stall, a wing (normally the right) will drop sharply, but an incipient spin will only develop if the control column is kept back. Recovery is rapid directly the control column is moved forward, but this should be done *at once*.

(ii) Stalling speeds, engine off, at 11,500 lb. and speeds at which warning light comes on are approx.:

	Stalling speeds	*Warning light*
Undercarriage and flaps up	90 knots I.A.S.	100 knots I.A.S.
Undercarriage and flaps down ..	76 „ „	80 „ „

(iii) If the aircraft is stalled in a steep turn, little warning is apparent other than that given by the stall warning light which will come on at approx. 17–20 knots above the stalling speed, and the aircraft will normally flick out of the turn. Recovery is immediate if the pressure on the control column is relaxed.

35. **Diving**

(i) If it is desired to use the undercarriage as a dive brake, do *not* lower with the normal undercarriage control as this will lower the tailwheel, but utilise the dive brake control. Aircraft must *not* be dived with tailwheel extended as damage to tailwheel doors will result.

(ii) Before diving, set :

Hood	Shut and locked
Mixture	AUTO RICH
Supercharger	NEUTRAL
Throttle	⅓ OPEN
Fuel	RESERVE
Cowling gills, oil and intercooler shutters ..	SHUT
Trim	Rudder : approx. 6° LEFT Elevator : approx. 1½° NOSE DOWN

(iii) Acceleration is rapid when the undercarriage is not used as a dive brake, and elevator forces on the pull-out are heavy. Ample height must be allowed for recovery.

(iv) If the limiting speeds are not rigidly observed, buffeting may be experienced. If during the dive there is indication of buffeting on the tailplane, the speed must be reduced to a point where the buffeting ceases. If similar signs occur during the recovery at high acceleration, the pull-out should be eased off and the *g* reduced to the point where buffeting ceases. Pilots should appreciate that this buffeting may be a combination of both speed and acceleration and should reduce those contributory factors accordingly.

(v) No automatic boost control is fitted and care must be taken not to overboost in the dive.

A.L.2 Part II Para. 36

36. **Aerobatics**

Recommended speeds are :

(i) Loop	260–280	knots I.A.S.
(ii) Roll	180–220	„ „
(iii) Roll off top of loop	300	„ „
(iv) Climbing roll	330	„ „
(v) Upward roll	350–360	„ „

NOTE.—During the above aerobatics the aircraft should not be held in the inverted position for longer than 3 seconds.

A.L.1 Part II Para. 37

37. **Spinning**

This aircraft must not be spun

In the case of inadvertent spins, normal recovery action if taken immediately should prove effective if full opposite controls including ailerons are held until recovery is completed. Trimming tabs should be used to relieve the control forces which may become high. It should be noted that the rate of rotation will probably increase during the early stages of recovery.

38. **Check list for landing**

Reduce speed below 200 knots I.A.S., lower undercarriage and arrester hook (for deck landing). Open and lock cockpit hood.

U—Undercarriage ..	DOWN, safety catch engaged
Tailwheel	Locked (UNLOCKED for deck landings)
M—Mixture	AUTO RICH
P—Propeller	Down (INCREASE R.P.M)
F—Fuel	RESERVE (and booster pump ON)
F—Flaps	Lowered as required, but fully DOWN for deck landing
Supercharger lever ..	NEUTRAL
Carb. alternate air ..	In
Cowling gills, oil and intercooler shutters ..	SHUT as required

39. **Approach and landing**

(i) Recommended approach speeds in knots I.A.S. at normal loads are :

	Flaps down	*Flaps up*
Engine assisted ..	85–90	100
Glide	100	105

The flaps are large and the rate of descent when they are lowered fully is very great. View on the approach with flaps down is satisfactory but is poor if the approach is made with flaps up.

(ii) Care must be exercised once the aircraft is on the ground. As soon as the tail comes down the machine may tend to swing in either direction. This must be checked immediately with the brakes. When approaching to land, the pilot may position his toes on the brake pedals ready to correct any swing after the touch down, but care must be taken to ensure that partial brake is not applied to the wheels before the touch down is made.

40. **Deck landing**

Recommended approach speed for deck landings is 80–83 knots I.A.S. In order to improve the view ahead, a curved approach to land should be made.

41. **Mislanding**

In the event of a wave-off, or a mislanding :

(i) Open throttle. Very sudden opening of the throttle at low speed causes the port wing to drop.

A.L.2 Para. 41 (ii)

(ii) Raise undercarriage (on early aircraft the deck hook must be raised first) and retrim.

(iii) Open cowling gills as necessary.

(iv) Raise flaps in stages and when a safe height of 200 feet is reached.

The raising of the flaps produces some change of trim and considerable sink.

42. **After landing**

(i) After landing, raise the flaps and open cowling gills, and oil cooler shutters.

(ii) Switch off booster pump.

(iii) *Stopping engine*

(*a*) Allow cylinder head temperature to drop below 205°C.

(*b*) Move mixture control to IDLE CUT-OFF and when the engine stops switch off all switches and turn off fuel.

(iv) On the last flight of the day, it is necessary to desludge the supercharger clutch before switching off. To do this, increase r.p.m. to 1,400 and move supercharger control first from NEUTRAL to LOW, and after 30 seconds from LOW to HIGH. After a further 30 seconds return to NEUTRAL.

A.L.3 Part II Para. 42 (v)

(v) Set the arrester hook control to PARK.

(vi) *Oil dilution.*—The dilution period for this aircraft is three minutes at 1,000 r.p.m. *See* A.P. 2095 Pilot's Notes General.

PART III

OPERATING DATA

A.L.2 Part III Para. 43

43. **Engine Data**

Double Wasp R.2800–8 or 8W engine.

(i) *Fuel.*—100 octane.

Oil.—*See* N.A.M.O. General /S4.

Water.—Distilled water or distilled water-alcohol mixture.

(ii) The principal engine limitations are as follows :

		R.p.m.	Boost in Hg.	Mix.	Temp. °C. Cyl.	Temp. °C. Oil
TAKE-OFF (5 MIN. LIMIT)	Main	2,700	54	A.R.		
CLIMBING 1 HR. LIMIT	Main / Aux	2,550	44 / 49½*	A.R.	260	100
MAX. RICH CONTINUOUS	Main / Aux	2,550	44	A.R.	230	85
MAX. WEAK CONTINUOUS	Main / Aux	2,200	34	A.L.	230	85
COMBAT 5 MINS. LIMIT	Main / Aux	2,700	53	A.R.	260	100
COMBAT EMERGENCY (*water injection—5 min. limit*)	Main / Aux	2,700	58 / 60	A.R.	260	100

*44 inches should normally be adhered to, but 49½ inches boost is permitted in Auxiliary blower for 1 hour.

OIL PRESSURE:	
NORMAL	80 lb./sq.in.
MAXIMUM	100 lb./sq.in.
MINIMUM FOR CRUISING	55 lb./sq.in.
MINIMUM FOR IDLING	25 lb./sq.in.
OIL TEMPERATURES:	
MINIMUM FOR TAKE-OFF	40° C.
DESIRED FOR CRUISING	60–70° C.
FUEL PRESSURE	15–17 lb./sq.in.

A.L.1 Part III Para. 44

44. **Flying limitations**

(i) *Maximum speeds :*

	Knots I.A.S.
Lowering of flaps fully	130
Flaps not more than 20°	200
Lowering of undercarriage (normal)	200
Hood open	300
Application of full aileron	300

NOTE.—At higher speeds, use of ailerons is limited to the same force on the control column as that required for full throw at 300 knots I.A.S.

(ii) *Diving (undercarriage up)*

At weights below 12,500 lb. the maximum diving speeds are as follows:

	Knots I.A.S.
30,000 to 20,000 feet	300
20,000 to 10,000 feet	350
Below 10,000 feet	400

Above this weight reduce indicated speeds by 25 knots.

(iii) *Dive bombing*

	Knots I.A.S.
Maximum speed (undercarriage up)	375
Maximum speed for lowering undercarriage (dive brakes)	250
Maximum speed undercarriage down	350

(iv) *Drop tanks*

(*a*) Centre line tank

Maximum speed ..... 375 knots I.A.S.

Accelerating is prohibited. Arresting is permitted only with drop tank empty or nearly so. Recommended speed for dropping empty tank is 175 knots I.A.S., but at higher speeds apply slight *g* to ensure release and clearance between the tank and fuselage. When full the tank will release satisfactorily up to 300 knots I.A.S.

A.L.2 Part III Para. 44 (iv) (b) —(vii)

(*b*) Underwing tanks

Maximum speed ..... 300 knots I.A.S.

Tanks may be dropped at this speed. Accelerating and arresting with full tanks is permitted.

(v) *Maximum weights*

Take-off, accelerated take-off and landing on runways	14,900 lb.
Landing (arrested) and grass airfields	14,200 lb.

A.L.4 Part III Para. 44 (vi) (vii)

(vi) *Bombs.*

	Maximum speed in knots I.A.S.
When carrying bombs	375
When releasing bombs	300

Accelerating and arresting are permissible, but the angle of dive when releasing bombs must not exceed 60°. Salvo release is not permitted.

(vii) *R.P.* Maximum speed 365 knots I.A.S. Accelerating is permitted, but arresting is only permitted with 25 lb. head R.P. 60 lb. head R.P. must be fired before landing on. When operational conditions permit R.Ps. should be fired before using guns, as ejected cartridge cases are liable to hit the pigtails of the R.P.

NOTE.—When carrying bombs or drop tanks, violent manœuvres must be avoided.

45. **Position error correction**

From	100	120	160	200	240	280	Knots I.A.S.
To	120	160	200	240	280	320	
Add	2	3	5	6	8	10	Knots

46. **Maximum performance**

(i) *Climbing.*—The speed for maximum rate of climb is 125 knots I.A.S. from sea level to 21,000 feet, reducing by 3 knots per 2,000 feet above that height. Change to auxiliary LOW gear when the boost has dropped to 39 in. Hg. and from LOW to HIGH gear when the boost has dropped to 42 in. Hg.

(ii) *Combat.*—LOW auxiliary gear should be used if the maximum obtainable boost in NEUTRAL is less than 44 in. Hg., and HIGH auxiliary gear if the maximum obtainable boost in LOW auxiliary gear is less than 47 in. Hg.

A.L.3 Part III Para. 47

47. **Maximum range and endurance**

(i) The recommended speed for maximum range is 160 knots I.A.S. Fly in weak mixture at 34 in. boost or full throttle and reduce r.p.m. as required (down to a minimum of 1,400) to maintain the recommended speed. If this is exceeded at 1,400 r.p.m., reduce boost accordingly.

NOTE.—(*a*) Do not use LOW auxiliary gear if the recommended speed can be maintained in NEUTRAL at 2,200 r.p.m.

(*b*) Do not use HIGH auxiliary gear if the recommended speed can be maintained in LOW auxiliary gear at 2,200 r.p.m.

(ii) To obtain maximum endurance fly in weak mixture at 1,350 r.p.m. and adjust the throttle as necessary (taking care not to exceed 34 in. boost) to maintain a speed of 150 knots I.A.S.

A.L.1 Part III Para. 48 (i)

48. **Fuel capacities and consumptions**

	Imp. gal.	U.S. gal.
Main tank (including reserve)	197	236
Centre line drop tank	142	170
	339	406
Underwing drop tanks (2)	274	330
	613	736

(ii) Fuel consumptions (approx. Imp. gal./hr.) at 5,000 ft.:

(*a*) RICH mixture and NEUTRAL :

R.p.m.	*Boost in. Hg.*	*Imp. gal. /hr.*
2,700	52½	192
2,550	44	170

(*b*) WEAK mixture and NEUTRAL :

Boost in. Hg.	R.P.M.			
	2,200	2,000	1,800	1,600
32½	69	60	53	47
30	62	54	47	42
28	57	49	43	38
26	52	45	39	35
24	46	41	35	32
22	42	37	32	—

NOTE.—To convert to U.S. gal. multiply by 1·2.

PART IV

EMERGENCIES

49. Emergency hydraulic system—General

(i) In the event of a hydraulic circuit failing to operate, the handpump must be used. The handpump check valve should be set to FLIGHT.

(ii) In the event of a failure of a hydraulic pipe line, there will be ½ gall. of fluid left available to the handpump, sufficient for one handpump operation of undercarriage, flaps, cowling gills, oil cooler and intercooler shutters. The arresting gear does not require hydraulic pressure for extension.

50. Undercarriage emergency operation

(i) If the undercarriage fails to lower, see that handpump check valve is set to FLIGHT. Set undercarriage control lever to DOWN and operate handpump. About 70 strokes will be required to open the doors during which no resistance will be felt. It then requires another 100 strokes to extend the main undercarriage gear during which time pressure will be felt. This operation takes 3 to 5 minutes.

(ii) If it is clear that the undercarriage will not lower due to complete failure of the hydraulic system, it may be lowered by operation of a CO_2 system, and the tailwheel by a spring system.

(*a*) Close throttle and reduce speed to 110 knots.

(*b*) Move undercarriage control to DOWN.

(*c*) Pull emergency undercarriage release handle (left-hand side of cockpit). This relieves hydraulic pressure on the down side of the jacks and also operates the CO_2 valve.

NOTE.—On aircraft No. JT.270 and subsequent, the emergency undercarriage release handle is deleted, and the CO_2 bottle valve (aft bottle) must be opened.

(*d*) Reduce speed to about 90 knots I.A.S. (Take great care not to stall whilst undercarriage is extending.)

(*e*) Check indicators to see that undercarriage and tail-wheel are down.

NOTE.—The introduction of CO_2 into the hydraulic system precludes the subsequent use of hydraulic power. If hydraulic pressure is shown on the gauge and the undercarriage will not lower by engine pump or handpump it would indicate mechanical damage. In this case the CO_2 system should not be used and a belly landing should be made as it will not be possible to raise the undercarriage again if it does not lock down.

51. **Flap emergency operation**

In emergency the flaps may be lowered by the handpump. Set :

(i) Handpump check valve to FLIGHT.

(ii) Flap control to DOWN.

(iii) Operate handpump.

52. **Carburettor icing**

If carburettor icing is encountered below 5,000 feet and in NEUTRAL blower, the protected air control should be pulled fully out. Above this height, auxiliary blower should be engaged in order to dispel any ice.

For Protected Air.—Pull the control fully out. This control must be either full out or full in, and due to high air loads on the alternate air door, the control *cannot* be operated in either LOW or HIGH blower, and therefore NEUTRAL must be engaged before moving the control. When this control is engaged the ram effect is reduced because air is drawn from inside the engine compartment.

53. **Hood emergency release**

(i) Pull safety pin loops and pull both hood release handles inboard and then forwards.

(ii) Break hood free by an upward push on the release handles.

(iii) An escape panel is provided on the right-hand side of the hood. In the event of overturning on landing, pull release handle down and force escape panel outwards.

A.L.1 Part IV Para 54

54. **Ditching**

(i) In general, the pilot should bale out if possible.

(ii) The aircraft is known to possess good ditching qualities. The drop tanks (if fitted) should be jettisoned, but only in straight flight and the following procedure observed:

(*a*) Open the cockpit hood and make certain it is securely locked.

(*b*) Lower flaps in order to reduce landing speed as much as possible.

(*c*) Keep the undercarriage retracted.

(*d*) Disconnect R/T plug. Keep the safety harness on and ensure that the straps are tight.

(*e*) The engine, if available, should be used to help to make the touch-down in a tail-down attitude at as low a speed as possible.

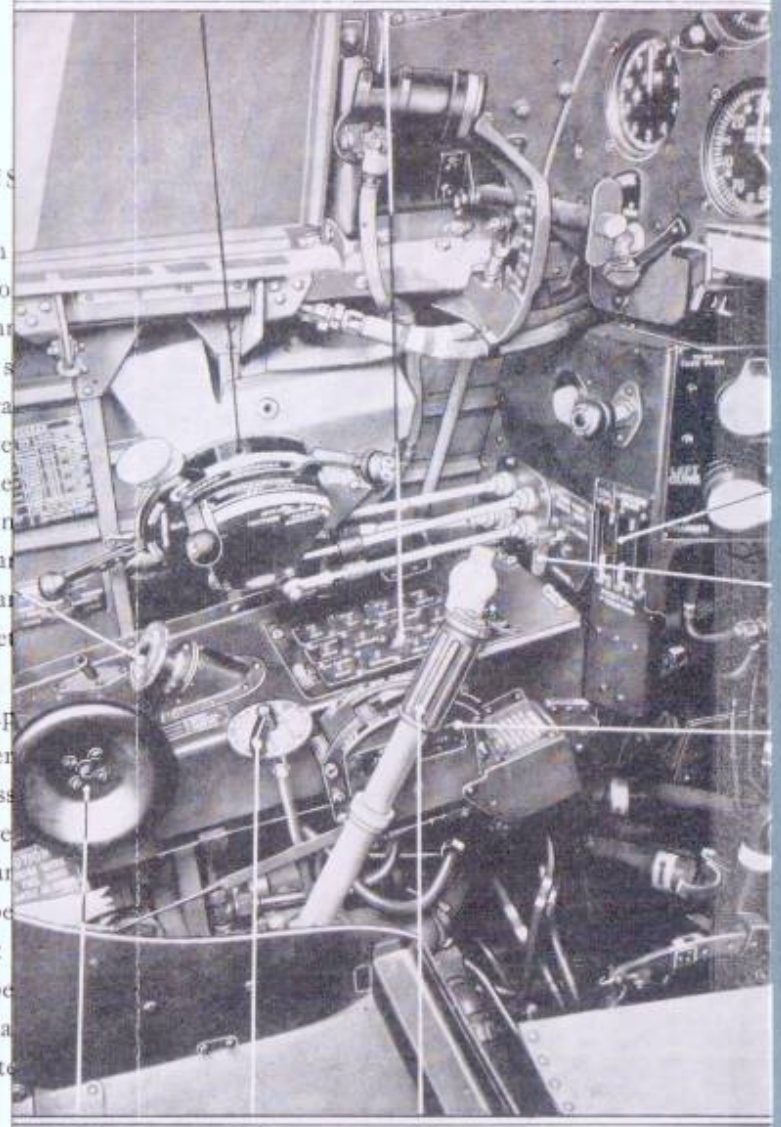
(*f*) Ditching should be along the wave crests or wave tops.

PART V

ILLUSTRATIONS

INS

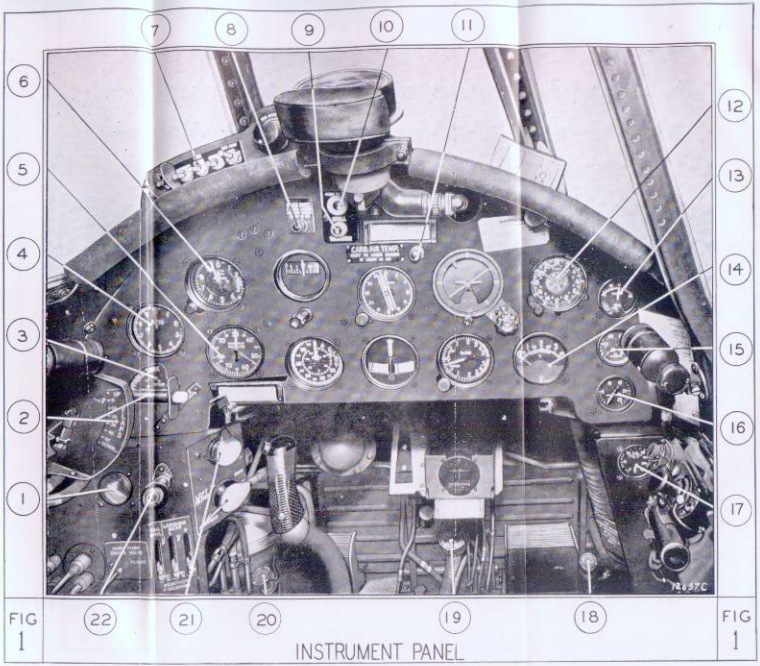
1. Ignition
2. Flaps co
3. Drop tar
4. Engine s
5. Boost ga
6. Altimete
7. Armame
8. Water in
9. Stall wa
10. Stall wa
11. Carburet
12. Clock
13. Oil temp
14. Cylinder
15. Oil press
16. Fuel pre
17. Main tar
18. Brake pe
19. Cockpit
20. Brake pe
21. Gun cha
22. Alternate

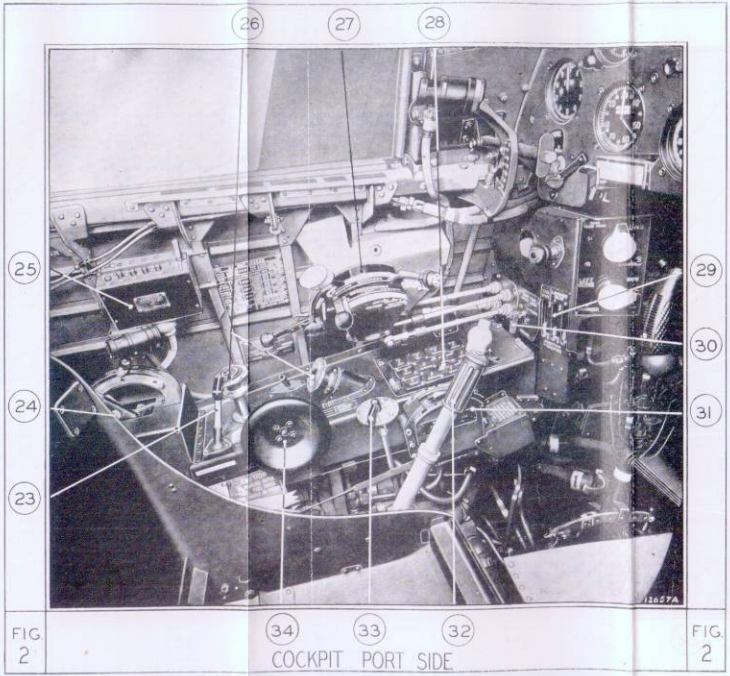


Key to Fig. 1

INSTRUMENT PANEL

1. Ignition switch
2. Flaps control and indicator
3. Drop tank control
4. Engine speed indicator
5. Boost gauge
6. Altimeter
7. Armament switches
8. Water injection indicator light
9. Stall warning light
10. Stall warning light test button
11. Carburettor temperature warning light
12. Clock
13. Oil temperature gauge
14. Cylinder temperature gauge
15. Oil pressure gauge
16. Fuel pressure gauge
17. Main tank fuel contents gauge
18. Brake pedal adjuster
19. Cockpit ventilator
20. Brake pedal adjuster
21. Gun charging controls
22. Alternate air control





COCKPIT PORT SIDE.

Key to Fig. 2

COCKPIT PORT SIDE

23. Tailwheel locking handle
24. Wing folding lever (Manual locking handle at rear)
25. TR.1196
26. Rudder and aileron trimming tab controls
27. Engine control quadrant
28. Circuit breaker reset buttons (armament, camera and water pump)
29. Undercarriage indicator
30. Handpump check valve selector
31. Undercarriage and dive brake quadrant
32. Handpump
33. Fuel tank selector
34. Elevator trimming tab control

Key to Fig. 3

COCKPIT STARBOARD SIDE

35. Pressurising manual control
36. Oil cooler and intercooler flap indicators
37. Voltmeter
38. Hydraulic pressure gauge
39. Starter switch
40. Priming switch
41. Arrester hook control
42. Oxygen regulator
43. Fuel pump switch
44. Cowling gills control
45. Intercooler flap control
46. Oil cooler flap control
47. Rudder pedal adjuster

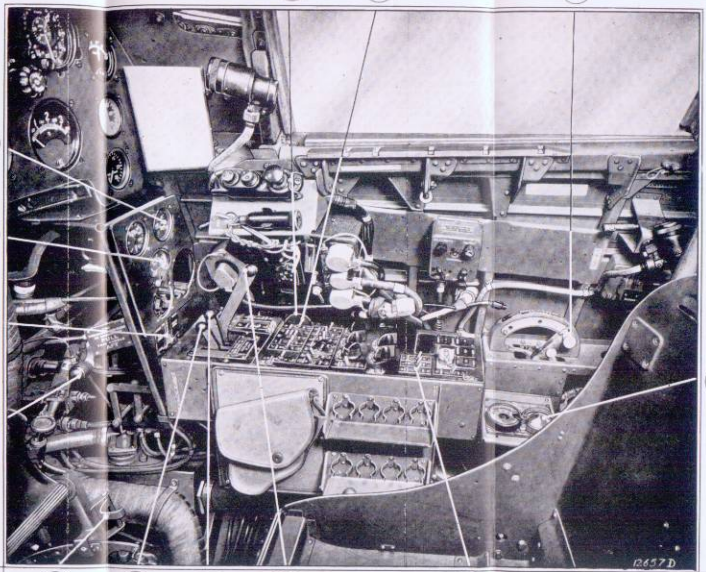


FIG. 3 COCKPIT—STARBOARD SIDE FIG. 3

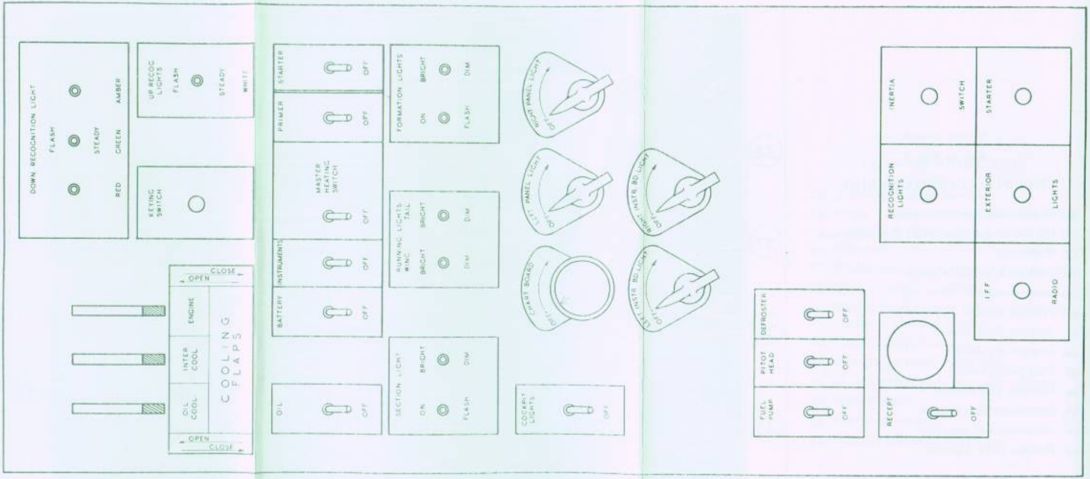
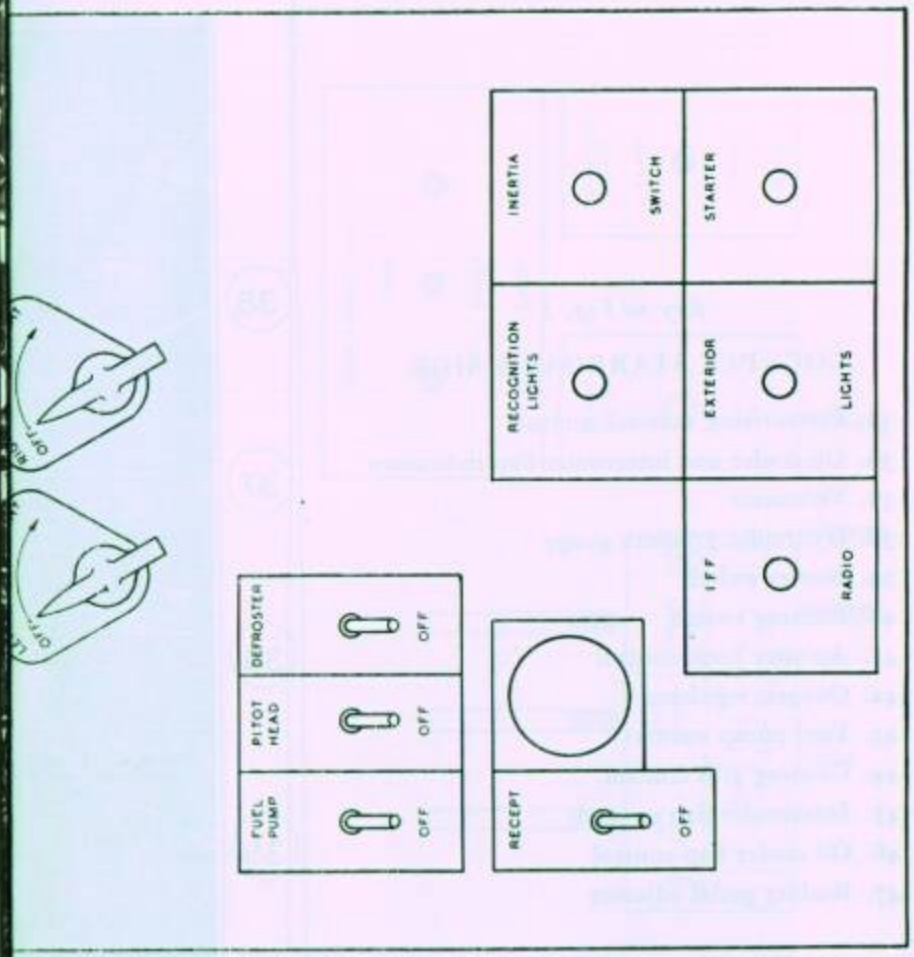


FIG. 4 MAIN SWITCH PANEL FIG. 4



ANEL

FIG. 4

AIR MINISTRY
March 1946

Amendment List No. 4 to
A.P. 2351A, B, C and D—P.N.

CORSAIR I—IV

Incorporation of this Amendment List must be certified by inserting date of incorporation and initials in the spaces provided on the inside front cover of the Notes.

A.L.	PARA.	AMENDMENT
Amendments still current:		
		Notes to Users, 2(i), Fuel system diagram, 2(iii), (vi) and (viii), 10, 10 (*b*), 11, 20, 26(ii), 27(ii), (iii), (v), 29(i), 30(iii), 32(iii), 33(iii), (viii), 36, 37, 41(ii), 42(v), 43, 44(i)-(iv*a*), 44(iv*b*)-(vii), 47, 48(i), 54. Pages 32A and 32B added.
New Amendments:		
4	Page 17	*Add* introductory Note to Part II by gummed slip herewith.
4	44 (vi) (vii)	*Amend* by gummed slip herewith.

Affix this Amendment List to inside back cover of the Notes after removing A.L. 3.