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ADMIRALTY FLEET ORDER

**INTERIM ADMIRALTY REGULATIONS FOR THE FLEET
AIR ARM**

ADMIRALTY, S.W.1,

8th July, 1943.

The following Order having been approved by My Lords Commissioners of the Admiralty is hereby promulgated for information and guidance and necessary action.

By Command of their Lordships,

J. V. Markham

To all Commanders-in-Chief, Flag Officers, Naval Officers in Charge, Senior Naval Officers, Captains and Commanding Officers of H.M. Ships and Vessels fitted for Aircraft, Commanding Officers of R.N. Air Stations, Sections and Squadrons.

NOTE:—The scale of distribution is approximately half that shown in the Admiralty Fleet Order Volume, 1941, Instructions, paragraph 10.

Head of "P" Branch

3124.—Interim Admiralty Regulations for the Fleet Air Arm

(E.F.O. 51/43.—8 Jul. 1943.)

This Order is a reprint of A.F.O. 3042/39 originally promulgated on 12th October, 1939. It is re-issued without revision in response to demands, and should be read in conjunction with the several subsequent amendments. It will be superseded by a revised Order (now in course of preparation) as soon as practicable.

The following interim Regulations for the Fleet Air Arm are published for the information and guidance of all concerned.*

2. Any instructions received in connection with the present emergency are unaffected by these regulations.

3. Where references to corresponding R.A.F. Regulations are quoted, these regulations are to supersede them for the Fleet Air Arm.

SECTION I.—GENERAL

1. *Instruction to Captains*

The Captain of a ship or R.N. air station is responsible for the organisation, efficiency and safety of the aircraft under his command.

2. *Authorisation of flights* (corresponding R.A.F. regulation is K.R. & A.C.I. 693)

Every flight made in a service aircraft is to be authorised by a responsible officer who is to issue and record the orders for the flight in accordance with the ship's or station standing orders.

3. *Instruction and flying practice of Pilots joining a unit* (corresponding R.A.F. regulations are K.R. & A.C.I. 696 and 804)

Pilots, on being appointed to a unit equipped with a type of aircraft with which they are not familiar, are to receive instruction and practice in the special characteristics of the type, and the Commanding Officer of the unit must be satisfied that they are fully competent to handle it with full war load before they are ordered to fly it on general service duties. If possible dual instruction on new types or, failing that, on corresponding types, should be given to pilots who have no previous experience of the type in question. In any case they are to be given ground instruction on the petrol and oil systems and on any unusual features of the aircraft or its characteristics in flight.

4. *Authority of Instructor* (corresponding R.A.F. regulation is in K.R. & A.C.I. 807)

In any aircraft in which dual control instruction is being given, the instructor shall have authority, irrespective of rank, over the pupil or second pilot to whom instruction is being given, in all matters concerning the flying or handling of the aircraft.

SECTION II.—REGULATIONS TO ENSURE THE SAFETY OF PERSONNEL

5. *Loose articles to be stowed and secured* (corresponding R.A.F. regulation is K.R. & A.C.I. 704)

The pilot of an aircraft is responsible that all loose articles carried in the aircraft are properly stowed and secured before the aircraft leaves the ground or water.

(2) Articles and accessories forming part of the equipment of the aircraft (e.g. seat cushions, Sutton harness, signal pistols, Lewis or other gun magazines, speaking tubes and control locking devices) must be stowed in the approved positions and secured so that they cannot fall away from the aircraft or move in any way which would interfere with the operation of the controls.

(3) Personal baggage or loose articles which are not part of the equipment or accessories of the aircraft are not to be carried in the interior of a dual control aircraft in which any part of the dual control is ready for immediate use, except in such lockers or baggage carriers as are provided for the purpose.

*At a later stage it is intended that they will be incorporated in K.R. and A.I.

(4) When a two-seater aircraft, in which a passenger or crew in addition to the pilot is carried, is in the air, compliance with the provisions of this article in so far as it refers to equipment, accessories or baggage in the passenger's compartment is the responsibility of the occupant of that compartment. In multi-seater aircraft, a member of the crew is always to be detailed for seeing that equipment and baggage are properly stowed and secured and remain so while the aircraft is in the air.

(5) A pilot is not to carry out acrobatics in an aircraft in which additional luggage or loose articles are not stowed in lockers or luggage carriers which are within the fuselage or wing structure. Acrobatics are not in any circumstances to be carried out when external baggage carriers are fitted to the aircraft.

6. *Overloading of aircraft* (corresponding R.A.F. regulation is K.R. & A.C.I. 706)

The Commanding Officer of a flying unit is to ensure that the weight shown in the weight sheet summary for the type of aircraft as the maximum permissible for all forms of flying is not exceeded without sanction of the Captain. He is also to ensure that aircraft are loaded and ballasted so that the C.G. falls within the limits laid down in the weight sheet summary.

7. *Airworthiness* (corresponding R.A.F. regulation is K.R. & A.C.I. 709)

When, for any reason, the Captain has cause to question the airworthiness, either generally or for any particular purpose, of any type of aircraft he is to report the matter by signal to the Admiralty and Commander-in-Chief, repeated to the Senior Naval Officer present, and if in Home Waters to the Rear Admiral, aircraft carriers, and the Rear Admiral, Naval air stations, at R.N. air stations at Home, and the Rear Admiral, Naval air stations. If necessary the Captain is to order the cessation or restriction of flying on the particular type in question under his command. Such orders, if issued, are to be similarly reported.

(2) Instructions to the Naval service generally on the matters dealt with in sub-paragraph (1) will be issued by the Admiralty. The Air Council may authorise the aircraft in question to be flown under their instructions at establishments under their control.

(3) Should it be necessary, in emergency, for the Captain to issue orders for the removal of flying restrictions, pending the receipt of covering approval from the Admiralty, he is to inform the Admiralty and Commander-in-Chief by signal, repeated to the other Authorities indicated in sub. para. (1).

8. *Flights at Contractors' aerodromes* (corresponding R.A.F. regulation is in K.R. & A.C.I. 803)

An aircraft built to the orders of the Air Ministry, including those built for the F.A.A., may not be flown at a contractor's works until a certificate that it is fit to fly has been issued by the A.I.D. Inspector at the works.

(2) The form of certificate required is as in K.R. & A.C.I., Article 803.

9. *Evolutions and handling of aircraft*

Work which involves alterations to aircraft or their fittings, e.g. changing aircrews, is not to be carried out as general drill. New parts are only to be fitted to replace unserviceable equipment.

(2) The handling of aircraft may be carried out at speed after proper training, but is not to be treated as an evolution.

10. *Aircraft and engines allotted for ground instruction* (corresponding R.A.F. regulation is K.R. & A.C.I. 710)

Aircraft assigned for ground instruction are not guaranteed as airworthy and in no circumstances are they to be flown. Nor may instructional engines be used in flight.

11. *Endurance of aircraft* (corresponding R.A.F. regulation is K.R. & A.C.I. 712)

Pilots and observers are to make themselves acquainted with the normal practical limit of endurance, under varying conditions, of the aircraft in which they are called upon to fly.

12. *First-aid precautions* (corresponding R.A.F. regulation is K.R. & A.C.I. 714)

When flying is being carried out at an aerodrome, a properly equipped ambulance and fire tender are to be maintained, with the drivers in attendance, in readiness for instant use. The ambulance with its driver, and the fire tender with its crew, are to be stationed in a position readily accessible to the Air Watch Officer and the look-out man. A medical officer or sick berth rating must be available for immediate duty with the ambulance; specific instructions must be given to the Air Watch Officer for the summoning of a local civilian medical practitioner in the event of an accident occurring when no medical officer is present on the station.

(2) Whenever flying is being carried out from a ship in harbour or from a seaplane station, a motor-boat equipped with stretchers must be maintained with her crew, in readiness for instant use. The boat is to be either under way in the flying area, or moored at a buoy or pier or alongside the ship in instant readiness to slip. She is to be equipped with fire fighting and other equipment as follows:—

Cutters wire, large	1	} R.A.F. pattern.
Croppers, bolt, 36-in.	1	
Knives, quick release	1	
Helmets, fire-proof	1	
Gauntlets, fire-proof	1	
Saws, hack	2	
Saws, hack, blades for... ..	6	
Chisels, hand, cold, 8-in.	1	
Hammer, sledge, 7-lb.	1	
Crowbar, large	1	
Axe, hand	1	
Pyrene, fire extinguishers	2	
Foam type extinguishers	2	

(3) Whenever flying is being carried out from a ship under way, a sea-boat must be maintained, with her crew, in readiness for instant use. She is to be equipped similarly to the motor-boat detailed in sub-paragraph (2).

(4) The Senior Medical Officer of the ship or air station is invariably to be notified of the times during which flying will be in progress.

(5) The fire tender is always to proceed to the scene of a crash whether there is a fire or not.

13. *Use of oxygen* (corresponding R.A.F. regulation is K.R. & A.C.I. 714A)

All occupants of aircraft which are operating above an altitude of 16,000 ft. are to use oxygen.

14. *Starting up and airscrew swinging* (corresponding R.A.F. regulation is K.R. & A.C.I. 715)

Air Artificers, Air Fitters (E) and Air Mechanics (E) of any rank, Air Fitters (A) and Air Mechanics (A) of the rank of acting Petty Officer and above, may start and run up aero-engines, provided that they have the necessary experience, (*see* sub-paragraph (3) below), but they are not to taxi aeroplanes.

(2) An officer or rating is not to assist in starting up the engine of an aircraft by hand-swinging, either at the airscrew or in the pilot's seat, until he has passed out in airscrew swinging to the satisfaction of the Unit Commander.

(3) An up-to-date list of ratings qualified in airscrew swinging who have been passed out to the satisfaction of their Unit Commander, is to be kept in each flight. No other rating may swing airscrews.

(4) Methods of engine starting and airscrew swinging are described in A.P. 129—R.A.F. Flying Training Manual, Part I, and the drill for swinging airscrews of light aircraft is described in A.M.O. A.56/36 and amending Orders. These methods and drill are to be adhered to in the Fleet Air Arm until further Orders.

(5) Except when actually starting an engine by hand-swinging, an officer or rating is not to touch an airscrew fitted to an engine without first ascertaining that the switches are "off".

(6) No aircraft is to be started up until it has been adequately secured against forward movement, and a qualified officer or rating is in the pilot's seat. In any type of aircraft, except those under wireless control, the pilot's seat must be occupied when the engine is being run up, and must not afterwards be vacated while the engine is running, except for the purpose of handing over the controls to another qualified officer or rating.

(7) Before attempting to start an engine of an aircraft by hand-swinging, the officer or rating in charge of the operation is to ensure that the person swinging the airscrew is able to obtain a sure foothold.

(8) Where a Hucks starter or other starting device which does not involve touching or turning the airscrew by hand is available, it is to be used whenever possible for starting up all types of landplanes. Hand-swinging is to be resorted to only when no starting device is available or when officers or ratings are being instructed in airscrew swinging.

(9) The pilot is to ensure before running up the engine that the locking devices are removed from the controls and securely stowed away, and all the controls of the aircraft move freely and fully in all required directions, and that the control surfaces move correctly in relation to the movements of the control column and rudder bar.

(10) The officer or rating in charge of the starting up of an aircraft is to see that there are no obstructions in the way of the aircraft about to move off, and is to point out to the pilot any other aircraft about to land. This does not absolve the pilot from the responsibility of making sure, after the rating has saluted "all clear", that the way is clear and that there are no aircraft coming in to land behind him.

(11) Except in the case of necessity, a very hot engine is to be allowed to cool down before attempts are made to start it by swinging the airscrew by hand.

15. *Fire precautions in the air* (corresponding R.A.F. regulation is K.R. & A.C.I. 716)

Every aircraft is to carry, as part of its equipment, fire extinguishing appliances of approved pattern according to the scale laid down in the schedule of equipment.

(2) If the engine catches fire in the air, the pilot is immediately to shut off the petrol and fully open the throttle. When the engine stops firing, but not before, the pilot is to "switch off".

(3) Matches, other than the "safety" type, and petrol filled or other spirit-filled "lighters", are not to be carried by the occupants of aircraft while in the air.

(4) In no circumstances may potassium chlorate (chlorate of potash) tablets be carried by the occupants of an aircraft.

16. *Carriage of petrol as a load in aircraft* (corresponding R.A.F. regulation is K.R. & A.C.I. 716A)

The carriage of petrol in aircraft other than in the fuel tanks is permitted provided that the Senior Officer of the aircraft ensures that:—

- The containers are in perfectly sound condition before being taken on board;
- The containers are correctly loaded and secured against movement during flight;
- Ventilation is adequate.

(2) No restrictions need be imposed on the use of wireless apparatus if these conditions are satisfied.

17. *Flying restrictions* (corresponding R.A.F. regulation is K.R. & A.C.I. 717)

Acrobatics at altitudes under 3,000 ft. are prohibited except when permission is granted:—

- (a) by the Captain in specific instances and for definite purposes in which case a minimum height is to be laid down; or
- (b) by the Admiralty or Air Ministry, for specific experiments at experimental establishments.

(2) A spin is not to be continued below 3,000 ft.

(3) The looping, spinning or rolling of aircraft the maximum permissible weight of which for all forms of flying exceeds 6,000 lbs. is prohibited without specific Admiralty sanction. All manoeuvres in which heavy inverted loading is applied to aeroplanes (e.g. the bunt, the outside loop and the inverted climb following a half roll after flattening out from a dive) are forbidden. The spinning of aircraft when carrying bombs, torpedoes or smoke floats, is also prohibited. (See also paragraph 5 (5).)

(4) Cloud practice is not to be carried out when the bottom of the cloud layer is less than 2,000 ft. above the ground in the vicinity in which the aircraft concerned are flying.

(5) Except for a special reason of importance flying at altitudes of less than 2,000 ft. above the level of the surface of the ground or over piers, or over vessels under way or at anchor, is only permitted:—

- (a) When over areas duly authorised by the Captain.
- (b) During active operations and during exercises which render low flying necessary for their proper fulfilment.
- (c) When visibility is such as to necessitate a lesser altitude than 2,000 ft. being maintained.

(6) A record is to be kept at all R.N. air stations of all flying carried out below 2,000 ft. other than in the cases designated under (5) (a) above.

(7) On a cross country flight aircraft are not to pass within 3,000 yds. of the perimeter of an aerodrome "en route" unless they are flying at a greater altitude than 3,000 ft.

(8) Towns and thickly inhabited districts must be crossed at such a height as will enable the aircraft in the event of engine failure to glide to open country. If visibility precludes sufficient altitude being maintained, the area of the town must be avoided.

(9) The pilot of an aircraft is not to fly or manoeuvre his aircraft in any manner likely to cause accident or annoyance to any person or persons, or damage to livestock or property. In no circumstances may low flying take place over cathedrals, churches, and old and historic buildings. Special care is also to be taken to avoid flying low over livestock during the breeding season.

(10) Except when engaged in service exercises in which balloons, kite balloons or airships are taking part, aeroplanes are not to approach within one mile of such aircraft in the air.

(11) Diving practices over or near an aerodrome are not to be carried out below an altitude of 3,000 ft. except under the following conditions:—

- (i) They must be specifically ordered by a Flight Commander or instructor.
- (ii) They must only be carried out against the recognised station target.

(12) No aircraft may join, or interfere with, a formation to which it does not belong, or single aircraft, without prior arrangement.

(13) The crews of, and passengers in, aircraft are forbidden to jettison any articles whatever when flying over land except when such a course is necessary in an emergency.

18. *Air fighting practices—Precautions to be taken* (corresponding R.A.F. regulation is K.R. & A.C.I. 718)

Air fighting practices, either with or without camera guns, may be carried out only when the pilots taking part have discussed fully the lines of attack and defence which they will employ throughout the practice. Making a feint attack on another aeroplane without pre-arrangement is forbidden.

(2) Unless otherwise specifically authorised by the Captain, air fighting practices are not to be carried out within a radius of two miles of any aerodrome and the least populated areas in the vicinity are to be selected.

(3) Air fighting practices are not to be carried out at a height below 3,000 ft.

(4) During air fighting practice, aircraft are not to approach within a distance of two spans of each other.

(5) Qualified pilots are not to be allowed to practise air fighting until such time as the Commanding Officer of the unit considers that they are thoroughly proficient on the type of aircraft with which the unit is equipped.

(6) In the preliminary stages of air fighting practice, the following precautions are to be observed. For practice with the front gun the target aircraft (i.e. the aircraft being attacked) must fly on a straight course; the attacking aircraft only is to manoeuvre. For practice with the rear gun, the aircraft in which the operating gunner is seated is to be regarded as the target aircraft and is to fly on a straight course.

(7) Pilots may, after sufficient practice in the preliminary stages of air fighting, carry out practices with both aircraft manoeuvring for position.

19. *Amphibians—Position of wheels in landing* (corresponding R.A.F. regulation is in K.R. & A.C.I. 719)

With a view to avoiding accident to amphibians owing to an incorrect position of the wheels in landing, when an observer or passenger is carried and he is in a position to see, he is, prior to the pilot making a landing, to inform him of the position of the wheels.

SECTION III.—SPECIAL INSTRUCTIONS IN REGARD TO CROSS COUNTRY FLIGHTS

20. *"Cross country" flights*

For the purposes of this regulation, the term "cross country" flight is to be regarded as defining all flights in which the aircraft is despatched from a ship or air station, destined to another ship or air station, except in the case of flights between ships in sight of each other.

The following instructions are also to be applied as far as is applicable and in the absence of special instructions, to all flights out of sight of a parent ship or outside the local flying area of an air station.

21. *Responsibility for the authorisation of "cross country" flights* (corresponding R.A.F. regulation is in K.R. & A.C.I. 725)

The Commanding Officer of the ship or air station of departure is responsible for authorising an aircraft to begin a cross country or oversea flight. He may depute this authority to an experienced F.A.A. Officer.

(2) Before authorising a flight, the authorising officer is to take into account the following factors:—

- (a) The weather conditions and meteorological information available over the whole area or route of his flight.
- (b) The flying experience and capability of the pilot, or of the leader of the formation if there be more than one aircraft.

(3) Subject to sub-paragraph (4), where, during the course of a flight an aircraft lands at an air station other than its own, the Senior Officer of the aircraft is to obtain the authority of the Commanding Officer of that station (or his deputy) before continuing the flight. As regards responsibility for starting in time to reach the destination by daylight, see paragraph 26 (4).

(4) When a departure message is prefaced by the word "Practice", the Commanding Officer of the intermediate station (or his deputy) is not to allow the aircraft to leave except in reasonably favourable weather conditions. If necessary the Commanding Officer is to decide whether he should obtain information as to the capabilities of the pilot under clause 2 (b). This information is, if possible, to be obtained by telephone from the Pilot's unit.

Note.—See paragraph 28 (1).

(5) Clauses (1) and (3) do not apply to an aircraft of which the Senior Officer is of equal or superior rank to the Commanding Officer of the station of departure, or the intermediate station, which ever is applicable. They are also not to apply to an aircraft piloted by a Staff Officer of a Royal Naval or Royal Air Force Command, if of the equivalent rank of Lieutenant Commander or above, nor when the pilot is an officer on the staff of a Flag Officer of the Royal Navy, nor when the pilot is one of a Meteorological Flight or an officer of a Communications Squadron. Such officers may start or continue their flight at their own discretion.

22. *Procedure for "cross country" flights at night and oversea* (corresponding R.A.F. regulation is in K.R. & A.C.I. 726 and A.M.O. 207/39)

Aircraft detailed for a cross country flight by day or night or for an oversea flight are to be fitted, if possible, with wireless apparatus. Aircraft so fitted are to establish communication with a W/T station as soon as possible after the beginning of a flight and are not to leave the vicinity of the ship or air station until the "GO" signal has been received. Aircraft are to broadcast their call sign not less frequently than once every 20 minutes and are normally to transmit a position or other navigational signal to the ship or station with which they are in communication once every hour during flight. Where possible, arrangements should be made for D/F stations to co-operate with aircraft engaged on such flights.

(2) The instructions contained in clause (1) do not apply to operational flights for which special instructions are issued.

23. *Meteorological information for aviation* (corresponding R.A.F. regulation is in K.R. & A.C.I. 728)

The meteorological information issued as a matter of routine in the British Islands may be divided into the following groups:—

- (a) Daily forecasts—issued from the Air Ministry (aviation forecast service) and from meteorological stations attached to Naval and R.A.F. units.
- (b) Weather reports, forecasts and warnings—issued from the Air Ministry.
- (c) Gale warnings—issued from the Air Ministry to units concerned when the wind is expected to reach gale force at the surface.

- (d) Squall and thunderstorm warnings—issued from the Air Ministry to units likely to be affected.
- (e) Frost warnings—issued when the air temperature at a station is expected to fall to 30° F. or below.

Detailed information as to the above forecasts and warnings is given in Admiralty List of Wireless Signals, Admiralty Fleet Orders and Air Ministry Orders.

(2) Meteorological forecasts or reports promulgated by the Meteorological Office, Air Ministry and R.A.F. Meteorological Offices do not express any opinion on the part of the meteorological staff responsible for them as to the fitness or otherwise of the weather for the various phases of air navigation. The duty assigned to the Air Ministry meteorological staff is to describe the weather, present or future, with promptitude and accuracy, and not to pronounce upon its suitability for flying.

(3) On receipt of a special warning (meteorological) message, the Commanding Officer of a unit is to take all necessary precautions to ensure the safety of his aircraft under abnormal conditions.

(4) In order that aircraft making cross country flights may be supplied with the latest meteorological information both before and during flight, the following procedure as regards meteorological and signal services is to be adopted:—

(a) Before flight:—

- (i) Copies of all meteorological reports, forecasts and warnings are to be supplied to the Air Watch Officer immediately upon receipt.
- (ii) Where the duration of a flight is likely to exceed two hours, or when the routine forecasts indicate the probability of adverse weather conditions, such as fog, low cloud, thunderstorms, etc., or when for other reasons the Commanding Officer (or his deputy) considers it necessary, a special forecast is to be obtained direct from the nearest meteorological station or from the Air Ministry (aviation forecast service) as laid down in A.F.O's. and A.M.O's. This method of obtaining weather reports will apply to all requests from aircraft, whether service or civil, who have landed at service aerodromes.
- (iii) Whenever necessary, special weather reports from Naval or R.A.F. service stations are to be obtained by the meteorological service preparing the forecast and these reports are to be included in the information supplied to the unit. Units may if they wish obtain a weather report direct from the aerodrome at the destination of a flight, but the meteorological service must be consulted as well.
- (iv) Where possible, in the case of long-distance flights within the British Islands, a special forecast is to be obtained direct from the nearest meteorological station or from the Air Ministry (aviation forecast service), as laid down in A.F.O's., by signal or telephone. Requests for such forecasts are to state the proposed route and time of departure.
- (v) As long notice as possible of intended flights is to be given when information is requested from the meteorological service.
- (vi) Replies to requests for information are to be in plain language. The probable cloud height along the route is to be given in feet above sea level. If it is known, or anticipated, that high ground along any section of the route is, or will be, in cloud, this is to be explicitly stated.
- (vii) When a meteorological service or Naval or R.A.F. station requests a weather report from another Naval or R.A.F. station in accordance with sub-paragraph (4) (a) (iii), the reply is to be sent in code. For this purpose the second and third groups (wwVhNh

DDFWN) of the "code for abbreviated weather reports from individual stations" detailed in Royal Air Force Form 2331 are to be used. A weather report is to consist normally of two groups of five figures.

(viii) If, after the despatch of a requested weather report, sent in accordance with (vii) from a ship or shore station, a sudden change of weather, which might involve risk of life, occurs within half-an-hour, a further weather report is to be sent in code to the station which originated the request bearing an indication of priority. A rapid improvement in weather conditions is to be similarly reported.

(b) During flight:—

(i) If adverse weather conditions are encountered during a flight, an aircraft is, if possible, to ascertain the weather conditions prevailing at the destination, by W/T, and if these are reported as unsuitable, it is to call up other aerodromes in the vicinity of the route, so as to decide in which direction to fly in order to reach an area of better weather conditions and effect a safe landing.

(ii) Arrangements are to be made at air stations for requests from aircraft for weather reports to be telephoned direct to the Air Watch Officer from the signal office immediately upon receipt. This delivery by telephone is to be in addition to the normal delivery of the message in writing in the proper manner, regard being paid to the indication of priority borne by the request. If the Air Watch Officer is not available, the officer in charge of flying, or other senior officer, is to be referred to.

(iii) Arrangements are to be made at air stations to enable the Air Watch Officer in the absence of the meteorological officer to obtain at once the distance of horizontal visibility and the height of the base of the clouds. The meteorological officer, when available, is to furnish all information required.

(iv) Visibility reports are to be given at the horizontal visibility in yards or miles, with the estimated height of the cloud base above the air station (not above sea level) in feet.

(v) Replies to requests from aircraft for weather reports must be sent with the least possible delay.

(5) At all units where there is no meteorological staff the Air Watch Officer is normally responsible for making weather reports. All Pilots and Observers should be familiar with the use of the abbreviated weather code.

(6) When a unit is detached from a station to operate from a temporary base in the British Isles, previous notification is to be sent to the Naval Meteorological Branch, Admiralty, stating the name of the base, the period of temporary operation, the telegraphic address and any special requirements as regards the supply of meteorological information. Arrangements are then to be made for the issue to the unit of the necessary forecasts, warnings, etc., by the quickest method.

24. *Civil aerodromes—use of* (corresponding R.A.F. regulation is in K.R. & A.C.I. 729)

Unless forced to do so by reason of engine failure, stress of weather, or other unavoidable circumstances, a Naval aircraft is not to land at places other than service aerodromes, seaplane stations, or forced-landing grounds, except with prior authority.

(2) All landing fees charged against Government aircraft landing at aerodromes belonging to civil firms engaged in the training of pilots of the Navy or R.A.F. (including pupil pilots of civilian status) or of the Reserve will be remitted if the stay is not in excess of 48 hours or in respect of that period if the stay is longer.

(3) The Senior Officer of an aircraft which, when engaged upon a duty flight, lands on a privately-owned aerodrome or remains in excess of 48 hours at the aerodrome of a civil firm engaged in the training of pilots of the Navy or R.A.F. (including pupil pilots of civilian status) or of the Reserve, is to sign a receipt for the services obtained and is to instruct the aerodrome authorities to render a bill to the Captain.

(4) All claims for landing fees at privately-owned aerodromes, or for other services arising out of a forced landing are to be forwarded to the Director of Navy Accounts for approval before settlement, together with a full report of the circumstances in which the expenses were incurred.

(5) An aircraft which lands on an aerodrome controlled by the Director General of Civil Aviation will not be called upon to pay a landing fee.

(6) An aircraft, when using a civil aerodrome at home or abroad, or when flying in the vicinity of such an aerodrome, is to conform to the Rules of the Air, Aerodrome rules and appropriate schedules thereto of the Air Navigation (Consolidation) Order, 1923, and amending Orders.

25. *Areas over which flying is forbidden or restricted* (corresponding R.A.F. regulation is in K.R. & A.C.I. 730)

Every flying unit in home waters is to be in possession of a full list and details of all areas over which flying is prohibited or in any way restricted.

(2) All pilots and observers are to make themselves acquainted with the areas forbidden to service aircraft.

(3) Responsibility similar to that laid down in sub-paragraphs (1) and (2) rests on units abroad in so far as local circumstances may require.

26. *Responsibilities of the Senior Officer of an aircraft before and after a "cross country" flight* (corresponding R.A.F. regulations is in K.R. & A.C.I. 731)

Before departing from, and after arrival at any station by air, the Senior Officer of the aircraft is to report to the Air Watch Officer the details necessary to enable him to comply with paragraph 28.

(2) On arrival, the Senior Officer of a visiting aircraft is responsible for informing the Air Watch Officer and the duty flight of his requirements as regards maintenance.

(3) If an aircraft is parked out at an air station or moored on the water, the Senior Officer of the aircraft is to report to the Air Watch Officer that it has been properly secured.

(4) The Senior Officer of an aircraft which is leaving a ship or air station other than its own on a "cross country" flight is responsible for starting in time to reach his destination by daylight, unless he receives orders to the contrary. This regulation does not relieve the Commanding Officer of the ship or station of the responsibility for authorising the continuation of the flight (see paragraph 21) or of cancelling it if he considers it advisable.

27. *Responsibility for the safety of aircraft parked or at moorings* (corresponding R.A.F. regulation is in K.R. & A.C.I. 731A)

If an aircraft is parked out on an aerodrome or moored on the water, the Senior Officer of the aircraft is responsible that it is properly secured, and, as far as possible, protected from the weather, and, when necessary, that the correct lights are burning. The Senior Officer of a formation is similarly responsible for all the aircraft of the formation.

The Senior Officer must then inform the Air Watch Officer of the measures he has taken for the safety of the aircraft.

(2) Subsequent responsibility for the safety of the aircraft, as between the Senior Officer and the Air Watch Officer, will be as directed by the Commanding Officer of the air station.

28. Reports of aircraft movements

A.—Between ship and shore

(a) Twenty-four hours before the proposed movement, the station of departure is to originate and pass by the normal route to the station of arrival a preparatory signal stating:—

- (1) For a single aircraft—Type and official number. For a formation Total number of aircraft, type and unit symbol.
- (2) Destination.
- (3) Proposed time of departure.
- (4) Wave frequency to be used by aircraft.
- (5) Expected time of arrival, abbreviated to ETA.

Notes.—(i) If 24 hours' notice cannot be given, endeavour should be made to give as much warning as possible.

(ii) The wave frequency should normally be the frequency in use by the shore station concerned.

(b) Thirty minutes before the proposed time of departure, both station of arrival and station of departure are to set watch on the frequency specified, the station of departure being responsible for initiating the call to establish communication.

(c) When the aircraft leaves the station of departure, a signal is to be made in a form similar to the preparatory signal, but giving the actual time of departure.

(d) Continuous watch is to be kept by both stations until the arrival of the aircraft. The arrival signal is to be made direct and its time of origin is to be the time at which the aircraft arrived. After passing the arrival signal, the station of arrival is responsible for initiating the signal to cease W/T watch.

B.—Between shore stations (corresponding R.A.F. regulation is in K.R. & A.C.I. 732)

Messages reporting the movement of aircraft are to be given an indication of priority and despatched as follows:—

(a) *Departure*.—To the air station at which the aircraft will make its next stop: to the air station to which the aircraft belongs. When an experienced pilot is sent on a cross country flight, the departure signal is to be prefaced by the word "Practice". (See paragraph 21 (4).)

(b) *Arrival*.—Aircraft are not to be reported on arrival at their destination unless an arrival report has been demanded by the despatching authority: this demand is to be made by the addition of the words "Signal arrival" at the end of the departure signal. Arrival reports must always be demanded when—

- (i) flights are made over the sea;
- (ii) specially called for by higher authority;
- (iii) flights are made by important personages.

They may be demanded at the discretion of the despatching authority whenever it is considered that special conditions such as bad weather, inexperience of the pilot, the nature of the country to be traversed, etc., make it desirable that the arrival of the aircraft should be reported.

(c) Departures and arrivals of experimental aircraft flown on the authority of the Director of Technical Development, Air Ministry, are in addition to be reported to the Air Ministry and Admiralty.

(2) Messages are to be despatched by the Air Watch Officer and recorded in the Watch log.

(3) Messages are to contain the following details in the order given:—

- (a) Departure of a single aircraft.
 - (i) Address to.
 - (ii) Address from.
 - (iii) Type* and serial number of aircraft.
 - (iv) Ranks and names of pilot, and Senior Officer of the Aircraft, and total number of crew and passengers.†
 - (v) Time of departure.
 - (vi) Destination (only if the message is addressed to two or more stations).
 - (vii) Estimated time of arrival at next stopping place:—

Only if the flight is to exceed half an hour's flying. (This information is to be obtained by the Air Watch Officer from the Senior Officer of the aircraft.)

- (b) Departure of a formation of aircraft.
 - (i) Address to.
 - (ii) Address from.
 - (iii) Type* and total number of aircraft in the formation.
 - (iv) Rank and name of formation leader, and Senior Officer of the formation.
 - (v) Time of departure.
 - (vi) Destination (only if the message is addressed to two or more stations).
 - (vii) Estimated time of arrival at next stopping place:—

Only if the flight is to exceed half an hour's flying. (This information is to be obtained by the Air Watch Officer from the Senior Officer of the formation.)

- (c) Arrival of a single aircraft. (When demanded.)
 - (i) Address to.
 - (ii) Address from.
 - (iii) Type* and serial number of the aircraft.
 - (iv) Time of arrival.
- (d) Arrival of a formation of aircraft. (When demanded.)
 - (i) Address to.
 - (ii) Address from.
 - (iii) Type* and total number of aircraft in the formation.
 - (iv) Time of arrival.

(4) (a) When special orders are issued by the Air Ministry or Admiralty for the movement of aircraft to a destination outside the limits in which they usually operate, departure and arrival signals throughout the stages of the flight are to be repeated to the Air Ministry or Admiralty for information by the commands through which the aircraft pass. Signals relative to positions during these flights are not required unless any change of programme is involved by reason of weather conditions or casualty, in which case full information is to be given.

(b) (i) The responsibility for reporting movements of aircraft over long distances normally rests with the ship or air station or R.A.F. command in which the flight originated until the aircraft have arrived in the next ship or air station or Royal Air Force command.

* Type to be indicated by one word, the maker's name being omitted and recognised abbreviations used wherever possible.

† Names of passengers are to be included only in special circumstances, e.g., when distinguished persons are carried or where a flag, air or other Senior Officer is conveyed of whose departure the unit of destination should be advised. The unit of departure will, however, enter the names of the crew and passengers in the watch log book.

(ii) In cases where the aircraft are out of W/T touch, the Senior Officer is responsible for reporting arrivals at and departures from intermediate landing places by any available means to the most accessible Naval or Royal Air Force authorities, who are to repeat any such messages received to the Admiralty and the Air Ministry and any other authorities affected. When aircraft W/T communication has been established with the next ship or air station or command en route, that station or command is responsible for reporting movements of the aircraft until the final destination is reached or the aircraft passes out of its control.

(c) Signals reporting the original departure and final arrival of the aircraft are to contain the particulars detailed in clause 3, but at intermediate landing places only sufficient information need be signalled to enable the aircraft to be identified. In the case of Royal Air Force aircraft, Greenwich mean time is to be used in reporting times of arrival and departure to the Air Ministry.

29. *Aircraft overdue—procedure* (corresponding R.A.F. regulation is in K.R. & A.C.I. 733)

When an aircraft is one hour overdue at its destination, the ship or air station of destination is to inform the ship or air station of departure and institute enquiries from ships or air stations in the vicinity of the route. Should these enquiries prove fruitless, the ship or air station of destination will inform higher authority and the ships or air stations of departure and destination are then to take such action as may be necessary to inform the civil, military, naval and coastguard authorities in the neighbourhood and request any assistance it may be in their power to give.

(2) Should either ship or air station receive notification that the aircraft has landed at any place other than its destination, it is at once to inform the other accordingly and also any other units or authorities who have been notified that the aircraft is missing.

(3) In the event of aircraft engaged upon operations over the sea being reported overdue, the ship or station concerned is immediately to notify shipping (via G.P.O. W/T Station) the naval authorities of the area concerned, and the appropriate coastguard. Higher authority is also to be informed at once.

30. *Non-official flights* (corresponding R.A.F. regulation is in K.R. & A.C.I. 735)

Naval aircraft are not to be used for non-official flights except to Naval or Royal Air Force stations or licensed civil aerodromes or to H.M. ships. All such flights are to be authorised by the Captain.

31. *Customs* (corresponding R.A.F. regulation is in K.R. & A.C.I. 736)

A naval aircraft entering the United Kingdom is not to carry:—

(a) Any goods whose importation is prohibited.

(b) Any dutiable goods except in small quantities which must be dealt with as laid down in K.R. & A.I., Article 918.

SECTION IV.—REGULATIONS RELATING TO FLYING ACCIDENTS AND FORCED LANDINGS

32. *Procedure after forced landing* (corresponding R.A.F. regulation is in K.R. & A.C.I. 742)

An aircraft which has forced landed is never to be left unguarded unless it is essential to do so in order to obtain assistance. The aircraft is invariably to be left in the charge of Service personnel unless this is impracticable owing to incapacity or other reasons. When this procedure is not possible, the Senior Officer or Rating of the aircraft is to leave the aircraft in charge of a policeman, if present, or, if not, he is to place it in charge of the most responsible person present.

(2) If the aircraft has forced landed appreciably nearer to a Military Station than to a Naval or Royal Air Force Station, the Senior Officer of the aircraft is to request the Commanding Officer of the Military Station to provide a temporary military guard on the aircraft.

(3) Before leaving his aircraft the Senior Officer of the aircraft is to ensure that any confidential books or articles carried in the aircraft do not fall into unauthorised hands.

(4) The Senior Officer of the aircraft is also to ensure that all bombs and guns carried by the aircraft are "safe" and that the engine is switched off.

(5) The Senior Officer of the aircraft is to make a note of any damage to the property of a third party arising out of the incident, which might form the subject of a claim for compensation against the Service, and also any additional damage which may be caused by sightseers. The question of compensation must not be discussed with any prospective claimant.

(6) After forced landing the Senior Officer of the aircraft is to report by the quickest possible method to the Commanding Officer of his ship or station, or, if out of the immediate neighbourhood of the parent ship or station, to the nearest Fleet Air Arm or Royal Air Force unit giving all relevant information as to the whereabouts and the condition of the aircraft, and stating the unit to which it belongs. If he was on a "cross country" flight, he is also to inform his intended station of destination.

In the event of the report being made to a nearest F.A.A. or R.A.F. unit the Commanding Officer of such unit will inform the unit to which the aircraft belongs of the incident. He is then to take charge of the aircraft and arrange for its recovery. When, for reasons of economy and efficiency, it appears preferable for the unit to which the aircraft belongs to recover it, the necessary arrangements are to be made between the Commanding Officers concerned. In either case, the unit to which the aircraft belongs will be responsible for arranging for its repair or ultimate disposal. (See Kings Regulations and Admiralty Instructions, Article 1130 (a) and (b) for reports on accidents, and Article 1167 (b) for salvage claims (as amended by A.F.O. 1380 A/39).

(The corresponding R.A.F. Regulation is in K.R. & A.C.I. 791)

(7) When an aircraft makes a forced alighting on the water the Senior Officer of the aircraft is to take every possible step to effect the salvage or ensure the safety of his aircraft. If the alighting takes place at a distance from his ship or station he is, on the first available opportunity, to comply, so far as they may be applicable, with the instructions contained in subparagraph 6 above.

(8) When any damage is caused to telegraph wires adjacent to railways, the Senior Officer of the aircraft is immediately to inform the station master of the nearest railway station. Damage to wires bordering roads or canals is to be reported to the nearest telephone exchange.

(9) All Squadrons at home and abroad are to keep a complete record of all flying accidents and forced landings or forced alightings on water on R.A.F. Form 764 in accordance with the instructions contained in the manilla covers for those forms.

33. *Safeguarding crashed aircraft—duties of guards* (the corresponding R.A.F. instructions are in A.M.O. A.445/38 and A.M.C.O. 11/38)

(a) It is the primary duty of guards mounted on crashed aircraft outside an aerodrome to preserve the remains of an aircraft intact, irrespective of the extent of the damage as a result of the crash. Where practicable, a temporary wire fence or other suitable barrier is to be erected round the crash to prevent access of unauthorised persons; where, owing to the situation of the crash, crowds assemble which cannot be restrained by the guard, the local police are to be called upon to assist. With a view to avoiding undesirable publicity, when crashes occur near a public highway, etc., sets of canvas screens complete with stakes and guy ropes are held at the Naval Air Stations and R.A.F. units listed in subparagraph (b) available for issue

on temporary loan. The Commanding Officer of any station who receives notification of such a crash and who has reason to suppose that the wreckage will be exposed to public view for several days, is to raise a demand on the nearest Naval Air Station or R.A.F. unit by signal asking for the use of the screens in question. The set of screens will invariably be sent by road or passenger train and is to be returned in the same way.

(b)

Naval Air Stations and R.A.F. Units holding sets of screens

Naval Air Stations

Donibristle
Worthy Down

R.A.F. Units

Usworth	Evanton
Linton-on-Ouse	Montrose
Sealand (No. 5 F & S)	Finningley
Waddington	Brize Norton
Peterborough	Debden
Honington	Kenley
Cranfield	Warmwell
Hawkinge	Penrhos
Abingdon	Abbotsinch
Hullavington	Shawbury
Hucknall	West Freugh
Tangmere	Porthcawl (on opening)

SECTION V.—RULES OF THE AIR

*34. *General rules of the air* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 750)

Rules as to lights and signals and rules for air traffic are laid down in Air Navigation Orders in Council issued under the Air Navigation Acts, 1920 and 1936; known as the Air Navigation (Consolidation) Order, 1923, as revised by the Air Navigation (Amendment) Orders 1937 *et. seq.* They conform with the provisions of Annex D to the Convention for the Regulations of Aerial Navigation, 1919, as amended from time to time by the International Commission for Air Navigation. These rules are to be observed by Naval aircraft at all times except as modified for Naval or R.A.F. service aerodromes by paragraphs 36 and 37.

(2) The relevant Air Navigation Orders relating to the above rules will be reprinted from time to time in A.F.Os. Where in these Orders rules for aerodromes open to public use are stated, these rules do not apply to service aerodromes even though such may be open to public use in certain circumstances.

35. *Formation station—keeping*

Unless modified by Commanders-in-Chief, Vice-Admiral (A) or Rear-Admiral Naval Air Station, Naval Aircraft when flying in formation are to observe the instructions for station keeping laid down in Section 3 of Appendix IV to A.P. 129, R.A.F. Flying Training Manual, Part I.

*36. *Rules for Royal Naval air stations* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 751)

An aircraft approaching an aerodrome for the purpose of landing shall be responsible for avoiding all aircraft flying at a lower altitude, but the latter, if the contingency arises will assume that they are overtaking aircraft and keep out of the way.

(2) An aircraft showing signals of distress or being in apparent difficulties shall be given free way in attempting to land.

* This paragraph includes rules laid down in the Air Navigation (Consolidation) Order, 1923, Schedule IV, paragraph 35.

(3) Aircraft taking off or taxiing out to take off shall be responsible that they do not take off or taxi across the path of an aircraft gliding in to land or landing.

(4) At every Royal Naval Air Station at which an aerodrome or alighting area for seaplanes is situated, a sleeved streamer of standard size and pattern to indicate the direction of the wind is to be flown continuously in some conspicuous position so as to be clearly visible from the air.

(5) (a) The Commanding Officer of the Station is responsible that any bad ground and any temporary obstructions on the aerodrome which are not clearly discernible by pilots from the air and from the ground are indicated whenever possible by the prescribed markings.

These markings are at present to be described in A.P. 129/1, A.M.O. A.169/38 and Amending Orders.

(b) Tractors and other vehicles employed on aerodromes are to display markings as laid down in A.M.O. A.436/37 and Amending Orders.

(c) The Commanding Officer is to report by signal to all appropriate Naval, Royal Air Force and Civil authorities if the aerodrome or any substantial part of it becomes unserviceable or if any temporary obstruction, not clearly discernible by pilots from the air, cannot be effectively indicated by the means referred to in sub-paragraphs (5) (a) and (b) above. The report is to state:—

(i) Nature and position of the unserviceable area or obstruction.

(ii) Nature of markings by day and/or night.

(iii) The approximate period for which the area will remain unserviceable, or the obstruction will remain on the aerodrome.

(d) When the area becomes serviceable or the obstruction no longer exists, the Commanding Officer of the Station is to report the fact by signal to the same authorities concerned.

(e) Before landing at an aerodrome the pilot of an aircraft is responsible for seeing that the part of the aerodrome which he intends to use is free from obstruction.

(6) When night flying is in progress at any aerodrome, the direction of the wind and the landing area are to be indicated and the obstruction lights are to be set out in the manner prescribed in Schedule IV, paragraph 16, of the Air Navigation Order named in paragraph 34, or in accordance with the system in force for night deck-landing training, or in accordance with such other authorised system as has been duly promulgated to all concerned. The use at Royal Naval Air Stations of systems of aerodrome night illumination other than those laid down in the Air Navigation Order above mentioned is to be confined to the operation and training of F.A.A. Aircraft.

Attention is drawn to A.M.Os. A.75/38 and A.261/38.

(7) Other signals, as and where applicable and required, are to be displayed at Royal Naval Air Stations in accordance with the same system as that in force at Royal Air Force Stations.

These signals are at present as laid down in K.R. & A.C.I., Article 751, and A.M.Os. A.214/38, A.269/38, A.369/38, and Amending Orders, and Appendices to A.P.129.

(8) The rules for Royal Air Force Stations corresponding to those in this Article are to be observed by all Naval Aircraft visiting Royal Air Force Stations.

37. *Standard signals for night flying control* (corresponding R.A.F. Regulation is in K.R. & A.C.I. 754)

Rules as to Signals for night flying control at R.A.F. Aerodromes are laid down in A.P.129, and A.M.Os. A.75/38, A.261/38 and Amending Orders.

38. *Aerodrome traffic procedure*

(i) *Aircraft taking off.*—(a) Aircraft taxiing out from the hangar apron are to proceed along the aerodrome boundary to a suitable position for take off.

(b) On arriving at this position the pilot is to bring the aircraft to rest at right angles to the line of take off so as to face the direction from which aircraft doing circuits are approaching and to make any final adjustments necessary.

(c) Finally, after ensuring by visual observation that no other aircraft is about to land, he is to turn on to the line of "take off" and take off with the least possible delay.

(d) Aircraft will normally take off in the order in which they taxi out.

(e) Except when formation flying has been ordered, an aircraft will not take off from behind another aircraft until the latter is air borne.

(ii) *Aircraft landing.*—(a) Before approaching to land the pilot of an aircraft is to make at least one left-hand circuit of the aerodrome or right-hand circuit in cases where exceptions to the general rule are provided for as indicated in this Order, at a height of 1,000 feet and at a speed not exceeding 120 m.p.h.

(b) He is to select the most suitable landing run and land into wind, or if there is no wind, in the direction indicated by the Landing "T" at the watch office.

(c) After landing the pilot is to proceed either as in (1), (2) or (3) below.

(1) He is to keep the aircraft in the same direction in which he had landed and taxi straight on to the boundary of the aerodrome with as little delay as possible.

(2) He is to bring the aircraft to rest and then turn 90° to port. After turning, the aircraft is not to move until the pilot has ensured by visual observation that he will not cut across the path of any other aircraft which is landing, about to land or take off. As soon as his path is clear he will taxi to the most convenient point on the aerodrome boundary with the least possible delay.

(3) In conditions of bad visibility, and when runways are being used, (c) (1) above is to be invariably complied with.

(d) Having arrived at the aerodrome boundary, the pilot is to taxi along the boundary to the desired position.

(e) If an aircraft is landing within 300 yards of another aircraft on the ground, it is to be landed along a line so that the aircraft on the ground is left to port.

(iii) *Aircraft taxiing.*—(a) In the event of it being necessary for an aircraft taxiing to overtake another aircraft proceeding in the same direction, the overtaking or rearward aircraft is responsible for keeping out of the way of the other aircraft; ample distance between the two aircraft is to be allowed to obviate any risk of collision should the leading aircraft come to rest.

(b) Aircraft taxiing towards each other on paths which would meet or pass unduly close, will turn to starboard and keep clear, i.e., they will pass port to port.

(iv) It is the duty of observers and air gunners to keep strict watch for other aircraft when their own aircraft is taxiing, landing, taking off or flying in bad visibility and to report immediately to the pilot any movement of other aircraft which is likely to affect the movement of their own aircraft.

In addition to the above rules left-hand circuits will be standardised throughout the R.N. and the R.A.F. with the following exceptions:—

(i) At the aerodrome at Kai Tak, circuits will be variable and indicated as laid down in A.M.O. -A.214/38, paragraph 5 sub-paragraph.

(ii) At Lee-on-Solent circuits will be right hand.

These rules will not apply to the following R.A.F. Training Stations:—

Cranwell.	Montrose.
Netheravon.	Hullavington.
Brize Norton.	Ternhill.
South Cerney.	Shawbury.
Abu Sueir.	Grantham.
Sealand.	Drem.
Little Rissington.	Kinloss.
Peterborough.	Lossiemouth.
	Upavon.

SECTION VI.—REGULATIONS RELATING TO AIR NAVIGATION

38. *Compass adjustment* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 762)

All compasses in an aircraft are to be adjusted on the following occasions:—

(a) On acceptance of the aircraft for service.

(b) On change of position or replacement of any magnetic material in the vicinity of the compass (e.g. change of the engine, or of armament, or steel or iron fittings) or electric circuits in the vicinity of the compass; or after any removal or replacement of the compass corrector box.

(c) When the aircraft leaves an aircraft or engine repair section or depot or a storage unit.

(d) On replacement of the compass in the aircraft by one of another type. A compass must never be fitted in an aircraft in any position other than the approved one, without Admiralty approval, and the type of compass must not be changed from the approved one without similar authority.

(e) After the aircraft has been standing heading in any one direction for four weeks.

(f) After a considerable change in magnetic latitude.

(g) At any time at the discretion of the Commanding Officer of the unit, or when the accuracy of the existing deviation table is in doubt.

In addition to the special occasions referred to above the compasses of F.A.A. aircraft disembarked are to be checked at least once every eight weeks and always immediately before embarkation in H.M. ships for exercises or operations.

SECTION VII.—REGULATIONS RELATING TO ARMAMENT

39. *Fitting, testing and custody of armament equipment in aircraft* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 773)

The Commanding Officer of a Fleet Air Arm unit is to ensure that the following procedure is adopted in the unit under his command, in order that the aircraft may be in a state of constant readiness for war service:

(a) On receipt, each aircraft is to have all its war armament equipment fitted and tested and the fact noted in the aircraft log book.

(b) After being fitted and tested, the removable armament fittings, except fixed guns, gun mountings and synchronising gears, may be removed from the aircraft, but they are to be kept, assembled and properly labelled with the number of the aircraft in the unit's store, ready to be fitted immediately when required.

- (c) All aircraft are to have all items of their armament fitted and tested once a quarter and the fact recorded in the aircraft log book. Such tests are to be independent of any carried out during inspections.
- (d) The fixed guns of all aircraft of the initial equipment are to be tested not less frequently than once a month.

40. *Air gunnery and bomb dropping—precautions* (the corresponding R.A.F. Regulation is in K.A. & A.C.I. 774)

The Commanding Officer of a unit is not to permit any practice bombing with practice bombs on the aerodrome without the permission of the officer commanding the Station concerned; nor is he to allow any air gunnery or live bomb dropping to be carried out over any locality other than that approved for use for such purposes.

(2) When air gunnery or bomb dropping practices are being carried out, precautions to safeguard personnel and warnings to ensure the safety of the public as required by local or other regulations are to be fully observed. (See Royal Air Force Publication A.P. 1245, Chapter 1.)

41. *Housing of aircraft fitted with explosives or pyrotechnics* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 775)

An aircraft fitted with live bombs or pyrotechnics (other than marine distress signals, wing tip flares or Verey cartridges) is not to be housed or stored under cover except in an emergency, and with the consent of the Captain who, in giving his approval, is to ensure that warning notices are placed on the aircraft concerned.

(2) All weapons, including Verey pistols, must be unloaded at the termination of every flight. Wing tip flares, if not removed, must be disconnected at the terminals before the aircraft is placed under cover.

42. *Live bombs and small arms ammunition carried in aircraft* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 776)

The regulations relating to conveyance and carrying of explosives in R.A.F. aircraft are laid down in A.P. 1245, Chapter 3, Section XXI. These regulations are to be observed by Naval Aircraft until further orders.

SECTION VIII.—REGULATIONS RELATING TO PARACHUTES

43. *Parachutes—care and maintenance* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 780)

Each unit equipped with parachutes is to have one officer who is to be detailed as unit parachute officer. Where possible, the unit parachute officer should have satisfactorily passed a course in the care and maintenance of parachutes and fitting of harness. Where two or more units are in Company, the senior parachute officer is to be responsible to the Captain for the care and maintenance of all parachutes in the units concerned.

(2) The unit parachute officer is to carry out the following duties:—

- (1) He is the unit commander's adviser on all questions on parachutes. He is responsible for the instruction of officers and men in the use, care and maintenance of parachutes.
- (2) He is responsible for the care and maintenance packing and adjustment of parachutes. The provisions of this paragraph do not absolve individuals from their responsibilities for the care and maintenance and safe custody of parachutes issued to them.

(3) Standard parachutes will be allotted as a personal issue to the crews of aircraft. Every officer or rating issued with a parachute is responsible for taking all reasonable care of it whilst it is in his charge. If an officer or rating to whom no parachute is allotted is required to fly either as pilot or passenger, he must apply to the parachute officer for the loan of a parachute from the surplus store.

(4) The instructions regarding the care and maintenance of parachutes and the maintenance of parachute log books are contained in the Royal Air Force Publication A.P. 1182 (Parachute Manual).

44. *Parachutes, safety belts, flotation clothing and fighting harness—wearing of* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 781)

Attention is drawn to A.F.O. 3064/38.

(2) The following additional regulation is to be observed:—

When aircraft are to be collected by air from either repair depots or storage units, another ship or station, or contractor's works, the aircraft crew detailed for the duty are always to take their parachutes and harness with them.

SECTION IX.—REGULATIONS RELATING TO LOG BOOKS

45. *Flying log books* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 786)

The pilot's, observer's, and air gunner's flying log books are official documents and are the property of H.M. Government. Officers and ratings on ceasing to be employed will, however, as an act of grace, be allowed to retain their log books when all official action for which they may be required is completed. In the event of an officer's or rating's death in the service, his log book, when no longer needed for official purposes, will be forwarded to his next-of-kin.

(2) Every Naval officer pilot and observer of and below the rank of Commander and every rating pilot observer and air gunner is to keep a complete record of all flights undertaken by him, the log book being maintained in accordance with the instructions in the form.

(3) The following are the definitions of the terms "dual", "solo" and "passenger" flying as applied to pilots:—

(a) *Dual flying*.—All flying carried out either by a pupil pilot or a qualified pilot in a dual control aeroplane under the direct supervision of another pilot acting in the capacity of an instructor is considered as dual flying and is to be recorded as such. Flying instructors, when giving dual instruction, are to count full solo flying time for the time they spend in the air on such instruction.

(b) *Solo flying*.—(i) In aircraft, whether fitted with dual control or not, that are designed to be flown by one pilot only, the pilot or pupil pilot when actually flying the aircraft is considered to be flying solo even though he may be carrying a passenger or passengers, except when he is undergoing dual control instruction in such type of aeroplane. Flying times are then to be recorded as laid down in (a).

(ii) In aircraft in which a first and second pilot are carried, both first and second pilots are to count full flying time as pilots for the time they spend in the air as first and second pilot, except that when a pilot or pupil pilot is undergoing dual control instruction his flying time is to be recorded as in (a).

(c) *Passenger flying*.—All flying carried out by pilots and pupil pilots when they are in no way connected with the actual flying of the aircraft is to be recorded as passenger flying.

(4) All Flying log books are to be inspected and certified as correct by the Squadron Commander or his deputy, monthly and annually. When a pilot, observer or air gunner is appointed to the unit for flying duties, his Flying log is to be inspected. All Flying log books are to be produced at a Flag Officer's inspection.

(5) At a Coroner's inquest into a fatal flying accident the Flying log book of the pilot concerned is to be produced for inspection, if requested.

46. *The watch log* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 787)

A log is to be kept at every R.N. Air Station under the supervision of the Air Watch Officer. It is to contain a record of:—

(a) the arrival at and departure from the station of aircraft on flights outside the local flying area including the names of crews and passengers†.

(b) Forced landings or reports of low flying by such aircraft.

(c) Details in regard to visiting civil aircraft.

(2) Completed Watch Logs are to be retained at the station for two years and then destroyed.

47. *Operations log books* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 2349)

Every Fleet Air Arm Squadron is to maintain continuously a Squadron Record Book. (Temporarily R.A.F. Form 540.)

(2) The object of the Record Book is to furnish a complete historical record of the unit from the time of its formation, including each operation carried out by the unit. Pending further instructions, matter containing information of a confidential nature is to be omitted.

(3) Record Books are to be retained in units, pending further instruction as to disposal.

(4) The Squadron Record Book is to be produced at Flag Officers' inspections.

SECTION XI.—MISCELLANEOUS REGULATIONS

48. *Restrictions on flying in Naval aircraft by R.N. and R.A.F. personnel* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 797)

No pilot may fly an aircraft of a unit to which he does not belong without the prior consent of the Commanding Officer of the unit to which the aircraft belongs.

(2) Naval or R.A.F. passengers other than Fleet Air Arm personnel are not to be carried in Service Aircraft without the permission of the Commanding Officer of the unit to which the aircraft belongs.

Before granting this permission the Commanding Officer of the unit is to require the passenger concerned to produce written authority from the latter's Commanding Officer for making the flight, or equivalent authority published in orders for practices or operations.

(3) A qualified pilot is not to carry a passenger in a type of aircraft in which he has not previously carried out a satisfactory solo flight unless the passenger is an essential member of the crew of the aircraft.

(4) Passengers, other than the flying crew of the aircraft and/or officers or ratings concerned with alterations, adjustments, or modifications are not to be carried on test flights.

49. *Personnel other than R.N. or R.A.F. in service aircraft* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 797)

No person who is not a serving Naval or Royal Air Force pilot may fly in a Fleet Air Arm aircraft as pilot unless he is a contractor's test pilot or an official authorised to do so by the Admiralty.

† See note † to paragraph 28 (3) (iv).

(2) Passengers who are not serving Naval or Royal Air Force personnel may only be carried in Naval aircraft with the prior consent of the Senior Naval Officer present. This consent is only to be given in the following circumstances:—

(a) To personnel of the Military forces if they have been authorised to fly by their Commanding Officers.

(b) To other individuals, in exceptional circumstances, when the Senior Naval Officer is satisfied that a flight of this nature would be in public interest.

(3) A form of indemnity as given in Appendix XXIII to King's Regulations and Air Council Instructions is invariably to be obtained from all personnel other than serving members of the Royal Navy or Royal Air Force, when carried in Naval aircraft.

(4) Dogs are not to be carried in Naval aircraft.

(5) For flights by Foreign personnel see King's Regulations and Admiralty Instructions, Article 942 (a).

50. *Aviation meetings and flying displays* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 799)

All applications from town councils, or other public bodies, or from public or private organisations, for the loan of Naval aircraft to take part in any celebration, festivities or the like are to be acknowledged, and the applicants are to be informed that the request should be addressed direct to the Admiralty or in the case of Foreign Stations to the Commanding Officer of the Station.

(2) Naval pilots are forbidden to give displays of flying at fetes or exhibition or civil aviation meetings without the sanction of the Admiralty or on a Foreign Station the Commanding Officer of the Station.

51. *Petrol precautions* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 1869, paragraph 4)

At R.N. Air Stations, the petrol tanks of aircraft and M.T. vehicles are not to be filled or emptied inside hangars or buildings, but at a safe distance away in the open air.

(2) Petrol tank covers of aircraft and M.T. vehicles are to be kept closed, and petrol taps (where fitted) of M.T. vehicles are to be turned off when they are under cover.

52. *Air watch officer* (the corresponding R.A.F. Regulations is in K.R. & A.C.I. 823)

An officer pilot or observer is to be detailed in every R.N. Air Station as Air Watch Officer. He is to be stationed at the aerodrome or slipway as long as flying is in progress. His duties are to be confined exclusively to matters connected with Flying and are to include the following:—

(a) He is to see that every apparatus for showing the direction of the wind is in good working order and that it is indicating the direction of the wind correctly.

(b) He is responsible for seeing that all flares, obstruction lights and/or other means of illuminating aerodromes, airship or seaplane stations at night, are lit when necessary and that they remain working satisfactorily while they are required.

(c) He is responsible for the general supervision of aerodrome discipline, and is to report any infringement of the rules of the air or of the aerodrome to the Commanding Officer.

(d) He is responsible for the compilation of the watch log book.

(e) He is responsible for superintending the arrival and departure of all visiting aircraft and for initiating any action that may be required by their occupants.

- (f) He is responsible for the despatch of all departure and arrival messages affecting movements of aircraft to and from this station and for seeing that such messages are duly acknowledged where necessary.
- (g) He is to keep all the latest weather reports, forecasts and warnings posted up in his office, and, where necessary, he is to obtain special weather reports for aircraft proceeding on "cross country" flights. At stations where there is no meteorological staff, he is normally to be responsible for making the weather observations and reports required by the Meteorological Office.
- (h) When aircraft are proceeding on long flights during which they will be using W/T, the Air Watch Officer is to be informed and notified of any special orders given to the aircraft as regards signals to be sent or reports to be made during the flight. He is to be supplied with copies of all such signals received from the aircraft and in the event of the signals ceasing altogether, or distress signals being received, he is immediately to inform the Commanding Officer and take other action as necessary.
- (j) He is to be responsible for initiating action and reporting overdue aircraft to the proper authority as laid down.
- (k) He is to see that the regulations relating to civil aircraft are complied with.
- (l) He is to keep a careful look out for accidents and is at once to report to the medical officer (or local civilian medical practitioner) and other responsible officers any accidents that may occur.
- (m) He is responsible for the ambulance and the fire tender or motor boat and their crews and for ensuring that they are available whenever flying is in progress and aircraft are due to arrive at or leave the station; he is responsible also for their immediate despatch to the scene of an accident.
- (n) He is to inspect the ambulance and fire tender and is to see that the authorised equipment of the tender is complete and in order. He is to see that the drivers carry out their instructions given with a view to ensuring that their engines will start up without delay. He is to be similarly responsible for the emergency motor boat.
- (p) He is responsible for seeing that all aircraft are properly housed after flying for the day or night has finished. In the event of any aircraft being left in the open on the aerodrome or on the water, he must, after receiving the report of the Senior Officer of the aircraft in accordance with paragraph 26, inspect the aircraft at intervals and ensure that all fastenings and/or moorings are in order, and that, where applicable, the rules as to lights are complied with.
- (q) He is responsible for initiating any action that may be necessary on receipt of messages in respect of forced landings.

53. *The look out* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 824)

A rating is to be detailed at every R.N. Air Station to assist the Air Watch Officer as a lookout and messenger during flying hours.

54. *The duty flight* (the corresponding R.A.F. Regulation is in K.R. & A.C.I. 823 (A))

A duty Flight is to be detailed at every R.N. Air Station. It is to be available at any time to meet any requirements in connection with visiting aircraft, salvage, and working out of normal working hours.

(A.F.O. 3042/39 is cancelled.)