

RESTRICTED

(FOR OFFICIAL USE ONLY)

Not to be communicated to anyone outside H.M. Service

ADMIRALTY FLEET ORDER
FLYING REGULATIONS FOR THE ROYAL NAVY

ADMIRALTY, S.W.1,

24th February, 1944.

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 shown in the Admiralty Fleet Order Volume, 1941, Instructions, paragraph 10.

HEAD OF "P" BRANCH

FLYING REGULATIONS FOR THE ROYAL NAVY

TABLE OF CONTENTS

SECTION I

General

	Page No.
1 Instructions to Captains	5
2 Duties of Commander or Lieutenant Commander (Flying) and Commander or Lieutenant-Commander (Ships' Air Staff)	5
3 Duties of Air Gunnery Officer	5
4 Duties of Air Signal Officer	6
5 Duties of Air Radio Officer :	6
6 Duties of Air Engineer Officer	6
7 Duties of Air Electrical Officer	7
8 Command and Responsibilities of Officers in Flying Units :—	
Sub-section (1) General	7
(2) Senior Pilot	7
(3) Senior Observer	7
(4) Air Engineer Officer of Squadron	8
(5) General Conduct of Operations in Air	8
(6) Tactical Control of the Aircraft or Formation	8
(7) Observers' Duties	8
(8) Qualifications for Pilots of Aircraft	8
9 Instruction and Flying Practice of Pilots Joining a Unit	8
10 Authority of Instructor	9

SECTION II

Regulations to Ensure the Safety of Personnel

1 Authorisation of Flights	9
2 Loose Articles to be Stowed and Secured	9
3 Loading of Aircraft	9
4 Airworthiness... ..	10
5 Flights at Contractors' Airfields	10
6 Evolutions and Handling of Aircraft	10
7 Aircraft and Engines Allotted for Ground Instruction	10
8 First Aid Precautions	10
9 Use of Oxygen	11
10 Starting Up and Propeller Swinging	11
11 Taxying and Ground Handling	12
12 Fire Precautions in the Air	12
13 Carriage of Petrol as a Load in Aircraft	12
14 Flying Restrictions :—	
Sub-section (1) Aerobatics	12
(2) Cloud Flying Practice	13
(3) Low Flying	13
(4) Miscellaneous	13
15 Air Fighting Practices—Precautions to be Taken	14
16 Ground Attack Exercises	14
17 Retractable Under-carriages—Position of Wheels on Landing	14
18 Carriage of Charts and Maps	14

SECTION III

Special Instructions in Regard to Cross-Country Flights

1 Cross-Country Flights	15
2 Responsibility for the Authorisation and Clearance of Cross-Country Flights	15
3 Procedure for Cross-Country Flights by Day or Night and over Sea	15
4 Signal Publications to be Carried in Aircraft	15
5 Meteorological Information for Aviation	16
6 Use of Civil Airfields	17
7 Areas over which Flying is Prohibited or Restricted	18
8 Responsibilities of the Senior Officer of an Aircraft before and after Cross-Country Flight	18
9 Responsibility for Guarding Naval Aircraft Landing from H.M. Ships	18

Para.

Page No.

10 Reports of Aircraft Movements :—	
Sub-section (1) Between Ship and Shore	18
(2) Between Shore Establishments	18
(c) Form of Messages... ..	19
11 Reporting of Aircraft Engaged on Non-Operational Flights within the British Isles which are Overdue or have Crashed or have been Compelled to Make a Forced Landing	20
Sub-section (1) (a) Flights of over 200 miles, Flights over the Sea or over Sparsely Populated Areas	20
(b) Flights Undertaken by Training Aircraft	20
Sub-section (2) Responsibilities of Pilots and Other Officers for Reporting the Movements of Aircraft	20
(5) Responsibilities of Ferry Pilots	21
(6) Notification of Crashes and Forced Landings	21
(7) Routeing of Telephone Calls	21
(8) Ferry Pilots	21
12 Aircraft Overdue—Procedure at Home	21
Sub-section (1) On Flights between Two Shore Stations	21
(2) Over the Sea in the Vicinity of the British Isles	22
13 Non-Official Flights	22
14 Reports of Aircraft Movements Abroad	22
15 Customs	22
16 Movement of Livestock by Air	22

SECTION IV

Regulations Relating to Flying Accidents and Forced Landings

1 Procedure after Forced Landing	23
2 Forced Alightings on Water	23
3 Safeguarding Crashed Aircraft—Duties of Guards	24

SECTION V

Rules of the Air

1 General Rules of the Air	24
2 Formation Station-keeping	24
3 Rules of the Air at R.N. Air Stations	24
4 Rules of the Air at R.A.F. Stations	25

SECTION VI

Flying Control and Airfield Traffic Procedure

1 Objects of Flying Control	25
2 Control Position	25
3 Airfield Dummy Deck Landing Control	25
4 Responsibilities of Chief or Senior Flying Control Officer	25
5 Flying Control Staff	26
6 Flying Control when no qualified Officers are Borne	26
7 Duties of the Flying Control Officer of the Watch	26
8 Signalmen of the Air Watch :—	
9 Air Watch Telephone Operators	27
10 Air Watch Officer	27
11 Runway Controller	28
12 The Deck Landing Control Officer	28
13 Officer-in-Charge of Night Flying	28
14 Traffic Procedure :—	
Sub-section (1) Aircraft Taking-off by Day	29
(2) Aircraft Landing by Day	29
(3) Aircraft Taking-off by Night	29
(4) Aircraft Landing by Night	29
15 Aircraft Taxying	29
16 Safety Precautions Regarding Taxi-Tracks	30
17 Duty of Aircraft Crews	30
18 Safety Precautions Regarding Runways	30
19 Forced Landing by Night	30
20 Recall	30
21 Enemy Action	30
22 Lights to be Exhibited by Aircraft	30
23 Lights to be Exhibited by Pilot Motor Transport	30

SECTION VII

Para.	Regulations Relating to Air Navigation	Page No.
1	Compass Adjustment	31

SECTION VIII

Regulations Relating to Armament

1	Squadron Air Gunnery Officer	31
2	The Fitting, Testing and Custody of Armament Equipment in Aircraft	31
3	Air Gunnery and Bomb Dropping—Precautions	31
4	Housing of Aircraft Fitted with Explosives or Pyrotechnics	32
5	Explosive Stores Carried in Aircraft	32
6	Flying with Guns Loaded	32

SECTION IX

Regulations Relating to Safety Equipment, etc.

1	Wearing of Parachutes, Safety Harness and Goggles	33
2	Care and Maintenance of Safety Equipment	33

SECTION X

Regulations Relating to Log Books

1	Flying Log Books	34
	Sub-section (3) Definitions	34
	(4) Inspections of Flying Log Books	34
2	Airframe, Aero-Engine and Accessory Log Books or Cards	34
3	Machine-gun Log Books	35
4	Watch Log	35
5	Squadron Record Book	35
6	Compass Log Books	35

SECTION XI

Miscellaneous Regulations

1	Flights of Naval, Royal Marine, Military, R.A.F. and Civilian Personnel in Service Aircraft :—	
	Sub-section (1) Duty Flights : Naval, W.R.N.S. and R.M. Personnel	
	(2) Duty Flights : Military and R.A.F. Personnel	35
	(3) Duty Flights : Civilian	36
	(4) Naval, W.R.N.S. and R.M. Personnel Proceeding on Leave	36
	(5) Military and R.A.F. Personnel Proceeding on Leave	36
	(6) Civilians Proceeding on leave	36
	(7) Civilian Personnel on " Test Flights "	37
	(8) Form of Indemnity	37
2	Restrictions with Regard to Pilots of Naval Aircraft	37
3	Flights by Foreign Personnel	37
4	Aviation Meetings and Flying Displays	38
5	Petrol Precautions	38
6	The Duty Flight	38

917.—Flying Regulations for the Royal Navy

(A. 196.—24 Feb. 1944.)

See AFO 7152/40.
" " 1/45.

AFO's

3673/46.

4206/46.

5053/46.

5059/46.

These regulations are to be read in conjunction with K.R. and A.I. and the relevant C.A.F.Os. and A.F.Os.

2. Nothing in these regulations relieves the pilot of his responsibility for the safety of his aircraft, its crew, and for any persons on the ground who may be endangered by it.

3. Any instructions issued in connection with the War override these regulations.

SECTION I—GENERAL

1. *Instructions to Captains.*—The Captain of a ship or Royal Naval air establishment is responsible for the organisation, efficiency and safety of the aircraft under his Command.

2. *Duties of Commander or Lieutenant Commander (Flying) and Commander or Lieutenant Commander (Ship's Air Staff) in Aircraft Carriers and at R.N. Air Establishments.*—(1) (a) *Aircraft Carriers* : The Commander or Lieutenant Commander (Flying) will be responsible to the Captain for—

(i) the technical administration and organisation of the Fleet Air Arm personnel and flying units embarked.

(ii) The co-ordination of maintenance of aircraft, and for the state of readiness of flying units embarked.

(b) The Commander or Lieutenant Commander (Ship's Air Staff) will be responsible to the Captain for the co-ordination of operational and Weapon Training of flying units embarked.

(c) The Commander or Lieutenant Commander (Flying) and the Commander or Lieutenant Commander (Ship's Air Staff) will also act as Staff Officers for planning and ordering Air Operations and Exercises.

(2) (a) *R.N. Air Stations* : The Commander or Lieutenant Commander (Flying) will be responsible to the Captain for :—

(i) The technical administration and organisation of flying personnel.

(ii) The co-ordination of maintenance and state of readiness of squadrons attached to the air station.

(iii) The general organisation and efficiency of training facilities and the co-ordination of training.

(iv) The organisation and efficiency of the airfield for flying.

3. *Duties of the Air Gunnery Officer.*—(1) The Air Gunnery Officer will be responsible to the Commanding Officer of the ship or establishment through the Commander (flying) and/or Commander (Ship's Air staff). His duties are as follows :—

(a) Organisation, in conjunction with unit commanders, of arrangements for the supply of bombs and ammunition for the arming of aircraft and for the serviceability of equipment used with them.

(b) Giving as necessary technical advice on the operational use of aircraft armament other than armament in charge of the Torpedo Officer.

(c) The direction of the work of all armament maintenance personnel in Ships' Air staff, Station armouries, workshops and storage sections. He will be responsible to the Air Engineer Officer for all armament work in connection with aircraft in the charge of the Air Engineer Officer. He will act in an advisory capacity to Squadron Commanders on the efficiency of their armament equipment.

(d) The organisation, in conjunction with Squadron Commanders, of the air armament training practices. He will also be responsible for the practices being correctly carried out and recorded ; and he will assist Squadron Commanders with their analysis.

(e) The organisation of bombing and air firing and ground ranges.

(f) The organisation of the ground armament instruction of both flying and armament maintenance personnel and the annual weapon training of all personnel.

- (g) The stowage, inspection, etc., of explosive stores in accordance with the appropriate regulations and instructions.
- (h) The carrying out of Naval armament stores accounting procedure; and, in conjunction with the Air Armament Stores Officer, he will be responsible for ensuring that all armament material in store is efficiently stowed, maintained and kept modified.
- (i) The training at Naval Air Stations of guards, sentries and defence parties made up of Naval personnel, excluding aerodrome defence parties when an Aerodrome Defence Officer is borne. Where no Torpedo Officer is borne, he will also be responsible for aerodrome defence demolition work.
- (j) The duties of Bomb Safety Officer in ships and at R.N. air stations where no such specialist officer is borne.
- (k) The carrying out of trial inspection and other flights connected with air armament as necessary.
- (l) In ships and at Naval air stations where no Torpedo Officer is borne he is to undertake the responsibilities of the Torpedo Officer in regard to depth charges and aircraft mines carried by aircraft.
- (2) Where no Air Gunnery Officer is borne, the Gunnery Officer of the ship is to advise the Captain on the efficiency of the aircraft gun armament.

4. *Duties of the Air Signal Officer.*—(1) The Air Signal Officer will be responsible to the Captain through the Commander (flying) and/or Commander (Ship's Air Staff) for:—

- (a) The organisation of instruction for officers and ratings in aircraft signals.
- (b) The co-ordination of signal training ashore and afloat in conjunction with the Unit Commanders with whom the responsibility for the training of personnel will continue to rest.
- (c) Advice on the maintenance of all signal equipment excluding airborne radio equipment in aircraft and at shore bases.
- (2) He will also be required to carry out instructional duties with Observers and Telegraphist Air Gunners and duties in connection with the development of aircraft signal equipment.

5. *Duties of the Air Radio Officer.*—(1) *In Aircraft Carriers.*—He will be responsible to the Captain through the Commander Ship's Air Staff for the organisation and arrangements for the repair and maintenance of all airborne radio equipment, for the direction of the work of radio maintenance ratings in the Ship's Air Staff and for the satisfactory performance of all maintenance and repair work carried out by these ratings.

(2) *At R.N. Air Establishments.*—He will be responsible to the Captain for the direction of the work of all air radio maintenance ratings in Station workshops, for the repair of all air radio equipment and for the satisfactory performance of all repair work carried out by these ratings.

(3) When no Squadron Air Radio Officer is borne he will act in an advisory capacity to the Squadron Commanders on the efficiency and maintenance of their aircraft radio equipment.

(4) He will be responsible for the administration of the radio repair vehicles where these are attached to the establishment.

6. *Duties of Air Engineer Officer.*—(1) *In aircraft carriers* he will be responsible to the Commander (Flying) for all material in his charge, for the technical administration and employment of all Ship's Air Staff maintenance personnel in the hangars and in the aircraft workshops (except those employed under other technical officers) and for the satisfactory performance of all maintenance and repair work carried out by these ratings.

(2) *At R.N. air establishments* he will be responsible to the Captain for:—

- (a) The administration and employment of all aircraft maintenance personnel in the air engineering department and the satisfactory performance of all maintenance and repair work carried out by these ratings.

(b) All material in his charge and for the technical administration and executive control of the Station or Section workshops and the aircraft therein. All airframes, engines and equipment transferred to the workshops for inspection, test, repair or modification are to be regarded as in his charge, as are all workshops' machinery, tools and equipment provided for the inspection, test, repair or modification of aircraft, aero-engines and their accessories (except those which are appropriate to other specialist officers).

(c) The state of maintenance, the equipment and the serviceability of all aircraft on the station not on squadron charge. In the performance of this duty he will act in the closest liaison with the Commander (Flying). The Air Engineer Officer is responsible to the Commander (Flying) for the final state of serviceable aircraft transferred from his charge.

(d) The technical supervision and repair of all motor transport, mechanical and armoured fighting vehicles, fuel and oil trailers and tenders; all mechanical fire-fighting apparatus (including booster pumps, trailer pumps, heavy mobile fire engines, etc.) and of synthetic training equipment and the power boats attached to the establishment. The servicing and routine maintenance of such equipment, and the reporting of defects, is the responsibility of the officer in whose charge it is held.

(e) Any additional duties in connection with aircraft maintenance which may be allocated to him in any organisation approved by the Administrative Authority for the Air Station or ship in which he serves.

7. *Duties of the Air Electrical Officer.*—(1) The Air Electrical Officer will be responsible to the Air Engineer Officer for all work carried out by electrical ratings in connection with aircraft in the charge of the Air Engineer Officer and on aircraft electrical fittings and aircraft instruments in the workshops. He will also be responsible for all electrical work in connection with motor boats and motor vehicles attached to the ship or establishment.

(2) Where no qualified Air Radio Officer is borne, the Air Electrical Officer will be responsible to the Air Engineer Officer for all work carried out by air radio ratings in connection with aircraft in the charge of the Air Engineer Officer and on air radio fittings and their equipment in the workshops.

8. *Command and Responsibilities of Officers in Flying Units.*—(1) *General.*—Normally, an officer will be specifically appointed in command of each air squadron or other flying unit. Otherwise, the Senior Officer, qualified as pilot or observer and appointed for full flying or observers' duties, whether of executive, R.M., (A), (E), R.N.R. or R.N.V.R. category, will be in command of the unit to which he is appointed, and will be responsible for its general efficiency and for the conduct of its operations. Should a situation arise which is not covered by the regulations, he is to issue the appropriate orders in accordance with the custom and usage of the Service.

(2) *Senior Pilot.*—The Senior Pilot will be responsible to the Senior Officer of the unit for:—

- (a) The technical administration of the unit (except where provided for by sub-paragraph (4) below and Section VIII, paragraph 2).
- (b) Flying discipline and training of pilots.
- (c) The safety and suitability of accommodation of aircraft.
- (d) The maintenance and the state of readiness for service of aircraft and their equipment, except as specified in sub-paragraph 3 (d) and sub-paragraph (4) below. He is also responsible for ensuring that all pilots carry out periodical check inspections in accordance with aircraft maintenance schedules, etc., and supervise adequately the maintenance and repair work carried out on their aircraft and equipment.

(3) *Senior Observer.*—The Senior Observer will be responsible to the Senior Officer of the Unit for:—

- (a) Staff work in connection with search, interception and observation problems.
- (b) The training of observers and telegraphist air gunners.
- (c) Communications and meteorological organisation.

(d) The maintenance and the state of readiness for service of navigational airborne radar and radio equipment, bombsights, and all equipment used solely by observers and telegraphist air gunners.

(4) *Air Engineer Officer of Squadron.*—The Air Engineer Officer of the Squadron or the Senior (E) Pilot, when such officers are borne, will be responsible to the Squadron Commander for—

(a) The technical administration of the unit.

(b) The maintenance and the state of readiness for service of aircraft and their equipment, except as specified in sub-paragraph (3) (d), and Section VIII, paragraph 2.

(5) *General Conduct of Operations in the Air.*—The Officer in Command of the unit will be responsible for—

(a) Ordering an attack and giving any general directions regarding the objective and the tactics to be employed.

(b) Ordering the engagement of enemy aircraft.

(c) Breaking W/T silence.

(d) Authorising signals other than routine observations.

(e) Altering or terminating the operation in progress.

(f) The general safety of the unit.

(6) *Tactical Control of the Aircraft or Formation.*—The pilot, or the pilot authorised as the first pilot of the aircraft, will be responsible for the execution of—

(a) All manoeuvres in the air.

(b) The tactics ordered for air fighting, bombing or torpedo attacks.

(c) The movements of the aircraft when they are landborne, shipborne or waterborne, landing, taking off, or being launched or hoisted aboard. He will be responsible for making decisions which are governed by conditions which he alone could determine in time.

The pilot at the controls of the leading aircraft of a formation will be responsible for the execution of all manoeuvres by the formation.

(7) *Observers' Duties.*—An observer on duty as such in an aircraft will be responsible for—

(a) The navigation of the aircraft on all occasions when navigational methods are employed.

(b) The control of the signalling of the aircraft (except as provided for by (5) (c) above).

(c) Making observations and reports (except as provided for by (5) (d) above).

(8) *Qualifications for Pilots of Aircraft.*—No officer or rating is to act as pilot of an aircraft unless—

(a) He has qualified as a Naval Pilot in accordance with Admiralty Regulations in force from time to time.

(b) He is medically fit for full or limited flying duties in accordance with current regulations.

(c) He has been approved by his Commanding Officer as fully competent to pilot the type of aircraft in which he may be required to fly. This is particularly necessary for officers and ratings who are not in regular flying practice, or who have recently relinquished non-flying employment.

9. *Instruction and Flying Practice of Pilots Joining a Unit.*—On being appointed to a unit equipped with a type of aircraft with which they are not familiar, pilots 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 and oxygen systems and on any unusual features of the aircraft and its characteristics in flight. 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. No pilot is to fly solo in a type of aircraft which he has not flown previously before obtaining (after examination)

a certificate signed by the Squadron Commander and the Commander (Flying) to the effect that he has read the Pilot's Notes and has received instruction in cockpit drill. This certificate is to be entered in the Pilot's Log Book.

10. *Authority of Instructor.*—In any aircraft in which dual control instruction is being given, the instructor shall at all times be responsible for the safety of the aircraft and 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. Any pilot who has been selected by the Commanding Officer to act in the capacity of Instructor or safety pilot shall be considered as an Instructor for the purpose of this paragraph, and is to be detailed as such in the authorisation for the flight.

SECTION II—REGULATIONS TO ENSURE THE SAFETY OF PERSONNEL

1. *Authorisation of Flights.*—(1) 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 ships' or establishments' Standing Orders.

(2) In detailing pilots for flights likely to demand skill in instrument flying, Commanding Officers are to consider their suitability for these duties in the light of their instrument flying assessment and experience.

2. *Loose Articles to be Stowed and Secured.*—(1) The pilot of an aircraft is responsible that all loose articles carried in the aircraft are properly stowed and secured before the aircraft is taxied out for take-off.

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

(4) When a two-seater aircraft, carrying a passenger or crew in addition to the pilot, 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 airborne.

3. *Loading of Aircraft.*—(1) When ordering a particular flight or operation the officer authorising the flight under Section II, paragraph 1, or a higher authority, is to stipulate the load which an aircraft is to carry.

(2) It is the responsibility of the officer authorising a flight to ensure that the orders to the Senior Officer of the aircraft include sufficient details of the load to be carried and such instructions on the disposal and release of the load as will enable him properly to accept responsibility as required by sub-paragraph 3 (c) below.

(3) The duties of the Senior Officer of the aircraft (or in the case of single-seater aircraft, the pilot) are as follows:—

(a) He will be responsible for the aircraft being loaded in accordance with the instructions given to him by the officer authorising the flight.

(b) Where part of the load is, or may be, consumed, released or jettisoned in flight he must ensure:—

(i) that he is familiar with the order and method of operation of all controls which it is his responsibility to operate;

(ii) that the individual members of his crew are familiar with the order and method of operation of all controls which it is, or may be, their responsibility to operate.

(c) He will be responsible for ensuring that the condition of loading is within the limits:—

(i) laid down by the weight sheet summary or in the loading and C.G. diagram; or

(ii) specially authorised as in sub-paragraph (5) below.

(4) The pilot or Senior Officer of the aircraft must, when in doubt, call on the Squadron Engineer Officer for advice.

(5) The Commanding Officer of a flying unit is to ensure that the weights shown on the weight sheet summary or in the loading and C.G. diagram for the type of aircraft concerned as the "maximum permissible weight for take-off and straight flying" are not exceeded without the sanction of the Administrative Authority concerned.

4. *Airworthiness*.—(1) When for any reason the Captain of a ship 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 appropriate Naval authorities, repeated to the Ministry of Aircraft Production. 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 the appropriate Administrative Authorities.

5. *Flights at Contractor's Airfields*.—(1) An aircraft built to the orders of the Air Ministry, including those built for the Admiralty, 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) At contractors' airfields the function of the duty pilot is carried out by the A.I.D. Inspector. Pilots are accordingly to report to the A.I.D. Inspector immediately on arriving at and prior to leaving any contractor's airfield by air, and are to give him all information necessary to enable him to comply with his instructions concerning the reporting of aircraft movements.

6. *Evolutions and Handling of Aircraft*.—(1) Work which involves alterations to aircraft or their fittings, e.g. changing propellers, is not to be carried out as general drill. New parts are only to be fitted to replace unserviceable equipment or in accordance with approved alterations or modifications.

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

7. *Aircraft and Engines Allotted for Ground Instruction*.—Aircraft allotted 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.

8. *First Aid Precautions*.—(1) When flying is being carried out at an airfield, a properly equipped crash tender and ambulance are to be maintained with the drivers in attendance, in readiness for instant use. The ambulance with its driver and the crash tender with its crew, are to be stationed in a position readily accessible to the Flying Control Officer of the watch. The crash tender is always to proceed to the scene of a crash whether there is a fire or not. A Medical Officer or Sick Berth rating must be available for immediate duty with the ambulance. A Medical Officer is normally to be available on the station during the hours of flying from that station. Specific instructions are to be given to the Flying Control Officer for the summoning of a local civilian medical practitioner in the event of an accident occurring when no Medical Officer is available on the station.

(2) Whenever flying is being carried out from ships in harbour or from a seaplane station, at least one power boat must be maintained in readiness for instant use as a crash boat. This boat is to be either under way in the flying area or moored at a buoy or pier or alongside the ship, in the vicinity of the flying area and manned by her crew in instant readiness to slip. The boat is to be identified by an aeroplane flag displayed in the bows.

(3) Whenever flying is being carried out from ships at sea a seaboat is to be maintained in instant readiness for use as a crash boat. Whilst aircraft are actually taking off or being launched, landing or being recovered, a seaboat in catapult ships or destroyers attending on aircraft carriers is to be manned. In other ships in the vicinity, a seaboat is to be prepared for use for recovery of flying crews.

(4) One man in an asbestos suit, with wire line attached, and an assistant should always be standing by on the flight deck during take off and landing of aircraft.

(5) Whenever flying over the sea outside gliding distance from land is being carried out from Naval Air Stations, at least one power boat should be maintained in readiness for instant use as a crash boat. This boat is to be either under-way in the vicinity of the flying area, or moored at a buoy or alongside a pier in the vicinity of the flying area, and manned by her crew in instant readiness for use as a crash boat. In war time, in order that necessary training may be carried out, local authorities are to decide whether flying practices out of gliding distance from the land may continue when circumstances prevent a crash boat being at readiness. The availability of ships at sea or Air Sea Rescue craft, and also the experience of the flying crews concerned, should be taken into consideration.

(6) Instructions concerning the supply of crash gear are laid down in current regulations. All items of crash gear should be kept assembled as a complete outfit and stowed in such a position on board as to be immediately available when required for use.

(7) In ships where F.A.A. ratings are borne, crash gear is to be maintained and provided by the F.A.A. unit. During flying operations a maintenance rating should be detailed to accompany the gear, when it is provided in a crash boat.

(8) At Naval Air Establishments a suitable member of the power boat's crew is to be selected for the maintenance of crash gear and should be given necessary instructions in the use of this gear.

(9) The Senior Medical Officer of the ship or air station is always to be informed of the times during which flying will be in progress.

9. *Use of Oxygen*.—The current regulations for the use of oxygen in flight are to be observed.

10. *Starting Up and Propeller Swinging*.—(1) 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).

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

(3) An up-to-date list of ratings qualified in propeller swinging who have been passed out to the satisfaction of their Unit Commander, is to be kept in each flight or section.

(4) The method and drill of engine starting and propeller swinging as described in current regulations are to be adhered to in Naval air units until further orders.

(5) The pilot is to ensure before running up the engine that the locking devices are removed from the controls and securely stowed away, that 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.

(6) He is also to ensure that the aircraft is so placed that the slip-stream shall not endanger or damage any other aircraft or building.

(7) No aircraft is to be started unless it is adequately secured against forward movement, and a qualified officer or rating is in the pilot's seat. In all aircraft (except those under wireless control), the pilot's seat is not to be vacated while the engine is running, unless for the purpose of handing over the controls to another qualified officer or rating.

(8) Except when an engine is being started by hand-swinging, no propeller fitted to an engine is to be touched or moved without first ensuring that the engine switches are "off".

(9) Before any attempt is made 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 propeller is able to obtain a sure foothold.

(10) When a starting device which does not involve touching or turning the propeller 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 personnel are being instructed in propeller swinging.

(11) 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.

(12) Except in cases of great urgency, a hot engine is to be allowed to cool down before attempts are made to start it by swinging the propeller by hand.

11. *Taxying and Ground Handling.*—(1) Only qualified pilots and selected officers and maintenance personnel of Petty Officer rating and above, not qualified as pilots, may be authorised to taxi aircraft.

(2) The selected officers and maintenance personnel of Petty Officer rating and above not qualified as pilots, who must show natural aptitude and be considered reliable, may be trained to taxi aircraft on land, but not float planes or amphibians on the water or slipways :—

(a) They are to pass a taxiing test under the supervision of a responsible officer pilot before being authorised to taxi aircraft.

(b) A nominal list of the officers and ratings so authorised is to be kept in all squadrons and sections and no other officers or ratings are to be permitted to taxi aircraft.

(3) Ground Handling Notes of the A.P.6000 series for all types of aircraft must be available at Naval air establishments so that in the event of a strange aircraft landing, some information on the handling of that type is to hand.

(4) On all occasions when standard air publications for the particular type of aircraft are available they are to be used in preference to Ground Handling Notes.

12. *Fire Precautions in the Air.*—(1) Every aircraft is to carry, as part of its equipment, fire extinguishing appliances of an 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 to follow the instructions laid down in current regulations.

(3) No matches, other than the "safety" type, or petrol filled or other spirit-filled "lighters", are 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.

(5) To avoid serious injury from burning as a result of petrol or other explosions, clothing which keeps the whole skin area covered should always be worn by flying personnel while flying is in progress. Even in tropical climates, drill suits or clean overalls should be worn instead of tropical dress which leaves large portions of the body unprotected from flash.

13. *Carriage of Petrol as a Load in Aircraft.*—(1) The carriage of additional petrol in aircraft other than in the fuel tanks is permitted provided that the Senior Officer of the aircraft ensures that :—

(a) The containers are in a perfectly sound condition before being taken on board.

(b) The containers are correctly loaded and secured against movement during flight.

(c) Ventilation is adequate.

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

14. *Flying Restrictions.*—(1) *Aerobatics.*—(a) The following aerobatics are prohibited :—

(i) All flick manoeuvres.

(ii) All manoeuvres involving heavy inverted loading (e.g., the bunt, the outside loop, etc.).

(iii) Inverted flying (except for the periods required for the performance of authorised aerobatics or when an aircraft is especially designed or modified for inverted flying).

(b) No pilot is to carry out aerobatics or spins in an aircraft unless additional luggage or loose articles are stowed in lockers or luggage carriers which are within the fuselage or wing structure. Aerobatics are not, in any circumstances, to be carried out when external luggage carriers are fitted to an aircraft.

(c) Aerobatics at altitudes under 3,000 feet are prohibited, except when permission is granted :—

(i) By the Admiralty or Air Ministry for specific experiments at experimental establishments.

(ii) In specific instances and for a definite purpose by the Commanding Officer of the establishment or ship.

(d) No spin is to be continued below 3,000 feet.

(e) The intentional spinning of aircraft when carrying bombs, torpedoes or pyrotechnics on the bomb carriers is prohibited.

(f) Before flying any aircraft, the pilot must be fully conversant with any limitations and restrictions imposed upon it and all manoeuvres contravening them are prohibited.

(2) *Cloud Flying Practice.*—Cloud flying practice is not to be carried out when the cloud base is less than 2,000 feet above the ground area over which the aircraft concerned are flying, except—

(i) At Experimental Establishments where it may be necessary for the purpose of an experiment to carry out flying with the cloud base at a considerably lower altitude ;

(ii) At beam approach training units where it may be necessary for the purpose of training to carry out flying with the cloud base at a considerably lower altitude and even down to ground level (subject to permission being given by radio from the appropriate flying control authority).

(3) *Low Flying.*—(a) Unless low flying is specially authorised by the Commanding Officer for the purpose of training over areas duly authorised, flying at altitudes of less than 2,000 feet over land or sea may only be undertaken :—

(i) when taking off ;

(ii) when landing, or preparing to land, or making a forced landing ;

(iii) when it is necessitated by reasons of weather ;

(iv) when it is necessary for exercises or operations involving co-operation from the ground or sea ;

(b) Low flying practices must be ordered in every instance by a Squadron Commander or instructor who will issue instructions as to the route to be followed throughout the practice. This route is to avoid towns, other centres of dense population, industrial areas and camps, and, when possible, should lie within one of the defined low flying areas. A pilot other than an instructor is not permitted to undertake low flying practice unless he has received specific orders to do so.

(c) The pilot of an aircraft is forbidden to dive, or continue to dive, below an altitude of 2,000 feet when over or near an airfield, except when the dive forms part of an authorised practice, is specially ordered by a Squadron Commander or instructor, and is carried out against the recognised station target.

(4) *Miscellaneous.*—(a) (i) Towns and thickly inhabited districts are to be crossed at a height sufficient to enable the aircraft to glide to open country in the event of engine failure. If adverse weather precludes sufficient altitude being maintained, the area of the town is to be avoided, unless the navigational safety of the aircraft is endangered thereby.

(ii) When on a cross country flight, aircraft flying at altitudes over 3,000 feet are not to pass within 3,000 yards of the nearest point of the perimeter of airfields en route. If flying at altitudes of 3,000 feet or below, aircraft approaching such airfields are to select the most suitable methods of passing to avoid risk of collision or interference with other aircraft. This must be done with due regard to the effect of prevailing weather conditions on navigation. On no account may an airfield be crossed against the direction of circuit.

(b) The pilot of an aircraft is forbidden to fly or manoeuvre his aircraft in the air or on the ground in a manner likely to cause accident or annoyance to any person or persons, or damage to livestock or property, or to the aircraft itself.

(c) No pilot is to fly or manoeuvre an aircraft in the air or on the ground in such a manner as to prejudice good order and flying discipline.

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

(e) Except in exercises which have been duly authorised and which involve co-operation from the land or sea, the dropping of leaflets over land or sea and the jettisoning of any articles whatever over land are prohibited.

(f) No pilot is to join, or interfere with, a formation to which he does not belong, or any single aircraft, unless by prior arrangement and after sanction has been given.

(g) No pilot is to fly an aircraft of a unit to which he does not belong without first obtaining the consent of the Commanding Officer of the unit or the establishment on which the aircraft is borne.

(h) In addition to the regulations contained in this paragraph the international rules of the air are to be observed whenever applicable.

(i) The foregoing regulations are subject to the exigencies of active operations. They are, however, to be observed at all times on operational flights unless the duty upon which the aircraft is engaged necessitates deviation from them.

15. *Air Fighting Practices—Precautions to be Taken.*—(1) Air fighting practices, either with or without camera guns, may be carried out only when specifically authorised and when the pilots taking part have fully discussed the lines of attack and defence which they will employ throughout the practice. Making a feint attack on another aircraft 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 from any airfield. The least populated areas in the locality are to be selected.

(3) Air fighting practices are to be carried out above 3,000 feet, unless specially authorised by the Captain for specified practices over areas duly authorised. Air fighting practices in which target and attacking aircraft are both manoeuvring may only be authorised below 3,000 feet when it is essential to do so for the realism of the exercise.

(4) During air fighting practices, aircraft are not to approach within a distance of two wing spans of one another.

(5) Qualified pilots are not to be allowed to practice air fighting until such time as the Commanding Officer of the unit considers that they are thoroughly proficient in the handling of 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 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.

16. *Ground Attack Exercises.*—(i) When dummy dive bombing attacks are being carried out, the dives are not to begin below 1,500 feet and are not to be continued below 500 feet.

(ii) In the case of dummy front gun fighter attacks, the approach should be low, and the pilot should pull up to a height of 100–200 feet before reaching the target in order to be able to line the sight on the target in a shallow diving attack. The dive is not to be continued below 50 feet. Front gun attack practices are only to be carried out by pilots in fighter squadrons and selected pilots of fleet requirements units.

17. *Retractable Under-carriages—Position of wheels on landing.*—Accidents which are caused by an incorrect position of the wheels on landing frequently occur to aircraft with retractable undercarriage. Whenever an observer or passenger is carried therefore, 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. This does not relieve the pilot, however, of the primary responsibility in the matter.

18. *Carriage of Charts and Maps.*—Charts and/or maps of the area, and navigation instruments applicable to the type of aircraft are always to be carried, even on local flights, and by all aircraft in a formation. Both in the interests of safety and to provide opportunities for practice, a plot of the aircraft's movements should be kept during such flights.

SECTION III—SPECIAL INSTRUCTIONS IN REGARD TO CROSS COUNTRY FLIGHTS

1. *Cross-Country Flights.*—(1) 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 establishment, and destined for another ship or air establishment (except flights between ships in sight of each other).

(2) In the absence of special instructions the following instructions are to be applied to all flights out of sight of a parent ship or outside the local flying area of an air establishment.

2. *Responsibility for the Authorisation and Clearance of Cross-Country Flights.*—

(1) The Commanding Officer of the ship or establishment of departure is responsible for:—

(a) The authorisation of a flight.

(b) The clearance for a cross-country or oversea flight.

He may delegate the responsibility for (a) above to a responsible Fleet Air Arm Officer, and for (b) above to the Commander or Lieutenant-Commander (Ship's Air Staff) in a ship, or to the Flying Control Officer of the watch at an air station.

(2) Before authorising a flight, the officer responsible for (1) (a) above is to take into account the flying experience and capability of the pilot, or of the leader of the formation if there is more than one aircraft.

(3) Before clearing a flight, the officer responsible for (1) (b) above must:

(a) Ensure that the flight has been authorised in accordance with clause (2) of this paragraph.

(b) Brief the pilots and crews of all aircraft in accordance with the relevant regulations and flying restrictions, taking into account all the meteorological information available to cover the whole area or route of the flight.

(4) Whenever an aircraft lands at an air establishment other than its own during the course of a cross-country flight, the senior officer of the aircraft is to obtain the authority of the Commanding Officer of that establishment (or his deputy) before continuing the flight. This instruction is subject to the provisions of sub para. (5).

(5) When a departure message is prefaced by the word "Practice", the Commanding Officer of the intermediate establishment (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). This information is, if possible, to be obtained by telephone from the pilot's unit.

(6) Clauses (1) (a), (2) and (4) do not apply to an aircraft of which the Senior officer is of equal or superior rank to the Commanding Officer of the establishment of departure, or intermediate establishment, whichever is applicable. They also do not apply to a Staff officer of a Naval or Royal Air Force Command or officer serving at the Admiralty if of the equivalent rank of Lieutenant-Commander or above. Nor do they apply if the pilot is an officer on the staff of a Flag officer, or one of a Meteorological flight, or an officer of a Communications squadron (subject to the qualifications laid down in paragraph 11 (8) below.) Such officers may continue their flight subject to the necessary clearance being obtained from the establishment from which the officer wishes to depart in accordance with paragraph 2 (1) above.

3. *Procedure for Cross-Country Flights by Day or Night and Over Sea.*—

(1) Aircraft detailed for a cross-country flight by day or night, or for an over-sea flight are to be fitted, so far as is practicable, with radio apparatus. Aircraft so fitted are to establish communication with a W/T or R/T station as soon as possible after the beginning of a flight, and are not to leave the vicinity of the ship or air establishment until the "GO" signal has been received. Aircraft are to broadcast their call-sign at least once every twenty minutes and are normally to transmit their position or a navigational signal to the ship or establishment with which they are in communication once every hour during the flight.

(2) Aircraft detailed for a cross-country flight by night are always to be fitted with radio apparatus, except when two or more aircraft are in company. In the latter case the leading aircraft must be fitted with radio apparatus, but the remaining aircraft need not be so fitted provided that the pilots are not qualified to carry passengers. The procedure laid down in clause (1) is to be carried out.

(3) The instructions contained in clause (1) do not apply to operational flights for which special instructions are issued, nor do they apply where instructions to observe W/T or R/T silence are in force.

4. *Signal Publications to be Carried in Aircraft.*—(1) The following S.Ps. only should be carried by aircraft :—

(a) Syko machine.

(b) Syko cards covering the period of the flight only.

(2) Unless the books carried are in excess of those permitted by clause (1), telegraphic reports of S.Ps. in aircraft lost in action or as the result of an accident are not to be rendered. An Acquaint note is, however, to be forwarded to Admiralty (Head of Military Branch), stating that the books concerned have been written off charge.

(3) Where books in excess of those authorised are carried, a telegraphic report is to be rendered giving details of the books lost, the reason for the loss, and stating by whose authority they were carried.

5. *Meteorological Information for Aviation.*—(1) A meteorological office is normally attached to Naval Air Stations and R.A.F. Stations. The functions of a meteorological office staff are :—

(a) To make meteorological observations at standard times and when required to transmit them in code to the Meteorological Office, Air Ministry.

(b) To construct synoptic charts at standard times from the collective messages of weather conditions distributed by the Meteorological Office, Air Ministry, and to interpret the sequence of weather phenomena, present and future, disclosed by such charts.

(c) To supply routine weather forecasts of expected conditions over specified areas for specified periods.

(d) To describe promptly and accurately present weather conditions over the route of any intended flight.

(e) To provide weather forecasts for all intended flights.

(f) To issue warnings of gales, squalls, frost, etc., to the Flying Control Office to ensure the safety of aircraft on the ground.

(g) To supply on request a summary of weather conditions at the intended point of arrival to aircraft in flight.

(h) To supply to the Flying Control Office an up-to-date summary of weather conditions at selected airfields

(2) It is *not* a function of a meteorological office staff to give a decision concerning the suitability of the weather for flying.

(3) In order that aircraft crews ordered to make cross-country flights may be supplied with the latest meteorological information both before and during flights, the following procedure is to be carried out.

(a) *Before Flight.*—(i) In addition to the briefing laid down in Section VI, paragraph 7 (b), the senior officer of the aircraft about to undertake a cross-country flight is to visit the meteorological office and obtain information about the following :

Present weather conditions and forecasts of future weather conditions on the route, together with a general knowledge of weather conditions elsewhere in case a change of plan becomes necessary.

(ii) An officer ordering a cross-country flight is to give as long notice as possible to the Meteorological Officer. The expected time of departure, route to be followed, and estimated duration of flight should be given.

(iii) Whenever necessary, special present weather reports from Naval Air and R.A.F. stations are to be obtained by telephone by the Meteorological Officer preparing the forecast.

(iv) When a Meteorological Officer is available no flight is to be undertaken on a report of weather conditions at the intended point of arrival which has been requested and obtained by an officer or rating not belonging to the meteorological staff.

(v) Route forecasts should include information on the following : Wind at surface, in compass points and knots ; upper winds (at 2,000 feet and at other heights if requested) generally in degrees from true North, and knots ; weather ; amount and height of base of low clouds in tenths of sky covered and feet above sea level ; visibility in yards and miles ; other relevant information. If it is known or expected that high ground along any section of the route is, or will be, in cloud, this is to be explicitly stated.

(b) *During Flight.*—(i) An aircraft fitted with radio is, if in doubt, to request a summary of landing conditions at the intended airfield of arrival.

(ii) This request is to be passed immediately by the W/T officer or Flying Control Officer of the watch, as appropriate, to the Meteorological Officer, who is to prepare a report and pass it to the W/T Officer or Flying Control Officer of the watch for transmission.

(iii) Adequate time is to be allowed by the aircraft for preparation and transmission of these messages.

(iv) The messages should normally be passed in code to multi-seater aircraft, and in code or plain language with fighters, in accordance with current procedure.

(c) *After Flight.*—Whenever practicable pilots and observers are to make weather observations during flights and are to communicate them to the Meteorological Officer at their station of arrival.

(4) Pilots and observers are to make themselves familiar both with the code used by synoptic reporting stations for reporting weather conditions and the technical terms used in forecasts. They are also to take every opportunity of visiting meteorological offices to study current synoptic charts.

(5) When meteorological personnel are not available at a Naval Air Station, all necessary meteorological information is to be obtained by the Flying Control Officer of the watch by telephone from the Meteorological Officer of a neighbouring Naval Air Station or R.A.F. station.

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

(7) Gale warnings are issued by the Admiralty as laid down in current orders.

6. *Use of Civil Airfields.*—(1) Unless forced to do so by reason of engine or structural failure, stress of weather, or other unavoidable cause, a naval aircraft is not to land at places other than Service airfields, seaplane stations or landing grounds, without prior authority.

(2) All landing fees charged against government aircraft landing at airfields belonging to civil firms which are 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 for that period if the stay is longer.

(3) When an aircraft which is engaged upon a duty flight, lands on a privately owned airfield or remains in excess of 48 hours at the airfield of a civil firm engaged in the training of pilots (*see* sub-paragraph (2) above) the senior officer of the aircraft is to sign a receipt for the services obtained and is to instruct the airfield authorities to render a bill to the Commanding Officer of their parent establishment.

(4) Claims for landing fees at privately owned airfields may be settled by Commanding Officers of R.N. air establishments without prior Admiralty approval. Any other expenses arising out of a forced landing (except those in respect of damage to property or personal injuries) 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. Cash account vouchers showing payment of landing fees are to bear a certificate that the rate paid is that authorised in the airfield licence.

(5) An aircraft which lands on an airfield controlled by the Director General of Civil Aviation or the Ministry of Aircraft Production will not be called upon to pay landing fee.

(6) When using a civil airfield at home or abroad, or when flying in the vicinity of such an airfield, aircraft are to conform to the Rules of the Air, Airfield Rules and appropriate schedules of the Air Navigation (Consolidation) Order, 1923, and amending Orders.

7. *Areas over which Flying is Prohibited or Restricted.*—All pilots and observers are to make themselves acquainted with the routeing orders applicable.

8. *Responsibilities of the Senior Officer of an Aircraft before and after a Cross-Country Flight.*—(1) Before departing from, and after arrival at any establishment by air, the senior officer of the aircraft is to report to the Flying Control Officer of the watch the details necessary to enable him to comply with paragraph 10.

(2) On arrival, the senior officer of a visiting aircraft is responsible for informing the Flying Control Officer of the watch and the duty flight of his maintenance requirements. He is also to follow any warnings issued about weather deterioration or other conditions liable to affect the safety of his aircraft.

(3) If at an air establishment an aircraft is parked out or moored on the water, the senior officer of the aircraft is to report to the Flying Control Officer of the watch that it has been properly secured.

(4) The senior officer of an aircraft which is leaving a ship or air establishment 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 establishment of the responsibility for authorising the continuation of the flight (see paragraph 2) or of cancelling it if he considers it advisable.

9. *Responsibility for Guarding Naval Aircraft Landed from H.M. Ships.*—When an aircraft is landed at naval establishments from H.M. ships for collection by naval or R.A.F. salvage parties, the ship landing the aircraft is to turn it over to the local naval authority, who will be responsible for providing a guard over the aircraft, or any portion of it, until it has been entirely removed by the salvage party.

10. *Reports of Aircraft Movements.*—(1) *Between Ship and Shore.*—(a) Sufficient notice of movement is to be given by the station of departure to the station of arrival to enable both to set a safety watch prior to the movement (subject to the prevailing state of W/T and R/T silence). The following information should be passed :—

(i) *For a single aircraft :* Type and official number.

For a formation : Total number of aircraft, type and unit.

(ii) Destination.

(iii) Proposed time of departure.

(iv) Wave frequency to be used by aircraft. :

(v) Expected time of arrival of aircraft (E.T.A.).

(b) Thirty minutes before the proposed time of departure, both the 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 similar form 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 or R/T watch.

(2) *Between Shore Establishments.*—(a) The station of departure is to report the movement of all aircraft. All messages are to be given an indication of priority, and are to be despatched as follows :

(i) *Departure.* Departure messages are to be despatched to the air station at which the aircraft will make its next stop and to the air station to which the aircraft belongs. When an inexperienced pilot is sent on a practice cross-country flight, the signal is to be prefaced by the word "Practice" (see paragraph 2 (5)).

(ii) *Arrival.*—Aircraft are not to be reported on arrival at their destination unless an arrival report has been requested by the despatching authority. This request 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 :

(1) They are specially called for by higher authority.

(2) Flights are made over the sea.

(3) Flights are made by important personages. These may be demanded at the despatching authority's discretion whenever it is considered that special conditions such as bad weather, inexperience of the pilot, etc., make it desirable that the arrival of the aircraft should be reported.

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

(iv) Movements of aircraft in accordance with allotment or signal ordering a change of charge are to be reported by signal as having arrived, by the station to whose charge the aircraft has been allotted.

(b) All messages are to be despatched by the Flying Control Officer and recorded in the watch log.

(c) *Form of Messages.*—All messages are to contain the following particulars which are to be reported in the order given :

(i) *Departure of a single aircraft.*

(1) Address to.

(2) Address from.

(3) Type and serial number of aircraft.

(4) Ranks and names of pilot, and senior officer of the aircraft ; and total number of crew and passengers.†

(5) Time of departure.

(6) Destination (only if the message is addressed to two or more stations).

(ii) *Departure of a formation of aircraft.*

(1) Address to.

(2) Address from.

(3) Type and total number of aircraft in the formation.

(4) Rank and name of formation leader, and senior officer of the formation.

(5) Time of departure.

(6) Destination (only if the message is addressed to two or more stations).

(iii) *Arrival of a single aircraft (when demanded).*

(1) Address to.

(2) Address from.

(3) Type and serial number of the aircraft.

(4) Time of arrival.

(iv) *Arrival of a formation of aircraft (when demanded).*

(1) Address to.

(2) Address from.

(3) Type and total number of aircraft in the formation.

(4) Time of arrival.

Note.—†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 is, however, to enter the names of the crew and passengers in the watch log.

(d) Flying Control Officers who originate departure signals concerning aircraft which are scheduled to fly over the sea are to ensure that such signals are repeated as set out below :

<i>Flights over</i>	<i>Authorities to which signals are to be repeated</i>
(i) Irish Sea and North Channel	Training Flying Control Centre, Ramsay, and the appropriate Fighter Group Flying Control Liaison Sector, and in the case of flights over the North Channel, H.Q., R.A.F. in Northern Ireland.
(ii) North Sea and Atlantic Ocean	The appropriate Fighter Group Flying Control Liaison Officer(s) of the area(s) over which the crossing is scheduled.

(e) (i) When special orders are issued by the Admiralty or Air Ministry 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 Admiralty or Air Ministry for information by the Commands through which the aircraft passes. Signals relating to positions during these flights are not required unless any change of programme is occasioned by weather conditions or casualty; in those cases full information is to be given.

(ii) (1) Until the aircraft have arrived in the next ship or Air Station or R.A.F. Command the responsibility for reporting these movements over long distances normally rests with the ship or Air Station or R.A.F. Command in which the flight originated.

(2) In cases where the aircraft are out of W/T touch, the senior officer is responsible for reporting by any available means, arrivals at, and departures from, intermediate landing places to the most accessible Naval or R.A.F. authorities who are to repeat any such message received to the Admiralty and the Air Ministry and any other authorities concerned. When aircraft W/T communication has been established with the next ship or Air Station or Command en route, that station is responsible for reporting movements of the aircraft until the final destination is reached or the aircraft passes out of its control.

(iii) Signals reporting the original departure and final arrival of the aircraft are to contain the particulars detailed in sub-paragraph (c), but at intermediate landing places only sufficient information need be signalled to enable the aircraft to be identified.

(iv) Departure signals of squadrons of naval aircraft are always to be repeated to the Admiralty. When no departure signal is made on account of W/T silence, the arrival signal is to be repeated to the Admiralty.

11. *Reporting of Aircraft Engaged on Non-Operational Flights within the British Isles, which are Overdue or have Crashed or have been Compelled to make a Forced Landing.*—(1) (a) *Flights of over 200 miles; flights over the sea or over sparsely populated areas**: Full details of all flights of over 200 miles or over the sea or over sparsely populated areas are to be notified to the movement liaison section one hour before the estimated time of departure. This instruction is to be complied with irrespective of whether or not the flight is already required to be notified by instructions for the routing of aircraft to the movement liaison section at the nearest fighter group. Such notifications are to state, in the following order:—

Type, aircraft number, airfield of take-off, estimated time of departure, destination, estimated time of arrival and route (if not direct).

In the event of the time of departure being delayed for more than fifteen minutes, or the flight being cancelled, the movement liaison section is to be notified immediately.

(b) *Flights undertaken by Training Aircraft.*—Sub-paragraph (a) above will not apply to aircraft of the training schools detailed to carry out flights routed entirely within non-restricted areas and planned to bring the aircraft back to base without an intermediate landing.

(2) *Responsibilities of Pilots and other Officers for Reporting the Movements of Aircraft.*—In order that the necessary signalling action may be taken, pilots of aircraft are at all times to ensure that their movements are reported to flying control officers or duty pilots. In the event of an aircraft not completing its flight to schedule and being forced to land, or making a landing at an intermediate airfield, the pilot is to ensure that the original Station of destination is informed immediately. Failure to make such notifications will entail the unnecessary reporting of the aircraft as overdue, with the consequent waste of both time and effort.

(3) Further, 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 Naval air unit or Royal Air Force unit, giving all relevant information including the whereabouts and the condition of the aircraft, and stating the unit to which it belongs.

(4) In the event of the report being made to the nearest Naval or R.A.F. unit, the Commanding Officer of the 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.

(5) *Responsibilities of Ferry Pilots.*—Pilots of ferry aircraft are to book in and out with Flying Control Officers or duty pilots at R.A.F. airfields and Naval Air Stations and with A.I.D. inspectors at factories. Should they be obliged to make an intermediate landing, they are to ensure that their Station of destination is at once informed in order to prevent "overdue" action being taken. Ferry pilots may request that their flights should not be signalled if the flight to be undertaken does not fall within the category of those over 200 miles or over the sea or over sparsely populated areas. It is not necessary for ferry pilots to notify their flights one hour before the estimated time of departure (as detailed in sub-paragraph (1) (a) above), if they consider that such delay would inconvenience a delivery flight.

(6) *Notification of Crashes and Forced Landings.*—Any information which is received by any Naval Air Station concerning an aircraft which has made a forced landing or crashed, is to be reported immediately by the Flying Control Officer of the Watch or the Watch Officer to the Flying Control Liaison Officer at the nearest Fighter Group Headquarters or, alternatively, to the Duty Officer, Air Ministry (A.S.4).

(7) *Routing of Telephone Calls.*—Whenever possible, all telephonic communications are to be made on the R.A.F. tie-line system and should be prefixed "Priority One, Flying Control". If it seems likely that there will be a delay, G.P.O. lines may be used. In this case the prefix "Priority One" only should be quoted.

(8) *Ferry Pilots.*—The terms "Ferry Pilot" and "Pilots of Ferry Aircraft" used in this paragraph apply only to those pilots employed in a permanent appointment to a Communications Squadron or Ferry Pool who have been granted a certificate to the effect that these provisions apply to them by their Commanding Officer. These certificates are to be issued for a period of a year and are to be surrendered on relinquishing the appointment for which they are granted.

* Sparsely populated areas are defined as follows:—

Large expanses of moorland or mountainous country, e.g., Scottish Highlands, Cheviots, Pennines, Yorkshire Moors, Dartmoor, Exmoor, etc.

12. *Aircraft Overdue—Procedure at Home.* (1) *On flights between two shore stations.*—(a) At an airfield of destination the Flying Control Officer who has received a departure signal concerning an aircraft which has failed to arrive within one hour of the estimated time of arrival is to report the aircraft overdue to the Air Ministry (A.S.4) (Ops.) and, also, if the flight involved a sea crossing, to the Flying Control Officer of the appropriate formation detailed in paragraph 10 (d) above.

(b) When information concerning an aircraft which has made a forced landing or has crashed when engaged on a non-operational flight is passed to an R.N. or R.A.F. unit or formation, the Commanding Officer of the unit or formation is to ensure that such information is reported immediately to the Air Ministry (A.S.4 (Ops.)), together with all relevant details of the incident.

(c) When they are notified that an aircraft is overdue, Flying Control Liaison Officers at Fighter Group Headquarters and the Flying Control Officer, Training Flying Control Centre, Ramsay, will endeavour to trace the aircraft by the various means at their disposal and will pass all relevant information to the Air Ministry (A.S.4 (Ops.)).

(d) The Air Ministry (A.S.4 (Ops.)) is responsible for—

- (i) co-ordinating all reports of aircraft which are engaged on non-operational flights and are reported as being overdue or having crashed or made a forced-landing;
- (ii) informing airfields of destination when aircraft reported overdue by them have been located;
- (iii) originating signals to all flying units three hours after the estimated time of arrival at the airfield of destination, giving details of aircraft reported overdue;

(iv) organising search parties in conjunction with the appropriate civil defence regional commissioners, when it is apparent that an aircraft is missing on a non-operational flight and is believed from the information available to have crashed within the United Kingdom.

(e) If it is apparent that an aircraft which is reported overdue has crashed or has been forced to alight in the sea, it is the responsibility of the officer commanding any R.N. or R.A.F. unit which receives information regarding the incident to put into operation the Air/Sea Rescue Organisation, and then to inform the Air Ministry (A.S.4 (Ops.)) in accordance with current Air Ministry instructions.

(f) All communications concerning an aircraft which is reported as being overdue, or having crashed or made a forced landing, should be made by telephone and, wherever possible, over the private wire telephone system. When the private wire system is not available, G.P.O. lines are to be used. When made over G.P.O. lines, all such telephone calls are to be given "Priority One" and when passed over the private wire telephone system are to be given "Priority One, Flying Control".

(g) Should either the station of departure or of arrival receive notification that the aircraft has landed or crashed 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 informed that the aircraft is missing.

(2) *Over the sea in the vicinity of the British Isles.*—(a) In the event of aircraft engaged in operations or exercises over the sea being reported overdue, the ship or station concerned is immediately to notify the local Naval authorities and the Flying Control Liaison Officer at the appropriate A.C., H.Q., in order that they may put the Air/Sea Rescue Service into force.

(b) Reports should contain as many as possible of the following particulars:—

(i) If crash or air crews are seen in the sea, or descent by parachute is observed and no local action can instantly be taken to effect a rescue—Time, position, details.

(ii) If information is based on a distress signal—

(1) The position and time of the S.O.S.

(2) If known, the height of aircraft at the time of the S.O.S.

(3) The wind direction and force at the position.

(4) The estimated course of the aircraft.

(iii) The possible positions in which it is estimated the aircraft may hit the water, assuming—

(1) The aircraft will attempt to land up wind.

(2) The aircraft will land on its present course.

(c) Full details of the Air/Sea Rescue Organisation, the relative responsibilities of Naval and R.A.F. authorities, are given in current orders.

13. *Non-Official Flights.*—All non-official flights are to be authorised by the Captain. Naval aircraft are not to be used for non-official flights except to Naval or Royal Air Force stations, or licensed civil airfields or to H.M. ships.

14. *Reports of Aircraft Movements Abroad.*—Responsibilities similar to those laid down in paragraphs 10, 11 and 12 rest with units abroad in so far as local circumstances may require.

15. *Customs.*—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 may be required for consumption by the crew on the flight.

16. *Movement of Livestock by Air.*—No live animals, reptiles, birds or fish are to be taken into the air, except carrier pigeons if the carriage of these has been authorised for safety reasons.

SECTION IV—REGULATIONS RELATING TO FLYING ACCIDENTS AND FORCED LANDINGS

1. *Procedure after Forced Landing.*—(1) 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 always 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, 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 secret equipment, confidential books, etc., carried in the aircraft do not fall into unauthorised hands.

(4) The Senior Officer of the aircraft is to ensure that all guns carried by the aircraft are unloaded; that the engine and petrol are switched off, and that the accumulator is disconnected. Wherever practicable all explosive stores are to be placed in a "safe" condition.

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

(6) After a 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 Naval Air or Royal Air Force unit giving all relevant information of 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. Should the pilot carry out a successful forced landing he is on no account to take off again until he has first obtained permission from the Commander (F) of his ship or station; and until the aircraft has been examined and passed as fit to fly by the Air Engineer Officer. This restriction, however, need not apply where the forced landing takes place at a recognised aerodrome.

(7) In the event of the report being made to the nearest Naval Air or R.A.F. unit, the Commanding Officer of that unit will inform the unit to which the aircraft belongs of the incident. He is then to take charge of the aircraft. (See paragraph 3 (2)).

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

(9) When any damage is caused to telegraph wires near railway lines the Senior Officer of the aircraft is immediately to inform the station master at the nearest railway station. Damage to wires bordering roads or canals is to be reported to the nearest telephone exchange.

(10) All squadrons at home and abroad are to keep a complete record of all flying accidents and forced landings or forced alightings on water. Duplicates of all accident reports are to be retained in squadron records.

2. *Forced Alightings on Water.*—(1) (a) In order to ensure that Naval aircraft crews are familiar with the procedure to be carried out in cases of forced alighting on water, Squadron Commanders are to take steps to instruct their squadrons in the location and method of use of the emergency equipment provided. Frequent drills are to be carried out, and demonstrations given of action to be taken—

(i) Preparatory to making a forced alighting;

(ii) After the aircraft has struck the sea.

(b) Confidence in the use of the equipment can only be gained by regular practice, and it is therefore most important that whenever possible the Commander (Flying) and Squadron Commanders should arrange for aircrews to witness or undertake either "wet" or "dry" drills at intervals of not longer than a fortnight. The drills should include the inflation of dinghies either "K" or multi-seat type, the use of emergency equipment and the correct procedure to be adopted at the time of forced alighting.

(2) Pilots are to be responsible for seeing that all emergency equipment which should be carried in their particular type of aircraft is actually fitted, and that they and all members of their crew are fully conversant with the location of such equipment and the method of operating it. (See also Section IX.)

3. *Safeguarding Crashed Aircraft—Duties of Guards.*—(1) 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 which has been caused by the crash. Where practicable, a temporary wire fence or other suitable barrier is to be erected round the crashed aircraft to prevent unauthorised persons obtaining access to it. 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 him.

(2) Responsibility for the provision of a guard on all crashed aircraft, whether British, Allied or Enemy, rests :—

(a) With the nearest Naval Air Establishment (provided that a R.M. attachment is available), R.A.F. airfield or establishment, or M.A.P. airfield where a detachment of the R.A.F. Regiment is located, or U.S. Eighth Air Force, within a 10-mile radius of the crash.

(b) If there is no establishment or unit as defined in sub-paragraph (2) (a) above, within a 10-mile radius of the crash, the responsibility for providing a guard will lie with the nearest Army unit, provided that one of the establishments or units mentioned in sub-paragraph (2) (a) above is not nearer than the nearest Army unit.

SECTION V—RULES OF THE AIR

1. *General Rules of the Air.*—(1) Rules concerning lights, signals and rules for air traffic are laid down in Air Navigation Orders in Council, issued under the Air Navigation Acts, 1920 and 1936, and subsequent amendments. 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 strictly observed by naval aircraft at all times except where they have been modified for Naval or R.A.F. airfields by current service regulations.

(2) The relevant Air Navigation Orders relating to the above rules will be reprinted from time to time in Admiralty Fleet Orders. Where in these Orders rules for airfields open to public use are stated they do not apply to service airfields even though in certain circumstances these may be open to public use.

2. *Formation Station-keeping.*—Unless they are modified by the Administrative authorities the current instructions for station-keeping are to be observed by naval aircraft when they are flying in formation.

3. *Rules of the Air at R.N. Air Stations.*—(1) An aircraft approaching an airfield for the purpose of landing is responsible for avoiding all aircraft flying at a lower altitude. Should danger of a collision arise, however, the aircraft flying at a lower altitude are to assume that they are overtaking aircraft and follow the instructions laid down for aircraft overtaking on the ground. (See Section VI, paragraph 15 (2)).

(2) An aircraft which is showing signals of distress or which is apparently in difficulties is to be given free way when it is attempting to land.

(3) Aircraft taking off or taxiing are responsible for ensuring that they do not take off or taxi across the path of an aircraft about to land or landing, or about to alight or alighting on water.

(4) At every R.N. Air Establishment at which there is an airfield or seaplane alighting area a sleeved streamer of standard size and pattern is to be flown continuously to indicate the direction of the wind. It must be placed in some conspicuous position where it will be clearly visible from the air.

(5) Where an airfield is wholly or partly unserviceable or obstructed—

(a) The Commanding Officer of the establishment is responsible for ensuring that any bad ground and any temporary obstructions on the airfield which are not easily seen by pilots either from the air or from the ground are indicated wherever possible by the markings prescribed in current R.A.F. regulations.

(b) Tractors and other vehicles employed on airfields are to display markings as laid down in current R.A.F. regulations.

(c) The Commanding Officer is to report by signal to all appropriate Naval, R.A.F. and civil authorities if the airfield 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) The nature and position of the unserviceable area or obstruction.

(ii) The 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 airfield.

(d) When the area becomes serviceable or is no longer obstructed the Commanding Officer of the establishment is to report the fact by signal to the authorities referred to in (5) (c).

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

4. *Rules of the Air at R.A.F. Stations.*—The Air Ministry rules corresponding to those in this section are to be observed by all naval aircraft visiting R.A.F. stations.

SECTION VI—FLYING CONTROL AND AIRFIELD TRAFFIC PROCEDURE

1. *Objects of Flying Control.*—(1) The objects of introducing Flying Control at R.N. Air Stations and Seaplane bases are—

(a) To ensure that a uniform procedure for the control of aircraft, in common with the current R.A.F. procedure, is carried out.

(b) To ensure the exercise of strict supervision and control of all local flying and traffic.

(c) To ensure that a high standard of flying discipline is enforced.

(d) To enable aircraft to be operated in conditions of low visibility.

(e) To reduce the number of accidents.

(2) It is the responsibility of the Chief or Senior Flying Control Officer to see that the current orders and regulations designed to fulfil these requirements are strictly and conscientiously carried out.

2. *Control Position.*—The supervision and control of all local flying and airfield traffic will be centred in the Flying Control Office in the Control Building, and a Flying Control Officer is to be on watch in the Control Building and/or slipway Watch Office at all times when flying is in progress.

3. *Airfield Dummy Deck Landing Control.*—Commanding Officers of specialised Flying Training Establishments and Air Stations at which Deck Landing Practice is carried out, may delegate responsibility for the conduct of local training flying to Deck Landing Control Officers and/or selected Officers of the Instructional Staff, provided that close liaison with the Flying Control Officer of the Watch is maintained.

4. *Responsibilities of Chief or Senior Flying Control Officers.*—The Chief Flying Control Officer (or at stations where no Chief Flying Control Officer is borne, the Senior Flying Control Officer, who will be known as such) will be responsible to the Commander or Lieutenant Commander (Flying) for—

(a) The general organisation, efficiency and supervision of the Flying Control Staff.

(b) The efficient condition of all flying aids, safety arrangements, Ground Signals Equipment, and Air/Sea Rescue Equipment.

- (c) The reporting of all obstructions on the airfield or sea-alighting area to the appropriate Naval and R.A.F. authorities.
- (d) The recording, for display in the Flying Control Office, of the current recognition procedure, the latest report of the serviceability state of airfields and all warnings with regard to flying obstructions and dangers to air navigation.
- (e) The custody and amendment of the relevant publications, maps and charts.
- (f) Displaying in the Flying Control Office a plan of the airfield and/or seaplane alighting area, and a plan of the local flying area showing practice areas and ranges.
- (g) Maintaining liaison with the meteorological and appropriate specialist officers.
- (h) Maintaining liaison with the Flying Control Liaison Officer at the appropriate R.A.F. group and/or section.

5. *Flying Control Staff.*—The organisation of the Air Watch at Naval Air Stations and seaplane bases should provide such of the following assistants to the Flying Control Officer of the Watch as may be considered necessary :—

- (a) One or more Air Watch Officers.
- (b) Signalmen of the Air Watch.
- (c) Telephone Operators of the Air Watch.
- (d) Messengers of the Air Watch.
- (e) The Runway Controller.

6. *Flying Control when no qualified Officers are Borne.*—Where qualified Flying Control Officers and Staff are not provided Commanding Officers are to detail suitable officers and staff to carry out local control of flying.

7. *Duties of Flying Control Officer of the Watch.*—The Flying Control Officer of the Watch will be responsible to the Chief or Senior Flying Control Officer for the supervision of the Flying Control Staff of the Watch, and of the Runway Controller and Deck Landing Control Officer. He is not to leave his place of duty unless properly relieved. His duties are :—

- (a) To ensure that the runways, taxi-tracks and/or seaplane alighting area are inspected before the commencement of each period of Flying and to keep the Airfield Defect Book in accordance with current regulations, and to initiate action on entries being made.
- (b) The briefing, despatch and reception of all aircraft using the airfield or seaplane base except where these duties have been specifically delegated by Commanding Officers under paragraph 3 above. Before allowing an aircraft to proceed he is to ensure that the flight has been properly authorised in accordance with Section II, paragraph 1.
- (c) To ensure that an aircraft that has made a precautionary landing (due to causes other than fuel shortage or stress of weather) free from accident on the airfield or sea-alighting area, is not permitted to take-off until it has been examined and passed as fit to fly by the Air Engineer Officer and until the approval of the Commander or Lieutenant Commander (Flying) has been given.
- (d) The local control of aircraft by radio or visual means (including the control of all aircraft taxiing, taking-off, flying in the circuit area, approaching or landing by night), the control of descents through cloud and of assisted landings in bad visibility, and the supervision of aircraft approaching and landing by day.
- (e) Safeguarding and homing aircraft if required.
- (f) To ensure that the ambulance, crash tender and boats attached to the Air Station for flying safety, and their fire-fighting equipment are instantly available.
- (g) To furnish aircraft in flight with weather information and any navigational assistance they may require.
- (h) To ensure the efficient operation, during his watch, of all night flying equipment, including the landmark beacon and portable lighting for use in the event of failure of the mains operated lighting where fitted. He is also to ensure that the inspections laid down have been carried out and reported to him.

- (i) To ensure a Station Salvage Party and the necessary gear for the removal of local obstructions endangering aircraft traffic are available.
- (j) To arrange the immediate marking of new obstructions or hazards and the reporting of them to the Commander (Flying) and the Chief or Senior Flying Control Officer.
- (k) To ensure the correct positioning and operation, during his watch, of all ground signals equipment and apparatus showing wind direction and the runway in use.
- (l) To maintain watch on the monitoring systems provided for flying aids such as beam approach beacons, etc., and if faults develop, to initiate action, including the issuing of any necessary warnings to aircraft in flight.
- (m) To maintain liaison with the Meteorological Officer during his watch.
- (n) To maintain liaison with the appropriate R.A.F. Group Movement Liaison Officer, the R.A.F. Fighter Sector, and the Royal Observer Corps.
- (o) To initiate action to notify the appropriate R.N. Administrative authorities and the R.A.F. authorities by signal of any change in the serviceability state of the airfield or sea-alighting area, flying aids such as D/F, beam approach, landmark beacons, airfield lighting, etc.
- (p) To initiate action to report all aircraft overdue, in distress, forced-landed or crashed, and to effect immediate diversion or distress and rescue action.
- (q) To report the arrivals and departures of aircraft in accordance with Section III, paragraphs 10 and 11.
- (r) To arrange the reception of visiting aircraft and to ensure that the regulations relating to civil aircraft are complied with.
- (s) To maintain a control log covering assistance given to aircraft, messages sent and received, records of inspections of flying aids, low flying record, cloud flying areas in use and all items of interest.
- (t) To muster, at the beginning and end of his watch, all publications held in the Flying Control Office in connection with flying, and all signalling apparatus supplied for the control of aircraft.

8. *Signalmen of the Air Watch.*—Signalmen of the Air Watch will normally be telegraphist air gunners. They will carry out their duties in the Control Building and/or by the runway in use as ordered. They will be responsible to the Flying Control Officer of the Watch for :—

- (a) *In the Control Building.*—The provision of binoculars, two signal lamps one with a red and one with a green screen, two signal pistols and the necessary cartridges, signal mortar and the necessary ammunition or signal rockets, and for making and receiving signals by V.S. or radio, to and from aircraft, runway and Deck Landing or Flare Path Control, or safety boats as directed by the Chief or Flying Control Officer of the Watch.
- (b) *On the runway in use.*—The provision of two signal lamps, one with a red and one with a green screen, two signal pistols and the necessary red signal cartridges, and, if required, a shaded signal lantern for communication with the Control Building, and for making and receiving signals as directed by the Runway, Deck Landing Control Officer or Officer-in-Charge of the Flare Path by V.S. or radio to or from aircraft or the Control Building.

9. *Air Watch Telephone Operators.*—Air Watch Telephone Operators will normally be Naval Airmen (G.D.), Able Seamen or Ordinary Seamen. They will carry out their duties either in the Control Building or by the runway in use. They will be responsible to the Flying Control Officer of the Watch for the operation of the telephone communication normally provided between the runway, deck landing or flare path control position and the Flying Control Office.

10. *Air Watch Officer.*—The Air Watch Officer may be either a Flying Control Officer, an Officer under training awaiting a Flying Control Course, or a (P) or (O) Officer or rating selected by the Commanding Officer. He will carry out his duties in the Control Building (or such other Control Office which may be established)

at either a slipway or an adjacent satellite airfield as ordered. He will be responsible to the Flying Control Officer of the Watch for such duties as the Chief Flying Control Officer may assign to him.

11. *The Runway Controller.*—When Runway Control is in force, a Runway Controller is to be established in a mobile van, hut or trailer, or a movable canvas windbreak, not more than 50 yards clear of and at the lee end of the runway in use, abreast of No. 1 flare or pillar light position (whichever is applicable) and on the port side of aircraft landing or taking-off. The vehicle or windbreak is to be painted overall in black and yellow, or black and white, squares. It will normally be in direct telephone communication with the Flying Control Officer of the Watch. The Runway Controller is responsible to the Flying Control Officer of the Watch for :—

- (a) The visual control of the approach and landing of all aircraft by night.
- (b) The refusal of permission to land if the path of the on-coming aircraft is obstructed.
- (c) The refusal of permission to land if aircraft approach with undercarriage retracted, if there is danger of collision or other accident, or on the instructions of the Flying Control Officer of the Watch.
- (d) The refusal of permission to an aircraft to leave the marshalling point or to take-off by day, if to do so would cause an accident or obstruct aircraft approaching to land, or take-off.
- (e) The control of aircraft from the marshalling point to take-off by night.
- (f) The control of all traffic in the vicinity of the runway in use or using adjacent runways, perimeter track or taxi-tracks.
- (g) The reporting to the Flying Control Officer of the Watch of crashes, forced-landings, breaches of flying discipline, unusual movements of aircraft, and the use of any non-standard signals.
- (h) The correct positioning of the auxiliary " T " marking the runway in use.
- (i) The correct siting of all portable night-flying equipment and checking the settings of the sector lights or angle of approach indicators under the direction of the Officer-in-Charge of Night-Flying.
- (j) The reporting to the Flying Control Officer of the Watch and the Officer-in-Charge of Night-Flying, of any failure of Night-Flying lighting or equipment.

12. *The Deck-Landing Control Officer.*—When deck landing practice (*vide* paragraph 3 above) is being carried out, the Deck Landing Control Officer will be responsible by day to the Flying Control Officer of the Watch and by night to the Officer-in-Charge of Night-Flying for :—

- (a) The control of the approach and landing of Naval aircraft by means of control bats in accordance with the procedure given in C.A.F.O. 2014/43.
- (b) Such duties of the Runway Controller as may be delegated to him by the Commanding Officer.

13. *Officer in Charge of Night Flying.*—(1) The Commander (Flying) will normally act as the Officer in Charge of Night Flying. In the absence of the Commander (Flying) the duty of Officer in Charge of Night Flying is to be carried out by such Senior Officers as are appointed by the Captain. Such Officers are either to be qualified Pilots or to have been in command of a Squadron.

(2) The Officer in Charge of Night Flying is normally to stay in the Control building. Prior to the commencement of Night Flying he is to ensure that all concerned are acquainted with :—

- (a) The layout of and method of use of the lighting system to be employed.
- (b) The position and code group of the landmark beacon.
- (c) The position of any guide or pilot vehicles in use.
- (d) The call signs to be used.
- (e) The action to be taken in the event of enemy aircraft arriving in the vicinity.

(3) He is to ensure that the Sector Lights or angle of approach indicators have been correctly set out and set up at the prescribed angles.

14. *Traffic Procedure.*—(1) *Aircraft taking-off by Day.*—(a) No aircraft is to proceed from its apron or dispersal track on to the perimeter taxi-track, or grass taxiway or runway being used in lieu, without the permission of the Flying Control Officer of the Watch.

(b) On leaving the apron or dispersal point, aircraft are to follow the taxi-track to a selected position clear of, and adjacent to, the runway in use. Except under special circumstances the selected position is to be the marshalling point. On permission to take-off being received, the Pilot is to take-off without delay, after satisfying himself that no aircraft is about to land and that there are no obstructions in the way of his take-off run.

(c) Except when formation flying or carrier take-off procedure have been authorised by the Commander (Flying), an aircraft is not to begin to take-off until an aircraft in front is airborne.

(d) On all grass airfields aircraft moving in the landing area are normally to do so in the direction of landing. They may, however, cross the landing area to reach the boundary, provided : that in the course of this movement, turns are always made to port ; that aircraft taking-off or landing are not obstructed ; and that the rules of the road are obeyed.

(e) On airfields provided with hard-surfaced runways, aircraft movement is to be along the duty graded grassed landing strip and associated runway in the direction of landing. Aircraft may turn off the runway across the landing strip or down an intersecting runway, to reach the perimeter taxi-track, provided that aircraft taking-off or landing are not obstructed and the rules of the road are obeyed.

(2) *Aircraft Landing by Day.*—(a) Before approaching to land, an aircraft is to make at least one complete circuit at a height of 1,000 feet (cloud base permitting) at a distance of approximately 1,000 yards from the perimeter and at reduced speed. The circuit is to be left-handed unless the appropriate ground signal indicating that a right-hand circuit is in force is displayed.

(b) Unless specifically authorised to do so aircraft are not to enter the circuit area except for the purpose of landing.

(c) At airfields provided with hard-surfaced runways, an aircraft unable to use the runway in use is to land parallel and adjacent to it.

(3) *Aircraft taking-off by Night.*—(a) An aircraft is not to proceed from its apron or dispersal track on to the perimeter taxi-track (or taxi-way or runway being used in lieu) without the permission of the Flying Control Officer of the Watch in the Control Building. This may be obtained by visual signal, taxi control telephone or radio as ordered. When it is obtained the aircraft is to proceed to the appropriate marshalling point.

(b) An aircraft is not to proceed from the appropriate marshalling point and take-off without permission from the Runway Controller or Deck Landing Control Officer. This may be obtained by visual signal or by radio as ordered. When permission is given, the take-off is to be made with the minimum of delay. If permission to take-off is later cancelled, the aircraft is immediately to turn off the flare path by the quickest route.

(4) *Aircraft Landing by Night.*—(a) Aircraft circling the airfield waiting to land should normally fly over 1,000 feet above the airfield level.

(b) No aircraft is to land without permission from the Runway Controller or Deck Landing Control Officer. This may be obtained by visual signal or radio as ordered. On completion of the landing, the aircraft is to leave the runway with the least delay, but using only the authorised taxi-ways.

15. *Aircraft Taxying.*—(1) Aircraft are to taxi at a moderate speed having regard to the existing circumstances.

(2) In the event of it being necessary for an aircraft taxying 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.

(3) Aircraft taxying are to obey the current instructions and regulations for the prevention of collision at sea.

16. *Safety Precautions Regarding Taxi-Tracks.*—(1) The officers concerned are to ensure that :—

- (a) Aircraft and vehicles are parked, and that all temporary obstructions such as pickets, petrol drums, trailers, etc., are kept a minimum of 80 ft. from the centre line of perimeter taxi-tracks and 40 ft. from the edge of dispersal tracks or authorised grass taxi-ways used in their place.
- (b) An area in which owing to exceptional circumstances there are temporary obstructions within the above limits which cannot be immediately removed is to be properly marked by the authorised means by day or night.

(2) While taxiing, pilots are to exercise constant care to ensure that the way in front of them is clear. Except under special circumstances only the authorised taxi-tracks or grass taxi-ways used in their place, are to be used.

17. *Duty of Aircraft Crews.*—It is the duty of all flying crews to keep a careful lookout for other aircraft when their own aircraft is taxiing, taking-off or landing, and to report all such aircraft which might affect movements of their own to the pilot. A good lookout must also be kept for signals from the control position, both when taxiing and when airborne in the vicinity of the airfield.

18. *Safety Precautions Regarding Runways.*—(1) No aircraft, vehicles or other obstructions (except the runway controller's vehicle or windbreak) are normally to be left :—

- (a) Within 100 yards of the centre line of the graded grass landing strip or runway in use.
- (b) Within 100 yards of the centre line of the two cleared approach areas in use.
- (c) Anywhere in the remainder of the two cleared approach areas in use where they project above a clearance angle of 1 in 50 measured from 50 yards outboard of the round-down light positions (normally at the runway ends).

(2) Should it be essential to contravene the above instructions the orders specified for marking obstructions should be adhered to.

19. *Forced Landing by Night.*—(1) If an aircraft is forced to land, it is to make the forced landing signal and immediately afterwards to switch on identification lights and to keep them on until the landing is completed.

(2) On sighting the forced landing signal other aircraft in the air are to keep clear of the aircraft in distress, and an aircraft which has previously received permission to land is to regard that permission as cancelled and must wait until the aircraft in distress has landed before again requesting permission to land.

(3) On sighting the forced landing signal the officer controlling take-offs and landings is to cancel any permission to take off or land which has been previously given to other aircraft but not yet put into effect. He is also to take any other steps that may be necessary in order to ensure that the flare path may be cleared as quickly as possible.

20. *Recall.*—When a recall signal has been made, aircraft are still required to obtain permission before landing.

21. *Enemy Action.*—Station Orders setting out the procedure to be followed by all concerned in the event of enemy action are to be laid down by the Commanding Officers and are to be followed after due consideration has been given to existing circumstances and local conditions. As a general rule aircraft in the air which cannot be landed locally should be stood off at various heights in pre-determined waiting positions related to a landmark beacon, or else they should be diverted to another airfield which is clear of enemy action.

22. *Lights to be Exhibited by Aircraft.*—(1) Navigation lights are to be lighted when aircraft are taxiing, taking off, circling the airfield and landing, unless enemy action makes this undesirable. In the latter case, a pilot car is to be used if more than one aircraft is on the taxi-way in use.

(2) When carrying out a controlled landing, the lights specified in current regulations are to be shown.

23. *Lights to be Exhibited by Pilot Motor Transport.*—A red/green signalling device (red "STOP", green "FOLLOW"), the power of which can be adjusted to suit the conditions of the night, is to be carried.

SECTION VII—REGULATIONS RELATING TO AIR NAVIGATION

1. *Compass Adjustment.*—(1) All compasses in an aircraft are to be adjusted on the following occasions :—

- (a) On the acceptance of the aircraft for service.
- (b) On a change of position or a replacement of any magnetic material in the vicinity of the compass (e.g. change of 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 the 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 prior 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 on any one heading for a period of 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.

(2) In addition to the special occasions referred to above, the compasses of Naval 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, or as an Operational Reserve.

SECTION VIII—REGULATIONS RELATING TO ARMAMENT

1. *Squadron Air Gunnery Officer.*—(1) Where no qualified Air Gunnery Officer is borne, a suitable officer is to be detailed by the Senior Officer of the unit to be responsible to him for :—

- (a) The technical work of the (O) ratings.
- (b) The maintenance and the state of readiness for service of all air armament equipment.
- (c) Instructing pilots in current air gunnery regulations and other air gunnery matters, and assisting them generally to comply with these.
- (d) The returns and records of air armament training.
- (e) The squadron armament stores.

(2) When a qualified Air Gunnery Officer is borne and appointed for Air Gunnery duties, he will undertake these responsibilities.

2. *The Fitting, Testing and Custody of Armament Equipment in Aircraft.*—In order that the aircraft may be in a state of constant readiness for war service the Commanding Officer of a Naval Air Unit is to ensure that the following procedure is adopted in the unit under his command :—

- (a) Each aircraft on receipt is to have all its war armament equipment fitted and tested and this is to be noted in the aircraft log book.
- (b) The removable armament fittings, except fixed guns, gun mountings and synchronising gears, may be removed from the aircraft, after they have been fitted and tested. They are, however, to be kept assembled and properly labelled with the number of the aircraft in the unit's stores, and kept 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 this is to be recorded in the aircraft log book. Such tests are to be independent of any carried out during inspections.
- (d) The fixed guns of the initial equipment of all aircraft are to be tested in the air if possible, not less frequently than once a month.

3. *Air Gunnery and Bomb Dropping—Precautions.*—(1) The Commanding Officer of a unit is not to permit any armament practice on the airfield without the permission of the Commanding Officer of the Station concerned; nor is he to allow any armament practice to be carried out over any area other than that approved for use for such purposes.

(2) When armament 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.

4. *Housing of Aircraft Fitted with Explosives or Pyrotechnics.*—Except in an emergency, and when the consent of the Captain has been given, no aircraft fitted with explosive weapons or pyrotechnics (other than safety equipment and signal cartridges) is to be housed or stored under cover; and all weapons, including signal pistols, must be unloaded at the end of each flight. In giving his consent the Captain is to ensure that warning notices are placed on the aircraft concerned.

5. *Explosive Stores Carried in Aircraft.*—(1) Apart from the normal offensive and defensive equipment of aircraft, explosives may only be carried in Naval aircraft if properly packed in their service packages. This instruction does not apply to unfuzed bombs, which may be carried in their service bomb carriers. Explosives, including Small Arms Ammunition, whether as normal equipment of any aircraft, or in bulk, are only to be carried when aircraft are:

- (a) Engaged in active operations.
- (b) Engaged on practice flights in theatres of operations.
- (c) Going to, or returning from, ranges or practice bombing targets. Thickly populated areas are to be avoided.
- (d) Specially authorised by the Commanding Officer of the establishment to carry unfuzed bombs, exploders and Small Arms Ammunition and when other means of transport are not available or are uneconomical. Thickly populated areas are to be avoided.

(2) Whenever explosives are transported by air, an officer or rating must travel with them in the same compartment of the aircraft, his duty being to see that the packages of explosives are securely stowed in the aircraft and remain in the correct position. He should be provided with fire-extinguishers in addition to those forming the normal equipment of the aircraft.

(3) If a forced landing is imminent, packages containing detonators should be jettisoned, but not unfuzed bombs, exploders, relays, Small Arms Ammunition and pyrotechnics.

(4) Warning is to be sent to the establishment or landing ground to which explosives are being flown, so that all measures may be taken to ensure the best conditions for landing.

(5) Subject to the conditions in sub-paragraph (1) above, small quantities of explosives may, in emergency, be transported by air in single-seater fighter aircraft. The explosives must be in their proper packages and those must be so secured that they cannot be accidentally dislodged.

(6) Boxes of explosives may not be carried on the bomb carriers of aircraft as this may cause damage to the carriers. Should it be necessary to carry such boxes externally, the bomb carriers should be removed and the boxes secured to the bomb ribs of the aircraft.

6. *Flying with Guns Loaded.*—(1) On taking their places in the aircraft members of air crews are at all times to ascertain the state of all weapons under their control.

(2) Before wing or other remotely controlled guns are loaded for operations, for training or other purposes, a notice reading "Guns Loaded" is to be placed at the firing button or control position. The aircraft is also to be parked in such a position that the minimum of damage would result from the accidental firing of the armament.

(3) In aircraft other than fighters fixed guns are to be loaded in exceptional circumstances only. In aircraft where recocking mechanism is fitted fixed guns are to be uncocked during flight.

(4) Firing buttons of fixed guns are to be left at "SAFE" and free guns are neither to be cocked nor to have their magazines stripped unless hostile aircraft are sighted.

SECTION IX—REGULATIONS RELATING TO SAFETY EQUIPMENT, ETC.

1. *Wearing of Parachutes, Safety Harness and Goggles.*—(1) The pilot's fighting harness (where provided) or his safety belt must always be secured. His parachute harness is to be secured except when he is landing on the deck, or landing, or forced landing, in the sea. In these cases he may release it if he so desires.

(2) All other occupants of an aircraft are to wear parachute harness. When the parachute pack is detachable it is to be attached to the harness and the harness to the aircraft except when either attachment would interfere with the other occupants' duties in the air, or when taking off or landing on the deck or water, or being catapulted or accelerated. When being accelerated or catapulted or when landing, or forced landing, the other occupants of the aircraft are to be seated and secured by safety belts and by fighting harness if it is provided.

(3) The carrying of parachutes in A.B.R. and communication aircraft may, at the discretion of the Flag Officer concerned, be waived, having due regard to the service on which the aircraft are employed, and the ease with which the type of aircraft may be abandoned in an emergency.

(4) Pilots are responsible that passengers other than Naval flying personnel are acquainted with these orders and with the following:—

- (a) The use of parachutes.
- (b) The method of attaching parachute harness and/or safety belt.
- (c) The method of fitting and the proper adjustment of the harness.
- (d) The method of leaving aircraft in emergency.
- (e) The use of dinghy and flotation waistcoat.
- (f) The working of the cockpit hood.
- (g) The action to be taken in the event of a forced landing on land or water.

(5) All occupants of aircraft are to wear standard flotation equipment when flying over the sea.

(6) When aircraft are to be collected by air from either another ship or Air Establishment, or from contractors' works, the personnel detailed for the duty are always to take their parachutes and harness with them.

(7) On all flights the pilots of all types of aircraft are to wear goggles attached to their helmets. When flying an enclosed cockpit type of aircraft with the panels closed, the Pilot need not necessarily wear his goggles over his eyes except when he is taking off and landing.

2. *Care and Maintenance of Safety Equipment.*—(1) Each unit equipped with parachutes is to have one Officer who is to be detailed as unit parachute officer. Wherever possible, the unit parachute officer should have passed satisfactorily a course in the care and maintenance of parachutes and the fitting of harness.

(2) An officer other than the Maintenance Officer is to be selected to supervise Parachute and "K" Type Dinghy maintenance in a Squadron. The Squadron Commander is to ensure that the officer so appointed is a pilot.

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

- (a) He is the Unit Commander's adviser on all questions concerning parachutes. He is responsible for the instruction of officers and men in the use, care and maintenance of parachutes.
- (b) He is responsible for the packing, adjustment and care and maintenance of parachutes in accordance with current orders. The provisions of this clause do not, however, absolve individuals from their responsibilities for the care and maintenance and safe custody of parachutes issued to them.

(4) Every officer or rating issued with a parachute is responsible for taking all reasonable care of it while 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.

SECTION X—REGULATIONS RELATING TO LOG BOOKS

1. *Flying Log Books.*—(1) The pilot's, observer's and telegraphist 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, be allowed, as an act of grace, to retain their log books when all official action for which the books may be required is completed. The practice of forwarding the flying log book of an officer or rating to his next of kin when it is no longer needed for official purposes will be discontinued for the period of the war. When all official action in connection with such log books has been completed, they will be forwarded to the office of the Senior Flag Officer, Naval air stations, where they are to be recorded and kept in safe custody until further notice. A similar procedure will be observed in connection with the flying log books of personnel who are reported missing or prisoners of war, or who are declared to be insane or illegally absent from duty.

(2) Every Naval officer, pilot and observer of, or below, the rank of commander and every rating pilot observer and telegraphist air gunner is to keep a complete record of all flights undertaken by him, and his log book is to be maintained in accordance with the instructions in the flying log book form. Flying log books will be treated as confidential documents and will be subject to the appropriate security regulations. They are not in any circumstances to be carried in aircraft.

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

(a) *Dual Flying.*—All flying in a dual control aircraft carried out either by a pupil pilot or a qualified pilot who is 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 are to count the time they spend in the air on dual instructions as part of their full solo flying time.

(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. This rule does not apply, however, when he is undergoing dual control instruction in this type of aircraft. Flying times are then to be recorded as laid down in (3) (a).

(ii) In aircraft in which a first and second pilot are carried, both first and second pilots are to count the time they spend in the air as first and second pilot as part of their full flying time as pilots. When, however, a pilot or pupil pilot is undergoing dual control instruction his flying time is to be recorded as in (3) (a).

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

(4) *Inspections of Flying Log Books.*—All flying log books are to be inspected and certified as correct by the Squadron Commander or his deputy, monthly and annually; and assessments are to be entered in accordance with current regulations. When a pilot, observer or telegraphist air gunner is appointed to the unit for flying duties, his flying log book 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, if requested, to be produced for inspection.

2. *Airframe, Aero-Engine and Accessory Log Books or Cards.*—(1) Log books or cards are to be kept in accordance with the information provided on their covers.

(2) Log books or cards which concern airframes and aero-engines which have become prospective write-off or strike-off cases are to be retained by the R.N. air station or H.M. ship on which they are on charge until approval for the write-off or strike-off has been given by the appropriate authority. The books or cards are then to be completed by entering details of the disposal of the airframe or aero-engine and the authority for writing or striking-off charge. They are then to be forwarded to the Admiralty (D.A.E.). After scrutiny by departments concerned they will be passed to the Record Office, Admiralty, for official custody.

3. *Machine Gun Log Books.*—Naval aircraft machine gun log books are to be kept on the appropriate form and maintained in accordance with the instructions printed therein. These log books are to be kept for every machine gun which is in service or is available for service in Naval aircraft.

4. *Watch Log.*—(1) At every R.N. air station a log is to be kept under the supervision of the Flying Control Officer of the Watch. 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. This record is to include the names of crews and passengers.*

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

(c) Details of visiting civil aircraft.

(d) Signals and other action taken which relate to aircraft control.

* Names of passengers are to be included only in special circumstances (e.g., when distinguished persons are travelling, or when a Flag, Air or other Senior Officer is carried 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.

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

5. *Squadron Record Book.*—(1) Naval Air Squadrons are to maintain continuously a Squadron Record Book. The Record Book is a confidential document and is to be taken on charge in the C.B. register of the Ship or Air Establishment to which the Squadron is attached.

(2) The object of the Record Book is to furnish a complete historical record of the Squadron from the time of its formation. Operations carried out by the Squadron, movements, casualties, etc., are to be briefly recorded.

(3) Record Books are to be retained by the Squadrons. If, however, a Squadron is disbanded the Record Book is to be forwarded to the Commodore, R.N. Barracks, Lee on Solent, for safe custody or, if it is transferred, the procedure laid down in current regulations is to be followed.

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

(5) If the Squadron is re-formed, the Commodore, R.N. Barracks, Lee on Solent, is to re-issue the Squadron Record Book to the re-formed Squadron.

6. *Compass Log Books.*—Every Flying Unit is to keep a Compass Log Book in which details of all compass adjustments carried out, including adjustments to the bombsight compass are to be entered. The Officer or rating making the adjustment is responsible that the information required is correctly entered. Compass Log Books are to be inspected and signed quarterly by the Commanding Officer of the Unit, and are to be produced at Flag Officers' inspections.

SECTION XI—MISCELLANEOUS REGULATIONS

1. *Flights by Naval, Royal Marine, Military, R.A.F. and Civilian Personnel in Service Aircraft.*—This paragraph lays down the conditions under which personnel of various types may be carried in naval aircraft. The phrase "Naval Aircraft" includes service and transport aircraft throughout.

(1) *Duty Flights.*—*Naval, W.R.N.S. and R.M. Personnel.*—

(a) Subject to the general regulations for flying and any local instructions, flights in Service aircraft by personnel borne in ships, Naval and R.A.F. Establishments will be regarded as duty flights in the following circumstances:—

(i) When the personnel concerned are under training for duty with the aircraft.

(ii) When they are borne permanently or temporarily for duty with the aircraft.

(iii) When they are ordered by the Commanding Officer to make casual flights according to current regulations.

(iv) When they are permitted to make flights in order to obtain air experience.

(b) Flights by non-flying personnel under sub. para. (1) (a)(iv) above may be permitted if

- (i) The air experience gained is likely to be of benefit to the Service.
- (ii) The personnel are not on leave and the flights are not undertaken for amusement or convenience.
- (iii) The written authority of their Commanding Officer and of the Commanding Officer of the Naval or R.A.F. Unit to which the aircraft belongs is obtained.

(c) In the event of Naval, W.R.N.S. or R.M. personnel being killed or injured as a result of an accident that occurs while they are being carried on duty flights in British Service Aircraft, retired pay, pension, etc., will be awarded under the regulations governing cases of injury, etc., attributable to the Service.

(2) *Duty Flights:—Military and R.A.F. Personnel.*—Military and R.A.F. personnel may be carried on duty flights in Naval aircraft provided that they have a certificate from their Commanding Officer stating that they are required to go into the air on duty.

(3) *Duty Flights:—Civilians.*—Civilians may only be carried in Naval Aircraft on official business when this method of travel is in the interests of the Service.

(a) Crown Servants who are required to proceed on duty by air should be furnished with written authority by the Department or Establishment to which they belong. They should not be required to sign a form of indemnity. Should they be killed or injured, as a result of an accident while carried on duty flights in Naval Aircraft, compensation will be awarded under the appropriate regulations.

(b) Government Contractors or their servants must be provided with the written authority of a Senior Officer of the Naval Establishments concerned stating that they are required to go into the air on duty. A form of indemnity must also be obtained.

(4) *Naval, W.R.N.S. and R.M. Personnel Proceeding on Leave.*—(a) Naval, W.R.N.S. and R.M. personnel may be carried in Naval Aircraft for the purpose of proceeding on or returning from leave, subject to Service requirements and with the consent of the Commanding Officer of the ship or Air Station to which the aircraft belongs, provided that:

- (i) The aircraft is performing a duty journey and is not being used solely for the purpose of transporting personnel on leave. (This rule does not apply however to cases of emergency.)
- (ii) Personnel travelling on duty are given priority.
- (iii) The personnel carried are stationed in remote places where reasonable travelling facilities are not available, or,
- (iv) It is otherwise a distinct advantage from a Service point of view that such facilities should be available.

(b) Injury or death sustained when travelling in these circumstances will be regarded as attributable to Service if the injury or death would have been accepted as attributable had the journey been by road or rail. Retired pay, pensions, etc., will be payable accordingly, except that the "in action" gratuity will not be allowed to widows of officers.

(5) *Military and R.A.F. Personnel Proceeding on Leave.*—Permission may be granted for Military and R.A.F. personnel to be carried in Naval Aircraft, for the purpose of proceeding on or returning from leave on the same conditions as above. Naval personnel are to be given priority.

(6) *Civilians Proceeding on Leave.*—(a) Crown Servants are not on duty whilst on leave and should not normally be afforded travel facilities in Naval Aircraft for the purpose of proceeding on or returning from leave. In exceptional cases, however, when they are stationed at inaccessible places, the Commanding Officer of the ship or Air Station to which the aircraft belongs may at his discretion provide them with indulgence passages if these can be granted without detriment to the Service. Injury or death when travelling in such circumstances will not be regarded as having occurred on duty. Those concerned should not be required to sign forms of indemnity, but these should be *explicitly warned and made to understand* that, in the event of injury or death occurring in the flight, they or their dependants will only be eligible for such compensation, if any, as may be provided by the Personnel Injuries (Civilians)

Scheme, and will not have any claims on the Admiralty under the Workmen's Compensation Acts, or schemes framed thereunder, or under the Injury Warrants as for injury on duty.

(b) Where Government Contractors or their servants are permitted to proceed in Naval Aircraft on other than purely official business (e.g. where the aircraft is not entirely occupied for Service purposes) a Form of Indemnity must be signed.

(7) *Civilian Personnel on "Test Flights".*—Admiralty civilian employees (male or female) may be carried on "Test Flights" at their own request with the written approval of the Superintendent (in the case of Repair Yards) or of the Air Engineer Officer (in the case of Naval Air Stations or Sections). Such employees should not, in future, be required to sign a form of indemnity before proceeding on these flights, but they should be *explicitly warned and made to understand* that, in the event of injury or death occurring in the flight, they or their dependants will only be eligible for such compensation, if any, as may be provided by the Personnel Injuries (Civilians) Scheme, and will not have any claim on the Admiralty under the Workmen's Compensation Acts, or schemes framed thereunder, or under the Injury Warrants as for injury on duty.

(8) *Form of Indemnity.*—The following Form of Indemnity is to be used where directed in the above regulations:—

To the Admiralty.

In consideration of your carrying me in an aircraft as a passenger or for making parachute descents therefrom, I undertake and agree for myself, my executors and administrators that no claim will be made against the Crown or any person in the service of the Crown or rendering any services to the Crown whether pursuant to any contract for services or otherwise, in respect of any loss, damage or injury to property or person (including injury resulting in death) which I may suffer, howsoever the same may occur, arising out of or in connection with such flight or any such parachute descent, and I understand that no compensation will be paid by the Crown or any of the said persons in respect of any such loss, damage or injury. I further agree for myself, my heirs, executors and administrators, to indemnify the Crown and the said persons against any claim which may be made by any third party against them or any of them arising out of my being so carried or making any such parachute descent.

Signature of Applicant.....

Address and Designation of Applicant.....

Signature of Witness.....

Address and Designation of Witness.....

Dated.....19.....

2. *Restrictions with Regard to Pilots of Naval Aircraft.*—The following restrictions must be observed by all pilots of Naval aircraft:—

- (a) 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.
- (b) No pilot qualified to carry a passenger is 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.
- (c) No person who is not a serving Naval, Royal Marine, Military or Royal Air Force pilot may fly in a Naval aircraft as pilot unless he is a Contractor's test pilot, or an official or A.T.A. pilot authorised to do so by the Admiralty.
- (d) No pilot may fly an aircraft while carrying passengers, by night or in low visibility; nor may be launched or take off or land on the deck of a carrier until he is considered competent by his Commanding Officer.
- (e) No pilot may fly an aircraft after being involved in an accident until he has been examined by a competent Medical Officer.

3. *Flights by Foreign Personnel.*—(1) No invitations are to be given to personnel of foreign air services to fly as pilot in British service aircraft embarked in H.M. ships. In the case of foreign personnel invitations to fly as passenger are only to be given after the consent of the Senior Naval Officer present has been obtained. In

exceptional cases when it is considered to be in the public interest permission to carry out a flight of this nature should be granted. All such flights will be undertaken at the risk of the person making the flight, who must sign a form of inderminity (see paragraph 1 (8) above) before any such flight is carried out.

(2) The acceptance of invitations to fly as pilot in the Service aircraft of any foreign power is forbidden. Invitations to fly as passenger in such aircraft are not to be accepted unless the prior consent of the Senior Naval Officer present has been obtained. Such consent is only to be given in exceptional circumstances and when the acceptance of the invitation would be in the public interest. Personnel of the Royal Navy and Royal Marines and Royal Air Force personnel serving in the Fleet Air Arm afloat, who are carried in foreign service aircraft with due authority under this clause, will be dealt with for non-effective purposes in the event of injury or death, as if the aircraft had been a British service aircraft.

4. *Aviation Meetings and Flying Displays.*—(1) 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, festivity or the like, are to be acknowledged, and the applicants are to be informed that the request should be addressed direct to the Flag Officer, Naval Air Stations for R.N. air stations in the British Isles, or in the case of foreign stations to the Commander-in-Chief of the station. The Admiralty should be informed of any such commitment undertaken by the Administrative authority.

(2) Naval pilots are forbidden to give displays of flying at fetes or exhibitions or civil aviation meetings without the sanction of the Admiralty or for a foreign station, the local Commander-in-Chief.

5. *Petrol Precautions.*—(1) At R.N. air establishments, the petrol tanks of aircraft or M.T. vehicles are not to be filled or emptied inside hangars or buildings, but at a safe distance away and in the open air.

(2) When they are not in use, petrol tank filler caps of aircraft and M.T. vehicles are to be kept on, and petrol taps (where fitted) of M.T. vehicles are to be turned off.

6. *The Duty Flight.*—A duty flight is to be detailed at every R.N. air establishment. 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.Os. 3064/38, 1287/39, 1288/39, 1499/39, 77/40, 1279/40, 1330/40, 1418/40, 3366/40, 301/41, 924/41, 1670/41, 2002/41, 3335/41, 3789/41, 4007/41, 4008/41, 4234/41, 211/42, 1732/42, 3845/42, 4832/42, 5241/42, 5360/42, 5756/42, 5857/42, 6453/42, 2/43, 1284/43, 2818/43, 3124/43, 3244/43, 3685/43, 3714/43, 4148/43, 4258/43 and C.A.F.Os. 944/40 and 1901/40 are cancelled.)