

to the neutral zone, but in any case on the left of any airplanes which have already landed. After slowing up or coming to a stop at the end of its landing run, an aeroplane will immediately taxi into the neutral zone. Similarly, an airplane when taking off shall keep as far as possible towards the right of the taking-off zone, but shall keep clear to the left of any airplanes which are taking off or about to take off.

45. No airplane shall commence to take off until the preceding airplane is clear of the aerodrome.

46. The above rules shall apply equally to night landings on aerodromes, when the signals shall be as follows:—

(a) A red light shall indicate a left-hand circuit, and a green light shall indicate a right-hand circuit (*see* paragraph 36). The right-hand zone will be marked by white lights placed in the position of an "L," and the left-hand zone will be similarly marked. The "L's" shall be back to back, that is to say, the long sides of the "L's" will indicate the borders of the neutral zone, the direction of landing shall invariably be along the long arm of the "L," and towards the short arm. The lights of the "L's" should be so placed that the lights indicating the top extremity of the long arm shall be the nearest point on the aerodrome upon which an airplane can safely touch ground. The lights indicating the short arm of the "L" should indicate the limit of safe landing ground for the airplanes, that is, that the airplane should not over-run the short arm.

(b) Where it is desired to save lights and personnel the following system may be used:—

Two lights shall be placed on the windward side of the aerodrome to mark the limits of the neutral zone mentioned in paragraph 44, the line joining the lights being at right angles to the direction of the wind. Two more lights shall be placed as follows: one on the leeward side of the aerodrome on the line drawn parallel to the direction of the wind and passing midway between the two lights on the windward side to show the extent of the aerodrome and the direction of the wind, and the other shall be placed midway between the two lights marking the limits of the neutral zone.

Additional lights may be symmetrically put along the boundary lines of the neutral zone, and on the ends of the taking-off and landing zones on the line through the three lights on the windward side.

47. No fixed balloon, kite, or moored airship shall be elevated in the vicinity of any aerodrome without a special authorization, except in the cases provided for in paragraph 20.

48. Suitable markings shall be placed on all fixed obstacles dangerous to flying within a zone of 500 metres of all aerodromes.

## SECTION VI.

### GENERAL

49. Every aircraft manœuvring under its own power on the water shall conform to the Regulations for Preventing Collisions at Sea, and for the purposes of these regulations shall be deemed to be a steam-vessel, but shall carry the lights specified in the preceding rules, and not those specified for steam-vessels in the Regulations for Preventing Collisions at Sea, and shall not use, except as specified in paragraphs 17 and 20 above, or be deemed to hear the sound signals specified in the above-mentioned Regulations.

50. Nothing in these rules shall exonerate any aircraft, or the owner, pilot or crew thereof, from the consequences of any neglect to carry lights or signals, or of any neglect to keep a proper lookout, or of the neglect of any

precaution which may be required by the ordinary practice of the air, or by the special circumstances of the case.

51. Nothing in these rules shall interfere with the operation of any special rule or rules duly made and published relative to navigation of aircraft in the immediate vicinity of any aerodrome or other place, and it shall be obligatory on all owners, pilots, or crews of aircraft to obey such rules.

## ANNEX E

### MINIMUM QUALIFICATIONS NECESSARY FOR OBTAINING CERTIFICATES AS PILOTS AND NAVIGATORS

#### SECTION I.

#### CERTIFICATES FOR PILOTS OF FLYING MACHINES

##### (A.) PRIVATE PILOT'S FLYING CERTIFICATE

(not valid for purposes of public transport)

#### I. *Practical Tests:*

In each practical test the candidate must be alone in the flying machine.

(a) *Test for Altitude and Gliding Flight.*—A flight without landing, during which the pilot shall remain for at least an hour at a minimum altitude of 2,000 metres above the point of departure. The descent shall finish with a glide, the engines cut off at 1,500 metres above the landing ground. The landing shall be made without restarting the engine and within 150 metres or less of a point fixed beforehand by the official examiners of the test.

(b) *Tests of Skill.*—A flight without landing around two posts (or buoys) situated 500 metres apart, making a series of five figure-of-eight turns, each turn reaching one of the two posts (or buoys). This flight shall be made at an altitude of not more than 200 metres above the ground (or water) without touching the ground (or water). The landing shall be effected by:

(i) Finally shutting off the engine or engines at latest when the aircraft touches the ground (or water).

(ii) Finally stopping the flying machine within a distance of 50 metres from a point fixed by the candidate before starting.

#### 2. *Special Requirements:*

Knowledge of rules as to Lights and Signals, and Rules of the Air. Rules for Air Traffic on and in the vicinity of Aerodromes. A practical knowledge of international air legislation.

##### (B.) PILOT'S FLYING CERTIFICATE FOR FLYING MACHINES USED FOR

##### PURPOSES OF PUBLIC TRANSPORT

#### I. *Practical Tests:*

In each practical test the candidate must be alone in the flying machine.

(a) The tests for altitude and gliding flight and for skill are the same as those required for a private pilot's flying certificate. Candidates already in possession of the latter certificate are not required to pass these tests again.

(b) Test of endurance consisting of a cross-country or oversea flight of at least 300 kilometres, after which the final landing shall be made at the point of departure. This flight shall be made in the same flying machine within eight hours. It shall include two obligatory landings (during which the machine must come to rest), which shall not be at the point of departure, but at points which shall be fixed by the judges.

At the time of departure the candidate shall be informed of his course and furnished with the appropriate map. The judges will decide whether the course has been correctly followed.

(c) *Night Flight.*—A thirty minutes' flight made between two hours after

sunset and two hours before sunrise, at a height of at least 500 metres.

2. *Technical Examination:*

After satisfactory practical tests have been passed, candidates will, when summoned, submit themselves to examination on—

(a) *Flying Machines:*

Theoretical knowledge of the resistance of the air as concerns its effects on wings and tail planes, rudders, elevators, and propellers; functions of the different parts of the machine and of their controls.

Assembling of flying machines and their different parts.

Practical tests on rigging.

(b) *Engines:*

General knowledge of internal combustion engines, including functions of the various parts; a general knowledge of the construction, assembling, adjustment, and characteristics of aero-engines.

Causes of the faulty running of engines and of breakdown.

Practical tests in running repairs.

(c) *Special requirements:*

Knowledge of Rules as to Lights and Signals and Rules of the Air, and Rules for Air Traffic on and in the vicinity of Aerodromes.

Practical knowledge of the special conditions of air traffic and of international air legislation.

Map reading, orientation, location of position, elementary meteorology.

REMARKS

The practical tests shall be carried out within a maximum period of one month.

They may be carried out in any order, and each may be attempted twice. They shall be witnessed by properly accredited examiners, who will forward the official reports to the proper authorities.

The official reports will give the different incidents, especially those of landing. The candidates shall furnish before each test proper identity forms.

A barograph shall be carried on all practical tests, and the graph, signed by the examiners, shall be attached to their report.

Pilots who hold the military pilot's certificate shall be entitled to the private pilot's flying certificate, but, in order to obtain the pilot's flying certificate for purposes of Public Transport it will be necessary to pass the technical conditions for navigation as required by B 2 (c).

SECTION II.

CERTIFICATES FOR PILOTS OF BALLOONS

1. *Practical Tests:*

The candidate must have completed the following certified ascents—

1. By day: 3 ascents under instruction.
  - 1 ascent in control under supervision.
  - 1 ascent alone in the balloon.

2. By night: 1 ascent alone in the balloon.

Each ascent shall be of at least two hours' duration.

2. *Theoretical Tests:*

Elementary aerostatics and meteorology.

3. *Special Requirements:*

General knowledge of a balloon and its accessories; inflation: rigging; management of an ascent; instruments; precautions against cold and high altitudes.

Knowledge of Rules as to Lights and Signals and Rules of the Air; Rules for Air Traffic on and in the Vicinity of Aerodromes.

Practical knowledge of international air legislation. Map reading and orientation.

SECTION III.

CERTIFICATES FOR AIRSHIP OFFICER PILOTS

Every airship officer pilot shall have qualified as pilot of a free balloon.

There shall be three classes of airship officer pilots.

The holder of a first-class certificate is qualified to command any airship.

The holder of a second-class certificate is qualified to command airships under 20,000 cubic metres capacity.

The holder of a third-class certificate is qualified to command airships under 6,000 cubic metres capacity.

All military and naval airship officer pilots are entitled to a third-class certificate.

All military and naval airship officer pilots who have commanded airships over 6,000 cubic metres capacity are entitled to a first-class certificate.

QUALIFICATIONS FOR THIRD-CLASS CERTIFICATE

*Practical Tests:*

(a) Twenty certified flights (three of which shall be by night) in an airship, each flight being of at least one hour's duration. In at least four of these flights the candidate must have handled the airship himself, under the supervision of the commanding officer of the airship, including ascent and landing.

(b) One cross-country flight on a predetermined course of at least 100 kilometres, terminating with a night landing, and made with a duly authorized inspector on board.

*Theoretical Examination:*

Aerostatics and meteorology. (Density of gases, laws of Mariotte and of Gay-Lussac; barometric pressure, Archimedes principle; confinement of gases; interpretation and use of meteorological information and of weather charts.)

Physical and chemical properties of light gases, and of materials used in the construction of airships.

General theory of airships.

Dynamic properties of moving bodies in air.

*General Knowledge:*

Elementary knowledge of internal combustion engines.

Elementary navigation; use of the compass; location of position.

Inflation; stowage; rigging; handling; controls and instruments.

QUALIFICATIONS FOR SECOND-CLASS CERTIFICATE

*Practical Tests:*

To be eligible for a second-class certificate a candidate must be holder of a third-class certificate and have at least four months' service as a third-class officer on an airship, and also have completed at least 10 flights as third-class officer on an airship of capacity above 6,000 cubic metres, in which he has handled the airship himself including ascent and landing, under the supervision of the commanding officer of the airship.

*Theoretical Examination:*

Advanced knowledge of the subjects required for the third-class certificate.

QUALIFICATIONS FOR FIRST-CLASS CERTIFICATE

*Practical Tests:*

To be eligible for a first-class certificate a candidate must be holder of a second-class certificate, have at least two months' active service as a second-class officer on an airship, and also have completed at least five flights as second-class officer of an airship of capacity of 20,000 cubic metres, in which

he has handled the airship himself, including ascent and landing, under the supervision of the commanding officer of the airship. Each flight must be at least of one hour's duration with a minimum of 15 hours for the five flights.

*Theoretical Examination:*

As required for a second-class certificate.

SECTION IV.

CERTIFICATE FOR NAVIGATORS

Aircraft used for public transport carrying more than 10 passengers and having to make a continuous flight between two points more than 500 kilometres apart overland, or a night flight, or a flight between two points more than 200 kilometres apart over sea, must have on board a navigator who has been granted a certificate as such after passing a theoretical and practical examination in the following:—

1. *Practical Astronomy:*

True and apparent movements of the celestial bodies. Different aspects of the celestial sphere.

Hour angles, mean, true, and astronomical time.

Shape and dimensions of the earth.

Star globes and maps.

Method of determining latitude, longitude, time and azimuth.

2. *Navigation:*

Maps and charts—how to read them.

Compass, magnetic meridian, variation, deviation.

Courses, bearings, and their corrections.

Compensation of compasses (technical and practical).

Calculations of azimuth.

Flight by dead reckoning, measure of the relative speed, drift, traverse table.

Chronometer, chronometer rate, comparisons.

Sextants, adjustments.

Nautical almanac.

Determination of positions by means of bearing and altitude of stars.

Knowledge of great circle navigation.

Aeronautical navigational instruments.

3. *General Knowledge:*

International rules for air and maritime navigation.

International air legislation.

Practical knowledge of meteorology and of weather charts.

SECTION V.

MEDICAL CERTIFICATES

*International Medical Requirements for Air Navigation*

1. Every candidate before obtaining a license as a pilot, navigator or engineer of aircraft engaged in public transport will present himself for examination by specially qualified medical men (flight surgeons), appointed by or acting under the authority of the contracting State.

2. Medical supervision, both for the selection and the maintenance of efficiency, shall be based upon the following requirements of mental and physical fitness:—

(a) Good family and personal history, with particular reference to nervous stability. Absence of any mental, moral or physical defect which will interfere with flying efficiency.

(b) The minimum age for pilots and navigators engaged in public transport shall be nineteen (19) years.

(c) *General Surgical Examination.*—The aeronaut must neither suffer from any wound, injury or operation nor possess any abnormality, congenital or otherwise, which will interfere with the efficient and safe handling of aircraft.

(d) *General Medical Examination.*—The aeronaut must not suffer from any disease or disability which renders him liable suddenly to become incompetent in the management of aircraft. He must possess heart, lungs, kidneys, and nervous system capable of withstanding the effects of altitude and also the effects of prolonged flight.

(e) *Eye Examination.*—The aeronaut must possess a degree of visual acuity compatible with the efficient performance of his duties. No pilot or navigator shall have more than two (2) dioptries of latent hypermetropia; muscle balance must be good and commensurate with the refraction. He must have a good field of vision in each eye and must possess normal color perception.

(f) *Ear Examination.*—The middle ear must be healthy. The aeronaut must possess a degree of auditory acuity compatible with the efficient performance of his duties.

(g) The vestibular mechanism must be intact and neither unduly hypersensitive nor hyposensitive.

(h) *Nose and Throat Examination.*—The aeronaut must possess free nasal air entry on either side and not suffer from serious acute or chronic affections of the upper respiratory tract.

3. Each contracting State shall for the present fix its own methods of examination until the detail of tests and the minimal standard of requirements have been finally settled by the authorized medical representatives of the International Commission for Air Navigation.

4. The successful candidate will receive a medical certificate of acceptance, which must be produced before the license can be issued.

5. In order to insure the maintenance of efficiency, every aeronaut shall be re-examined periodically, at least every six months, and the findings shall be attached to his original record. In case of illness or accident also, an aeronaut shall be re-examined and pronounced fit before resuming air duties. The date and result of each re-examination shall be recorded on the aeronaut's flying certificate.

6. No aeronaut who, before the date of the present Convention, has given proof of his flying ability, shall, so long as he retains such ability, be necessarily disqualified because he fails to fulfil all of the above requirements.

7. Each contracting State may raise the conditions set forth above, as it deems fit, but these minimal requirements shall be maintained internationally.

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#### ANNEX F

#### INTERNATIONAL AERONAUTICAL MAPS AND GROUND MARKINGS

International maps shall be made and ground marks established in accordance with the following general principles:—

##### SECTION I.

##### MAPS

1. Two types of aeronautical maps shall be used. They are hereafter mentioned as *general* maps and *local* maps.

2. The index scheme for the aeronautical maps, both general and local, shall be based on the index scheme adopted for the "International 1: 1,000,000 scale map" by the official International Congress convened for the purpose in London in 1909 and in Paris in 1913.

NOTE.—Extract from the resolutions adopted by the Conferences at London and Paris;

The sheets of the International 1: 1,000,000 scale map shall include 6 degrees of longitude and 4 degrees of latitude. The limiting meridians of the sheets shall be at successive intervals, reckoning from Greenwich, of 6 degrees, and the limiting parallel, reckoning from the Equator, shall be at successive intervals of 4 degrees.

The longitudinal sectors, from longitude 180° E. or W. of Greenwich, are given numbers from 1 to 60, increasing in an easterly direction.

The 22 zones of 4 degrees in depth, extending from the Equator on each side to 88° latitude, are given letters from A to V.

The polar areas, extending for 2 degrees, are lettered Z.

In the northern hemisphere each sheet shall bear a descriptive symbol composed of the letter N, followed by the zone letter and sector number corresponding to its position, thus N.K.—12.

In the southern hemisphere the letter S shall replace the letter N. Example, S.L.—28.

3. The metre shall be used as the standard of measurement for lengths, distances, heights and depths, reserving for each nation the right to add figures expressing these quantities in its own units.

4. The colors, symbols, and arrangements for production adopted for the International 1: 1,000,000 scale map shall be used as far as practicable on the aeronautical maps.

5. The general maps shall be drawn on Mercator's projection and shall be to a scale of 1 degree of longitude equals 3 centimetres. The general maps shall have marked on them in fine lines the meridians and parallels of each degree, and the meridians and parallels limiting the unit sections of the 1: 1,000,000 map shall be accentuated. The same designation of unit sections shall be used as for the 1: 1,000,000 map.

6. Each general (Mercator) map shall bear the French heading *Carte Générale Aéronautique Internationale*, and under it a translation of this heading in the language of the country publishing the map. It shall also bear an appropriate geographical name.

Each sheet shall show at least the following: principal physical features and geographical names, wireless stations, marine lighthouses (height and range at sea level, color and character of the light); national frontiers, prohibited areas, principal air routes, lines of equal magnetic variation, South Polar distance, latitude, old and new notation of longitude (*see* paragraph 7), with an outer margin containing letters and numbers referring to the index of the 1: 1,000,000 map, legend of symbols in English or French and in the language of the country publishing the maps, publisher's name, and date of publication and of successive editions.

7. The local maps shall be drawn to a scale of 1: 200,000.

NOTE.—For local aeronautical maps of sparsely inhabited countries, the scale of 1: 500,000 or 1: 1,000,000 as appropriate, may be used.

In addition to the customary latitude and longitude notations, the local

aeronautical maps shall bear numbers enclosed in rectangles, corresponding to a new system of co-ordinate reckoning based on the antimeridian of Greenwich and the South Pole. The new *grid* reckoning, with regard to latitude, shall commence with the South Pole as zero and increase northward by degrees and minutes to 180° at the North Pole, and with regard to longitude shall commence with the antimeridian of Greenwich as zero and run eastward by degrees and minutes to 360°.

8. Each unit sheet of the local aeronautical maps shall bear the French hearing *Carte Normale Aéronautique Internationale*, and under it a translation of this heading in the language of the country publishing the map. It shall comprise one degree of latitude and one degree of longitude, and shall be designated by a locality name and by the new co-ordinates (described in paragraph 7) of the south-west corner of the sheet, the unit digits being accentuated. In these designating co-ordinates, the figures referring to the South Polar distance shall invariably be written first.

EXAMPLES.—The sheet whose southern boundary is 49° N. (*i.e.*, 139° South Polar distance) and western boundary 2° E. (*i.e.*, 182° from the antimeridian of Greenwich) will be numbered 139-182.

Or the sheet whose southern boundary is 36° S. (*i.e.*, 54° South Polar distance) and western boundary 7° W. (*i.e.*, 173° from the antimeridian of Greenwich) will be numbered 54-173.

9. The local aeronautical unit sheets shall show, as far as the data is known, the following:—

(a) *Within the limiting Meridians and Parallels.*—Twenty-minute projection grid; roads divided into two classes according to their relative visibility from the air; railways of all kinds, cities and towns in outline and the plan of the principal public roads crossing them (villages similarly if practicable, otherwise their positions indicated); principal features of the surface water system; woodlands and other areas unsuitable for landing, aerodromes, hangars for airships, plants for balloon inflation, permanent landing places on ground and water, aeronautical ground marks (beacons and fixed navigational lights); marine lighthouses (height, range at sea level, color and character of the light); wireless stations, meteorological stations, overhead electric power lines; remarkable objects; national frontiers; the frontier crossings for customs purposes prescribed by Annex H. (Art. 2); prohibited areas; principal air routes; names of important bodies of water; towns, and important villages; the topographical relief by shading and figures indicating heights, the most important of which to be surrounded by an oval ring as



(b) *Outside the limiting Meridians and Parallels.*—A title, consisting of the name designating the locality and the index numbers of the sheet; a border scale graduated to minutes; the names of the neighboring sheets; latitude, South Polar distance, old and new notation of longitude (*see* paragraph 7); scale of kilometres; legend of symbols in English or French and in the language of the country publishing the map; magnetic variation diagram; key map showing abridged numbers of the sheet concerned and the eight surrounding sheets; frontiers and the names of the countries, parts of which are embraced by the key map; publisher's name and date of publication.

10. The forms of the general and local maps, titles, marginal notations, diagrams, and legends, shall be as shown by the accompanying illustrations.<sup>1</sup>

11. The general and local aeronautical maps and guide books of the areas traversed by the most important routes which may be established by international agreement shall be prepared first.

<sup>1</sup> The plates referred to have not been reproduced.—*Editor.*



NOTE.—On account of the inadequacy of the usual methods of topographic mapping for making aeronautical maps, it is strongly recommended that steps be taken to survey from the air the areas along the most important international routes. Such surveys would furnish indispensable information regarding the features necessary to be shown on the maps the aviator is to use.

## SECTION II.

### UNIVERSAL SYSTEM OF GROUND MARKS

1. All ground marks shall conform with the scheme of numbering adopted for the unit sheets of the local international aeronautical maps.

For this purpose each mark shall show:—

- (a) The abridged number which designates the sheet within which it lies;
- (b) An open rectangle, whose short sides shall be oriented north-south; the frames shall be open towards the opposite half of the unit sheet;
- (c) A dot indicating the approximate position of the mark on the north or south half of the corresponding unit sheet.

The numbers shall be placed close to the frame at the top, bottom or sides, but not inside.

Where marks are placed so close to each other as to admit of possible confusion, the round dot may be replaced by a square, triangular or star-shaped dot.

It is recommended that the minimum dimensions of the marks be those indicated in the sketches.

2. Special attention shall be given to the distribution of marks along chosen international routes.

NOTE.—Steps to establish suitable marks for landing at night shall be eventually taken, in accordance with the decision of the International Commission for Air Navigation.

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## ANNEX G

### COLLECTION AND DISSEMINATION OF METEOROLOGICAL INFORMATION

1. *Nature and object of meteorological information to be furnished by Contracting States.*

(A) "Statistical" is required for the purpose of indicating the degree of safety and convenience of different routes or aerodromes for different types of aircraft.

It consists of:—

- (a) Analysis and summaries of past meteorological records.
- (b) Summaries of current observations.

(B) "Current" is required for the purpose of:—

- (a) Keeping a current record of the weather.
- (b) Making forecasts.

It consists of:—

- 1. The results of daily observations.
  - 2. Lists of active stations at which these observations are taken.
- (C) "Forecasts" are for the purpose of telling all concerned when and where flying is possible and the best conditions for the same. They are statements of conditions anticipated:—

- (a) "Short period" during the next three or four hours.
- (b) "Normal" during the next 20 to 30 hours.
- (c) "Long period" during the next two or three days.
- (d) "Route" for particular region or route during the next six hours.

2. *Methods and times of furnishing the different types of information.*

(A) "Statistical" is furnished by Central Meteorological Offices for general information.

(a) Analysis and summaries of past records — by the publication of special handbooks giving averages, frequencies and extremes of the principal meteorological elements, together with charts and diagrams; prominence to be given to meteorological conditions of areas known to have special meteorological peculiarities.

(b) Summaries of current observations — by the monthly publication of the information obtained each month.

(B) "Current" is furnished by meteorological offices to meteorological offices.

(a) Results of daily observations — telegraphically by:—

- 1. Regular reports at fixed hours (*see* Appendix I.) and
- 2. By special reports at intermediate times when requested (*see* Appendix II.).

(b) Lists of stations whenever necessary, to keep other countries informed where observations are being taken, giving also local and topographical details affecting weather conditions at each station.

(c) "Forecasts" are furnished by Meteorological Offices for general information by publication in the public Press, telegraphically to other countries if required, or any other, the best, means to bring them to the notice of those requiring them (*see* Appendix III.).

### APPENDIX I. REGULAR REPORTS

These are of two kinds:—

- 1. Individual station reports.
- 2. Collective station reports.

1. Individual station reports are the results of observations of individual stations, taken at 0100, 0700, 1300, and (1800 or) 1900 G.M.T. The reports are made as soon as the observation has been taken and are rendered to a central collecting station or office; where reports for only two of these hours are possible or sufficient, the hours should be separated by an interval of twelve hours. (It is recommended that the standard hours be changed to 0300 0900, 1500 and 2100 G.M.T. by international agreement.)

Reports will give information on the following, whenever possible:—

- 1. Wind.
- 2. Pressure.
- 3. Temperature and humidity.
- 4. Fog and visibility.
- 5. Clouds.
- 6. Precipitation.
- 7. Thunderstorms, hurricanes, tornadoes, dust-storms.
- 8. Other weather phenomena.
- 9. State of sea,

and also on upper air currents and upper air temperature and humidity, from stations where facilities are available for observation.

Reports will be made in the general form and in the codes given in Appendix IV.

2. Collective reports are a collection of the individual reports received by a central station or office and transmitted to other central offices. They are of three classes:—

*Class 1.*—The central office in this case is usually the main office of a country; it transmits its reports, within 1½ hours of the time the observations are taken at the individual stations, to all main offices of other countries within a radius of 1,500 kilometres.

*Class 2.*—These are reports made for the purpose of giving countries over 1,500 kilometres distant information essential to making their own forecasts. The central office is that of a selected State which possesses a high-power wireless station capable of worldwide ranges (minimum range 3,000 kilometres). The report is made within three hours of the observations, and is a collection of reports selected from the Class 1 reports and abridged (*see* Appendix IV.). It should include a forecast of conditions in the country of origin.

*Class 3.*—These are local reports made by local centers to other local centers (any within 500 kilometres). The report is a collection of reports, selected from the Class 1 reports from stations in the vicinity and abridged (*see* Appendix IV.). It is made within 30 minutes of the time of observation.

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## APPENDIX II. SPECIAL REPORTS

Special reports give the results of continuous observations at aerodromes having meteorological stations on recognized air routes. They are to be rendered within thirty minutes of a request from a central office on a specified aerodrome on the route. The maximum distance from which these reports will be required is 500 kilometres. The requests may take the form of a demand for hourly reports.

The reports are rendered by telephone or wireless, and may be from one country to another in the case of an international air route. The reports when made by telegram will be in the form and code given in Appendix IV.

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## APPENDIX III. FORECASTS

Short-period forecasts covering three to four hours will give a statement of the anticipated conditions of cloud, weather, surface wind and visibility, together with direction and speed of wind at heights of 1,000 and 2,000 metres, and an estimate of meteorological fitness for different types of aircraft.

Normal forecasts for twenty to thirty hours will give similar information, but in more general terms.

Long-period forecasts give a general statement of the prospects for the next two or three days.

Route forecasts are made twice daily by central offices from information received from individual stations and will give a statement of conditions anticipated in the different regions or routes of the country for about six hours ahead.

APPENDIX IV.

GENERAL FORM IN WHICH REPORTS ARE TO BE RENDERED AND CODES FOR THEIR TRANSMISSION

Individual stations will be allotted station call signs, *i.e.*, an index group of letters or figures which will be used in all reports to indicate the station, and will also serve as the wireless call sign. These should be internationally distinct.

The general form is given in meteorological symbols or letters. For purposes of transmission an appropriate figure value is given to each symbol or letter in accordance with the codes given below.

METEOROLOGICAL SYMBOLS OR LETTERS AND THEIR SIGNIFICATION

*Standard symbols.*

- BBB = barometer reduced to sea-level and expressed in millibars and tenths, *i.e.*, corrected for temperature gravity and index error. The initial 9 or 10 is omitted.
- DD = direction of wind (true direction as distinguished from magnetic) at a height of 10-15 metres above the surface expressed on scale 1-72 (*see* Code X.).
- F = force of wind on Beaufort scale (wind above force 9 to be specially noted at end of telegram).
- ww = present weather (Code I.).
- TT = temperature in degrees A ( $0^{\circ}$  A =  $-273^{\circ}$  C,  $273^{\circ}$  A =  $0^{\circ}$  C), first figure omitted.
- A = form of low cloud (Code III.).
- L = amount of low cloud (in tenths of sky covered, amount 10 telegraph as 0).
- B = form of medium or high cloud (Code III.).
- M = amount of medium or high cloud in tenths.
- h = height of base of low cloud (Code IV.(a)).
- WW = past weather (Code II.).
- V = visibility (Code V.).
- H<sub>1</sub> = relative humidity (Code VI.).
- S = state of sea (Code VII.).
- $\beta$  = characteristic of barometric tendency (Code IX.).
- bb = amount of barometric tendency in half millibars per 3 hours; 50 added for negative tendencies.
- F<sub>1</sub> = fitness of weather conditions for flying machines (Code VIII.(a)).
- F<sub>2</sub> = fitness of weather conditions for airships (Code VIII.(b)).
- RR = rainfall: (i) in day, (ii) in night; in millimetres and tenths.
- MM = maximum temperature in the day.
- mm = minimum temperature in the night.
- X = reserve figure.

SPECIAL SYMBOLS FOR UPPER AIR CURRENTS

- H = height (Code IV.(b)).
- DD = direction on scale 1-72 (*i.e.*, to nearest  $5^{\circ}$  (*see* Code X.)).
- VV = speed in kilometres per hour (for speed above 99 K/hr use three figures).

## SPECIAL SYMBOLS FOR UPPER AIR TEMPERATURE AND HUMIDITY

p = height or pressure (Code IV. (c)).  
 HH = actual percentage of relative humidity.

## SPECIAL SYMBOL FOR COLLECTIVE REPORTS. CLASS 2

B = barometer in whole millibars with the initial 9 or 10 omitted.

## GENERAL FORMS OF MESSAGES IN METEOROLOGICAL SYMBOLS

## REGULAR REPORTS.

1. *Individual Station Reports.*—Station call sign followed by the following groups:—

BBBDD. FwwTT. ALBMh. wwVHS.  $\beta$ bbF<sub>1</sub>F<sub>2</sub>.  
 RRRMMX (or RRmmX).

Additional two groups for reports from Stations having facilities for observations of upper air currents; the first of these being:—

A five-figure group to indicate that upper air current information is contained in the group which follows and which has the general form HDDVV.

Additional two groups for reports from stations having facilities for observations of upper air temperature and humidity; the first of these being:—

A five-figure group to indicate that upper air temperature and humidity information is contained in the group which follows and which has the general form  $\rho$ TTHH.

(NOTE.—These indicative five-figure groups would be better, from a signalling point of view, as a special Morse signal.)

2. *Collective Station Reports, Class 1.* The individual station reports are given in sequence in the same general form as above. Upper air conditions are given at the end for those stations for which available: upper air currents being given only for the following heights, 500, 1,000, 2,000, 5,000 metres (*see* Code IV. (b)).

*Example* of general form of collective report (Class 1) giving information from four stations, A, B, C, D, of which stations B, C have given upper air currents, and stations B, D upper air temperatures and humidity.

Call sign for "A"—BBBDD—FwwTT—ALBMh—  
 wwVHS— $\beta$ bbF<sub>1</sub>F<sub>2</sub>.

Call sign for "B"—BBBDD—FwwTT—ALBMh—  
 wwVHS— $\beta$ bbF<sub>1</sub>F<sub>2</sub>.

Call sign for "C"—BBBDD—FwwTT—ALBMh—  
 wwVHS— $\beta$ bbF<sub>1</sub>F<sub>2</sub>.

Call sign for "D"—BBBDD—FwwTT—ALBMh—  
 wwVHS— $\beta$ bbF<sub>1</sub>F<sub>2</sub>.

Group or signal indicating that upper air current information follows.

Call sign for "B"—HDDVV.

Call sign for "C"—HDDVV.

Group indicating that upper air temperature and humidity information follows.

Call sign for "B"— $\rho$ TTHH.

Call sign for "D"— $\rho$ TTHH.

3. *Collective Station Reports, Class 2.*—The individual station reports are given in sequence in an abbreviated form, as follows: Call sign for station—  
 BBDDF—wwTTh—AL $\beta$ bb.

Upper air currents are given at the end of the telegram for heights 2,000 and 5,000 metres for selected stations.

*Example* of general form of collective report (Class 2) giving information from four stations A, B, C, D, of which stations "B," "C" are selected for upper air current conditions.

- Call sign for "A" — BBDDF — wwTTh — ALβbb.
- Call sign for "B" — BBDDF — wwTTh — ALβbb.
- Call sign for "C" — BBDDF — wwTTh — ALβbb.
- Call sign for "D" — BBDDF — wwTTh — ALβbb.
- Group indicating that upper air current information follows.
- Call sign for "B" — HDDVV.
- Call sign for "C" — HDDVV.

Forecast of conditions in country of origin.

4. *Collective Station Reports, Class 3.*—The individual station reports are given in sequence in an abridged form as follows:—

Call sign of stations — DDF<sub>1</sub>F<sub>2</sub> — ALBMh — wwWWV.

NOTE 1.—The general form for transmission "of special reports" and of forecasts has not yet been formulated.

NOTE 2.—Observations from ships at sea and the transmission of such observations require special arrangements which it has not yet been possible to formulate. Similarly for observations from aircraft and their transmission.

CODES

*Code I.—Present Weather.—ww.*

*Note.*—00 to 49 weather without precipitation.  
50 to 70 and 77 to 97 with precipitation.

In Codes I and II, r = rain, d = drizzle, h = hail, s = snow, rs = sleet.  
ttr = thunderstorm, e = wet air, f = fog (*see* Code V).

Code figure.	Code figure.
00 Absolutely cloudless.	17 — 4f.
01 Cloud less than 1/2.	18 — 5f.
02 About 1/2 clouded.	19 — 6f.
03 About 3/4 clouded.	20 — 7f.
04 Overcast, but small amount of blue visible.	21 — 8f.
05 Absolutely overcast.	22 Mist 1fe.
	23 — 2fe.
	24 Fog 3fe.
	25 — 4fe.
<i>Haze, Mist or Fog, but no precipitation.</i>	26 — 5fe.
06 Overcast and 1f.	27 — 6fe.
07 — — 2f.	28 — 7fe.
08 — — 3f.	29 — 8fe.
09 — — 4f.	
10 — — 5f.	
11 — — 6f.	
12 — — 7f.	
13 — — 8f.	
14 Haze 1f.	
15 — 2f.	
16 Fog 3f.	
	<i>Special Phenomena without precipitation.</i>
	30 e (wet air).
	31 Exceptional visibility.
	32 Dust Haze.
	33 Dew.
	34 Hoar Frost.

Code  
figure.

- 35 Rime.  
36 Glazed Frost.  
37 Glazed Roads.  
38 Solar Halo.  
39 Lunar Halo.  
40 Solar Corona.  
41 Lunar Corona.  
42 Aurora.  
43 Squalls.  
44 Gale.  
45 Gloom.  
46 Ugly: threatening.  
47 Thunder.  
48 Lightning.  
49 Thunder and Lightning.

*Precipitation and Fog (50-58).*

- |               |              |
|---------------|--------------|
| 50 Slight r   | } 2f. or 3f. |
| 51 Moderate r |              |
| 52 Heavy r    |              |
| 53 Slight r   | } 4f. or 5f. |
| 54 Moderate r |              |
| 55 Heavy r    |              |
| 56 Slight r   | } 6f. to 8f. |
| 57 Moderate r |              |
| 58 Heavy r    |              |

*Precipitation and Squalls of Wind (59-70).*

- 59 Slight r.  
60 Moderate r.  
61 Heavy r.  
62 Slight h.  
63 Moderate r and h.  
64 Heavy r and h.  
65 Slight rs.

Code  
figure.

- 66 Moderate rs.  
67 Heavy rs.  
68 Slight s.  
69 Moderate s.  
70 Heavy s.

*Snow Covering.*

- 71 s over whole country.  
72 s with bare patches.  
73 Deep drifts.

- |    |                    |
|----|--------------------|
| 74 | } Reserve figures. |
| 75 |                    |
| 76 |                    |

*Precipitation (77-97).*

- |                 |                    |
|-----------------|--------------------|
| 77 Slight d.    | } Without hail.    |
| 78 Moderate d.  |                    |
| 79 Thick d.     | } With hail.       |
| 80 Slight r.    |                    |
| 81 Moderate r.  | } Reserve figures. |
| 82 Heavy r.     |                    |
| 83 Slight h.    | } Reserve figures. |
| 84 Moderate h.  |                    |
| 85 Heavy h.     | } Reserve figures. |
| 86 Slight rs.   |                    |
| 87 Moderate rs. | } Reserve figures. |
| 88 Heavy rs.    |                    |
| 89 Slight s.    | } Reserve figures. |
| 90 Moderate s.  |                    |
| 91 Heavy s.     | } Reserve figures. |
| 92 Slight tlr   |                    |
| 93 Moderate tlr | } Without hail.    |
| 94 Heavy tlr    |                    |
| 95 Slight tlr   | } With hail.       |
| 96 Moderate tlr |                    |
| 97 Heavy tlr    | } Reserve figures. |
| 98              |                    |
| 99              |                    |

*Code II.—Past Weather.—WW.**Note.*—00-49 Weather without precipitation.

50-97 Weather with precipitation.

- |                                    |   |
|------------------------------------|---|
| 00 equals Cloudless.               | 08 — c and o; low cloud.                      |
| 01 — b and bc; med. or high cloud. | 09 — c and o; mixed cloud.                    |
| 02 — b and bc; low cloud.          | 10 equals med. or high cloud.                 |
| 03 — b and c; mixed cloud.         | 11 — low cloud.                               |
| 04 — bc and c; med. or high cloud. | 12 — mixed cloud.                             |
| 05 — bc and c; low cloud.          | 13 — completely overcast; low or mixed cloud. |
| 06 — bc and c; mixed cloud.        | 14 — b and o; low or mixed cloud.             |
| 07 — c and o; med. or high cloud.  |   |

*Fog with Cloud above (15-19).*  
Code figure.

- 15 equals overcast and 1f.
- 16 — overcast and 2f.
- 17 — overcast and 3f.
- 18 — overcast and 4f or 5f.
- 19 — overcast and 6f to 8f.

*Haze or Fog (20-24).*

- 20 equals Haze 1f.
- 21 — Haze 2f.
- 22 — Fog 3f.
- 23 — Fog 4f. or 5f.
- 24 — Fog 6f. to 8f.

*Wet Fog or Mist (25-29).*

- 25 equals Mist 1fe.
- 26 — Mist 2fe.
- 27 — Fog 3fe.
- 28 — Fog 4fe. or 5fe.
- 29 — Fog 6fe. to 8fe.

*Special Phenomena without Precipitation (30-49).*

- 30 equals e (wet air).
- 31 — Exceptional visibility.
- 32 — Dust Haze.
- 33 — Dew.
- 34 — Hoar Frost.
- 35 — Rime.
- 36 — Glazed Frost.
- 37 — Glazed Roads.
- 38 — Solar Halo.
- 39 — Lunar Halo.
- 40 — Solar corona.
- 41 — Lunar corona.
- 42 — Aurora.
- 43 — Squalls.
- 44 — Gale.
- 45 — Gloom.
- 46 — Ugly; threatening.
- 47 — Thunder.
- 48 — Lightning.
- 49 — Thunder and lightning.

*Precipitation.*

*Passing Showers (50-61).*

- 50 of slight } rain.
- 51 of moderate } rain.
- 52 of heavy } rain.
- 53 of slight } hail or r and h.
- 54 of moderate } hail or r and h.
- 55 of heavy } hail or r and h.

Code figure.

- 56 of slight } rs or r and rs.
- 57 of moderate } rs or r and rs.
- 58 of heavy } rs or r and rs.
- 59 of slight — snow.
- 60 of moderate — snow.
- 61 of heavy — snow.

*Occasional Precipitation (62-76).*

- 62 occasional slight d.
- 63 — moderate d.
- 64 — thick d.
- 65 — slight r.
- 66 — moderate r.
- 67 — heavy r.
- 68 — slight r and h.
- 69 — moderate r and h.
- 70 — heavy r and h.
- 71 — slight } rs or r and rs.
- 72 — moderate } rs or r and rs.
- 73 — heavy } rs or r and rs.
- 74 — slight s.
- 75 — moderate s.
- 76 — heavy s.

*Continuous or nearly Continuous Precipitation (77-91).*

- 77 slight } drizzle.
- 78 moderate } drizzle.
- 79 thick } drizzle.
- 80 slight } rain.
- 81 moderate } rain.
- 82 heavy } rain.
- 83 slight } r and hail.
- 84 moderate } r and hail.
- 85 heavy } r and hail.
- 86 slight } r and hail.
- 87 moderate } rs or r and rs.
- 88 heavy } rs or r and rs.
- 89 slight } snow.
- 90 moderate } snow.
- 91 heavy } snow.

*Thunderstorms (92-97).*

- 92 slight tlr } without hail.
- 93 moderate tlr } without hail.
- 94 heavy tlr } without hail.
- 95 slight tlr } with hail.
- 96 moderate tlr } with hail.
- 97 heavy tlr } with hail.
- 98 } Reserve Numbers.
- 99 } Reserve Numbers.



Code III.—Form of Cloud.  $\left\{ \begin{array}{l} \text{Low Cloud.—A.} \\ \text{Medium or High Cloud.—B.} \end{array} \right.$

Low Cloud:	1	equals	Facto Cumulus.
	2	—	Mammato Cumulus.
	3	—	Low Strato Cumulus (below 1200 m.).
	4	—	High Strato Cumulus (above 1200 m.).
	5	—	Nimbus.
	6	—	Cumulus.
	7	—	Cumulo Nimbus.
	8	—	Stratus.
High Cloud:	1	—	Cirrus.
	2	—	Cirro Stratus.
	3	—	Cirro Cumulus.
	4	—	False Cirrus.
Medium Cloud:	5	—	Thin Alto Stratus (Sun or Moon visible).
	6	—	Thick Alto Stratus.
	7	—	Alto Cumulus (low) (below 3 km.).
	8	—	Alto Cumulus (high) (above 3 km.).

Code IV (a), (b), (c) — Heights and Pressures of Upper Air Reports.

Code IV (a).—Height of base of  
Low Cloud.—h.

Code IV (b).—Height of Upper  
Wind.—H.

Code figure.	Metres.	Code figure.	Metres.
0 equals cloud below	150	9 equals no low cloud.	
1 — cloud below	150-300	1 equals 200	
2 — cloud below	300-500	2 — 500	
3 — cloud below	500-750	3 — 1000	
4 — cloud below	750-1000	4 — 1500	
5 — cloud below	1000-1500	5 — 2000	
6 — cloud below	1500-2000	6 — 3000	
7 — cloud below	2000-2500	7 — 4000	
8 — cloud below	2500-3000	8 — 5000	

Code IV (c).—Height or Pressure to which Temperature and Humidity Values refer.—p.

Code figure.	4 equals pressure of 900 mb.
—	5 — pressure of 850 mb.
0 equals surface.	6 — pressure of 800 mb.
1 — 300 metres above surface.	7 — pressure of 750 mb.
2 — pressure of 1000 mb.	8 — pressure of 700 mb.
3 — pressure of 950 mb.	9 — pressure of 600 mb.

Code V.—Surface Visibility and Fog.—V.

Code figure.	Most distant object visible.	Description.	Code figure.	Most distant object visible.	Description.
0	less than 25 metres	8 f	4	2000 metres	2 f or 3 V
	25 metres	7 f	5	4000 —	2 f or 4 V
1	50 —	6 f	6	7000 —	1 f or 5 V
	100 —	5 f	7	12000 —	1 f or 6 V
2	200 —	4 f	8	20000 —	7 V
	500 —	3 f or 1 V	30000 —	8 V	
3	1000 —	3 f or 2 V	9	above 30000 and clear air	9 V

*Code VI.—Relative Humidity.—H.*

Code figures.	Code figure.
0 equals 95 — 100 per cent.	5 equals 50 — 59 per cent.
9 — 90 — 94 —	4 — 40 — 49 —
8 — 80 — 89 —	3 — 30 — 39 —
7 — 70 — 79 —	2 — 20 — 29 —
6 — 60 — 69 —	1 — 10 — 19 —

*Code VII.—State of Sea.—S.*

Code figure.	Description.	Code figure.	Description.
0 equals	Calm — glassy.	5 equals	Rather rough—much furrowed.
1 —	Very smooth—slightly rippled.	6 —	Rough — deeply furrowed.
2 —	Smooth — rippled.	7 —	High rollers, steep fronts.
3 —	Slight — rocks buoy.	8 —	Very high rollers, steep fronts.
4 —	Moderate furrowed.	9 —	Phenomenal — precipitous.

*Code VIII. (a) and (b).—Fitness for Flying.*

*Code VIII. (a).—Fitness for  
Aeroplane*

*Code VIII. (b).—Fitness for  
Airships.*

Code figure.	Code figure.
0 equals entirely unfit: fog.	0 equals entirely unfit: fog.
1 — entirely unfit: rain and low cloud.	1 — entirely unfit: rain, wind, and low cloud.
2 — entirely unfit: gales.	2 — entirely unfit: gales.
3 — very risky: mist.	3 — very risky: high wind.
4 — very risky: wind and weather.	4 — very risky: occasional squalls.
5 — risky: mist.	5 — risky: strong wind.
6 — risky: wind and weather.	6 — risky: slight squalls.
7 — fit.	7 — fit.
8 — very fit.	8 — very fit.
9 — perfect.	9 — perfect.

*Code IX.—Characteristic of Barometric Tendency.—β*

Code figure.	Code figure.
0 equals steady.	6 equals steady, then falling.
1 — unsteady.	7 — falling, now steady
2 — rising.	8 — rising, now steady or falling.
3 — falling.	9 — line squall; sudden rise with marked change of wind and weather.
4 — falling, then rising.	
5 — steady, then rising.	

*Code X.—Direction of Wind.—DD.*

Direction is specified to the nearest 5° by use of the numbers 1—72. The numbers corresponding with the usual "even" points of the old telegraphic scale are as follows:—

04 equals NNE.	49 equals WSW.
09 — NE.	54 — West.
13 — ENE.	58 — WNW.
18 — East.	63 — NW.
22 — ESE.	67 — NNW.
27 — SE.	72 — North.
31 — SSE.	
36 — South.	To express directions calculated in
40 — SSW.	degrees in this scale, divide the num-
45 — SW.	ber of degrees by 5 (or multiply by
<i>e.g.</i> , 17° equals 03; 53° equals 11; 257° equals 51; 313° equals 63.	2 and divide by 10).

## ANNEX H.

## CUSTOMS

## GENERAL PROVISIONS

## 1.

Any aircraft going abroad shall depart only from aerodromes specially designated by the customs administration of each contracting State, and named "customs aerodromes."

Aircraft coming from abroad shall land only in such aerodromes.

## 2.

Every aircraft which passes from one State into another is obliged to cross the frontier between certain points fixed by the contracting States. These points are shown on the aeronautical maps.

## 3.

All necessary information concerning customs aerodromes within a State, including any alterations made to the list and any corresponding alterations necessary on the aeronautical maps and the dates when such alterations become valid, and all other information concerning any international aerodromes which may be established, shall be communicated by the States concerned to each other and to the International Commission for Air Navigation, which shall notify such information to all of the contracting States. The contracting States may agree to establish international aerodromes at which there may be joint customs services for two or more States.

## 4.

When, by reason of a case of *force majeure*, which must be duly justified, an aircraft crosses the frontier at any other point than those designated, it shall land at the nearest customs aerodrome on its route. If it is forced to land before reaching this aerodrome it shall inform the nearest police or customs authorities.

It will only be permitted to leave again with the authorization of these authorities, who shall, after verification, stamp the log book and the manifest provided for in paragraph 5: they shall inform the pilot of the customs aerodrome where he must necessarily carry out the formalities of customs clearance.

## 5.

Before departure, or immediately after arrival, according to whether they are going to or coming back from a foreign country, pilots shall show their

log books to the authorities of the aerodrome and, if necessary, the manifest of the goods and supplies for the journey which they carry.

## 6.

The manifest is to be kept in conformity with the attached form N° 1.

The goods must be the subject of detailed declarations in conformity with the attached form N° 2, made out by the senders.

Every contracting State has the right to prescribe for the insertion either on the manifest or on the customs declaration of such supplementary entries as it may deem necessary.

## 7.

In the case of an aircraft transporting goods the customs officer, before departure, shall examine the manifest and declarations, make the prescribed verifications and sign the log book as well as the manifest. He shall verify his signature with a stamp. He shall seal the goods or sets of goods, for which such a formality is required.

On arrival the customs officer shall ensure that the seal is unbroken, shall pass the goods, shall sign the log book and keep the manifest.

In the case of an aircraft with no goods on board, the log book only shall be signed by the police and customs officials.

The fuel on board shall not be liable to customs duties provided the quantity thereof does not exceed that needed for the journey as defined in the log book.

## 8.

As an exception to the general regulations, certain classes of aircraft, particularly postal aircraft, aircraft belonging to aerial transport companies regularly constituted and authorized and those belonging to members of recognized touring societies not engaged in the public conveyance of persons or goods, may be freed from the obligation of landing at a customs aerodrome and authorized to begin or end their journey at certain inland aerodromes appointed by the customs and police administration of each State at which customs formalities shall be complied with.

However, such aircraft shall follow the normal air-route, and make their identity known by signals agreed upon as they fly across the frontier.

## REGULATIONS APPLICABLE TO AIRCRAFT AND GOODS.

## 9.

Aircraft landing in foreign countries are in principle liable to customs duties if such exist.

If they are to be re-exported, they shall have the benefit of the regulations as to permit by bond or deposit of the taxes.

In the case of the formation between two or more countries of the Union of touring societies, the aircraft of the said countries will have the benefit of the regulations of the "Tryptique."

## 10.

Goods arriving by aircraft shall be considered as coming from the country where the log book and manifest have been signed by the customs officer.

As regards their origin and the different customs régimes, they are liable to the regulations of the same kind as are applicable to goods imported by land or sea.

## 11.

With regard to goods exported in discharge of a temporary receiving or

bonded account or liable to inland taxes, the senders shall prove their right to send the goods abroad by producing a certificate from the customs of the place of destination.

#### AIR TRANSIT.

##### 12.

When an aircraft to reach its destination must fly over one or more contracting States, without prejudice to the right of sovereignty of each of the contracting States, two cases must be distinguished:—

1. If the aircraft neither sets down nor takes up passengers or goods, it is bound only to keep to the normal air route and make itself known by signals when passing over the points designated for such purpose.

2. In other cases, it shall be bound to land at a customs aerodrome and the name of such aerodrome shall be entered in the log book before departure. On landing, the customs authorities shall examine the papers and the cargo, and take, if need be, the necessary steps to ensure the re-exportation of the craft and goods or the payment of the dues.

The provisions of paragraph 9 (2) are applicable to goods to be re-exported.

If the aircraft sets down or takes up goods, the customs officer shall verify the fact on the manifest, duly completed, and shall affix, if necessary, a new seal.

#### VARIOUS PROVISIONS.

##### 13.

Every aircraft during flight, wherever it may be, must conform to the orders from police or customs stations and police or customs aircraft of the State over which it is flying.

##### 14.

Customs officers and excise officials, and generally speaking the representatives of the public authorities shall have free access to all starting and landing places for aircraft; they may also search any aircraft and its cargo to exercise their rights of supervision.

##### 15.

Except in the case of postal aircraft, all unloading or throwing out in the course of flight, except of ballast, may be prohibited.

##### 16.

In addition to any penalties which may be imposed by local law for infringement of the preceding regulations, such infringement shall be reported to the State in which the aircraft is registered, and that State shall suspend for a limited time, or permanently, the certificate of registration of the offending aircraft.

##### 17.

The provisions of this Annex do not apply to military aircraft visiting a State by special authorization (Articles 31, 32, and 33 of the Convention), nor to police and customs aircraft (Articles 31 and 34 of the Convention).

NOTE.—The manifest should not bear on it erasures or corrections except those approved by the proper customs officials, nor contain interlineations or several articles entered on the same line. As many extra sheets may be added as are necessary.

## AIR NAVIGATION

### MANIFEST

#### OR GENERAL DECLARATION OF CARGO.

Space reserved for entries by Customs Officers.

MACHINE.....	{	Registration Mark. .....
COMMANDING OFFICER.	{	Name: Residence: Nationality: Number of License:
GOODS.....	{	Place of departure:   Country: Place of destination:   Country: Number of annexed declarations: .....

The Commanding Officer guarantees the accuracy of the contents of this manifest under penalties provided by law. Consequently he has dated and signed this document immediately below the last entry.

File Number of Document.	Marks and Numbers on the Parcels.	Number (in Figures and Letters) and descriptions of Parcels.	Nature of the Goods.	Weight.	Observations.

AIR NAVIGATION

Place of departure

Place of departure:

*Customs declaration made by M.*

*for the following goods:*

Parcels. Marks and Numbers.	Nature of Goods.	Detailed Description of Contents.	Country of Origin.	Value.	Weight.		Observations.
					Gross.	Net.	

At

the

day of

19

*Consignor,*

### AERIAL LAW RESOLUTION BY AMERICAN LEGION

The American Legion, at its National Convention in Cleveland, September 27, adopted the following resolution:

WHEREAS, the United States of America has, at the present time, no federal legislation affecting the manufacture, flying or landing of aircraft, and

WHEREAS, a lack of such legislation leads to extremely dangerous confusion and retards the development of aircraft, which is of vital importance to the national defense, therefore,

*Be It Resolved*, That the American Legion, in national convention assembled, does hereby request the Congress of the United States of America at once to enact legislation which has for its object a development of the art and industry of flying by passing proper laws regarding it; this legislation to cover the licensing of aircraft for air worthiness; periodic inspection and reinspection of aircraft while in service; the initial examination and licensing of pilots for various types of flying, and periodic re-examination of such pilots in order to determine their continued fitness for flying; and the definition and specification of what constitute proper landing fields.

### NEW YORK STATE AERIAL LAW RESOLUTION

The New York State Assembly passed the following resolution in February, 1920:

WHEREAS, aviation and aerial navigation has passed the experimental stage and is now recognized as a useful, safe and practicable method of the transportation of both person and merchandise; and

WHEREAS, little, if any, legislation has been enacted either by the individual states or by the United States of America, governing the use, control and development of aircraft and aerial navigation; and

WHEREAS, it appears self evident by reason of the intricacies of the aerial problem of the necessity of a uniform law in all of the United States of America, creating certain fundamental propositions defining, limiting and extending the use, control and development of said aerial navigation by the citizens of the respective states; and

WHEREAS, the sovereign state of New York has long past recognized the need of immediate federal legislation providing for such regulation and development of this modern method of transportation and that the said State is now preparing to enact legislation along similar lines, as hereinbefore set forth.

*Now, Therefore, Be It Resolved (if the Senate concur)*, That the legislature of the State of New York respectfully urge the congress of the United States to enact such laws as they may deem proper and expedient for the regulation of the use, control and development of all air craft and aerial navigation in and through all the states and territories of the United States of America, pertaining and applicable to all private individuals, associations and corporations.

*Further Resolved*, That a copy of this resolution be transmitted in due form, by the clerks of the legislature to the respective clerks of the Senate and House of Representatives of the Congress of the United States.

### AIRCRAFT INSURANCE

Although aircraft insurance has been written in the United States since 1912, it was not until 1920 that protection against loss or damage by operation was



available. Insurance companies from the beginning have recognized the importance of covering all possibilities, but they have been handicapped by the lack of proper Federal Laws, the danger of local or state legislation, and by the consequent inability to collate accurate, comprehensive statistics.

In March, 1920, the National Aircraft Underwriters Association was formed, including within its membership the following firms: Aetna Life Insurance Co.; Aetna Casualty and Surety Co.; Automobile Insurance Co. of Hartford, Conn.; National Liberty Insurance Co.; Firemen's Fund Insurance Co.; Home Insurance Co., and the Globe and Rutgers Insurance Co. The Travelers Insurance Co., which is not a member, also offers aircraft insurance. These companies are now writing various kinds of aircraft insurance on 95% of the total number of insured planes in the United States. In the organization there are also seventeen associate member companies which plan eventually to write aircraft insurance. Many of these are life insurance companies seeking pilots' records and fatality and accident reports for use in their regular business.

The National Aircraft Underwriters' Association is co-operating with the Underwriters' Laboratories of Chicago and with the Manufacturers' Aircraft Association, in compiling data, which will include causes of accidents, physical characteristics and flying ability of machines, air port facilities, etc.

At its first annual meeting, November 30, 1920, the National Aircraft Underwriters' Association, through its Executive Committee, of which Edmund Ely is chairman, went on record as urging the immediate formulation and enactment of a Federal aerial code. The report declared: "While we are engaged in the insurance of aircraft, presumably, in the face of all experience, to derive a profit for our companies, I conceive a different aspect to our province. Granting that proper insurance protection is essential to successful and widespread commercial operation of aircraft, it should be borne in mind that the passenger-carrying ship in time of peace is the potential bomber in time of war. In the face of intensive cultivation of the art of flying abroad, it is the plainest common sense as well as a patriotic duty for the insurance interests to devote such time and thought to the subject as will enable us to assist in the establishment of equal standards here. Considerations of commerce, national pride and national safety urge us to give all possible furtherance to flying development in this country and we solicit the continued and whole-hearted support of our membership and the entire insurance fraternity toward this end."

Following are the officers of the National Aircraft Underwriters' Association: Edmund Ely (Aetna Life), President; E. Stockton Martin (Home), Vice-president; Charles H. Payne (National Liberty), Secretary; J. D. Lester (Globe and Rutgers), Treasurer, and R. J. Smith, Assistant Secretary. Mr. Smith has charge of the association offices at 132 Nassau Street, New York City, and invites correspondence.

As of December, 1920, the following lines of aircraft insurance are available:

Fire: Covering all loss by fire to the machine itself while in the air, on the ground, in the hangar or in any location.

Collision: Based on the ability of the pilot, condition of the machine and motor, uses to which the plane will be put, territory over which it will be operated, etc. Permission is given to carry passengers, do cross-country flying, photography and advertising, each at an additional premium. Cargo is insurable, but this field has been limited, so far. Life insurance on the pilot or passenger is written either through an accident ticket for one day