Article 7. — Air mail shall be charged, in addition to the ordinary postage rates of all kinds, extra postage fixed by common agreement. The extra postage charged by the postal administrations of the countries passed through shall be based on the same scales of weight. It shall be fixed according to the equivalent remuneration paid by the administrations of the countries passed through to the air carriers, it being understood that such remuneration shall be increased so as to take into account the expense borne by the postal service.

Changes in the rates of extra postage may be made only after agreement between the High Contracting Parties as provided for in Article 14 hereafter and in conformity with the regulations concerning air mail. Priority of transport shall be reserved for air mail as against any other freight.

Article 8. — The advantages accorded and the obligations imposed by the postal administrations under the authority of the High Contracting Parties shall be identical for both companies.

Article 9. — Each of the High Contracting Parties undertakes to ensure in the territories under its sovereignty the organisation and maintenance of the infrastructure necessary for the Belgium-France-Congo connection.

Such organisation shall be defined by common agreement by the two Governments; its main outlines are already indicated in the Annex to the present Convention. It shall be pursued in such a manner as to permit, with the least delay possible, continuous air operation both by day and by night.

The two companies — French and Belgian — may both use such infrastructure under the same conditions, while conforming to the rules as to use prescribed by the Governments.

The fees and charges payable for the use of this infrastructure shall be fixed by common agreement by the Governments of the two countries.

Article 10. — Each of the High Contracting Parties undertakes during the continuance of the present Convention, and within the limits of the credits granted, to ensure to the company charged with the operation of the line the financial aid necessary for the regular working of the line.

Article 11. — The service of the line in its common part shall be carried out alternately by the French company and the Belgian company, save in circumstances of a character essentially temporary and recognised as such by the two companies and resulting, for example, from the necessity to cope immediately with a sudden influx of traffic.

The frequency of the regular service shall be one journey weekly in each direction; it will eventually be increased by a decision taken by the two Governments in agreement.

According to traffic necessities, the regular service may be completed by supplementary journeys, limited to a total of ten per year, save by special decision taken by the two Governments in agreement.

Article 12. — Each of the two operating companies shall compulsorily ensure the conveyance of postal despatches which are handed to it at any one of the stopping-places of the line.

Article 13. — The two companies shall conclude between themselves agreements fixing particularly the details of their technical and commercial collaboration, the conditions under which they may exceptionally replace each other, the apportionment of the common operating expenses, as well as of the traffic, in accordance with a formula which will balance one with the other on the joint portion of the line.

The contemplated operation may not commence until the initial agreement is in force.

Article 14. — Each of the High Contracting Parties shall approve prior to their entry into force:

- All agreements between the Belgian Company and the French Company;
- Any modification of, or supplement to, such agreements;
- All matters relating to postal surcharges, rates and time-tables.

Article 15. — The present Convention is valid for a duration of ten years counting from the first day of the month next following the exchange of ratifications. It will be tacitly renewed for further periods of ten years in the absence of notice duly given two years prior to the expiration of each ten-year period.

Article 16. — In case either of the High Contracting Parties should decide for any reason whatsoever to renounce temporarily or permanently the operation of the line, the other High Contracting Party shall retain the right to operate it on the conditions provided for by the present Convention and during its entire continuance in force.

Article 17. — In the case of a disagreement as to the interpretation or application of the present Convention,
The chief provisions are as follows:

"Article 1. — The Governments of the U.S.S.R. and of Afghanistan will each place two of their aeroplanes at the disposal of the Kabul-Tachkent air line as well as sufficient aviation personnel for the service in question. The departure of the aeroplanes from Tachkent to Kabul and from Kabul to Tachkent will take place twice a month in accordance with the departure time-table and apart from such time-table if necessary.

"Article 2. — The Afghan Government undertakes to create and to maintain in good condition within its territory the aviation and landing-grounds as well as all apparatus or material necessary for the air line.

"Article 3. — The Government of the U.S.S.R. undertakes to create and to maintain in good condition within its territory the aviation and landing-grounds as well as all apparatus or material necessary for the air line.

"Article 4. — The Government of the U.S.S.R. undertakes to supply to the Afghan aviation authorities, at the U.S.S.R. prices, the quantity of naphtha and fuel or oil necessary for the working of the Kabul-Tachkent air line.

"Article 5. — The payment of the U.S.S.R. personnel employed on the air line is an obligation of the Government of the U.S.S.R. and the payment of the Afghan personnel is an obligation of Afghanistan. The two Governments of Afghanistan and of the U.S.S.R. will communicate to each other in advance the names of the engineers and pilots who will be employed on the air line.

"Article 7. — The accounts and reciprocal payments for each year in respect of the fuel, oil and any other products, etc., which the aeroplanes of each party have received or consumed in the territory of the other, will be settled in January of the following year between the plenipotentiary representative of the U.S.S.R. at Kabul and the Ministry for Foreign Affairs of the Kingdom of Afghanistan."

CHAPTER III.

POOLS.

Several of the conventions, extracts from which have been given above, are designed to establish co-operation between those companies of the two countries concerned which, under the terms of the agreement, are going to operate on a common line. It often happens that a situation similar to what has been described arises without an inter-State convention being concluded, the State over whose territory flights are to be made merely granting to a foreign company the right to operate a particular line provided that it comes to an agreement with the national company.

Such agreements between companies are numerous and of long standing. The number of companies operating the same line (there have sometimes been as many as six), and the competition for the few customers available, have long created difficult operating conditions. The companies have endeavoured to meet them by agreements for restricting competition or for minimising some of its effects. These agreements are known as pooling agreements. They usually imply the sharing of the receipts according to certain rules, but not the sharing of the subsidies which often form the chief part of the income of private companies.

The exact nature of the agreements is not generally published. The companies invoke, in this connection, the necessity for secrecy in matters of business. It is therefore only possible to give here:

1. A list of the pools to which the " Luft-Hansa " belongs;
2. A specimen of a pooling agreement, which is not a copy of any actual agreement, but which indicates the spirit in which most of them are drawn up.

LIST OF AGREEMENTS ESTABLISHING POOLS.

<table>
<thead>
<tr>
<th>German Foreign Company</th>
<th>Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.L.H. Farman</td>
<td>Berlin-Cologne-Paris</td>
</tr>
<tr>
<td>D.L.H. Farman</td>
<td>Berlin-Saarbruck-Paris</td>
</tr>
<tr>
<td>D.L.I. Swissair</td>
<td>Zurich-Munich-Salzburg-Vienna (with Oelag)</td>
</tr>
<tr>
<td>D.L.II. Swissair</td>
<td>Geneva-Berne-Zurich-Munich-Salzburg-Vienna</td>
</tr>
<tr>
<td>D.L.II. S.A.M. (Berlin)</td>
<td>Munich-Venice-Rome</td>
</tr>
<tr>
<td>D.L.H. A.B.A.</td>
<td>Malmo-Copenhagen-Lubeck</td>
</tr>
<tr>
<td>Det Danske Luftfartselskab Hamburg</td>
<td></td>
</tr>
<tr>
<td>D.L.H. Farman</td>
<td>Malmö-Copenhagen-Hamburg</td>
</tr>
<tr>
<td>K.L.M. 509, 511</td>
<td></td>
</tr>
<tr>
<td>Sabena 517</td>
<td></td>
</tr>
</tbody>
</table>
German Company | Foreign Company | Line
---|---|---
D.L.H. | D. D. L. | Berlin-Stettin-Copenhagen
D.L.H. | Cechoslovak | Berlin-Dresden-Prague-Vienna (with Oelag)
D.L.H. | Cechoslovak | Marienbad-Karlsbad-Chemnitz-Halle/Leipzig
D.L.H. | Oelag | Berlin-Dresden-Prague-Vienna-Budapest. At present not in operation.
D.L.H. | A.L.J. | Berlin-Munich-Milan

OPERATION AGREEMENT.
BETWEEN
A ........................................ hereinafter briefly referred to as ..........
AND
X ..................... hereinafter briefly referred to as ..........

It has been agreed as follows:

Article 1.
The two companies A ..... and X ..... shall represent each other in ..... (country) and in ..... (country) on the lines authorised by the Governments and forming the subject of the present Agreement.

Article 2.
During the validity of the present Agreement, A ..... undertakes to entrust exclusively to X ..... the organisation of the land installation and of the airports on the lines authorised in ..... (country). X ..... assumes the same obligations towards A ..... in respect of the lines authorised in ..... (country) and operated by A ..... .

Article 3.
A ..... and X ..... undertake to represent each other and to assist each other in all negotiations concerning the operation of the lines.

Article 4.
A ..... shall maintain in ..... (country) and X ..... shall maintain in ..... (country) a principal agency for the operation of their lines. The two companies are entitled to entrust branch agencies in their respective countries to third parties. The expenditure in connection with travelling agencies, advertisements, etc., arising out of the representation of each company by the other shall be borne by the company established in the country concerned; placards and any other advertising material shall, however, be supplied in sufficient quantities free of charge by the company which is being represented. Each of the two companies undertakes to make suitable use in its own country of the advertising material. In addition, a special agreement shall be concluded with regard to the passing through the Customs of passengers and goods.

Article 5.
Each of the two contracting companies shall place at the disposal of the other in its own country its administrative and technical organisations on the lines to which the agreement applies. The organisation services which one company must render to the other shall include correspondence and the keeping of traffic registers, together with the drawing up of statistics to the extent which is customary on the part of the operating company; the accepting of consignments for aerial transport, the receiving of transport fees, the representation of the foreign company in dealings with the Customs administration, the Police and other authorities, the reimbursement, if necessary, of transport fees received, the maintenance of the service for transporting passengers and their baggage, postal packets and goods to and from the airport, the putting of aeroplanes into service, the garaging of the aeroplanes in the hangars, the bringing of them out before taking off, the exemption from charges in respect of taking off, landing and garaging, the payment of any charges for the services of the Customs staff at the airports, preparations for taking off, including the filling of the water, petrol and oil tanks, the cleaning of the cabins, the greasing and oiling of the landing gear, and the testing of the engines before taking off. The services in the domain of land organisation include the despatch of passengers, postal consignments and goods and of the aeroplanes themselves, the meteorological service for the pilots, including the use of a wireless station, and also the payment of the usual telegraphic and telephonic charges. (No responsibility can be taken for the accuracy and punctuality of the information.) The organisation services must also be rendered for the ordinary traffic when aeroplanes arrive ahead of time or late and also in the case of flights carried out on Sundays; nevertheless, expenditure occasioned by the services which a company may render in connection with Sunday flights which must be notified in advance shall be charged to the other company, with the exception of the expenditure in connection with the Sunday flights provided for in the agreement. The employees and pilots of the other company shall be transported free of charge in so far as places are available.

Further, each company shall place at the disposal of the other on the landing-grounds an office with telephonic installation and, on demand, a warehouse for spare parts. Correspondence and intimations for the technical service shall be exchanged direct between the offices of the two companies in accordance with supplementary arrangements. At Berlin, no service shall be organised for transporting passengers and goods to and from the air-port.

Article 6.
The maintenance charges in connection with the aeroplanes in use shall be borne by the company to which the aeroplanes belong, together with all expenditure for repairs, fuel, material, etc. No special charge shall be made for the work falling within the category of services mentioned in Article 5.
The price of the material shall be calculated by the company which supplies it on the basis of the replacement cost borne by the supplying airport, increased by ... per cent in respect of administrative expenses. Each company shall be entitled to replace the material taken over by material of the same nature and quality; such replacement must, however, be effected within a period of ... months after the despatch of the notification that the material has been taken over to the offices of the company to which the material has been supplied.

All work and repairs for the aeroplanes of the foreign company shall, if they do not fall within the provisions of Article 5, be carried out on the basis of the local wage scale, increased by ... per cent in respect of general expenses.

The pilot or mechanic who gives instructions for such work to be done must supply the technical service of the airport concerned with a written order. Work of importance arising out of the partial destruction of aeroplanes shall form the subject of investigation in each case; in such cases the increase in respect of general expenditure may be raised to ... per cent of the local wage scale. Such work may, however, only be executed with the consent of the manager of the company which places the order.

Article 7.

The contracting companies shall be entitled to maintain at their own expense in the airports of the foreign company a representative and a staff of their own, to whom the company of the country concerned must grant assistance free of charge. Nevertheless, the staff in question must comply with the general instructions of the traffic manager and with the service regulations in force in the airport. When such staff is not employed on work for their own company, they shall be at the disposal of the other company, at the place where they are stationed, during ordinary working hours.

During the period of operation of the air services A..... shall maintain in the town of.......... and X..... shall maintain in the town of.......... at their own expense at least one mechanic.

Article 8.

Liability towards third parties arising out of the possession and use of an aeroplane shall rest upon the owner of the aeroplane. The garaging and storing of aeroplanes and of material and the execution of the services mentioned in Article 5 shall be at the sole risk of the owner of the aeroplane; nevertheless, the traffic service of the other company shall be responsible for seeing that the wheeling and braking are only carried out by the personnel of the owner of the aeroplane and that the regulation prohibiting the filling of the petrol-tanks in the hangars and prohibiting smoking during this operation is strictly observed; as an exceptional measure, the petrol-tanks may be filled in the hangars by order of the traffic manager if there is no petrol-station in the open air or if the state of the weather justifies such measure. The oil-tanks may always be filled in the hangars.

In the event of a forced landing in the area of one of the companies, the company shall render assistance at the sole risk of the owner of the aeroplane.

Article 9.

It is proposed to operate air services as shown in Annex 1. That annex also contains more detailed information with regard to the services which each company shall render to the other in the domain of land organisation and with regard to the expenses in connection therewith; it likewise contains regulations with regard to the functioning of the pool.

The company responsible for the service shall designate in respect of its own part of the traffic operations the air personnel and material to be employed.

Article 10.

At the end of each month at latest, A..... and X..... shall transmit to each other in respect of the past month an account of the material, fuel, etc., delivered. The quantities of lubricants and fuel consumed by the two companies shall be set off against each other at the end of the month. The monthly accounts shall only include the surpluses calculated at the price of the day without increase.

The accounts shall be settled within fourteen days after their receipt.

Article 11.

The present Agreement shall be applicable during the period of operation indicated in Annex 1, subject to the exceptional provisions contained therein with regard to denunciation. The Agreement may be prolonged at any time by the two parties as soon as special arrangements have been concluded with regard to the points mentioned in Annex 1; if this is not done, the Agreement shall come to an end on the conclusion of the last air navigation service indicated in the Annex 1. Further, each of the contracting parties shall be entitled to denounce the Agreement by giving four weeks' notice, to take effect at the end of any period.

Annex 1

TO THE OPERATION AGREEMENT BETWEEN A.... AND X.... FOR THE PERIOD..... TO...
(c) on the route between S and T (goods transport) three times weekly in each direction, by single-engined machines during the period . . . . to . . . .

(d) on the line between U and W six times weekly in each direction, by multi-engined machines during the period . . . . to . . . .

By A . . . . on Sunday : (e) on the route between Q and R in each direction by multi-engined machines, during the period . . . . to . . . .

II. By X . . . . on working days : 
(a) see I(a) ;
(b) see I(b) ;
(c) see I(c).

Traffic on the lines I(a), II(a), I(b), II(b) and I(c), II(c) shall be so organised that A . . . . and X . . . . operate the lines jointly and that the two services supplement each other to constitute a service six times weekly. The two companies shall arrange that a regular service in each direction is ensured on the lines in question. Should the service require to be doubled, or special flights undertaken, the expenses shall be met by the operating company. If one company carries out a flight for the other, it may make the return flight also. The other company shall endeavour to carry out a similar supplementary flight, so that both companies shall, at the end of the month, have executed as nearly as possible half the regular flights.

2. The administrative and land organisation mentioned in Article 5 of the operation agreement shall be set up by A . . . . at . . . . (town) and by X . . . . at . . . . (town).

As regards the personnel, each company shall supply at its own expense during the period of operation :
X . . . . at (town) . . . . . . . . . . mechanics.
A . . . . at (town) . . . . . . . . . . mechanics.

3. Expenditure arising out of the land organisation mentioned in Article 5 of the main agreement shall be met by the company making use of such organisation, in the form of lump sums payable on the last day of each month. Such sums shall be calculated from the beginning of the period of operation, and for its duration.

A . . . . shall pay to X . . . . :

On line 1 I(a) for the town of . . . . . . . . . . RM . . . . . . per month
" 1 I(b) " " . . . . . . . . . . RM . . . . . . "
" 1 I(c) " " . . . . . . . . . . RM . . . . . . "
" 1 I(d) " " . . . . . . . . . . RM . . . . . . "
" 1 I(e) " " . . . . . . . . . . RM . . . . . . "
" 1 I(d) " " . . . . . . . . . . RM . . . . . . "
" 1 I(e) " " . . . . . . . . . . RM . . . . . . "
For one Sunday flight in each direction RM . . . . .

The expenditure incurred by X . . . . at . . . . (town) on behalf of A . . . . on lines 1 I(a), (b) and (c) shall be regarded as set-off and settled by the expenditure incurred by A . . . . at . . . . (town) on behalf of X . . . . on lines II(a), (b) and (c).

Special agreements shall be concluded regarding the land organisation services rendered at . . . . (town). X . . . . shall make no charge for the housing of one of A’s . . . . reserve machines at . . . . (town). If provision is not made for the operation of the lines for complete months, or if the period of operation is subsequently modified, the monthly lump sum shall be replaced by a daily payment equal to . . . . of the lump sums specified above ; if, however, the period of operation lasts for half a month, the said payment shall not exceed one half of the lump sums. If the lump sums specified above are not calculated on operations involving six services per week in each direction, the proportional figure of . . . . shall be increased accordingly.

As regards the carrying out of special flights, a charge of RM . . . . . shall be levied on single-engined machines and of RM . . . . . on multi-engined machines per day and per airport for operation in one direction; the same treatment shall be applied both to airports along the route and to the terminus airport.

4. The pool regulations shall be as follows for lines 1 I(a), II(a), I(b), II(b) and I(c), II(c) : receipts from subsidies of every kind shall remain entirely at the disposal of the companies. Receipts from passenger, goods and mail services (mail transport being calculated at the usual rates) shall be pooled and divided between the companies in proportion to the useful load and number of kilometres flown.

The following factors shall be used in calculating the proportion of the useful load :

<table>
<thead>
<tr>
<th>Type of machine</th>
<th>(a) factor</th>
<th>(b)</th>
<th>(c)</th>
<th>(d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
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</tr>
</tbody>
</table>
The pool accounts shall be made up monthly on the date prescribed in Article 10 of the operation agreement. Before the pool accounts are made up, a commission of ... per cent shall be deducted from the receipts, which commission the two companies shall grant each other in respect of the lines covered by the pool and the transport of passengers and goods. Should a company grant to third parties special commission in excess of the figure mentioned above, it shall nevertheless pay into the pool the full transport rate, less the ... per cent mentioned above.

If the regular service is supplemented by the employment of special machines on the lines covered by the agreement, the receipts thus obtained shall accrue to the operating company. The pool accounts shall, however, be established as if full use had been made of the useful load of the regular service machine corresponding to the special machine.

Special Arrangements.

As regards lines 1(a), II(a): In the event of the use by X...... of machines type...... only, a proportion...... in favour of A...... and in favour of X...... shall be taken as the useful load instead of the proportion indicated above.

As regards lines 1(c), II(c), the receipts shall be divided in the ratio of...... to...... When machines with different useful loads are employed, a weight of freight amounting to...... kg. per machine of each of the contracting parties shall be deemed to be the limit of the useful load. Should a machine actually carry a heavier load, the receipts therefrom shall not be contributed to the pool but shall accrue to the operating company.

5. The provisions regarding the traffic referred to in No. 1 and the other provisions shall apply on condition that the subsidy required by each of the contracting parties be granted in full. Failing this, each of the two contracting parties shall have the right to denounce the agreement at...... days' notice.

Part 4.

WORK OF THE LEAGUE OF NATIONS IN CONNECTION WITH CO-OPERATION BETWEEN CIVIL AVIATIONS AND THE PREVENTION OF THEIR USE IN WAR.

CHAPTER I. - WORK OF THE PREPARATORY DISARMAMENT COMMISSION.

The possible use of civil aviation for military purposes has been in the minds of all those who have directed their attention since the war to the grave problem of the reduction of armaments. Traces of this preoccupation may be found in the work of the Versailles Conference, and again at the Washington Conference (1921-22), the Air Commission of which submitted an important report on the subject.

Three dominant ideas may be noted in this essential document:

1. The possibility of using civil aviation for purposes of war renders the limitation of the latter inoperative if the former is not also limited in respect of numbers and allowable features.

2. The limitation of civil aviation is technically possible, but would have the most regrettable results by hampering progress, and would thus run counter to the end in view, since the development of civil aviation by facilitating communications must, in the long run, help to strengthen peace.

Consideration of these two principles in conjunction with one another led the Commission to the conclusion that:

3. Except in the special case of aircraft lighter than air, it is not practicable effectively to limit in any way the number and features of aircraft, whether commercial or military.

This Washington doctrine was never officially approved on the part of the League, whether by the Assembly or by its Third Committee, or by the Permanent Advisory Commission or the Mixed Temporary Commission which was then studying disarmament. The problem was to be discussed again after the constitution of the Preparatory Commission for the Disarmament Conference.

The need for including aviation in any general scheme for the reduction of armaments was vigorously affirmed in the Commission from the first by a large number of speakers. The association of the problem with the problem of the organisation and development of civil aviation was also pointed out. It was the occasion of thorough and prolonged
discussion in Sub-Commission A (on which the military, naval and air technical experts sat), which met during 1926.

Agreement could not be reached on the substance of the question.

The German and United States delegations took the view that civil aviation in itself is not of any considerable value as potential war armament.

All the other delegations, on the other hand, maintained:

That the personnel and material of civil aviation constitute potential war armaments of the utmost value owing to the facility and rapidity with which, generally speaking, they can be utilised for certain military purposes.

On the substance of the question, the delegations of Belgium, Chile, France, Italy, Poland, Roumania, Czechoslovakia and Yugoslavia maintained that any method of
The Committee met from February 7th to 12th, and, in the course of twelve meetings which it held, it made a thorough study of the questions submitted to it. The Committee was called upon:

1. To examine the economic consequences which would be entailed by the system of aggregate limitation of civil and military aeronautics contemplated by Sub-Commission A.

2. Proceeding on more general lines, to submit its observations and suggestions on the economic consequences of any method of limiting air armaments which would enable civil aeronautics to be taken into account.

The Committee began by recognising unanimously the principle that:

"In any limitation of air armaments it is essential to avoid hampering the development of civil aviation."

The Committee was further unanimous in holding that the aggregate limitation of civil and military aeronautics could not be effectively enforced without hampering the development of civil aviation, and consequently without unfortunate economic consequences. It was of opinion that the method of limiting military aviation, on the understanding that the obligation assumed would cease to bind the contracting parties in the event of civil aviation developing on such a scale as to exceed anticipations, was open to the same objections.

More generally, the Committee expressed its attitude as a whole in the following form:

1. It is desirable that the development of civil aviation should be directed solely towards economic ends, and should remain outside the sphere of military interests.
2. Civil aviation should be organised on autonomous lines, and every effort should be made to keep it separate from military aviation.
3. If States intervene in any capacity, whether directly or indirectly, wholly or partially, in civil aviation undertakings, it is desirable that the State organs dealing with the matter should be quite separate from the organs dealing with military aviation. The suggestions made below should apply to all civil aviation undertakings, whether private or State-owned.
4. It is desirable that Governments should refrain from prescribing the embodiment of military features in the build of civil aviation material, so that this material may be constructed for purely civil purposes, more particularly with a view to providing the greatest possible measure of security and the most economic return.
5. The Committee desires to point out that a note of warning should be sounded against contemplating any restriction of the construction of civil aircraft by the application of present-day aeronautical formulae, such as horse-power, ratio of loading per horse-power and ratio of wing areas per horse-power, etc., which, in the rapid developments taking place, would unquestionably lead to serious economic consequences.
6. As regards personnel and, in particular, pilots, it would be desirable that civil aviation undertakings of all kinds should not require such personnel to have received a military training or give preference to those who have received such training.

"It is a fortiori desirable that these undertakings should not give their personnel such training as would be of use solely for military purposes.

7. The Committee desires to point out the undesirable effects which may result from the direct or indirect encouragement by Governments of civil air transport lines for military rather than for economic or social purposes.

8. At the present time, civil aviation in most cases has become national in character. It would seem desirable to encourage the conclusion of economic agreements between civil aviation undertakings in the different countries."

Thus, in the experts' opinion, the solution of the problem should be sought, not by placing further restrictions on civil aviation, but, on the contrary, by removing the many obstacles which at present stand in the way of its development; not by hampering its progress, but, on the contrary, by facilitating it by means of closer co-operation between civil aviation in the different countries in such a way as to make the latter less exclusively national.

Point 8 of this resolution formed the subject of a fresh series of studies under the direction of the Communications and Transit Organisation, with regard to co-operation between civil aviation undertakings. This will be referred to presently. Mention should first be made of the action taken by the Preparatory Commission itself on the Committee's suggestions.

The following proposals were submitted to the Preparatory Commission, at its meeting on April 4th, 1927, by M. de Brouckère, who had presided over the Brussels meetings:

1. If the High Contracting Parties intervene in any capacity, whether directly or indirectly, wholly or partially, in civil aviation undertakings, they agree that the State organs dealing with the matter shall be quite separate from the organs dealing with military aviation. The suggestion made below should apply to all civil aviation undertakings. It is agreed that this undertaking does not prevent the union of civil and military aviation under a single Ministry, provided that it contains two completely autonomous and separate branches.

2. The High Contracting Parties shall refrain from prescribing the embodiment of military features in the build of civil aviation material, so that this material may be constructed for purely civil purposes, more particularly with a view to providing the greatest possible measure of security and the most economic return.

3. The High Contracting Parties undertake not to require of civil aviation undertakings that they should employ only personnel specially trained for military purposes. They undertake to avoid seconding personnel from military to civil aviation.

4. The High Contracting Parties undertake not to subsidise civil air transport lines established for strategic and not for economic or social purposes.
Party concerned in virtue of Part I, or Articles 25 and 26, of the present Convention, as the case may be.

"3. The High Contracting Parties undertake not to subsidise, directly or indirectly, air lines principally established for military purposes instead of being established for economic, administrative or social purposes.

"4. The High Contracting Parties undertake to encourage as far as possible the conclusion of economic agreements between civil aviation undertakings in the different countries and to confer together to this end."

The 1927 Assembly, it should be added, adopted a resolution requesting the Council to instruct the Advisory and Technical Committee for Communications and Transit to consider practical methods likely to facilitate the conclusion of the agreements between aviation undertakings in the various countries which are referred to in this recommendation."

B. Air Transport Co-operation Committee.

After the passing by the 1927 Assembly of the resolution quoted textually above, the Committee for Communications and Transit referred the study of the question to an Air Transport Co-operation Committee. Its terms of reference were defined as follows:

"The Committee considers it desirable to entrust to a special committee of enquiry the question of the action to be taken on the resolution of the last Assembly concerning economic co-operation between air navigation undertakings, in conformity with the recommendation unanimously adopted by the Committee of Experts on Civil Aviation of the Preparatory Commission for the Disarmament Conference."

"The composition of this committee will be fixed by the Chairman of the Advisory and Technical Committee, who is empowered to take all the necessary steps to promote co-operation between the Governments concerned."

"The committee of enquiry thus constituted will also have to study the questions of international organisation in air navigation raised at the Third General Conference on Communications and Transit."
The Committee took cognisance of the enquiries into the economic, administrative and legal situation of international air navigation carried out at the request of the Chairman of the Advisory and Technical Committee for Communications and Transit (see document C.339.M.139.1930.VIII). It proceeded to an exchange of views on the questions raised in these various enquiries. It considered that, owing to the complexity of the problems before it, its main task at this first session should be to draw up a definite programme of study, in order to be able to reach the greatest possible number of practical conclusions at a later session.

The Committee feels called upon, at the outset of the present report, to record its view that the present situation of civil aviation, despite the progress achieved, is not as satisfactory as the state of technical development should permit, and that it is only by means of increasingly close international co-operation that this situation can be improved.

I. Relations between Civil and Military Aeronautics.

The Committee did not feel called upon to discuss the relations between civil and military aeronautics, a question within the province of the Disarmament Commission and the Disarmament Conference. The Committee considered that its duty lay solely in an investigation of the measures to be taken and the progress to be expected from a fuller international co-operation as a result of which civil air transport would be in a position to render to the community the economic services of which it is capable, and thus be freed as far as possible from all other preoccupations.

IV. Conditions for the Admission of Foreign Undertakings engaged in Regular International Transport.

The Committee noted that in the present state of public international law on air navigation, taking into account the most recent proposals for modifying existing conventions, the operation of regular lines was subject, as a rule, to the authorisation of the States whose territory is flown over, without any distinction being made in this connection between local traffic (cabotage), transport effected with loading or discharging of passengers or freight in the territory in question, transit with landing for supplies, or even transit without stoppage. No distinction is made between air transport involving land flights and air transport merely involving flights over the open sea and territorial waters and the utilisation of hydro-aerodromes.

The Committee accordingly adopted the following resolution:

"The Committee considers it desirable:
1. That the Governments should request the competent international organisations to find the means of affording greater freedom than is at present enjoyed by regular international air transport.
2. That henceforth:
   (a) The Governments should examine in the most liberal spirit requests for authorisation to fly over their territories submitted to them for the purpose of regular transport by air;
   (b) The Governments should endeavour to conclude among themselves agreements granting the most favourable treatment possible to regular international air transport.

The Committee further considered it desirable that air navigation undertakings carrying on services in territories other than the national territory should maintain relations of cordial co-operation with the national air organisations of the countries flown over, with a view to ensuring the greatest possible efficiency of the international service."

V. Progress of International Co-operation in the Operation of Air Lines.

The Committee adopted the following resolution:

"Considering that the existing 'pools' system of co-operation between international aviation undertakings has developed satisfactorily,
The Committee:
1. Considers that the present state of legislation, and of economic and political conditions under which civil aeronautics are developing, makes it difficult to reach a more fully developed measure of co-operation;
2. Recommends the Governments and companies to extend and improve the present system by means of bilateral or multilateral agreements aimed to avoid unnecessary competition, increase the economic efficiency of the international air service and develop among the different undertakings a spirit of friendliness which will prepare the ground for closer co-operation."

VI. Possibility of studying a Special Statute applicable to Certain International Air Connections of General Interest.

The Committee adopted the following resolution:

"Considering that in the future certain international air connections will be of general importance and that steps will have to be taken to ensure their existence and permanence, the Committee recommends that the League of Nations should draw the attention of Governments to the special importance which these connections will assume and which might justify the study of a special statute."
VIII. Practical Improvements in the Working Conditions of Air Lines.

A. Extensive and Systematic Employment of Combined Transport.

The Committee requests the Advisory and Technical Committee for Communications and Transit to invite its Committee on Combined Transport to consider what improvements might be obtained by the more extensive and systematic employment of combined transport, air transport already co-operating with all methods of rapid transport.

The Secretariat of the Committee is requested, after making all necessary enquiries, to submit to the next session of the Committee a report on the possibility of publishing a general time-table of rapid transport, every form of transport included.

B. Constitution and Operation of the Main Network of Permanent Air Routes.

The Committee was of opinion that, in view of the international nature of air transport and of the precarious results hitherto obtained, a definite programme of co-operation should be prepared, at any rate in the European area, until such time as technical conditions allow of its extension. It decided to study the following questions:

1. The choice of permanent air routes to form the main system.
2. An international programme for the equipment of these routes so as to permit of uninterrupted day and night flying.
3. The manner in which this network should be operated—namely:
   (a) The selection by inter-governmental agreement of qualified enterprises and the specification of traffic conditions;
   (b) The granting to all undertakings, engaged in the traffic over this system, of the widest possible facilities for choosing their equipment, from the sole standpoint of efficiency, provided this equipment complies with the international requirements regarding navigability.

A special Sub-Committee, appointed by the Chairman of the Committee, to include, if necessary, persons who are not members of the Committee, was instructed to submit a report on this subject to the next meeting of the Committee, after consulting the competent authorities in the various countries concerned. This Sub-Committee will also consider such problems of international financing as the execution of the above programme may involve, including, if necessary, the constitution of a common fund and the administration of this fund by an appropriate banking institution.

C. Postal Air Transport.

The Committee considers that the study of the question of European postal air transport should be undertaken immediately, to be extended to other regions when economic and technical conditions allow. The Sub-Committee mentioned in paragraph B was instructed:

1. To prepare a map of the air lines to be established between the capitals of the European countries and the points of importance to postal traffic in these countries. For this purpose, it will get into touch with the competent authorities in the different countries.
2. To indicate the necessary conditions for marking out air routes by night.
3. To propose suitable means for increasing the equipment required for ensuring traffic in foggy weather.
4. To draw up specifications of the performance and special qualities required of one or more types of aircraft to be utilised on these lines, taking into account the estimated freight and local topographical and meteorological conditions.
5. To study the question of the surtax.
6. To discuss with the postal services concerned the best methods for handing over mail to aircraft, the distribution of mail, etc.
7. To consider the form which international co-operation should take in the operation of the postal air service, and to study, if necessary, with the competent authorities of the different countries concerned the sections which might be operated by each.


The Committee thought it would be useful from time to time to supply the authorities concerned in the various countries (and even the general public) with information, which would be as accurate as possible and grouped systematically, regarding the economic development of air transport. The Secretariat of the Committee was requested to submit a report on this subject to the Committee at its next session.

In short, owing to the complexity of the subject, the Committee, being convinced that considerable time would be necessary for the satisfactory completion of such an extensive investigation, devoted itself to two points:

1. Drawing up a programme of work to be undertaken as occasion permitted;
2. Concentrating its activities on a small number of definite points in regard to which it seemed likely that practical results might be obtained within a short time.

As regards internationalisation, the Committee considered that, in the present state of legislation and of economic and political conditions, it was difficult to reach a more fully developed system of co-operation than the "pool" system, but it recommended the Governments and companies to make the fullest possible use of this system by increasing the number of agreements. It considered that by this means, not only would valuable economic results be obtained, but also that there would be developed "among the different undertakings a spirit of friendliness which will prepare the ground for closer co-operation".
The Committee further considered that a special regime applicable to certain international air connections of general concern might forthwith be envisaged. The Committee pointed out various cases in which closer co-operation and a better co-ordination of effort seemed specially necessary, and also comparatively easy of accomplishment, whilst not involving any far-reaching change in legislation or in international relations, and appointed a Sub-Committee to examine the precise steps by which the object in view might be attained.

C. Work of the Special Sub-Committee on the Constitution and Operation of a Main Network of Permanent Air Routes.

The Sub-Committee is composed as follows:

M. Willy Fisch, Geheimer Regierungsrat at the German Ministry of Communications (Chairman).

M. Emile Allard, Professor at Brussels and Liège Universities.

M. T. K. Angström, Civil Engineer, Member of the Swedish Civil Air Department.

Lieut.-Colonel C. Filipowicz, Chief of the Civil Aeronautics Section of the Polish Ministry of Communications.

M. Emmanuel Chaumé, Director of Mercantile Aviation at the French Air Ministry.

M. M. Molpeze, Chief of Civil Aviation at the Air Ministry of the Kingdom of Italy.

Lieut.-Colonel F. C. Shermerdine, Director of Civil Aviation at the Air Ministry of Great Britain.

M. E. Th. de Veer, Director of the Netherlands Air Service.

M. Henri Bouché, expert.

The Sub-Committee has worked actively and considered its scheme in great detail; but, as the latter is still highly confidential, no analysis of it can be given here.

CHAPTER III. — PUBLICITY OF CIVIL AVIATION.

At its meeting on May 22nd, 1931, the Council of the League adopted the following resolution:

"The Council,

"Considering that the Preparatory Disarmament Commission in its report drew the Disarmament Conference's attention to the fact that, although the majority of this Commission adopted Article 37 of the draft Convention governing the publication of information in regard to civil aviation, certain delegations questioned whether the stipulation contained in this article would not be more in place in an international convention other than that on disarmament;

"Recognising that it is for the Disarmament Conference to take a decision on this subject;

"Being anxious to facilitate the Conference's task;

"Requests the Secretary-General:

"1. To arrange for the Communications and Transit Organisation to proceed to an enquiry among all the Governments invited to the Disarmament Conference and to a methodical study of the present situation concerning the publication of information on civil aviation, whether as regards national regulations, multilateral conventions or special obligations.

"2. To prepare on this basis for the use of the Conference a collection of all the provisions in force relating to the exchange or publication of information..."
As a result of the above resolution, the Transit Organisation, on the basis largely of
replies from the various Governments to a questionnaire which it had addressed to them,
prepared an important study which appeared on January 16th of the current year,

This publication being very recent and complete, it will be sufficient to refer the reader
to it.

* * *

List of Proposals made by the Various Delegations in the Course of the General Discussion
on the Subject of the Internationalisation or Supervision of Civil Aviation.

The proposals referred to in No. 1 of the resolution adopted by the Air Commission
on March 17th are the following:

1. Internationalisation of civil air transport under a regime to be organised
   by the League. (France, document Conf.D.99, page 23, section 1.)
2. Internationalisation of civil aviation. (Belgium, document Conf.D.99, page 14;
   Spain, document Conf.D.99, page 16.)
3. Internationalisation or rigorous international supervision of civil aviation.
   (Denmark, document Conf.D.99, page 51, section 2b, and document Conf.D.112,
   page 3; Sweden, document Conf.D.99, page 48, section 3b.)
4. Greatest possible publicity and technical and administrative supervision
   of civil aviation. Obligation not to vary materially the proportional ratios to be fixed.
   (Italy, document Conf.D.106.)
5. Civil aviation to be under international control. (Switzerland, document
   Conf.D.99, page 50, section 4.)
6. All arming of civil aircraft and all fittings enabling them to be so armed
   or to be utilised for war to be prohibited. (Germany, document Conf.D.99, page 31,
7. The dropping of bombs or any other objects or materials serving military
   purposes from aircraft, as well as all preparations to this effect, to be forbidden without
   any exception. (Germany, document Conf.D.99, page 31, III.)
8. Any instruction and training of any person in aviation having a military
   character or any military purpose to be prohibited. Any instruction or activity of the
   members of the army or navy in civil aviation to be prohibited. (Germany, document
   Conf.D.99, page 31, section 19.)
9. The construction, maintenance, importation or putting into commission
   of aircraft which is in any way armoured or protected or supplied with devices for the
   reception of warlike armaments of any kind such as guns, machine-guns, torpedoes,
   bombs, or which are supplied with gun-sights or devices for the dropping of bombs,
   to be prohibited. (Germany, document Conf.D.99, page 31, section 19.)
10. Limitation of every expenditure, subsidy or loan included in the budget
    and intended for the purchase and upkeep of civil aviation material. (Sweden, document
    Conf.D.110.)
11. Publicity with regard to non-military aviation. (U.S.S.R., document
    Conf.D.99, page 47, Article 45.)
12. The maintenance of any relations between the military or naval
    administration and civil aviation for any military purpose to be prohibited. (Germany,

1 See in this connection document C.95.M.47.1932.VII. (Conf.D.53) and Addenda.
MEMORANDUM BY THE SWEDISH DELEGATION

On the Internationalisation of Civil Aviation.

In conformity with the speech made to the Conference by its first delegate, the Swedish delegation, in its memorandum of February 19th, summarised as follows its proposals relating to air forces:

"Total prohibition of military aviation, and manufacture, preparation and training in connection therewith;
"Internationalisation or strict international control of civil aviation."

On March 17th, the Air Commission recommended the delegations to transmit to the Bureau of the Commission concrete proposals and explanatory statements relating to the internationalisation of civil aviation and any other measure calculated to prevent the signatory States from utilising this aviation for military purposes. In accordance with this resolution, the Swedish delegation ventures to submit to the Commission the following suggestions which might be taken into consideration in the course of its work:

The essential problem appears to be that of subjecting aviation to effective control without at the same time hampering the free evolution of air transport towards its economic ends. The global limitation of civil and military aviation has already been discussed by the Committee of Experts on Civil Aviation of Sub-Commission B, which unanimously agreed that global limitation "could not be effectively applied . . . without hampering the development of civil aviation and therefore without involving undesirable economic consequences." Such a method would merely bind national aviation more closely to the State, whereas civil aviation by its very nature tends to assume more and more international forms.

What is required is to find a method of controlling civil aviation by a study of its characteristic tendencies. Military aviation has hitherto developed purely on national lines, whereas civil aviation is more and more assuming international forms. It is this consideration which more than anything else has given rise to the idea of the "internationalisation" of civil aviation.

The Committee of Experts of Sub-Commission B emphasised the desirability of establishing a line of demarcation between civil and military aviation. "In this way," they said, "civil machines will become capable of a maximum economic return and will become less and less useful for military purposes, and the activities of civil aviation can be developed in full freedom without being subordinated in any way to the military requirements of the different countries." The work of the Organisation for Communications and Transit has clearly demonstrated that it is by tightening the bonds between the aviation of the different countries that air transport may be given a new impetus. The work accomplished with a view to the creation of a postal service system is of particular interest in this connection.

The internationalisation of civil aviation might involve either the amalgamation of undertakings for commercial aviation or the establishment of a closer collaboration between such undertakings, which would still retain a certain economic independence. But no internationalisation of civil aviation, whether radical or the reverse, could give a complete guarantee against the seizure and utilisation by a national Government of aircraft in its territory at any moment when it intended to break its contractual obligations in regard to the organisation of peace. Internationalisation could thus only form the basis of a control designed to prevent the signatory States from utilising civil aviation for military purposes. Such a control should, it would seem, give the international authority to be set up by the Disarmament Convention the means of discovering as soon as possible all systematic or other efforts to transform civil aeroplanes into military aeroplanes.

Naturally, such control, if it is to give all possible security, should be of the strictest nature. Possibly, indeed, to conceive of a control of this kind may be going too far, in the view of certain States who were opposed during the preparatory work to measures of strict supervision. The point at issue here, however, is the control of civil activity, not of military institutions, for which very strict supervision might involve a risk of the discovery of legitimate military secrets. Nevertheless, it seems desirable to make this control as flexible as possible by carrying it out in such a way as to be exercised not so much over the Governments of the various States as within an international organisation for civil aviation to which the national commercial air services would be affiliated.
The following measures might be considered to constitute the minimum of internationalisation capable of promoting effective control:

In the Convention to be concluded by the Governments with a view to preventing the use of civil aviation for military purposes, provision would be made for the creation of an international organisation to which the air transport undertakings of all States would be affiliated. This affiliation of undertakings would be a condition required by the Governments before granting concessions or subsidies. By means of this international organisation, and subject to the controlling authority to be set up by the Disarmament

Further, the proposed international organisation, when it has come into being, would certainly - apart from its supervisory functions - demonstrate its usefulness by promoting the rationalisation of the international air transport service, which, generally speaking, does not at present appear to be organised so as to provide maximum efficiency either from the economic standpoint or in regard to transport facilities.
Geneva, April 28th, 1932.


Afghan Delegation.
The Afghan delegation regards all bombing-machines and aircraft used for dropping bombs, materials and preparations (as shown in point 3, document Conf.D.116) which may be used in achieving a military purpose to be the weapons whose character is the most specifically offensive, which are most efficacious against the national defence and which are most threatening to the civil population.

German Delegation.
The German delegation submitted the following proposal (document Conf.C./C.A.11) on April 27th with regard to the examination of the character of armaments (document Conf.C./C.G.28(2)):

"The Air Commission, in accordance with the instructions received by the General Commission, has examined the air arm in the light of the following three criteria:

(1) What weapons are of a specifically offensive character?
(2) What weapons are most efficacious against national defence?
(3) What weapons are the most threatening to civilians?

It considers that the whole of military aviation and, in particular, the launching of means of warfare of any kind from the air come within the above-mentioned three categories."

With a view to defining for the purpose in question air-armament material, the German delegation, bearing in mind the arguments put forward in the course of the discussion, desires to complete the above resolution as follows:

"Military aircraft shall be understood to mean any aircraft (for example, aeroplanes, dirigibles and free or captive balloons):

(1) Which can be identified by identification marks as military aircraft; or
(2) Which possess military characteristics—viz., installations for carrying weapons of any kind, such as guns, machine-guns, torpedoes or bombs, or instruments for aiming or launching such weapons; or
(3) Which are manufactured for the armed forces of any country; or
(4) Which are manned by a military pilot or a military crew specially employed for the purpose; or
(5) Which form part of the equipment of any armed force or are requisitioned by such force."

Argentine Delegation.
The Argentine delegation considers that chemical warfare and bacteriological warfare ought to be included in the list of weapons which are of a specifically offensive character, which are most efficacious against national defence and which are most threatening to civilians.

The delegation would like to take this opportunity of pointing out that the proposal which figures on page 11 of the co-ordinating table is not really a definite proposal. It is merely a statement which the head of the delegation made on the occasion of the general discussion in the following terms: "The Argentine delegation will, of course, be pleased if the Conference adopts an agreement which makes it possible to abolish all weapons employed by land, naval and air forces which are of a naturally offensive character, etc."

In making this declaration, the Argentine delegation did not intend to refer to any particular weapons, but to inform the Conference that it was prepared to co-operate in the work of defining the weapons in question and thus to contribute towards the success of the Conference.
Austrian Delegation.

The Austrian delegation desires that there should be included in the list of air weapons:

(a) Which are of a specifically offensive character;
(b) Which are most efficacious against national defence;
(c) Which are most threatening to civilians;

military aircraft of all kinds, and, in particular, the launching of means of warfare of any kind from the air.

Chinese Delegation.

The Chinese delegation considers that all military aircraft and all dirigibles are essentially offensive weapons. Nevertheless, the Chinese delegation desires that there should only be included in the list of weapons:

(a) Which are of a specifically offensive character;
(b) Which are most efficacious against national defence; or
(c) Which are most threatening to civilians;

the following categories of air weapons:

1. Bombing aeroplanes;
2. Torpedoes and incendiary bombs;
3. Poisonous gases and epidemic-spreading bacteria;
4. Chasing or scouting aeroplanes carrying light guns.

Costa Rica Delegation.

In the opinion of the Costa Rica delegation, the whole of military aviation ought to be regarded as being directly or indirectly of an offensive character, and ought therefore to be included in the list of weapons of such character.

Danish Delegation.

The Danish delegation confirms the statements made at the end of page 2 of its memorandum of April 13th (document Conf.D.112).

Spanish Delegation.

The Spanish delegation, in accordance with its proposal for the total abolition of military aviation, is of opinion that all the weapons belonging to air forces should be regarded as weapons which are of a specifically offensive character, which are most efficacious against national defence, and which are most threatening to civilians.

It nevertheless considers that a classification by degree might be made in respect of each of the three criteria established in the resolution adopted by the General Commission on April 22nd, 1932.

This classification might be as follows:

I.

A. Essentially offensive:
   (1) Bombing aeroplanes;
   (2) Large dirigibles (exceeding 70,000 cubic metres).

B. Offensive against attacking weapons:
   (3) Fighting aeroplanes;
   (4) Chasing aeroplanes.

C. Useful for offensive but also for defensive purposes:
   (5) Scouting and liaison aeroplanes;
C. Of limited efficacy:
   (5) Scouting and liaison aeroplanes;
   (6) Medical aeroplanes;
   (7) Small dirigibles.

D. Of no efficacy:
   (8) Captive balloons.

III.

A. Threatening to civilians:
   (1) Large dirigibles;
   (2) Bombing aeroplanes.

B. Difficult to employ against civilians:
   (3) Fighting aeroplanes;
   (4) Chasing aeroplanes;
   (5) Scouting and liaison aeroplanes.

C. Almost impossible to employ against civilians:
   (6) Medical aeroplanes;
   (7) Small dirigibles.

D. Impossible to employ against civilians:
   (8) Captive balloons.

The Spanish delegation is also of opinion that, in the event of a decision subsequently being taken in favour of the abolition of military aviation, civilian aircraft capable of being
II. In order to be effective against the national defence, if by that is understood offensive organisations, the aircraft must be able to bomb them with very powerful projectiles in sufficient density and with sufficient accuracy. This result can only be secured by a large number of aeroplanes of very heavy tonnage; no bombardment air force at present has this character. Only dirigibles of large volume are capable of effective action against such organisations.

As regards the action that the aggressor can take against communications and military centres of production behind the lines, these can be carried out by machines with a very heavy tonnage and a wide radius of action.

III. As regards the threat which an air force represents to civilians, the French delegation considers that, if its proposals of February 5th were adopted, that threat would almost completely disappear. If, however, the matter is regarded solely from the standpoint of the threatening character of the air force to civilians, and irrespective of any regulation, it is beyond doubt that only aircraft of great power and having a wide radius of action are capable of carrying out at large urban centres behind the lines bombardments producing sufficient material effects to shake the moral of the whole country.

In conclusion, the French delegation considers that those aircraft which may be regarded as "the most specifically offensive", as being "the most efficacious against national defence" or as being "most threatening to civilians" are aircraft of heavy tonnage and having a wide radius of action. As regards efficacy against national defence, however, only dirigibles of large volume are capable of serious action.

From the technical standpoint, since the tonnage and radius of action of aircraft are essentially variable according to the flying conditions, the French delegation proposes that the basis taken for comparison should be the characteristics that determine these factors—namely, tare tonnage in the case of aeroplanes and seaplanes and volume in the case of dirigibles.

Since France possesses neither the aeroplanes of the heaviest tonnage nor the dirigibles of the greatest volume, the French delegation wishes to reserve all proposals as to the limits to be fixed in order to enable the countries which possess those aircraft to state their views on the subject.

Hungarian Delegation.

In the view of Hungary, who is disarmed as far as the air is concerned, and excessively vulnerable to aerial attack, military aircraft are:

The most offensive weapon of all;
The weapon which crushes easily her national defence, which is too weak, and, The weapon which exposes:

(a) To certain death her civilian population, which has no air defence;
(b) To complete destruction her capital and her industries, which are situated a few kilometres from the frontier; and
(c) To a sudden stoppage all movement on her system of communications.

Italian Delegation.

The Italian delegation considers that, among the air weapons which may be at the disposal of military air forces, the following must be regarded as being the most specifically offensive in character, the most efficacious against national defence and the most threatening to civilians:

(1) Dirigibles, irrespective of volume;
(2) Aeroplanes with two or more seats, except two-seater aeroplanes used in schools, provided that their tare weight does not exceed 400 kg., that their power does not exceed 100 h.p., and that the ratio between h.p. and wing area is not less than 4 h.p. : sq.m.
(3) Seaplanes with two or more seats, except two-seater seaplanes used in schools, provided their tare weight does not exceed 450 kg., that their power does not exceed 100 h.p. and that the ratio between power and wing area is not less than 4 h.p. : sq.m.
(4) Aeroplanes, although single-seaters, having a tare weight exceeding 650 kg., a power exceeding 200 h.p. and a ratio between power and wing area less than that obtained by linear interpolation:
   Between 16 h.p.: sq.m. and 12 h.p.: sq.m. for powers between 200 and 150 h.p.
   Between 12 h.p.: sq.m. and 5 h.p.: sq.m. for powers between 150 and 100 h.p.
(5) Single-seater seaplanes having a tare weight less than 650 kg. which, although having a power between 200 and 100 h.p., have a ratio between power and wing area
(7) Single-seater seaplanes having a tare weight less than 700 kg. which, although having a power between 200 and 100 h.p., have a ratio between power and wing area less than that laid down in paragraph 5.

Note. — The tare weight of aeroplanes and seaplanes is that obtained by deducting from the weight of the fully loaded machine the following weights:

- The pilot with equipment and parachute;
- The passenger with equipment and parachute;
- Fuel and oil;
- Weapons and installations;
- Extinguishers;
- Cameras;
- Wireless apparatus;
- Navigating instrument;
- Lighting installations.

Japanese Delegation.

The Japanese delegation regards as a weapon which is of a specifically offensive character, which is the most efficacious against national defence, and which is also the most threatening to civilians, the aeroplane carried on board an aircraft-carrier or a warship equipped with a landing-platform (or deck).

I. The Specifically Offensive Character of such Aeroplanes.

1. The offensive character may vary according to the degree of mobility that can be given to one and the same weapon. Thus, the radius of action of an aeroplane which is in service at a land base is restricted and local, whereas the aeroplane carried by a warship has its radius of action increased by the mere fact of the extremely mobile character of the warship that carries it.

It would not be an exaggeration to say, therefore, that aeroplanes in this condition may have a radius of action covering all the continents of the world. For that reason, the Japanese delegation regards aeroplanes of this kind as having the most offensive character. It is also convinced that the possession and use of this weapon make the organisation of the national defence of the various countries extremely complicated, and it will prove a serious obstacle to attempts to limit armaments.

2. The aeroplane in general may be, according to the use which is made of it, a weapon purely defensive in character and indispensable. The aeroplane carried on board ship, on the other hand, is more specifically designed to fly very long distances owing to the extreme mobility of the warship that carries it, in order to attack the enemy soil rather than to defend its own territory.

It will therefore be superfluous to deny the superiority, considered solely from the standpoint of national defence, of aeroplanes in service at land bases over aeroplanes carried on warships, especially when we come to consider the enormous cost of upkeep entailed by the latter.

II. Their Efficacy against National Defence.

3. As will be seen from the foregoing, an aeroplane of this kind can easily go beyond the radius of action of an air force based on land and can exert its destructive power far into the interior of the enemy country. Hence the effect of bombarding the enemy coast by gunfire would be insignificant compared with the terrible effect that can be produced by the aeroplane carried on board ship. It is for this reason that this weapon should be regarded as the most efficacious against national defence.

4. The prohibition of this aggressive weapon will undoubtedly have the advantage of making offensive operations very difficult and at the same time of making national defence easier.

III. Their Threatening Character to Civilians.

5. Unlike aeroplanes in general, aeroplanes carried on board ship represent, for the reason set out in paragraph 1, a considerable threat to the civil populations of several nations at once. Hence the construction and maintenance of numerous means of defence against air attack, not only on the coast, but far into the interior of the country, and, as an inevitable consequence, a terrifying increase in expenditure on armaments.

6. The fact that aeroplanes carried on board warships can make surprise attacks...
Persian Delegation.

The Persian delegation regards as air arms having the characteristics given in the note C.A.12, or capable of being converted into air arms having those characteristics, all aeroplanes, dirigibles or other military or civil aircraft carrying heavy or medium loads and having a radius of action greater than 500 kilometres.

Any poisonous, incendiary or bacteriological bombs that might be dropped by such aircraft also fall into this class of air arms.

Polish Delegation.

The Polish delegation is of opinion that the list of armaments (a), (b) and (c) should include bombing aircraft, this term to embrace all aircraft which, owing to their heavy tonnage, can carry projectiles of large calibre in great quantities and, owing to their wide radius of action, allow of surprise aggressive action and enable areas well outside the zone of the armies to be attacked. This latter consideration proves that bombing aircraft represent a special threat to the civil population.

Roumanian Delegation.

The Roumanian delegation considers that the air armaments whose character is the most specifically offensive, which are the most efficacious against national defence and which are at the same time the most threatening to civilians are all aircraft (military or other) capable of carrying out air bombardments — that is to say, those which either are or can be equipped for that purpose.

Tonnage and radius of action are the characteristics determining the capacity of an aircraft to be used for air bombardment.

Czechoslovak Delegation.

In the opinion of the Czechoslovak delegation, the air weapon to be regarded as the most specifically offensive in character, the most efficacious against national defence and, at the same time, the most threatening to civilians is bombing aircraft of every kind — that is to say, every sort of aircraft that can be used for air bombardment. In judging of the capacity of any particular aircraft to be used for this purpose, tonnage and radius of action should, in particular, be taken into consideration.
signatory States from utilising civil aviation for military purposes, to be informed as to the position of the work of the Air Transport Co-operation Committee, the Committee was summoned, and met from May 9th to 12th, 1932.

The Committee was composed as follows:

Professor L. DE BROUCKÈRE, Senator of the Kingdom of Belgium (Chairman);
M. Emile ALLARD, Professor at Brussels and Liège Universities, Director of the Belgian Technical Air Service;
M. Tord Knutsson ÅNGSTRÖM, Member of the Swedish Central Air Department;
Colonel J. BEAUBAIN, Officer Commanding 1st Polish Air Brigade;
M. Emmanuel CHAUMIE, Director of Mercantile Aviation at the French Air Ministry;
Lieut.-Col. C. FILIPOWICZ, Chief of the Civil Aeronautics Section of the Polish Ministry of Communications;
M. W. FISCH, Geheimer Regierungsrat at the German Ministry of Communications;
M. Louis HIRSCHAUER, Chief Engineer in the French Air Service, Head of Private Aviation in the French Ministry of Public Works;
Mr. John Jay IDE, Technical Assistant in Europe, National Advisory Committee for Aeronautics, United States of America;
Colonel Arnold ISLER, Director of the Swiss Federal Air Office;
M. Manlio MOLFESE, Chief of Civil Aviation at the Air Ministry of the Kingdom of Italy;
M. H. BOUCHE, Manager and chief editor of the review Aeronautique;
M. S. CACOPARDO, Chief of Section at the Italian Air Ministry;
M. H. OPPIKOFER, Professor at the University of Königsberg.

The following took part in the work of the Committee as Rapporteurs:

M. H. BOUCHE, Manager and chief editor of the review Aeronautique;
M. S. CACOPARDO, Chief of Section at the Italian Air Ministry;
M. H. OPPIKOFER, Professor at the University of Königsberg.

Also attended:
M. A. ROPER, Secretary-General of the International Commission for Air Navigation.

Secretariat
Mr. L. C. ToMBs
Mle. E. KE-RASMUSSEN Members of the Communications and Transit Section.

The Committee having been summoned urgently for the reasons stated above, its agenda was arranged with a view to the possibility that the examination of certain questions studied by the Committee might interest the Air Commission of the Conference for the Reduction and Limitation of Armaments. Accordingly, the second session of the Committee was devoted to the examination of Chapters IV, V and VI of the report on the first session of the Committee, and to a part of Chapters VII and VIII (Section I of Chapter VII and paragraphs A, B and D of Chapter VIII). The Committee took note of the studies made by M. Cacopardo, M. Oppikofer and M. Pittard on the regulations for the registration of aircraft, the administrative formalities to be complied with and the conditions laid down regarding the nationality of aircraft crews.

The Committee considered the report submitted by the Special Sub-Committee for the Study of the Question of the Constitution and Operation of a Main Network of Permanent Air Routes, which sat at Geneva on May 6th and 7th, 1932. The report was adopted in the following form:

STUDY OF AN INTERNATIONAL AIR NETWORK OF ESSENTIAL CONNECTIONS, BOTH EXISTING AND DESIRABLE.
consideration. The examination gave rise to several observations on points of detail, to which the Committee calls the Sub-Committee's attention, while requesting it to continue its work on the basis of the map after any revision the latter may undergo.

This scheme in no way prejudices the conditions and modes of operation which may be adopted; the latter may be influenced by technical progress and by the desire to connect distant points without intermediate stopping-places.

**Examination of Ground Organisation.**

The Committee recommends:

1. A technical uniformity of equipment which should in the first instance be sought within the framework of the International Air Conferences (C.A.I.), care being taken to make the decisions adopted readily accessible to the countries not represented at these Conferences;
2. A general organisation in relation to the scheme of connections submitted by the Sub-Committee, subject to any revisions of detail that the scheme may undergo in the course of the Sub-Committee's subsequent proceedings;
3. Examination of the principle that the expense of signals, liaisons, guidance and meteorological protection should be borne - even if only partially - by the beneficiaries of the services rendered.

**Operation of a Main Network.**

The Committee recommends:

1. Special treatment for postal services, to the extent required by the exigencies of this type of freight;
2. Greater frequency of air services on certain routes;
3. Permanence of air services;
4. Endeavour to secure greater commercial speed;
5. Co-operation between national companies concerned as the best method of operating international services;
6. Constant endeavour to make the best use of the possibilities of combined transport.

The Committee proposes to examine on the above lines M. Plesman's observation with regard to the importance of establishing a better connection than heretofore between the different air systems existing in various parts of the globe.

**Determination of Certain Experimental Lines.**

As regards the question of experimental lines and their financing, the Committee did not receive in time sufficient information to be able to take any decision. Nevertheless, while reserving the right to pursue its studies to a conclusion, it recommends that the attention of the International Air Conferences should be drawn to this question in order that they may examine what practical effect may be given to the suggestions made.

* * *

The Committee made a thorough examination of the various questions on its agenda. It was unable to reach unanimity in its resolutions on all these questions.

A. The following resolutions were adopted unanimously:

1. **Conditions for the Admission of Foreign Undertakings Engaged in Regular International Transport.**

   "The experience of the past twelve years has shown that Governments, who are now all shareholders in, and in fact financial guarantors of, their own air
3. STUDY OF CERTAIN LEGAL AND ADMINISTRATIVE QUESTIONS AFFECTING THE DEVELOPMENT OF INTERNATIONAL CO-OPERATION IN AIR TRANSPORT.

"The Committee notes that the last ratifications of the Protocol of June 1929 will shortly confer on the States parties to the 1919 Convention the freedom which other States not parties to this Convention already possess to settle each for itself the conditions under which aircraft are to be registered. It considers it desirable that, in national laws, the registration of aircraft, should not depend solely on the owner's nationality; it should be possible also to register aircraft, the owners of which are foreigners settled in the territory.

"It also expresses a hope that the rule based on the effective domicile of the owner, subject to any rules laid down by the national law concerning duration, will be uniformly adopted for this registration. It being admitted that each aircraft must be registered in one country and in one country only, these uniform rules should allow the possibility of registering aircraft belonging to national companies having some foreign capital or directors."

B. The following proposals were made; they gave rise to the declarations inserted after their texts:

1. CONDITIONS FOR THE ADMISSION OF FOREIGN UNDERTAKINGS ENGAGED IN REGULAR INTERNATIONAL TRANSPORT.

Proposal by M. Plesman.

"The Committee,

"Considering that the greatest possible freedom of inoffensive passage constitutes a necessary element for the regular services of international air navigation, since such freedom:

"(1) Gives a permanent and stable basis for private capital and public funds which are or may in future be invested in air navigation undertakings;
"(2) Promotes co-operation on a commercial basis;
"(3) Increases profits and hence reduces subsidies;
"(4) Will enhance the benefits derived by the whole world from air transport;

"Recommends that such freedom should be granted.

"The Committee further considers it desirable that air navigation undertakings operating services in territories other than the national territory, should maintain with the national air services of the countries flown over such friendly relations as may be conducive to the efficiency and smooth working of the international service."

Declarations:

(a) The following accepted this proposal:
M. Ångström, M. Isler, M. de Veer,
M. Fischer, M. Oppikofer, M. Wegerdt,
Mr. Ide, Mr. Shelmerdine,

(b) "We could accept M. Plesman's proposal if, in the last paragraph, which implicitly deals with the rights of the country flown over, a more extensive guarantee for such rights were definitely referred to.

(Signed) Allard,
Cacopardo,
Molfeese."

(c) "In our opinion many countries will be unable to give entire freedom of passage to foreign air lines—i.e., permit such lines to enjoy the right to free use of their air space without in return obtaining sufficient guarantees as to the participation of their national undertakings, to a just and reasonable extent, in the common working of the respective air lines.

"For this reason, we are unable to support any proposal for the granting of unilateral privileges in regard to freedom of the air and of flight, exclusively in favour of foreign companies.

(Signed) Beaurain,
Filipowicz."

(d) "Whereas the increase of the freedom of use by a foreign company of the air space under the sovereignty of a State appears justifiable only on the understanding that national air undertakings of the State flown over shall be entitled to work with the foreign company and thus participate in the undertaking, we unhappily are obliged to refuse to accept any
Proposal recommending greater liberality in the interpretation of Article 15 of the Convention on the Regulation of Air Navigation of 1919, so long as the rights of air undertakings of States flown over are theoretically and practically neglected, and so long as their wishes on this subject are opposed by certain European States.

(Signed) BOUCHÉ, HIRSCHAUER, CHAUMÉ, SONDERMAYER.

Proposal by M. Sondermayer.

"There are two requisites for the operation of an international air transport undertaking — the financial, administrative and technical bodies and the air space which is under the sovereignty of the various States.

"In these circumstances, it is right that qualified national commercial representatives of the various States should participate in international undertakings..."
(b) Mr. Ide accepted M. Fisch's proposal.

(c) "We cannot adhere to this proposal because we consider that there is only one method by which international air navigation will be able to develop on rational lines. By this method, the problem of civil aviation co-operation would be regarded as a whole—i.e., freedom of flight combined with the rights of the countries flown over by the system of operation by international companies.

(Signed) Allard, Hirschauer, Bouché, Ruiz Ferry, Chaumie,

(d) M. Sondermayer regretted that he could not accept this proposal, being of the opinion:

"(1) That the instability of the pool system could never provide a fair and lasting solution for the two fundamental problems of international commercial air traffic—viz. (a) freedom to fly over foreign territory, and (b) the rights of States flown over to exercise control over such flights;

(2) That only by (i) the internationalisation of certain commercial lines and (ii) the internationalisation of all services connected with such lines—with the participation on an equitable basis of the various countries concerned—can the difficulties which at present hinder the development of international aviation be overcome."

(e) "The difficulty referred to in this proposal is mainly due to the fact that in practice it has often proved impossible to conclude conventions between the air services of different countries.

The difficulties are not in any way removed by the measures recommended in the proposal.

Consequently we are unable to support this proposal. (Signed) Beaurain, Filipowicz.”

Proposal by M. Bouché.

"The Committee, taking into consideration certain of the indications contained in M. Bouché's statement, notes:

(1) That technical progress alone is not likely to bring air transport soon enough into a position of financial independence;

(2) That this progress is still retarded by the action of political factors which are totally foreign to the economic sphere in question;

(3) That this progress can, on the other hand, be accelerated by general measures of reorganisation agreed upon between States, particularly in the sphere of European activities;

(4) That failing the freedom of the air and pending its establishment, a system of international operation is highly desirable on a basis adapted to the different divisions, viz.: Europe, main inter-continental communications, inter-colonial routes and services.”

Declarations:

(a) The following members accepted this proposal:

M. Allard, M. Beaurain, M. Chaumie, M. Filipowicz,
M. Hirschauer, M. Ruiz Ferry, M. Sondermayer.

(b) M. Plesman did not accept paragraphs 3 and 4 of the proposal, considering it desirable that these two paragraphs should be replaced by resolution A. 2.

(c) "The undersigned, considering that M. Bouché’s proposal introduces, although in other terms, the idea of 'international companies' against which they have many times expressed objections of principle, declare that they are unable to accept this proposal.

(Signed) Angstrom, Molfeze, de Veer, Cacopardo, Oppikofer, Wegerdt, Fisch, Shelmerdine,

(d) M. Angstrom and M. Isler made the following observation:

"A Committee of Experts can scarcely declare—and in vague terms—in a report intended for publication and after hearing a single statement followed by a cursory discussion, that 'general measures of reorganisation can accelerate progress' and that 'a system of international operation is desirable'. It seems to us that the Committee should not pronounce an opinion on these questions without having studied them in detail."

(e) Mr. Ide refrained from expressing an opinion on this proposal.
3. STUDY OF A SPECIAL STATUTE APPLICABLE TO CERTAIN INTERNATIONAL AIR CONNECTIONS OF GENERAL INTEREST.

Proposal by M. Pittard.

"Whereas the creation and operation of big international air lines answers to modern economic requirements and to the main purpose of civil aviation;
"Whereas these lines in the present state of national and international legislation can only be established by means of separate undertakings — i.e., national companies, afterwards grouped in the form of pools;
"Whereas it is in keeping with the development of civil aviation to consolidate these private agreements and even to supplement them by means of international companies with several headquarters:
"Recommends that, in the near future, the elaboration of a legal status permitting the existence of international companies should be taken in hand."

Declarations:

(a) M. Allard and M. Isler accepted this proposal.
(b) In accepting M. Pittard's proposal, the undersigned made the following reservation:

"Subject to the reservation that we cannot pronounce in advance as to the form of the proposed international company, which might be considered otherwise than with several headquarters.
(Signed) Beaurn, Hirshauer, Bouché, Ruiz Ferry, Chaumie, Sondermayer, Filipowicz.

(c) The following declaration was made by the undersigned who did not accept the proposal:

"Whereas the present state of development of commercial aviation is not yet such as to enable the most suitable form for the operation of international air lines to be determined;
"Whereas the form of an international public law company has never yet been realised for any commercial undertakings or even for land or sea transport undertakings although they have been in existence for centuries;
"Whereas numerous countries refuse on principle to create an aviation company with an international legal status for fear that international co-operation might suffer;
"The undersigned, regarding it as inadvisable either to pursue the proposed study or to consider the creation of an international company, are unable to accept M. Pittard's proposal.
(Signed) Angstrom, Molfese, De Veer, Cacopardo, Oppikofer, Wegerdt, Fisch, Shelmerdine.

(d) Mr. Ide and M. Plesman also stated that they were unable to accept the proposal.

Declaration of M. Pittard.

M. Pittard regretted the insertion of different observations following proposals which had been made but which did not meet with unanimous acceptance. He explained thus his abstention with regard to all these proposals.

Observation.

Certain of those who took part in the work of the Committee declared that because of their wish for brevity they limited themselves to mentioning their approval of or dissent from the proposals made, without finding it necessary that their reasons for such decisions should figure in the report.
DRAFT RESOLUTION SUBMITTED BY THE FRENCH DELEGATION

The offensive character of air armaments cannot be determined arbitrarily and must depend on the examination of the conditions which they must fulfil in order to be effective against the objectives which it is desired to attain and on the defence requirements which they meet.

Moreover, the General Commission will not be in a position to take decisions relating to the qualitative limitation of air armaments until the technical factors, which are indispensable to enable it to form a reasoned opinion, have been brought to its notice. The Air Commission accordingly submits the following considerations and findings which seem to it to meet the intentions of the General Commission:

I. GENERAL CONSIDERATIONS.

1. If the efficacy of air armaments against the different objectives which it is desired to attain depends on the vulnerability of those objectives and the useful military load which the aircraft can carry, on the other hand the radius of action needed for their direct intervention and for scouting operations, particularly for scouting operations at sea and colonial and inter-colonial communications, depends essentially on the geographical situation and special conditions of each country.

2. The efficacy of armaments against national defence depends on the possibility, in the event of an unforeseen attack and independently of the air defence, of their destroying the obstacles which prevent the advance of the aggressor — that is to say, fortifications; it is, therefore, from this standpoint that the offensive capacity of air armaments should be defined.

However, it appears to be necessary to examine the effectiveness of these armaments against air or naval bases and against the objectives of the battlefield in order to decide whether their offensive possibilities are greater than the requirements of defence.

Lastly, it appeared that, owing to the fact that military objectives situated outside the battlefield are scattered amidst the civil population, the action of air armaments against them constitutes a danger to civilians and should be examined from this angle.

II. SPECIAL POINTS.

For information purposes, it should be noted that the useful load of the most powerful aircraft at the present time is 27,000 kg. for civil aircraft and 15,000 kg. for military aircraft.

(a) Observations relating to the General Conditions of Use.
(b) In the case of permanent fortifications of average strength, a large number of less powerful projectiles — i.e., of a unit weight of at least 250 kg.

Note. — The dimensions of the fortifications determine the total number of projectiles needed for their destruction.

Since the distance from their base makes it necessary for them to have a radius of action of at least 500 km. for attacking fortifications situated on land frontiers, and as a rule an even greater radius for attacking maritime fortifications, the aircraft which are really effective against national defence are those which are capable of carrying a useful load of 5,000 to 6,000 kg.

2. Aircraft which can only carry projectiles of a unit weight between 200 and 250 kg. — i.e., a useful load of between 3 and 5 tons — are capable of less effective action against permanent fortifications.

These findings show that any aircraft which is incapable of carrying under general conditions of use a sufficient number of projectiles of a unit weight exceeding 100 kg. is ineffective against permanent fortifications.

(c) Use in Battle.

The use of aircraft in battle does not give them a specifically offensive character. Some are indispensable to the defence for the purpose of obtaining information as to the dispositions of attack, in regard to which the assailant has the initiative, and others are needed for rapid intervention by direct action in order to delay the progress of attacking columns advancing on open ground or to prevent the offensive action of fleets.

1. Direct Action.

Aircraft which can be effectively employed against objectives of the battlefield that

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1 By useful load is meant everything that the aircraft can carry in addition to its "unladen weight" as defined in the Air Commission's report.

2 Pilot, observer, wireless operator and two machine-gunners.
Certain aircraft needed for colonial and inter-colonial communications must have a radius of action of at least 2,000 km., must carry a crew of not less than five, which, with the equipment necessary for the safety of the machine and the crew, means a useful load of from 4 to 5 tons.

Aircraft for the transport of troops, which are particularly useful for the maintenance of order in peace-time in the colonies, should also have a useful load of 3 to 6 tons.

(g) Threat represented by Air Armaments to Civilians.

All aircraft, without alterations of any kind and whatever their tonnage, may constitute a danger to civilians if they are used by an army to attack civilians and provided their radius of action is sufficient to attain their objectives.

This threat is due chiefly to the fact that aircraft can launch an attack in the interior of a country in zones beyond the radius of action of land and naval armaments. They can act against a much larger part of the population; but, on the other hand, there is no doubt that the material damage which they are capable of producing is far smaller than that caused by land and naval armaments.

Actually, the extent of the danger depends essentially on the nature of the projectiles used. Projectiles containing harmful gases, bacteria and incendiary projectiles weighing very little may be highly effective and produce a considerable moral effect. Explosive projectiles may produce a more or less considerable moral effect, but they are not capable of causing serious material damage unless they are used in large quantities.

Geneva, June 3rd, 1932.

REPORT BY THE SUB-COMMITTEE ON THE DRAFT RESOLUTION
SUBMITTED BY THE FRENCH DELEGATION


The Sub-Committee drew up the following text (the declarations and reservations made in regard to this text are annexed):

The offensive character of air armaments cannot be determined arbitrarily and must depend on the examination of the conditions they must fulfil in order to be effective against whatever objectives may be assigned to them and on the defence requirements which they meet.

Moreover, the General Commission will not be in a position to take decisions relating to the qualitative limitation of air armaments until the technical factors which are indispensable to enable it to form a reasoned opinion have been brought to its notice.

The Air Commission accordingly submits the following considerations and findings which seem to it to meet the intentions of the General Commission:

I. GENERAL CONSIDERATIONS.

1. If the efficacy of air armaments against the different objectives which may be assigned to them depends on the vulnerability of those objectives and the useful load 1 which the aircraft can carry, on the other hand the radius of action needed for such direct intervention and for scouting operations, particularly at sea, and communications with and between overseas territories, depends essentially on the geographical situation and special conditions of each country.

In particular, the effects of using air armaments cannot be the same in countries with a small area, with their vulnerable points near the frontier, and immediately surrounded by neighbours, as in countries separated from other States by a more or less wide expanse of water.

2. The efficacy of air armaments against national defence depends on the possibilities, in the event of an act of aggression and independently of aerial means of defence, of their destroying the obstacles to the advance of the aggressor, attacking lines of
It is also necessary to examine the conditions governing the use of air armaments against mobile forces and other objectives of the land and naval battlefield in order to decide whether their offensive possibilities are greater than the requirements of defence.

3. The discussions of the Sub-Committee revealed the fact that for many countries the effectiveness of air armaments against national defence was due principally to the circumstance that aircraft could attack the vital centres of the country (towns, centres of population, etc.) and weaken the internal resistance. Setting aside considerations regarding international engagements, it was thought desirable to examine the conditions governing their effectiveness.

II. SPECIAL POINTS.

For information purposes, it should be noted that the useful load of the heaviest aircraft at the present time is about 27,000 kg. for civil aircraft and 15,000 kg. for military aircraft.

Observations relating to the General Conditions of Use.

1. At present, military aircraft must have a crew varying from one to five, together with the arms and ammunition necessary for their own defence. Nevertheless, only aircraft seating more than one and with a crew of at least three men to ensure their defence and an adequate radius of action are capable of flying long distances over other countries and may, in certain cases, offer a more offensive character than others.

2. The radius of action — that is to say, the total distance which can be flown — should take into account, not only the absolute distance of the objective, but also the additional distance which may have to be covered for tactical reasons or owing to atmospheric conditions.

In general, the radius of action necessary for air armaments depends on the special situation of the countries concerned.

In particular, against countries of small area and great density of population, or against countries whose vulnerable points are situated near their frontiers, air armaments might be very effective with a small radius of action, especially if they were employed against the vital centres of these countries.

3. Under the normal conditions of inaccuracy of aerial aim at an objective of small dimensions, results cannot be obtained by the launching of a single projectile, however powerful.

A single aircraft cannot hope to obtain appreciable results from its action, except by launching a salvo containing enough bombs to obtain at least an impact capable of causing serious damage. The dimensions, the nature and resistance of the objective, the altitude of the aircraft and the nature of the defence and the atmospheric conditions influence the precision of the bombardment and determine the characteristics and number of the bombs which must be carried in one and the same load.

If, however, the objective attacked is very extensive, in particular when air armaments take the towns of a country as their objective, precision of aim becomes less necessary and even aircraft of low power, but in large numbers, may prove very effective owing to the moral, if not the material, results which they can obtain.

4. The effectiveness of attack by air against an objective increases with the number of aircraft employed, provided that these aircraft taken individually are effective against that objective.

III. EFFECTIVENESS AGAINST NATIONAL DEFENCE.

A. Action against Permanent Fortifications.

As the greater part of air armaments are at present ineffective against permanent fortifications, it would be unreasonable to use a single military aeroplane in an attempt to destroy such objectives.

It is pointed out, however:

(1) That aircraft capable of carrying a useful load of 5,000 to 6,000 kg. would be capable of producing serious results against permanent fortifications;

(2) That aircraft capable of transporting a useful load of from 3,000 to 5,000 kg. would be capable of producing appreciable results, in particular, against dug-outs, but without decisive consequences.
which they are capable of producing, exercise at times very important indirect action against
its national defence.

In general, this action may be all the greater, the smaller the country attacked and
the denser its population, if the vital centres are situated near the frontier. It may even
be of capital importance if it is directed against the works which, in certain cases, assure
the life and existence of a country against a permanent natural menace.

As, however, the centres of population form extensive objectives, particularly
vulnerable to the action of gas and especially incendiary bombs, and as the latter may
cause very great damage even with a small tonnage, all aircraft having a sufficient radius
of action and capable of transporting any useful load in addition to its pilot may, if such
projectiles are employed, be effective against the vital centres of a country.

C. Action against Lines of Communication.

In addition to direct action against convoys and troops upon the battlefield, which
will be examined below, aircraft will also be used against troops in centres of mobilisation
and against railway junctions and bridges. Where such objectives are in centres of
population, aircraft attacking them constitutes a menace to the civilian population in their

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Such aircraft, with their crew of five, maritime equipment and military defence armament (machine-guns), have a useful load of at least 4,500 to 5,000 kg.

2. Scouting Operations.

Certain aircraft used for scouting purposes must be capable of carrying a crew of at least five persons and their own defensive armaments and should have a radius of action enabling them to travel at least 500 km. from their bases over the land and at least 1,000 km. over the sea — that is to say, taking the wind into account, a radius of action of 1,200 to 2,500 km.; the useful load which such aircraft must be able to carry is 3,000 to 6,500 kg.

G. Action of Pursuit (Chaser) Aeroplanes.

Pursuit (chaser) aeroplanes possess an offensive character when used to facilitate aggression by bombing aeroplanes, but both meet defence requirements when used against an aggressor.

H. Miscellaneous Uses.

Certain aircraft needed for communications with and between overseas territories must have a radius of action of at least 2,000 km., must carry a crew of not less than five, which, with the reserves necessary for the safety of the machine and the crew, means a useful load of about 4 or 5 tons.

Aircraft for the transport of troops, which are particularly useful for the maintenance of order in peace-time in the colonies, must also have a useful load of 3 to 6 tons.

IV. MENACE OF AIR ARMAMENTS TO CIVILIANS.

All aircraft, without alterations of any kind and whatever their tonnage, may constitute a danger to civilians if used directly to attack civilians as well as against military objectives situated in densely populated areas.

This threat is due chiefly to the fact that aircraft can make their action felt in the interior of a country in zones beyond the radius of action of land and naval armaments. They can act against a much larger part of the population; but, on the other hand, there is no doubt that the material effects they are capable of producing on the battlefield are far less than those caused by land or naval armaments.

Actually, the extent of the danger depends essentially on the nature of the projectiles used. Projectiles containing harmful gases or bacteria, and incendiary projectiles weighing very little, may be highly effective and produce a considerable moral effect. Explosive projectiles may produce a more or less considerable moral effect, but they are not capable of causing serious material damage unless used in large quantities.

[Translation.]

Annex.

1. DECLARATION BY THE GERMAN DELEGATION.

At the plenary meeting of the Air Commission, the German delegation stated that it was not in favour of the proposal to examine the General Commission's three questions in detail by means of a discussion of the French questionnaire, a procedure which would take much time, owing to the need to clear up these problems from the point of view of the science of warfare. It did not consider that this study was necessary for the purpose of giving a clear and adequate reply to the General Commission's questions. The Air Commission having decided, however, to discuss the French questionnaire in a Sub-Committee and the German delegation having itself submitted a draft reply to this questionnaire, the German delegation, with the object of co-operating, endeavoured to amend the draft reply so that it would also take account of the position of countries possessing no military aviation and no means of anti-aircraft defence.

As the reply to the French questionnaire, which was the outcome of the somewhat brief discussions of the Sub-Committee, does not take the situation of these countries into account, the German delegation is unable to accept it. In this connection, the German
3. DECLARATION BY THE BELGIAN DELEGATION.

The Belgian delegation, while stating that it is not in a position to give an opinion based on all the figures supplied by the Sub-Committee, declares that it had the honour previously to submit a proposal fixing the maximum unladen weight of aeroplanes at 1,500 kg. It is therefore able to support the conclusions resulting from the Sub-Committee's document only in so far as they are compatible with the value the Belgian delegation itself proposed for the criterion, unladen weight.

4. DECLARATION BY THE ITALIAN DELEGATION.

The Italian delegation would have been glad here, as always, to co-operate. In examining the first and second draft replies to the French delegation's questionnaire, however, it felt, possibly mistakenly, that in view of the principles laid down in these replies and the necessity of taking into consideration, first, fortifications and then obstacles, it felt, I repeat, possibly mistakenly, that the general effect was to justify the retention of heavy tonnages, to cause existing air armaments to be considered as not possessing or possessing only to a small extent the characteristics of aggressiveness and of not being threatening to civilians, and that these principles were clearly at variance with the task entrusted to us by the General Commission and the principles of the Disarmament Conference.

The Italian delegation, which has already on various occasions, and especially in its proposal of April 28th, clearly stated its point of view, is of opinion that the latter is too far removed from the conceptions which are here taken into consideration, and that its intervention in the discussion would not be very likely to assist in arriving at any solution whatsoever, particularly when the rapidity with which the Sub-Committee would have to proceed is remembered.

5. DECLARATIONS OF THE SPANISH AND SWEDISH DELEGATIONS.

The Spanish and Swedish delegations consider that this document is very useful for the information of the Air Commission. They desire, however, to make every reservation as to the figures contained therein, which they are able to accept only in so far as they are compatible with the limiting figures contained in the proposal they will have the honour to submit together with other delegations.

6. RESERVATION OF THE NETHERLANDS DELEGATION.

To divide the load of bombs required for effective action against a certain objective among as large a number of aeroplanes as possible would result in lower tonnage figures for aircraft than those given in the Sub-Committee's report. These figures would be still further decreased if the radius of action of aircraft were reduced,
Although it was made clear in the discussions in the Air Commission that the offensiveness of the air armaments, their efficacy against national defence, and the threat that they represent to civilians vary considerably on account of the wide differences in the geographical position of different countries, the location of their vital centres, and the state of their anti-aircraft defences, and that any qualitative question in connection with air armaments is closely bound up with quantitative considerations, the Commission found it possible to set down certain general conclusions, which form Part I of this report. The Commission also undertook a technical study of the efficacy and the use of air armaments. The results of this study form Part II of the present report. Part III contains several comments in regard to Parts I and II, and Part IV contains statements by various delegations, with an introduction.

PART I.

These conclusions are as follows:

I (a) All air armaments can be used to some extent for offensive purposes, without prejudice to the question of their defensive uses.

I (b) If used in time of peace for a sudden and unprovoked attack, air armaments assume a particularly offensive character. In effect, before the State victim of the aggression can take the defensive measures demanded by the situation, or before the League of Nations or States not involved in the conflict could undertake preventive or mediatory action, the aggressor State might in certain cases be able rapidly to obtain military or psychological results, such as would render difficult either the cessation of hostilities or the re-establishment of peace.

I (c) Civil aircraft, to the extent that they might be incorporated into the armed forces of a State, could in varying degrees subserve military ends.

I (d) Independently of the offensive character which air armaments may derive from their use, their capacity for offensive action depends on certain of their constructional characteristics.

I (e) The possibilities of offensive action of aeroplanes carried by aircraft-carriers or warships equipped with landing-platforms (or landing-decks) must be regarded as being increased by the mobility of the vessels which carry them.

I (f) The capacity for offensive action of air armaments resulting from such constructional characteristics should first be considered from the point of view of the efficacy of such armaments against national defence, and secondly from the point of view of the threat offered thereby to the civilian population.

EFFICACY AGAINST NATIONAL DEFENCE.

II (a) The aircraft forming a part of the air armaments of a country that may be regarded as most efficacious against national defence are those which are capable of the most effective direct action by the dropping or launching of means of warfare of any kind.

II (b) The efficacy against national defence of an aircraft forming part of such armaments, and considered individually, depends upon its useful load and its capability of arriving at its objective.

II (c) The efficacy against national defence of means of warfare of every kind launched from the air depends upon the material effect which they are capable of producing.

THREAT TO CIVIL POPULATION.

III (a) The aircraft forming part of the air armaments of a country which can be regarded as the most threatening to the civil population are those which are capable of the most effective direct action by the dropping or launching of means of warfare of any kind.

III (b) The degree of threat to the civil population represented by an aircraft forming part of those armaments, and considered individually, is in proportion to its useful load and its capability of arriving at its objective.

III (c) The means of warfare, intended to be dropped from the air, which are the most threatening to the civil population are those which, considered individually, produce the most extended action, the greatest moral or material effect; that is to say, those which are the most capable of killing, wounding and immobilising the inhabitants of centres of civil population or of demoralising them, so far as concerns immediate consequences, and so far as concerns future consequences, of impairing the vitality of human beings. Among these means the Commission specially mentions poisonous gases, bacteria and incendiary and explosive appliances.
IV. The useful load of aircraft and their capability of arriving at their objective are determined by a large number of variable factors. Where useful load is concerned, the Air Commission has noted among these variable factors, for purposes of examination, the unladen weight, the horse-power and the wing area for aeroplanes, the volume and the horse-power for dirigibles.¹

PART II.

The offensive character of air armaments cannot be determined arbitrarily and must depend on the examination of the conditions they must fulfill in order to be effective against whatever objectives may be assigned to them, and on the defence requirements which they meet.

Moreover, the General Commission will not be in a position to take decisions relating to the qualitative limitation of air armaments until the technical factors which are indispensable to enable it to form a reasoned opinion have been brought to its notice.

The Air Commission accordingly submits the following considerations which seem to it to meet the intentions of the General Commission. It would, however, emphasise that the figures given in Section III below are purely for purposes of indication; they are not absolute, and in no way bind the delegations in the matter of any proposals for qualitative limitation which they may submit elsewhere.

I. GENERAL CONSIDERATIONS.

1. While the efficacy of air armaments against the different objectives which may be assigned to them depends on the vulnerability of those objectives and the useful load which the aircraft can carry, on the other hand, the radius of action needed for such direct intervention and for scouting operations, particularly at sea, and communications with and between overseas territories depends essentially on the geographical situation and the special conditions of each country.

In particular, the effects of using air armaments cannot be the same for all countries; for example, those with a small area, with their vulnerable points near the frontiers of other States, and those surrounded by a wide expanse of water.

2. The efficacy of air armaments against national defence depends on the possibility, in the event of an act of aggression, and independently of aerial means of defence, of their destroying the obstacles to the advance of the aggressor, attacking lines of communication, centres of military production and supply depots, air and naval bases, etc.

It is also necessary to examine the conditions governing the use of air armaments against mobile forces and other objectives of the land and naval battlefield in order to decide whether their offensive possibilities are greater than the requirements of defence.

3. The discussions of the Air Commission revealed the fact that for many countries the effectiveness of air armaments against national defence was due principally to the circumstance that aircraft could attack the vital centres of a State (towns, centres of population, etc.) and weaken the internal resistance. Leaving aside considerations regarding international engagements, it was thought desirable to examine the conditions governing their effectiveness.

II. SPECIAL POINTS.

For information purposes it should be noted that the useful load of the heaviest aircraft at the present time is about 27,000 kg. for civil aircraft and 15,000 kg for military aircraft.

Observations relating to the General Conditions of Use.

1. At present, military aircraft must have a crew varying from 1 to 5, together with the arms and ammunition necessary for their own defence. Nevertheless, only aircraft seating more than one and with a crew of at least three men to ensure their defence and an adequate radius of action are capable of flying long distances over other countries and may, in certain cases, offer a more offensive character than others.

2. The radius of action—that is to say, the total distance which can be flown—should take into account not only the absolute distance of the objective but also the additional distance which may have to be covered for tactical reasons or owing to atmospheric conditions.

In general, the radius of action necessary for air armaments depends on the special situation of the countries concerned.

In particular, against countries of small area and great density of population, or against countries whose vulnerable points are situated near their frontiers, air armaments

¹ For the result of this examination see page 6.
² By "useful load" is meant all that an aircraft can carry in addition to its "unladen weight", as defined in Annex I of this report.
might be effective with a small radius of action, especially if they were employed against the vital centres of these countries.

3. Under the normal conditions of inaccuracy of aerial aim at an objective of small dimensions, results cannot be obtained by the launching of a single projectile, however powerful.

A single aircraft cannot hope to obtain appreciable results from its action except by launching a salvo containing enough bombs to obtain at least one impact capable of causing serious damage. The dimensions, the nature and resistance of the objective, the altitude of the aircraft, the nature of the defence and the atmospheric conditions influence the precision of the bombardment and determine the characteristics and number of the bombs which must be carried in one and the same load.

If, however, the objective attacked is very extensive—in particular, when air armaments take the centres of population of a country as their objective—precision of aim becomes less necessary, and even aircraft of low power but in large numbers may prove very effective owing to the moral, if not the material, results which they can obtain.

4. The effectiveness of attack by air against an objective increases with the number of aircraft employed, provided that these aircraft taken individually are effective against that objective.

III. EFFECTIVENESS AGAINST NATIONAL DEFENCE.

A. Action against Permanent Fortifications.
The aircraft best adapted for bombarding munition factories, etc.
This threat is due chiefly to the fact that aircraft can make their action felt in the interior of a country in zones beyond the radius of action of land and naval armaments. They can act against a much larger part of the population; but, on the other hand, there is no doubt that the material effects they are capable of producing in the zone of the battlefield are far less than those caused by land or naval armaments.

Actually, the extent of the danger depends essentially on the nature of the projectiles used. Projectiles containing harmful gases or bacteria, and incendiary projectiles, though of small tonnage, may be highly efficient and produce a considerable moral effect. Explosive projectiles may produce a more or less considerable moral effect, but they are not capable of causing serious material damage unless used in large quantities.

PART III.

The conclusions in Part I of this report give rise to the following comments:

In the first place, the German delegation submitted an amendment referring to all the foregoing conclusions, as follows:

"All military aviation, and especially the dropping of means of warfare of every kind from the air, come into the three categories."

In order to specify the material of air armaments for this purpose, the German delegation, on the basis of the arguments advanced during the discussion, desired to supplement the above amendment as follows:

"By military aircraft are to be understood all aircraft (e.g., aeroplanes, dirigibles, free and captive balloons):

(1) Which are identified by identity-marks as military aircraft, or
(2) Which have military specifications: that is to say, installations to receive means of warfare of every kind such as guns, machine-guns, torpedoes, bombs, or instruments for aiming or launching such means of warfare, or
(3) Which are manufactured for the armed forces of a country, or
(4) Which are manned by a military pilot or a military crew having orders to that effect, or
(5) Which form part of the equipment of an armed force or are requisitioned by such force."

The primary reasons given by the German delegation for this amendment was that for a country which has no means of anti-aircraft defence, either in the air or on the ground, all air armaments without any distinction must be regarded as answering to the three questions put by the General Commission's resolution.

A number of delegations which opposed the German proposal pointed out that only certain air armaments could be regarded as answering to these questions, while other delegations, which also could not see their way to accept the German proposal, expressed the view that in any case different forms of air armaments answered to these characteristics in different degrees.

The German amendment was rejected by 22 votes to 7—those of Austria, Bulgaria, China, Germany, Hungary, Turkey and the Union of Soviet Socialist Republics. In consequence of this vote, the Austrian and German delegations, though taking part in the discussion, abstained from voting on points I (a), (b), (c), (d), (e), II (a), (b) and (c), and III (a), (b) and (c).

In connection with the conclusion numbered I (a), first paragraph, the Italian delegation proposed the omission of the words: "without prejudice to the question of their defensive uses". As, however, this amendment was rejected by 18 votes to 12, the Italian, Turkish and Soviet delegations made an explicit reservation against the retention of these words, on the ground that the question of the use of air armaments for defensive purposes was outside the terms of the General Commission's resolution.

After a discussion in some detail, the Commission, not wishing to go at present into the question of the internationalisation or control of civil aviation, adopted conclusion I (b), with the two abstentions already mentioned. The Hungarian delegation made a declaration maintaining that the civil aircraft of a country which has no military aircraft cannot be incorporated in its armed forces. The Soviet delegation made a declaration to the effect that it held that all military aircraft were specifically offensive in character, whether they were built specially for military purposes or were subsequently converted to such purposes; and that it saw no need to mention civil aircraft in the report, as they could not be regarded as a weapon.