have completed their active service
but who may be called upon in cer-
tain conditions to resume their mili-
tary duties, on account of differences
of quality in respect of deterioration
in military efficiency and of differences
in numbers owing to wastage by death,
sickness, emigration or other causes.

Moreover, so long as there remain
in certain countries large numbers of
men of military age who have had active
service in the last war, it would not be
equitable to leave these reserves out
of account in a comparison of land
armaments prepared for war-time.

In addition, so long as there remain
in certain countries large numbers of
men of military age who have had active
service in the last war, it would not be
equitable to leave these reserves out
of account in a comparison of land
armaments prepared for war-time.

It must be recognised that these men
are no longer in their first youth and
that their military value diminishes
each year; whereas, on the other hand,
the reserves of conscript armies fur-
nished by the annual contingent are
regularly renewed.

The differences of quality in respect
deterioration in military efficiency
and the differences in numbers owing
to wastage by emigration or other cases
must also be taken into account if very
exact comparisons are to be made.

The delegations agree to the text in the right-hand column with regard to
paragraph 1 above.

2. Material in Reserve.

Material in reserve is a standard of
great importance in the comparison
of the land armaments of one country
with those of another country.

The considerations set forth above
with regard to the employment of ma-
terial in service as a standard of com-
parison apply equally to material in
reserve.

No comparison would be complete
which disregarded so important a
standard as that of material in reserve.

Material in reserve is a factor of
very great importance in the comparison
of the armaments of one country with
those of another country.

All the considerations set forth above
with regard to the difficulties in the way
of employing material in service as a
practical standard of direct comparison
apply equally to material in reserve.

These difficulties are further increased
by the fact that the amount of material
in reserve is not known and it may be
stored in various depots, either in the
national territories or abroad, and that
these advantages could only be remedied
by an exceedingly strict supervision.

Furthermore, the distinction made
between material in service, material
in reserve, stocks of material and mobi-
lisation material varies considerably
according to countries.

Nevertheless, no comparison would
be complete which disregarded so impor-
tant an element as that of material in
reserve.

3. Preparations of all Kinds undertaken with a View to War.

Although highly important, the factor "preparations of all kinds undertaken with
a view to war" does not readily lend itself to comparisons.
Comparisons dealing with "Ultimate" War Armaments.

(Paragraph (3) of the Reply to Question I, Part I, A: "What is to be understood by the expression 'armaments'?").

During a war the length of which will allow the creation and organisation of "ultimate war armaments", these armaments will have an increasing and even capital importance. From this point of view they form, as has been said in the "General Principles", elements which must always be taken into account in a comparison of land armaments of different countries.

However, ultimate war armaments cannot themselves be used for direct comparison, since they do not exist in peace-time.

Conclusions.

Subject to the general principles applicable to comparisons bearing on any of the three main categories of armaments, an approximate comparison of the land armaments of different countries can be made by combining the following standards:

(a) Effectives with the colours;
(b) Trained reserves;
(c) Material in service;
(d) Material in reserve.

The standards referred to above should be employed in conjunction with the following factors:

(a) Number and composition of the larger peace-time units;
(b) Period of service with the colours and periods of training with the reserves.

Subject to the general principles applicable to comparisons bearing on any of the three main categories of armaments, and having regard to the close relation between land, sea and air armaments, an approximate comparison of the land armaments of different countries can be made by combining the following factors:

In the first place, trained effectives available in peace-time under the conditions defined above (Chapter I, paragraph 1).

Nevertheless, it is indispensable to have regard in the widest possible measure to the factor of war material in service when appraising the real value of the result obtained by using the standard of comparison based on the effectives available.

The standard of comparison in regard to land armaments should therefore be the number of effectives available from which can be inferred the amount of material appropriate to their use, taking into account the special situation of each State.

Further, the standard suggested above cannot be equitably employed except in conjunction with the following other

1 It is for Sub-Commission B to determine which exactly are these elements and what rel portance should be attached to them.
factors, the order in which they are placed being independent of their relative importance:

Number and composition of the larger peace-time units;

Period of service with the colours and periods of training with the reserves;

Trained reserves;

War material in reserve so far as it is capable of comparison, whether direct or indirect (e.g., by expenditure);

Preparations of every description undertaken with a view to war;

Time and organisation required for the complete mobilisation of national resources.

PART III. — STANDARDS RELATING TO NAVAL ARMAMENTS.

The delegations of the ARGENTINE, the BRITISH EMPIRE, CHILE, JAPAN and the UNITED STATES OF AMERICA submit the following text A:

A.

PREAMBLE.

The delegations of the Argentine, the British Empire, Chile, Japan and the United States of America realise that the comparison of naval armaments presents certain inherent difficulties, especially if an attempt is made to compare fleets of widely different strengths. However, the above delegations contend that the relative fighting value of fleets depends on the strength of the component units of these fleets. Study of the individual units, therefore, affords the most accurate means of comparison; hence the nearer the standard adopted approaches individual comparison, the more accurate and valuable will be the results.

Basic standards are dependent, therefore, upon the above considerations.

Other elements, such as the age of ships, the guns and the torpedoes, may be considered as supplementary factors which have an important bearing upon basic standards. Personnel must also be taken into consideration.

BASIC STANDARDS.

Two standards may be considered as of a practical nature:

1. **Comparison by classes**, taking into consideration:
   
   - (a) Total tonnage by classes;
   - (b) Total number of ships in each class; or:
   - (c) Total tonnage of capital ships;
   - Total tonnage of aircraft-carriers;
   - Total tonnage of auxiliary surface ships, and
   - Total tonnage of submarines.

2. **Total tonnage** of all warships of a country which are capable of being used as combatant units.

The delegations of the Argentine, the British Empire, Chile, Japan and the United States of America, whilst admitting that comparison by total tonnage may be an acceptable standard in the case of the fleets of approximately similar composition and strength, contend that this gives practically no indication of their fighting values. Total tonnage would appear to be a means of comparison which would appeal more to non-technicians than to naval staffs. When comparing small fleets, the objections become somewhat less pronounced. After careful consideration of the two methods, the above-mentioned delegations are convinced that the comparison by classes is not only practicable and equitable but is a standard of general application capable of giving more accurate and valuable results.

SUPPLEMENTARY FACTORS BEARING UPON COMPARISON.

1. **Age of Ships**.

There is no doubt that the effective value of the tonnage of the naval armaments of a country, generally speaking, decreases with age, either as the result of wear or depreciation of material due to improvements embodied in the latest construction.
The delegation of CHILE suggests the addition of the following to this paragraph:

While admitting this fact, the effective value of ships may, to a great extent, be easily regained, and hence the effect of age lessened, provided that they undergo important reconstruction or modernisation entailing improvements to their power of offence and defence.

2. Guns and Torpedoes.

The number and calibre of guns and the number and diameter of torpedo-tubes mounted in ships should be taken into account in any standard of comparison.

3. Personnel.

The number of trained naval personnel is controlled by the number of ships. Nevertheless, assuming a sufficiency of trained personnel to man the entire fleet, the military value of material is greatly affected by the quality of the personnel. This quality is so difficult to appraise that personnel is not considered to be a factor which can usefully be applied for the purpose of comparing the naval armaments of one country with the naval armaments of another.

** **

The delegations of BELGIUM, FINLAND, FRANCE, ITALY, the NETHERLANDS, POLAND, ROUMANIA, the KINGDOM OF THE SERBS, CROATS AND SLOVENES, SPAIN and SWEDEN submit the following text:

B.

PREAMBLE.

The comparison of naval armaments presents considerable difficulties because in different countries they are composed of units of very different types and their value varies according to their age and according to technical progress.

Certain standards have been proposed as making it possible to compare the whole of the naval armaments of one country with the naval armaments of another country. These are basic standards.

Other standards, although also important, only refer to special elements of these armaments; they cannot be considered alone, but must always be taken in conjunction with the first. These are additional standards.

It is possible to conceive of a large number of standards.

CHAPTER I. — BASIC STANDARDS.

Four basic standards have been submitted for the consideration of the Sub-Commission.

1. Total Tonnage.

To taltonnage is defined as being the total of the individual tonnages of all the war-vessels of a country which can be utilised as fighting units.

Starting from the incontrovertible principle that each country divides and arranges its tonnage so as to obtain from it the best possible efficiency, this tonnage may be regarded as expressing in figures the possibilities which a country possesses of constituting its naval armaments; these tonnage figures consequently allow of comparison between the naval armaments of one country and those of another country expressed numerically in the same manner.

It therefore follows that, as regards material, the basic standard of comparison for naval armaments by total tonnage, without dividing it into classes of vessels, is simple, practical and equitable for all States and could therefore be applied generally.

The delegation of CZECHOSLOVAKIA agrees to the above paragraph.

2. Total Depreciated Tonnage.

The total depreciated tonnage is the total of the individual depreciated tonnages of all the war-vessels of a country which can be utilised as fighting units.

The depreciated tonnage of a vessel is equal to its actual tonnage decreased by a fraction of this tonnage calculated according to the time which has elapsed since it was completed and the age-limit attributed to the type of vessel under consideration.

This basic standard, although it is less simple than the standard of total tonnage, makes it possible, however, in the matter of comparisons, to take automatically — and empirically — into account the depreciation of the value of naval armaments due to the age of the units which compose them.
3. Tonnage by Classes.

Tonnage by classes means the various tonnages obtained by adding together the tonnages of all vessels of each class. The systems drawn up on this basic standard, even if they allow of a partial and approximate comparison between the corresponding classes of two fleets consisting of similar units, do not in any case make it possible to carry out a comparison between different classes, and consequently do not allow of comparison between the whole naval armaments of one country and the whole naval armaments of another country. These systems cannot therefore be applied in a general, precise and equitable manner for all countries, and they cannot accordingly be used as a standard basis of comparison.

4. Individual Number and Tonnage of Vessels of each Class.

As the fleets of the world are at present constituted, there is no known division of naval fighting units into classes which is both technically exact and sufficiently precise to allow of the drawing up of provisions for a Convention which would be applicable to all countries.

Consequently, this basic standard is inapplicable except in the case of a partial comparison between vessels which are not only of the same class but also of the same type.

In comparing total fleets, however, after making a comparison between the same number of similar units, there remain surpluses consisting of units of different types, which are consequently heterogeneous and cannot in any way be compared under this standard.

This basic standard cannot therefore be considered for the comparison of the whole naval armaments of one country with the whole naval armaments of another country.

The SPANISH delegation submits the following to replace paragraphs 3 and 4 above:

3. Comparison by classes, either in respect of their total tonnage or the number of vessels in each class, may be considered as also having, in certain cases, a practical character.

CHAPTER II. — ADDITIONAL STANDARDS.

1. Age.

The effective value of the naval tonnage of a country diminishes as the tonnage grows older, either through use or through the depreciation of material on account of improvements made in more recent material.

It is therefore necessary, in making a comparison in naval armaments, to employ — in addition to a basic standard — a method for the mensuration of the age of these armaments.

The most logical, equitable and simple proceeding for taking into account the age of the various fleets is to consider the latter only as a whole, determining the extent to which they differ from the average age of the different units, by one-half of their normal age-limits.

Consequently, failing any other system, the value of this difference, as calculated by the following formula for all the vessels of a fleet, gives from this point of view results which are acceptable in estimating the additional standard of age, in any method of comparison other than that of total depreciated tonnage.

Formula for calculating the difference in ratio to the average age:

\[
\text{Difference in ratio to the average age} = \frac{T_1 + 2T_2 + \ldots + 10T_{10}}{T_1 + T_2 + \ldots + T_{10}} - \frac{T_0 + 2T_0 + \ldots + T_0}{T_0 + T_0 + \ldots + T_0}
\]

\[T_1, T_2, \ldots \text{ being the total tonnage of vessels aged 1, 2, } \ldots \text{ years over the average age.}\]

\[T_0, t_0, \ldots \text{ being the total tonnage of vessels of average age.}\]

\[T_1, t_1, t_2, \ldots \text{ being the total tonnage of vessels aged 1, 2, } \ldots \text{ years less than the average age.}\]

Average age \[\frac{10}{8} = 1.25\] for vessels of over 1,500 tons.

Average age \[\frac{3,000}{100} = 30\] tons.

The delegation of the ARGENTINE agrees to the third, fourth and fifth paragraphs concerning "age", subject to the following amendments:

Paragraph 3 to commence: "A proceeding for taking into account . . . ."

Paragraph 4: Delete last sentence: "in any method of comparison other than that of total depreciated tonnage".

The delegation of SPAIN agrees to the first of these two amendments.

2. Guns and Torpedoes.

The total number of guns and the number of the torpedo-tubes in a fleet which are or can be mounted in the warships of each country might constitute a factor to be taken into account when dealing with comparisons.

The delegation of GERMANY agrees to paragraph 2 above.
3. **Effectives.**

Personnel have always constituted and still constitute an essential factor in the combatant force of every military organisation.

In the case of naval armaments, as in others, it should be observed that the efficiency of the material greatly depends on the quality of the personnel employed, and the fact that there is a sufficient number of personnel — the quality of the personnel improving with the duration of service and the expenditure on training and manoeuvres.

Effectives therefore constitute a standard which provides an important element in estimating forces, although in practice it is difficult to apply.

*The delegation of GERMANY agrees to paragraph 3 above.*

4. **Commercial Fleets.**

Commercial fleets having a potential military value, mainly as regards ships which can be utilised as auxiliary cruisers, it is necessary, in a comparison of naval armaments, to take into account, as an important element in forming an estimate, the military value of commercial fleets.

*The delegation of the NETHERLANDS does not agree to paragraph 4 above.* It is of opinion that only those merchant ships which, by reason of their build and equipment, are intended to be converted into auxiliary cruisers should, in a comparison of fleets, be considered as having military value.

5. **Naval Bases and Fortified Ports.**

In order to obtain an equitable comparison between naval armaments, the existence of naval bases and fortified ports in or outside the metropolitan territory should be taken into consideration.

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**PART IV. — STANDARDS RELATING TO AIR ARMAMENTS.**

See Section III, Part III, A (page 53), Declaration by the delegations of the Argentine, the British Empire, Japan and the United States of America.

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**Note:** The text is submitted in the same manner as for Part II (see note, page 38).

1. Except where otherwise specified, the general expression “military aviation” covers the personnel and the material of the aviation of land, sea and air forces.

2. Except where otherwise specified, the general expression “civil aviation” does not include the aeronautical industry, but does include all kinds of non-military aviation, namely:

   (1) Commercial aviation organisations;
   (2) State organisations other than military (Customs, Post Office, Police, etc.);
   (3) Sporting aviation, pleasure or touring;
   (4) Flying-schools.

**CHAPTER I.**

Any comparison between the air armaments of different countries should theoretically cover the quantity and quality of personnel and material.

Two points should be noted in the first place:

(a) In the case both of material and of personnel, quality is of capital importance but is extremely difficult to estimate with any accuracy;

(b) The science of aeronautics is making rapid and incessant strides, and technical progress may consequently produce important alterations in the value of any given class of material. Any comparison of aviation material can therefore only be of provisional value, inasmuch as its results may become obsolete within a very short period, the length of which cannot be foreseen.

**CHAPTER II. — COMPARISON OF PERSONNEL.**

1. There would appear to be no effective standard for estimating the quality of personnel.

2. A comparison of numbers may be made on the basis either of the total strength or of the total specialist strength, or of the strength in specialists in certain branches, notably pilots.

It may be noted that a country which has an independent air force has to include the administrative services in its total effectives, whereas, if the air forces are attached to the army and navy, their personnel is partly included in the army and navy effectives.
Furthermore, differences in conditions of service — long or short term, voluntary enlistment or conscription — introduce factors which directly affect the quality of the personnel, its availability and the strength of the reserve.

The delegates of FINLAND, GERMANY, the NETHERLANDS, SPAIN, SWEDEN and the UNITED STATES OF AMERICA submit the following text:

The standards of comparison for personnel of air armaments should include:

(a) The total air force personnel of all grades serving with the colours;
(b) The number of pilots included in this force;
(c) The trained reserves of all grades (as defined in the Report on Question I, Section II, Part I, A, page 11);
(d) The number of pilots in the trained reserves (as defined in the Report on Question I, Section II, Part I, A, page 11).

Whilst taking these points into consideration, two standards of comparison for air armaments were accepted so far as concerns personnel:

(a) The total air force personnel of all grades serving in peace-time effective as defined in the reply to Question I, Section II, Part III, Chapter I (page 14).
(b) The number of pilots included in these effective.

In order to consider the possibilities of the military use of the personnel of civil aviation, a distinction may be made between pilots, specialists and non-specialists.

1. Civil pilots, if they have received military training corresponding to that of a military pilot, can perform almost the same duties in war as military pilots. If they have had no military training, they are not immediately and sufficiently fit for all such duties, particularly those involving the possibility of air fighting, but they can be used without any additional training for certain military purposes (instructors in flying, ferry pilots, etc.).

2. Specialists of all kinds — in particular, the staff who keep aircraft engines in running order and mechanics for the upkeep of aeroplanes — are fit to repair and keep in running order certain military aircraft as well as certain civil aircraft; their value to military aviation depends mainly upon their technical training, discipline and their practical experience.

3. Non-specialists can obviously be used to supply labour to military aviation, but their military value is negligible.

Sub-Commission A considers that, while there can be no question of including the personnel of civil aviation among the “air forces permanently maintained in peace time”, it is necessary to take into account civil pilots and specialists when estimating the total air strength of a country, due regard being given to the considerations expressed above.

The delegations of ARGENTINE, GERMANY, SPAIN and the UNITED STATES OF AMERICA are further of the opinion that no personnel of civil aviation should be taken into account in any comparisons which may form the basis of the reduction or limitation of air armaments.

Chapter III. — Comparison of Material.

Dirigibles and aeroplanes are dealt with separately.

The delegations of the ARGENTINE, the BRITISH EMPIRE, FINLAND, GERMANY, JAPAN, the NETHERLANDS, SPAIN, SWEDEN and the UNITED STATES OF AMERICA submit the following text:

The delegations of BELGIUM, CHILE, CZECHOSLOVAKIA, FRANCE, ITALY, POLAND, ROUMANIA and the KINGDOM OF THE SERBS, CROATS AND SLOVENES submit the following text:
1. **Dirigibles.**

It may be taken for granted that the value of a dirigible depends, from the technical point of view, on the combination of two principal characteristics — the volume of the dirigible and the horse-power which it employs.

The military value of a dirigible may be regarded as dependent on these two characteristics, and two dirigibles can be compared from these two points of view.

Furthermore, the existence of dirigibles is easy to ascertain.

The volume and horse-power of the dirigible may therefore be accepted as characteristics; and, in order not to neglect the factor of number, it is proposed to adopt, as standards of comparison for all the dirigibles of all countries, total volume, total horse-power and number, volume being the predominant factor.

2. **Aeroplanes.**

The principal factors which determine the value of an aeroplane depend from a technical point of view on the combination of two main characteristics — wing area and horse-power.

Of these two technical characteristics, one — wing area — does not necessarily enable the military value of an aeroplane to be estimated; a machine with a small wing area but which is fast and light may be as useful in war as another machine with a wide wing area but slower and heavier.

On the other hand, it may be said that the military value of any aeroplane — light or heavy, fast or comparatively slow — varies with its horse-power. The latter may therefore be regarded as the principal characteristic of an aeroplane and to some extent allows of comparison between two machines.

Finally, the number of aeroplanes must also be taken into consideration. Together with horse-power, this to a certain extent furnishes the data necessary for comparing the value of the air armaments of the different countries.

After discussion, wing area, lift tonnage and age of aeroplanes were not adopted as standards.

Taking account of these considerations, the total horse-power and the number of machines were adopted as standards of comparison between aerial armaments for aeroplanes, giving precedence to total horse-power.

1. **Dirigibles.**

It may be taken for granted that the value of a dirigible depends, from the technical point of view, on the combination of two principal characteristics — the volume of the dirigible and the horse-power which it employs.

It should be pointed out, however, that the horse-power is to a certain extent a function of the volume, and the volume of a dirigible certainly constitutes its main characteristic.

Furthermore, the existence of dirigibles is easy to ascertain.

Consequently, the best standard of comparison for the whole of dirigibles which the various countries possess is the volume of these dirigibles.

2. **Aeroplanes.**

The principal factors which determine the value of an aeroplane depend from a technical point of view on the combination of two main characteristics — wing area and horse-power.

Of these two technical characteristics, one — wing area — does not necessarily enable the military value of an aeroplane to be estimated; a machine with a small wing area but which is fast and light may be as useful in war as another machine with a wide wing area but slower and heavier.

On the other hand, it may be said that the military value of any aeroplane — light or heavy, fast or comparatively slow — varies with its horse-power. The latter may therefore be regarded as the principal characteristic of an aeroplane.

With two aeroplanes of the same type, that which has the greater horse-power has a greater military value. The same characteristic also makes it possible to compare in a satisfactory manner two aeroplanes of different types.

Consequently, the best standard for drawing a comparison between the total aeroplane force of various countries is the total horse-power with which these aeroplanes are provided.
The delegations of FINLAND, GERMANY, NETHERLANDS, SPAIN, SWEDEN and the UNITED STATES OF AMERICA dissent from so much of the above paragraph as excludes wing area as a standard, and believe that the standards adopted should include, in proper combination, total horsepower, wing area and number of machines.

Chapter IV.

Furthermore, while affirming the importance of the factors concerned with personnel and the necessity of taking these into account when estimating the air power of a country, the Committee decided that the standards relating to material must be regarded as the most important.

Chapter V. — Conclusions.

It is not possible to determine the absolute value of the air armaments of the different countries, and there is no single standard capable of furnishing an accurate estimate.

A comparative value of a relative kind, essentially provisional and valid for a very short period only, may be sought for in the combination of the following standards relating to material and personnel:

1. Standards relative to Material (Predominant Standards).

The delegations of FINLAND, GERMANY, the NETHERLANDS, SPAIN, SWEDEN and the UNITED STATES OF AMERICA adopt the following standards:

(a) Aeroplanes.
   Total horse-power
   Total wing area
   Number
   combined

(b) Dirigibles.
   Total volume
   Total horse-power
   Number
   combined

Principal Standards.

(a) Aeroplanes: total horse-power;
(b) Dirigibles: total volume.

The delegations of the ARGENTINE, BELGIUM, the BRITISH EMPIRE, CHILE, CZECHOSLOVAKIA, FRANCE, ITALY, JAPAN, POLAND, ROUMANIA and the KINGDOM OF THE SERBS, CROATS AND SLOVENES, adopt the following standards:

Other Standards:

(a) Aeroplanes: number;
(b) Dirigibles: number and total horse-power.

2. Standards relating to Personnel (Aeroplanes and Dirigibles).

The delegations of FINLAND, GERMANY, the NETHERLANDS, SPAIN, SWEDEN and the UNITED STATES OF AMERICA adopt the following standards:

(a) The total air force personnel of all grades serving with the colours;

(b) The number of pilots included in this force;

(c) The total of trained reserves as defined in the report on Question I, Section II, Part I, A (page 11):

"Men who have received a military training with the colours or in organisations authorised officially
to give such training, and who are under a legal liability to be recalled to the colours in case of mobilisation”.

(d) The number of pilots in these trained reserves.

Civil aircraft and dirigibles of every kind form a part of the “potential military air strength” which is of great value by reason of the facility and rapidity with which they can in general be made use of for certain military purposes, and they should, as such, be included among the particularly important factors for comparison used in comparing the air armaments of different countries.

The delegations of the ARGENTINE, FINLAND, GERMANY, the NETHERLANDS, SPAIN, SWEDEN and the UNITED STATES OF AMERICA submit the following text:

3. Elements of Appreciation relating to Civil Aviation (Personnel and Material).

Civil aircraft and dirigibles of every kind, on the one hand, and civil pilots and specialists employed in aviation (civil, commercial, sporting, etc.) and in the aeronautical industry, on the other, form a part of the “potential military air strength” which is of great value by reason of the facility and rapidity with which they can, in general, be made use of for certain military purposes, and they should, as such, be included among the particularly important factors for comparison used in comparing the air armaments of different countries.

The delegations of BELGIUM, the BRITISH EMPIRE, CHILE, CZECHOSLOVAKIA, FRANCE, ITALY, JAPAN, POLAND, ROUMANIA and the KINGDOM OF THE SERBS, CROATS AND SLOVENES, submit the following text:

The delegations of the ARGENTINE, the BRITISH EMPIRE and GERMANY, replace the words “air armaments of different countries”, by the words : “potential air armaments of different countries” in the last sentence of the above paragraph.

The delegations of the ARGENTINE, the BRITISH EMPIRE, FINLAND, GERMANY, the NETHERLANDS, SPAIN, SWEDEN and the UNITED STATES OF AMERICA add the following paragraph :

Any method for the reduction or limitation of air armaments can apply only to the war aircraft of the different countries, and should not interfere with the expansion of communication, commerce or the building of civil aircraft.

Nevertheless, while emphasising the necessity of leaving unfettered the legitimate expansion of civil aviation, it would in no case be justifiable for any State to develop its civil and commercial aviation of all categories beyond its normal requirements. In consequence, any agreement which might be come
to as regards the limitation of air armaments must take into account these two considerations, particularly from a regional point of view.

*The delegations of FINLAND, the NETHERLANDS and SWEDEN add the following paragraph:*

Civil pilots and specialists employed in aviation (civil, commercial, sporting, etc.) and in the aeronautical industry form a part of the "potential military air strength" which is of great value by reason of the facility and rapidity with which they can, in general, be made use of for certain military purposes, and they should, as such, be included among the particularly important factors for comparison used in comparing the air armaments of different countries.

**PART V. — AUXILIARY STANDARDS RELATING TO ARMAMENTS AS A WHOLE.**

*The Sub-Commission A adopted unanimously the following text:*

1. Expenditure on armaments includes substantially expenditure on the maintenance of effectives, expenditure on the upkeep of material, expenditure on the purchase and manufacture of war material and expenditure on new constructions.

The diversity of methods of recruitment employed (militia, conscription or voluntary service) and the diversity of the material conditions of life in the different armies, particularly as concerns climate, necessarily involve such wide differences in expenditure on the maintenance of effectives that it seems in practice impossible to establish any comparison between expenses of this nature.

In these circumstances, any comparison of armaments based on a direct comparison of expenditure on personnel would be entirely misleading.

Expenditure on the upkeep of material and expenditure on the purchase or manufacture of war material varies according to the cost of upkeep or manufacture. Moreover, expenditure on the material varies according to the importance, the quality, the degree of homogeneity and the necessity of completing or replenishing the stock. It also varies according to whether the national manufactories can produce war material or whether this material has to be bought abroad.

The cost of labour varies greatly in different countries on account of their different social and economic conditions. There are also considerable differences in price of raw materials.

Further, the efficiency of the administrative services and of the industries of national defence varies considerably from one country to another.

There is also another difficulty. Owing to the different methods by which budgets are at present drawn up, it does not appear that comparable information can be obtained from the budgets of national defence.

Expenditure on national defence does not therefore appear in present circumstances to constitute a standard of comparison for armaments.

2. Sub-Commission A recommends that an enquiry should be made forthwith as to the most suitable means of placing the national defence budgets of the various countries on a comparable basis.

*The delegations of the ARGENTINE, BELGIUM, CZECHOSLOVAKIA, FRANCE, POLAND, the KINGDOM OF THE SERBS, CROATS AND SLOVENES and SPAIN add the methods for the comparison of armaments the following paragraph:*

3. The percentage of expenditure which a country devotes to its national defence, including (in the case of States the constitution of which is of a federal nature) expenses of States, provinces, etc., in proportion to the total amount of its expenditure of every kind, constitutes an element in estimating the military effort made by that country. The same is true of variations in this proportion. Increases in the percentage may, however, be perfectly justified by considerations connected with the security, the economic or financial position or the budgetary methods of the country in question.

*Provided it be used only in the light of these justifications and considerations, the percentage of expenditure on national defence in proportion to the total budget of each country may, without constituting a standard of comparison, nevertheless be considered as an element in estimating the variation of the military effort made by each country.*
The delegations of BELGIUM, CZECHOSLOVAKIA, FINLAND, FRANCE, ITALY, POLAND, ROUMANIA, the KINGDOM OF THE SERBS, CROATS AND SLOVENES, and SPAIN add to the methods of comparison the following paragraph:

4. The total budgetary effectives of the military, naval and air force of States and dominions, colonies, protectorates and mandated territories placed under the control of the same Power, including the effectives of forces organised on a military basis referred to in the reply to Question I, Section II, Part III, Chapter I (page 14), constitute an additional standard for the comparison of armaments.

SECTION III. — TEXT OF THE DECLARATIONS.

PART I.

A.

Declaration by the delegations of the BRITISH EMPIRE, CHILE, FINLAND, GERMANY, the NETHERLANDS, SPAIN, SWEDEN and the UNITED STATES OF AMERICA.

GENERAL PRINCIPLES.

As the object of comparison is to measure the level of peace-time armaments in one country against that of other countries and thus to establish a point of departure with a view to justifying and criticising any proposals for limitation subsequently presented, it is evident that this comparison must apply to the factors in armaments which constitute the basis of a country's military power.

Owing to the many different factors in armaments of which account must be taken for purposes of comparison, it is not always possible to establish a single standard only for each of the three main categories of armaments.

PART II.

A.

Declaration by the delegations of the BRITISH EMPIRE, CHILE, FINLAND, GERMANY, the NETHERLANDS, SPAIN, SWEDEN and the UNITED STATES OF AMERICA.

STANDARDS RELATING TO LAND ARMAMENTS.

I.

As regards the comparison between the numbers of peace-time effectives, such comparison must extend to all effectives with the colours, since, even if they have not fully completed their training, they can still be used for various military purposes and have a certain military value. Moreover, it would seem difficult to compare the effectives in the different countries which have completed their military training on account of the difference of opinion as to the length of time necessary for the training of effectives. It should also be observed that there are countries which have few, if any, effectives with more than six months' training with the colours.

Nevertheless, when comparing the number of effectives with the colours in different countries, account should be taken as far as possible of their degree of training.

II.

For purposes of comparison, it is impossible to consider any single factor in land armaments as possessing primary importance, since there are other comparable factors at least as important, while the importance of the different factors is not the same in all countries.

Except for surprise attacks carried out at the beginning of hostilities and before the armaments which are built up during hostilities after a considerable time come into play, wars in their early stages are waged not only with the effectives available in peace time but also, and chiefly, with the whole reserve of trained personnel which can be used without further training. Wars are also waged with all war material, in service and in reserve, available and utilisable at the outbreak of war; in considering this material, the greatest importance should be attributed to that part which comprises arms and munitions, which cannot, at that moment, be replaced by civil requisitioned material. It is the sum total of these forces which gives the military power of a country at the beginning of the war; any comparison between the armaments of the different countries must apply to this aggregate and must assign the same value to all factors.
B.

Declaration by the delegations of the Argentine, Belgium, Czechoslovakia, France, Italy, Japan, Poland, Roumania and the Kingdom of the Serbs, Croats and Slovenes.

Comparison of available effectives.

The above-mentioned delegations draw attention to the necessity of basing comparisons only upon effectives in service and "available", i.e., effectives which have finished their training and have not yet been discharged.

Otherwise, absolutely unfair results would be obtained, as is shown by the following example: take an army, A, of 100,000 men, performing ten years' service, and an army, B, also of 100,000 men, performing one year's service.

Assuming that about six months are required — this is the general rule — for the elementary training of a recruit, during which he cannot be used for military operations, it is seen that:

1. In army A with ten years' service, only one-twentieth of the effective, viz., 5,000 men, on an average is under training, and consequently 95,000 men are constantly available;

2. In army B, on the contrary, which does only one year's service, half the effectives are always under training, and consequently there are only 50,000 men constantly available.

Of these two armies, which apparently have the same effectives, 100,000 men, one thus actually has an available strength which is almost double that of the other. This disproportion is further increased by the fact that the more numerous effectives are precisely those which have had the longer training (between six months' and ten years' service), while the less numerous have at most had one year's service.

The soundness of this argument cannot be disputed on the ground that the period of elementary training varies in different countries and that it may be less than six months.

By applying the above-mentioned example to a period of training of three months, which is the irreducible minimum and takes for granted a very thorough pre-regimental training, the situation would be as follows:

1. For Army A (100,000 men doing ten years' service) there would be on an average 10,000 men in their first year of service, and, of these 10,000 men, on an average 2,500 in their first three months of service. The number of men available would thus be 100,000 - 2,500 = 97,500.

2. For Army B (100,000 men doing one year's service) there would be 25,000 men having done less than three months' service, and, consequently, the number of men available would be 75,000.

The disproportion would remain very marked and to the prejudice of Army B, which has the less trained effectives.

A comparison based upon total effectives with the colours is thus absolutely inadmissible, unless it is made between armies having the same period of service and the same period of elementary training.

Part III.

A.

Declaration by the Delegations of the Argentine, the British Empire, Chile, Japan, and the United States of America.

Standards relative to naval armaments.

The delegations of the Argentine, the British Empire, Chile, Japan and the United States of America desire to call the attention of the Preparatory Commission to the following question, which was put to the Naval Sub-Committee during the discussions on Comparison of Naval Armaments, and answered in the negative (at this time the system of voting was in force):

"Is it possible, in the opinion of this Naval Committee, to divide roughly the combatant units of any country into classes in such a way as to convey to a technical naval mind the distinction between them?"

The following voted "No": Belgium, Czechoslovakia, France, Italy, Poland and the Kingdom of the Serbs, Croats and Slovenes.

The following voted "Yes": the Argentine, British Empire, Chile, Japan and the United States of America.

The following delegations abstained: Brazil, Bulgaria, Finland, Germany, the Netherlands, Roumania, Spain and Sweden.

The delegations of the Argentine, the British Empire, Chile, Japan and the United States of America desire to point out that ships existing, building or projected to-day in all navies are, in fact, capable of division into classes and that any list showing the fleets of the world
divides such fleets into classes. The fact that there are in existence certain ships of unusual types, the repetition of which is very improbable, is no argument against comparison by classes.

From a technical point of view, the essential object of comparison is to enable naval staffs to decide the composition and distribution of their country's fleet which will enable the maximum value to be obtained from the material available.

To this end, they must, of necessity, consider the component units of their fleet, and, where its size is in any way to be dependent on the naval strength of another Power, such other fleet must be studied in detail in order that a decision may be arrived at as to what numbers, characteristics and individual tonnage of types of ships are necessary.

This is the only comparison of naval strength that is really practical and technical.

Comparison by Total Depreciated Tonnage (see Section II, Part III, B, Chapter I, paragraph 2, page 44).

This method was not presented or discussed during the study of methods of comparison, and for this reason was not included among the basic standards as submitted by the delegations of the Argentine, the British Empire, Chile, Japan and the United States of America.

In the opinion of these delegations, this method is an interesting and ingenious supplementary factor which may be used in combination with all methods for the purpose of taking into account the age of ships.

Average Age of a Fleet (See Section II, Part III, B, Chapter II, paragraph 1, page 45).

The delegations of the British Empire, Chile, Japan and the United States of America consider this formula of no practical value as it is impossible so to apply the figure arrived at as to give any idea of the comparative strengths of fleets.

Commercial Fleets.

The delegations of the Argentine, the British Empire, Chile, Japan and the United States of America desire to call the attention of the Preparatory Commission to the reply to Question VI (c), where the military value of commercial fleets is dealt with at length.

PART IV.

A.

Declaration by the Delegation of the UNITED STATES OF AMERICA.

STANDARDS RELATIVE TO AIR ARMAMENTS.

In regard to the note inserted at the end of Chapter II of Part IV, standards relating to air armaments in regard to the comparison of personnel, the delegation of the United States of America attaches the highest importance to the existence of a body of trained reserves in time of peace which are not only available for use in time of war but which, in point of fact, constitute a major portion of the war-time effective of a nation.

Any standard of comparison or any basis of estimation of the air strength of a country which either tends to minimise or to ignore the existence and importance of trained reserves constitutes so incomplete and inaccurate a standard as to be wholly unacceptable. In consequence, any reasonable or accurate comparison of the personnel of air forces of nations must include trained reserves.

The delegation of the United States is opposed to the inclusion of any civilian personnel whatever in any standard which purports to compare the air armaments of a country as a possible basis for their future limitation or reduction. The civilians who are engaged in civil aviation or in the aeronautical industry are no more a part of the air armaments of a country than the civilian personnel engaged in the merchant marine or in shipbuilding plants are a part of naval armaments. Such personnel is no more a part of the air armaments of a country than are the civilians who are engaged in railroad operation or construction, or in the operation of telephone or telegraph lines, or persons engaged in driving automobiles or in the automobile industry are a part of land armaments. In consequence, no civilian personnel whatever should be taken into account in the comparison of air armaments of one country against those of another.

In regard to the comparison of material, and specifically in regard to the comparison of airplanes, the delegation of the United States is of the opinion that the only reasonably accurate basis of comparison is in the proper combination of numbers, horse-power and wing area. Any method of comparison which ignores or disregards either one of these three elements is so apt to produce inaccurate and misleading results as to be unacceptable.

The delegation of the United States cannot accept any standard of comparison of material which includes a consideration of civil aircraft on account of their alleged facility and rapidity of conversion for military purposes. Relatively, such material is worthy of no greater consideration than would be the consideration of the motor transportation of a country which is normally employed for civil, industrial and commercial purposes.
B.

1. Declaration by the Delegations of GERMANY and SPAIN.

COMPARISON BASED ON THE NUMBER OF AIRCRAFT.

The above-named delegations desire to submit a formal reservation with reference to the inequitable consequences of basing a comparison on the number of aircraft without previous classification of such aircraft.

If a powerful aircraft were placed on a level with a small machine possessing a limited range of action, small States would be at a disadvantage, since they generally require small aircraft, whereas States with extensive territory have to employ powerful machines, even for defensive purposes.

Hence, if the number alone of the aircraft were taken into account, small States would appear, in relation to their territory or population, to have more powerful air forces than the big States, a situation which would be at variance with the actual facts.

2. The delegations of BELGIUM, CZECHOSLOVAKIA, FRANCE, ITALY, POLAND, ROUMANIA and the KINGDOM OF THE SERBS, CROATS AND SLOVENES are in agreement with the considerations regarding the unequal results which would be obtained by comparing air armaments on a basis of the number of aeroplanes, as stated in the declaration above.

C.

Declaration by the Delegation of GERMANY.

STANDARDS OF COMPARISON OF AIR ARMAMENTS.

i. MATERIAL IN RESERVE.

The German delegation declares that it associates itself with the statements of the delegations of Finland, the Netherlands, Spain, Sweden and the United States of America concerning the final terms of Chapter V, paragraph I, page 49, Standards relating to Material, on condition that material in reserve is covered by the application of the standards of comparison adopted for military material. Any comparison of air armaments which did not take into account the factor of material in reserve would lead to entirely false conclusions. The delegation of Germany wishes to draw attention to the fact that it can only contemplate an estimate of the value of the civil aircraft to be included in potential air armaments if the comparison of air armaments includes a computation of the entire reserve material.

It is from this point of view that the delegation of Germany has read Chapter II of the reply to Question VI (a), submitted by the delegations of Belgium, Chile, Czechoslovakia, France, Italy, Poland, Roumania and the Kingdom of the Serbs, Croats and Slovenes to the effect that the military value of civil aviation should be estimated in combination with material in reserve, in computing the total of a country's air strength.

The delegation of Germany does not agree with the above-mentioned delegations that between civil aviation, which varies so greatly in different countries, and a portion of the material of military aviation it is possible to establish any identical comparisons or indeed any comparisons expressible in figures. It considers, however, that a preliminary valuation of the material in reserve will contribute largely towards removing the difficulties in the way of any estimate of the value of civil aviation as part of potential war armaments.

2. POSSIBILITY OF COMPARISON BETWEEN THE MATERIAL OF CIVIL AVIATION AND THE MATERIAL OF MILITARY AVIATION.

The delegation of Germany accepted the paragraphs in Chapter V relative to civil aviation (see Section II, Part IV, Chapter V, page 50), on the following condition: the assessment of the military value of the material of civil aviation is only possible as part of a general assessment of the war potential of the different countries. Any combination of this assessment with a comparison of the material of armament in the different countries by a direct comparison of the two factors is precluded owing to the fundamental difference in their general character.

Moreover, any direct comparison between the civil aircraft of a country and the military aircraft of another country would lead to a demand for the comparison of other factors in "war potential" with "armaments". To admit such a comparison in the case of aircraft would justify similar direct comparisons between other elements which are of importance in war and which may extend over the whole sphere of communications (general motor-transport organisations, posts, telegraphs, shipping, railways, etc.) and similar military formations for communication or fighting — these former factors also being part of war potential.

Further, such a comparison would necessarily have to extend to a comparison of material and personnel.

These methods of comparison are a practicable impossibility and might defeat the very object of disarmament.
3. EXPLANATIONS CONCERNING THE PROPOSED STANDARDS FOR THE COMPARISON OF MATERIAL.

After the long technical discussions, the delegation of Germany adopted the principle that a single standard — such, for example, as aggregate horse-power — is not sufficient to obtain any accurate estimate. There are quite a number of technical examples in the history of military aviation which show that aircraft of equal fighting capacity may have very different horse-power. It was therefore thought wise in the final proposal to establish as another standard of comparison "wing area", which was unanimously recognised as being of equal importance for the technical determination of the value of an aeroplane (see reply to Question (a) of the Commentary regarding Questions II b and III, Section II, Part IV, Chapter III, — Comparison of Material, 2 — Aeroplanes, paragraph 1, page 48.

The delegation of Germany inserted "the number of machines" as a third standard of comparison in order to obtain a generally comprehensible factor in addition to those which would be more specifically technical. "The number of machines" does not supply the expert with complete data for a purely technical examination of the effectiveness of a large number of aircraft. Nevertheless, this third factor is indispensable in order to obtain an approximate estimate of the total forces of aviation. There is no need to emphasise the great value of a generally comprehensible factor in assisting the general tendencies of disarmament in the different countries.

For these reasons, the delegation of Germany accepted the simultaneous application of three standards in estimating the value of the military aircraft of a country.

4. POSSIBILITY OF COMPARISON BETWEEN THE PERSONNEL OF CIVIL AVIATION AND TRAINED AIR RESERVES.

The questionnaire does not require an estimate of the value of civil personnel. The paragraph in the original draft regarding the value of the personnel of civil aviation (now submitted by the delegations of Finland, the Netherlands and Sweden, Chapter V, page 51) was adopted, against the opinion of the delegation of Germany, by a majority vote at the first reading.

The delegation of Germany is not aware of any practical methods of estimating the value of the personnel of civil aviation, which could only be estimated as part of war potential. It considers that any attempt at such an estimate is bound to fail through the impossibility of finding suitable standards of comparison. The delegation of Germany is convinced that it is of far greater importance to take account of trained reserves by means of suitable standards of comparison, since the nature of these reserves lends itself admirably to such comparison, and since there is at the present time a very large number of military air effectives in the different countries.

For this reason, the delegation of Germany was strongly in favour of trained reserves being included among the standards of comparison.

The delegation of Germany cannot admit the difficulties which various delegations have advanced against the inclusion of trained reserves.

The reduction in the military value of trained reserves, which has been used as an argument by various delegations in order to diminish their importance, is not sufficient to justify omitting them from valuation. By means of military, aeronautical and technical training, a large number of trained reserves is regularly at the disposal of many countries.

In many countries the numerical importance of trained reserves, and particularly of pilots, is many times greater than the numerical importance of the personnel of civil aviation. It is therefore not true to say that trained reserves would be included in the personnel of civil aviation.

Accordingly, in the opinion of the delegation of Germany, a clear distinction will in future have to be made between trained reserves and the personnel of civil aviation. No disarmament negotiations and no practical measure of disarmament must be allowed to disregard the fundamental differences between the two factors.

5. The delegation of Germany has always disputed the competence of military experts to give authoritative judgments on matters of civil aviation. This point of view, which was adopted both in the reply to Question VI and in the question of methods of limitation, also applies, in the opinion of the delegation of Germany, to the standards of comparison.

PART V.

A.

Declaration by the Delegation of FRANCE.

COMPARISON OF EXPENDITURE AND BUDGETARY EFFECTIVES.

The armaments of a country consist, substantially, of effectives and material. However great may be the diversity of the methods of presentation of the budget accounts in the various countries, the expenditure on national defence may always be divided into the two following main classes, corresponding, as stated, to effectives and material.

1. Expenditure on Personnel.
2. Expenditure on Material.
1. Expenditure on Personnel.

Expenditure on personnel consists in the main of expenditure on pay and expenditure on the maintenance of the effectives.

The amount of the expenditure on pay properly so called varies according to the method of recruitment in force in the various countries (conscription or voluntary enlistment).

The cost of a volunteer army, that is to say, of professional soldiers, is very high, whereas compulsory military service is regarded as a tax, and generally entitles the soldier to a very small remuneration.

Even where compulsory military service is in force, there are, of course, more or less numerous professional cadres — whose duties are the more important as the period of service is shorter. However, the proportion of these cadres in relation to the total number of effectives is, though variable, always comparatively small where the system of conscription is in force.

It must be borne in mind, nevertheless, that with the latter system the number of effectives must be relatively larger than in a professional army, on account of the necessity of providing adequate training. In countries which keep a conscripted army, there is, in addition, an immobilisation of human forces of which the economic life of the country is deprived; if, therefore, the problem is considered in all its aspects, the loss resulting from the immobilisation of intellectual forces and manual labour, which is not expressed in figures in the budgets, must nevertheless be added to the budgetary expenditure. This loss can be approximately estimated and should be taken into account when comparing expenditure on national defence.

The amount of the expenditure on pay, therefore, bears no relation to the number of effectives.

A comparison between the expenditure on pay may in theory, however, give definite indications as to the number of effectives maintained. The rate of pay in the various grades of the different armies is well known, and it is possible therefore to compute or verify, by comparisons between the expenditure on pay, the relative strength of the effectives actually maintained by the various countries. In practice, such comparisons, by reason of the variety and complexity of the systems of payment in force, will be exceedingly difficult.

Although expenditure on pay may serve as a standard of comparison between effectives, the comparison between expenditure on the maintenance of the effectives can give no idea of the manner in which these are maintained in the various countries.

In order to be more precise, the terminology used in the French budget is adopted in the following text. Expenditure on the maintenance of effectives, corresponding to the supply of the material needs of these effectives, may then be summarised as follows:

- Food for men and horses;
- Clothing and accoutrements;
- Bedding and furniture;
- Heating and lighting;
- Quarters;
- Transport;
- Expenditure on sanitary services for the effectives, men and horses.

These classes of expenditure relating to the maintenance of the effectives appear in all the budgets in various forms according to the different administrative systems in force. The greater part of this expenditure as shown in the budget — food, accoutrements, heating and lighting, quarters, expenditure on sanitary services — obviously affords, in view of the specific nature of the limited needs which it is intended to cover, some standard of comparison for the number of effectives maintained.

It should be pointed out, however, that these various material needs are supplied by the administrative services, which are organised on very different lines in the various countries and which employ labour and material, the cost of which varies considerably from country to country.

In certain armies, moreover, the labour employed in these services is in part supplied without special remuneration by the men serving with the colours; if the period of military service is shortened, a more numerous permanent and paid personnel has to be employed.

In certain armies, labour is supplied entirely by paid personnel. The administrative services which supply the material requirements of the effectives are organised on more or less industrial lines in the various countries, and their output may vary considerably.

The comparison between the expenditure on the maintenance of effectives can therefore not give even an approximate idea of the extent to which the material requirements of the effectives are actually supplied.

2. Expenditure on Material.

Expenditure on material may be divided into:

- Expenditure on the upkeep of material;
- Expenditure on the purchase and manufacture of material and on new construction.

The upkeep of material requires expenditure on labour and expenditure on current material, such as, for instance, the cost of carpentering and painting where the upkeep of buildings
is concerned, spare parts, tools, packing, lubricating substances, oils and the various ingredients
required for the upkeep of material.

The price of such material also varies greatly in the different countries. As regards
labour, as it has been already pointed out, sometimes it is supplied by the men serving with
the colours, and sometimes by permanent personnel, whose wages vary considerably in the
different countries.

Thus, according to information supplied by the International Labour Office, the wages
of a mason in February 1926 for forty-eight hours' work amounted to:

- $7.75 in Brussels;
- $8.00 in Paris;
- $20.60 in London;
- $72.00 in Philadelphia.

This means that the work of an unskilled mason for one week costs in America a sum in
gold three times larger than in Great Britain and nine times larger than in Belgium.

The output of work, however, also varies very much in the different countries. This is
due partly to the relative efficiency of the workers, but more to the methods of organising
work and the degree of perfection and industrialisation of services.

The cost of the upkeep of material cannot, therefore, in any way give the measure of the
degree to which material is maintained in the different armies.

These facts become particularly clear from an analysis of the cost of manufacture.

It seems useful to emphasise particularly the cost of manufacture and of new construc-
tion, for the extent of these gives the exact measure of the progress in the armaments of the
different States.

With regard to expenditure on purchase, manufacture and new construction, a distinc-
tion must be made according to whether the departments responsible for material apply to
private industry or whether they do their own manufacturing and building.

In the former case, the departments pay for the articles delivered to them at sale price,
which includes the real cost price of the articles plus the contractor's profit.

In the second case, the price paid for the articles includes the cost price of the manufac-
turing establishment.

In both cases we see that it is the cost price which determines the amount of expenditure.

The cost price of a manufactured article includes the cost of the labour used in manufac-
ture, the price of the materials contained in the manufactured article and, finally, a part of
the general costs of the manufacturing or building establishment or undertaking, such as
motor power, transport, carriage. These general costs are higher or lower according to the
degree to which the undertaking is organised and the manufacture developed.

In the main, these general costs may be divided into the cost of labour and the cost of
materials.

If we examine in succession the factors in cost price (labour, materials, general costs),
we find that the price of labour has always varied more or less in the different countries.

There have always been countries where wages are high and countries where wages are
low, according to the standard of living of the working classes. The economic or currency
disturbances of the present time have increased these differences. We see around us to-day
nations a large part of whose labour remains idle and where wages are only maintained at
their level by Government grants or because those Governments take measures to prevent
immigration. On the other hand, there are countries where home labour is insufficient and
where wages appreciably increase with the cost of living.

In February 1926 a fitter received for forty-eight hours of work:

- $6.90 in Brussels;
- $15.10 in London;
- $7.50 in Paris;
- $6.80 in Prague;
- $48. in Philadelphia.

On the same date and for the same period of work, an unskilled workman received:

- $5 in Brussels;
- $10 in London;
- $5.50 in Milan;
- $48 in Philadelphia.

These figures are conclusive.

As regards materials employed in the manufacture of implements of war, the differences
of price are obviously less, although very appreciable.

In February 1926, cast iron cost per metric ton:

- $14.70 in Belgium;
- $14.50 in France;
- $10.70 in Great Britain;
- $19.20 in Czechoslovakia;
- $22.40 in the United States.

These variations are similar for other materials, e.g., coal.
Since the average price of labour and materials in the different countries is known, we could obviously work out ingenious calculations, with the help of a certain number of indices, in order to discover what sum it would require in the different countries to obtain the same quantity of labour and the same quantity of materials, and, by successive approximations, hope to express in figures the relative expenditure demanded of each country for its manufactures of war material.

That done, however, we should have settled nothing, for no account would have been taken of industrial output, which varies enormously according to the country.

In industries in which labour is very highly organised and production standardised, cost price is very low in spite of very high wages.

It is, moreover, the reason why countries where wages are high are enabled to compete successfully with the industrial production of countries where wages are low.

It is not possible to measure exactly the industrial output of each country.

The economic and social life of nations, with its innumerable aspects and perpetual changes, cannot be expressed either in formulæ or in figures.

If we say that, in one branch of its industry of national defence, a country is spending more than its neighbour, the statement will be true, but valueless, because at a lower cost the other country may be producing much more, thanks to the larger output of its industry.

The important factor in comparison is not the cost but the real output.

This was stated when it was pointed out that the cost price of a ship might be 100 per cent larger in one country than in another.

There are similar differences in the cost price of aeroplanes and motor transport.

Cost price itself is continually changing in each country since, in order to stand competition, all industries are endeavouring to reduce their costs.

Moreover, there are countries which buy all their war material abroad and which, in addition to the purchase price, bear the burden of large transport costs.

It follows from the above that the factors in cost price (price of labour, price of materials, general costs) vary enormously according to the country, and, as it is the cost price which determines expenditure, the latter gives no exact idea of the quantity produced.

We are thus led to the conclusion that a comparison between the expenditure of the different countries cannot give an exact idea of the production by the administrative services or national defence industries.

Expenditure is not a direct criterion of comparison between the armaments of the different countries.

One cannot leave out of account certain indirect methods of comparing expenditure on national defence.

From the comparison in each country of the amount of expenditure on national defence in relation to pre-war expenditure, interesting conclusions are drawn as to the reduced or increased expenditure of the different countries.

These comparisons are certainly not without importance, and reference may usefully be made to them.

However, comparisons of this kind are unreliable and their unreliability is due to the social, economic and monetary instability which is characteristic of the present day.

If comparison is made by reducing expenditure expressed in national currency to its gold value by applying to this expenditure the average rate of exchange over a given period, we arrive at results which are necessarily inaccurate.

We are disregarding the fundamental principle that, in countries with a depreciated currency, there is always a difference, and often a very considerable difference, between the purchasing power of money within the country and its purchasing power abroad.

Moreover, this common measure might in some cases be favourable to countries with a depreciated currency.

It may, however, in time become unfavourable to them, for it has been found that, at a certain stage in the depreciation of a currency, internal prices, after lagging for a long time behind the headlong fall of the exchange, have suddenly passed beyond it.

During the period of currency valorisation it may also happen that the internal purchasing power of a currency is at a given moment smaller than its purchasing power abroad.

A second method of comparing the present expenditure of each country with that of 1914 consists in applying to expenditure expressed in national currency wholesale-price indices for wholesale purchases of material, retail-price indices for current stocks and cost-of-living index numbers for expenditure on pay, salaries and labour.

These methods of comparison are only useful if the different indices are uniformly established in all countries. Now, such is not the case.

It is clear, too, that the application of all these indices to the various items of expenditure leads to endless complications.

Accordingly, we see how careful we must be in consulting these documents which compare present-day expenditure on national defence with pre-war expenditure. Within their limits, these documents give interesting indications of the progress or decline in the military effort of the countries considered, but, when it comes to making comparisons, great caution must be observed.

For these reasons such methods are rejected, even as an index of comparison.
Over and above these considerations, it seems useful to point out that, owing to the different methods employed in framing the budgets of the different countries, it is hardly possible to find in those budgets information enabling a comparison to be made between the expenditure of the different countries on national defence.

In some countries, the budget shows all sums actually spent on national defence. That is the system known as gross credits. In others, the figures for expenditure are reduced by the inclusion of certain receipts; sales of old material, reimbursements by other ministerial departments, contributions from the colonies or from certain colonies. This system is known as that of net credits. There is often a very great difference between gross and net credits.

Expenditure in connection with military and naval establishments appears in some countries in the budget of the ministries for war and the marine, while in other countries these establishments are independent of the State.

Apart from budgetary credits, there are in certain countries credits in material (utilisation of stocks), which must be taken into account for purposes of fair comparison.

In some countries, the civil budgets provide for expenditure which has a military character, such as the cost of quartering military personnel, expenditure on the development of gymnastics and sport, expenditure on aeronautics, grants to factories for the manufacture of armaments.

In some countries, war pensions are included in the army and navy budgets; in others they may be included in the budget of the ministry of finance or in some other special budget.

Expenditure on colonial defence sometimes figures in the national budget, where it constitutes a heavy burden; sometimes it is borne by the budgets of the dominions or colonies and is an item of considerable importance.

Some budgets do not distinguish explicitly between expenditure on the upkeep of material and expenditure on manufacture, a distinction, however, which is essential in order to measure the progress of a country's armaments.

In certain countries, the manufacturing departments have at their disposal a large amount of working capital in various forms, of which account must be taken.

Finally, and this is a point of great importance, the budgets, taken in themselves, include only an estimate of expenditure, which, with the fluctuating prices of the present day, is frequently at fault. In addition to the budget estimates, therefore, account must be taken of supplementary credits and credits cancelled in the course of the financial year, i.e., account must be taken of the total sums spent.

Further, the publicity attending authorised expenditure varies in the different countries, and does not permit of very accurate estimates being formed as to the nature and destination of certain budgetary credits.

To sum up, for a combination of reasons (the impossibility of attributing to the administrative services of the different armies and to the armament industries a coefficient of output, the impossibility of following variations in time and space of the price of labour and materials, the impossibility of comparing budgets framed on such very different lines), expenditure on national defence cannot serve as a criterion in comparing the armaments of the different countries.

Any comparison thus attempted would rest upon data of no value.

In the absence of a minimum degree of accuracy, which in the present case cannot be realised, the work accomplished would not only be fruitless, but harmful.

It should then not be attempted.

The only point to be observed, the importance of which appears clearly when considering restrictions on expenditure, is that it would be desirable to place budgets as far as possible on a comparable basis.

It would be an illusion and a mistake to suppose that they can be standardised, for the form in which budget accounts appear necessarily depends upon the diversity of administrative conceptions. Budgets show the expenditure of departments whose organisation itself varies in the different countries. It would, however, seem possible, as is the case with some budgets, to isolate in all of them certain categories of expenditure, such as expenditure on training, expenditure on the upkeep of material, expenditure on manufacture and new construction. It would seem possible to demand that all budgets should give a complete statement of national expenditure without any deductions.

Accordingly, there are, beyond all doubt, certain solutions to be sought in these last-mentioned directions. These questions should be studied in such a way as to facilitate the preparation of extracts from budget accounts which, in the opinion of the delegation of France, would be necessary to make any reduction in expenditure effective; with regard to these reductions, the delegation will explain its views when the time comes.

From a theoretical point of view, if the foregoing has proved that expenditure on national defence cannot serve as a standard of comparison between armaments, the proportion of the expenditure of a country on national defence to its total expenditure constitutes some indication of the military effort of that country.

The smaller the share of its total resources which a country devotes to national defence, the less is its military effort.

It is also clear that if, from one year to another, and given normal circumstances, the proportion between the military expenditure of a State and its total expenditure varies largely, such variation may furnish valuable indications of the extent of its military effort.

Moreover, these indications have a specific value for each country, whatever particular method of presenting its accounts that country may adopt.
The variations between the different countries of the percentage of military expenditure to total expenditure, as shown by the budgets, may also give useful indications regarding the respective extent of their military effort.

This constitutes an important factor for consideration, to be submitted for discussion by the Commission.

Whatever direction they take, these variations in the percentage of expenditure on national defence to total budgets may be entirely justified by considerations of security or the economic or financial situation of the countries in question.

Therefore it is advisable that only relative value should be attached to this factor, which could only be taken into account provided it is accompanied by detailed evidence as to the degree of security and the economic and financial situation of the countries in question.

In this matter there is no question of a method of comparison properly so called, but merely of a factor to be taken into account in estimating the military effort of the different countries, and it is also understood that the percentage of national expenditure to the total budgets cannot form part of the machinery for the reduction of armaments.

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Finally, the criteria adopted for comparing land, naval and air forces may be supplemented by an auxiliary criterion of a budgetary nature.

With regard to the available land forces, effectives are recognised as the principal criterion, whereas the principal criterion from the point of view of naval and air forces consists of material.

From the point of view of comparison, it is important to draw a parallel between the total effectives of the land, naval and air forces.

The total figures for these effectives may be known from the budgets, which are based upon a certain number of effectives.

It must be understood that the figure to which we refer is that for the basic effectives and not that for the budgetary effectives properly so called, which is obtained by making a certain allowance for non-effectives.

It must be added that the total effectives, as at present found in the budgets, must be supplemented by the effectives of forces organised on a military basis (Police, etc., as stated in the reply to Question I, Part III, Chapter I, paragraph 1 b). These effectives, moreover, appear either in the budgets for national defence, in other State budgets or even in the local or municipal budgets.

This criterion of comparison is of obvious importance.

It is all the more important to keep it in view for the reason that it may furnish possibilities of adjustment as between the figures shown by the different countries.

B.

Declaration by the delegations of the BRITISH EMPIRE, CHILE, FINLAND, GERMANY, ITALY, JAPAN, the NETHERLANDS and the UNITED STATES OF AMERICA.

PROPORTION OF TOTAL BUDGET EXPENDITURE DEVOTED TO NATIONAL DEFENCE.

The above-named delegations are of opinion that the percentage of its total budget expenditure which a given country devotes to its national defence could not be regarded as a factor for estimating the military effort made by that country without inducing comparisons, which would be both misleading and unfair, between the different countries. The total budgets are framed on principles which are peculiar to the respective States, and military expenditure must be estimated with reference to the requirements of national security and not to the financial situation of the country as shown by budgets.
QUESTION (b) OF THE COMMENTARY RELATING TO QUESTIONS II (b) AND III.

SECTION I. — TEXT OF THE QUESTIONS.

Question II (b).

What is to be understood by the expression "reduction and limitation of armaments"?

The various forms which reduction or limitation may take in the case of land, sea and air forces: the relative advantages or disadvantages of each of the different forms or methods: for example, the reduction of the larger peace-time units or of their establishment and their equipment, or of any immediately mobilisable forces: the reduction of the length of active service, the reduction of the quantity of military equipment, the reduction of expenditure on national defence, etc.

Question III.

By what standards is it possible to measure the armaments of one country against the armaments of another, e.g., numbers, period of service, equipment, expenditure, etc.?

The Commission refers to Sub-Commission A the two following questions for its opinion:

(a) .................................................................

(b) What are the methods by which the reduction and limitation of (a) land, (b) naval (c) air, armaments can be effected, and what are the comparative advantages and disadvantages of each?

Note. — The following methods, amongst others, have been suggested: the reduction of the larger peace-time units or of their establishment and their equipment, or of any immediately mobilisable forces; the reduction of the length of active service; the reduction of munitions of war.

It has also been suggested that a limitation of armed forces might be effected by the reduction or limitation of expenditure on national defence.

The Commission wishes to have the opinion of the two Sub-Commissions on this last subject and on the conditions in which the above method might be applied, should they consider that it is practicable.

SECTION II. — TEXT OF THE REPLIES.

Note. — As regards Part I and Part II, the text adopted unanimously is printed across the entire width of the page, unless otherwise stated.

The text submitted by the delegations of the BRITISH EMPIRE, CHILE, FINLAND, GERMANY, the NETHERLANDS, SPAIN, SWEDEN and the UNITED STATES OF AMERICA is given in the left-hand column. The text submitted by the delegations of the ARGENTINE, BELGIUM, CZECHOSLOVAKIA, FRANCE, ITALY, JAPAN, POLAND, ROUMANIA and the KINGDOM OF THE SERBS, CROATS AND SLOVENES is given in the right-hand column.

PART I.

DEFINITIONS.

By limitation of armaments is to be understood the fixing of levels of armaments which the various countries agree not to exceed.

By reduction of armaments is to be understood the steps taken by a country whose armaments exceed the fixed level of limitation to reduce them to that level.

GENERAL OBSERVATIONS CONCERNING LAND, NAVAL AND AIR ARMAMNTS.

1. Peace Objectives. — Reducing and limiting armaments in the hope of lessening international mistrust and reducing the probability of war, thereby helping to promote universal peace.
The limitation and reduction of armaments should aim at removing to the greatest possible extent all competitive building-up of armaments, thus producing a feeling of security.

2. Economic Objective. — The limitation or reduction to the greatest possible extent of the burden of taxation incident to the building-up and maintenance of armaments which are necessary for the nations of the world, taking into account, naturally, the present position of certain countries which have to build up the armaments essentially required for their security.

3. It should be observed that, so long as the same proportional relationship exists between the armaments of the different nations, the mere reduction of such armaments would not necessarily remove the possibilities of war.

An equilibrium of armaments must therefore be established as far as possible by making them correspond to the requirements of security of each country.

4. The limitation and reduction of armaments must, from a technical point of view, be studied in precise terms; nevertheless, the methods contemplated must be definite and refer to factors capable of being weighed and calculated. On the other hand, they must be sufficiently elastic to permit of their adaptation to the conditions of security in each country at the time when the Conference is convened.

5. In order that any method for the limitation or reduction of armaments should be acceptable, it is necessary that:

(a) It should be equitable for the countries concerned;

(b) It should guard against any too rapid renewal of armaments which might suddenly compromise the security of other countries. In the special case of naval armaments, it should prevent the scale of these armaments, once established, from being disturbed; their replacement should only be effected according to rules to be agreed upon;

(c) It should be applicable to the special conditions of the States signatory to the Convention in order to assure their national security;

(d) It should interfere as little as possible with the right of every State to organise its naval, military and air armaments so as to provide in the best possible manner for the defence of the whole of its possessions;

(e) Its result should be permanent during the life of the agreement and it should not be capable of suddenly threatening the security of other countries, i.e., it should act upon all the factors deemed subject to limitation without the possibility of such factors escaping the limitation agreed upon;

(f) Its application should be as simple as possible.
6. For the application of any method for the limitation of armaments, it is necessary, further:

(a) To take into account, in the case of each country, the armaments of other countries, differences in war potential, and international engagements;

(b) To facilitate the production of justifications;

(c) To take measures to ensure that the method employed shall make it possible to establish with ease the execution of the limitation to which it refers.

7. As Sub-Commission A stated (the delegations of the British Empire and the United States of America expressing a contrary opinion, and that of the Argentine abstaining) in the reply to Question I, Part III (Chapter II, paragraph (d), it is necessary, in view of the relations existing between the three main categories of armaments, to take into consideration the consequences which a limitation or reduction effected in any one of them might have on the others.

Hence, in view of the fact that the relative development of the land, sea and air armaments generally differs very considerably between one country and another according to their particular situation and defensive requirements, it may be affirmed that any disarmament convention which failed to limit simultaneously the land, sea and air armaments would be inequitable for many countries.

The delegation of the ARGENTINE expresses no opinion on paragraphs 6 and 7 above.

The delegation of JAPAN does not agree to the second sentence of paragraph 7 above.

The delegation of FINLAND agrees to paragraph 7 above.

General Remarks.

The delegations of the ARGENTINE, BELGIUM, the BRITISH EMPIRE, CHILE, CZECHOSLOVAKIA, FINLAND, FRANCE, ITALY, JAPAN, the NETHERLANDS, POLAND, ROMANIA, the KINGDOM OF THE SERBS, CROATS AND SLOVENES, SPAIN and SWEDEN submit the following:

Certain methods of limitation which raise most important political problems and technical methods contemplated by the Sub-Commission shall in no way prejudice the expediency or possibility of carrying out such limitations from a political point of view.
PART II. — LAND ARMAMENTS.

CHAPTER I. — GENERAL OBSERVATIONS

1. It is understood that countries whose armaments exceed the level fixed by the Convention for the Limitation and Reduction of Armaments, and agreed to by them, are the sole judges of the means by which they will arrive at that level.

For these countries the methods of limitation hereafter mentioned may be used to effect the reduction. Within the framework of a general method of limitation, such as the limitation of effectives, the means chosen to effect reduction may therefore be similar to certain methods of limitation and possess the advantages and disadvantages of these methods.

2. Since certain methods of limitation raise most important political problems, the technical methods contemplated by the Sub-Commission in no way prejudge the political expediency or possibility of carrying out such limitations. Similarly, it is necessary, in view of the relations existing between the three main categories of armaments, to take into consideration the consequences which a limitation or reduction effected in any one of them might have on the others.

3. The methods set out in the following chapters are in principle held to be applicable in practice.

4. Some methods set out below are not applicable to both voluntary and conscript armies, and others which it may be possible to apply to each type of army may have different results in each case.

5. For the application of the methods of limiting land armaments dealt with hereunder, it is necessary to take account of the fact that the sphere of operations for land armaments remains limited to a particular geographical area, under the conditions defined in the reply to Question I, Section II, Part III, Chapter II (a), last paragraph.

6. From a technical point of view, it is desirable that the methods of limitation regarded as applicable in the Convention for the Limitation of Armaments should be as numerous as possible in order that the various countries may have several methods from which to choose. To make limitation effective, it would usually be necessary to combine two or several methods, even if they should overlap to some extent.

7. The advantages and disadvantages of the methods of limitation contemplated are determined by taking into consideration the fact that the limitation of armaments must be effected according to precise and quantitative proposals accompanied by justifications on the basis of security (document C.301.I).

The delegation of the ARGENTINE does not accept paragraphs (c) and (d) above.

1 See also in Part I, General Principles common to the three main categories of armaments.
CHAPTER II. — EFFECTIVES WITH THE COLOURS.

Preamble.

1. On account of the small number of reserves in an army organised on a volunteer basis as compared with a conscript army, any limitation of effectives with the colours has the effect of reducing the fighting strength after mobilisation of the volunteer army to a much greater extent proportionately than in the case of a conscript army.

2. It is essential to realise that, if the limitation of the effectives serving with the colours involves a reduction, this reduction can, in conscript armies, be obtained, either by reducing the number of classes with the colours, which means reducing the term of service — reduction thus affects the effectives with most training and thereby increases the proportion of effectives who have not completed their training and weakens the covering forces, particularly of States exposed to aggression — or by reducing the effectives recruited each year, while preserving the same term of service; this involves an increase in the proportion of men not receiving military training.

3. As regards separate limitation of home and overseas effectives, account must be taken of the possibility of reinforcement of one by the other, which depends on the extent of freedom of action on the sea for transport of troops possessed by the States concerned.

4. Any method of limiting military effectives proper or effectives organised on a military basis would not be sufficiently efficient unless it extended to all effectives available for use in land operations, in whatever class of armaments they are organically or administratively included.

First Method.

Limitation of the entire effectives of every kind (average budgetary strength and maximum real forces present with the colours), whether military or organised on a military basis of land forces, trained and untrained, of the home country and overseas territories.

Advantages.

This is a simple method which can be applied in all cases, and does not prevent any State from distributing its effectives at any time according to the needs of the external and internal security of its home and overseas territories. It includes all the elements of the land forces and gives a maximum limit of these forces.
Disadvantages.

1. This method treats as a single complex a number of factors of diverse natures and with varying objects, and, to be practicable, would require a simultaneous use of other methods.

2. It cannot be applied simultaneously to armaments in the home territory and to those which are intended for the policing and security of overseas territory, if their formation and organisation, in view of the carrying-out of their duties, are based on different principles.

Second Method.

Separate limitation of all the following elements:

1. Military effectives detailed for the defence of the home territory, specifying the average effectives named in the estimates and the maximum real strength.

2. Effectives organised on a military basis stationed in the home territory, as defined in the reply to Question I, Part III, Chapter I (page 14), and specifying the nature of these effectives.

3. Total effectives detailed for the defence and policing of dominions and overseas territories or very remote districts which have but precarious and insufficient communication with the rest of the territory.

Advantages.

1. This method does not exclude the first method and may, on the contrary, supplement it very usefully.

2. It is applicable to all systems of recruiting.

3. It is sufficiently elastic to be adapted to the situation of all countries, including those which have responsibilities in every part of the world and those whose responsibilities are confined to one specific geographical region.

4. It enables all States to produce the justifications required in support of proposals for limitation and facilitates the examination of such justification by making it possible, for example, to bring out separately:
   
   (a) The needs of security of the home territories, particularly of those which, owing to the fact that their geographical position exposes them to the danger of immediate invasion, require land covering forces which shall be permanent, trained and always available;

   (b) The special roles of the forces organised on a military basis employed in certain public services or in preserving internal order in the State, and the extent to which, by relieving the military forces of the last-named duty, they can make it possible to reduce those forces;

   (c) The particular needs of countries with the responsibilities of overseas territories, where the requirements of policing and order necessitate most frequently bigger effectives than are needed for external security — this involving a special organisation and forces whose strength depends upon whether the State in question is sufficiently powerful on sea to reinforce them when necessary.

5. While sufficiently detailed to be efficacious and to cover all the elements to which it is applicable, this method, provided it is applied in combination with the first, leaves the States perfectly free to organise their home military effectives, on the one hand, and their overseas effectives, on the other, as may best suit their requirements, the latter varying particularly in the case of States with the responsibility of territories not yet completely pacified.

6. This method makes it possible to follow with ease the execution of the limitations to which it refers, provided that it is accompanied by a complete interchange of information bearing on all the details which, although it has not been possible to include them in any particular limitations, have been recognised by the Conference for the Reduction and Limitation of Armaments as liable to influence the efficacy of such limitations.

Disadvantages.

1. It is somewhat complicated and lacks elasticity if not combined with the first method mentioned as stated in paragraph 5 of “Advantages” above.

2. It may be in certain cases insufficiently precise, and thus should be used in combination with other methods.
CHAPTER III. — PERIOD OF ACTIVE SERVICE.

Method.

Limitation of the actual duration (reckoned in days) of active service.

Advantages.

1. This method is applicable to all the systems of recruitment, although its effects may vary under the different systems.

2. By limiting the period of service without going below the time required for elementary training, its consequence would be to limit the trained effectives.

3. It reduces the training of effectives, especially in conscript armies, and consequently the possibility of employing them for aggression.

4. It diminishes the personal burden imposed on every country by reducing the time during which the man-power of the country is taken away from productive labour.

Disadvantages.

1. This method may prove to be insufficient, and it may be difficult to check its application in countries which have organised pre-military training or in which certain effectives may receive military training outside their units. This method must therefore be supplemented by a full exchange of information on the nature and importance of all the institutions or organisations which provide military training.

2. The limitation of the duration of active service to a brief period may lead certain countries to make up for the large proportion of untrained effectives produced by short-term service by means of special measures, such as increasing the proportion of their professional effectives and of their civilian employees which might involve increased budgetary expenditure. Such will be the case in particular in countries whose position obliges them to maintain comparatively numerous trained effectives in time of peace.

3. The consequences of this method vary according to the fitness of the population of the different countries for military service. It can only be applied by stages in countries with compulsory service. The training of the cadres — which, in any case, requires a long period of service — may result in inequality of military burdens, which could only be remedied in certain countries by an increase in the professional cadres.

4. In the case of professional armies based on the system of long-term enlistment, a limitation of the duration of active service would not necessarily result in a decrease in the degree of training of the army. In the case of the above armies, a limitation in the duration of active service would tend to increase the number of trained reserves, but would increase the difficulty of providing overseas garrisons.

As regards conscript armies, the limitation of the duration of active service has no influence on the number of trained reserves but only their quality.

5. A shortening of the period of active service beyond a certain limit might prejudice the training and defensive capacity of the effectives.

6. This method does not affect the effectives organised on a military basis as defined in the reply to Question I, Part III, Chapter III (b), page 17.

Note. — A decrease in the duration of active service may be counterbalanced by refresher courses of varying frequency and duration, each State remaining free to distribute the total duration of training according to its particular situation and its view of the requirements of its national defence.
CHAPTER IV. — ANNUAL CONTINGENT.

Method.

Limitation of contingent annually enrolled to a figure below the maximum contingent (fractions of classes).

Preamble.

For a given country this method will limit the effectives with the colours, provided that the country retains the same period of active service and the same system of calling up.

The principal aim to be attained by this method is the limitation of trained reserves. For a given country, it will limit the effectives with the colours, provided that the country retains the same period of active service and the same system of calling up.

Advantages.

1. This method relieves the personal burden imposed upon a part of the male population and thereby reduces the proportion of the population withdrawn from normal productive work. It allows the enrolment of the men with the best physique. It permits of certain exemptions considered desirable from a social point of view by certain countries.

2. The general information and public statistics available make it easy to check the application of the limitations by means of an exchange of information, as in the case of the other methods.

3. This method is very effective and, therefore, for conscript armies very important, for it affects both the effectives with the colours and the trained reserves. It limits at once the strength of the peace-time forces and gradually that of the forces prepared for war.

4. This method is relatively simple and easy to carry out. It can be adapted to the situation of all countries with conscript armies and enables the limitation of peace effectives (see Preamble).

Disadvantages.

1. If this method is applied at the same time as the limitation of the term of service with the colours, it may necessitate special measures in order to ensure protection of the frontiers, internal security, etc.

2. This method creates an inequality of military burdens.

3. This method makes it essential that in some countries the period of service should be long enough to enable the number of annual contingents thus maintained with the colours to furnish the whole of the standing forces which these States may require to defend, for example, their overseas territories and to ensure the permanent covering of their frontiers. In the countries in question this method might thus have the result of increasing the military burdens of the section of the population which is called up for military service, and would thus run counter to one of the aims of disarmament. This increase might prove impossible for countries whose possible enemies had not adhered to the Convention, and these countries might thus find themselves unable to provide for their security.

4. This method may hinder the recruiting of cadres and specialists.
5. It should, however, be observed that countries needing a large number of men for their defence in the event of aggression would be prevented from providing themselves with sufficient trained reserves.

6. If this method is applied jointly with limitation of the period of service and the system of calling-up, it prevents some States, unlike the first and second methods relating to limitation of effectives with the colours, from adapting their systems of recruiting in the best possible manner to their particular circumstances.

7. This method applies only to conscript armies, and does not extend to the effectives organised on a military basis as defined in the reply to Question I, Part III, Chapter I, page 14.

CHAPTER V. — LIMITATION OF THE NUMBER OF MEN-DAYS PER ANNUM.

Definition of the Method.

In the method proposed is understood the product of the number of men in service and the number of days served. By twenty men-days we may therefore mean either ten men serving for two days, or two men serving for ten days, or any other combination. The method therefore consists in fixing for each army a certain number of men-days, leaving the different countries free to choose the composition of this figure.

Nevertheless, it might also be necessary in the case of conscript armies in which reservists are called up for re-training courses, to fix separately both the number of men-days for the annual contingent and enlisted men (officers, non-commissioned officers, etc.) and the figure for reservists.

Advantages.

1. This method possesses most of the advantages of the methods of limitation of effectives in service, of the duration of service and of the annual contingent. It is particularly suitable for armies of the militia type, for example, in which the effectives present may vary during the course of the same year.

2. It is extremely elastic, as it leaves every country free to limit each year, according to its wishes, one or more of the various factors — effectives in service, duration of service, annual contingent.

3. It therefore permits countries to organise their armaments within the limits of the figure fixed in the manner most appropriate to the special situation of the country.

Disadvantages.

1. It may become somewhat complicated when a country wishes to change the organisation it has already established within the limits of the figure that has been fixed.

2. It is not sufficient to limit the effectives if the duration of service is liable to variation, or to limit the duration of service if the effectives are liable to variation.

3. It raises the difficult question of supervision, because its execution could not be easily or permanently kept under observation.

CHAPTER VI. — MATERIAL.

I. LIMITATION OF MATERIAL IN SERVICE AND IN RESERVE.

Material in reserve belongs to the "forces prepared for war time", and does not enter into the "ultimate war forces" which constitute the "war potential" (vide Reply to Question I, Section II, Part I, A).
"Material in reserve" is considered to be all the military material of a country which is not used by the forces in service in peace time.

The delegation of CHILE does not accept the two paragraphs above.

In the opinion of the delegation of FINLAND, the methods of limitation of material presented in this chapter (limitation of material in service and in reserve, limitation of manufacture and imports of war material) require, in order to be effective, measures of supervision.

The delegation of SPAIN while reserving its opinion as to the political possibility of supervision, recognises that it may be necessary, from the technical point of view, for the efficacy of some of the following methods.

A. In addition to indirect limitation, which would be possible through limitation of expenditure, the direct limitation of material in service and in reserve presents the following advantages and disadvantages.

Advantages.

1. This limitation, applied to material in service, supplements that of effectives. If it is applied also to materials in stock, it renders possible the limitation of trained reserves capable of being utilised from the outset of mobilisation.

At the same time, it must be applied in a manner which takes account of the possibilities of manufacturing or importing war material, which vary according to countries.

2. This method is relatively simple and can by itself diminish considerably the striking power of a country at the outbreak of war.

Disadvantages.

1. The effect which this method might have on the limitation of reserves would be greater in countries which are unable to manufacture war material.

2. If it were confined to material in service in peace time, it would not prevent a sudden increase at will of the armament of the peace-time effectives out of the reserves held.

3. If limitation extends to the materials in reserve, the mobilisation powers of the different States can be calculated.

3. The distinction between material in service and material in reserve varies greatly according to country, some countries including among material in service spare parts required to replace loss or wear and tear, others also including the mobilisation material of each peace-time unit, and only including among material in reserve such material as is intended for units embodied on mobilisation, and yet others adopting different classifications.

4. If limitation extends to the materials in reserve, the mobilisation powers of the different States can be calculated and this removes the character of secrecy of the measures taken by each State for the organisation of its national defence, which is a very important factor in the effectiveness of this organisation.

4. It is certainly difficult to obtain an equitable and effective result by a direct limitation of materials, because of their diversity and complexity, of the combinations of these various materials which vary in different States according to their special circumstances, and because of their quality, which plays a prominent part and which cannot be limited.
B. Two methods may be employed for the limitation of material, whether in service, in reserve or all material.

First Method.

This consists in limiting separately each category of material on the basis, for example, of the detailed list contained in the Convention on the Trade in Arms.

Advantages.

This method appears to permit of very strict limitation.

Disadvantages.

1. This method interferes with each State’s right of changing at any time the organisation of its armaments according to its own particular requirements and technical improvements.

2. It raises the serious difficulty of supervision, for it is ineffectual unless accompanied by supervision which will be the more difficult to carry out the more detailed it has to be.

Second Method.

This consists of limiting separately only the five principal categories of material (artillery of all calibres, including sea-coast artillery, armoured vehicles, machine-guns, small arms, ammunition) in the most general way, for example in the case of artillery and ammunition of all kinds, by total weight (tonnage); and in the case of armoured vehicles (tanks and armoured cars) machine-guns and small arms by the number.

Advantages.

This method is comparatively simple and, as regards artillery and ammunition, leaves greater freedom to each State to change at any time the organisation of its armaments to take account of its individual requirements and technical improvements.

Disadvantages.

1. This method raises the serious difficulty of supervision, for it is ineffectual unless effectively supervised.

2. Every method of limiting material in reserve has the disadvantage of sanctioning an inequality between the countries which produce war material and those which do not.

II. LIMITATION OF THE MANUFACTURE AND IMPORTATION OF WAR MATERIAL.

Advantages.

1. This method would be comparatively simple and equitable for all countries whether producers of war material or not.

2. It would not be effectual unless similar material of the army, navy and air force were subject to the same limitations.

3. It raises the serious difficulty of supervision, for it is altogether ineffective, and therefore inadmissible, unless accompanied by permanent and effective supervision.

The delegation of the ARGENTINE expresses no opinion on Disadvantage No. 5 above.

B. Two methods may be employed for the limitation of material, whether in service, in reserve or all material.

First Method.

This consists in limiting separately each category of material on the basis, for example, of the detailed list contained in the Convention on the Trade in Arms.

Advantages.

This method appears to permit of very strict limitation.

Disadvantages.

1. This method interferes with each State’s right of changing at any time the organisation of its armaments according to its own particular requirements and technical improvements.

2. It raises the serious difficulty of supervision, for it is ineffectual unless accompanied by supervision which will be the more difficult to carry out the more detailed it has to be.

Second Method.

This consists of limiting separately only the five principal categories of material (artillery of all calibres, including sea-coast artillery, armoured vehicles, machine-guns, small arms, ammunition) in the most general way, for example in the case of artillery and ammunition of all kinds, by total weight (tonnage); and in the case of armoured vehicles (tanks and armoured cars) machine-guns and small arms by the number.

Advantages.

This method is comparatively simple and, as regards artillery and ammunition, leaves greater freedom to each State to change at any time the organisation of its armaments to take account of its individual requirements and technical improvements.

Disadvantages.

1. This method raises the serious difficulty of supervision, for it is ineffectual unless effectively supervised.

2. Every method of limiting material in reserve has the disadvantage of sanctioning an inequality between the countries which produce war material and those which do not.

II. LIMITATION OF THE MANUFACTURE AND IMPORTATION OF WAR MATERIAL.

Advantages.

1. This method would be comparatively simple and equitable for all countries whether producers of war material or not.

2. It would not be effectual unless similar material of the army, navy and air force were subject to the same limitations.

3. It raises the serious difficulty of supervision, for it is altogether ineffective, and therefore inadmissible, unless accompanied by permanent and effective supervision.

The delegation of the ARGENTINE expresses no opinion on Disadvantage No. 5 above.
2. In view of the difficulties attending the direct limitation of material and especially of material in reserve, an endeavour can at least be made to limit the increase of stocks or their renewal and the rate of such increases in order to avoid manufacture or importation of war material on a large scale in a short space of time.

It is therefore possible to entertain the idea of limiting the quantity of material which a State may manufacture and import annually, of course deducting its exports.

Disadvantages.

I. This method is only admissible if all States, which for financial or other reasons have been unable in any given year to manufacture or import the quota of material allowed to them by the proposed Convention, are authorised to increase correspondingly their manufactures and imports during subsequent years.

I. This method is only admissible:

(a) If an effective and international control of the trade in, and manufacture of, war material can be introduced;

(b) If all States which, for financial or other reasons, have been unable in any given year to manufacture or import the quota of material allowed to them by the proposed Convention;

(c) If it can be applied to the three main categories of armaments.

CHAPTER VII. — LARGE PEACE-TIME UNITS 1.

Method.

Limitation of the number of large peace-time units.

Advantages.

1. It is relatively simple.

2. Its application may easily be followed from official documents.

Disadvantages.

This method would only be effective on the following conditions:

(a) That the effectives (either the total effectives or those of each large unit) should also be limited.

(b) That the large units in each country should be uniform as regards the composition of their staffs, their subordinate units and their armaments.

(c) That in each country this composition should remain such that there would be no increase of strength of the unit for the duration of the Convention.

I. These conditions, however, interfere with each country's right of organising its forces according to its individual defensive requirements within the scope of the limitations it may have to observe with regard to its armaments; in the case of countries having to provide for the security and policing of overseas territories, they do not take into account the necessity in which such countries may be placed of having to constitute large units of a composition adapted to their special tasks; the formation of these field-service units should therefore in any case be allowed for particular operations justified by unforeseen circumstances.

2. This method might not be universally applicable, certain States not possessing large units in time of peace, and in the majority of States a variable and often large proportion of the military forces not being incorporated in divisions.

1 By large units is meant the force under a single command composed of troops of all arms and of the services which they require; the composition of large units may vary in different countries.
CHAPTER VIII. — TRAINED RESERVES.

Definition.

The term "trained reserves" is understood to mean: men who have received a military training with the colours or in organisations authorised officially to give such training, and are under a legal liability to be recalled to the colours in case of mobilisation.

Trained reserves belong to the "forces prepared for war time" and do not enter into the "ultimate war forces" which constitute the "war potential" (see Section II, Part I, A, Question I, page ii).

First Method. — Limitation of Trained Reserves by the Abolition of Compulsory Military Service.

Advantages.

This method would be highly effectual provided that the effectives engaged on a voluntary basis were not very high; that the period of enlistment were very long, (e.g., ten years or so), and that no military training could be given to the nation except in the military units or other organisations officially authorised to give it.

Disadvantages.

1. It would be impossible, without considerable delay, to cope with an invader, or to take part in any collective action recommended by the League of Nations, with any effectives except those existing in peace time.

2. There might be difficulties in recruiting the peace-time forces owing to an insufficient number of enlistments or to inadequate financial resources.

3. It would be difficult to apply the method uniformly to all countries on account of the great variety of their situations as regards security and resources.

Second Method. — Limitation of Trained Reserves through the Limitation of the Annual Contingent.

See Chapter IV above.

Third Method. — Limitation of the Use of Trained Reserves by the Limitation of Material.

See Chapter VI above.

Fourth Method. — Limitation of the Quality of Trained Reserves through the Limitation of the Period of Service.

See Chapter III above as regards the limitation of active service.

The last-named process of limitation might be supplemented by limitation of the refresher courses, each State remaining free to distribute the total period of training (active service and refresher courses) according to its special situation and its method of organising its national defence.

The advantages and disadvantages are given in Chapter III.

Fifth Method. — Limitation of Trained Reserves by Limitation of the Number of Regulars (Officers and Men).

Settlement of the maximum proportion between the number of regulars (officers, officials, non-commissioned officers and men), on the one hand, and the men called to the colours, on the other hand, this to be fixed in the case of each individual State according to the evidence it has produced, it being recognised that each State has the right to maintain a regular personnel at least sufficient in number for the adequate training of the men it is entitled to keep in service.
Advantages.

By limiting the number of regulars, it is possible to limit to a certain extent any sudden increase of the peace-time army on mobilisation, that is to say, the use of trained reserves as well as their instruction.

Disadvantages.

1. For the regular armies, it is indistinguishable from the other methods for the limitation of effectives.

2. In any case, it would require to be combined with a limitation of the cadres trained with the colours or in extra-regimental organisations.

3. It is lacking in elasticity in that it interferes with the combination between regular effectives and effectives "called to the colours" which each State may consider necessary in the interests of security.

4. This method is not of itself sufficient.

5. It would involve more serious consequences for conscript armies than for regular armies. Thus a large number of men in the latter can be regarded as available for use as trainers or for forming cadres, whereas the cadres of conscript armies are relatively few in number and constitute the essential framework.

Sixth Method. — Abolition of the Registration of Trained Reservists or Restriction of this System to Cover a certain Limited Number of Annual Classes or Reservists.

Advantages.

This method reduces the number of reservists whose duties on mobilisation have been assigned to them in peace time, and thus to some extent hampers measures of mobilisation.

Disadvantages.

1. This method might easily be made ineffective by means of posters calling up classes of specified ages and instructing them to report at the nearest garrison.

2. This method prevents countries exposed to invasion from carrying out mobilisation rapidly.

3. It raises the grave difficulty of supervision, for it would demand permanent and very strict supervision, which would, nevertheless, be easy to evade.

Seventh Method. — Limitation of the Total Duration of Military Service.

Advantages.

This method really does limit the forces that a country can legally utilise on the outbreak of war, and it reduces the personal burden of the population in time of peace.

It diminishes the number of reserve units.

Disadvantages.

1. This method puts conscript armies at a disadvantage in that the reduced quantity of their trained reserves cannot henceforth counterbalance the quality of the reserves in volunteer armies, especially as regards the total length of service. Moreover, even if these disadvantages could be avoided, the system would only be effective if the laws of the countries possessing volunteer armies prohibited the calling to the colours or utilisation for military service of men older than the age-limit for service in conscript armies.

2. Further, and above all, this method might be rendered ineffective by the enactment on the day of mobilisation of new legislation making all able-bodied men eligible for military service.

* * *

1Annual notification of presence, departure from the country without authorisation.
The delegations of the ARGENTINE, BELGIUM, CZECHOSLOVAKIA, FRANCE, ITALY, JAPAN, POLAND, ROUMANIA, and the KINGDOM OF THE SERBS, CROATS AND SLOVENES add the following text:

Disadvantage common to all these Methods for Limiting Trained Reserves.

The trained reserves of the army being in some countries supplemented in time of war by available reservists of the navy and air force, it would be impossible to limit the trained reserves of the army without also limiting those of the navy and air force (see Part V.).

Trained reserves constitute a factor which, although it cannot be included in peace-time armaments, nevertheless constitutes one of the factors on which the power of a country in time of war depends (see reply to Question I, Part II, Chapter III, page 12).

Such reserves cannot therefore be limited unless at the same time the other factors of the power of a country in war time are also taken into account.

Generally speaking, however, it is impossible to limit these other factors. They should therefore, if trained reserves are limited, be the subject of enquiries with a view to ascertaining their value and variations.

In addition, the Preparatory Commission has kept specially in mind "at present" the limitation of peace-time armaments properly so called. Certain of the methods of limitation relating to trained reserves, considered from a technical and theoretical standpoint, seem to go further than the scope of present-day practical possibilities in view of the fact that these methods would affect the ultimate war strength of a country in respect of which the Preparatory Commission has stated that limitation would not be "practicable at the present time".

Thus, at present, limitation of trained reserves can only be contemplated in countries which, by reason of their special political or geographical position, have "time", in case of aggression, to train their "untrained" reserves, as stated in the Preamble to Chapter II, Part II, of the Reply to Question (a) in the Commentary relative to Questions II (b) and III.

As regards all other countries compelled in case of aggression to rely on the use of their reserves for their national defence, the limitation of trained reserves would appear to be impossible until full provision for equivalent security has been made in some other form (see Reply to Question II (a), Part II).
CHAPTER IX. — CONCLUSIONS.

The essential aim of limitation being finally to diminish the probability of war, that aim may largely be achieved by limiting the factors upon which the striking power of a country depends at the outbreak of war.

As these factors are of a widely different order, consisting not only of effectives with the colours but also of trained reserves and material, it is obviously impossible to attain the end in view by use of any method of limitation which applied to one of these factors only.

It will therefore be necessary to extend limitation or reduction to each of the factors upon which depends the striking power of a country at the outbreak of war, and accordingly to employ simultaneously methods bearing upon effectives with the colours, trained reserves and the total quantity of material.

It is obvious that none of the methods considered could reduce the number of trained reserves already existing in every country, and particularly the number of veterans. If, for political and technical reasons, the method of abolishing compulsory military service is dropped, only the annual-contingent method can restrict the formation of fresh reserves. Even if there were no political difficulties, countries which require large effectives in order to meet their peace-time obligations could not contemplate any appreciable reduction of their contingents unless it were balanced by a lengthening of the term of service, and this would be far from conducing to the alleviation of the personal military burden, which is one of the principal aims of disarmament.

In most countries, therefore, the reduction of contingents can only be very small, and a large number of reservists will continue to be trained each year. Only after a very long time — twenty years perhaps — would there be any substantial reduction in the total available trained reserves. When it is further considered that in most countries there is not sufficient mobilisation material to arm all the existing trained reserves, it will be realised that a numerical limitation of reserves would for a very long time have no effect upon the number of reservists which the country concerned could arm on mobilisation with the material at its disposal. Untrained men could then, as now, receive the training necessary for their employment during the time inevitably required for the preparation of their material.

The limitation of trained reserves — which is in most cases ineffectual or superfluous, which can in any case only make its effects felt after a very long time, and which threatens an addition to the personal and financial peace-time burden in many countries — is also at the present time open to serious fundamental objections, and must therefore be rejected. On the other hand, the two methods of direct limitation of effectives with the colours set forth in Chapter II above should yield immediate, tangible, simple and practical results, in full consonance with the objects of disarmament.

Accordingly, it is these two methods that the above delegations primarily recommend to the Preparatory Commission.

1Except in the event of the abolition of compulsory military service.
PART III. — NAVAL ARMAMENTS.

Chapter I. — Definitions.

By limitation of armaments is to be understood the fixing of the levels of armaments which the countries undertake not to exceed.

By reduction of armaments is to be understood the measures taken by a country whose armaments exceed the fixed level of limitation to reduce them to that level.

General Principles.

The delegations of the ARGENTINE, the BRITISH EMPIRE, CHILE, FINLAND, GERMANY, the NETHERLANDS, SWEDEN and the UNITED STATES OF AMERICA submit the following General Principles:

1. Peace Objectives. — Reducing and limiting armaments in the hope of lessening international mistrust and reducing the probability of war, thereby helping to promote universal peace.

The reduction and limitation of armaments should aim at removing to the greatest possible extent competitive building-up of armaments and thus help to produce a feeling of security.

2. Economic Objective. — Reducing and limiting to the greatest possible extent the burden of taxation incident to the building-up and maintenance of armaments which are necessary for the nations of the world.

The delegations of FINLAND, GERMANY, the NETHERLANDS, SPAIN and SWEDEN submit the following for paragraph 3:

3. It should be observed that, so long as the same proportional relationship exists between the armaments of different nations, the mere reduction of such armaments would not necessarily lessen the probabilities of war.

An equilibrium of armaments must therefore be established by making them correspond to the requirements of security of each country.

The delegations of BELGIUM, CZECHOSLOVAKIA, FRANCE, ITALY, JAPAN, POLAND, ROUMANIA and the KINGDOM OF THE SERBS, CROATS AND SLOVENES are of opinion that the General Principles and General Remarks which are at the commencement of Part I of this question apply to naval armaments as well as to land and air armaments.

1 Taking into account, of course, the present position of certain countries which have to create the forces necessary to their security.
(f) Its application should be as simple as possible.

The delegations of the ARGENTINE, CHILE, FINLAND, the NETHERLANDS, SPAIN, SWEDEN and the UNITED STATES OF AMERICA submit the following paragraph 4:

4. The limitation and reduction of armaments must, from a technical point of view, be studied in precise terms; nevertheless, the methods contemplated must be definite and refer to factors capable of being weighed and calculated. On the other hand, they must be sufficiently elastic to permit of their adaptation to the conditions of security in each country at the time when the Conference is convened.

The delegations of the BRITISH EMPIRE and the UNITED STATES OF AMERICA do not agree with the interpretation attached by certain delegations to the words "sufficiently elastic" as appearing in the above paragraph.

The delegations of the ARGENTINE, the BRITISH EMPIRE, FINLAND, GERMANY, the NETHERLANDS, SPAIN, SWEDEN and the UNITED STATES OF AMERICA submit the following paragraph 5:

5. In order that any method for the limitation or reduction of naval armaments should be acceptable, it is necessary that:

(a) It should be equitable for the countries concerned;

(b) It should guard against any too rapid renewal of armaments which might suddenly compromise the security of other countries. It should prevent the equilibrium of armaments once established from being disturbed. Their replacement should only be effected according to rules to be agreed upon;

(c) It should be applicable to the special conditions of the States signatory to the Convention in order to assure their national security;

(d) It should interfere as little as possible with the right of every State to organise its naval armaments so as to provide in the best possible manner for the defence of the whole of its possessions.

(e) Its result should be permanent during the life of the agreement and it should not be capable of suddenly threatening the security of other countries, i.e., it should act upon all the factors deemed subject to limitation without the possibility of such factors escaping the limitation agreed upon.
The delegations of the BRITISH EMPIRE, CHILE and the UNITED STATES OF AMERICA, do not agree with the interpretation attached by certain delegations to the word "organise" in paragraph (d) above.

CHAPTER II. — METHODS OF LIMITATION.

The following methods have been considered:

Method 1. — Total Tonnage.
Method 2. — Total Depreciated Tonnage.

Method 3. — Classes

Application A. Tonnage by Classes;
Application B. Limitation in Numbers of Ships by Classes;
Application C. Total Tonnage of Capital Ships;
of Aircraft Carriers;
of Auxiliary Surface Vessels;
of Submarines;
Method 4. — Naval Material in Reserve.
Method 5. — Personnel.

Method I. — Total Tonnage.

Submitted by the delegations of BELGIUM, CZECHOSLOVAKIA, FINLAND, FRANCE, ITALY, the NETHERLANDS, POLAND, ROUMANIA, the KINGDOM OF THE SERBS, CROATS AND SLOVENES, SPAIN and SWEDEN.

LIMITATION OF THE TOTAL TONNAGE OF THE NAVAL ARMAMENTS OF EACH COUNTRY, THE LATTER REMAINING FREE TO DISTRIBUTE AND ARRANGE THIS TONNAGE IN THE MANNER BEST SUITED TO ITS DEFENCE.

This method, in its general lines, might take the following form:

Definition of Total Tonnage. — Total tonnage is the total individual tonnage of all vessels capable of being used as combatant units. Nevertheless, surface craft below a certain tonnage and calibre of guns may be considered as non-combatant for the purposes of reduction and limitation of armaments.

(a) The tonnage of each unit is calculated as follows: the standard displacement of a ship is the displacement of the ship complete, fully manned, engined and equipped ready for sea, including all armament and ammunition, equipment, outfit, provisions and fresh water for crew, miscellaneous stores and implements of every description that are intended to be carried in war, but without fuel or reserve feed-water on board. This estimate is made in metric tons.
(b) No warship shall have a tonnage greater than the maximum tonnage decided upon.
(c) No gun mounted in a warship shall have a calibre greater than the maximum calibre decided upon.
(d) Renewal of the tonnage allowed. It is suggested that the following rules may be laid down:

Exception in the case of loss, no vessel may be replaced until it is twenty years old in the case of vessels over 3,000 tons; sixteen years old in the case of vessels over 1,500 tons; twelve years old in the case of vessels over 100 tons. The age of units is reckoned from their date of completion.

Suggested Compensation for Retention of Vessels beyond their Age-limit. — It would appear to be equitable that certain nations which allow their tonnage to become obsolete beyond certain limits, on grounds of economy or for any other reason, should be able to exceed slightly, as a result of new construction, the limit of total tonnage which would normally be assigned to them.

It is indeed obvious that vessels over the average age are little suited for offensive operations.

The following rule might therefore be applied:

Ships which have exceeded their age-limit shall be counted only as half their tonnage in estimating total tonnage.

1: It is suggested that the ultimate Conference should fix the limits in question.