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**MAC Protocol
Intersessional Working Group
on registration criteria (IWGRC)**

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CONCLUSIONS PAPER

(Prepared by the Chair of the IWGRC and approved by the Group)

I. SUMMARY REPORT

1. The MAC Protocol Intersessional Working Group on registration criteria (IWGRC) has been established by decision taken at the first session of the Committee of Governmental Experts (CGE) for the preparation of a draft MAC Protocol (Rome, 20 – 24 March 2017).¹ Ten delegations to the first session of the CGE responded to the Secretariat's invitation to participate in the IWGRC.² The IWGRC has conducted its discussions via e-mail on the basis of an initial discussion paper prepared by the Chair of the IWGRC and distributed by the UNIDROIT Secretariat.

2. The mandate of the IWGRC was to consider issues related to the criteria for the identification of MAC equipment in the International Registry and additionally to consider potential measures to improve the preliminary draft Protocol's transparency in portraying the types of MAC equipment it applied to.³ In order to facilitate the registration of an international interest with respect to MAC equipment in the International Registry under the future Protocol, information by which MAC objects must be identified ("registrable information") needs to be determined that allows the unique identification of individual MAC objects, both for purposes of registering an international interest and searching the International Registry. The determination of these categories of registrable information must take into consideration several factors:

- the general objective that the process of making a registration should be uncomplicated and error-proof, and
- the practical difficulties arising from the fact that there is a large number of manufacturers of agricultural, construction and mining equipment world-wide with no universally agreed standards as to the unique allocation of manufacturers' serial numbers or standardized model descriptions.

3. On the basis of its deliberations, the recommendation of the IWGRC is that the provisions in the Draft Protocol concerning the identification of agricultural, construction or mining equipment for registration purposes and the search criteria for such equipment in Articles XVI and XVII (1) should

¹ See the Report of the First Session of the Committee of Governmental Experts Doc. [UNIDROIT 2017 – Study 72K – CGE1 – Report](#), para. 167 (April 2017).

² See the list of participants in Annex I.

³ Doc. [UNIDROIT 2017 – Study 72K – CGE1 – Report](#), paras. 165, 167 (April 2017).

be redrafted with the following text:⁴

Article XVI – Identification of agricultural, construction or mining equipment for registration purposes

A description of agricultural, construction or mining equipment that contains its manufacturer's serial number and such additional information as required to ensure uniqueness is necessary and sufficient to identify the object for the purposes of Article 18(1)(a) of the Convention. The Regulations shall specify the format of the manufacturer's serial number and provide what additional information is required to ensure uniqueness.

Article XVII – Additional modifications to Registry provisions

1. *For the purposes of Article 19(6) of the Convention, the search criterion for agricultural, construction or mining equipment shall be its manufacturer's serial number.*

2. ... (unchanged)

4. Under this approach, the process of registration requires two types of information: first, the registering person must identify the MAC equipment by indicating its manufacturer's serial number that is typically to be found on a serial number plaque permanently affixed to the equipment. Additionally, the registering person must also indicate other additional information concerning the equipment as required to ensure uniqueness in accordance with the Regulations. No registration can be effected without this information being indicated by the registering person. The selection of appropriate categories of mandatory additional information in the future Regulations should ensure that the registration process is kept simple and that the additional information can both guarantee the uniqueness of the identification of the MAC equipment and serve the transparency objectives and the informative value of a registration in the International Registry. The effectiveness of the registration as regards the registering person's international interest depends upon the correct indication of the manufacturer's serial number, but trivial errors concerning the other additional information do not affect the effectiveness of the registration.

5. When searching the register, the single search criterion will be the manufacturer's serial number. Such a search might yield several results in such situations where there are several registrations referring to different pieces of MAC equipment with identical serial numbers - these will be rare occurrences, but they cannot be ruled out entirely due to the lack of universally agreed standards as to the unique allocation of manufacturers' serial numbers. Under Article 22 (2)(a) of the Convention, a search certificate is issued by the Registrar in respect of each search result, stating all registered information relating thereto, i.e. including both the manufacturer's serial number and the other additional information registered in accordance with the requirements of Article XVI. In situations where searching the International Registry for a specific serial number has yielded several results (i.e. where the manufacturer's serial number in itself did not provide the uniqueness of the registration), searching parties can use the additional information to determine which of the several registrations, if any, refers to the piece of MAC equipment which they are interested in.

6. In its discussions, the majority view of the IWGRC was that this drafting proposal was preferable over other possible solutions due to its flexibility and because it avoids making the registration process and the operation of the International Registry too burdensome. Under the

⁴ For a comparison of the text of Articles XVI and XVII (1) in the current Draft version (see the document [UNIDROIT 2017 - Study 72K - CGE2 - Doc. 2](#), May 2017) with the text of this recommended redrafted version, highlighting the textual changes, see below at para. 10.

drafting proposal, exact identification is required only as regards the manufacturer's serial number, which typically is easily and reliably ascertained from the asset's serial number plaque. The registering person does not have to bear the risk that trivial errors in the indication of the mandatory additional information invalidate the registration. Under alternative models for the drafting of Articles XVI and XVII (1), especially where both the manufacturer's serial number and the name of the manufacturer are used as registration and searching criteria, even slight errors in the indication of the name of the manufacturer could render the registration invalid. Other alternative solutions, under which the Registrar would assist the registering person by providing a list of all MAC manufacturers' names worldwide from which the registering person could make its choice would not appear to be manageable in practice due to the fact that the number of such manufacturers is much higher than in the aircraft context.

7. Generally, the IWGRC did not focus in its discussions on the details of possible technical solutions, but rather on what would be necessary in terms of policy and legal drafting in the Protocol. This approach allows technical solutions to be determined by the Regulations for the International Registry. A number of important issues, such as the format required for the manufacturer's serial number and the choice of the categories of additional information required to ensure uniqueness of a registration, have purposefully been left to be decided in the future Regulations. This allows future technical and factual developments to be taken into account, for example as regards the introduction and broader use of internationally standardized legal entity identifiers for manufacturers or ISO-compatible Product Identification Numbers for MAC objects - the more the availability and use of these become standard practice in the MAC context, the more it might be reasonable to provide that the relevant format of the manufacturer's serial number should be the ISO-compatible PIN or at least to include the ISO-compatible PIN, if available, in the required additional information.

8. In relation to the issue of transparency (see for the mandate of the IWGRC above para. 2), the IWGRC requested that, in addition to the suggestions made by the IWGRC in relation to the choice of the categories of additional registrable information, the UNIDROIT Secretariat and those participants with expertise on the Harmonized System conduct further research and report back to the Committee at its second session.

9. The members of the IWGRC included experts coming from different legal backgrounds, including practitioners and other national experts in secured transactions. In some instances, participating experts consulted with national industry circles to inform their positions. However, the MAC Working Group, as representative of private industry, did not provide input to the IWGRC. The IWGRC invites the MAC Working Group and other experts with practical experience from all delegations to the second session of the Committee of Governmental Experts to comment on this report. The IWGRC regards its work as a starting point for the further discussion of the issues of the registration and search criteria, which will continue until the negotiation of the future Regulations; this process will allow the full participation of industry circles from all prospective contracting States.

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II. DRAFTING RECOMMENDATION CONCERNING ARTICLES XVI AND XVII (1) ON REGISTRATION AND SEARCHING CRITERIA

10. On the basis of the deliberations of the IWGRC, there has been strong support for the proposal that the drafting of Articles XVI and XVII (1) should be based upon the principle that the identification of MAC equipment for registration purposes should be by the manufacturer's serial number only, with (mandatory) additional information used for differentiating between search results. Therefore, there has been strong support by the IWGRC for supporting the following drafting recommendation for the redrafting of the present text of Articles XVI and XVII (1) (new text is in **bold underlined print**, whereas deletions from the present text are marked as ~~crossed-out~~):

Article XVI – Identification of agricultural, construction or mining equipment for registration purposes

*A description of agricultural, construction or mining equipment that contains its manufacturer's serial number and **such additional information as required to ensure uniqueness** ~~the name of the manufacturer as supplemented by such additional information as may be provided by the regulations~~ is necessary and sufficient to identify the object for the purposes of Article 18(1)(a) of the Convention. **The Regulations shall specify the format of the manufacturer's serial number and provide what additional information is required to ensure uniqueness.***

Article XVII – Additional modifications to Registry provisions

1. *For the purposes of Article 19(6) of the Convention, the search **criterion** ~~criteria~~ for agricultural, construction or mining equipment shall be ~~the name of its manufacturer and its manufacturer's serial number, supplemented as necessary to ensure uniqueness. Such supplementary information shall be specified in the regulations.~~*

2. ... (unchanged)

11. The main difficulty concerning the unique identification of MAC equipment for purposes of the registration under the MAC Protocol is that it cannot be entirely ruled out that the same serial number has been allocated to several MAC objects. However, this will be a rather rare situation and therefore any solution which is to remedy this problem should not overburden the users of the International Registry with too demanding requirements that create costs and give rise to the risk that registrations are ineffective due to inadvertent failures to comply with information requirements. The preceding drafting proposal that is supported by the IWGRC seeks to achieve a balance by keeping the extra information requirements at a basic level and by placing a reasonable burden on the searching party to differentiate between several search results where a search of the International Registry for the MAC asset's serial number does not yield a unique result.

12. While there had been some tentative support for another drafting alternative, under which not only the manufacturer's serial number, but also the name of the manufacturer would have been used as a registration and searching criterion (and not merely as (mandatory) additional information), this alternative ultimately did not garner sufficient widespread support. The discussion of different drafting alternatives that were considered by the IWGRC will be summarised below.

III. DISCUSSION OF THE DIFFERENT DRAFTING ALTERNATIVES

A. Overview of the drafting alternatives considered by the IWGRC

13. In the deliberations and discussions of the IWGRC, the following five drafting alternatives were considered:

Alternative A: International Registry to be organised on the basis of the serial number and the name of the manufacturer as criteria for registration and searching, both to be entered by the registering person;⁵

Alternative B: International Registry to be organised on the basis of the serial number plus standardised manufacturers' names as criteria for registration and searching, the names being selected by the registering person from a list of standardised names managed by the Registrar;⁶

Alternative C: International Registry to be organised on the basis of the serial number as the sole method of identification; with (mandatory) additional information for fine-tuning between search results;

(This is the drafting alternative recommended by the IWGRC in this paper, see para. 10 above)

Alternative D: International Registry to be organised on the basis of the use of the serial number as primary method of identification and search criterion, manufacturer's name to be used as secondary method of identification and search criterion that becomes relevant only when the need arises to distinguish between several registrations identifying the same serial number;⁷

Alternative E: Determination of criteria for registration and searching to be deferred to the Regulations following the model of Articles XXX and XXXII (2) of the Space Protocol.

⁵ It was assumed that under this approach, Article XVI could remain as presently drafted and there would also not have to be any amendments to Article XVII (1).

⁶ Tentatively, it was assumed that under this approach, Articles XVI and XVII (1) would have to be redrafted as follows, which shall be indicated here for illustration purposes only:

Article XVI:

*A description of agricultural, construction and mining equipment that contains the manufacturer's serial number and the name of the manufacturer **in the standardised format as provided for by the regulations**, as supplemented by such additional information as may be provided by the regulation is necessary and sufficient to identify the object for the purposes of Article 18(1)(a) of the Convention.*

Article XVII:

*(1) For the purposes of Article 19(6) of the Convention, the search criteria for agricultural, construction and mining equipment shall be the name of its manufacturer **in the standardised format as provided for by the regulations** and its manufacturer's serial number, supplemented as necessary to ensure uniqueness. Such supplementary information shall be specified in the regulations.*

⁷ Alternatives D and E were regarded in the IWGRC's initial discussion paper as not warranting a substantive discussion by the IWRGC and therefore no tentative drafting proposal has been suggested.

B. Overview of the core issues concerning the registration and search process under the draft MAC Protocol

14. The drafting alternatives described above had to be discussed by the IWGRC in view of the anticipated legal and factual issues concerning the registration and search process under the future MAC Protocol. These core issues were identified by the IWGRC as follows:

15. **Identical serial numbers used by several manufacturers:** Several manufacturers might have used the same serial numbers for different equipment. E.g., there might be bulldozer “MAN001” by Manufacturer1 and bulldozer “MAN001” by Manufacturer2. Using the serial number “MAN001” alone would not in every case be sufficient for the unique identification of a specific asset in the International Registry.

16. **Manufacturers using identical serial numbers for several different assets:** Often, manufacturers allocate identical serial numbers to several assets of different types. E.g., Manufacturer1 might have produced a bulldozer with the serial number “MAN001” as well as a front-end shovel loader with the same serial number “MAN001”. In this case, not even the use of the serial number “MAN001” together with the name of the manufacturer would be sufficient for the unique identification of a specific asset in the International Registry.

17. **Exact legal name of manufacturer often not easily ascertainable for the registering person:** While a registering person who wants to make a registration and an interested party who wants to search the International Registry both can rely on the use of the serial number of the object as appearing on its serial number plaque for the identification of the asset, this does not necessarily apply to the name of the manufacturer. The serial number plaque might give a shortened version or the trading name of manufacturer, but it seems that there is not yet a worldwide accepted practice to indicate the exact legal name of the manufacturer. This gives rise to various risks that may result in an incorrect identification of an asset or in the use of a manufacturer’s name in the search process that is not identical to the name used by the registering person (which could have the effect that the search yields no results).

18. **Manufacturers operating under trading names, under the names of local subsidiaries or using different ‘corporate designations’:** The problems described in the preceding paragraph are exacerbated by the fact that manufacturers often operate under trading names or under the name of a local subsidiary or concerning the use of ‘corporate designations’ (i.e. “Inc.”, “Ltd.” etc.). For example, there could be “ManufacturerHolding Ltd.” and its subsidiaries “Manufacturer AG” and “Manufacturer S.A.”; and should it be “Manufacturer Inc.”, “Manufacturer Incorporated” or just “Manufacturer”.

19. **Great number of manufacturers all over the world:** For MAC equipment, different from the aircraft industry, there is a great number of manufacturers in various countries all over the world. In a registration system that relies on the correct indication of the name of the manufacturer, this causes a number of problems. Specifically, if the International Registry is to operate drop-down menus, whether conclusive or not, which allow the registering person to choose the exact name of the manufacturer from a list of options, then the Registrar will have to communicate with a huge number of manufacturers world-wide. Possibly some cooperation or communication could be channelled through national trade organisations, but this cannot be taken for granted in all States, especially when it is taken into account that the Registrar would also need to communicate with manufacturers in Non-Contracting States. Therefore, any such drop-down menus or lists of manufacturers of MAC equipment could likely never be exhaustive and the Registrar would presumably not be willing to bear any responsibility for the accuracy of the information (even concerning registrations under the Aircraft Protocol, there is a Manufacturers’ Disclaimer of Liability posted on the website of the International Registry).

20. **Changes of manufacturers’ names over time:** While the serial number of an object can be expected to remain unchanged once it has left the manufacturer’s assembly lines, the name of the manufacturer itself might be subject to changes over time. If the International Registry allows searches for assets only against the serial number plus the name of the manufacturer at the time of the object’s production, this would make searches for interested parties a bit more complicated: They do not only have to look for the object’s serial number, but they also have to check that they use the correct manufacturer’s name as used at the time of the production of the object.

21. **Manufacturers’ names, brand names or product designations written in characters of different scripts:** While it can be assumed that there is an accepted worldwide practice that serial numbers consist of Arabic numerals, the names of manufacturers, brand names or product designations might often in their original spelling be written in characters of different scripts (Chinese hanzi, Japanese kanji, Latin or Cyrillic alphabets etc.). If the International Registry were to require the registering person to indicate the correct spelling of the manufacturer’s name, either in its original characters or transcribed in Latin script, registering persons as well as searchers and prospective buyers might have to use characters which they are not familiar with. This problem can be assumed to have less weight where the name (or other information) is not part of the registration and search criteria, but merely has to be indicated as part of the additional information where trivial errors do not affect the effectiveness of the registration.

22. **MAC equipment built by several manufacturers:** In certain situations, individual pieces of customised MAC equipment might be built by a joint operation of several manufacturers. In such cases, it might be difficult to say whether the asset was produced by “Manufacturer1” or “Manufacturer2”.

C. Reasoning supporting the drafting recommendation of the IWGRC (Alternative C)

23. The majority of the participants of the IWGRC supported the drafting alternative that has been described above as the drafting recommendation of the IWGRC (see above para. 10); this alternative has in the discussions of the IWGRC been referred to as Alternative C (see above para. 13), i.e. the International Registry being organised on the basis of the serial number as the sole method of identification (serial number indexing), with (mandatory) additional information for fine-tuning between search results. In the discussions of the IWGRC, it was thought that this approach would be workable and conceptually compatible both in a Civil Law and Common Law legal environment. The IWGRC’s support for this drafting recommendation is based upon the following reasoning:

24. Firstly, it ensures that the process of registration can be kept as simple as possible for the registering person. The only registration requirement provided for by the Protocol itself is the manufacturer’s serial number - all other additional information is required only if so provided under the future Regulations. In the drafting of the future Regulations, and especially in the choice of the categories of additional information required, regard can be had to future technical and factual developments and to the general objective of having a registration system that is easy to use.

25. The indexing of a register for proprietary security by the serial numbers of the assets is a practice followed in a number of jurisdictions worldwide, especially in jurisdictions with recently modernized secured transactions systems (e.g., under the Personal Property Security Acts in Australia, Canada and New Zealand, and in recent law reforms in a number of jurisdictions in Latin America, Africa and Asia).

26. The distinction between the manufacturer’s serial number as the sole criterion for registration and searching and the (mandatory) additional information as required according to the Regulation

further ensures that the registration process does not become too burdensome for the registering person: an exact identification is required only as regards the manufacturer's serial number, which typically is easily and reliably to be ascertained from the asset's serial number plaque. As regards the (mandatory) additional information, however, which is not part of the registration and searching criteria, no exact identification is required and the registering person therefore does not have to bear the risk that trivial errors invalidate the registration.

27. The drafting proposal that is recommended by the IWGRC also avoids making the operation of the International Registry too burdensome: Under this solution, the Registrar may still provide some assistance to the registering person in the registration process by providing for drop-down menus or other lists, e.g., of manufacturers' names. However, there would not be a need that these lists would have to strive to be comprehensive or conclusive, since the registering person could always be referred to the possibility of entering items of additional information in a free text field, without there being a risk that trivial errors in the indication of such additional information would invalidate the registration.

28. Under this alternative, the serial number would constitute the sole identifying/searching criterion for a MAC object under Articles XVI and XVII. A search against the serial number only would determine whether the registration is (in)valid. A search against the serial number only could retrieve multiple registrations where the serial number concerned has been assigned to several different MAC objects by their manufacturers. However, this occurrence might be relatively rare given that many manufacturers include an abbreviation of their name as part of the serial number (e.g., CAT123), so a '123' serial number issued by an Indian manufacturer will be different from the one issued by Caterpillar. Even if the same serial number is issued to multiple MAC objects (for example by the same manufacturer for assets of different categories), the real probability of the same exact serial number to be issued for more than 2-3 objects is extremely low. In those cases, a search of the MAC International Registry would retrieve 2-3 registrations that relate to different objects identified by that serial number. In those rare cases, it would not be an undue burden for the searching party to isolate the relevant registration based on the (mandatory) additional information that does not form part of the registration and searching criteria, but is presented in the search certificate. The information that is presented in the search certificate will also include a name of the debtor as indicated by the registering party, which should be a reliable indicator for the searching party whether a registration refers to a specific asset.⁸

D. Discussion of the proposal to require the use of the manufacturer's serial number and the name of the manufacturer as registration and searching criteria (drafting alternative A)

29. In the discussions of the IWGRC, there had also been some tentative support for the drafting alternative that has in the discussions of the IWGRC been referred to as Alternative A (see above para. 13), i.e. an alternative solution, under which not only the manufacturer's serial number, but also the name of the manufacturer would have been used as registration and searching criteria (and not merely as (mandatory) additional information). Ultimately, this alternative did not garner

⁸ The Convention (Article 20) requires the debtor to provide a consent in writing to the registration. While this approach has not been modified in the preliminary draft MAC Protocol, the manner in which consent must be given will be addressed in the future MAC Protocol Regulations. If the Regulations under the future MAC Protocol follow the approach of the Regulations under the existing Protocols (the Regulations and Procedures for the International Registry under the Aircraft Protocol and the draft Rail and Space Regulations), the debtor will have to confirm a registration after having previously undergone a process of registration as a user of the International Registry. While the debtor is expected to consent to a registration which, at the time of providing the consent, should precisely identify that debtor, there is the possibility for this information to cease to be precise, such as when an object subject to the international interest is transferred after its registration or the name of the debtor is changed only after the debtor was registered as a user.

sufficient widespread support. The reasons arguing in favour and against this alternative can be summarised as follows:

30. The requirement of an exact indication of the asset's serial number and of the correct name of the manufacturer by the registering person under this drafting alternative would resemble the original model of the Aircraft Protocol (Articles VII and XX (1)) and no amendment of the present draft text of the MAC Protocol would be necessary. This drafting alternative can therefore with some justification be regarded as a conventional model under the Cape Town Convention system. This drafting alternative could therefore be favoured with the objective of ensuring legal simplicity and consistency with the Aircraft Protocol approach.

31. However, this drafting alternative would bring with it considerable risks for users of the International Register, since it relies on an exact indication of both the serial number and the correct name of the manufacturer by the registering person when making the registration (and subsequently by interested parties when conducting a search of the register). When an incorrect manufacturer's name is entered as part of the criteria for registration (and searching), a registration is not retrievable by a search that uses the correct name (and vice versa). Registering persons would therefore have to bear the risk that their registration is ineffective because of trivial errors, such as the use of an outdated or incorrect manufacturer's name. Interested parties searching the International Registry would have to deal with the risk that their searches do not yield any results because the search was made against a different spelling or other version of the manufacturer's name that is not identical to the version used in the registration.

32. To some extent, the situation of the users of the International Registry could be ameliorated by the use of drop-down menus (or similar mechanisms) by the International Registry, which allow the name of the manufacturer to be chosen from the list of names included in the menu. However, organising such a list would require considerable effort on the part of the Registrar by keeping track of manufacturers worldwide due to the large number of manufacturers of MAC equipment (see para. 19 above). Therefore, it would be rather difficult for the Registrar to replicate the drop-down menu solutions applied for the Aircraft Register. As the responsibility for the correctness of the name of the manufacturer to be indicated in the registration will remain with the registering person, the registering person would need to have the option of adding a name not contained in the drop-down menu (for example, if the drop-down menu only contains the name "Manufacturer1 Holding Ltd." and the registering person - possibly correctly - assumes that the actual producer was the local subsidiary "Manufacturer1 AG"). Furthermore, the registering person would need to have the possibility to enter a name differently if it believes that the drop-down list does not state the name accurately. If, however, there must be such a possibility for the registering person to enter the name of the manufacturer as free text (similarly for interested parties searching the register), then the risk cannot be avoided that the registering person (or an interested party searching the register) uses an incorrect name of the manufacturer.

33. Additionally, it has to be considered that consultations with the industry have shown that there is not even a guarantee that the use of the manufacturer's serial number together with the name of the manufacturer always ensures that there is a unique identification on a MAC asset: As stated above, manufacturers may allocate identical serial numbers to several assets of different types. E.g., Manufacturer1 might have produced a bulldozer with the serial number "MAN001" as well as a front-end shovel loader with the same serial number "MAN001". In this case, the use of the serial number "MAN001" together with the name of the manufacturer would not be sufficient for the unique identification of a specific asset in the International Registry.

E. Reasons for rejecting the remaining drafting alternatives (B, D and E)

34. The other drafting alternatives considered in the discussions of the IWGRC (see above para. 13), did not find any substantive support within the IWGRC and therefore it suffices here to briefly state the reasons why these alternatives were to be rejected.

35. Under Alternative B, it was suggested that the International Registry should be organised on the basis of the serial number plus standardised manufacturers' names as criteria for registration and searching, the names being selected by the registering person from a list of standardised names managed by the Registrar. From the point of view of the practical operation of the International Registry, this would be the most convenient and error-proof solution for the International Registry's users, since it would reduce the risk of an inadvertent error in the indication of the manufacturer's name by the registering person. However, the workload of the Registrar would be considerably higher under this alternative. Ultimately, this drafting proposal did not find support within the IWGRC because it would overstretch the capacities of the Registrar. Moreover, under this approach the ability of the International Registry to proactively keep an updated list of names would have effectively determined whether an international interest is even registrable, which would be very problematic.

36. Drafting Alternative D suggested that the International Registry should be organised on the basis of the use of the serial number as primary method of identification and search criterion, whereas the manufacturer's name was to be used as secondary method of identification and search criterion that becomes relevant only when the need arises to distinguish between several registrations identifying the same serial number. This approach was rejected already in the IWGRC's initial discussion paper mainly for two reasons: Firstly, it was thought that it would be subject to the same concerns as other alternatives regarding a possibly misleading indication of the manufacturer's name. Secondly, while there appears to be merit in using the serial number as the more prominent criterion, it is less obvious that it should be the name of the manufacturer, which is to be used as the secondary criterion whenever there are - which will be rare in any case - several registrations using the same serial number. The brand name of the MAC object or the name of the debtor might be at least equally reasonable choices and this flexibility is provided for under the drafting alternative recommended by the IWGRC (Alternative C), where the serial number is the sole registration criterion laid down in the Protocol itself, whereas the content of the additional information that goes into the search certificate and that can be used to distinguish between several registrations using the same serial number is to be determined under the future Regulations.

37. Drafting Alternative E suggested following the model of Articles XXX and XXXII (2) of the Space Protocol in deferring the whole issue of registration and search criteria to the Regulations. While this solution provides a maximum of flexibility there has been longstanding general agreement that under the MAC Protocol the manufacturer's serial number should be among the required criteria. Therefore, there should not - as under the Space Protocol - be a complete deferral of this matter to the Regulations, which would not reflect the existing broad agreement that the registering person must always indicate the precise serial number of the object concerned. Further, having the Protocol explicitly require manufacturers' serial numbers ensures that low-value unserialised commodities that may exceptionally fall under the HS codes listed in the future MAC Protocol would not be registrable.

IV. EXPLANATORY COMMENTARY ON THE DRAFTING RECOMMENDATION OF THE IWGRC CONCERNING ARTICLES XVI AND XVII (1)

38. **Operation of the registration procedure under Article XVI.** Under the drafting recommendation of the IWGRC concerning Articles XVI and XVII (1) (see para. 10 above), the registration of an international interest requires the registering person to indicate the manufacturer's

serial number of the asset and any other (mandatory) additional information that is required for the unique identification of the asset (see Article XVI sentence 1).

39. **Effectiveness of registration.** The registration is effective (if made with the consent of the other party, see Article 20 Cape Town Convention, and upon entry of the required information into the International Registry data base so as to be searchable, see Article 19 (2) Cape Town Convention) if it contains the manufacturer's serial number of the asset concerned and any other (mandatory) additional information that is required for the unique identification of the asset according to the Regulations. The registration is effective only in relation to a MAC object with the manufacturer's serial number as indicated by the registering person. Trivial errors in the additional information do not affect the effectiveness of the registration (for exceptional cases where the content of the registered information is seriously misleading, see below paras. 51 ss.)

40. **Manufacturer's serial number.** The manufacturer's serial number is the single indexing and searching criterion for registrations under the IWGRC's drafting recommendation and therefore an exact indication of the serial number by the registering person is required.

41. The manufacturer's serial number is the serial number that is allocated to the asset by its manufacturer. These serial numbers are used by manufacturers to identify specific particular pieces of equipment made by the manufacturer, not just a class of products made by the same manufacturer – however, it is not necessarily apparent from the serial number alone whether the asset concerned falls within a specific HS code. Manufacturers may use different formats regarding these serial numbers, for example whether or not the serial number includes an abbreviated form of the manufacturer's name, or as regards the length of the serial number. It appears that there is a worldwide practice to use only Arabic numerals and Latin characters in serial numbers.

42. Article XVI sentence 2 of the IWGRC's drafting recommendation provides that the format of the manufacturer's serial number that is to be used for registration purposes shall be specified in the future Regulations.⁹ This could, for example, allow the introduction of a maximum length limit: in some legal systems that use serial number indexing for the registration of proprietary security rights in movables, only the last twenty-five characters of the serial number are used. Another possibility could be to provide that the asset's ISO-compatible Product Identification Number (PIN), if available, is to be used as the manufacturer's serial number for purposes of registration. The ISO-compatible PIN is a standardised identification code consisting of 17 alphanumeric characters assigned to a complete machine by the manufacturer for identification purposes. The PIN includes a reference to the manufacturer's name (world manufacturer code; the first three letters of the PIN), a reference to the model designation (machine descriptor section) and a serial number allocated to the specific piece of equipment (machine indicator section). The use of the ISO-compatible PIN would recommend itself as a reliable method for the unique identification of MAC equipment – however, this would require that it can be assumed that such ISO-compatible PINs have been allocated to all MAC objects.

43. Some components of equipment may have more than one serial number (for example a drive unit, a chassis number, an integral but interchangeable accessory, etc.) – in such cases, an international interest under the MAC Protocol in general covers the whole asset, not several individual security rights over parts. Therefore, even if some components of the MAC equipment have separate serial numbers, it will only be the serial number of the main asset that is decisive for registration purposes.

44. **Additional information required to ensure uniqueness.** In addition to the manufacturer's serial number, the registering person has to indicate such additional information as

⁹ See also the decision taken in the first session of the CGE to allow the manufacturer-related identification criteria to be adjusted by Regulations, Doc. [UNIDROIT 2017 – Study 72K – CGE1 – Report](#), para. 83.

is required in accordance with the Regulations to ensure uniqueness of the description of agricultural, construction or mining equipment for registration purposes. This (mandatory) additional information is not in itself an indexing or searching criterion, but it is presented in the search certificate that is issued by the Registrar under Article 22 (2)(a) of the Convention in respect of each search result, stating all registered information relating thereto.

45. The IWGRC has discussed a number of items of additional information that could be used in addition to the serial number in order to ensure uniqueness of the description of the MAC asset, including the brand name of the manufacturer, commonly used manufacturer names for the object, the Legal Entity Identifier of the manufacturer, the HS Code, a photograph of the object or of an identical object, the year of manufacture (if known) and the country of manufacturer (if known). It is to be noted that a careful choice of these items of additional information could serve also the transparency function of the International Registry by assisting users that are not experts in particular markets for MAC equipment in finding out what kind of asset is covered by a particular registration. One item of additional information that was thought to be particularly useful in this regard - possibly together with other types of information - is the brand name under which the MAC asset is sold, which may be different from the actual name of the manufacturer company.

46. At the same time, the general view was that making a registration should be a simple process, which argues against too many informational requirements. For examples, photographs of the specific asset might be burdensome to obtain – and the appearance of the object might in any case change over time. Generally, such items of information should be chosen that do not change over the lifetime of a MAC equipment (unlike, for example, the location of the asset). It should also be kept in mind that the type of information that might usefully be required as additional information could change over time, for example as regards the Legal Entity Identifier of the manufacturer, which as of yet cannot be assumed to be widely available for manufacturers worldwide. Therefore, the prevailing view within the IWGRC was that there is an agreement that it could be possible to come up with a selection of items of additional information that would allow the unique identification of the MAC asset without being too burdensome on the registering party, but that the precise determination of the catalogue of the information required as additional information should be deferred to the Regulations.

47. It could be that model designations or manufacturers' names that under the future Regulations might form part of the additional information in their original format are written in characters of different scripts (Chinese hanzi, Japanese kanji, Latin or Cyrillic alphabets etc.). Whether or not the International Registry should require a transcription is an issue that can be left for the future Regulations.

48. **Drop-down menus and other types of assistance in entering additional information required for the registration:** If the name of the manufacturer (or at least the brand name) should form part of the additional information to be required for the registration under the Regulations, then the International Registry may assist the registration process by providing for a possibility for the registering party to choose a name from a drop-down menu. However, since it would be too burdensome for the Registry to manage a comprehensive and conclusive updated list of all manufacturers' names worldwide, this menu would still have to allow the option for the registering party to enter the name as free text. Trivial errors in the indication of this additional information would not affect the effectiveness of the registration.

49. **Operation of the searching procedure under Article XVII (1).** Under the drafting recommendation of the IWGRC concerning Article XVII (1) (see para. 10 above), searches of the International Registry can only be made against a manufacturer's serial number as the single

searching criterion.¹⁰ A search of the International Registry will retrieve all registrations that are indexed according to this serial number.

Example 1: Creditor A has registered an international interest over a bulldozer by Manufacturer1 with the serial number "MAN001" and another international interest over a front-end shovel loader by Manufacturer2 with the serial number "MAN001". Creditor B has registered a second-ranking international interest over the bulldozer by Manufacturer1 with the serial number "MAN001". A search of the International Registry against the serial number "MAN001" will retrieve all three registrations as search results.

50. Article XVII (1) does not refer to the additional information that is required under Article XVI in conjunction with the Regulations: these categories of additional information cannot be used as searching criteria. Instead, after a search of the International Registry has been made against a manufacturer's serial number, the registered additional information is presented in the search certificates that are issued by the Registrar under Article 22 (2)(a) of the Convention in respect of each search result. These search certificates state all registered information relating to the respective search result. The additional information that is presented in the search certificates can be used by searching persons to determine whether the respective registrations refer to the specific assets in which these persons are interested.

Example 2: Same facts as above in example 1. If C is interested in the front-end shovel loader by Manufacturer2 with the serial number "MAN001", his search of the International Registry against the serial number "MAN001" will retrieve three results, but C will be able to determine on the basis of the additional information that is presented in the respective search certificates that only one of these registrations refers to the front-end shovel loader in which C is interested.

51. **Errors and inaccuracies in the registered information.** It is a general feature of the Cape Town Convention system that the parties are not required to file the full documentation of the secured transaction and that the Registrar does not scrutinise whether an international interest has actually been created in the asset indicated in the registration (cf. Article 18 (2)). This is generally referred to as the "notice filing" approach. The accuracy of the registered information is checked only by the registering person and its counterparty. Therefore, errors and inaccuracies in the registered information are possible. To some extent, this risk is reduced by the requirement that a registration can be made only with the consent of the other party. It can then be assumed that this party will consent only to registrations whose content is accurate. Moreover, parties will in their own commercial interests generally seek to ensure that the registered information is correct, but there is always a risk of inadvertent inaccuracies or mix-ups. Concerning the legal effects of such errors and inaccuracies in the registered information, a distinction is to be made between errors in the indication of the manufacturer's serial number (as the sole registration and searching criterion under the IWGRC's drafting recommendation) and errors in the additional information.

52. If there is an error in the registered serial number, this will generally have the consequence that the registration cannot be found by a search of the International Registry that uses the correct serial number of the asset concerned. Interested parties searching the International Registry are therefore entitled to assume that this asset is not subject to a registered international interest. A registration can be effective only in relation to a MAC object with the manufacturer's serial number as indicated by the registering person and therefore any error in the indication of the manufacturer's serial number invalidates the registration.

¹⁰ The search criterion under Article XVII that determines the validity of the registration will be the criterion used to conduct a priority search (see, for instance, Regulation 7.2 of the Regulations and Procedures for the International Registry under the Aircraft Protocol). The future International Registry under the MAC Protocol may also provide a facility to allow informational searches against other criteria (e.g., name of the manufacturer), the results of which, however, will not determine whether the registration is (in)valid.

Example 3: *Creditor A wants to register an international interest over a bulldozer by Manufacturer1 with the serial number "MAN001" and another international interest over a front-end shovel loader by Manufacturer2 with the serial number "MAN101". Creditor A mixes up the serial numbers and registers both international interests using the same serial number "MAN101". If C, who is interested in the bulldozer, conducts a search of the International Registry using the serial number "MAN001", this search will not yield any results, even if the additional information entered by A when registering his international interest over the bulldozer would have allowed its identification. The registration of A's international interest over the bulldozer is ineffective because of the error in the indication of this asset's serial number.*

53. The consequences of errors and inaccuracies in the (mandatory) additional information are less severe: Generally, interested parties will have first conducted a search of the International Registry against the serial number of the asset in which they are interested. If this search then retrieves one or several results, interested parties are already put on notice concerning the possible existence of a registered international interest in the asset. Even if there are slight or trivial errors in the additional information, this should generally not lead interested parties to the belief that these registrations actually refer to other assets with the same serial number. Interested parties can be expected to undergo due diligence and to request more information from the debtor or from the persons in whose favour the existing registrations were made. It would be useful for the International Registry to provide for a means of communication to and from registering parties in order to enable such due diligence research when queries arise. It is to be expected that commercial pressure would encourage parties to ask and to answer to such queries, but the IWGRC does not suggest that this should be more than an option to be offered by the International Registry and the MAC Protocol should not provide for a duty to answer such requests.

54. In extreme cases, where an error in the additional information is seriously erroneous so as to be likely to mislead, interested parties may, even though a registration has been made against the correct serial number, assume on the basis of the additional information that the registration in fact refers to a different asset with the same serial number.

Example 4: *Creditor A wants to register an international interest over a bulldozer by "Manufacturer1" with the serial number "MAN001". When A fills out the registration form, the serial number is indicated correctly, but there is a typo in the name of the bulldozer's manufacturer (assuming that the Regulations will provide that this is part of the (mandatory) additional information under Article XVI): the registered information states the name of the bulldozer's manufacturer as "Maufactunurer1". This is a trivial error and it is highly unlikely that an interested party searching the International Registry may be seriously misled into thinking that this registration refers to another asset with the same number, but produced by a manufacturer with the name "Maufactunurer1".*

Example 5: *Creditor A holds a registered international interest over a bulldozer by "Manufacturer1" with the serial number "MAN001" that is owned by debtor B. The credit secured by this interest is paid back by debtor B and the bulldozer is to be sold by B to C free of the international interest. Creditor A wants to discharge the registration that refers to the bulldozer and to register a new international interest over a front-end shovel loader by "Manufacturer2" with the serial number "MAN002" that is also owned by debtor B. A discharges the old registration, but mixes up the registration information concerning the new registration which refers to the correct serial number "MAN002", but incorrectly identifies the encumbered asset as a bulldozer by "Manufacturer1" (instead of a front-end shovel loader by "Manufacturer2"). In such a case, an interested party searching the International Registry for the serial number "MAN002", i.e. the serial number of the front-end shovel loader, would find the registration made by A against this serial number, but the third party could be regarded as being seriously misled by the additional information into thinking that the*

registration made by A was actually intended to refer to a bulldozer by "Manufacturer1" that happens to have the same serial number.

55. In many jurisdictions whose systems of registration for proprietary security in movables are operated as "notice filing" systems (cf. para. 51), a "seriously misleading" criterion is applied to determine the legal effects of such errors or inaccuracies in the registered information. In the discussions of the IWGRC, the following principles concerning the application of the "seriously misleading" criterion under national law have been considered:

- A registration under a serial number-indexed system of registration is invalid if a search by serial number does not disclose the registration.
- Otherwise, the validity of a registration is not affected by any defect, irregularity, omission or error unless it is seriously misleading.

56. The purpose of the "seriously misleading" criterion under national law is to provide guidance to courts as to the validity or invalidity of a registration when the registering party fails to comply with the registration requirements. The test creates greater certainty for the registering party because, in its absence, a court might take a different view as to non-compliance with the registration requirements. For example, a court might hold that any non-compliance with the registration requirements invalidates a registration. The application of the "seriously misleading" criterion can therefore be understood as a legal method protecting registrations from possibly being regarded as invalid by the courts due to trivial or non-material errors (while at the same time protecting third parties against actually misleading registrations).

57. The text of the Cape Town Convention and of the other Protocols and Regulations thereto does not refer to the use of the "seriously misleading" criterion. However, this criterion is referred to in the Official Commentaries and the seriously misleading criterion is therefore to be regarded as inherent to the Cape Town Convention system, even if it has only a very diminished role, if at all, under the existing Protocols. Cf. the following extracts from the text of the Official Commentary on the Convention on International Interests in Mobile Equipment and the Protocol thereto on Matters specific to Aircraft Equipment, 3rd ed. (2013), paras. 2.130/2.131 and 3.64:

"2.130. Registration of data is no guarantee either that the data are correct or that the registration was validly made. Article 19 plainly recognises that a registration may be invalid, in the sense that though it exists it has no effect under the Convention. Article 19(1) provides for one particular ground of invalidity, namely lack of the consent required by Article 20. Other grounds are that the factual conditions needed to support a valid registration were not satisfied or that data entered in the International Registry were seriously erroneous so as to be likely to mislead (see paragraph 2.131) [...]

2.131. There is always the prospect of errors in the data placed in the International Registry. The Registrar is responsible for compensatory damages for loss suffered by a person directly resulting from an error or omission of the Registrar and its officers or employees or, in general, from a malfunction of the international registration system (see paragraphs 2.153, 4.178) but not for recording erroneous data in the form in which they were received. Since the system is asset-based, an error in stating the name of the debtor is unlikely to have the same misleading effects as it would in a debtor-based registration system. An error in the stated identification criteria of the object itself could have more serious effects, though in the case of the International Registry for aircraft objects this is substantially reduced by the use of data supplied to the International Registry direct by the aircraft manufacturers (see paragraph 3.63). Whether an error invalidates a registration would seem to depend on its gravity and the extent to which it is likely that a person acting in reliance on the erroneous data would be reasonably misled.

3.64. [...] If the inaccuracy in the registered particulars is one that could mislead a searcher this might result in a court declaring that the registration is invalid, though ultimately only the Irish High Court has jurisdiction to order the Registrar to discharge it. [...] Where there is a dispute and the misdescription is so serious that it does not enable the object to be identified then the interest is not validly constituted as an international interest (see Article 7 (c)). In such a case a court might be asked to order rectification of the agreement and for that purpose to allow extrinsic evidence to show the true identity of the subject-matter of the agreement. This, of course, depends on the procedural law of the forum.”

58. Under the MAC Protocol, the “seriously misleading” criterion could arguably become more relevant than under the previous Protocols. Parties involved in transactions concerning MAC equipment might have less prior expertise in dealing with a system of publicity by registration; the value of individual MAC objects might sometimes be lower and therefore parties could sometimes seek to save time and effort that would otherwise be spent on carefully complying with registration requirements. Moreover, due to the much greater number of manufacturers and types of registrable MAC equipment, it will be less feasible for the Registrar to obtain the necessary data directly from the manufacturers (as in the case under the Aircraft Protocol). All of this could be regarded as possibly contributing to a greater risk of errors and inaccuracies in the registered information.

59. Still, it will be rather rare that such errors and inaccuracies can actually be regarded as seriously misleading. In the view of the IWGRC, there is therefore no need to deviate from the general approach of the previous Protocols in this regard. It does not appear to be necessary to spell out the effects of the “seriously misleading” criterion in the Protocol or, on the basis of some authority conferred by the Protocol, in the Regulations. Instead, it was regarded by the IWGRC as sufficient to follow the examples of the previous Protocols to cover the issue of the “seriously misleading” criterion in the Official Commentary only.

60. However, given the fact that errors and inaccuracies in the registered information might occur somewhat more often in the MAC context, it would be useful for the Official Commentary to provide some additional MAC Protocol-specific guidance here. More detailed guidelines in the Official Commentary as regards the application of the “seriously misleading” criterion could contribute to legal certainty, while in the absence of such guidelines local courts in different jurisdictions might apply divergent standards.

61. In the view of the IWGRC, the “seriously misleading” criterion should be applied only to the (mandatory) additional information, whereas errors in the indication of the serial number should in general always invalidate the registration. It was also felt that strict standards for the application of the “seriously misleading” criterion would be especially useful, protecting the registering party against the loss of its security due to an inadvertent trivial error in the indication of the additional registration information. The “seriously misleading” criterion should, for example, not allow insolvency administrators to challenge the validity of security interests in the local courts by pointing to some trivial incorrect information in the registration. It should be noted that under the way the registration process works under the Regulations for the existing Protocols, the debtor can be expected to be reliably identified at the time of registration (see above para. 28): if there should be ambiguities in the content of the registered additional information, an interested person can usually be expected to be able to turn to the debtor to ask him for clarification.

62. It was also thought that the “seriously misleading” criterion works best as an objective test that does not depend on actual reliance or knowledge on the part of the searching party or on whether the error was intentional or due to inadvertence or negligence on the part of the registering person. When formulating these guidelines for the application of the “seriously misleading” criterion, it might also be useful to distinguish between different categories of information that might be required as additional information under the Regulations, allowing, for example, for more flexibility in items of

information such as a model designation, which could vary in different languages or in different markets.

63. Finally, it could also be helpful to point out that the application of the “seriously misleading” criterion does not affect rules of national law on fraudulent transactions: i.e., in cases where the registering party actually mis-stated the content of the additional information in order to defraud other creditors, the courts can hold the registering party liable for such transactions under national law (see also Article 30 (3) of the Convention on the preservation of the application of insolvency rules dealing with fraudulent transfers). In the absence of actual fraud, however, the effects of errors and inaccuracies in the registered information should be conclusively dealt with under the application of the “seriously misleading” criterion as described above.

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ANNEX I**LIST OF PARTICIPANTS OF THE
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