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**Datasheet for the decision
of 6 November 2015**

Case Number: T 1956/13 - 3.2.01

Application Number: 07861281.9

Publication Number: 2032434

IPC: B64C9/22

Language of the proceedings: EN

Title of invention:

LINK MECHANISMS FOR GAPPED RIGID KRUEGER FLAPS, AND ASSOCIATED SYSTEMS AND METHODS

Patent Proprietor:

The Boeing Company

Opponents:

Airbus Operations SAS/ Airbus Operations Limited/
Airbus Operations GmbH/ Airbus Operations S.L./
Airbus SAS

Headword:

Relevant legal provisions:

EPC 1973 Art. 54(2), 56

Keyword:

Novelty - (yes)
Inventive step - (yes)

Decisions cited:

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

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Case Number: T 1956/13 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 6 November 2015

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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 11 July 2013
rejecting the opposition filed against European
patent No. 2032434 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chairman G. Pricolo
Members: Y. Lemblé
O. Loizou

Summary of Facts and Submissions

- I. The appeal of the Opponents is directed against the decision of the Opposition Division to reject the opposition against European patent No. 2 032 434.
- II. In its decision the Opposition Division held that the subject-matter of the patent as granted met the requirements of novelty and inventive step having regard to, *inter alia*, the following prior art documents:
- E1: EP-A-1 607 324 including an enlargement (document E2) of Figure 3A of E1 with additional reference signs;
 - E3: US-A-3 941 334;
 - E4: "High Lift Systems of Commercial Subsonic Airliners", Peter K.C. Rudolph, September 1996, cover and pages 43, 45-48, 54 and 55;
 - E5: "Airframe Structural Design", Michael Chun-Yung Niu, December 1991, cover, table of contents and pages 329-332;
 - E6: US-A-3 504 870;
 - E7: US-A-4 262 868;
 - E8: US-A-3 910 530;
 - E9: US-A-4 159 089;
 - E10: US-A-6 375 126.
- III. In the oral proceedings held on 6 November 2015 the Appellants requested that the decision under appeal be set aside and that the patent be revoked. The Respondent (Patent Proprietor) requested the dismissal of the appeal.
- IV. Independent claims 1 and 7 as granted read as follows (delimitation of features proposed by the Board):

- [M1-01] An aircraft system, comprising:
- [M1-02] a deployable leading edge assembly (120) that includes:
- [M1-03] a deployable leading edge panel (121) having a generally fixed-shape flow surface;
- [M1-04] a bullnose (123) pivotably coupled to the leading edge panel (121);
- [M1-05] a link mechanism (130) coupled to the leading edge panel (121) and the bullnose (123) at a wing span location to move the leading edge panel (121) between a stowed position and a deployed position, the link mechanism (130) having:
- [M1-06] a first support link (131) pivotably coupleable to an airfoil (110);
- [M1-07] a second support link (132) pivotably coupleable to the airfoil (110) and spaced apart from the first support link (131);
- [M1-08] a first positioning link (133) pivotably connected to the first support link (131), the second support link (132) and the leading edge panel (121);
- [M1-09] a second positioning link (134) pivotably connected to the first support link (131), the leading edge panel (121) and a third positioning link (135);
- [M1-10] the third positioning link (135) pivotably connected between the second positioning link (134) and the bullnose (123);
- [M1-11] wherein the leading edge panel (121) is configured to form a gap with the airfoil (110) when in the deployed position,
- [M1-12] and wherein the positioning links are the only positioning links coupled between the support links, the leading edge panel (121) and the bullnose (123) at the wing span location.

- [M7-01] A method for operating an aircraft wing system, comprising:
- [M7-02] deploying a leading edge panel (121) and a bullnose (123) relative to an airfoil (110) by:
- [M7-03] rotating a first support link (131) pivotably coupled to the airfoil (110) at a wing span location;
- [M7-04] rotating a second support link (132) pivotably coupled to the airfoil (110) and positioned aft of the first support link (131);
- [M7-05] rotating a first positioning link (133) pivotably connected to the first support link (131), the second support link (132) and the leading edge panel (121);
- [M7-06] a second positioning link (134) pivotably connected to the first support link (131), the leading edge panel (121) and a third positioning link (135); [M7-07] the third positioning link (135) pivotably connected between the second positioning link (134) and the bullnose (123);
- [M7-08] wherein the positioning links are the only positioning links coupled between support links, the leading edge panel (121) and the bullnose (123) at the wing span location;
- [M7-09] forming a gap between the airfoil (110) and a generally fixed-shape streamwise flow surface of the leading edge panel (121); and
- [M7-10] rotating the bullnose (123) relative to the leading edge panel (121).

V. The Appellants' submission may be summarised as follows:

The subject-matter of claim 1 lacked novelty over the content of document E1 or of document E3. Document E1 showed in Figure 3A an aircraft system which was - as

could immediately be seen by a simple comparison - essentially identical to the aircraft system shown in Figure 7 of E3.

More specifically, E3 disclosed an aircraft system in the form of a leading edge flap assembly (feature M1-01), having a leading edge flap selectively movable between a stowed (see Figures 5 and 6) and an extended (see Figure 7) positions (feature M1-02). The leading edge flap comprised a flap panel 110 and a folding bullnose 111 pivotably coupled to the flap panel 110 (feature M1-04). The movement and positioning of the leading edge panel 110 between the various positions was effected by an actuating linkage (see column 11, lines 33 to 35), which was coupled to the panel 110 and the bullnose 111 (feature M1-05). As can be taken from Figure 7 and the associated description in column 11, lines 35 to 66, the actuating linkage comprised a first support link 112 pivotably coupled to the wing (feature M1-06), and a second support link 115 spaced from the first support link 112 in the aft direction and likewise pivotably coupled to the wing (feature M1-07). According to column 11, lines 41 to 47, a link 118 was pivotably connected to the first support link 112, the second support link 115 and the flap panel 110. It could be taken from a comparison of Figures 5 and 7 that this link 118 was operable for moving and positioning the flap panel 110 and, therefore, constituted a first positioning link (feature M1-08). According to column 11, lines 49 to 61, a further link 123 was pivotably coupled to the first support link 112 and to the flap panel 110 via the structural panel support element 122 and via the structural panel support element 128. This link 123 was likewise operable for moving and positioning the flap panel 110 and, therefore, constituted a second positioning link (feature M1-09). According to column 11, lines 63 to

68, a link 133 was pivotably connected between the second positioning link 123 and the bullnose 111 and was operable to rotate the bullnose 111 between a folded configuration (Figure 5) and an extended configuration (Figure 7). Thus, this link 133 constituted a third positioning link (feature M1-10). As shown in Figure 7, in the deployed position a gap was present between the flap panel 110 and the wing (feature M1-11). The additional links or structural elements (such as the elements 122 and 128) were identical to those shown in E1. Thus, exactly as in the case of E1, it could be taken immediately from Figures 5 and 7 of E3 that the additional links or structural elements did not participate in positioning the flap panel 110, but merely supported the panel 110 at three spaced locations in order to provide and maintain a stable shape of the flow surface thereof. The additional links or structural elements corresponded in effect to the support links or elements 122 of the embodiment shown in Figures 1 to 4 of the opposed patent and formed an essentially triangular support structure having a generally fixed shape (feature M1-03). Consequently, the Opposition Division correctly concluded in sections 3.1.2 and 3.2 of the contested decision that the additional links or structural elements do not constitute positioning links, so that feature M1-12 was also fulfilled.

Besides, feature M1-03 of claim 1 did not even require the leading edge panel or its flow surface to be rigid, and the term "fixed-shape" could be interpreted as only meaning that in each of its positions the shape of the flow surface must be fixed or stable, which is necessarily the case for the flow surface of the flap panel 110 of E3 or the panel 222 of E1.

Consequently, contrary to the view taken by the Opposition Division, prior art document E1 or prior art

document E3 each disclosed an aircraft system having all features of claim 1 of the opposed patent. As explained above, the features of claim 7 essentially corresponded to the features of claim 1, so that the same conclusion applied to claim 7.

Contrary to the view taken by the Opposition Division in section 4 of the contested decision, the subject-matter of claims 1 and 7 of the opposed patent lacked an inventive step in view of each of prior art references E1, E3, E4, E5, E6, E7, E9 and E10, even if one would incorrectly assume that these documents did not disclose a generally fixed-shape flow surface of the corresponding leading edge panels.

When considering prior art reference E1 as closest prior art and assuming that the conclusion of the Opposition Division with respect to the fixed-shape flow surface was correct, the subject-matter of claim 1 only differed from the disclosure of E1 in that the panel with the flow surface 222, 382 was rigid, i.e. had a fixed shape which did not vary between the various positions of the leading edge device. The technical effect of this difference was that the coupling between the panel and the airfoil was further simplified because no elements operable for changing the shape of the flow surface had to be provided. Thus, starting from prior art reference E1 the objective technical problem resided in further simplifying the linking mechanism.

First of all, the skilled person would have immediately understood that when seeking to simplify the linkage 230 he could - when not wishing to make use of the variable camber option - dispense with any movable elements responsible for implementing a variable

cambering mechanism, thereby arriving at a rigid or fixed-shape Krueger flap panel. This was particularly the case because E1 indicated itself in column 4, lines 1 to 3 that a generally flat and thus rigid flow surface 222 may be used. Due to the fact that this statement was made in connection with the specific embodiments of Figures 2A to 2D and 3A to 3B having the particular arrangement of two support links and three positioning links and that the arrangement was explicitly considered to be advantageous for positioning the leading edge device (see paragraphs [0022] and [0023] of E1), the skilled person would not have deviated from this link arrangement or linkage, so that the view expressed by the Opposition Division in section 4.1.2.1 of the reasons for the contested decision was incorrect. Taking into consideration that the link arrangement was disclosed in E1 independently from any variable cambering aspect, the skilled person would have recognized that it was possible to couple the linkage 230 to a rigid support structure of a rigid panel at the pivot points 232d' and 346a', wherein the rigid support structure replaced the elements 343, 340' and 347' (see E2). Consequently, he would necessarily also dispense with the second pivotable coupling location 232c' for the first positioning link 232 and replace them with a corresponding rigid support structure, while only keeping the two support links 231 and 218' and the three positioning links 232, 342, 344'. For this reason, the considerations made by the Opposition Division in section 4.1.2.2 of the contested decision were incorrect: no superfluous elements (links 343, 340', 347') remained, since they were integrated into this corresponding rigid support structure. Already for these reasons, the subject-matter of claims 1 and 7 was rendered obvious by E1 alone.

Additionally, paragraphs [0028] of E1 taught that it was advantageous to replace existing leading edge flap arrangements with the arrangement shown in Figures 2A to 3B of E1 while possibly continuing to use the old flow surfaces (see column 8, lines 48 to 54).

Therefore, the skilled person would have used the teaching of E1 in a routine way together with various well-known leading edge Krueger flap arrangements. As already stated above, there were basically only two kinds of Krueger flaps, namely fixed Krueger flap or variable camber Krueger flaps (see page 329, right column and Figure 9.2.7 of E5). Thus, the skilled person would be motivated to retrofit the rigid Krueger flap of E5 with the linkage of E1. Seeking to obtain by retrofitting the advantages of E1 not provided by the rigid Krueger flap of E5, the skilled person would not use the allegedly more simple linkage of E5, so that the view expressed by the Opposition Division in sections 4.1.2.1 and 4.2.2 of the reasons for the contested decision was incorrect. Consequently, the subject-matter of claims 1 and 7 was rendered obvious by E1 in combination with E5 or, with identical reasoning, in combination with any of the other prior art references disclosing rigid flap arrangements.

Alternatively, when seeking to solve the above objective technical problem, the skilled person would have learned from document E8 that by using a partially rigid flap construction, the linkage could be simplified, especially that part of the linkage which actuated the flexible skin. As can be taken from Figures 1 and 2 and column 1, lines 4 to 21 and 55 to 64 of E8, this document disclosed a deployable leading edge flap apparatus with a leading edge flap surface which was formed by a rigid panel 34 and a flexible panel 38 located next to each other. Thus, starting

from E1 and taking into consideration the teaching of E8 that a simplification of the linkage could be achieved by using a partially rigid flap construction, the skilled person would have recognized that the advantageous linkage of E1 for positioning the flap panel could be readily combined with the flap panel configuration of E8. With these obvious adaptations of the flap arrangement of E8 to fit to the linkage of E1, the skilled person would arrive at the subject-matter of claims 1 and 7 of the opposed patent, because the leading edge panel 34, 38 comprised a generally fixed-shape flow surface, namely the surface of panel 34.

Additionally, it must be considered that the allegedly distinguishing feature of a generally fixed-shape flow surface had the technical effect of minimizing the amount of fatigue caused by flexing and minimize the tendency of changes in curvature due to aerodynamic loading. Thus, as an alternative to the objective problem discussed above when starting from E1, the skilled person would also have attempted to minimize fatigue due to aerodynamic loading and would have learned from column 6, lines 6 to 18 of E8 that the partially rigid flap construction of E8 solves this problem. For the same reasons as discussed above, the skilled person would have arrived at the subject-matter of claims 1 and 7 of the opposed patent when combining this teaching with that of E1.

Finally, document E5 disclosed, amongst others, a fixed Krueger flap. From Figure 9.2.7 it could be seen that the flap does not form a gap with the wing in the deployed position. Such gap is desirable during certain operating conditions (see paragraph [0003] of E1). Thus, the skilled person would have sought to provide the fixed Krueger flap arrangement of E5 with the

option of forming a gap and employed the linkage of E1 to deploy the flap of E5.

VI. The counter-arguments of the Respondent may be summarised as follows:

The Appellants erred when they considered that each of the cited prior art references E1, E3, E4, E5, E6, E7, E9 and E10 disclosed all of the features of claim 1 and claim 7. As demonstrated by the Opposition Division, at least feature M1-03 was not disclosed in these documents because they all referred to variable camber flap mechanisms.

The Appellants asserted that the passage of column 4, lines 1 to 3 of E1 ("a linkage coupled to a flow surface 222, which can be curved or generally flat") could only be understood to refer to alternatives for a rigid panel and not to a variable camber mechanism. There was nothing in E1 to support this assertion. Instead, if it was borne in mind that the technical field related to variable camber type flaps, then it naturally followed that the flow surface could be cambered between these two alternatives (curved or flat). Moreover, "flat" did not have the same meaning as "rigid".

The Appellants considered the term "fixed shape" to mean that in each of its positions the flow surface must have a fixed shape. This interpretation did not find any basis in the patent in suit.

The conclusion of the Opposition Division on the question of inventive step should be confirmed. Starting from the flap arrangement of document E1, the skilled person would not consider simplifying the linkage 230 by removing elements with the aim to obtain

a fixed-shape flow surface. E1 was principally directed to modifying a known linkage arrangement by the addition of second actuator 270 to allow more positions of the flap to be provided. There was no suggestion whatsoever of replacing the variable camber flow surface of E1 with a fixed shape flow surface while retaining the linkage arrangement of E1.

The large number of steps which would be required to arrive at the claimed leading edge assembly by combining the teaching of E8 (partially rigid flap) with that of E1 suggested that the skilled person would not have contemplated this combination and that an inventive activity was involved.

Reasons for the Decision

1. The appeal is admissible.
2. Novelty
 - 2.1 An important feature of the claimed aircraft system and method is that it refers to a deployable leading edge panel having a "a generally fixed shape flow surface" (see feature M1-03 of claim 1 and feature M7-09 of claim 7).
 - 2.2 The Appellants contested the conclusion of the Opposition Division that features M1-03 or M7-09 required the leading edge panel or its flow surface to be rigid. They first took the view that the term "fixed-shape" only meant that, in each of its end positions, the shape of the flow surface must be fixed or stable, which was necessarily the case for the flow surface of the flap panel of E1 or the flap panel 110 of E3.

In a further attempt to contest the novelty of these features, the Appellants argued that the expression "generally fixed shape" did not require for the panel to be completely rigid such that it might undergo some deformations. They further identified an "essentially triangular structure" of the variable camber panel of document E1 (or document E3) that underwent only slight deformations when deployed by positioning links as claimed such that this known panel fell under the terms of the claims.

2.3 The Board does not share these views and agrees with the general principle of interpretation as set out in T 190/99, according to which, when considering a claim, the skilled person should rule out interpretations which are illogical or which do not make sense. He should try, with synthetical propensity, i.e. building up rather than tearing down, to arrive at an interpretation of the claim which is technically sensible and takes into account the whole disclosure.

2.3.1 The first interpretation of the Appellants that feature M1-03 or M7-09 simply required that the shape of the flow surface must be stable in its extended or stowed position does not make sense, since it totally ignores the content of the present patent specification and especially the context in which the disputed feature is described (see point 2.3.2 below). Additionally, there is, to the knowledge of the Board, no flow surface having an unstable shape when in active position.

2.3.2 Also the second interpretation of the Appellants is contradictory to the whole content of the patent specification, especially paragraphs [0001], [0017] and [0027] and column 3, lines 5-8 which clearly indicate that the term "generally fixed shape flow

surface" is to be construed in contrast to variable camber flaps which make use of a variable camber flow surface and that "the present invention is directed generally to link mechanisms for gapped, **rigid** Krueger flaps and associated systems and method" (bold characters by the Board).

As well known by persons skilled in the art of aircraft design, a variable camber leading edge flap comprises a flexible flap panel which is deployable by a mechanical linkage which connects the flap to the wing of the aircraft. The variable camber flap is able to change its shape such that, when retracted, it lies flat against the bottom surface of the wing to offer aerodynamically optimal cruise conditions (low drag) and, when extended, it is bent to the desired curved shape due to a three points connection with the linkage, this curved shape offering optimal aerodynamic performances during take-off and landing (see documents E3, E4, E5 (Fig. 9.2.7), E6, E7, E8, E9 and E10).

In this respect, it is noted that, if a rigid panel as claimed (see feature M1-03) is to be positioned by "positioning links" which are each pivotably connected to that panel, only two pivot points are needed for the panel structure to be positioned and, in turn, for the shape of the flow surface of the panel to be determined. This principle clearly applies to the claimed deployable leading edge assembly (see column 5, lines 37-39 of the patent specification: "A panel support structure 122 can be positioned to support the streamwise surface 124 and maintain its shape") and to all embodiments of the deployable assembly disclosed in the patent specification. With more than two pivotal points, the position/shape of the panel would be statically overdeterminate: such an overdeterminate

system is sought in the case of variable camber flaps to control the deformation and, in turn, the variable flow shape of the panel. As is clearly shown in Fig. 2A, 2B and 3A of E1, there are more than two pivotal points connecting the leading edge panel 223a to the link mechanism 230. For the skilled person this indicates that the panel 223a is a variable camber flap, i.e. a flap in which the shape of the panel 223a is variable by deforming the panel, this deformation being controlled by the position of these three points.

2.3.3 In their argumentation, the Appellants arbitrarily select the links 340', 343, 345' and 346' (see E2) which they call "essentially triangular structure" (see letter dated 6 October 2015; page 3, two first paragraphs) and consider this structure to be a support structure of "generally fixed shape" for the flow surface.

There is, however, no basis in document E1 for splitting the linkage 230 of Fig. 2A, 2B and 3A of document E1 into a first group of links - which the Appellants consider to be the links cited in claim 1 - and a second group of of links (see Fig. 3A in E2 the support link 343 mentioned in E1 column 7, line 57, the short link 346' and the lug 345') - which they call the "essentially triangular structure". In so doing, the Appellants deliberately ignore that the skilled person would undoubtedly consider that all the linking elements shown in document E1 are parts of the "linkage 230". As demonstrated by the Opposition Division in point 3.1.1.2.2 of its decision, all the links of linkage 230 work in conjunction to deform the panel to a flattened shape in the retracted position and to a more curved shape in the deployed position and there is absolutely no indication or reason to make here a distinction between some particular links. The skilled

person will consider the "linkage 230" as a whole and recognise here the typical construction of a variable camber Krueger flap as it is well known from the other prior art documents E3, E4, E5 (Fig. 9.2.7), E6, E7, E8 and E9 cited by the Appellants. It is also the deformation of a variable camber Krueger flap which is meant by the passage of E1 cited by the Appellants column 4, lines 1-3: "The leading edge device 220 can include linkage 230 coupled to a flow surface 222, which can be curved or generally flat. The linkage 230 guides the motion of the flow surface 222 as the leading edge device 220 extends and retracts". Indeed, in a variable camber flap, the flow surface, guided by the linkage, is curved in the extended position and flat in the retracted position.

- 2.4 The Board does not share the view of the Opposition Division that, with the exception of feature M1-03, respectively feature M7-09, E1 discloses all the remaining features of claim 1 or respectively claim 7. There is, however, no need to justify this in detail, since one distinguishing feature suffices to meet the requirement of novelty.
- 2.5 The above reasoning also applies for the objection of lack of novelty based on the documents E3 to E10 cited by the Appellants, since all these documents only disclose flexible leading edge flaps or variable camber leading edge flaps which do not disclose a leading edge panel having a generally fixed-shape flow surface within the meaning of these claims (feature M1-03 of claim 1 or feature M7-09 of claim 7).

3. Inventive step

3.1 In their attempts to demonstrate a lack of inventive step, the Appellants, in a first line of argumentation, start from the variable shape deployable leading edge assembly of Fig. 2A to 2D of document E1 as the nearest prior art and argue that the skilled person, in order to solve the technical problem of simplifying the linkage known from E1, would consider giving up the aerodynamic advantages of a variable shape panel and return to a more simple construction with a fixed-shape leading edge panel. In so doing, the skilled person would recognise that the links 340', 343, 345', 346' (see E2) form an essentially triangular support structure which undergo only slight deformation when the panel is extended such that it would be obvious to convert this structure to a rigid panel structure connected to the wing by only two positioning links of the linkage 230, the third positioning link remaining connected to the bull nose.

3.2 The Board does not share this view.

Document E1 starts from a known Kruger flap linkage (see "Background") actuated by a first actuator for moving a leading edge assembly between a retracted position, in which the assembly is stowed to the bottom surface of the wing of the aircraft, and an extended position to create an extension of the leading edge of the wing. When the flap is in the extended position, it may be separated from the leading edge of the wing by a gap. Such a gapped configuration may be sought during the landing phase of the aircraft. There are, however, configurations in which such a gap is not desired (take-off phase). To this aim, E1 proposes a second actuator 270 coupled to at least one link of the

linkage for selectively moving the leading edge flap between a first extended position with the gap and a second extended position where the gap is closed.

There is absolutely no suggestion in E1 that would prompt the skilled person to modify the linkage 230 of E1 in the claimed way in order to achieve a fixed-shape panel structure. As explained above in connection with novelty, the linkage 230 of E1 is for a variable camber panel assembly: it is a statically overdeterminate linkage system specially designed for exerting high bending forces on the relatively strong flexible panel 222 which, on the other hand, has to withstand in operation relatively high aerodynamic loads. In the Board's view, it is only with the benefit of hindsight that the skilled person recognises that this linkage may be split as mentioned by the Appellants. The passages of E1 relating to retrofitting (paragraphs [0027] to [0029]) are to be understood in the context of the teaching of E1 (provision of a second actuator for selectively closing or opening the gap as mentioned above) and are not a suggestion to modify the leading edge panel assembly in the claimed way.

- 3.3 Starting from E1 as nearest prior art, the other combinations of documents presented by the Appellants (E1 with E3, E1 with E5 or E1 with E8) do not lead in an obvious way to the subject-matter of claim 1 or the method of claim 7.

Document E8 proposes a leading edge panel having a surface panel comprising a rigid portion 34 and a flexible portion 38. The rigid portion 34 is supported by a structural element connected to the wing 10 by a gooseneck link 40. The Board fails to see how the combination of a flap assembly comprising a flexible surface panel (E1) with a flap assembly comprising only

a partially rigid surface panel (E8) could lead to a flap assembly having an overall fixed-shape flow surface panel. There is no suggestion whatsoever of replacing the variable camber flow surface of E1 with a fixed shape flow surface while retaining only some particular elements of the linkage arrangement 230 of E1. Neither in document E5 (see Fig. 9.2.7: Fixed Kruger flap) nor in document E8 is there any hint for the skilled person to modify the linkage 230 of document E1 in the claimed way in order to obtain a leading edge panel having a fixed-shape flow surface.

3.4 Starting from document E5 (see Fig. 9.2.7: Fixed Kruger flap) as nearest prior art, it is totally obscure to the Board how the skilled person could have come to a fixed-shape panel assembly deployable by the link mechanism as defined in claim 1 when attempting to solve the problem of providing different gaps for different flight configurations. The Board fails also here to see why the skilled person would think of using a linkage conceived for deploying a variable camber leading edge flap, as shown in E1, for the actuation of a fixed Kruger flap.

3.5 The Board concludes that the subject-matter of claim 1 involves an inventive step. The same conclusion applies to claim 7 which in terms of method features - as acknowledged by the Appellants - reflects the inventive features of claim 1.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



A. Vottner

G. Pricolo

Decision electronically authenticated