

Internal distribution code:

- (A) [-] Publication in OJ
- (B) [-] To Chairmen and Members
- (C) [-] To Chairmen
- (D) [X] No distribution

**Datasheet for the decision
of 8 April 2025**

Case Number: T 2638/22 - 3.2.01

Application Number: 13167339.4

Publication Number: 2662287

IPC: B64G1/00, B64G1/40, B64G1/64

Language of the proceedings: EN

Title of invention:
Multiple space vehicle launch system

Patent Proprietor:
The Boeing Company

Opponent:
Thales

Headword:

Relevant legal provisions:
EPC Art. 83, 52(1), 54, 56

Keyword:
Sufficiency of disclosure - (yes)
Novelty - main request (yes)
Inventive step - main request (yes)

Decisions cited:

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0

Case Number: T 2638/22 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 8 April 2025

Appellant: Thales
(Opponent) Tour Carpe Diem
Place des Corolles, Esplanade Nord
92400 Courbevoie (FR)

Representative: Atout PI Laplace
Immeuble Up On
25 Boulevard Romain Rolland
CS 40072
75685 Paris Cedex 14 (FR)

Respondent: The Boeing Company
(Patent Proprietor) 929 Long Bridge Drive
Arlington, VA 22202 (US)

Representative: Boulton Wade Tennant LLP
Salisbury Square House
8 Salisbury Square
London EC4Y 8AP (GB)

Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted on 7 November 2022 rejecting the opposition filed against European patent No. 2662287 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman G. Pricolo
Members: V. Vinci
S. Fernández de Córdoba

Summary of Facts and Submissions

I. The appeal of the opponent (appellant) lies against the decision of the Opposition Division rejecting the opposition filed against European patent No. 2 662 287.

In its decision, the Opposition Division found that none of the grounds for opposition raised by the opponent under Articles 100(a) in conjunction with Articles 54 and 56 EPC, Article 100(b) in conjunction with Article 83 EPC and Article 100(c) in conjunction with Article 123(2) EPC were prejudicial to the maintenance of the patent as granted and thus rejected the opposition.

Novelty and inventive step were positively assessed in view of the following prior art:

Prior use "*PBAL*" supported by evidence D11 to D19

Prior use "*Project LISA*" supported by evidence D7, D20 and D21

D22: US 2009/0224105 A1

In the course of the opposition proceedings the appellant (opponent) submitted following additional non-patent literature documents which were however disregarded by the Opposition Division as late filed and prima facie non-relevant:

E30: "*ARIANE 5*" - Users Manual

E31: SPACEX, "*Falcon 9 Launch Vehicle Payload User's Guide*"

- II. With a communication in accordance with Article 15(1) RPBA dated 3 December 2024, the Board informed the parties of its preliminary assessment of the case.

Oral proceedings took place before the Board on 8 April 2025 by videoconference.

- III. The appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked.

The respondent (patent proprietor) requested that the appeal be dismissed (main request) or, in the alternative, that the patent be maintained in amended form on the basis of one of the auxiliary requests 1 to 11 filed in opposition proceedings.

- IV. Independent claim 1 as granted reads as follows (labelling of the features according to the appealed decision):

F1.1 *"A multiple space vehicle launch system (10), comprising:*

F1.2 *a fairing of a launch vehicle;*

F1.3 *a first space vehicle (16);*

F1.4 *a second space vehicle (18) releasably attached to the first space vehicle (16) and oriented relative to the first space vehicle (16) such that when the first and second space vehicles are oriented in a stacked manner and placed within a payload region of the fairing (14), a launch load from the first space vehicle (16) is transmitted to and borne by the second space vehicle (18); and*

F1.5 characterised in that the fairing is shaped to enclose the first and the second space vehicles (16, 18), vehicle;

F1.6 said fairing including a base shaped to support the second space vehicle (18), wherein the second space vehicle rests upon the base which is part of the fairing,

F1.7 in that the first space vehicle (16) includes a first electrical propulsion unit (40) as the source of propulsion for the first space vehicle and in that the second space vehicle (16) includes a second electrical propulsion unit (40) as the source of propulsion for the second space vehicle,

F1.8 wherein the first space vehicle (16) includes a first core structure (36) and the second space vehicle (18) includes a second core structure (38),

F1.9 wherein the first core structure (36) engages with and is attached to the second core structure (38)

F1.10 wherein the launch load from the first space vehicle (16) is transmitted to the second space vehicle (18) through the first core structure (36) and the second core structure (38), and

F1.11 wherein the first core structure is cylindrical and hollow, wherein the second core structure is cylindrical and hollow;

F1.12 wherein the first electrical propulsion unit consists of an ion/plasma motor that utilizes Xenon gas as a propellant that is stored in a first tank (44) located within the first core structure; and the second

electrical propulsion unit consists of an ion/plasma motor that utilizes Xenon gas as a propellant that is stored in a second tank (46) located within the second core structure;

F1.13 wherein the first space vehicle (16) includes a first shear load panel (32) mounted on the first core structure (18) and a deployable solar array supported by the first shear load panel, wherein the second space vehicle (18) includes a second shear load panel (34) mounted on the second core structure (38) and a second deployable solar array supported by the second shear load panel."

Claim 5 of the patent as granted is directed to a method of launching a plurality of space vehicles and implies the technical features of the multiple space vehicle launch system according to independent claim 1 of the patent as granted.

Reasons for the Decision

MAIN REQUEST - PATENT AS GRANTED

Interpretation of feature F1.6

1. A decisive point under discussion is the interpretation of feature F1.6 in the technical context of claim 1 as granted and thus the limitations actually imposed to the fairing of the claimed multiple space vehicle launch system. Feature F1.6 of claim 1 as granted reads as follows:

"said fairing including a base shaped to support the second space vehicle (18), wherein the second space vehicle rests upon the base which is part of the

fairing"

1.1 In the decision under appeal, the Opposition Division construed feature F1.6 as meaning that the fairing included a base which was a part of the fairing, the base extending underneath in such a way to support the second (lower) vehicle of the space vehicle stack (see point 8.1 of the contested decision). The Opposition Division also stated that the skilled reader realized that the fairing could not be made up of a single, unitary element surrounding the space vehicle stack because this design could not allow integration of the stack into the fairing during the so-called integration phase and release of the space vehicles in space after launch. In the Opposition Division's view, a fairing according to feature F1.6 of claim 1 as granted could comprise for example two complementary half-shells or any other multi-piece shell configuration with vertical lines separating the individual shell portions, wherein each shell portion included a corresponding base portion extending underneath. According to this design, when all the (two or more) shell portions were assembled together to laterally envelop the space vehicle stack in the launch configuration, the base formed by the complementary base portions provided support for the lower space vehicle of the stack. The Board observes that the interpretation adopted by the Opposition Division leaves open whether the base portions are manufactured unitary with the respective shell portion or merely secured at the lower edge.

1.2 With their appeal, the appellant contested the interpretation of feature F1.6 of claim 1 as granted adopted by the Opposition Division which in their opinion led to a wrong assessment of novelty and compliance with the requirements of Article 83 EPC in

the decision. They argued that in the technical context of the contested patent the person skilled in the art understood feature F1.6 only as meaning that the fairing shell and the whole base were individually manufactured as two separate and distinct components which were subsequently assembled during the so called integration phase to form a closed fairing structure containing and supporting the space vehicle stack. The appellant alleged that this interpretation, which was in no way ruled out by the wording of the claim, was the only one making technical sense for a skilled reader. It was argued that an expert in the technical field of multiple space vehicle launch systems was aware that the shell and the base of the fairing of the launch rocket must be realized as separate components. This was the only possibility to reliably locate and secure the space vehicle stack into the fairing structure during the integration phase and to release the vehicles of the stack in space after launch. In support of this alleged common general knowledge, the appellant referred to evidence D30 and D31 which in their opinion were erroneously disregarded by the Opposition Division in the course of the first instance proceedings. The appellant argued that the interpretation of feature F1.6 suggested by the Opposition Division, namely that the fairing structure according to claim 1 as granted could consist of either two complementary half-shells each carrying at their respective lower end an half-base portion extending inwardly or, in the alternative, of two complementary half-shells one of which carrying at its respective lower end the entire base extending inwardly, did not make any technical sense. In the appellant's view, the person skilled in the art excluded this design of the fairing structure, that was not described or derivable from the patent disclosure, because they recognized

that it could provide neither a stable support of the space vehicle stack during the integration phase nor a correct release of the vehicles in space after launch. In conclusion, the appellant alleged that the only technically meaningful interpretation of feature F.1.6 was in accordance with the design of the fairing structure as shown for example in document D30, Figures 1.6.4a or 7.5.5.4.b, namely a fairing structure consisting of a fairing shell divided in at least 2 half-shells portions along at least one vertical place and of a base, wherein the fairing shell and the base were manufactured as separate components to be assembled upon accomplishment of the integration phase to fully enclose the space vehicle stack.

1.3 In the Board's view feature F1.6 of claim 1 as granted is to be construed as follows:

The wording of feature F1.6 read in the technical context of claim 1 covers a fairing structure consisting of (1) a fairing shell divided along vertical lines in 2 or more complementary fairing shell portions suitable for laterally encircling the space vehicle stack and of (2) a base arranged at the bottom edge of the fairing shell, said base closing the fairing structure and supporting the space vehicle stack. The shell and the base must together recognizably form a fairing. However, the wording of feature F1.6 of claim 1 leaves open whether the base or portion thereof are manufactured unitarily (i.e. integrally) with the shell or not.

1.4 Claim 1 thus encompasses the design suggested by the appellant implying a base manufactured as a individual component distinct from the fairing shell, wherein the fairing shell is attached to the base upon

accomplishment of the integration phase to enclose and support the space vehicle stack therein.

- 1.5 Claim 1 also encompasses the alternative designs suggested by the Opposition Division and the respondent according to which for example the entire base is manufactured integrally with or attached to the bottom edge of a first half-shell complementary to a second half-shell or the base is split in two or more base portions/sectors each one being integral with or attached to the bottom edge of two or more corresponding complementary fairing shell portions.

Articles 100(b) and 83 EPC

2. The ground for opposition pursuant to Article 100(b) in association with Article 83 EPC is not prejudicial to the maintenance of the patent as granted as correctly found by the Opposition Division.

- 2.1 The appellant maintained that - contrary to the findings of the Opposition Division - the patent does not provide sufficient information for the person skilled in the art regarding how to design and manufacture a fairing including a base in accordance with the interpretation of feature F1.6 adopted by the Opposition Division (see points 1.1 and 1.5 above). In this respect the appellant correctly put forward that the fairing according to claim 1 had to be structured in such a way to allow:

(1) integration of the first and second space vehicles arranged in a stack into the fairing structure with the second (lower) space vehicle of the stack being supported on the base, and

(2) release of the first and second space vehicles in space after launching of the multiple space vehicles launch system.

2.2 The appellant argued that if independent 1 claim was construed to also cover a fairing structure designed as suggested by the Opposition Division (see point 1.1 and 1.5 above), the person skilled in the art was unable to carry out the claimed invention without undue burden over the whole scope of the claim. They pointed out that the patent did not disclose any embodiment falling within such an interpretation of feature F1.6. In particular, no indication was given regarding how to split the fairing structure along vertical lines in two or more complementary fairing shell components unitary with or connected to corresponding base portions. The appellant alleged that for example it was not possible during the integration phase to laterally move the space vehicle stack into the fairing and securely support it on the limited half portion of the base which was the only surface available at the beginning of the integration phase to support the satellite stack until the fairing components were brought together to complete the base and form the enclosed space in which the stacked space vehicles were integrated. Furthermore, free access to the space vehicle stack in order to carry out all operations required to complete the integration phase was not provided. Finally, the appellant alleged that the design of the fairing read in feature F1.6 by the Opposition Division did not allow for a reliable release of the space vehicles in space after launch. The same difficulties applied to the alternative solution suggested by the Opposition Division and allegedly covered by claim 1 according to which the base was split in more than two base portions/sectors each one being integral with or

attached to the bottom edge of a corresponding shell portion/sector. The appellant concluded that - based on the information contained in the patent and on common general knowledge - it was not possible for a person skilled in the art to carry out the invention over the whole scope of the invention without undue burden as it resulted by the broad interpretation of feature F1.6 provided by the Opposition Division, in particular to accomplish the integration phase and reliably release of the vehicles in space. Finally, in response to the counter-arguments of the respondent, the appellant put forward that according to established case law of the Boards of Appeal, the burden of proof that normally lies with the opponent when assessing compliance with Article 83 EPC, could be reversed in presence of a weak disclosure as it was the case here.

2.3 The arguments submitted by the appellant are not convincing:

The Board has no doubt that a person skilled in the art aiming to design and manufacture a hollow fairing structure intended to fully encircle a stack of space vehicles to be integrated and supported therein knows that to this purpose - even if not explicitly mentioned in the patent - the fairing structure must be divided in at least 2 separate fairing elements along one or more separation planes in order to allow introduction and integration of the space vehicle stack therein and release of the space vehicles in space after launching. The Board does not share the view of the appellant that a fairing structure according to the reading of feature F1.6 suggested by the Opposition Division, for example a fairing structure consisting of two half-shells each comprising at its respective lower end a half-base portion extending inwardly, cannot provide sufficient

and stable support for the space vehicle stack during the integration phase. The Board concurs with the respondent that the person skilled in the art recognizes that it is possible to move the stack laterally into one of the two half-shells of the fairing, thereby initially positioning and supporting the stack only on a half-base made integral with or secured to said half-shell at its lower edge. The technical measures and precautions required to stably hold in position the stack and avoid tilting until the two half-shells with the corresponding complementary half-bases are brought together into abutment to completely enclose and support the space vehicle stack fall within customary practice of a person skilled in the art. As convincingly put forward by the respondent, all the required integration operations including securing of the stack to the fairing and the base can be still carried out without difficulties by providing for example re-closable access doors appropriately located on the fairing shell and by using explosive connection bolts which can be remotely activated (see paragraph [0064] of the patent specification referred to by the respondent). The above also applies a fortiori to the further alternative covered by feature F1.6 of claim 1 according to which the entire base is manufactured integral with or secured to the bottom edge of a first half-shell. In this situation the satellite stack will be fully supported during the integration phase before closing the fairing structure with the stacked space vehicles arranged and supported therein. While it is true, as pointed out by the appellant, that none of these solutions and required enabling measures are presented in the contested patent, the Board is convinced that they fall within customary practice of a person skilled in the art, whereby the invention can be carried out over the whole

scope of the claim without undue burden as required by Article 83 EPC.

- 2.4 In view of all the above, the positive assessment of compliance with the requirements of Article 83 EPC of the Opposition Division is confirmed and this irrespective of the admissibility issue raised in respect of evidence D30 and D31.

Article 100(a) in combination with Article 54 EPC

3. The ground for opposition pursuant to Article 100(a) in association with Article 54 EPC is not prejudicial to the maintenance of the patent as granted as correctly found by the Opposition Division.

- 3.1 The appellant held that the subject-matter of claim 1 as granted - contrary to the assessment of the Opposition Division - lacked novelty over the prior uses "*PBAL*" (see evidence D11-D19) and "*Project LISA*" (see in particular document D21).

Novelty over the alleged prior use "*PBAL*"

- 3.2 The appellant put forward that contrary to the assessment of the Opposition Division features F1.6, F1.7, F1.10, F1.11 and F1.12 of claim 1 as granted were directly and unambiguously derivable from this prior use. The respondent maintained that the allegation of the prior use "*PBAL*" had not been proved up to the hilt which in their opinion was the standard of proof to be adopted in the present case and alleged that - beside features F1.6, F1.7, F1.10, F1.11 and F1.12 - also features F1.2, F1.9 and F1.13 were directly and unambiguously derivable from the alleged prior use.

Feature F1.6

3.3 The appellant argued that the wording of claim 1 encompassed a fairing structure the base of which was manufactured as an individual component and hence distinguished from the fairing shell, wherein the fairing shell was attached to the base upon completion of the integration phase to enclose the satellite stack therein. That said, regarding the disclosure of feature F1.6 in the prior use "*PBAL*", they referred to evidence D13, evidence D17, Figures 4.1.1-1 and 4.1.3.1, evidence D18, page 13 and evidence D19 page 13 according to which the fairing shell was allegedly mounted on a separate base provided by the upper stage "*Breeze M*" of the "*Proton M*" launch vehicle. This base formed a separate base of the fairing structure supporting the satellite stack as required by feature F1.6 of claim 1 as granted.

3.3.1 The Board does not agree:

AS explained above the Board agrees that this interpretation of feature F1.6 is consistent with the wording of claim 1. However, as convincingly argued by the respondent, the satellite stack according to the prior use "*PBAL*" is (directly) supported on the upper stage "*Breeze M*" of the "*Proton M*" rocket used to launch and release the satellites "*AMOS 5*" and "*LUCH 5A*" in space. As indicated by the respondent this upper stage corresponds for example to the white element clearly visible in the figure of D13 or in the figure on page 13 of D18. However the Board - in accordance with the view of the Opposition Division - is of the opinion that the "*Breeze M*" supporting the stack formed by the satellites "*AMOS 5*" and "*LUCH 5A*" is not part of the fairing as instead required by feature F1.6. The

fairing of the "PBAL" launch system has indeed no base as clearly derivable from Figure 4.1.1-1 of D18 referred to by the respondent showing that the fairing extends beyond the "Breeze M" upper stage. Feature F1.6 is thus not directly and unambiguously disclosed in the cited prior use.

Features F1.7, F1.10, F1.11 and F1.12

- 3.4 Regarding the remaining disputed features, the appellant essentially argued that the space vehicles named "LUTCH 5A" and "AMOS 5" launched by the "PROTON M BREEZE M" launch vehicle before the priority date of the contested patent (see evidence D13 and D13bis) were both based on platforms belonging of the "EXPRESS 1000" family, namely platform of the types "EXPRESS 1000-A" and "EXPRESS 1000-H" respectively (see evidence D13). The appellant pointed out that - as also confirmed by the Opposition Division - the platform "EXPRESS 1000-H" of the second space vehicle "AMOS-5" of the prior use launch system "PBAL" was equipped with features F1.7, F1.10, F1.11 and F1.12 as disclosed in documents D11, D13 and D18. Although the same features were not explicitly disclosed in any of the submitted evidence in association with the platform "EXPRESS 1000-A" used by the space vehicle "LUTCH 5A", the appellant inferred from the sentence on page 9 of evidence D16, second column reading *"All the modifications of the Express-1000 platform have the same design concept, on-board control and propulsion subsystems, attitude and orbital control subsystems"* that this was the case for any platform of the "EXPRESS 1000" family and hence also for the platform "EXPRESS 1000-A" of the first space vehicle "LOUTCH 5A".

- 3.4.1 The Board cannot follow the interpretation of the prior use "PBAL" provided by the appellant regarding features F1.7, F1.10, F1.11 and F1.12:

As convincingly put forward by the respondent, page 9 of evidence D16 referred to by the appellant only mentions three specific platforms belonging to the "EXPRESS 1000" family, namely the platforms "EXPRESS 1000-K", "EXPRESS 1000-H" and "EXPRESS-1000-SH" (see sentence at the bottom of the first column). The Board thus concurs with the respondent that the person skilled in the art understands the statement at the beginning of the right column of D16 cited by the appellant as referring only to these three platform types, but not necessarily to platform "EXPRESS 1000-A". Therefore, it cannot be directly and unambiguously inferred from the passage cited by the appellant that also the "EXPRESS 1000-A" platform used for the first space vehicle "LUTCH 5A" comprises the same features F1.7, F1.10, F1.11 and F1.12 as the "EXPRESS 1000-H" platform of the second space vehicle "AMOS-5" as required by claim 1 as granted. In this respect the respondent convincingly referred to document D15 which actually shows that the platform of the first space vehicle "LUTCH 5A" and of the second space vehicle "AMOS-5" are not identical as instead alleged by the appellant.

- 3.5 For the reasons above the Board confirms the conclusion of the opposition division that the subject-matter of claim 1 as granted is novel over the prior use "PBAL" because it does not directly and unambiguously disclose a multiple space vehicle launch system comprising features F1.6, F1.7, F1.10, F1.11 and F1.12. This conclusion applies irrespective of the question raised by the respondent regarding which features of the

"PBAL" multiple space vehicle launch system were effectively made available in combination to the public before the priority date of the contested patent and of the assessment of the disclosure of features F1.2, F1.9 and F1.13.

Novelty over the alleged prior use D21 ("LISA Project")

4. The appellant maintained that - contrary to the assessment of the Opposition Division - the multiple space vehicle launch system associated to the so-called "*LISA Project*" showed all the technical features of claim 1 as granted. Reference was made in particular to Figure 4.4 of evidence D21.

4.1 The Board confirms the view of the Opposition Division that feature F1.6 of claim 1 as granted cannot be directly and unambiguously derived from this prior use. As pointed out by the respondent, Figure 4-4 referred to by the appellant is a mere schematic representation from which it can be derived at the most that the satellite stack is supported via a "*custom launch adaptor*" (element shown in black) on the upper stage of the launch vehicle. Whether a base which is part of the fairing is provided cannot be derived. In any event, the satellite stack is not supported on a base but on said "*custom launch adaptor*" interposed between the upper stage of the launch vehicle and the space vehicle stack. Therefore, at least for this reason and irrespective of the assessment of the contested disclosure in D21 of features F1.4 , F1.9, F1.10 and F1.13 of claim 1, the Board confirms the conclusion of the Opposition Division that the subject-matter of claim 1 as granted is novel also over this prior use.

Article 100(a) in combination with Article 56 EPC

5. The ground for opposition pursuant to Article 100(a) in association with Article 56 EPC is not prejudicial to the maintenance of the patent as granted as correctly found by the Opposition Division.

5.1 The appellant maintained that the subject-matter of claim 1 as granted - contrary to the assessment of the Opposition Division - was rendered obvious by the alleged prior use "*PBAL*", alone or in combination with D22, or starting from document D22 in view of the alleged prior use "*PBAL*".

5.2 Regarding the objection of lack of inventive step the parties relied at the oral proceedings on the arguments presented in writing and did not make any further submissions. Consequently, the Board has no reason to deviate from the assessment of this issue as presented in its preliminary opinion which is hereby confirmed and reads as follows:

Prior use *PBAL* alone or in view of D22

5.3 As concluded above, the prior use "*PBAL*" does not directly and unambiguously disclose features F1.6, F1.7, F1.10, F1.11 and F1.12 of claim 1 as granted. Regarding feature F1.6 and contrary to the allegation of the appellant, the Board does not see any motivation for the person skilled in the art to modify the specific fairing structure of the "*Proton M*" launch system equipped with the "*Breeze M upper stage*" which directly supports the space vehicle stack in the way suggested by feature F1.6, i.e. introducing a base which is part of the fairing to support the space vehicle stack. Furthermore, as convincingly put forward

by the respondent, the Board cannot see why the person skilled in the art should obviously consider to replace the platform "EXPRESS 1000-A" of the first space vehicle "LUTCH 5A" with an "EXPRESS 1000-H" platform or even to replace the whole first space vehicle "LUTCH 5A" by a further "AMOS 5", what it would be additionally required to arrive to the subject-matter of claim 1 as granted.

5.4 Regarding the prior use "PBAL" in combination with D22 the following is observed:

Even assuming as argued by the appellant that schematic Figures 13 and 14 of D22 read in the light of paragraphs [0070] and [0071] suggest to design the fairing with a base as required by feature F1.6, the Board does not see why the person skilled in the art should extract this feature in isolation from the launch system of D22 and introduce it into the "PBAL" system, let alone that such a modification would imply further major adaptations which cannot be considered obvious.

D22 in view of the prior use "PBAL"

5.5 There is agreement that feature F1.13 of claim 1 as granted (deployable solar arrays) is not disclosed in document D22. The Board concurs with the respondent that the person skilled in the art has no reason to consider the introduction of deployable solar arrays of the kind of those provided on the "AMOS 5" space vehicle of the "PBAL" system into the space system of D22, and this let alone the different structural arrangement of the system of D22 underlined by the respondent (outer core type in D22 vs. inner core type in "PBAL") which clearly speaks against an obvious

combination of these evidence. Furthermore, the Board concurs with the Opposition Division (see point 9.5.6.2 of the decision) and the respondent that there is no evidence that the embodiment of D22 referred to by the appellant as allegedly disclosing feature F1.6 (see Figures 13 and 14) also uses xenon-ion thrusters as required by features F1.7 and F1.12 of claim 1 as granted. No convincing arguments have been provided by the appellant in this respect. Therefore, the person skilled in the art starting from D22 would not arrive in an obvious way to the subject-matter of claim 1 as granted, and this even in view of the information derivable from the prior use "PBAL".

6. All the above arguments and conclusions analogously apply to granted method claim 5 which uses the subject-matter of claim 1.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



H. Jenney

G. Pricolo

Decision electronically authenticated