

Internal distribution code:

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

**Datasheet for the decision
of 25 April 2023**

Case Number: T 1138/20 - 3.5.03

Application Number: 13168502.6

Publication Number: 2645597

IPC: H04B7/185

Language of the proceedings: EN

Title of invention:
Improved spot beam satellite systems

Patent Proprietor:
ViaSat, Inc.

Opponent:
European Space Agency

Headword:
Reviewing findings of fact/VIASAT

Relevant legal provisions:
EPC Art. 54(2), 100(a), 117
TRIPS Art. 32, 41.4
ECHR Art. 6(1)

Keyword:

Document NPL1 valid state of the art - (yes): public availability sufficiently proven
Standard of proof - conviction of the deciding body
Errors in the opposition division's fact-finding process - (no)
Novelty over NPL1 - main request and 1st auxiliary request (no)
Allowability of 2nd auxiliary request - (yes): prohibition of *reformatio in peius*

Decisions cited:

G 0009/91, G 0010/91, G 0007/93, G 0003/97, G 0002/21,
T 0545/08, T 0660/16, T 1604/16, T 1418/17, T 1634/17,
T 0042/19, T 0768/20

Other decisions cited:

Ramos Nunes de Carvalho e Sá v. Portugal, 2018

Catchword:

1. There is only one standard of proof in the proceedings before the EPO: the deciding body, taking into account the circumstances of the case and the relevant evidence before it, must be convinced that the alleged fact has occurred (see point 1.2.1 of the Reasons).
2. The boards have the power, at any stage of the appeal proceedings, to establish the relevant facts of the case before them and thereby substitute the findings of fact of the departments of first instance. However, the boards have no obligation to establish facts *de novo* already established by the departments of first instance (see point 1.2.4 of the Reasons).
3. The board's review of a fact-finding process should not be conflated with the review of discretionary decisions within the meaning of the *obiter dictum* in G 7/93, Reasons 2.6 (see point 1.2.4 (a) of the Reasons).



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
Fax +49 (0)89 2399-4465

Case Number: T 1138/20 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 25 April 2023

Appellant: ViaSat, Inc.
(Patent Proprietor) 6155 El Camino Real
Carlsbad, CA 92009 (US)

Representative: Smith, Jeremy Robert
Kilburn & Strode LLP
Lacon London
84 Theobalds Road
London WC1X 8NL (GB)

Respondent: European Space Agency
(Opponent) 8-10, rue Mario Nikis
75738 Paris Cedex 15 (FR)

Representative: ESA - ESTEC
Technology Transfer & Patent Management Unit
Directorate of Technology, Engineering and
Quality
Keplerlaan 1
PO Box 299
2200 AG Noordwijk (NL)

Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
26 February 2020 concerning maintenance of the
European Patent No. 2645597 in amended form.**

Composition of the Board:

Chair	K. Bengi-Akyürek
Members:	F. Bostedt
	J. Eraso Helguera
	K. Peirs
	C. Heath

Summary of Facts and Submissions

- I. This case concerns the appeal filed by the patent proprietor ("appellant") against the interlocutory decision of the opposition division to maintain the opposed patent in accordance with a "second auxiliary request" filed during the opposition proceedings.
- II. The appealed decision cited, *inter alia*, the following documents:
- NPL1:** "DDSO - Digital Divide: the Satellite Offer"
- NPL1-2:** copy of the webpage <https://artes.esa.int/news/final-presentation-ddso-digital-divide-satellite-offer-now>
- NPL1-3:** ESTEC Contract Number 18194/04/NL/US
- NPL1-4:** "General Clauses and Conditions for ESA Contracts".
- III. Oral proceedings before the board were held on 25 April 2023.

The appellant requested, as a **main request**, that the decision under appeal be set aside and that the patent be maintained in its granted form (i.e. that the opposition be rejected), or, in the alternative, that the patent be maintained in amended form on the basis of the claims of either of two auxiliary requests (**first and second auxiliary requests**) underlying the decision under appeal.

The opponent ("respondent") made no submissions on the substance of the case. Nor did it attend the oral proceedings before the board.

At the end of the oral proceedings, the board's decision was announced.

IV. Claim 1 as granted (**main request**) reads as follows:

"A method for operating a multibeam satellite system utilizing subscriber terminal and gateway terminal positioning comprising:

positioning a plurality of subscriber terminals (130) within a plurality of service beam coverage areas, the subscriber terminals capable of establishing uplink service beams (145) and downlink service beams (150) between the subscriber terminals and a satellite (105), the downlink service beams being associated with the plurality of service beam coverage areas;
wherein a plurality of the uplink service beams are to be transmitted to the satellite by re-using at least one common uplink frequency channel, and a plurality of the downlink service beams are to be transmitted from the satellite by reusing at least one common downlink frequency channel;
positioning a gateway terminal (115) within a feeder beam coverage area, the gateway terminal capable of establishing an uplink feeder beam (135) and a downlink feeder beam (140) between the gateway terminal and the satellite,
the downlink feeder beam being associated with the feeder beam coverage area, the feeder beam coverage area being located apart from the plurality of service beam coverage areas,

the uplink feeder beam to be received at the satellite to form a plurality of the downlink service beams, a plurality of the uplink service beams to be received at the satellite to form the downlink feeder beam; and wherein the uplink feeder beam is to be transmitted to the satellite by further re-using the at least one common uplink frequency channel, and the downlink feeder beam is to be transmitted from the satellite by further re-using the at least one common downlink frequency channel."

Claim 1 of the **first auxiliary request** is identical to claim 1 of the main request, except for the addition of:

"having a common uplink polarization"

right after each of the two occurrences of "common uplink frequency channel" and the addition of:

"having a common downlink polarization"

right after each of the two occurrences of "common downlink frequency channel".

Reasons for the Decision

1. *Public availability of NPL1 (Article 54(2) EPC)*
- 1.1 The appellant argued that it had not been proven "beyond reasonable doubt" that **NPL1** was the document that had been delivered to the ESA (European Space Agency) or published on ESA's website (cf. **NPL1-2**). The contract **NPL1-3** stated that the final presentation

should not be marked as "proprietary", but NPL1 was in fact marked as "proprietary". This suggested that the document provided as NPL1 was not the final presentation (cf. clauses 38.1 and 38.2 of **NPL1-4**). The standard of proof "beyond reasonable doubt" had not been met in the present case, in particular because the understanding that NPL1 was a draft document (rather than the final version) was consistent with the documentary evidence and with statements made by the witnesses confirming the existence of draft documents. This constituted a plausible alternative explanation to that put forward by the opponent (and more consistent with the evidence than the opponent's explanation). The existence of such a plausible alternative explanation had the inevitable consequence that the opponent's explanation had not been proven to the required standard (i.e. "an extremely high degree of certainty"). Furthermore, there were fundamental deficiencies in the evidence adduced by the opponent regarding the following three allegations:

- (a) As to the finding of the opposition division that the delivery itself was a public disclosure, the witness Mr Thomasson had confirmed that ESA was not free to disclose the information upon receiving it. Thus, the delivery would not have counted as a disclosure to the public even if it were to be proven that a delivery took place, and that it was NPL1 that was actually delivered.

- (b) Regarding the alleged ESA-website disclosure, neither of the two witnesses had been involved in the alleged website disclosure by ESA. No copy of the website containing a link to the presentation slides had been provided from any date. Both of the witnesses confirmed that they had not accessed the

presentation slides from the ESA website. Thus, the witness testimony was of no relevance regarding this allegation.

(c) At the oral proceedings before the board, the appellant submitted that the main error was in fact the failure to prove that NPL1 was the document that had actually been delivered to ESA and published on its website.

1.2 *Principles of evaluation of evidence and the competence of the boards to review findings of fact*

The main question of the present case is whether the opposition division correctly found that NPL1 was made available to the public before the effective filing date of the patent application and thus was state of the art under Article 54(2) EPC. The appellant challenged the opposition division's findings of fact in this respect, in particular that NPL1 was the presentation that was delivered to the European Space Agency (ESA) and then published on its website.

The following considerations, set out in points 1.2.1 to 1.2.6, are pertinent for the case at hand.

1.2.1 *Standard of proof*

For the question whether NPL1 was indeed prior art within the meaning of Article 54(2) EPC, the appellant and the opposition division were of the opinion that the facts had to be proven "beyond reasonable doubt". In this context, the appellant also referred to the standard of "up to the hilt" and "an extremely high degree of certainty". The reason given for applying this high standard was that the appellant had no

involvement in the alleged events and therefore no way to disprove the above allegations.

The board notes that, for the issue concerning whether evidence demonstrates the prior art's availability to the public, sometimes the standard of "balance of probabilities" and sometimes the standard of "beyond reasonable doubt" or "up to the hilt" is applied in the jurisprudence of the boards of appeal (see Case Law of the Boards of Appeal, henceforth "CLBA", 10th edition, section I.C.3.5.2 a)). This seems to imply that when establishing facts in proceedings before the EPO, different standards of proof are applied, depending on the circumstances. More specifically, according to the case law summarised in the CLBA, section III.G.4.3.2, it appears that in proceedings before the EPO, the general standard of proof is that of "balance of probabilities" which in certain circumstances changes to that of "beyond reasonable doubt" or "up to the hilt". Circumstances for applying a stricter standard are for example cases of public prior use where all, or almost all, evidence lies within the sphere of the opponent, while the general standard of "balance of probabilities" is typically applied if both parties had equal access to the evidence in question. However, the board takes from the decisions as cited in the CLBA that rather the circumstances of the case, for example that all pieces of evidence lie within the sphere of the opponent, are decisive for the deciding body to form an opinion as to what has been proven: if, for example, only the opponent had access to the relevant evidence, this fact must be given due consideration in the deciding body's assessment as to what weight and importance are to be attached to such evidence. This, however, is not the same as to say that a *different* standard of proof should apply. It rather means that a

board may be more easily convinced by evidence that is purportedly publicly available than by evidence that is only available to the party in whose favour such evidence may speak.

The present board considers that making a distinction between the above-mentioned standards is neither necessary nor mandated by case law. This approach is in line with several decisions of the boards of appeal. For example, **T 545/08** states in Reasons 11:

"Thus, the facts on which any finding of public availability is based must be established with a sufficient degree of certainty in order to convince the competent organ of the EPO in view of all the relevant evidence that they have indeed occurred."

In **T 768/20**, the competent board held in Reasons 2.1.2 that "[i]ncidentally, the board wishes to point out that the practical relevance of the distinction between the 'balance of probabilities' standard and the 'beyond reasonable doubt' standard is often overestimated", adding that "[b]oth standards are only fulfilled if the deciding body is persuaded that the alleged fact is true, which is not a matter of 'just tipping the balance slightly'". This conclusion was followed in **T 660/16** with the addition that "it is not helpful to give a name to the applicable standard of proof" (Reasons 5.3.5; also referring to **T 545/08** cited above). In a more recent decision, the board in **T 1634/17** found that there was no need to take position on the question which standard of proof should actually apply and whether "proof beyond reasonable doubt" was indeed the "correct" standard (Reasons 19). According to the deciding board, what was decisive was that, "in view of the evidence before the first-instance

department or the board in an individual case, the deciding body is persuaded that a particular oral disclosure has taken place and a particular information has been conveyed to the audience, or not".

Therefore, in view of the above, this board considers that there is only one standard of proof in the proceedings before the EPO: the deciding body, taking into account the circumstances of the case and the relevant evidence before it, must be convinced that the alleged fact has occurred.

1.2.2 *Evaluation of evidence*

The evaluation of evidence is the genuine task of the trier of fact, that is, the deciding body that establishes the facts of a case. In the context of the EPC, these are the departments of first instance and the boards of appeal. Evidence is assessed in accordance with the principle of the free evaluation of evidence which also means that Article 117 EPC contains no hierarchy of evidence listed therein. As a consequence thereof, there are no firm rules defining which types of evidence are more, less or not at all convincing. Nor are there rules on the probative value of a particular piece of evidence based on its type, form or presentation. Instead, the question whether or not a fact can be regarded as proven has to be assessed on the basis of all the relevant evidence on file (see e.g. **G 2/21**, Reasons 34; **G 3/97**, Reasons 5; **T 1604/16**, Reasons 3.1.3).

1.2.3 *Findings of fact and the obligation to provide reasons in the decision*

The deciding body that establishes the facts of the case has to weigh all relevant evidence before it. In this regard, the department of first instance is the first deciding body in proceedings before the EPO competent to undertake this task. It has to establish the facts on which its decision is based. Depth and detail of such finding varies and in particular depends on whether or not certain facts are disputed. If the facts of a case are undisputed, it is sufficient to merely state in the decision the facts on which the deciding body relies. If the facts are disputed, however, it is incumbent on the deciding body to evaluate the evidence and to come to a conclusion as to which facts it regards as established. In doing so, the deciding body has a duty to determine the probative value of each relevant piece of evidence. This is particularly important if the evidence is a testimony given by a witness, a party or an expert. In such a case, the credibility and reliability of the evidence may play an important role. But also for any other means of evidence, e.g. documentary evidence, its probative value may be determined. Only then can the deciding body be convinced that an event indeed occurred as alleged.

As with any other findings of a deciding body, a finding of fact must be reasoned (see e.g. **G 2/21**, Reasons 31: "The reasons that led the judge to be convinced of the correctness or incorrectness of a contested allegation as to fact are to be set out in the decision."). Therefore, the deciding body, in considering the evidence on file, must give reasons in its decision on how it ultimately arrived at its finding of fact. This is particularly important if there is contradictory evidence on file, i.e. one piece of evidence points in one direction and another piece

of evidence in an opposite direction. Then, the process of weighing the different pieces of evidence must be properly reflected in the reasoning of the final decision. In particular, the deciding body in its decision must address the pieces of evidence which contradict those facts as finally established and give reasons why it is convinced of certain facts despite evidence to the contrary.

1.2.4 *Competence of the boards of appeal*

The boards of appeal constitute the first and final judicial instance and thus the only judicial body to establish both facts and law in proceedings before the EPO. As such, the boards have the **power**, at any stage of the appeal proceedings, to establish the relevant facts of the case before them and thereby substitute the findings of fact of the departments of first instance. However, the boards have no **obligation** to establish facts *de novo* already established by the departments of first instance (see also **T 42/19**, Reasons 3.3: "However, it is settled case law that a board is not obliged to take all the evidence anew and that parties do not have the right to have the taking of evidence repeated at their request before the board"). This is so for the following reasons.

- (a) Neither the EPC nor any decision of the Enlarged Board of Appeal limits the boards' competence to establish the facts. Under Article 114(1) EPC, the EPO examines the facts of its own motion. This examination has no further restriction in the law. The power to establish the relevant facts of the case before the boards of appeal is not limited to what the parties have provided or what the first-instance department has established. In this

context, it is not unheard of that national laws put restrictions on the competence of an appellate court to establish facts (see e.g., for Germany, section 529(1) DE-ZPO). However, such a limitation must be understood in the context in which the facts were established by a (first) *judicial* instance and subsequently reviewed by an appellate court as a second judicial instance. This situation differs from that under the EPC. In any case, such a restriction in relation to the boards of appeal has no basis in the EPC.

In relation to Article 114(1) EPC, the Enlarged Board of Appeal has restricted the boards' power to examine in its opinion **G 10/91**. However, this restriction is solely related to the examination of fresh grounds for opposition (see Reasons 18), not the establishment of facts. No restriction can be found in **G 7/93**, either. In this regard, it is noted that **T 42/19** (see Reasons 3.4 and third Catchword) refers to the frequently cited *obiter dictum* in **G 7/93**, Reasons 2.6. However, the present board finds that the board's review of a fact-finding process should not be conflated with the review of discretionary decisions within the meaning of **G 7/93**, Reasons 2.6 (see also **T 1604/16**, Reasons 3.1.8). The review of *findings of fact* has simply nothing to do with the review of *discretionary decisions*. Discretionary decisions can only be reviewed for a particular type of errors (cf. **G 7/93**, Reasons 2.6), while a review of findings of fact has no such limitation.

- (b) Having the boards of appeal as final judicial arbiter of disputes arising in the context of the EPC is not a luxury to be had but it is a necessity

to ensure compliance with international obligations, in particular that the proceedings under the EPC are in accordance with Article 6 of the European Convention on Human Rights, ECHR (see also **T 1604/16**, Reasons 3.1.7) and the WTO/TRIPS Agreement. The latter provides in Article 32 TRIPS that "[a]n opportunity for judicial review of any decision to revoke or forfeit a patent shall be available." In the same vein, Article 41.4 TRIPS in the context of enforcement proceedings requires that "[p]arties to a proceeding shall have an opportunity for review by a judicial authority of final administrative decisions ...". The boards of appeal must be, and indeed are, a tribunal and a judicial authority within the meaning of these provisions. For the purposes of Article 6(1) ECHR, the "tribunal" must have "jurisdiction to examine all questions of fact and law relevant to the dispute before it" (see e.g. the judgment of the Grand Chamber in *Ramos Nunes de Carvalho e Sá v. Portugal*, 2018, § 176). If the boards did not have such power, in particular to examine all questions of fact, the users of the EPC system would have no recourse to a "tribunal" to review the decisions of the departments of first instance and, therefore, users would be deprived of an effective judicial remedy.

- (c) The present approach is also in line with the current practice of the boards of appeal:

If the findings of fact of the departments of first instance rely on documents, the boards regularly make an own assessment of the evidence. For example, the board may assess a patent proprietor's factual allegation that the available prior art

differs from the invention by a specific feature so that the invention is novel within the meaning of Article 54(1) EPC, and come to a conclusion different from that of the opposition division. This may be, for example, because the (implicit) disclosure of a prior-art document is interpreted differently. What is done in such a situation is that the board indeed assesses the piece of evidence (i.e. the prior-art document) *de novo* and replaces the findings of fact of the opposition division with its own findings. In case of oral evidence given by a party, a witness or an expert (Article 117(1) (a), (d), (e) EPC) or an inspection (Article 117(1) (f) EPC), the boards will normally not assess the evidence *de novo* by, for example, re-hearing the witness. In such a situation, the department having heard the witness is better placed to determine the probative value of the evidence given, in particular the credibility of the witness (i.e. the witness' truthfulness and honesty) and the reliability of the testimony (i.e. its accuracy, e.g. how accurately the witness remembers and recounts the events). The boards may then defer to the first-instance department's evaluation of evidence.

1.2.5 *Burden of proof on appeal*

The boards' primary function is to review the decision of the first-instance department in a judicial manner (see Article 12(2) RPBA 2020; see also **G 9/91**, Reasons 18). Hence, the parties on appeal may challenge any findings of fact made by the first-instance department in its decision, and the boards will review these findings. However, the burden is on the party challenging a fact on appeal to demonstrate that the

first-instance department erred in its finding of fact. In doing so, the party must specifically point to each alleged error in the department's findings of fact or in its evaluation of the evidence and set out the reasons why this is considered erroneous. If the party succeeds in discharging this burden and demonstrating such an error, the board will establish the facts on its own if this is necessary for reaching a decision. Depending on the circumstances of the case, the board may also remit the case to the respective department for a new finding of fact (Article 111(1) EPC).

For the sake of completeness, the following is noted: since the review of the decision is only one of the functions - albeit the primary function - of the boards of appeal, a board may, as mentioned above, also decide, at any stage of the appeal proceedings, to establish the facts on its own motion - even if no error was demonstrated by a party.

1.2.6 *Reviewing errors in the fact-finding process*

In the case at issue, the appellant has invited the board to review the opposition division's findings of fact. In this regard, the board finds helpful guidance in decision **T 1418/17** where the deciding board identified three typical situations in which a finding of fact may be overruled, namely (i) the failure to take into account essential points, (ii) the consideration of irrelevant matters or (iii) the violation of the laws of thought, for instance in the form of logical errors and contradictions in its reasoning (**T 1418/17**, Reasons 1.3; see also **T 42/19**, Reasons 3.2). This list is not exhaustive, however. Since the boards have full competence to review findings of fact, there is no reason why a board should

be limited in its review to these criteria (see **T 1604/16**, Reasons 3.1.10; see also **T 42/19**, Reasons 3.4 regarding the above as being a list of "typical scenarios"). Other situations may also warrant the conclusion that the first-instance department made an error in its fact-finding process. A finding of fact can also be reversed if it is not corroborated by the evidence on file. For example, the first-instance department may commit an error if, for a finding of fact, it refers to a piece of evidence (e.g., what the witnesses have testified) that objectively is not suitable to support such a finding (e.g., because the witnesses did not say what the department imputes to them) and no other evidence corroborates the finding (see also point 1.3.6 below). A further example in this context would be that the deciding body relies solely on witness evidence for a fact that the witness cannot, or does not claim to, have witnessed (see also point 1.3.7 below).

For demonstrating an error in the fact-finding process, it will generally not be sufficient to argue on appeal that the evidence on file would have allowed a different conclusion and that this conclusion was equally likely, plausible or reasonable. Such an argument is, by itself, normally not sufficient to meet the burden of showing an error. The mere fact that the body competent to establish the facts (be it the examining or opposition division) could have come to a different conclusion is typically not sufficient to demonstrate an error in the fact-finding process. Rather, in order to show an error, the party must demonstrate that no body competent to establish the facts and acting in a reasonable way could have come to this conclusion. In such a situation, the contesting party may successfully allege on appeal that the

first-instance department did not fulfil its duty as outlined in point 1.2.3 above. For example, the party can argue on appeal that it had brought forward an - equally likely, plausible or reasonable - alternative to the department of first instance which the latter, however, did not properly consider in its fact-finding process or failed to explain in its reasons why this alternative was refused.

1.3 *Application of the general conclusions to the present case*

1.3.1 In the present case, the opposition division summarised its findings of fact on the question whether NPL1 was prior art under Article 54(2) EPC in the first paragraph of Reasons 3.4 of the decision under appeal, as follows:

"The Opposition Division has come to the conclusion that [it] is sufficiently proven, in application of the standard of proof 'beyond reasonable doubt'/'up to the hilt' (1) that NPL 1 is part of the state of the art. It has not been established that the entire document was displayed to members of the public at the occasion of the public presentation on 22.05.2006 (2). It has, however, been sufficiently proven that the document was made available on the website of ESA on 13.06.2006 (3) and that, prior to that, it was delivered in that form and with the identical content, to ESA by EADS Astrium (4). The division is convinced that there were no differences between NPL 1 and the document delivered to ESA and subsequently published on the website, that it does not correspond to an earlier draft that was never published, and that it was not subject to a confidentiality obligation (5). In

reaching this conclusion, the division bases itself, inter alia, on the testimony of the witnesses which it considered credible and plausible (6)."

It is noted that the above numbers in brackets refer to sub-chapters of the appealed decision, in which the opposition division further elaborates the points mentioned in that summary.

1.3.2 The board can discern two general lines of reasoning in the appellant's submissions and a set of three specific alleged errors in the fact-finding process, the latter being addressed in point 1.3.5 below. As to the two more general lines of argument, the appellant essentially argued that

- the opposition division gave more weight to the witnesses' testimonies than to the documentary evidence on file, and
- the opposition division, although acknowledging the standard of proof of "beyond reasonable doubt", did not apply this standard correctly.

1.3.3 As to the first line of reasoning, the board considers that this line is, as such, insufficient for reversing the opposition division's findings of fact, for the following reasons.

It is indeed for the opposition division to weigh the evidence before it. As established above (cf. point 1.2.2), there are no firm rules concerning the probative value of a particular piece of evidence based on what type of evidence it is. Rather, the probative value of each piece of evidence has to be assessed by

the opposition division. The opposition division then has to decide whether, after considering the relevant evidence on file, the fact was indeed proven. It can generally not be considered an error if more weight is given to a witness testimony than to the documentary evidence on file. This is also true for the situation where - as claimed by the appellant in the present case - the documentary evidence contradicted the witness testimony. In other words, there is no error in the assessment of the evidence by the mere fact that the opposition division decides that a fact was corroborated by the witness testimony, and was thus proven, although the documentary evidence on file was actually not sufficient to prove that fact or was even contrary to the witness testimony. However, the party challenging the factual finding may argue an error in the opposition division's reasoning (see point 1.2.3 above), which the appellant has done in the present case and which will be addressed below (see point 1.3.5 for the specific errors alleged by the appellant).

1.3.4 The second, more general line of arguments concerns the standard of proof and whether the opposition division correctly applied it. The appellant submitted that, as also held by the opposition division, the standard of proof in the present case was one of "beyond reasonable doubt". As was noted above, the board rather holds that the deciding body must simply be convinced that the alleged fact indeed occurred (cf. point 1.2.1 above). However, assuming in the appellant's favour that the standard "beyond reasonable doubt" applies, the board addresses the appellant's arguments on this basis.

(a) The appellant first argued that the correct application of the standard "beyond reasonable doubt" required the opponent to submit all of the

documentary evidence at its disposal. In its view, at least a reasonable amount of documentary evidence should have been provided.

The board is not convinced by this argument. The standard "beyond reasonable doubt", or for that matter any other standard, does not necessarily require a party to submit all documents at its disposal. What evidence the party adduces is at its discretion. It is then for the deciding body to establish whether, considering the circumstances of the case and the evidence adduced, the facts have been proven.

- (b) The appellant also argued that no documentary evidence was provided for establishing relevant facts. For example, no documentary evidence was provided for the following assertions:
- that NPL1 was the document presented/published/delivered (see statement setting out the grounds of appeal, page 5),
 - that anything was transmitted from "EADS Atrium" to ESA (page 6),
 - that clear processes were in place regarding the delivery (page 6),
 - that EADS had met their obligations under the contract and provided the required deliverables (paragraph bridging pages 6 and 7),
 - that document NPL1 is what was made available on the ESA website (page 7),
 - as to what document was accessible via the link (page 7) and what document was available on the ESA website (page 8),

- that the policy of ESA to make documentation available was changed (page 8).

The board is not convinced by this argument, either. The standard "beyond reasonable doubt", or for that matter any other standard, does not necessarily require that a party submit documentary evidence at all. That no documentary evidence was on file for a specific allegation of fact does not, as such, demonstrate an error in the finding of that fact. The appellant must rather show, for example, that there was no evidence on file corroborating the finding of fact made by the opposition division.

- (c) The appellant also argued that the standard "beyond reasonable doubt" had not been met, or had not been applied correctly, because the understanding that NPL1 was a draft document (rather than the final version) was consistent with the documentary evidence and with the statements made by the witnesses confirming the existence of draft documents. This presented a plausible alternative explanation to that put forward by the opponent (and more consistent with the evidence on file than the opponent's explanation). The existence of such a plausible alternative explanation had the inevitable consequence that the opponent's explanation had not been proven to the required standard.

In the board's view, the appellant's argument does not demonstrate that the standard "beyond reasonable doubt", or any other standard, has not been met or was wrongly applied. In general, as already held above, such an argument of a

"plausible alternative explanation" is, by itself, unlikely to succeed on appeal when a specific finding of fact is challenged (see point 1.2.6 above). This argument is also not convincing for showing more generally that the standard of proof has not been met or was not correctly applied. Rather, in order to find fault in the application of the standard of proof, the party must demonstrate that no fact-finding body acting in a reasonable way could have come to the first-instance department's conclusion. In that regard, the board acknowledges, however, that a "plausible alternative explanation" may be relevant when considering whether there were doubts as to the finding of fact that the deciding body considers to be proven. This body may then have to address this alternative explanation and give reasons why this was not convincing or why this did not cast doubt on the finding it eventually reached. Indeed, this is what the opposition division did in the present case and this will be further addressed in point 1.3.8 below.

- 1.3.5 In addition to the two more general lines of argument identified above in point 1.3.2, the appellant also put forward arguments against specific findings of fact, relying on the criteria established by decision **T 1418/17**. It is noted that it would be sufficient for the finding that NPL1 is prior art under Article 54(2) EPC if either the disclosure by delivery (without confidentiality agreement) or the disclosure by publication on the ESA website was proven. Nevertheless, both situations are addressed in turn (see points 1.3.6 and 1.3.7 below). In addition, during the oral proceedings before the board, the appellant acknowledged that, in the end, the only decisive

question was whether NPL1 was in fact the document that had been delivered to ESA and published on the ESA website. This will be addressed in point 1.3.8 below.

1.3.6 *Disclosure to the public by delivery of NPL1 without confidentiality agreement*

The appellant argued that the statement of one of the witnesses ruled out the finding of the opposition division that the delivery itself was a public disclosure. According to the appellant, the witness confirmed that ESA had not been free to disclose the presentation document to the public after delivery of the slides to ESA. The appellant cited the witness testimony, according to which, in response to the question of "whether the recipient could have immediately shared it with a third party", the witness said:

"No, there was a formal procedure and it should go first through the formal presentation, namely the one on the 22nd May. ...".

The appellant argued that it was an essential point (within the meaning of criterion (i) mentioned in **T 1418/17**) that the witness had explained that "the delivery of the document was not a public disclosure of the document". Since the opposition division failed to consider this, there was also an "error of logic" and "inconsistency of reasoning" (within the meaning of criterion (iii) of **T 1418/17**) since the opposition division took the view opposite from the one of the witnesses.

The board considers that an error of fact may indeed be acknowledged and a finding of fact may thus be reversed

if the findings of the opposition division are not corroborated by the evidence on file. An example would be that the witnesses actually did not say what the opposition division in its appealed decision imputed to them and no other evidence corroborates the opposition division's findings.

However, in the present case, the appellant has failed to demonstrate an error in the finding of fact. In particular, the opposition division did not find that, by delivery of the presentation to ESA, this presentation was made publicly available. Such a finding, had it been made, would indeed be contrary to what the witness had said. Rather, the opposition division found that, as of the date of the public presentation (i.e. 22 May 2006), the presentation became available to ESA as a member of the public without an obligation of confidentiality (see the last paragraph of page 11 of the appealed decision). This finding is not contradicted by, and rather in accordance with, the statement of the witness referred to by the appellant: according to the witness, an immediate sharing with a third party upon delivery was not possible, since "it should go first through the formal presentation, namely the one on the 22nd May". This is in line with what the opposition division considered when finding that - with reference to the presentation event on 22 May 2006 - the presentation became available to ESA as a member of the public "as of that date" (appealed decision, page 11, last paragraph). In other words, the presentation became public not with its delivery and on the date of the delivery but rather *after* the delivery was made, namely once the confidentiality obligation (if any) was no longer operational, i.e. with the event on 22 May 2006.

1.3.7 *Disclosure to the public by publication of NPL1 on the ESA website*

The appellant argued in relation to the "ESA website publication" that neither of the two witnesses had been involved in the alleged website disclosure by ESA. Both witnesses had admitted that they had not accessed the document via the website link. Therefore, the two witnesses had not actually been witnesses of any relevant activity regarding the alleged website publication. They had not had any personal knowledge of the alleged disclosure in respect of the "ESA website publication", as they had not been involved in any aspect of this disclosure. No copy of the website containing a link to the presentation slides had been provided from any date (let alone from *before* the relevant date of the patent), and no evidence had been provided of what would happen if that link were selected (let alone that NPL1 would have been downloaded without credentials to be provided). Referring again to **T 1418/17**, the appellant argued that the opposition division did not consider the "essential point" that the alleged witnesses were not actually witnesses to this particular alleged disclosure. Therefore, this testimony was "irrelevant matter" and should have been disregarded.

The board considers that an error of fact may indeed be acknowledged and a finding of fact may thus be reversed if the findings of fact of the opposition division are not corroborated by the evidence on file. An example would be that the opposition division relies solely on witness evidence for a fact that the witness cannot, or does not claim to, have witnessed. However, this is not what happened in the case in hand. The opposition division did not solely rely on the witnesses when

finding that document NPL1 "was made available for download on the ESA website on 13 June 2006" (see appealed decision, page 7, Reasons 3.2 and page 9, Reasons 3.4, item (3)). Rather, the opposition division referred to **NPL1-2**, i.e. a screenshot of the respective web page, and held that it provided "independent evidence for such publication" and gave reasons for this finding (namely, that the web page was still "available today" and that it "bears an indication that was published on [13 June 2006] and that its text was not updated since"). The publication was corroborated by the (circumstantial) evidence provided by the witnesses' testimonies which - in the opposition division's opinion - confirmed, *inter alia*, that the publication was done "in accordance with the then general practice in relation to projects of this type". The opposition division also acknowledged that there was no "direct proof" that it was "exactly NPL1" which was made available via that website (see appealed decision, page 10, first full paragraph). The opposition division further acknowledged that none of the witnesses had personally accessed it on the ESA website (appealed decision, page 10, second full paragraph). However, in spite of these shortcomings of the evidence on file, the finding that NPL1 was made available via the ESA website followed from the evidence provided by the witnesses and the specific circumstances of the publication, as explained in detail by the opposition division (appealed decision, page 10, second full paragraph to the paragraph bridging pages 10 and 11).

Overall, the board can identify no error in this approach which would warrant reversing the opposition division's finding of fact. The witnesses did not provide evidence for any finding of how exactly the

document was published on the ESA website, for example who put which document on that website ("upload") or who accessed it ("download"). Indeed, the witnesses did not make any statements to this effect, since - as put by the appellant - they had not had any personal knowledge thereof. Neither did the opposition division make any findings to that effect. Rather, the opposition division inferred from the whole evidence on file that NPL1 had been made available on the ESA website on 13 June 2006. For this, the opposition division considered *documentary* evidence as well as *witness* evidence. In this respect, the testimony cannot be seen as being "irrelevant matter" as suggested by the appellant. Thus, the appellant has failed to demonstrate an error of fact in this respect.

1.3.8 *Finding that NPL1 was the document delivered and published*

During the oral proceedings before the board, the appellant acknowledged that, in the end, the only decisive question was whether NPL1 was in fact the document that had been delivered to ESA and published on the ESA website. The appellant submitted that there was no evidence to that effect. Rather, NPL1 most likely was not the document delivered to ESA because of the indication that it was "DDSO Consortium Proprietary". The appellant acknowledged that the witnesses testified that this had been a mistake. But this was not, the appellant argued, a testimony for the alleged fact that NPL1 was the document in question; instead, it was only an explanation why this indication was to be found in NPL1. According to the appellant, there was also a plausible alternative explanation why this indication was in NPL1 - namely that NPL1 was, in fact, not the deliverable but a prior draft. In

addition, no documentary evidence was provided, although the witness had submitted that those existed. The appellant also submitted that, in its view, no deciding body meant to establish the facts and acting in a reasonable way could have made a finding of fact as was made by the opposition division. However, again, the appellant has failed to demonstrate an error in the finding of fact. The opposition division made the factual finding that there were no differences between NPL1 and the document delivered to ESA and subsequently published on the ESA website, and that the witnesses have testified that NPL1 was identical to that document delivered and published (appealed decision, page 12, first paragraph). Indeed, the witnesses have confirmed this in their testimony. Regarding witness Mr Thomasson, reference is made to the following excerpts of the summary of the witness testimony:

"[a]sked about the deliverables, the witness states: ... And the final deliverable was this document that we have here on the table as NPL1"; "asked about how he could be so sure that it was exactly this document, the witness states: There could have been no other way of any other version without me having seen it, because I was the project manager"; "asked what was presented there, the witness says: It was this final presentation, NPL1"; "asked whether he could be sure that the document available on the website corresponds to this NPL1, the witness stated: Yes, it cannot be any other document".

As to the witness Mr Elia:

"asked about NPL1, the witness states: This is deliverable for the public presentation. ...";

"asked about whether and why he can be so sure that this was exactly the document, the witness states: I can confirm that this is the document that was presented, but, of course, I can not be entirely sure that on every page, each detail corresponds to what was presented at that time".

The opposition division also considered that document NPL1 was marked as "DDSO Consortium Proprietary" and that, together with the explanation that draft versions would be marked as such in accordance with the ESA standard clauses (**NPL1-4**), this had "the potential of casting doubt" on the unrestricted availability to the public of that document (appealed decision, page 12, second paragraph). However, the opposition division then continued and explained why it was not, in the end, convinced of this line of argument and why, in spite of the potential doubts, it came to its conclusions (appealed decision, page 12, item (5), second to fourth paragraphs) and ultimately to its finding that NPL1 did not correspond to an earlier draft (see appealed decision, page 8, Reasons 3.4). Therefore, the opposition division had indeed evidence at its disposal which confirmed their findings of fact. Decisively, the opposition division addressed, as it was obliged to do (see point 1.2.3 above), the "plausible alternative explanation" submitted by the appellant and the fact that other evidence existed which did not corroborate the findings and rather pointed in the opposite direction. But the opposition division still found, and gave reasons for this finding, that it did not doubt that the document presented as NPL1 was indeed the final document.

1.4 For the above reasons, the appellant has failed to demonstrate that the opposition division erred in its findings of fact. Thus, the board sees no reason to overturn the finding of the opposition division that NPL1 is state of the art within the meaning of Article 54(2) EPC.

2. *Main request*

Claim 1 as granted (i.e. claim 1 of the **main request**) comprises the following limiting features:

- 1-A A method for operating a multibeam satellite system utilising subscriber-terminal and gateway-terminal positioning comprising:
- 1-B1 positioning a plurality of subscriber terminals within a plurality of service beam coverage areas,
- 1-B2 the subscriber terminals capable of establishing uplink service beams and downlink service beams between the subscriber terminals and a satellite, the downlink service beams being associated with the plurality of service beam coverage areas;
- 1-C1 a plurality of the uplink service beams are to be transmitted to the satellite by re-using at least one common uplink frequency channel,
- 1-C2 a plurality of the downlink service beams are to be transmitted from the satellite by re-using at least one common downlink frequency channel;
- 1-D1 positioning a gateway terminal within a feeder beam coverage area,
- 1-D2 the gateway terminal capable of establishing an uplink feeder beam and a downlink feeder beam between the gateway terminal and the satellite, the downlink feeder beam being associated with the feeder beam coverage area,

- 1-D3 the feeder beam coverage area being located apart from the plurality of service beam coverage areas,
- 1-E1 the uplink feeder beam to be received at the satellite to form a plurality of the downlink service beams,
- 1-E2 a plurality of the uplink service beams to be received at the satellite to form the downlink feeder beam;
- 1-F1 the uplink feeder beam is to be transmitted to the satellite by further re-using the at least one common uplink frequency channel,
- 1-F2 the downlink feeder beam is to be transmitted from the satellite by further re-using the at least one common downlink frequency channel.

2.1 Claim interpretation

Feature 1-B1 concerns a plurality of subscriber terminals within a plurality of "service beam coverage areas". This feature merely requires the presence of a *plurality* of subscriber terminals served by the satellite system, rather than *all* of them, within the so-defined "service beam coverage areas". Likewise, **feature 1-D1** concerns a gateway terminal within a "feeder beam coverage area". A feeder beam coverage area defined in this way does not have to serve the gateway exclusively.

2.2 Novelty (Articles 100(a) and 54 EPC)

- 2.2.1 In Reasons 5.1 of the appealed decision, the opposition division concluded that pages 57 to 61 and 190 to 192 of **NPL1** disclosed a method for operating a multibeam satellite system utilising subscriber-terminal and gateway-terminal positioning, the method comprising all

the features of claim 1. In particular, **feature 1-D3** was disclosed at page 190 of NPL1, considering the shaded coverage areas as "feeder beam coverage areas" and the remaining coverage areas as "service beam coverage areas".

2.2.2 The appellant argued that, even if **NPL1** were considered to belong to the state of the art, the subject-matter of claim 1 was still novel. The interpretation of NPL1 put forward by the opposition division in Reasons 5 of the appealed decision was not one that the skilled person would apply. Rather, the skilled person would have understood the plurality of "service beam coverage areas" of claim 1 to correspond to the 72 coverage areas disclosed in NPL1. Hence, **feature 1-D3** was not disclosed in NPL1, because each of the gateways was within a respective one of those 72 coverage areas.

2.2.3 The board disagrees. The breadth of the claim in fact encompasses the mapping set out by the opposition division in Reasons 5.3 of the appealed decision, according to which the shaded coverage areas 9, 30, 46 and 69 according to page 190 of NPL1 are to be considered as "feeder beam coverage areas" and the remaining 68 coverage areas as "service beam coverage areas". Claim 1 also encompasses embodiments in which gateway beams are combined with user beams within a "feeder beam coverage area", i.e. the shaded coverage areas according to page 190 of NPL1. Those coverage areas are located apart from a plurality of other coverage areas with only user beams, i.e. the rest of coverage areas of page 190 of NPL1 (see also point 2.1 above).

2.3 Since the subject-matter of claim 1 is not new in view of NPL1, the ground for opposition under Article 100(a)

EPC in conjunction with Article 54 EPC prejudices the maintenance of the patent as granted.

3. *First auxiliary request*

Claim 1 of the **first auxiliary request** comprises all the limiting features of claim 1 of the main request and the following limitations:

1-G1 the at least one common uplink frequency channel has a common uplink polarisation,

1-G2 the at least one common downlink frequency channel has a common downlink polarisation.

3.1 Novelty (Article 54 EPC)

3.1.1 The opposition division indicated in Reasons 7.1 of the impugned decision that SAT1 uses, in "nominal mode", the same polarisation (RHCP) for all uplink beams (feeder and service) [i.e. **feature 1-G1**] and the same polarisation (LHCP) for all downlink beams (feeder and service) [i.e. **feature 1-G2**].

3.1.2 The appellant has not refuted the fact that NPL1 already discloses features 1-G1 and 1-G2 and the board sees no reason to reverse the findings of the opposition division in this respect (see e.g. NPL1, page 191 and page 194, fourth bullet point: "This payload includes for nominal operation where the uplink will be in RHCP and the downlink in LHCP, and for Recovery operation where the other polarisation for both uplink and downlink would be used to carry traffic for the failed satellite.").

3.2 It follows that the first auxiliary request is not allowable under Article 54 EPC either.

4. *Second auxiliary request*

4.1 The appealed decision is an interlocutory decision, in which the opposition division found that, taking into consideration the amendments made in the "second auxiliary request", the patent and the invention to which it relates meet the requirements of the EPC.

4.2 In the proceedings before the boards of appeal, the principle of the prohibition of *reformatio in peius* applies. Accordingly, in cases such as the present one, where the patent proprietor is the sole appellant against an interlocutory decision maintaining a patent in amended form, neither the board nor the opponent may challenge the maintenance of the patent as amended in accordance with that interlocutory decision.

5. Since neither the main request nor the first auxiliary request is allowable, the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



B. Brückner

K. Bengi-Akyürek

Decision electronically authenticated