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D E C I S I O N
of 8 September 1998

Case Number: T 0099/98 - 3.2.4

Application Number: 92311056.3

Publication Number: 0547810

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Language of the proceedings: EN

Title of invention:
Aircraft engine management system

Applicant:
Rolls-Royce plc

Opponent:
-

Headword:
-

Relevant legal provisions:
EPC Art. 123(2), 111

Keyword:
"Extension of subject-matter (no)"
"Remittal to first instance"

Decisions cited:
-

Catchword:
-



Case Number: T 0099/98 - 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 8 September 1998

Appellant: Rolls-Royce plc
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 29 September 1997
refusing European patent application
No. 92 311 056.3 pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: C. A. J. Andries
Members: M. G. Hatherly
J. P. B. Seitz

Summary of Facts and Submissions

- I. On 27 November 1997 the appellants (applicants) filed an appeal against the decision of the examining division dispatched on 29 September 1997 to refuse the European patent application No. 92 311 056.3 for contravention of Article 123(2) EPC. The appeal fee was paid on 27 November 1997. The statement of grounds of appeal was received on 16 January 1998.
- II. In the notice of appeal the appellants requested that the decision be set aside, the application be remitted to the examining division, the appeal fee be reimbursed and auxiliarily that oral proceedings be held.

The statement of grounds of appeal contained two auxiliary amendments to claim 1. The appellants argued that the examining division was wrong not to grant a requested interview. It seemed that the objection under Article 123(2) EPC was due to the lack of the word "exclusive" to qualify the "range of inputs" in claim 1 but this lack did not justify the objection. Moreover the examining division had failed to recognise that dependent claim 6 was allowable.

- III. In its communication of 15 April 1998 the board provisionally commented on the application and stated that if a new claim 1 were filed taking into account these comments then the board would intend to remit the application to the first instance for further prosecution (Article 111(1) EPC). Further the board explained why it provisionally considered that the request for reimbursement of the appeal fee could not succeed.

IV. The appellants filed a new claim 1 of the main request with their letter of 28 May 1998 and found agreement with the opinions expressed in the board's communication. The appellants expected that their main request for the application to be remitted to the examining division for further prosecution would be granted so that it would be unnecessary to consider the other requests, at least for the time being.

V. Claim 1 of the main request reads as follows:

"An aircraft jet engine management system comprising a digital electronic control unit (DECU) (3) having a pilot throttle demand input (5); an input (2) from a critical engine parameter sensor (1); one or more additional pilot-independent inputs (10, 11); an output (8) for controlling fuel supply to the engine; a memory and a microprocessor, the DECU (3) being provided with a sensed parameter normal reference datum and being programmed with a sensed parameter limitation program to respond to the pilot throttle demand input (5) to control fuel supply to engine subject to the sensed parameter not exceeding the normal reference datum value thus to set a maximum permitted power level, characterised in that there is an over-ride facility (6, 7) responsive to a selected one or more of the said additional pilot-independent inputs (10, 11), selected from a range of inputs comprising airspeed (10), ambient pressure (11) ambient temperature, time, aircraft altitude, aircraft attitude and under-carriage load, to invoke (a) over-ride of the sensed parameter limitation program to permit temporarily power in excess of the maximum permitted power level and (b) resumption of the sensed parameter limitation program subject to special circumstances represented by the

additional inputs, and resumption (b) of the parameter limitation program is independent of the pilot."

VI. The appellants' main request is that the decision under appeal be set aside and that the case be remitted to the first instance for further prosecution based on the following documents:

Claims: 1 and 2 filed with the letter of 28 May 1998
3 to 8 filed with the letter of 25 March 1997

Description: pages 1 and 1.1 filed with the letter of 30 October 1995
2 and 3 filed with the letter of 25 March 1997
4 to 7 as originally filed

Drawings: sheets 1/2 - 2/2 (Figures 1 to 3) as originally filed

Further, the appellants request reimbursement of the appeal fee. Auxiliarily they request consideration of two further versions of claim 1 and that oral proceedings be held.

Reasons for the Decision

1. The appeal is admissible.
2. *The reasons for the examining division's decision*

The application was refused under Article 97(1) EPC for

lack of compliance with Article 123(2) EPC in two respects. Firstly, there was allegedly no basis in the originally filed application for the term "engine-independent inputs" in the claim 1 then on file. Secondly, this claim 1 failed to include wording to show that the given list of "additional pilot-independent and engine-independent inputs" was exhaustive. By not including such wording, the examining division saw an infringement of Article 123(2) EPC on the grounds that the less restrictive wording preferred by the applicants did not clearly exclude further parameters not disclosed in the originally filed application.

3. *The types of input parameters*

3.1 As explained in its communication of 15 April 1998, based on the application as originally filed the board sees three types of input parameters, namely

- (a) a pilot demand parameter,
- (b) a critical engine parameter, and
- (c) additional pilot-independent parameters.

3.2 Type (a), the pilot demand parameter (4, 5 on Figure 1), is explicitly and only disclosed as representing the pilot's demand for engine thrust.

Type (b), the critical engine parameter (1, 2 on Figure 1), in principle could be any of several parameters indicative of engine life in the sense that the life would suffer severely if a certain limit of the chosen parameter was exceeded for extended periods

of time. This parameter has only been explicitly disclosed as relating to the turbine temperature, in particular the turbine blade temperature (TBT).

Specific examples of type c), additional pilot-independent parameters, are ambient air pressure (11 on Figure 1), air-speed (10 on Figure 1) and aircraft attitude (original page 4, lines 24 and 25).

3.3 On the issue of whether engine related parameters are pilot-independent or not, the board sees a clear distinction between the input parameters of the above types (b) and (c). Whereas input (b) is solely an engine-dependent parameter indicating a critical stress limit of the engine, the inputs under c) are not truly motor-dependent. It is only the (c) type parameters that relate to external circumstances in which the otherwise prevailing engine protection object is temporarily overruled to gain or render possible some operational advantage. Among the specified examples of type (c) input parameters there is no single one that can rightly be said to be motor-dependent. The examples given and the further suggestions all imply that said additional input parameters are predominantly of a nature truly beyond the influence of the pilot and at least are not engine related.

3.4 In conclusion, the present circumstances do not form a basis for considering engine-dependent input parameters as being encompassed by pilot-independent input parameters (in the meaning of the present application). Consequently there is no need to specify in claim 1 that the one or more additional pilot-independent inputs are "engine-independent".

3.5 The examining division objected under Article 123(2) EPC to the words "engine-independent" in the refused version of claim 1. Claim 1 of the present main request has no such wording and so this objection has been overcome.

4. *Additional pilot-independent parameters*

4.1 The addition in lines 13 to 15 of claim 1 of the main request that the additional pilot-independent inputs are "selected from a range of inputs comprising airspeed (10), ambient pressure (11) ambient temperature, time, aircraft altitude, aircraft attitude and under-carriage load" is based on the paragraph bridging pages 3 and 4 and the last paragraph on page 7 of the original description.

4.2 The last paragraph on page 7 of the application implies that the previously mentioned inputs to the DECU are not to be considered as the only ones and moreover gives further specific examples. The board therefore considers that on the whole the application does not preclude the use of input parameters other than those explicitly stated.

4.3 The board thus sees no justification for excluding other additional pilot-independent inputs additional to those explicitly specified in the application and sees no reason for limiting claim 1 by wording to that effect. The objection in the decision under appeal relating to the failure on the part of the appellants to include in claim 1 of the main request then on file such restrictive wording, e.g. by including the term "exclusive", is therefore unjustified.

4.4 The wording "responsive to a selected one or more of the said additional pilot-independent inputs (10, 11), selected from a range of inputs comprising airspeed (10), ambient pressure (11) ambient temperature, time, aircraft altitude, aircraft attitude and under-carriage load" in claim 1 of the main request means something more than having **any** additional pilot-independent input wherein those specified are merely optional. The board agrees with the appellants (see the last paragraph on page 1 of their letter of 25 March 1997 and the first complete paragraph on page 2 of the statement of grounds of appeal) that there must be at least one of the additional pilot-independent inputs listed in the claim (e.g. airspeed) but that there can be one or more non-listed input as well (e.g. air humidity, even though this was never originally disclosed and so of course cannot now be specifically mentioned in the application).

4.5 The list of additional pilot-independent inputs is in the characterising portion of claim 1 of the main request. Document US-A-4 468 924, apparently the closest prior art, discloses some but not all of this list so that, strictly speaking, the list should be divided between the pre-characterising and characterising portions (Rule 29(1) EPC). However for the sake of clarity the board considers it preferable to put this whole list in the characterising portion with the generic term "pilot-independent inputs" in the pre-characterising portion.

5. *Further comparison of claim 1 as originally filed and claim 1 of the main request*

5.1 The amendment of "pilot demand input" in lines 3, 9 and

- 10 of the original claim 1 to "pilot throttle demand input" in lines 2 and 8 of claim 1 of the main request is based on lines 11 to 13 on page 5 of the originally filed description.
- 5.2 The basis for stating in lines 6 and 7 of claim 1 of the main request that the DECU is "provided with a sensed parameter normal reference datum" is the last two lines on page 2 of the originally filed description.
- 5.3 The deletion of the words "and thus adjust power" from lines 10 and 11 of the original claim 1 is an allowable clarification since the adjustment of power is not something additional to the control of the fuel supply but is obviously merely the direct result thereof.
- 5.4 Lines 12 and 13 of the original claim 1 have been amended to arrive at lines 10 and 11 of claim 1 of the main request. This wording is consistent with the amendment in lines 6 and 7 of the present claim 1 and is based on the fourth sentence in the third paragraph on page 1 of the original description.
- 5.5 The words "a selected" have been inserted in line 12 of claim 1 of the main request, based on the paragraph bridging pages 3 and 4, the last two sentences of the first full paragraph on page 4 and the last paragraph on page 7, all of the original description.
- 5.6 The over-ride is specified in lines 16 and 17 of claim 1 of the main request to be "of the sensed parameter limitation program to permit temporarily power in excess of the maximum permitted power level", based on the fifth sentence of the third paragraph on page 1 of the original description.

5.7 The insertion of the word "sensed" in line 18 of claim 1 of the main request is a consequence of the above-mentioned amendment in lines 6 and 7.

5.8 The deletion of the words "at least" from line 19 of the original claim 1 does not change the scope of the claim.

6. *Article 111 EPC - remittal*

6.1 For the reasons given in the above sections 3 to 5 the board considers that claim 1 of the main request does not contravene Article 123(2) EPC. The consistency clause will of course need to be brought into line with the claim.

6.2 Since the reasons for the decision of the first instance no longer apply, the board is remitting the case to the examining division for examination concerning the other requirements of the EPC.

6.3 In the opinion of the board, there appears to be no reason to deviate from the conclusion in the above section 3.3 regarding pilot-independent (in the meaning of the present application) versus engine-dependent input parameters when (re)considering the novelty and inventive step aspects of the invention.

7. *Auxiliary requests for other versions of claim 1*

Since claim 1 of the main request is to be remitted to the examining division for further prosecution, it is unnecessary to consider the primary amendment proposal and auxiliary amendment proposal for claim 1 filed with

the statement of grounds of appeal.

8. *Allowability of claim 6*

The examining division is criticised in section 3 of the statement of grounds of appeal for not recognising that claim 6 was "free from the objection under Article 123(2) and was an allowable claim."

However a patent cannot be granted if even one of its claims is subject to an Article 123(2) EPC objection. As there was an objection to claim 1, the allowability of claim 6 could only have played a role if the applicants had actually combined it with claim 1 or at least announced their intention of doing so. This however was something that in section 3 of their letter of 11 March 1996 they specifically chose not to do.

9. *The request for reimbursement of the appeal fee*

The board gave its provisional opinion in the communication of 15 April 1998 that a request for an interview did not equal a request for oral proceedings pursuant to Article 116(1) EPC and that it was at the discretion of the examiner whether to grant a request for an interview. His failure to do so did not amount to a substantial procedural violation within the meaning of Rule 67 EPC and the request for reimbursement of the appeal fee would not succeed.

In their letter of 28 May 1998 the appellants agreed with the provisional opinions expressed in the board's communication and in particular did not challenge the provisional reasons for not reimbursing the appeal fee.

The board sees no reason to change its provisional opinion on this point and so dismisses the request for reimbursement of the appeal fee.

10. *The auxiliary request for oral proceedings*

The appellants' request for the application to be remitted to the examining division for further prosecution will be granted so that in this respect the auxiliary request for oral proceedings has no effect.

The board is deciding against the appellants in the matter of reimbursement of the appeal fee. However the board's provisional reasons for this were not challenged by the appellants in their letter of 28 May 1998, they are expecting the case to be remitted to the first instance and they state that "it is unnecessary to consider further any of the subsidiary requests, at least for the time being." Thus it is plain that the appellants do not wish oral proceedings to be appointed for the sole purpose of discussing reimbursement of the appeal fee.

It is pointed out that the auxiliary request for oral proceedings is a request in the present appeal proceedings and will have no effect in the further proceedings before the examining division.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance for further prosecution based on the following documents:

Claims: 1 and 2 filed with the letter of 28 May 1998
3 to 8 filed with the letter of 25 March 1997

Description: pages 1 and 1.1 filed with the letter of 30 October 1995
2 and 3 filed with the letter of 25 March 1997
4 to 7 as originally filed

Drawings: sheets 1/2 - 2/2 (Figures 1 to 3) as originally filed

3. The request for reimbursement of the appeal fee is refused.

The Registrar: The Chairman:

N. Maslin

C. Andries