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**Datasheet for the decision
of 12 April 2019**

Case Number: T 0013/18 - 3.2.01
Application Number: 13164019.5
Publication Number: 2664549
IPC: B64D43/02, G01C23/00, G09G5/00,
G06F3/147
Language of the proceedings: EN

Title of invention:

Methods and systems for representing missed approach
information in perspective view on a cockpit display

Applicant:

Honeywell International Inc.

Headword:

Relevant legal provisions:

EPC Art. 84, 123(2), 54, 56

Keyword:

Claims - clarity (yes)
Amendments - allowable (yes)
Novelty - (yes)
Inventive step - (yes)

Decisions cited:

Catchword:



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Case Number: T 0013/18 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 12 April 2019

Appellant: Honeywell International Inc.
(Applicant) 115 Tabor Road
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Representative: Houghton, Mark Phillip
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 1 August 2017
refusing European patent application No.
13164019.5 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman G. Pricolo
Members: S. Mangin
P. Guntz

Summary of Facts and Submissions

- I. The present appeal is against the decision of the examining division to refuse the European patent application in suit (hereinafter "the application").
- II. The examining division decided that the main request lacked clarity and novelty over D1 and that the auxiliary requests 1 and 2 lacked clarity and novelty or at least inventive step over D1.
- III. Following a telephone consultation during which the rapporteur informed the appellant of the Board's objections on added subject-matter and lack of clarity in respect of the requests on file, the appellant filed with letter dated 27 February 2019 an amended set of claims according to a new main request, intended to overcome these objections, together with an amended description.

The appellant hence requests that the decision under appeal be set aside and a patent be granted on the basis of the main request filed with letter of 27 February 2019.

- IV. Claim 1 of the main request reads as follows (numbering of features a...f added by the Board):
- (a) A method of displaying information on a display device of an aircraft, comprising:
 - (b) retrieving, by a data retrieval module (22) from an information data store (14), approach data (30) associated with landing the aircraft on a particular runway of a particular airport including a touchdown point, and a decision height for a

precision approach or a minimum descent altitude for a non-precision approach;

- (c) determining, by a distance determination module (24), using the approach data (30) based on real-time flight data or prescribed flight data at least one of a time and a distance from the touchdown point where the decision height or the minimum descent altitude would be achieved;
- (d) retrieving, by a data display module (26), graphics data (37) from a graphics datastore (29) for visual aids;
- (e) incorporating the graphics data (37) for the visual aids into a user interface that includes a perspective view of a flight plan, wherein the graphics data is incorporated at a location in the flight plan that is relative to a current location of the aircraft and based on the determined time or distance; and
- (f) generating the user interface for display on the display device of the aircraft

V. In the present decision, reference is made to the following document:

D1: US 5420582.

VI. The appellant's arguments may be summarized as follows:

With the amendments made to the main request, the subject-matter of claim 1 is clear and fulfills the requirements of Article 123(2) EPC.

Moreover the subject-matter of claim 1 is novel over D1. The shadow (63) shown in figure 4 of D1 (indicating

that the aircraft is flying low on approach) is different from the display of graphics data in front of the aircraft by the determined time or distance which corresponds to a time or distance from a touchdown point to a missed approach point. The concept of a missed approach as in the present invention is not disclosed in D1. For these reasons the subject-matter of claim 1 is novel and inventive over D1.

Reasons for the Decision

1. Clarity - Article 84 EPC

1.1 In its decision to refuse the application, the examining division found that the "distance" was undefined and the determination of the distance was unclear.

Moreover the examining division found that the feature: "making a decision to initiate a missed approach procedure" is unclear and qualified as having no technical effects per se.

1.2 Claim 1 of the main request filed with letter of 27 February 2019 has been amended such that the terms "distance" and "determining (...) a distance" are now clear.

In claim 1 (feature c) the time and the distance have been further defined to be "a time or a distance from the touchdown point where the decision height (DH) or the minimum descent altitude (MDA) would be achieved". Moreover their determination "by a distance determination module using the approach data based on real-time flight data or prescribed flight data" is further defined, such that the distance can be determined.

1.3 The feature "related to making a decision to initiate a missed approach procedure" has also been deleted in the main request such that the objection of the examining division regarding this feature is rendered moot.

2. Added subject-matter - Article 123(2) EPC

The method claim 1 does not extend over the application as originally filed:

- feature a is based on claim 1 as originally filed
- feature b is based on paragraphs [0019] and [0021]
- feature c is based on paragraphs [0020], [0024] and [0026]
- feature d is based on paragraph [0026]
- feature e is based on claim 1 and paragraph [0026]
- feature f is based on claim 1 as originally filed.

Moreover dependent method claims 2-5 correspond to claims 4-7 as originally filed.

The original claim 10 directed to a system has been deleted.

3. Novelty - Article 54 EPC

The subject-matter of claim 1 is novel over D1. The subject-matter of claim 1 differs from D1 by the step of "determining, by a distance determination module (24), using the approach data (30) based on real-time flight data or prescribed flight data at least one of a time and a distance from the touchdown point where the decision height or the minimum descent altitude would be achieved" (feature c).

4. Inventive step - Article 56 EPC

The subject-matter of claim 1 involves an inventive step in view of D1.

Determining at least the time or distance from the touchdown point where the decision height or the minimum descent altitude would be achieved will enable the pilot to abort the landing in due time if necessary.

The problem to be solved may be regarded as to increase safety landing.

D1 (col.8, 1.33-45, figure 4) discloses the following: "If the aircraft drops below a predetermined altitude, a shadow 63 of the predictor 31 becomes visible on the screen. The shadow 63 gives the pilot information as to the altitude and the predicted altitude without it being necessary to concentrate on another instrument. In connection with the change in the color of the symbols of the predictor 31 in the region of the lower permissible speed, the pilot can at a glance gather all necessary information shortly prior to touchdown". The information displayed in D1 enables the pilot to correct the landing.

Thus D1 deals with another problem than the one in the present application. It does not enable the pilot to visualise the decision height or the minimum descent altitude to enable him to take a decision on aborting the landing of the plane. Furthermore there is no incentive for the skilled person to change the information displayed in D1 and to determine the time or distance from touchdown where the decision height or the minimum descent altitude would be achieved. The

subject-matter of claim 1 involves therefore an inventive step.

5. The description has been amended to be in conformity with the claims. Furthermore the expressions "incorporated by reference" have been deleted. These amendments do not give rise to objections. The application documents in accordance with the appellant's request form therefore a suitable basis for the grant of a European patent.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance with the order to grant a patent in accordance with the main request of the appellant as follows:

Description:

- Pages 1-4, 6 and 8 filed with letter of 27 February 2019; and
- Pages 5, 7 and 9-10 as originally filed;

Claims:

- 1-5 filed with the letter of 27 February 2019;

Drawings:

- Sheets 1/4-4/4 as originally filed.

The Registrar:

The Chairman:



S. Sánchez Chiquero

G. Pricolo

Decision electronically authenticated