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**Datasheet for the decision  
of 16 September 2014**

**Case Number:** T 1657/10 - 3.4.02

**Application Number:** 01975233.6

**Publication Number:** 1366340

**IPC:** G01C23/00, G08G5/00

**Language of the proceedings:** EN

**Title of invention:**

GRAPHICAL SYSTEM AND METHOD FOR DEFINING PILOT TASKS, PATTERNS  
AND CONSTRAINTS

**Patent Proprietor:**

Honeywell International Inc.

**Opponent:**

THALES S.A.

**Relevant legal provisions:**

EPC Art. 54(1)

**Keyword:**

Novelty (no)



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Case Number: T 1657/10 - 3.4.02

**D E C I S I O N**  
**of Technical Board of Appeal 3.4.02**  
**of 16 September 2014**

**Appellant:** Honeywell International Inc.  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted on 1 July 2010  
revoking European patent No. 1366340 pursuant to  
Article 101(2) EPC.

**Composition of the Board:**

**Chairman** A. G. Klein  
**Members:** F. J. Narganes-Quijano  
D. Rogers

## **Summary of Facts and Submissions**

- I. The appellant (patent proprietor) lodged an appeal against the decision of the opposition division revoking European patent No. 1366340 (based on European patent application No. 01975233.6).

The opposition filed by the respondent (opponent) against the patent as a whole was based on the grounds for opposition of lack of novelty and lack of inventive step (Article 100(a) together with Articles 52(1), 54(1) and 56 EPC).

In its decision the opposition division held that the subject-matter of claim 1 of the patent as granted was not new with regard to the disclosure of document

D1: US-A-6112141.

- II. Oral proceedings before the Board were held on 16 September 2014.

The appellant requested that the decision under appeal be set aside and that the case be remitted to the department of first instance for further prosecution upon the basis of the patent as granted.

The respondent requested that the appeal be dismissed.

At the end of the oral proceedings the Board announced its decision recorded in the Order below.

- III. Claim 1 of the patent as granted reads as follows:

"A system for controlling an aircraft having a flightplan with a series of waypoints (212, 214, 216), the system comprising:

an input device (104) configured to receive an input from a pilot (102);

a processor (106) coupled to said input device (104) wherein said processor is configured to generate an output corresponding to a display (114) for said pilot based upon said input; and

a display monitor (112) configured to generate said display (114) based upon said output;

wherein said display (114) comprises the flightplan with the series of waypoints; and

wherein the input from the pilot includes a waypoint selection of one of the series of waypoints;

**characterised in that** the output from the processor to the display in response to the waypoint selection includes a menu of options (306) related to the selected waypoint;

the input from the pilot further includes an option selection from the menu and the output from the processor to the display in response to the option selection includes a dialog box (400, 500, 600, 700, 800, 900) comprising a plurality of selectable and/or adjustable task parameters, at least some of which correspond to air traffic control parameters, and

the processor processes selected and/or adjusted task parameters while executing said selected option to thereby modify said flightplan for said aircraft."

## **Reasons for the Decision**

1. The appeal is admissible.
2. The subject-matter of claim 1 is directed to a system for controlling an aircraft having a flightplan with a series of waypoints. The system comprises an input device, a processor and a display monitor. The input device is configured to receive an input from a pilot, the processor is configured to generate an output corresponding to a display on the basis of the input received by the input device, and the display monitor is configured to generate the display on the basis of the output from the processor, the display including the flightplan with the series of waypoints. The claimed subject-matter further requires that the input from the pilot includes a waypoint selection of one of the waypoints, that the output from the processor to the display in response to the waypoint selection includes a menu of options related to the selected waypoint, and that the input from the pilot further includes an option selection from the menu.

It has been undisputed by the parties that document D1 discloses a system for controlling an aircraft comprising all the features mentioned above. The parties have referred in this respect to the disclosure of document D1 in column 40, lines 29 to 31, and column 41, line 60 to column 42, line 14. In particular, according to this disclosure clicking on a waypoint displayed on a chart results in a small window display for the waypoint, and the document lists a series of options selectable from the window (column 40, line 29 *et seq.*).

2.1 Claim 1 requires, in addition to the features referred to above, that

a) "the output from the processor to the display in response to the option selection includes a dialog box comprising a plurality of selectable and/or adjustable task parameters, at least some of which correspond to aircraft control parameters", and

b) "the processor processes selected and/or adjusted task parameters while executing said selected option to thereby modify said flightplan for said aircraft".

In its decision the opposition division held that these features were also anticipated by the disclosure of document D1 in column 41, line 60 to column 42, line 10 of document D1. During the appeal proceedings the appellant has disputed this finding of the opposition division.

2.2 As regards feature a), document D1 specifies that the options selectable from the window displayed upon clicking on a predetermined waypoint include, among other functions, the so-called HOLD function (column 40, line 29 *et seq.*) for setting a holding pattern on the designated point if the point belongs to the active flightplan (column 41, lines 60 to 62). In addition, according to the passage in column 41, line 60 *et seq.* "Clicking on the «HOLD» option displays a sub-menu that allows to define the features of the holding pattern". In view of this disclosure, the opposition division concluded that in document D1 the output from the processor to the display in response to the option selection included a dialog box as defined in feature a).

The appellant has contested this view of the opposition division and submitted that the sub-menu disclosed in

document D1 in connection with the HOLD function does not constitute a dialog box as claimed; more particularly, according to the appellant there is no disclosure in document D1 that the sub-menu comprises elements for selecting and/or adjusting parameters of the holding pattern.

The Board, however, does not find the submissions of the appellant persuasive. Document D1 states that the displayed sub-menu "allows to define the features of the holding pattern", and the Board concurs with the opposition division and with the respondent that this disclosure implies that the displayed sub-menu contains functional means allowing the pilot to set a plurality of features of the holding pattern. This is confirmed by the subsequent sentence in the mentioned passage according to which the features of the holding pattern "are the inbound course [...], the leg time [...], the type of entry procedures [...], right or left turn [...], and required altitude for the pattern" (sentence bridging columns 41 and 42). In addition, the document specifies in the subsequent paragraph that for the processor to take the holding pattern into account in navigation "the pilot has to activate it with ACTIVATE key displayed at the bottom of the sub-menu", and that to exit the holding pattern "the pilot has to perform a «DIR TO» on the following waypoint, or click the «ABORT» key in the sub-menu" (column 42, lines 3 to 8). In the Board's opinion, a sub-menu containing functional means allowing the pilot to set the different features of the holding pattern mentioned above and containing the mentioned ACTIVATE and ABORT soft keys in the sub-menu constitutes a dialog box as claimed, i.e. a dialog box comprising a plurality of selectable and/or adjustable task parameters, at least

some of which correspond to air traffic control parameters.

The appellant has also submitted in this respect that the fact that the sub-menu of document D1 allows the pilot to define the features of the holding pattern does not imply that the actions for defining or selecting the holding pattern features are performed in the sub-menu itself. According to the appellant's submissions, the general definition in the document of the HOLD option sub-menu would also encompass the possibility that the features of the holding pattern are selected in a subsequently activated, different sub-menu. However, the document does not only specify that the ACTIVATE key is "displayed at the bottom of the sub-menu" and that the ABORT key is a "key in the sub-menu", the document makes also clear that clicking on the HOLD option shown in the displayed window "displays a sub-menu that allows to define the features of the holding pattern", and the skilled person would clearly and unambiguously understand in the context of this disclosure that the sub-menu under consideration would not only allow the pilot to confirm or to disregard the holding pattern being defined, but also to define the holding pattern features themselves. The possibility that the features of the holding pattern would have to be selected not in the sub-menu disclosed in document D1, but in a subsequently activated, different sub-menu as submitted by the appellant is not only not supported by the disclosure of the document, but would also be at variance with the ergonomic graphical considerations underlying the whole disclosure of the document.

2.3 As regards feature b), document D1 discloses that for the "computer to take this holding pattern into account



in navigation, the pilot has to activate it with ACTIVATE key displayed at the bottom of the sub-menu" (column 42, lines 3 to 5). Accordingly, once the HOLD option has been selected by the pilot and a predetermined holding pattern has been defined and confirmed, i.e. activated, by the pilot, the computer, and therefore the processor, processes the selected and/or adjusted task parameters while executing the selected option to thereby modify the flightplan for the aircraft as required by feature b). The Board notes that the patent specification also discloses displaying in the dialog box the corresponding keys for allowing the pilot to either cancel or confirm the modifications to the holding pattern being entered in the dialog box (Figure 5A, soft keys "DELETE" and "APPLY").

The appellant has submitted that document D1 does not disclose that the flightplan is modified upon setting the selected and/or adjusted parameters which are within the dialog box displayed in response to the option selection. More specifically, during the oral proceedings the appellant submitted that, while in document D1 the processor waits until the modified flightplan is activated, feature b) of claim 1 of the patent as granted requires displaying the modified flightplan directly upon selection or adjustment of the task parameters while the dialog is open so that the pilot directly sees in the display the consequences of the actions he is choosing (see paragraph [0028] of the patent specification relating to Figure 5A).

According to the submissions of the appellant, if the modification by the pilot of the actual flightplan and its display only take place after the pilot has modified the flightplan and confirmed the modification by clicking on the soft key "APPLY" 404 (see Figure 5A

of the patent), then this will not fall under feature b). Feature b) should be read as covering a display of the modified flightplan at an earlier stage as set out in paragraph [0028] of the patent specification. According to paragraph [0028] of the patent specification, the dialog box itself contains a graphical display 502 showing a graphical layout of the holding pattern and the pattern changes as the pilot changes the holding pattern "to provide a graphical rendering of the holding pattern being entered. This graphical display 502 suitably allows the pilot to review a holding pattern before clicking on the «accept» button 404 so that the pilot is made more conceptually aware of the pattern being flown by the aircraft".

The Board, however, cannot agree with the interpretation by the appellant of feature b). Feature b) is formulated in such general terms that it encompasses the modification by the processor of the actual flightplan (as distinct from a virtual modification) only after the pilot has modified the flightplan and confirmed the modification as set out above. The modification need not be displayed prior to its acceptance. This interpretation is in addition consistent with the disclosure of the invention in the description as already noted above. Moreover, as submitted by the respondent, the formulation of feature b) does not reflect the restrictive interpretation submitted by the appellant: it cannot be read as only disclosing the modification of the displayed flightplan in real time before the modification is confirmed. In particular, according to feature b) the processing is carried out "while executing said selected option to thereby modify said flightplan", and not - as the appellant's interpretation would require - while the

task parameters of the selected option are being selected and/or adjusted.

Further, there is no basis for construing the claimed subject-matter in a restrictive way, such that feature b) does not include the modification by the processor of the actual flightplan after the pilot has modified the flightplan and confirmed it. In particular, there is no unclarity, ambiguity or inconsistency in the claimed subject-matter that would require construing feature b) beyond its proper technical meaning in the light of the description.

3. In view of the above considerations and conclusions, the Board sees no reason to depart from the opposition division's finding that the subject-matter of claim 1 is not novel over the disclosure of document D1 (Articles 52(1) and 54(1) EPC). Accordingly, the requests of the appellant are not allowable and the appeal is to be dismissed.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:



M. Kiehl

A. G. Klein

Decision electronically authenticated