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**Datasheet for the decision of 19 January 2023**

**Case Number:** T 1672/20 - 3.2.01

**Application Number:** 16194256.0

**Publication Number:** 3159269

**IPC:** B64D45/00, G04G21/00, G06F1/16, G07C5/08

**Language of the proceedings:** EN

**Title of invention:**
AIRCRAFT SYSTEMS AND METHODS WITH WEARABLE DEVICE ALERTS

**Applicant:**
Honeywell International Inc.

**Headword:**

**Relevant legal provisions:**
EPC R. 139
RPBA Art. 12(4)
EPC Art. 56

**Keyword:**
Correction of error - immediately evident that nothing else could have been intended (yes)
Late-filed request - admitted (yes)
Inventive step - (yes)

**Decisions cited:**

**Catchword:**

Europäisches Patentamt
European Patent Office
Office européen des brevets

**Beschwerdekammern**

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**Case Number: T 1672/20 - 3.2.01**

# D E C I S I O N
# of Technical Board of Appeal 3.2.01
# of 19 January 2023

| | |
|---|---|
| **Appellant:** (Applicant) | Honeywell International Inc.<br>855 S. Mint Street<br>Charlotte, NC 28202 (US) |
| **Representative:** | LKGlobal UK Ltd.<br>Cambridge House<br>Henry Street<br>Bath BA1 1BT (GB) |
| **Decision under appeal:** | **Decision of the Examining Division of the European Patent Office posted on 19 March 2020 refusing European patent application No. 16194256.0 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 appeal was filed by the appellant (applicant) against the decision of the examining division to refuse the patent application in suit (hereinafter "the application").

II. The examining division held that:
- the subject-matter of claim 1 of the main request did not involve an inventive step in view of D1 (US6608568) in combination with D3 (FR2980616),
- the subject-matter of claim 1 of auxiliary request 1 did not involve an inventive step in view of D1 in combination with D3 for the first partial problem and in view of D1 in combination with D4 (US2011/0063136) for the second partial problem,
- the subject-matter of claim 1 of auxiliary request 2 did not involve an inventive step in view of D1 in combination with D3 and D1 in combination with D4 for the same reasons as for claim 1 of auxiliary request 1, and
- the subject-matter of claim 1 of auxiliary request 3 did not involve an inventive step for the same reasons as for claim 1 of auxiliary requests 1 and 2 as the standard ARINC 429 was a conventionally used standard for avionic communication.

III. With their statement of grounds of appeal, the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request or in the alternative on the basis of first to seventh auxiliary requests. The main request and the first to third auxiliary requests corresponding to the main and first to third auxiliary requests underlying the appealed decision, respectively, with

the correction of errors. The fourth to seventh auxiliary requests precisely corresponding to the main request and first to third auxiliary requests, respectively, underlying the appealed decision.

IV. The Board summoned the applicant for an oral proceedings scheduled on 31 January 2023 and issued a communication pursuant to Article 15(1) RPBA. The Board in its preliminary opinion stated that the errors and their corrections in the main and first to third auxiliary requests were obvious and the requests admissible. The Board also stated that while the subject-matter of claim 1 of the main request did not seem to involve an inventive step starting from D1 or D3, the subject-matter of claim 1 of auxiliary request 1 seemed to involve an inventive step starting from D1 and from D3 respectively. The Board indicated in its conclusion that auxiliary request 1 with an adapted description would meet the requirements of the EPC and could form the basis for a patent to be granted.

V. With letter of 4 January 2023 the applicant requested that the decision under appeal be set aside and that a patent be granted on the basis of the new main request filed together with the letter, corresponding to the first auxiliary request filed with the statement of grounds of appeal, and an adapted description. The appellant also requested that the oral proceedings scheduled for 31 January 2023 be cancelled and the application proceeded to grant on the basis of the new main request.

VI. On 9 January 2023, the Board cancelled the oral proceedings.

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

1. A wearable device to be worn by an operator of an aircraft, comprising:
a communication unit configured to receive aircraft parameters and an aircraft mode from an aircraft system;
a database configured to store a rule set that defines a first aircraft mode with at least a first rule with a first alert condition and a first response associated with the first alert condition, wherein the first aircraft mode refers to a first flight mode providing a time context in which the first rule is applicable, and a second aircraft mode with at least a second rule with a second alert condition and a second response associated with the second alert condition, wherein the rule set further defines different operator identities, wherein the second aircraft mode refers to a second flight mode providing a time context in which the second rule is applicable;
a processing unit coupled to the communication unit and the database, the processing unit configured to identify an aircraft mode from the aircraft mode received by the communication unit from the aircraft system and to evaluate, in the first aircraft mode, the first alert condition in view of the aircraft parameters and to initiate the first response when the aircraft parameters violate the first condition and, in the second aircraft mode, the second alert condition in view of the aircraft parameters and to initiate the second response when the aircraft parameters violate the second condition; and
an alert unit coupled to the processing unit and configured to communicate the first response or the second response to the operator, wherein the processing unit is further configured to initiate the alert based on an identity of the operator defined in the rule set.

VIII. Document D5 (US2015/0278498) is further referred to in the present decision.

## Reasons for the Decision

1. Main request

1.1 Correction of errors (Rule 139 EPC) and admissibility of the main request (Article 12(4) RPBA)

The main request corresponds to the auxiliary request 1 filed on 17 January 2020 in examining proceedings with the correction of the following errors:
- The term "first" is replaced by the term "second" in the following part of the sentence "wherein the second aircraft mode refers to a second flight mode providing a time context in which the second rule is applicable". This error and its correction are obvious in view of the prior recitation of the "second aircraft mode with at least a second rule with a second alert condition and a second response associated with the second alert condition".
- The term "operator" was introduced in the following expression "based on the identity of the operator defined in the rule set". This error and its correction are obvious in view of the earlier recitation "wherein the rule set further defines different operator identities".

The main request corresponding to the first auxiliary request filed in opposition with the obvious corrections of the obvious previously mentioned is admissible under Article 12(4) RPBA.

2. Amendments - Article 123(2) EPC.

The subject-matter of claim 1 complies with Article 123(2) EPC.
Basis for claim 1 can be found in original filed claims 1 and 8 and paragraphs [0032] and [0033] of the application as originally filed (paragraphs [0026]-[0028] of the WO publication).

3. Inventive step - Article 56 EPC

The subject-matter of claim 1 involves an inventive step starting from D1 and from D3, respectively.

3.1 Starting from D1

Starting from D1, the Board agrees with the differences identified by the examining division between the subject-matter of claim 1 and D1:

The subject-matter of claim 1 of auxiliary requests 1 differs from D1 in that the alert is not just initiated based on a parameter but also:
- on operational modes of the aircraft (referred as difference A, B by the examining division) and
- the identity of the operator (referred as difference C, D by the examining division).
These two differences together contribute to a more customized/tailored warning system. The flight mode and the identity of the operator will both be conditions on whether the alarm should go on or not.
These conditions will lead to more possible situations than just considering the operational mode on one side and the identity of the operator on the other side.
Therefore, the definition of partial problems in the present case is not appropriate. The problem to be

solved is to be regarded as how to improve and better tailor the alarm system in an aircraft.
The combination of D1 with D3 will not enable the skilled person to arrive at the subject-matter of claim 1 as D3 (page 10, lines 10-16) discloses the monitoring of the operational state of the pilot irrespective of their identity.
Starting from D1, which deals with warning the pilot of a helicopter via a wearable device system instead of the control stick, the skilled person would not make the alarm system dependent on the identity of the operator. What counts according to D1, is to warn the pilot, irrespective of their identity.
D4 deals with a centralised management of alarms. In D4, the aim is to present warnings on different interfaces depending on the type of warning. D4 discloses the example of displaying warnings in the cockpit for the crew members or on another display for the loadmasters or to both crew members and loadmasters.
Therefore, starting from D1 and in view of the problem to be solved, the skilled person would not consider D4.

3.2 Starting from D3

The subject-matter of claim 1 differs from D3 in that:
- the database and the processing unit are in the wearable device itself,
-the rules set further defines different operator identities, and
- wherein the processing unit is further configured to initiate the alarm based on an identity of the operator defined in the rule set.

The fact that the database and the processing unit are in the wearable device and that the processing unit is

further configured to initiate the alarm based on an identity of the operator synergistically interact to improve the alarm system.

In this configuration the operator can enter its identity in the wearable device without the need to enter all the operator's identity in a centralised database.

D3 discloses on page 10, lines 17-23 that the alert logic generator is connected to a monitoring system of the operational state of the pilot (standby state, good health...). D3 does not disclose the initiation of an alert based on the identity of an operator who is wearing the wearable device (i.e. a watch).

The problem to be solved may be regarded as to customize the alerts to the user according to its identity in a simplified manner and thereby improve the alert system.

Starting from the teaching of D3, the skilled person would not consider without inventive skills adapting the system of D3 to define different operator's identities and to configure the alarm system based on the operator's identity. As mentioned above, D3 defines the state of the operator as a rule and not the identity of the operator.

D4 deals with managing warnings to the crew members in the cockpit and to loadmasters. Depending on the type of warning, the warning is sent to the crew members or the loadmasters via the cockpit interface and the cargo interface or both the cockpit and the loadmaster interfaces. In D4 the alert is sent to different

locations but not to individual operators based on their identity.
Therefore starting from D3 either alone or in combination with D4, the skilled person would not arrive at the subject-matter of claim 1 without inventive skills.

Furthermore,
- D1 does not disclose initiating the alarm based on the identity of the operator.
- D5 discloses a mobile terminal implemented to naturally and conveniently perform user authentication using a terminal configured to be worn on a specific portion of a human body. D5 does not deal with alerting operators of an aircraft.

## Order

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

1. The decision under appeal is set aside.

2. The case is remitted to the examining division with the order to grant a patent in the following version:

- Description pages 1-14 filed with letter of 4 January 2023;
- Claims 1-9 filed with letter of 4 January 2023;
- Drawing sheets 1/5-5/5 as originally filed.

The Registrar: The Chairman:

A. Voyé G. Pricolo

Decision electronically authenticated