Internal distribution code:

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

Datasheet for the decision of 17 January 2019

Case Number: T 2346/15 - 3.2.01

Application Number: 07843683.9

Publication Number: 2081827

IPC: B64F5/00, G06K7/00

Language of the proceedings: EN

Title of invention:
METHODS AND SYSTEMS FOR AUTOMATED SAFETY DEVICE INSPECTION USING RADIO FREQUENCY IDENTIFICATION

Patent Proprietor:
The Boeing Company

Opponent:
Airbus SAS/Airbus Operations/Airbus UK Limited/
Airbus Deutschland GmbH/ Airbus Espana S.L.

Headword:

Relevant legal provisions:
EPC Art. 123(2), 123(3)

Keyword:
added subject-matter (yes)
extended scope of protection (yes)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

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 2346/15 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 17 January 2019

Appellant: (Patent Proprietor)	The Boeing Company 100 North Riverside Plaza Chicago, IL 60606-1596 (US)
Representative:	Howson, Richard Giles Bentham Kilburn & Strode LLP Lacon London 84 Theobalds Road London WC1X 8NL (GB)
Appellant: (Opponent)	Airbus SAS/Airbus Operations/Airbus UK Limited/ Airbus Deutschland GmbH/ Airbus Espana S.L. 1, Roude Point Maurice Bellonte/ 316, route de Bayonne/ New Filton House, Filton/ Kreetslag 10/ Avenida de John Lennon S/N 31700 Blagnac/ 31060 Toulouse/ Bristol BS99 7AR/ 21129 Hamburg/ Madrid (FR)
Representative:	Augarde, Eric Brevalex 56, blvd de l'Embouchure, Bât. B B.P. 27519 F-31075 Toulouse Cedex 2 (FR)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 28 October 2015 concerning maintenance of the European Patent No. 2081827 in amended form.**

Composition of the Board:

Chairman	G. Pricolo
Members:	S. Fernández de Córdoba
	C. Narcisi

Summary of Facts and Submissions

I. European patent No. 2 081 827 was maintained in amended form by the decision of the Opposition Division posted on 28 October 2015. Against this decision an appeal was lodged by the Patentee in due form and in due time pursuant to Article 108 EPC.

II. Oral proceedings were held on 17 January 2019. The Appellant (Patentee) requested that the impugned decision be set aside and that the patent be maintained on the basis of the granted patent (main request) or, alternatively, of the first to fourth auxiliary request (filed with the statement of grounds of appeal on 26 February 2016). The Respondent (Opponent) requested that the appeal be dismissed.

III. Claim 1 as granted reads as follows:

"An automated safety inspection system (200) for an aircraft, the system (200) comprising:
a radio frequency identification reader (202) comprising a transmit portion and a receive portion, said reader physically translatable along a predetermined path (26);
a plurality of RFID enabled tags each coupled to a safety device to be inspected;
a directional antenna (210) communicatively coupled to said reader (202), said antenna (210) configured to transmit and receive signals from said tags in a direction substantially normal to the path (26);
a relative position indicator (216) configured to determine a relative position of the reader (202) from a starting point (28); and

a controller (204) communicatively coupled to said reader, said controller comprising:
a user interface (222);
a processor communicatively coupled to said user interface (222); and
a database communicatively coupled to said processor, said database comprising location data of a plurality of tags in an aircraft, each tag associated to a safety device, said processor configured to control the transmission of interrogation signals to the tags based on the location data."

Claim 1 of the first auxiliary request 1 differs from claim 1 as granted in that the wording "said processor configured to control the transmission of interrogation signals to the tags based on the location data" is replaced by "said processor configured to control the transmitted interrogation signals to the tags based on the location data".

Claim 1 of the second auxiliary request differs from claim 1 as granted in that the wording "said processor configured to control the transmission of interrogation signals to the tags based on the location data" is replaced by "said processor configured to control the transmitted sensor signals based on the location data, consisting of control of the transmission of the interrogation signals to the tags based on the location data".

Claim 1 of the third auxiliary request reads as follows:

An automated safety inspection system (200) for an aircraft, the system (200) comprising :

a radio frequency identification reader (202) comprising a transmit portion and a receive portion, said reader physically translatable along a predetermined path (26);
a plurality of RFID enabled tags each coupled to a safety device to be inspected;
a directional antenna (210) communicatively coupled to said reader (202), said antenna (210) configured to transmit and receive radio frequency (RF)- signals from said tags in a direction substantially normal to the path (26);
a relative position indicator (216) configured to determine a relative position of the reader (202) from a starting point (28); and
a controller (204) communicatively coupled to said reader, said controller comprising:
a user interface (222) arranged to receive a user selected seat layout configuration for the aircraft;
a processor communicatively coupled to said user interface (222); and
a database communicatively coupled to said processor, said database comprising location data of plurality of tags in an aircraft, each associated to a safety device, said processor configured to control the transmitted RF signals based on the selected seat layout configuration."

Claim 1 of the fourth auxiliary request differs from granted claim 1 in that the wording "said antenna (210) configured to transmit and receive signals" is replaced by "said antenna (210) configured to transmit and receive radio frequency (RF) signals", and the wording "said processor configured to control the transmission of interrogation signals to the tags based on the location data" is replaced by "said processor

configured to control the transmitted RF signals -based on the location data."

IV. The Appellant's arguments may be summarized as follows:

The subject-matter of granted claim 1 (main request) does not include subject-matter extending beyond the content of the application as filed (published patent application hereinafter designated as WO-A).
Contrary to the view taken by the Opposition Division the feature reading "said processor configured to control the transmission of interrogation signals to the tags based on the location data" (hereinafter designated as feature (i)) was disclosed in WO-A. The skilled person would derive this feature directly and unambiguously, using common general knowledge, from the overall disclosure of the application as filed (WO-A), in accord with the criterion ("gold standard") adopted by the established jurisprudence of the Boards of Appeal (see e.g. G 3/89). Thus, a literal disclosure of feature (i) in WO-A is certainly not required.

Paragraphs [0019] to [0021] and [0024] to [0025] (in WO-A) describe control of the actual transmission of the interrogation signals to the tags based upon location data. For instance, user pre-selection of a seat layout configuration for an aircraft is disclosed, the computing system automatically configuring the reader to transmit signals based upon the selected seat layout configuration. In this specific example the antenna is therefore configured to transmit based upon location data, i.e. selected seat layout configuration. Further, claim 1 as filed (see "processor configured to control the transmitted sensor signals based on the

location data”) and the description (WO-A, paragraph [0005]: “reader including a transmit portion and a receive portion .. antenna configured to transmit and receive radio frequency (RF) signals ... controller coupled to the reader.. processor configured to control the transmitted RF signals based on the location data”) additionally provide support for the wording “based on location data” in said feature (i), contrary to the opinion of the Opposition Division, regarding said control of the transmission of interrogation signals as being “based upon seating configuration” and not on location data of tags.
Also, no technical difference is noted between the wording “to control the transmitted interrogation signals to the tags” and “to control the transmission of interrogation signals to the tags”, as was correctly considered by the Opposition Division.
In conclusion, feature (i) is therefore appropriately supported by the disclosure of the application as filed.

Claim 1 of the first auxiliary request was amended to read "configured to control the transmitted interrogation signals”, this wording being (as set out hereinabove) entirely equivalent to “control the transmission of interrogation signals”.

Claim 1 of the second auxiliary request does not include subject-matter extending beyond the content of WO-A, basis for the amendments being provided by claim 1 as filed (see “control of the transmitted sensor signals based on location data”) and paragraph [0005], as discussed above.

Claim 1 of the third auxiliary request does not include subject-matter extending beyond the content of WO-A. In

particular, as derivable from paragraphs [0005], [0007], [0018] and [0020] (see also above discussion) the replacement of the term "based on the location data" by the term "based on the selected seat layout configuration" is supported by WO-A.
This amendment also does not extend the scope of protection since this is a narrowing amendment. Specifically, "location data" is a broader term encompassing various worked examples including details of location data, as given throughout the application as filed (WO-A). For example, paragraph [0021] refers to seat cluster locations, paragraph [0027] to locations of a seat within a seat cluster, and paragraphs [0019] to [0021] give a worked example where the location data of the tags associated with the safety devices is entered into the processor by the user selecting the seat layout configuration for the aircraft being scanned. It is thus clear that the seat layout configuration is narrower in scope than the location data of the plurality of tags each associated to a safety device.

Claim 1 of the fourth auxiliary request as amended is directly derivable from paragraph [0005] of WO-A, stating that "the processor is configured to control the transmitted RF signals based on the location data".

V. The Respondents' arguments may be summarized as follows:

Granted claim 1 includes subject-matter extending beyond the content of WO-A, as WO-A does not disclose a "processor configured to control the transmission of interrogation signals to the tags based on the location

data of a plurality of tags". Specifically, the control is based on seat layout configuration (see WO-A, [0019], [0020]).

The subject-matter of claim 1 of the first, second and fourth auxiliary request extends beyond the content as WO-A, for the same reasons as stated in relation to granted claim 1.

The subject-matter of claim 1 of the third auxiliary has a scope of protection which is broader than that of claim 1 as granted. This results from the fact that control of the transmitted RF signals is based on the selected seat layout configuration and not on the location data of a plurality of tags, as indicated in claim 1.

Reasons for the Decision

1. The appeal is admissible.

2. The subject-matter of granted claim 1 (main request) contravenes Article 123(2) EPC since the aforementioned feature (i) ("said processor configured to control the transmission of interrogation signals to the tags based on the location data"), introduced into claim 1 as originally filed by way of amendment, extends beyond the content of the application as filed (WO-A).
In effect, said "location data" are defined in claim 1 as the "location data of a plurality of tags in an aircraft". Thus, according to feature (i) control of the transmission of interrogation signals to the tags is based on the location data of a plurality of tags.

However, this is not what is disclosed in the application as filed (WO-A), for said processor is actually configured to control the transmission of interrogation signals based on the "seat layout configuration". Indeed, "a user selects the seat layout configuration for the aircraft being scanned using a user interface associated with reader 202 or computing system 204" and "the location of cart 206 is displayed on the seat layout configuration display" (WO-A, [0019]), the mobile RFID tag reader and the computing system being mounted on said cart (WO-A, [0015]). Moreover, "computing system 204 automatically configures reader 202 to transmit EIRP (Effective Isotropic Radiated power) based on the selected seat layout configuration" (WO-A, [0020]).

Therefore, the mentioned paragraphs confirm that control of the transmission of interrogation signals is actually based on seat layout configuration, which is technically clearly not the same or equivalent to "location data of a plurality of tags", given that a plurality of tags could be located at any position in the aircraft or even stolen or missing (see e.g. WO-A, [0004]). This is likewise implicitly recognized or acknowledged in WO-A (paragraph [0014]), disclosing that "simply applying a sensor mote such as an RFID-enabled tag to each life vest can identify that one or more life vests are missing or tampered with, but cannot localize the missing or tampered with life vest, still requiring a manual check of at least some of the life vest locations to determine which of the life vests are missing or tampered with".

Paragraph [0005] (and claim 37) in WO-A cannot adequately support the Appellant's contentions either, given that according to paragraph [0005] (and claim 37)

the processor is configured to control the transmitted RF signals based on the location data of a plurality of safety devices. In effect, similarly to the above discussion, the location data of a plurality of tags is not necessarily the same or equivalent to the location data of a plurality of safety devices. In effect, if e.g. a life vest has been tampered with or is missing (see paragraph [0014]), the tag could be located at a different position from that of the life vest. The processor's different configuration would thus result in a different control of the transmitted interrogation signals.

Finally, claim 1 as filed (see WO-A) also does not constitute a basis for the amendment according to feature (i), as this claim merely discloses that the processor is configured to control the transmitted sensor signals based on the location data of a plurality of sensor motes, wherein said sensor motes comprise an RFID enabled tag (see claim 2 as filed). Evidently, no mention is made here of the processor being configured to specifically control the transmission of interrogation signals. In addition, the wording "transmitted sensor signal" is considerably general and vague, and moreover does not have a precise and unambiguous meaning, it being completely unclear whether it includes only signals emitted (i.e. transmitted) by the sensor, or signals received by the sensor as well.

In conclusion, in view of the above reasons, no clear and unambiguous disclosure of feature (i), as required by the "gold standard", is to be found in the application as filed (WO-A).

3. The subject-matter of claim 1 of the first and second auxiliary request includes aforementioned feature (i) (essentially verbatim in both requests) and therefore infringes Article 123(2) EPC (see above discussion). The same applies to claim 1 of the fourth auxiliary request, as the amendment reading "the processor is configured to control the transmitted RF signals- based on the location data" is taken verbatim from paragraph [0005] in WO-A and, as set out above (see point 2), according to this paragraph said control is based on "location data of a plurality of safety devices", which represents a substantial difference to "location data of a plurality of tags" as claimed (see discussion under point 2).

4. The subject-matter of claim 1 of the third auxiliary request does not comply with Article 123(3) EPC, the amendment implying a broadened (i.e. in this case different) scope of protection, as compared to granted claim 1. Indeed, the amended feature reading "processor configured to control the transmitted RF signals based on the selected seat layout configuration" leads to a scope of protection different from that of the feature reading "processor configured to control the transmitted RF signals based on location data" of a plurality of tags (see granted claim 1). Specifically, as already set out above, the tag's position does not necessarily coincide with the associated or intended seat location (according to a given seat layout configuration") of the corresponding specific safety device (or life vest), e.g. if the life vest has been tampered with, or is missing or stolen. Therefore, the tag's detection (or failed detection) by the reader (based on location data of tags) can identify that one or more life vests are missing or tampered with, but cannot necessarily localize the missing or tampered

with life vest (e.g. the tag could be located at a different position from the life vest), thus still requiring a manual check of at least some of the life vest locations (i.e. based on the sea layout configuration) to determine which of the life vests are missing or tampered with (see also WO-A, paragraphs [0004], [0014]).

Furthermore, paragraphs [0025], [0026] and [0027] in WO-A clearly indicate that associating a response from a tag to a specific seat (within a seat cluster) requires specific technical means (and methods) and may even not be possible in some cases, thus resulting in the tag's response being associated only with a given seat cluster. This confirms that a control of interrogation signals based on the position (location data) of a plurality of tags and a control based on location of seats (i.e. "seat layout configuration") are inherently technically different and do not necessarily lead to the same results.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

S. Sánchez Chiquero G. Pricolo

Decision electronically authenticated