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**Datasheet for the decision
of 10 August 2022**

Case Number: T 0885/20 - 3.5.05

Application Number: 17172453.7

Publication Number: 3407330

IPC: G08G5/00, G08G5/04, G08G5/06

Language of the proceedings: EN

Title of invention:
CONTROL SYSTEM AT AN AIRPORT

Applicant:
ADB Safegate Sweden AB

Headword:
CONTROL SYSTEM AT AN AIRPORT / ADB Safegate

Relevant legal provisions:
EPC Art. 56, 123(2)
RPBA 2020 Art. 13(1), 13(2)

Keyword:

Amendments - extension beyond the content of the application
as filed (yes)

Inventive step - effect not made credible within the whole
scope of claim

Amendment to appeal case - amendment gives rise to new
objections (yes)



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Case Number: T 0885/20 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 10 August 2022

Appellant: ADB Safegate Sweden AB
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 21 November
2019 refusing European patent application No.
17172453.7 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair A. Ritzka
Members: N. H. Uhlmann
W. Sekretaruk

Summary of Facts and Submissions

- I. The appellant appealed against the examining division's decision refusing the European patent application in suit.
- II. The examining division decided that the subject-matter of the independent claims of the main request and of the first and second auxiliary requests did not involve an inventive step.
- III. The examining division made reference, *inter alia*, to the following documents:

D1	EP 3 079 136
D2	US 2013/041575
D3	US 2007/124059
- IV. With the statement setting out the grounds of appeal the appellant resubmitted the requests on which the contested decision had been based.
- V. The board summoned the appellant to oral proceedings.
In a communication under Article 15(1) RPBA 2020, the board set out its provisional opinion on the case.
- VI. With a letter dated 29 June 2022, the appellant submitted new auxiliary requests 4 and 5.
- VII. The oral proceedings took place via videoconference.
The appellant submitted an auxiliary request 6 in the course of the oral proceedings.
- VIII. Appellant's final requests
The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request, on the basis of one of auxiliary

requests 1 or 2, filed with the grounds of appeal, on the basis of auxiliary requests 4 or 5, both filed on 29 June 2022, or on the basis of auxiliary request 6, filed on 10 August 2022.

IX. Claim 1 of the main request is worded as follows:

"Control system (100) comprising:

an input unit (110) being arranged to communicate with an airport surveillance system (700),

a control unit (120) being arranged to receive, from the input unit (110), identification data for an aircraft (400a-b) on ground, position data, indicating a position of the aircraft, and, to provide the identification data to a data storage (800) and receive an identifier of a designated gate for the aircraft from the data storage,

characterized in that the control unit (120) is further arranged to provide a signal to a gate control system (200a-c) at the designated gate for preparing the designated gate to receive the aircraft if the position of the aircraft is within a predetermined distance from the designated gate,

wherein the control unit (120) is further arranged to delay the signal to the gate control system a certain amount of time based on an estimated travel time of the aircraft from the position of the aircraft to the designated gate."

X. Claim 1 of auxiliary request 1 is based on claim 1 of the main request. The wording

"and in that the preparing the designated gate comprises the gate control system being arranged to activate a visual docking guidance system (130a-c)"

has been added at the end of claim 1.

- XI. Claim 1 of auxiliary request 2 is based on claim 1 of auxiliary request 1. The wording
- "said visual guidance system being a laser docking system arranged to scan an apron of the designated gate for obstacles"
- has been added at the end of claim 1.
- XII. Claim 1 of auxiliary request 4 is based on claim 1 of the main request. The "wherein" clause has been replaced by the following wording:
- "wherein the control unit (120) is adapted to delay the signal to the gate control system based on the position of the aircraft and an estimated travel time from the position of the aircraft to the designated gate."
- XIII. Claim 1 of auxiliary request 5 is based on claim 1 of auxiliary request 4. The wording
- "wherein the travel time of the airplane is influenced by cue on a taxiway and wherein the estimated travel time is calculated based on cue on the taxiway"
- has been added at the end of claim 1.
- XIV. Claim 1 of auxiliary request 6 is based on claim 1 of auxiliary request 4. The wording
- "wherein the control unit (120) is configured to estimate the travel time when the airplane is loacted [sic] so that the travel time during some weather condition is 5 minutes or longer"
- has been added at the end of claim 1.

Reasons for the Decision

1. The application in suit pertains to a control system at airports. The system receives position information of an aircraft on the ground and provides a signal to a gate control system when the aircraft is within a predetermined distance from the gate. The signal is delayed on the basis of an estimated travel time to the gate.
2. Document D1, a patent application publication by the same applicant, pertains similarly to a control system at airports. On the basis of position information of an aircraft, a display on a stand is activated and a bridge control is instructed to retract a bridge.

Main request and auxiliary requests 1 and 2

3. Amendments
 - 3.1 Claim 1 of these requests is based on, *inter alia*, original claims 1 and 2.
 - 3.2 The second characterizing feature has been further amended in that "a certain amount of time has" been added before "based on", "the position of the aircraft and" has been deleted after "based on", and "of the aircraft" has been added before "travel time".
 - 3.3 Claim 2 as filed specifies that "the control unit is adapted to delay the signal to the gate control system based on the position of the aircraft and an estimated travel time from the position of the aircraft to the designated gate".
 - 3.4 The board considers that there is no basis in the original application documents for the delay not being based on the position of the aircraft. Original claims 2 and 9 and the passages of the description on page 2,

lines 23 to 26, page 5, lines 3 to 6, page 9, lines 30 to 32 and page 10, lines 33 to 35 all refer to the position of the aircraft.

- 3.5 The appellant argued that claim 1 implicitly specified that the delay was based on the aircraft's position because the position was needed to estimate the travel time.

The board is not convinced. According to claim 2 as originally filed, the delay is based on two factors: position and estimated travel time from the position. The first factor is not implied by the second because a specific position might lead to a different delay regardless of the estimated travel time from this position. Furthermore, according to claim 2 as filed, the delay is based on the position and on the **estimated** travel time from this position. It is evident that the position of the aircraft can be determined precisely (see the description of the application in suit, page 4, lines 14 and 15) while the travel time can only be estimated.

- 3.6 For these reasons, the requirements of Article 123(2) EPC are not fulfilled.

- 3.7 Consequently, the main request and auxiliary requests 1 and 2 are not allowable.

Auxiliary request 4

4. Admission

The amended claims resolve an Article 123(2) EPC objection raised in the board's communication under Article 15(1) RPBA. The board thus decided to admit auxiliary request 4 into the appeal proceedings.

5. Inventive step

5.1 It is common ground that document D1 forms a suitable starting point for the inventive-step analysis. It does not disclose that:

the control unit is adapted to delay the signal to the gate control system based on the position of the aircraft and an estimated travel time from the position of the aircraft to the designated gate

5.2 The appellant submitted that document D1 additionally did not disclose that:

the control unit is further arranged to provide a signal to a gate control system at the designated gate for preparing the designated gate to receive the aircraft if the position of the aircraft is within a predetermined distance from the designated gate

It argued that D1 did not disclose that the signal was provided "for preparing the designated gate to receive the aircraft".

The board is not convinced. As stated in the decision under appeal, the description of the application in suit (page 7, lines 29 to 36) teaches that the act of preparing can comprise activating a visual docking guidance system which includes a display. Hence, the displaying of an indication to approach the stand on display 130a or 130aa (D1, paragraphs 34, 68 and 77) anticipates the claimed preparing. Furthermore, a bridge control is instructed to retract a bridge (D1, paragraphs 17 and 69 and claim 6). This action similarly falls under the claimed "preparing the designated gate".

5.3 The board notes that neither the designated gate nor the gate control system forms part of the system of claim 1. Thus, the wording "for preparing the designated gate to receive the aircraft" does not have any limiting effect on the claimed subject-matter.

5.4 The appellant argued further that D1 was silent on **when** the gates were prepared for receiving an aircraft.

The board disagrees. The display 130a is activated and the bridge retracted when the current position of the aircraft corresponds to a position within a predetermined area (D1, paragraphs 22 to 26).

5.5 With regard to a technical effect of the distinguishing feature (point 5.1 above), the appellant argued that efficiency and safety at the airport were increased.

The board holds that no such effect is achieved over essentially the whole scope of the claimed subject-matter. According to page 4, lines 7 to 9 of the description of the application in suit:

"The predetermined distance may be between the designated gate and an area enclosing the designated gate. Preferably, the area enclosing the designated gate has a length of less than 20 m."

Thus, an embodiment in which the aircraft is very close to the gate when the signal is provided (claim 1, lines 10 to 13) falls under the terms of claim 1. In this situation the delay introduced by the distinguishing feature cannot increase the efficiency and safety at the airport. In any case, in this situation the signal is provided very late, i.e. just in time. The travel time over the very short distance does not depend on such aspects as weather conditions, the design of the airport, other vehicles or the aircraft's performance

(page 2, line 35 to page 3, line 2 and page 9, lines 34 to 37 of the description of the application).

For these reasons, the technical effect and the corresponding problem suggested by the appellant cannot form a basis for a finding of non-obviousness.

5.6 Furthermore, the distinguishing feature does not credibly lead to any technical effect over essentially the whole scope of the claimed subject-matter. Hence, the distinguishing feature amounts to an arbitrary, non-functional modification of the prior art. According to the established case law, any such arbitrary modification is to be disregarded in the assessment of inventive step (see the Case Law of the Boards of Appeal, 10th edition 2022, chapter I.D.9.6).

5.7 The following further arguments made by the appellant did not convince the board.

5.7.1 The passage on page 4, lines 7 to 9 of the description, cited by the board, corresponds to a different embodiment - of original claim 4 - that is not claimed.

This argument is not convincing as the wording in claim 1 is so broad that it clearly covers this embodiment of the description. Moreover, original claim 1 already refers to a "predetermined distance", so original claim 4 does not introduce any limitation.

5.7.2 Many examples in the description indicate that the airplane's location when the travel time is estimated should not be right next to the gate.

However, according to page 4, lines 10 and 11, the travel time is also estimated when the airplane is very close to the gate.

- 5.7.3 The technical effect (point 5.5 above) decreases as the predetermined distance decreases, but it is not completely absent.

The board disagrees. When the airplane is less than 20 m from the gate, no amount of delay is able to increase the efficiency and safety at the airport.

- 5.7.4 The effect needs to be present "throughout substantially the entire scope, i.e. the technical effect should not necessarily be present to its full extent throughout the entire scope".

In general, the board agrees. The effect, though, should at least be present in the embodiments set out in the description.

- 5.7.5 The appellant submitted that "a fair and balanced approach taking account of the interest of inventors and the society would be to analyse whether the skilled person would contemplate to exercise [sic] the subject-matter of the claim where the technical effect is limited or non-existing".

The board notes that the skilled person would certainly contemplate implementing the claimed subject-matter in the embodiments set out in the description.

- 5.8 At the oral proceedings the appellant submitted that the distinguishing features led to another technical effect, namely that problems occurring due to signal loss between the airplane's transponder and the airport's antenna were avoided or reduced. The appellant referred to the example given on page 10, lines 2 to 7 and explained that communication problems for e.g. two minutes after the airplane touches down would not disturb the processes at the airport. Furthermore, the appellant stated that this effect was derivable from the application as filed.

In the board's opinion, in certain situations the distinguishing features might lead to that technical effect. However, specifically in the situation referred to in point 5.5 above, no such effect is achieved.

5.9 Consequently, the subject-matter of claim 1 does not involve an inventive step.

Auxiliary request 5

6. Admission

6.1 This request was submitted after the summons to oral proceedings was issued. Accordingly, its admission is at the board's discretion under Article 13(1) and (2) RPBA.

6.2 The following wording has been added to claim 1:

"wherein the travel time of the airplane is influenced by cue on a taxiway and wherein the estimated travel time is calculated based on cue on the taxiway."

According to the appellant, this feature was based on page 9, lines 34 to 37 of the description.

6.3 These four lines of the description read:

"Furthermore, the estimated travel time for the aircraft can be calculated by taking at least one of the following parameters into account: airport size, airport design, weather conditions, performance of the aircraft, how often the aircraft needs to restart, cue on the taxiway."

6.4 There is no apparent basis - in this passage or indeed in the complete application as filed - for the first part of the added wording "the travel time of the airplane is influenced by cue on a taxiway". On the contrary, the description teaches that the estimated travel time for the aircraft can be calculated by

taking cue on the taxiway into account. This teaching is reflected in the second part of the added wording.

6.5 Consequently, claim 1 as amended does not meet the requirements of Article 123(2) EPC.

6.6 For these reasons, the board decided that since auxiliary request 5 gives rise to a new objection, it does not meet the criteria set out in Article 13(1) RPBA. Thus, auxiliary request 5 was not admitted into the proceedings.

Consequently, it was not necessary to examine and decide on compliance with the provisions of Article 13(2) RPBA.

Auxiliary request 6

7. Admission

7.1 This request was submitted during the oral proceedings, i.e. after the summons to oral proceedings was issued. Accordingly, its admission is at the board's discretion under Article 13(1) and (2) RPBA.

7.2 The following wording has been added to claim 1:

"the control unit (120) is configured to estimate the travel time when the airplane is loacted [sic] so that the travel time during some weather condition is 5 minutes or longer."

According to the appellant, this feature was based on page 10, lines 2 to 5 of the description.

7.3 This passage of the description reads:

"By way of example, it may be statistically known that the average travel time from the runway to the gate at a specific airport is e.g. 5 minutes during certain weather conditions. The control unit may then introduce a 4-minute delay in the signal to the control system in

order to provide a just-in-time preparation of the gate."

- 7.4 The board holds that there is no basis for the added wording in the application as filed.

First, there is no basis for the travel time being longer than 5 minutes. Second, according to the example described in this passage, a 4-minute delay in the signal to the control system was introduced in order to provide a just-in-time preparation of the gate. It is evident that the 5-minute travel time and the 4-minute delay are closely related. Thus, the addition of the travel time of 5 minutes (or longer) alone amounts to an unallowable intermediate generalisation.

- 7.5 The appellant pointed to the first four paragraphs in chapter II.E.1.5.2 of the Case Law of the Boards of Appeal, 9th edition.

In the board's view, none of the decisions referred to in these paragraphs pertains to the situation in hand: the added wording includes a range (5 minutes or longer) and the application as filed discloses a single value only (5 minutes).

- 7.6 Consequently, claim 1 as amended does not meet the requirements of Article 123(2) EPC.

- 7.7 For these reasons, the board decided that since auxiliary request 6 gives rise to a new objection, it does not meet the criteria set out in Article 13(1) RPBA. Thus, auxiliary request 6 was not admitted into the proceedings.

Consequently, it was not necessary to examine and decide on compliance with the provisions of Article 13(2) RPBA.

8. Conclusion

None of the appellant's admissible requests is allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



K. Götz-Wein

A. Ritzka

Decision electronically authenticated