

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte PETER KRANZ

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Appeal No. 97-2476  
Application No. 07/696,079<sup>1</sup>

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ON BRIEF

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Before URYNOWICZ, CARMICHAEL, and BARRY, Administrative Patent Judges.

BARRY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the final rejection of claims 7 and 8, which are all the claims in the application. Claims 1-6 were canceled.

We reverse.

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<sup>1</sup> Application for patent filed May 6, 1991.

BACKGROUND

The invention relates to air traffic control. An air traffic controller sends flight instructions to an aircraft via an intermediary computer. When the controller enters flight instructions into the computer, the computer prescreens the instructions for consistency with conditions in the air and on the ground. It forwards consistent instructions to the aircraft. Inconsistent instructions are returned to the controller. (Appeal Br. at 2.)

Claim 8, which is representative for our purposes, follows:

8. A method of controlling air traffic at an airport comprising
- a) making an opinion determination as to instructions to be supplied to an aircraft,
  - b) providing such instructions to a computer,
  - c) permitting the computer to compare such instructions with known conditions on the ground and in the air for possible contradiction therebetween, and
  - d)
    - i) if no contradiction, passing said instructions on to the aircraft, or
    - ii) if contradictory, not passing said instructions on and alerting an operator.



us, it is our view that the evidence relied on and the level of skill in the art would not have suggested to one of ordinary skill in the art the invention of claims 7 and 8. Accordingly, we reverse.

In rejecting claims under 35 U.S.C. § 103, the patent examiner bears the initial burden of establishing a prima facie case of obviousness. A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person having ordinary skill in the art. If the examiner fails to establish a prima facie case, an obviousness rejection is improper and will be overturned. In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). It is against this background that we consider the examiner's rejection.

In rejecting claims 7 and 8, the examiner observes that Artz teaches a data link between an air traffic controller and an aircraft. The controller employs a ground-based computer to send flight instructions to the aircraft. The examiner

admits that Artz neither teaches nor suggests "a feature of recognizing 'wrong' message[s]." (Examiner's Answer at 4.)

The examiner notes that Perry mentions problems inherent in voice communications between an air traffic controller and an aircraft. He opines that the reference discloses a ground-based computer to "digitize the controller's communication and verify the communication message to eliminate error." (Id.)

The examiner further observes that Scardina teaches an "AI system," (id.), which the examiner opines is for "training aircraft controller[s] to evaluate logical accuracy or consistency." (Id.) He concludes as follows.

Thus, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to employ such a AI system as taught by Scardina et al to produce the claimed invention **since** Artz reference recognizes there is a problem sending a 'wrong' message and/or inconsistent information being received/send. Thus, it would have been obvious to one skilled artisan to recognize the problem as recognized by Artz to employ a device (e.g., AI system as disclosed by Scardina et al) to check/verify and warn either air-traffic controller or pilot of contradictory conditions. (Examiner's Answer at 4.)

We find that neither the Artz, Perry, nor Scardina references, alone or in combination, teaches or suggests the claimed invention. We address the failure of Artz individually and the failure of Perry and Scardina collectively.

Regarding Artz, we find that the reference fails to teach or suggest the checking or comparing of instructions as claimed. Claim 7 specifies in pertinent part "checking the instructions against a data base of known conditions on the ground and in the air for logical accuracy ... to detect logical inaccuracy or inconsistency in the instructions because of contradictory conditions." (Appeal Br., § 10.) Claim 8 similarly recites in pertinent part "compar[ing] such instructions with known conditions on the ground and in the air for possible contradiction therebetween ...." (Id.)

The examiner admits that the reference neither teaches nor suggests "a feature of recognizing 'wrong' message[s]." (Examiner's Answer at 4.) The "feature" refers to the claimed checking or comparing of instructions. Therefore, we find

that Artz fails to teach or suggest the checking or comparing of instructions as specified in claims 7 and 8, respectively.

Regarding the Perry and Scardina references, we find that the references fail to teach or suggest the claimed passing on or retransmitting of only logically accurate instructions. Claim 7 specifies in pertinent part that the invention "retransmits the instructions to said aircraft if logically accurate, but, if not logically accurate, sends an error signal back to the human air traffic controller instead ...." (Appeal Br., § 10.) Claim 8 similarly recites in pertinent part "if no contradiction, passing said instructions on to the aircraft, or ... if contradictory, not passing said instructions on and alerting an operator." (Id.) In short, the claimed invention prescreens instructions from an air traffic controller for contradictory conditions before the instructions are sent to an aircraft. Contradictory instructions are never sent to the aircraft. Only those instructions consistent with ground and air conditions are sent.

Perry teaches a need to reduce voice communications between an air traffic controller and an aircraft. The reference opines that "sending discrete written messages should greatly boost efficiency." P. 30. Perry also describes "[s]mart machines." P. 31. The Automated En Route Air Traffic Control System (AERA), "[t]he epitome of this automation," id., projects intended flights twenty minutes ahead. "If the computer spots a conflict, it is highlighted on the screen and a window opens, with recommendations such as 'American Flight 66 should descend to 29 000 within 2 minutes.'" Id. Scardina discloses AERA in more detail. PP. 1628-32.

Comparison of the invention to the references evidences that neither Perry nor Scardina teaches or suggests the claimed passing on or retransmitting of only logically accurate instructions. The references do not prescreen instructions for contradictory conditions before the instructions are sent to an aircraft. All instructions are sent to the aircraft. It is only after the instructions are

sent and being executed that AERA can detect a conflict. Therefore, we find that Perry and Scardina, alone or in combination with Artz or each other, fail to teach or suggest the passing on or retransmitting of only logically accurate instructions as specified in claims 7 and 8, respectively.

For the foregoing reasons, we find that the statement of the examiner's rejection does not amount to a prima facie case of obviousness. Because the examiner has not established a prima facie case, the rejection of claims 7 and 8 over Artz or Perry in view of Scardina is improper and is reversed.

#### CONCLUSION

To summarize, the decision of the examiner to reject claims 7 and 8 under 35 U.S.C. § 103 is reversed.



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APPEAL NO. 97-2476 - JUDGE BARRY  
APPLICATION NO. 07/696,079

APJ BARRY

APJ CARMICHAEL

APJ URYNOWICZ

DECISION: **REVERSED**

Prepared by: Gloria Henderson

**DRAFT TYPED:** 06 Oct 00

**FINAL TYPED:**