

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 36

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte TAKEHARU ARAKAWA,  
MORIO ARAKI and  
KIYOSHI YAMANAKA

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Appeal No. 96-2583  
Application 08/243,087<sup>1</sup>

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HEARD: JULY 13, 1999

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Before HAIRSTON, BARRETT and FRAHM, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 7 through 11, 13 and 14. In an Amendment

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<sup>1</sup> Application for patent filed May 16, 1994. According to appellants, this application is a continuation of Application 07/868,697, filed April 15, 1992, now abandoned.

After Final (paper number 17), claim 14 was amended.<sup>2</sup>

The disclosed invention relates to a navigation apparatus in a vehicle that calculates a degree of attainment based upon running distances or running times.

Claim 7 is illustrative of the claimed invention, and it reads as follows:

7. A navigation apparatus in a vehicle comprising:

a system controller including a CPU, a memory, a recording medium for storing digitized map information, an interface, a graphics controller, a display control circuit and a data bus connecting said CPU, memory, recording medium, interface, graphics controller and the display control circuit to one another;

a running distance sensor for detecting a movement distance of the vehicle and outputting movement distance data to the interface;

a global positioning system for detecting a present position of the vehicle and outputting present position data to the interface;

a display connected to the display control circuit for displaying a map relating the present position of the vehicle;

an input device for receiving start position data representing a start position and destination position data representing a destination position and outputting the start position data and the destination position data to the data bus of the system controller;

wherein the CPU determines an actual running distance  $ab$  from the start position to the present position based upon the start position data from the input device and the movement distance data from the running distance sensor, determines an estimated running distance  $bc$  from a detected present position to the destination position based upon detected present position data from the global positioning system and the destination position data received from the input device, calculates a degree

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<sup>2</sup> According to the examiner (paper number 18), the amendment had the effect of overcoming the indefiniteness rejection of claim 14.

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of attainment T according to an equation of:  $T = ab / (ab + bc)$  and outputs the degree of attainment T to the display control circuit; and

the display control circuit causes the display to display the degree of attainment T.

The references relied on by the examiner are:

Mori et al. (Mori)	4,390,948	June 28, 1983
Moroto et al. (Moroto)	5,121,326	June 9, 1992 (filed Mar. 6, 1991)

Claims 7 through 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over Moroto.

Claims 10, 11, 13 and 14 stand rejected under 35 U.S.C. § 103 as being unpatentable over Moroto in view of Mori.

Reference is made to the briefs and the answer for the respective positions of the appellants and the examiner.

#### OPINION

We have carefully considered the entire record before us, and we will reverse the obviousness rejection of claims 7 through 11, 13 and 14.

Moroto discloses a navigation apparatus (Figure 1) for setting a route from a designated departure point to a destination point, and for providing guidance along the route to the destination

point. Moroto uses an input unit 5 for inputting the departure point and the destination point into the navigation processor 7. The display 31 displays a route from the departure point to the destination point. The navigation apparatus stores road data in a memory map 21, and the navigation processor determines the route from the departure point to the destination point based upon the map data. The navigation processor calculates a present position on the route to the destination point, and then calculates the distance from the present position to the destination point. The route from the present position to the destination point is then displayed by display 31.

The examiner acknowledges that Moroto does not calculate a degree of attainment according to the claimed equation, but concludes that “a person of ordinary skill in the art at the time of the invention would have recognized that the Moroto et al. display can be obtained by the simple ratio of part to whole” (Answer, pages 3 and 4). “Thus, a person of ordinary skill in the art at the time of the invention would have found it obvious to apply the claimed equation to arrive at the degree of attainment in Moroto et al. because the display and its calculation are simplified thereby making it easier for the driver to ascertain the course while driving” (Answer, page 4).

Appellants argue (Brief, pages 8 and 9) that:

Moroto et al is silent regarding a Degree of Attainment which considers the trip traveled (i.e., from the start position to the present position) relative to the whole trip (i.e., from the start position to the destination position), as is specifically defined in claim 7. The Degree of Attainment shown in Fig. 13 of Moroto is merely an indication of how far the vehicle has to travel until the . . . destination. Accordingly, there is simply no teaching in Moroto et al which would suggest the specific Degree of Attainment recited in claim 7.

If Moroto had disclosed the display of “an already covered distance” (Brief, page 13) from the departure point to the present position in addition to the above-noted display of how far the vehicle has to travel from the present position to the destination point, then we would be inclined to agree with the examiner that a ratio of “part to whole” (Answer, page 4) would have been fully understood by a skilled artisan. Since Moroto neither teaches nor would have suggested the display of such “an already covered distance,” we must agree with appellants that it would not have been obvious to one of ordinary skill in the art to calculate a degree of attainment as set forth in claims 7 through 9. Thus, the obviousness rejection of claims 7 through 9 is reversed.

Turning to the obviousness rejection of claims 10, 11, 13 and 14, the examiner states (Answer, pages 4 and 5) that:

Moroto et al. do not teach a timer. Mori et al. teach a counter which functions to count an actual running time, and in combination to calculate an estimated average speed and estimated running time (column 2, line 1, 65-66; column 4, lines 26-42). It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the display teachings of Moroto et al. with the counter teachings of Mori et al. because the invention of Mori et al. suggests the essential features that assist the driver in arriving at the destination on time (column 1, lines 8-17).

Appellants argue (Brief, page 13) that “[n]either of these references allows a user to recognize an already covered distance in relation to the entire route.”

We agree. Accordingly, the obviousness rejection of claims 10, 11, 13 and 14 is reversed.

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DECISION

The decision of the examiner rejecting claims 7 through 11, 13 and 14 under 35 U.S.C.  
§ 103 is reversed.

REVERSED

KENNETH W. HAIRSTON	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
	)	APPEALS AND
LEE E. BARRETT	)	INTERFERENCES
Administrative Patent Judge	)	
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	)	
ERIC FRAHM	)	
Administrative Patent Judge	)	

KWH/dal

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