

(12) United States Patent
Durocher et al.

(10) Patent No.: US 6,381,535 B1
(45) Date of Patent: Apr. 30, 2002

(54) **INTERACTIVE PROCESS FOR USE AS A NAVIGATIONAL AID AND DEVICE FOR ITS IMPLEMENTATION**

(75) Inventors: **Jean-Michel Durocher; Sophie Sommelet**, both of Saint-Germain-en-Laye (FR)

(73) Assignee: **Webraska Mobile Technologies, Poissy (FR)**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/402,588**

(22) PCT Filed: **Mar. 20, 1998**

(86) PCT No.: **PCT/FR98/00557**

§ 371 Date: **Sep. 8, 2000**

§ 102(e) Date: **Sep. 8, 2000**

(87) PCT Pub. No.: **WO98/45823**

PCT Pub. Date: **Oct. 15, 1998**

(30) **Foreign Application Priority Data**

Apr. 8, 1997 (FR) 97 04259

(51) **Int. Cl.⁷** **G08G 1/127**

(52) **U.S. Cl.** **701/202; 701/207; 701/208**

(58) **Field of Search** **701/201, 202, 701/205, 207, 208, 209, 211**

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,954,958 A * 9/1990 Savage et al. 364/444

5,311,434 A *	5/1994	Tamai	364/449
5,508,917 A *	4/1996	Siegle et al.	364/424,02
5,543,789 A *	8/1996	Behr et al.	340/995
5,839,086 A *	11/1998	Hirano	701/201
5,926,118 A *	7/1999	Hayashida et al.	340/995
5,928,307 A *	7/1999	Oshizawa et al.	701/210
6,199,045 B1 *	3/2001	Giniger et al.	705/1

* cited by examiner

Primary Examiner—Michael J. Zanelli

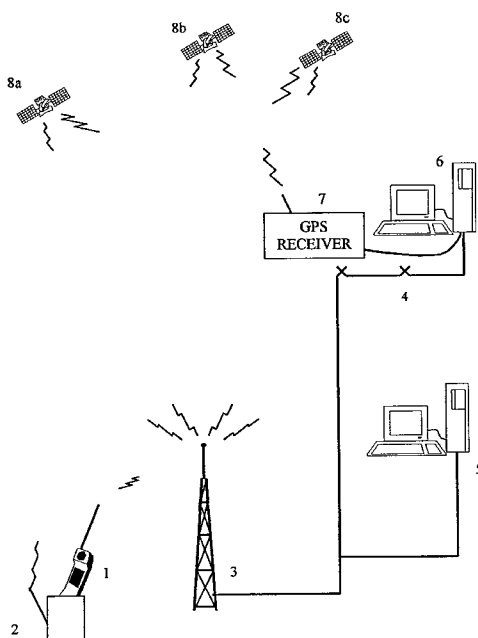
Assistant Examiner—Eric M Gibson

(74) *Attorney, Agent, or Firm*—Pennie & Edmonds LLP

(57) **ABSTRACT**

The invention relates to a system to be used as an aid in navigation comprising a mobile terminal (1, 2) connected to a centralized server (5), and more specifically to the improvements required to convert a portable radiotelephone (1) into a complete and precise navigational aid system. The invention is characterized by the fact that the itinerary requests of the mobile terminal (1, 2) are transmitted to a centralized server (5) by a radio relay link, and by the fact that the server (5), which contains the necessary cartographic and program data, calculates the itinerary requested and transmits to the mobile terminal (1, 2) the data concerning the straight line and arc segments that constitute the itinerary, thereby permitting real-time guidance. The invention is further characterized by the fact that the server (5) evaluates the possibility of the craft deviating from its course, as well as by the fact that the server (5) also calculates and transmits the data concerning the segments of possible deviation itineraries in an area of proximity to the main itinerary. The invention can be applied in particular to automotive vehicles.

18 Claims, 4 Drawing Sheets



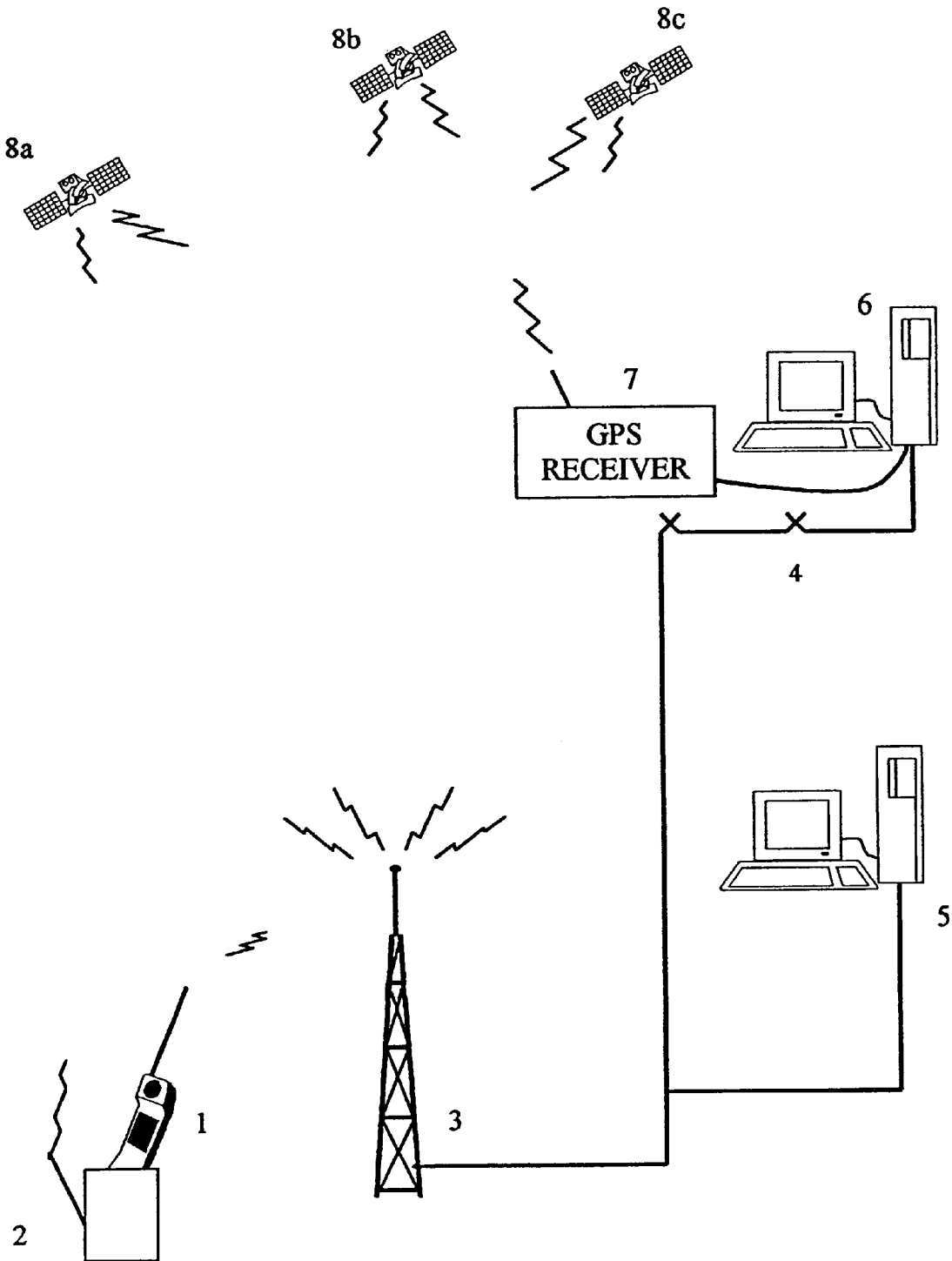


FIG. 1

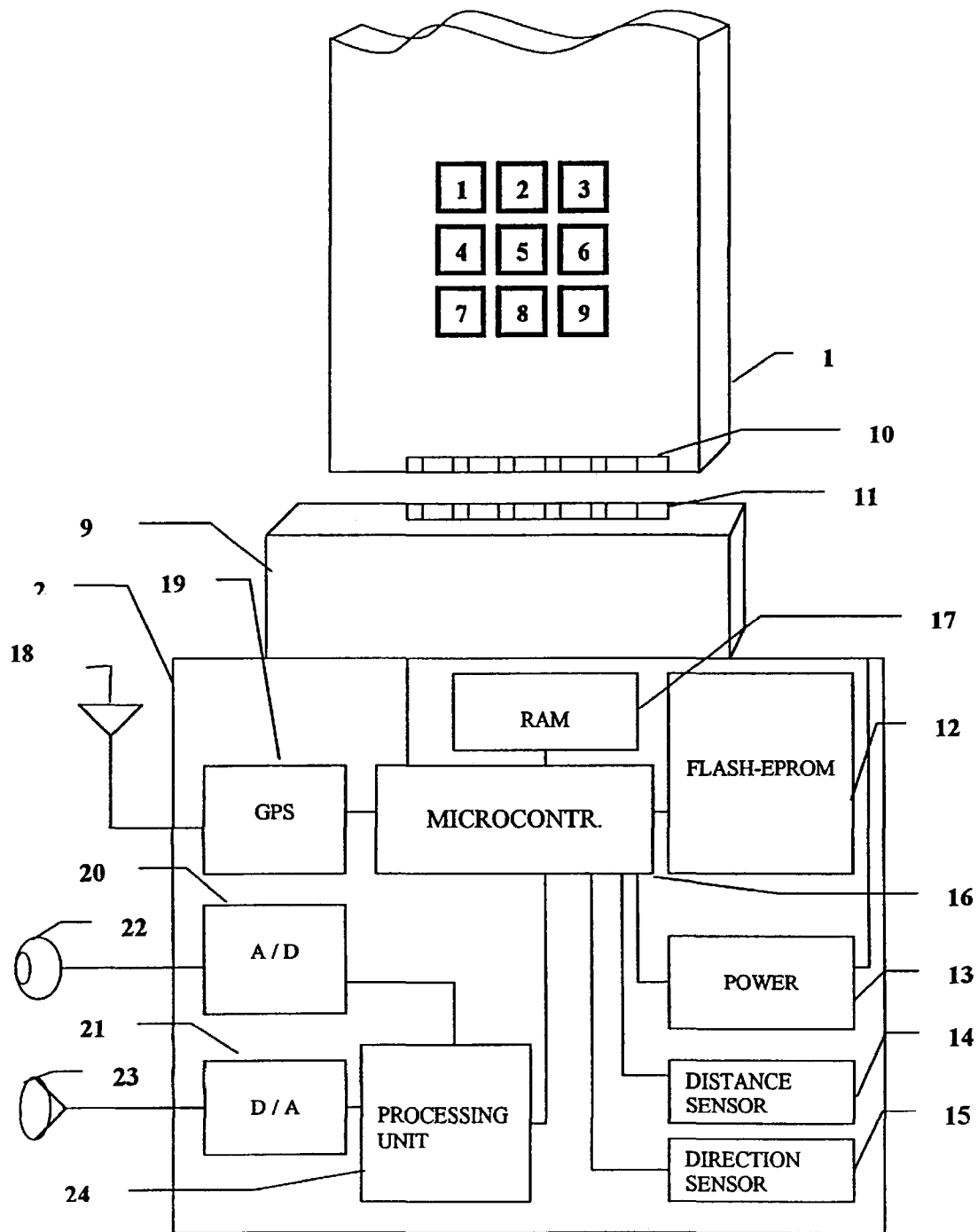


FIG. 2

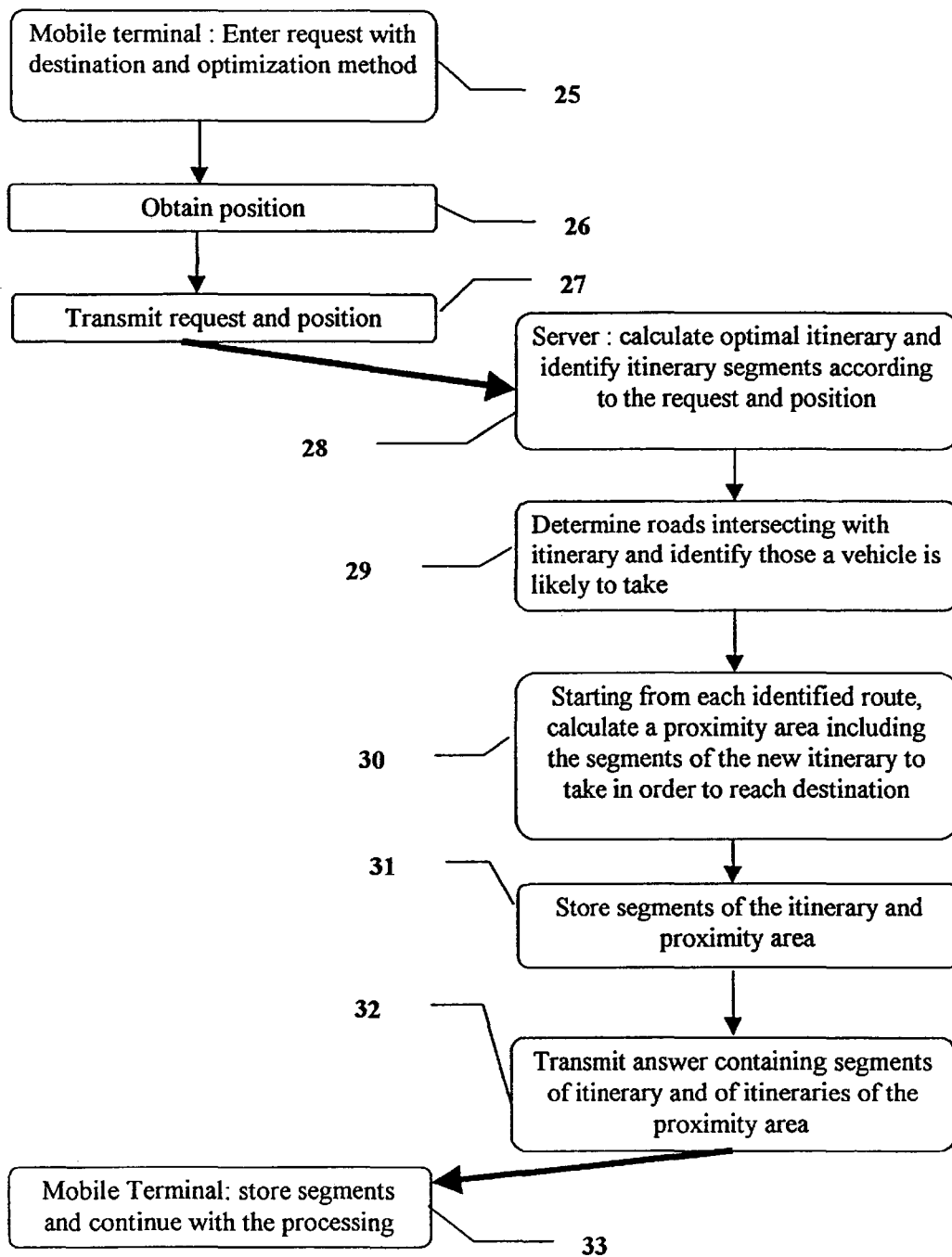


FIG. 3

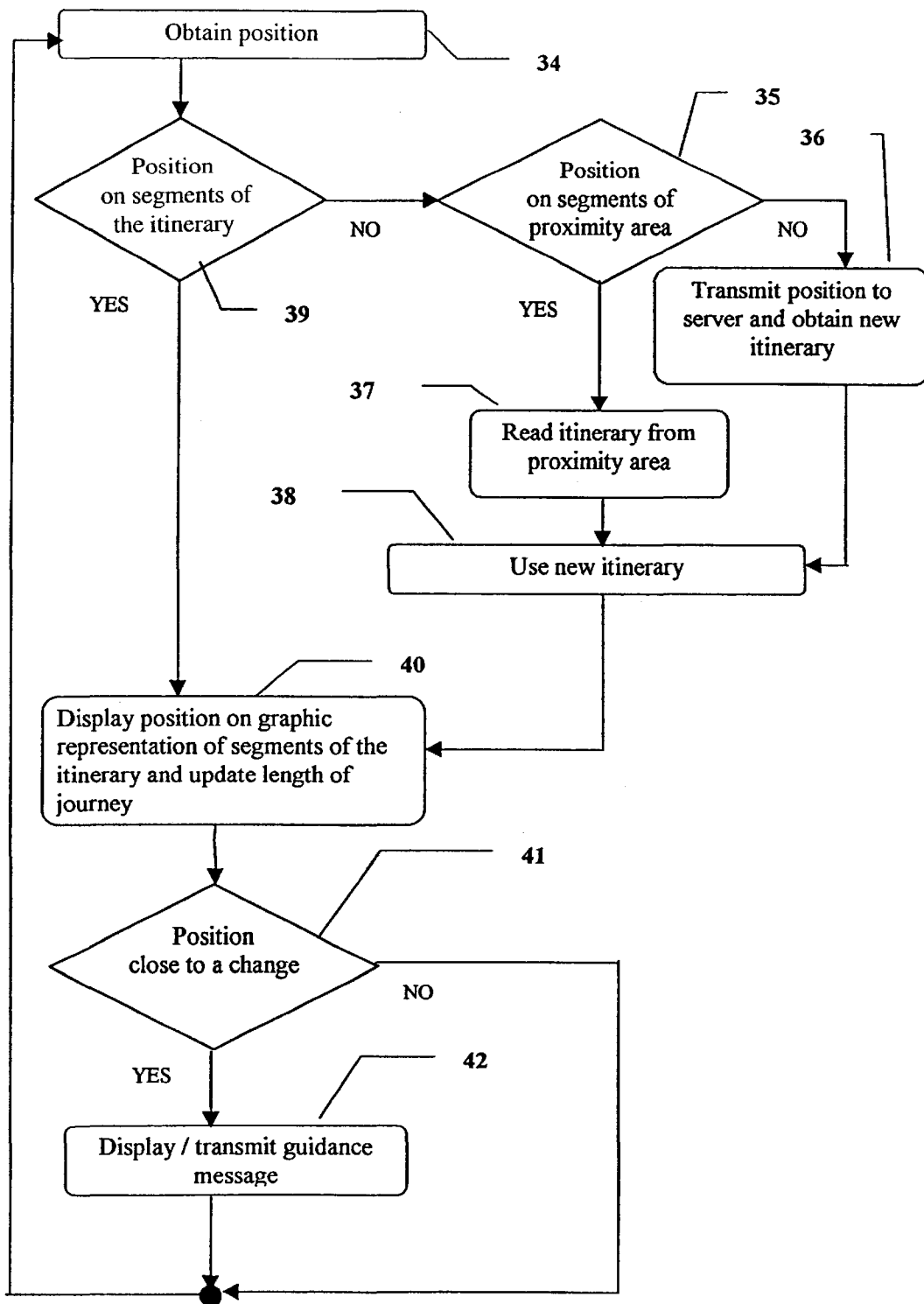


FIG. 4

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.