



US007219861B1

(12) **United States Patent**
Barr

(10) **Patent No.:** **US 7,219,861 B1**
(45) **Date of Patent:** **May 22, 2007**

- (54) **GUIDANCE SYSTEM FOR RADIO-CONTROLLED AIRCRAFT**
- (75) Inventor: **Howard Barr**, Encinitas, CA (US)
- (73) Assignee: **Spirit International, Inc.**, Carrollton, TX (US)
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 774 days.

5,249,272 A	9/1993	Stern
5,329,213 A	7/1994	Orton et al.
5,407,149 A	4/1995	Singhai
5,425,750 A	6/1995	Moberg
H1469 H	8/1995	Simonoff
5,452,901 A	9/1995	Nakada et al.
5,507,455 A	4/1996	Yang
5,577,154 A	11/1996	Orton
5,672,086 A	9/1997	Dixon
5,730,394 A *	3/1998	Cotton et al.
5,785,281 A	7/1998	Peter et al.
5,789,677 A	8/1998	McEachern
5,904,724 A *	5/1999	Margolin

(21) Appl. No.: **09/611,177**

(22) Filed: **Jul. 6, 2000**

(51) **Int. Cl.**
B64C 13/18 (2006.01)

(52) **U.S. Cl.** **244/190**

(58) **Field of Classification Search** 244/189,
244/190, 17.13; 701/2
See application file for complete search history.

FOREIGN PATENT DOCUMENTS

DE	196 14 987 A1	4/1996
JP	2000-5451	11/2000
WO	WO 94/08847	4/1994

* cited by examiner

Primary Examiner—Tien Dinh
(74) *Attorney, Agent, or Firm*—Knobbe Martens Olson & Bear LLP

(56) **References Cited**

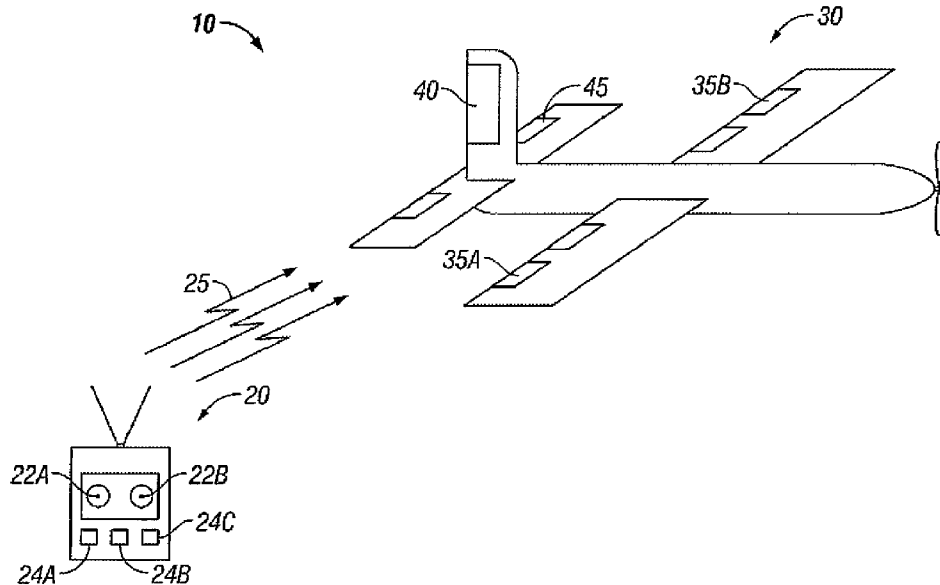
U.S. PATENT DOCUMENTS

3,141,634 A *	7/1964	Rhoads et al.
3,154,266 A *	10/1964	Sheppard et al.
4,038,590 A	7/1977	Knowlton
4,206,411 A	6/1980	Meyer
4,522,072 A	6/1985	Sulouff et al.
4,725,956 A *	2/1988	Jenkins
4,821,572 A	4/1989	Hulsing, II
4,964,598 A	10/1990	Berejik et al.
5,058,824 A	10/1991	Cycon et al.
5,067,674 A	11/1991	Heyche et al.
5,195,920 A	3/1993	Collier

(57) **ABSTRACT**

A method and system are described for controlling the flight pattern of a remote controlled aircraft. The system includes a microcontroller that is linked to an accelerometer for determining the attitude of the aircraft and modifying signals to the aircraft's flight control system in order to prevent a crash. In addition, several preset flight patterns are stored in a memory so that upon activation, the aircraft will enter a preset flight pattern.

23 Claims, 6 Drawing Sheets



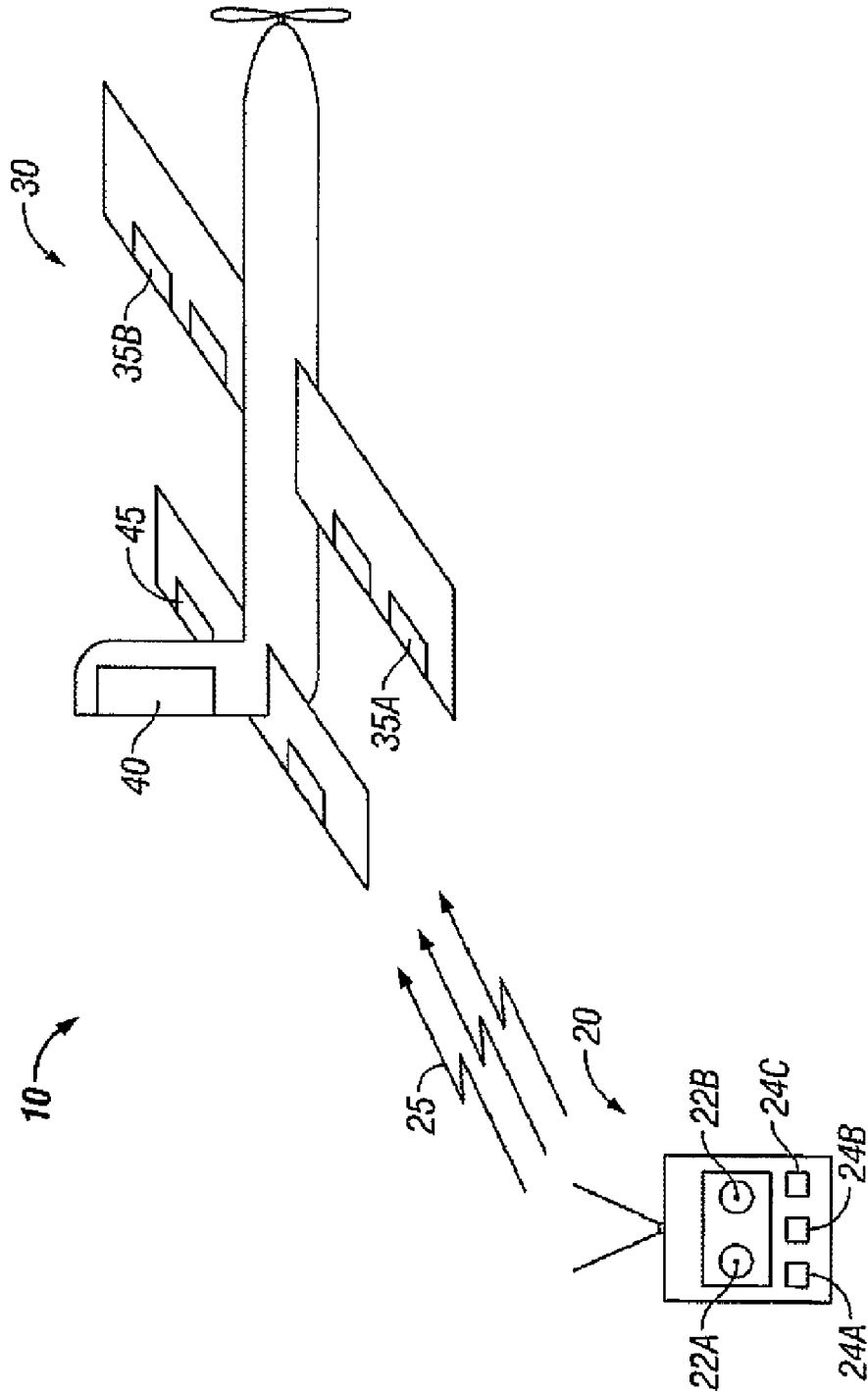


FIG. 1

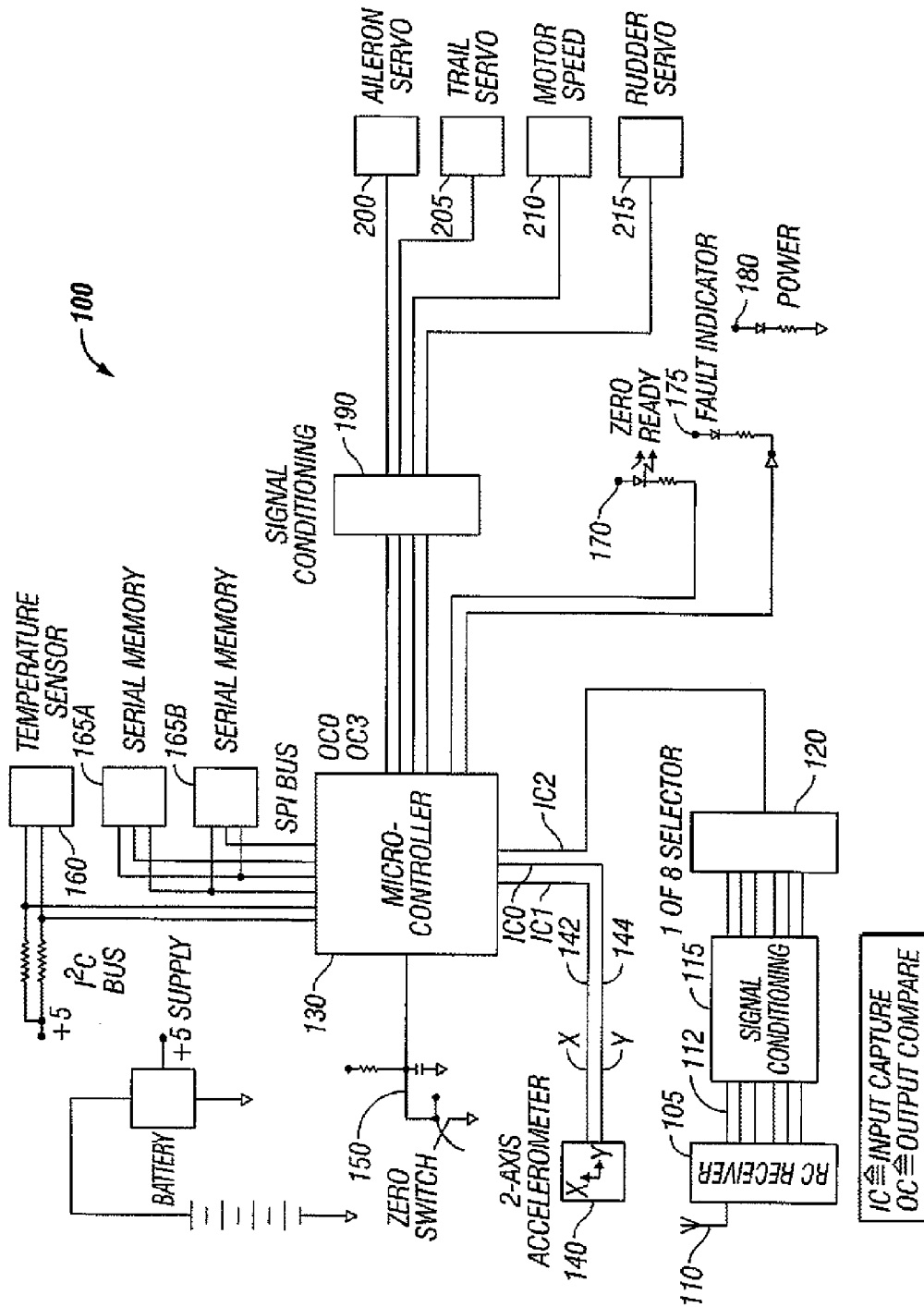


FIG. 2

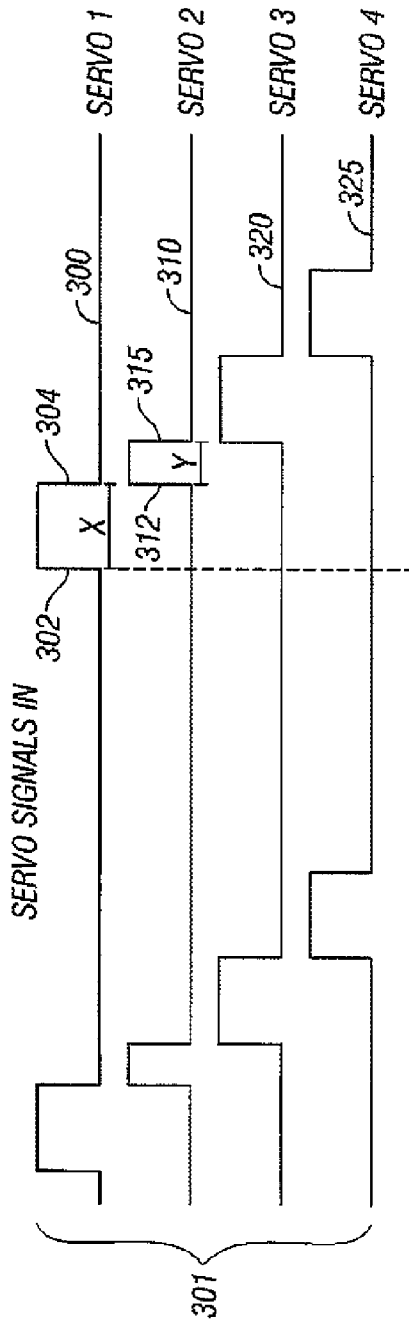


FIG. 3A

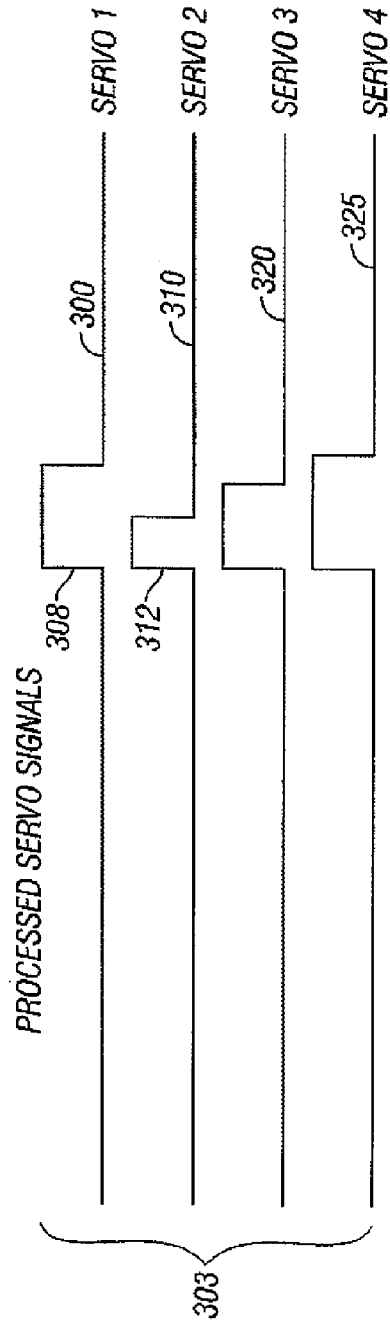


FIG. 3B

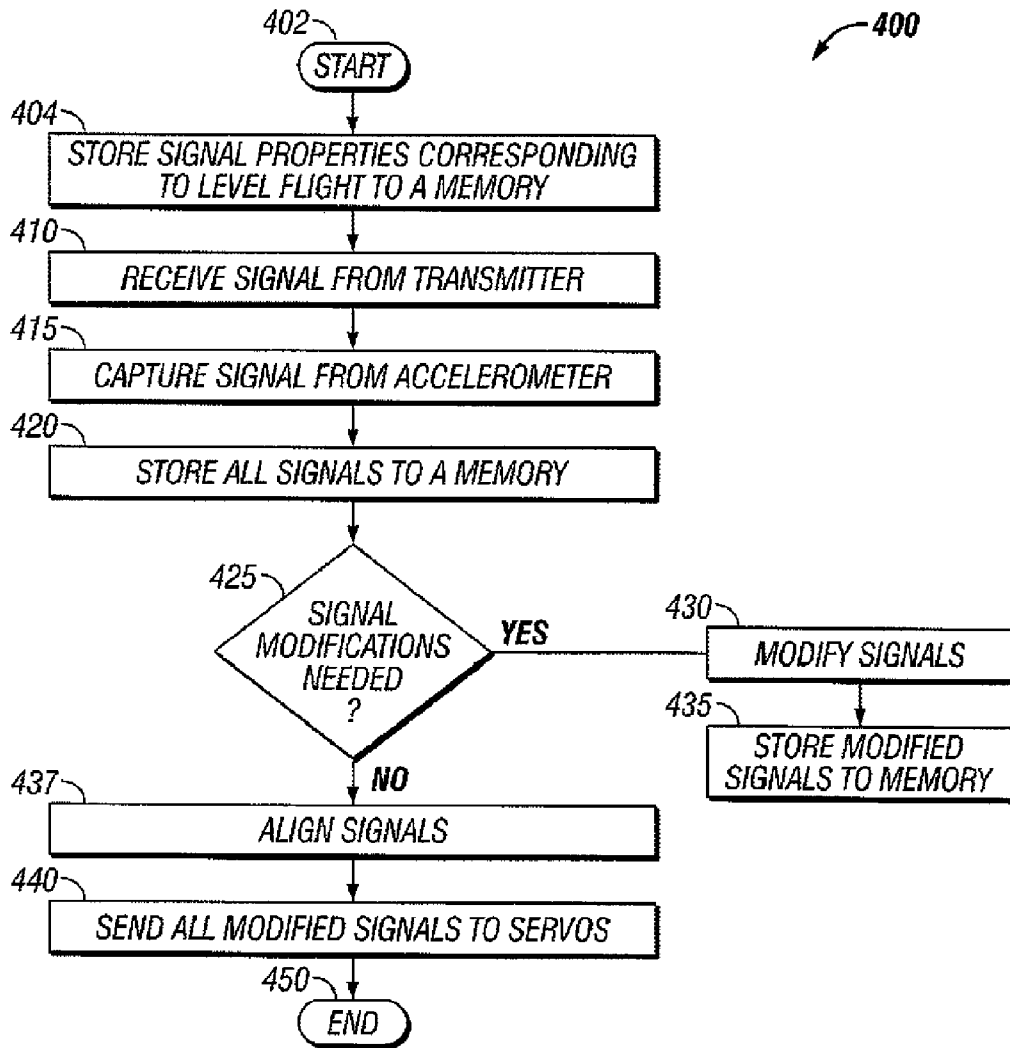


FIG. 4

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.