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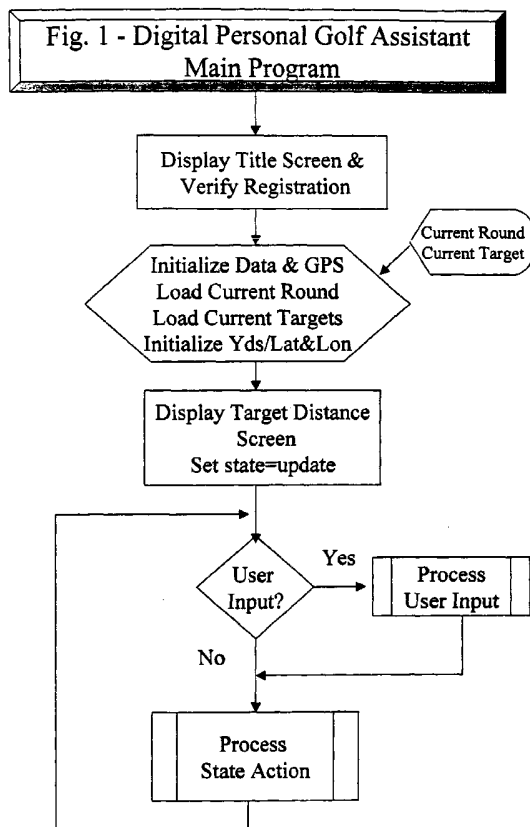
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[Continued on next page]

(54) Title: PERSONAL GOLFING ASSISTANT AND METHOD AND SYSTEM FOR GRAPHICALLY DISPLAYING GOLF RELATED INFORMATION AND FOR COLLECTION, PROCESSING AND DISTRIBUTION OF GOLF RELATED DATA



(57) Abstract: A personal golfing system comprising software running on a PDA attached to a GPS receiver that enables a user to survey and capture golf data, to use a handheld PDA/GPS device to mark a ball location, to determine distances to selected golf course targets or objects, and/or to analyze golf related data (figure 1). The system software can further adjust golf course related measurements to compensate for environmental condition changes. There is provided a graphical method for measuring and displaying distances between a golfer and an object, displaying multiple measured distances along a line of sight between a golfer and an object, and orienting and displaying an object coincident with a user's line of sight. There is provided a method for collecting and uploading golf course geographic data to an Internet accessible sever (figure 34A), processing the uploaded data, distributing selected data to authorized users, and downloading requested data to a hand held device.



European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/34551

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : A63B 57/00

US CL : 473/407

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 473/407

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,456,938 B1 (BARNARD) 24 September 2002 (24.09.2002). Full text and Drawings.	1-137
Y	US 5,507,485 A (FISHER) 16 April 1996 (16.04.1996). Full text and Drawings.	103-116 and 135-137
Y	US 6,236,938 B1 (ATKINSON et al.) 22 May 2001 (05.05.2001). Full text and Drawings.	101-102 and 137
Y	US 5,685,786 A (DUDLEY) 11 November 1997 (11.11.1997). Full text and Drawings.	99-102
Y	US 2002/0082122 A1 (PIPPIN et al.) 27 June 2002 (27.06.2002). Full text and Drawings.	117-134

☐ Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;"

document member of the same patent family

Date of the actual completion of the international search

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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/34551

## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:  
Please See Continuation Sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

**BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING**

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-24, 74-78, and 82-86, drawn to a method and system for storing and communicating sets of topographic information to and from information processing and viewing devices by means of an accessible electronic network, each of the sets been specific to an individual golf course.

Group II, claim(s) 71-73 and 79-81, drawn to a method and system for storing and communicating sets of topographic information to and from information processing and viewing devices by means of an accessible electronic network.

Group III, claim(s) 25-70, drawn to a portable information processing and viewing device for storing and communicating topographic information.

Group IV, claim(s) 87-137, drawn to a handheld personal golfing assistant.

The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2. The claims share the common technical feature of a personal golfing system using GPS receiver that enable a user to survey and capture golf data, to use a handheld and/or portable device to mark the location of a golf ball to determine the distance to a selected golf course target or objects and/or analyze the related golf data. This feature is clearly the invention as taught by U.S. Patent Number 6,456,938 to Barnard. The common technical feature lacks novelty and does not make a contribution over the prior art.