

(19) World Intellectual Property Organization  
International Bureau



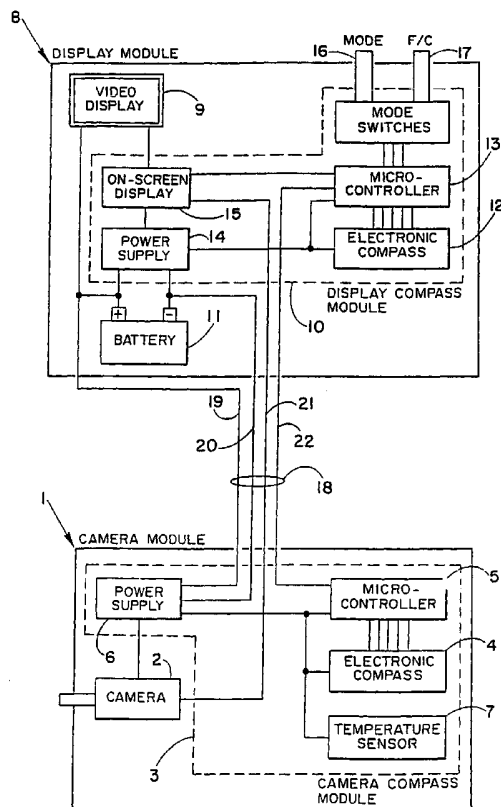
(43) International Publication Date  
3 January 2003 (03.01.2003)

PCT

(10) International Publication Number  
**WO 03/001248 A3**

- (51) International Patent Classification<sup>7</sup>: **H04N 7/18** (74) Agents: **SCHROEDER, Brian, F.** et al.; Schroeder & Siegfried, P.A., 222 South Ninth Street, Suite 2870, Minneapolis, MN 55402 (US).
- (21) International Application Number: PCT/US02/19749
- (22) International Filing Date: 19 June 2002 (19.06.2002) (81) Designated State (*national*): KR.
- (25) Filing Language: English (84) Designated States (*regional*): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).
- (26) Publication Language: English
- (30) Priority Data:  
60/300,106 22 June 2001 (22.06.2001) US  
10/003,518 30 October 2001 (30.10.2001) US  
Published:  
— with international search report
- (71) Applicant: **WATERSTRIKE INCORPORATED** (88) Date of publication of the international search report:  
[US/US]; 684 Excelsior Boulevard, Suite 100, Excelsior, MN 55331 (US). 15 May 2003
- (72) Inventor: **STRUYK, David, A.**; 3921 Tramore Lane, Deephaven, MN 55391 (US).
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: REMOTE VIEWING SYSTEM INCORPORATION RELATIVE DIRECTIONAL INDICATION



(57) Abstract: A viewing system is presented in which both a remotely located video camera (2) and a separate video display (9) each incorporate an electronic compass (4, 12). An electronic circuit (5, 13) calculates the difference between the two compass headings and displays a relative direction indicator on the display. The indicator can thus display the viewing direction of the camera relative to the viewing orientation of the display (9). This is especially useful in determining the viewing direction of a non-stationary remote camera in applications where the display is also non-stationary, such as in underwater viewing applications where the camera is suspended by a cable beneath a boat, and the display is located within the boat.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/19749

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H04N 7/18

US CL : 348/61, 81, 82, 211, 157, 158

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. : 348/61, 81, 82, 211, 157, 158

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)  
EAST

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages                              | Relevant to claim No. |
|------------|---|-----------------------|
| A          | US 5,712,679 A (COLES) 27 January 1998, entire document.  | 1-22                  |
| A          | US 5,995,882 A (PATTERSON et al.) 30 November 1999, Abstract, figs. 4-5, 9, col. 2, line 53 to col. 4, line 33. | 1-22                  |
| A          | US 5,270,545 A (PHILLIPS et al.) 14 December 1993, Abstract, col. 3, lines 4-21.                                | 1-22                  |
| A, P       | US 6,393,745 B1 (MIKI) 28 May 2002, col. 3, lines 29-56.  | 1-22                  |

☐ 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  | "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  |
| "E" earlier application or patent published on or after the international filing date   | "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   |
| "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) | "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 |
| "O" document referring to an oral disclosure, use, exhibition or other means  | "&" document member of the same patent family  |
| "P" document published prior to the international filing date but later than the priority date claimed  |  |

Date of the actual completion of the international search

27 September 2002 (27.09.2002)

Date of mailing of the international search report

06 FEB 2003

Name and mailing address of the ISA/US

Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703)305-3230

Authorized officer

Vu Le

Telephone No. 703-305-4700