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(21) International Application Number: PCT/US97/06256 (22) International Filing Date: 1 April 1997 (01.04.97) (30) Priority Data: 60/014,447 1 April 1996 (01.04.96) US (71) Applicant (for all designated States except US): LOCKHEED MARTIN CORPORATION [US/US]; 6801 Rockledge Drive, Bethesda, MD 20817 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): HOUSAND, Brian J. [US/US]; 5486 Deer Creek Drive, Orlando, FL 32821 (US); ATENER, Gene D. [US/US]; 280 Country Sun Cove, Oviedo, FL 32765 (US); JESSE, Susan J. [US/US]; 10052 Brandon Circle, Orlando, FL 32836 (US); PEARSON, William A. [US/US]; 441 Valley Stream Drive, Geneva, FL 32732 (US); NEWBERG, G., Edward [US/US]; 722 Sailfish Road, Winter Springs, FL 32708 (US); WEAVER, John F. [US/US]; 7824 Wintersong Drive, Orlando, FL 32825 (US); HILL, Timothy A. [US/US]; 525 Oakdale Street, P.O. Box 443, Windermere, FL 34786 (US); FAUER, Helmuth [US/US]; 9138 Queen Elizabeth Court, Orlando, FL 32818 (US); BATEL, Bhikhubhai, L. [US/US]; 8507 Pajaro Court, Orlando, FL 32836 (US); ROBERTSON,		
(74) Agents: MICHAUD, Frederick, G., Jr. et al.; Burns, Doane, Swecker & Mathis, L.L.P., P.O. Box 1404, Alexandria, VA 22313-1404 (US). (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>Without international search report and to be republished upon receipt of that report.</i>		
(54) Title: COMBINED LASER/FLIR OPTICS SYSTEM (57) Abstract In a FLIR/laser based targeting and imaging system, the ability to recognize, detect, locate, and/or track targets in an area of interest is significantly improved by reducing the fixed and dynamic alignment errors between the IR LOS and the laser LOS. Fixed alignment errors are reduced with an improved internal boresight module and corresponding boresight method. Dynamic alignment errors are reduced with an opto-electric subsystem that employs a single pitch bearing and a common pitch/yaw afocal for both the laser energy and the IR energy. A segmented window in the system housing includes a circular EMI grid pattern which significantly reduces the amount of off-axis EMI entering the optical pathways, and improved signal processing techniques are employed to enhance the quality of the IR image after the image has been digitized.		