

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
01 June 2023 (01.06.2023)



(10) International Publication Number
WO 2023/095118 A1

(51) International Patent Classification:

G01S 19/42 (2010.01) B63B 79/40 (2020.01)
G08G 3/00 (2006.01) H04W 4/029 (2018.01)

(21) International Application Number:

PCT/IL2022/051169

(22) International Filing Date:

06 November 2022 (06.11.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

17/534,075 23 November 2021 (23.11.2021) US

(71) Applicant: **WINDWARD LTD.** [IL/IL]; 2 Ha'shlosa St.,
6706054 Tel Aviv (IL).

(72) Inventors: **SALZMAN, Dror**; Buki Ben Yagli 7, Apt. 6,
6329607 Tel Aviv (IL). **AMRAM, Shay**; Magen David 97,
4634780 Herzliya (IL).

(74) Agent: **GLAZBERG, Ziv**; Glazberg Applebaum & Co.,
Advocates & Patent Attorneys, 3 HaYetzira St., Shap House
21st floor, 5252141 Ramat Gan (IL).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE,
KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU,
LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG,
NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS,
RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS,
ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, CV,
GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ,
TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU,

(54) Title: DEAD RECKONING-BASED ANALYSIS OF FABRICATED MARITIME DATA

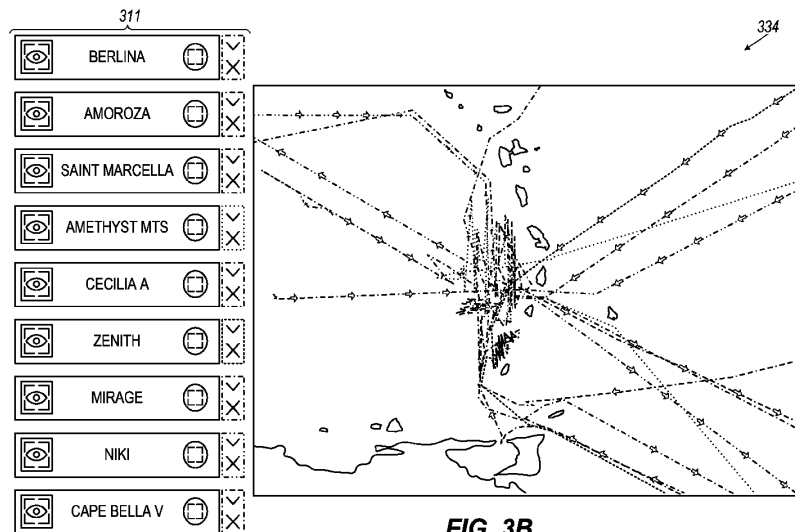


FIG. 3B

(57) Abstract: A method, system and product for dead reckoning-based analysis of fabricated maritime data. The method comprises determining an initial location of the maritime vessel; determining speed and heading information using the location-reporting signals; computing estimated location of the maritime vessel at a specific time, based on the initial location and based on the speed and heading information; comparing the estimated location with a reported location at the time according to location-reporting signals; based on the comparison, determining that the location-reporting signals are at least partially fabricated; and in response to the determination that the location-reporting signals are at least partially fabricated, performing a responsive action.

[Continued on next page]

TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))