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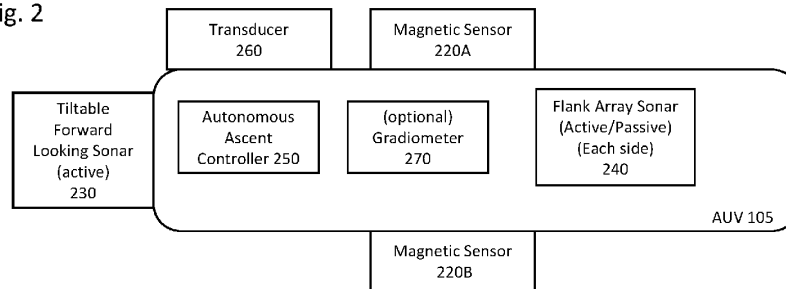
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(54) Title: AUTONOMOUS ASCENT OF AN UNDERWATER VEHICLE

Fig. 2



(57) Abstract: There is provided a computerized method of controlling ascent of an underwater vehicle (UV) from a safety depth to a water surface, the method comprising: at safety depth, controlling the UV to collect, from a passive sonar associated with the UV, first data indicative of first locations of surface targets within a first surface area of interest; controlling ascent of the UV to an intermediate depth in accordance with the first data; at the intermediate depth, controlling the UV to collect second data indicative of second locations of surface targets within a second surface area of interest, wherein the second data comprises one or more of: data from a passive sonar, data from one or more magnetic sensors, data from an active sonar, data from a light detection and ranging (LIDAR) scanner; and controlling ascent of the UV to a periscope depth in accordance with the second data.

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