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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

[Continued on next page]

(54) **Title:** AUTONOMOUS SAILBOAT FOR OCEANOGRAPHIC MONITORING

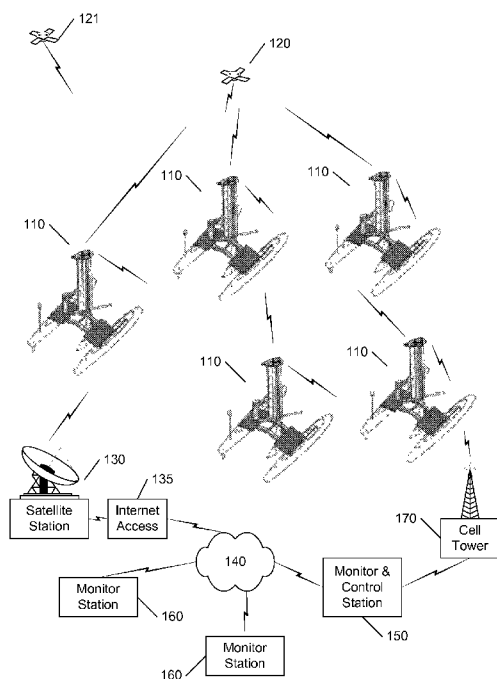


FIG. 1

(57) **Abstract:** A fleet of autonomous sailing vessels that are equipped with monitoring and communication equipment for reporting environmental and other conditions. For optimal stability, the autonomous sailing vessels are multi-hulled vessels (catamarans) with self-righting capabilities. Each sailing vessel sends and receives information via one or more satellite links, using solar power to power the communications equipment as well as the monitoring equipment. Each sailing vessel includes an auto-sailtrim system to maintain a desired attack angle with the wind, and electric propulsion for use as required to maintain a desired heading. A modular design is used to support mission-specific payloads.



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