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- (71) Applicant: **EMERJA CORPORATION** [US/US]; 18114 Bancroft Avenue, Monte Sereno, California 95030 (US).
- (72) Inventors: **MILLER, Guy**; 18114 Bancroft Avenue, Monte Sereno, California 95030 (US). **HANSEN, Daniel**; 18114 Bancroft Avenue, Monte Sereno, California 95030 (US).
- (74) Agent: **ALTMAN, Daniel, E.**; KNOBBE, MARTENS, OLSON & BEAR, LLP, 2040 Main Street, 14th Floor, Irvine, California 92614 (US).
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(54) Title: A NONINVASIVE WEARABLE FOR THE PHYSIOLOGICAL ASSESSMENT OF PHYSICAL AND COGNITIVE READINESS FOR MILITARY TASKS

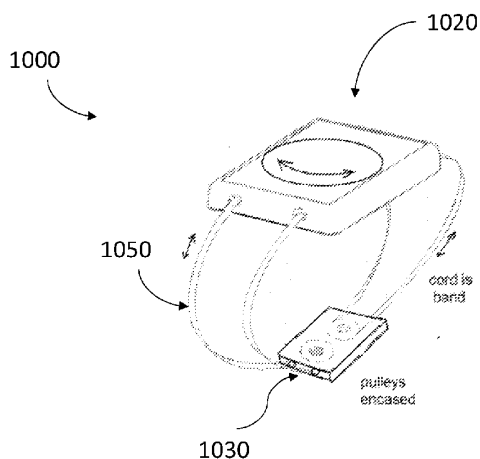


FIG. 10

(57) Abstract: Disclosed is a device, wearable by a user, comprising a band configured to be worn in substantially complete cross-sectional contact with a biological compartment of the user; a tension mechanism connected to the band, the tension mechanism configured to allow a circumference of the band (i) to expand to accommodate ingress of fluid into the biological compartment and (ii) to contract to accommodate egress of fluid out of the biological compartment, such that the band maintains substantially complete cross-sectional contact with the biological compartment of the user; and a sensor connected to the band, the sensor configured to collect a plurality of patient data. The device is suitable for use in assessing military readiness of an individual or a cohort of individuals.