

SBIR 06.2 PHASE I - AWARD DETAILS	
ORGANIZATION	MRMC
TOPIC NUMBER	A06-165
CONTRACT NUMBER	
YEAR OF AWARD	
AWARD START DATE	
AWARD COMPLETION DATE	
PROPOSAL NUMBER	A062-165-2963
TITLE	Micro Electronics for Intraoral Salivary Hydration Sensor
PROJECT MANAGER	Ray Stewart (650) 474-0500 rays@cantimer.com
COMPANY	Cantimer Incorporated 3700 Haven Court Menlo Park CA 94025-1043 Minority Owned: No Veteran Owned: No Number of Employees: 4
KEYWORDS	microelectronics, wireless, hydration, sensor, saliva, intraoral, osmometer
ABSTRACT	Two microelectronics designs will be evaluated to establish proof of feasibility for a wireless intraoral sensor platform. The electronics will be sufficiently small to allow bonding to a tooth and will support a micro osmometer. The device will initially transmit to a mote mounted extraorally on the soldier and subsequently to a remote monitor, 1-2 miles away.
BENEFITS	The development of a micro-electronic package with micro osmometer to measure hydration will provide the Warfighter with a non-invasive, real-time monitor and enable pre-symptom detection and intervention by forward medical personnel. It is expected that such a monitor would eliminate or significantly reduce the seriousness of dehydration and heat injuries. Civilians at risk of dehydration such as the geriatric population, fire fighters, extreme sport athletes and HAZCOM responders, would also benefit from a continuous hydration monitor.