



# CBIRF initiated, TSWG supported Individual Protective Requirements

19 June 2002



## Established April 1996 Per CMC Planning Guidance



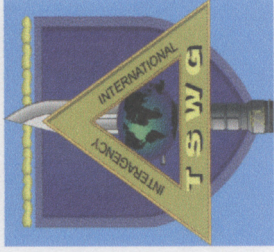
### Current Mission Statement

When directed, forward-deploy and/or respond to a credible threat of a **Chemical, Biological, Radiological, Nuclear, or High Yield Explosive (CBRNE)** incident in order to assist local, state, or federal agencies and designated CINCs in the conduct of consequence management operations by providing capabilities for **agent detection and identification; casualty search, rescue, and personnel decontamination; and emergency medical care and stabilization of contaminated personnel.**



## **PARTNERSHIP**

- **Marine Corps Systems Command, CBIRF, Technical Support Working Group, & Others**
- **Improve Research Development and Acquisition of equipment.**
- **Delivery of near term equipment solutions to operators.**



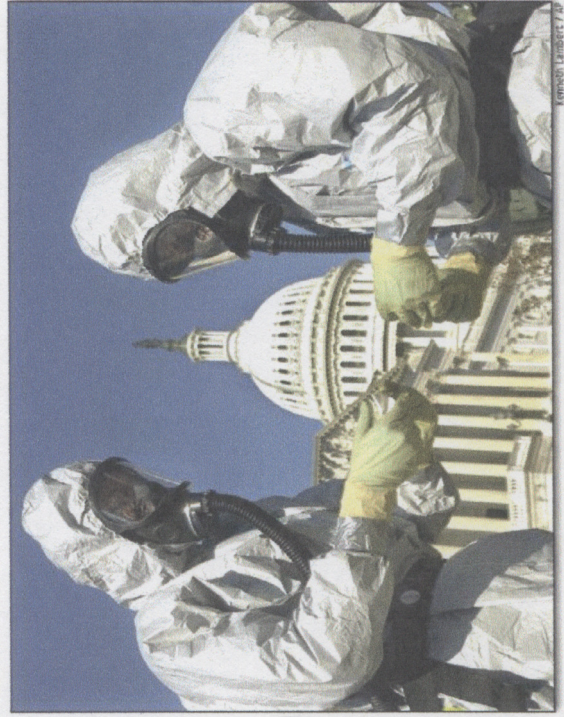
## FY02&03 CURRENT PROJECTS

Improved filter

Re-hydration

Heat index

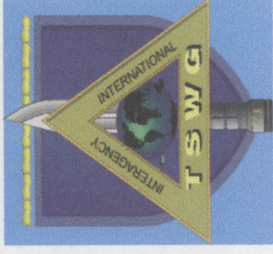
- Why?
- Extended strength, ability & mental acuity
- Increased Operational Endurance
- Improved Life Saving Capability





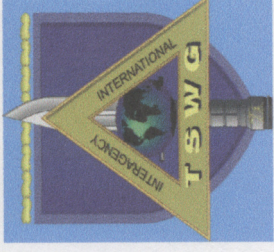
# Improved Filter Canister

- **Broad protection from War Gases & TIC's**
- **All agent concentrations at IDLH levels**
- **Tested at realistic Human respiration rates of Volume & Velocity**
- **Cyclic Human respiration rates from 50 to 700 LPM**
- **In 50 LPM increments**
- **Military Mask & PAPR applications**
- **Filter canister failure times in minutes**
- **NavAirSysCom testing of actual Marines respiration cycles**
- **Commercial testing of actual Marines respiration cycles**



# Re-Hydration in PPE

- **Extend strength, endurance and mental acuity while down range**
- **Hands free drinking system**
- **Adaptable to participating COTS SCBA's Rebreathers & PAPR's**
- **Allow for re-hydration w/face blanks of COTS masks**



# Heat Index Calculator

- **Determine Max safe down range times for first responders in PPE**
- **Prevent heat related injuries**
- **Input for onsite weather conditions**
- **Input for the level of PPE worn**
- **Input for work level intensity**
- **Slide rule/Whiz Wheel/Calculator, hand held configuration**



# Status Report

## •Improved Filter Requirement

Currently statements of work are under revision by SBCCOM, TSWG and ONR and are fully engaged in the supervision of this important initiative. The establishment of realistic respiration rates and filter failure times in minutes will result in a vastly improved filter canister.

## •Re-Hydration in PPE

Our kick-off meeting with all interested parties occurred on 31 January 2002 and a subsequent Preliminary Design Review meeting occurred on 28 March 2002. A review of all prototypes submitted by interested parties is scheduled for 25 June 2002.

## •Heat Index Calculator

On 25 April 2002 the Quad Chart review meeting was held in order to down select several of the numerous submissions from industry. On 26 June 2002 the final selections from industry will be selected for TSWG funding.