### Abbreviations and Acronyms

#### A
- \( \alpha \): absorptivity
- \( A_c \): area of surface contact
- \( A_D \): Dubois body surface area
- ADEA: US Army Development and Employment Agency
- ADHD: attention-deficit hyperactivity disorder
- AEST: Australian Eastern Standard Time
- AFCCC: Air Force Combat Climatological Center
- AIS: Abbreviated Injury Scale
- AKO: Army Knowledge Online
- ALICE: All-Purpose Lightweight Individual-Carrying Equipment
- AMEDD: Army Medical Department
- ANAM: Automated Neuropsychological Assessment Metric
- ANSI: American National Standards Institute
- ARDEC: Armament, Research, Development, and Engineering Center
- ASHRAE: American Society of Heating, Refrigerating, and Air-Conditioning Engineers
- ATBM: Advanced Total Body Model
- ATO: Army Technology Objective
- AVP: arginine vasopressin
- BABTA: Body Armor Blunt Trauma Assessment
- BCC: basal cell carcinoma
- BDU: battle dress uniform
- BLDPS: Ballistic and Laser Protective Spectacles
- BOP: blast overpressure
- BTD: Blast Test Device

#### B
- B: body
- BABTA: Body Armor Blunt Trauma Assessment
- BCC: basal cell carcinoma
- BDU: battle dress uniform
- BLPs: Ballistic and Laser Protective Spectacles
- BOP: blast overpressure
- BTD: Blast Test Device

#### C
- C: convection
- \( c_b \): heat of body tissue
- CCO: crew coordination objective
- CET: corrected effective temperature
- CFID: computational fluid dynamics
- CHABA: Committee on Hearing, Bioacoustics, and Biomechanics
- CHO: carbohydrate
- CHPPM: US Army Center for Health Promotion and Preventive Medicine (US Army Public Health Command)
- CIVD: cold-induced vasodilation
- CMI: Cornell Medical Index
- CNS: central nervous system
- COIL: chemical oxygen iodine laser
- COZ: Contains Only Titanium and Zinc (sun care product produced by Fallene Ltd, King of Prussia, Pa)
- CPG: Clinical Practice Guideline
- CSI: cold strain index
- CSLO: confocal scanning laser ophthalmoscopy
- CTM: cold thermal model

#### D
- \( \Delta S \): change in storage
- \( \Delta T_b \): change in body temperature
- DA: data acquisition
- DCGS-A: Distributed Common Ground System–Army
- Diff: difference
- DLE: duration-limited exposure
- DLE1: duration-limited exposure based on heat storage
- DLE2: duration-limited exposure based on water depletion
- DoD: Department of Defense

#### E
- E: evaporative heat loss
- \( \varepsilon \): emissivity
- EEG: electroencephalogram
- EITACC: Equation Independent Transient Analysis Computer Code
- EKG: electrocardiogram
- ELTEP: Emerging Laser Threat Eye Protection
- EMG: electromyogram
- EMP: electromagnetic pulse
- EMS: eosinophilia–myalgia syndrome
- ERGO: Energy-Rich Glucose Optimized (drink)
- ESA: European Space Agency
- ET: effective temperature
- EXEMS '92: Experimental Study for the European Manned Space Infrastructure, 1992

#### F
- FACE: Functional Assessment of Care Environments
- FDA: US Food and Drug Administration
- FEM: finite element modeling
- FM 100 Hue: Farnsworth Munsell 100 Hue

#### G
- GABA: \( \gamma \)-aminobutyric acid
- GI: gastrointestinal
- GPS: Global Positioning System

#### H
- \( h_c \): convective heat transfer coefficient
- HD: Humidex
- \( h_r \): evaporative heat transfer coefficient
- HEAR: Health Enrollment/Evaluation Assessment Report
- HHA: Health Hazard Assessment
- HII: humidity index
- HIPPA: Health Insurance Portability and Accountability Act
- HMMWV: high-mobility multipurpose wheeled vehicle (or “Humvee”)
- \( H_r \): radiant field
- \( h_r \): radiative heat transfer coefficient
- HRA: Health Risk Appraisal
- HSADA: heat strain decision aid
- 5-HT1A: 5-hydroxytryptamine (serotonin) receptor 1A

#### I
- IAC: information analysis center
- ICD-9-CM: International Classification of Diseases, Ninth Revision, Clinical Modification
- ICDA: initial capability decision aid
- IDEF: Integrated Definition
- IED: improvised explosive device
- \( i_w \): water vapor permeability index
- IMETS: Integrated Meteorological System
- IND: Investigational New Drug
- IR: infrared
- IREQ: insulation index of required clothing
IRSF: intraretinal scar formation
ISEMSI '90: Isolation Study for the European Manned Space Infrastructure, 1990
ISS: Injury Severity Score
ITBM: Interim Total Body Model
IWEDA: Integrated Weather Effects Decision Aid
JLST: Joint US Army Materiel Command and the US Army Medical Research and Development Command Laser Safety Team (also known as J AMC-AMRDC LST)
JNLWD: Joint Non-Lethal Weapon Directorate
JNLWP: Joint Non-Lethal Weapon Program
K: conductance
kph: kilometers per hour
LAIR: Letterman Army Institute of Research
LBE: load-bearing equipment
LED: light-emitting diode
LFTP: Live Fire Test Program
LMB: Lasers on the Modern Battlefield (conference)
LR: Lewis relationship
LRRP: Long-Range Reconnaissance Patrol
M: metabolism
MAIS: Maximum Abbreviated Injury Scale
MANPRINT: Manpower and Personnel Integration
MEDEVAC: medical evacuation
M-Gator: Military Gator
MILES: Multiple Integrated Laser Engagement Simulator
MoHSM: mobile heat stress monitor
MOLLE: Modular Lightweight Load-Carrying Equipment
MOMRP: Military Operational Medicine Research Program
MOPP: Mission-Oriented Protective Posture (gear)
MOUT: Military Operations on Urban Terrain
MRE: Meals, Ready to Eat
MRI: magnetic resonance imaging
MRMC: US Army Medical Research and Materiel Command
MRS: magnetic resonance spectroscopy
MyWIDA: My Weather Impacts Decision Aid
NAA: N-acetylaspartate
NAMRL: Naval Aviation Medical Research Laboratory
NASA: National Aeronautics and Space Administration
NETPR: Neurotoxin Exposure Treatment (Parkinson's) Research
NHP: nonhuman primate
NHTSA: National Highway Traffic Safety Administration
NIDDK: National Institute of Diabetes and Digestive and Kidney Diseases
NIH: National Institutes of Health
NS: number of repeated exposures
NWS: National Weather Service
OS: oculus sinister (pertains to the left eye)
OSHA: Occupational Safety and Health Administration
OTC: over the counter
OTV: outer tactical vest
PB: pyridostigmine bromide
PBPK: physiologically based pharmacokinetic (model)
PC: personal computer
PDA: personal digital assistant
PECS: Physical conditions, Emotional state, Cognitive capabilities, and Social status
PB: pseudofolliculitis barbae
PHC: US Army Public Health Command (formerly CHPPM [US Army Center for Health Promotion and Preventive Medicine])
PIES: Proximity to battle (or assigned unit), and Immediately when symptoms were noted, with Expected return to duty within 72 hours, and with Simplicity
PM: Project Manager
PMB: papillomacular bundle
PPE: personal protective equipment
Pr: Prandtl number
PRL: preferred retinal location
PSDA: Probability of Survival Decision Aid
PVM: (Warfighter) Physiological Status Monitor
PTSD: posttraumatic stress disorder
PVT: psychomotor vigilance task
R: radiation heat exchange
RAC: risk assessment code
Ri: long-wave radiation
RCW: Ration, Cold Weather
RDA: Recommended Dietary Allowance
REM: rapid eye movement
RH: relative humidity
RNFL: retinal nerve fiber layer
RPE: retinal pigmented epithelium
Ri: clothing vapor permeability resistance
RTD: resistance temperature device
S: required sweat rate
SSBN: submersible ship ballistic missile, nuclear
SSN: submersible ship, nuclear
STANAG: Standardization Agreement
STRESS: Standardized Tests for Research with Environmental Stressors
SURVIAC: Survivability/Vulnerability Information Analysis Center
SWO: (US Air Force) Staff Weather Officer
SWS: slow-wave sleep

T

$T_a$: air temperature or dry bulb air temperature
TAP: Toxicological Agent Protective
$T_{bg}$: black globe thermometer (also substituted globe temperature)
TBI: traumatic brain injury
$T_c$: core temperature
$T_{cl}$: mean clothing surface temperature
TGAS: Toxic Gas Assessment Software
TIE: total intraocular energy
TMM: Textbooks of Military Medicine
TNT: trinitrotoluene
$T_{nwb}$: “naturally aspirated” wet bulb thermometer
$T_{op}$: operative temperature
$T_{h}$: humid operative temperature
$T_{r}$: radiant temperature
TRL: technology readiness level
$T_{bs}$: body surface temperature or skin/surface temperature
$T_{sk}$: mean skin temperature
$T_{so}$: standard operative temperature
$T_{soh}$: standard humid operative temperature
$T_{wb}$: wet bulb air temperature

U

URT: upper respiratory tract
USAARL: US Army Aeromedical Research Laboratory
USACHPPM: US Army Center for Health Promotion and Preventive Medicine (US Army Public Health Command)
USAMRD: US Army Medical Research Detachment
USAMRMC: US Army Medical Research and Materiel Command
USARIEM: US Army Research Institute of Environmental Medicine
USDA: US Department of Agriculture
UTC: Universal Time Code
UV: ultraviolet
UVA: ultraviolet light ray A
UVB: ultraviolet light ray B
UVR: ultraviolet radiation

V

VA: (Department of) Veterans Affairs
VV&A: validation, verification, and accreditation

W

WBGT: wet bulb global temperature
WCET: windchill equivalent temperature
WCI: windchill index
WCT: windchill temperature
WDI: wet-dry index
$W_c$: work
WPSM: Warfighter Physiological Status Monitor
WRAIR: Walter Reed Army Institute of Research
WRE: Weather Running Estimate
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Bottom graphic: US Army Medical Research and Materiel Command, 1994–present. When the command was renamed, a new emblem was created with the caduceus and the words “protect, project, sustain.”