

GLOSSARY

A

accessory cord Core-and-sheath-constructed cord of diameters ranging from 2 to 8 millimeters, fabricated from aramid (Kevlar), nylon, Perlon, polyester, and polyethylene (Dyneema or Spectra) fibers.

accumulation zone The portion of a glacier that receives more snow every year than it loses to melting.

acute mountain sickness (AMS) An altitude-related illness.

aid climbing Using gear to support a climber's weight while climbing.

aiders Webbing ladders that allow an aid climber to step up. Also called *etriers*.

alpine rock climbing Rock climbing that requires mountaineering skills.

alpine start Starting before daybreak.

alpine touring (AT) *See* randonée skiing.

altimeter Instrument for determining altitude.

American technique Cramponing technique that combines flat-footing (French) and front-pointing (German) techniques on steep snow or ice. Also called *combination technique*. *See* combination technique.

AMS *See* acute mountain sickness.

anchor The point on the mountain to which the climbing system is securely attached; there are belay anchors, rappel anchors, and protection in rock, snow, and ice.

approach shoes Lightweight, sticky-soled shoes designed for both trails and moderate rock climbing.

ascender Mechanical device used to ascend a rope. Also called *jug*, *jumar*.

autoblock A hitch that provides modest friction to simulate the grip of a hand. Commonly used while rappelling.

B

back-cleaning A procedure in which the leader cleans some protection while ascending the route.

bearing The direction from one place to another measured in degrees from true north.

belay anchor *See* anchor.

belay device A piece of equipment that applies friction to the rope to arrest a fall.

belaying Fundamental technique of generating friction to stop a rope's movement and the climber attached to that rope.

bergschrund Giant crevasse found at the upper limit of glacier movement, formed where the moving glacier breaks away from the ice cap or snowfield above.

bight A 180-degree bend in a rope.

big wall climbing Climbing on a large, sheer wall, which usually requires bivouacs and extensive aid climbing.

bivy From the French *bivouac*, meaning "temporary encampment."

bivy sack Large fabric envelope that serves as a Lightweight alternative to a tent.

body belay *See* hip belay.

bollard A mound carved out of snow or ice and rigged with rope, webbing, or accessory cord to provide an anchor.

bolt Permanent piece of artificial protection consisting of a threaded bolt that is placed into a hole drilled into rock.

braking hand The belayer's hand that secures the belay; must be kept in contact with the rope at all times.

C

cairn A pile of rocks used as a route marker.

cam *See* spring-loaded camming device, Tricam.

camming Application of torquing or counterpressure with climbing gear.

carabiner Metal snap-link that comes in various shapes and sizes; indispensable and versatile tool of climbing used for belaying, rappelling, clipping in to safety anchors, securing the rope to points of protection, and numerous other tasks.

CEN European Committee on Standardization, Comité Européen de Normalisation. The European nonprofit organization responsible for creating and maintaining climbing equipment standards. The “CE” mark signifies that a product meets all applicable European legislation. *See also* UIAA.

chimney A crack wide enough to fit a climber’s body and narrow enough to allow a climber to apply opposing force to both walls.

chlorine dioxide Chemical water-treatment method (not to be confused with chlorine) for purifying water.

chock Climbers’ hardware comprising removable protection. Also called *stopper*, *wired nut*.

chockstone A rock firmly lodged in a crack or between gully walls.

circlehead *See* copperhead.

clean climbing Climbing without permanently marring the rock.

cleaning Removing protection.

cleaning tool *See* nut tool.

climbing in coils The preferred tie-in method for two-person glacier travel teams—for closer spacing between rope partners and more efficient travel.

combination technique Cramponing technique that combines flat-footing (French) and front-pointing (German) techniques on steep snow or ice. Also called *American technique*.

contour lines Lines on topographic maps that represent constant elevations.

coordinate system A system, such as UTM or latitude and longitude, to describe a location on the earth.

copperhead Malleable hardware used in aid climbing. Also called *head*, *circlehead*.

cord *See* accessory cord.

cordelette A long runner usually made of 7- to 8-millimeter nylon or small-diameter, high-strength accessory cord.

crag climbing Technical rock climbing in an area close to roads and civilization that does not require alpine skills.

crampons A set of metal spikes that attach to boots in order to penetrate hard snow and ice.

crevasse A crack or chasm in a glacier.

crux The most significant, committing, or difficult section of a pitch or climb.

D

daisy chain Sewn sling with stitched loops.

datum The anchoring points for a coordinate system. Critical when using a map with a GPS device.

deadman Any object buried in the snow to serve as an anchor. Also any piece of hardware such as an ice screw or ice tool used extemporaneously for a protection placement in ice.

declination Compass adjustment needed to correct for local difference between magnetic north and true north.

dihedral Where two walls meet in approximately a right-angled inside corner. Also called *open book*.

dry rope Rope treated to make it more water-repellent.

dry tooling Climbing on rock with ice tools and crampons.

DWR Durable water repellent. A chemical coating applied to fabrics to make them hydrophobic and able to shed water. Currently essential to the functioning of virtually all waterproof-breathable fabrics.

dynamic rope A rope that stretches under loads.

Dyneema Brand name for ultra-high-molecular weight, ultra-strong polyethylene fibers. Material is highly abrasion resistant and very lightweight but has a low melting point and is very slippery, making knots difficult. Commonly used in climbing runners; also called Spectra.

E

edging Climbing technique using either the inside or outside edge of the foot so that the edge of the sole is weighted over the hold.

emergency communication device A device that can be used to summon help in an emergency. Includes radios, smart phones, personal locator beacons (PLBs), satellite phones, and satellite communicators (Garmin InReach and SPOT).

equalette A cordelette with pretied knots used to rig anchors. *See* cordelette.

equalization Equalizing forces on a multipoint anchor.

Esbit fuel Waxy fuel tablets made of hexamine and used in ultralight stoves.

etriers *See* aiders.

F

fall factor The length of a fall divided by the length of the rope between belay device and fallen climber.

fall line The line of travel of a freely falling object.

feeling hand The belayer's hand that pays the rope in and out.

fixed line Rope anchored in place.

fixed pin Permanent piton.

flagging Climbing technique that involves extending a limb for counterbalance, to prevent pivoting or the "barn-door" effect.

flaking Uncoiling the rope, one loop at a time, into a neat pile.

flat-footing *See* French technique.

fluke Metal-plate anchor used in snow and sand.

follower *See* second.

free climbing Using ropes and other means of climbing protection to protect against injury, not assist progress. Originally meant "free from aid."

free solo climbing Climbing without any rope or other means of protection where a fall would result in serious injury or death.

French technique Cramponing technique used on moderately steep snow and ice in which the feet are placed flat against the surface of the snow or ice. Also called *flat-footing*.

friction climbing *See* smearing.

front-pointing Kicking front crampon points into hard snow or ice. Also known as *German technique*.

G

gaiters Article of clothing used to seal boundary between pant legs and boots from water, snow, and debris.

German technique *See* front-pointing.

glissade A controlled slide on snow.

Global Positioning System Collective term for satellite-based navigation system run by US Department of Defense and similar agencies in other countries. Often referred to as GPS.

grade A ranking from I to VII describing the overall difficulty of a multipitch alpine climb or long rock climb in terms of time and technical rock difficulty.

guylines Cords attached to a tent or tarp and staked out to brace it.

H

HACE *See* high-altitude cerebral edema.

halbmastwurf sicherung (HMS) German for “half clove-hitch belay”; another term for the munter hitch. Carabiners stamped “HMS” accommodate the munter hitch.

HAPE *See* high-altitude pulmonary edema.

hardshell Typically uninsulated rain parka or pants made from waterproof-breathable fabric. *See also* softshell.

heads *See* copperhead.

hero loop *See* tie-off loop.

hex Hexagonally shaped removable protection. **high-altitude cerebral edema (HACE)** An altitude-related illness affecting the brain.

high-altitude pulmonary edema (HAPE) An altitude-related illness affecting the lungs.

hip belay A method of applying friction to the rope with the belayer’s body that does not require a mechanical device. Also known as a *body belay*.

HMS *See* *halbmastwurf sicherung*.

I

ice axe Specialized tool used by climbers, generally for snow and ice travel.

ice screw A tubular, hollow screw used as protection in ice.

ice tool Short ice axe or hammer used for technical ice climbing.

icefall Steep, jumbled section of a glacier.

J

jamming A basic technique of crack climbing in which a hand or foot is jammed into a crack, then turned or flexed so that it is snugly in contact with both sides of the crack and it will not come out when weighted.

jugging Ascending the climbing rope with mechanical ascenders in aid climbing. Also called *jumaring*.

jumaring *See* jugging.

K

kernmantle rope Rope composed of a core of braided or parallel nylon filaments encased in a smooth, woven sheath of nylon; designed

specifically for climbing.

Kevlar Aramid synthetic fiber trademarked by DuPont; used in accessory cord, among other things. *See also* accessory cord.

L

leader The climber who takes the lead on a roped pitch.

leashless tool Ice tools specifically designed to be used without leashes.

Leave No Trace Principles of minimum impact developed by the organization of the same name.

lieback To use hands in opposition to feet to create a counterforce.

load-limiting runner A presewn runner with a series of weaker bar tacks that fail at lower impact forces and absorb high loads. Also called *energy-absorbing sling*.

M

mantel To use hand downpressure to permit the raising of the feet.

matching To place both hands or both feet on the same hold.

microfilter Drinking water filter designed to filter parasites, protozoa, and bacteria, but not viruses. *See* purifier-filter.

moat Gap between snow and rock.

moraine Mounds of rock and debris deposited by a glacier.

mountaineering boot Crampon-compatible, stiff-soled footwear.

munter hitch A friction knot used for belaying and rappelling. Also called the *Italian half hitch*. *See also* *halbmastwurf sicherung*.

N

nieves penitentes Snow pillars produced when suncup hollows become very deep, accentuating the ridges into columns of snow that look like a person wearing a penitent's cowl.

nut Passive removable protection that is a wedging-type chock.

nut tool Tool used for removing protection. Also known as *cleaning tool* or *chock pick*.

nylon cord *See* accessory cord.

O

objective hazard Physical hazard associated with a climbing route, such as rockfall, exposure, and high altitude.

off-width A crack that is too wide for a hand jam but too narrow for chimney technique.

open book *See* dihedral.

P

pearabiner A carabiner large enough at its wider end to accommodate a munter hitch.

Perlon A brand name for nylon 6. *See* accessory cord.

personal locator beacon Electronic device that broadcasts a user's GPS location to emergency first responders via government-based satellites. Also called PLB; similar to satellite communicators.

picket An aluminum stake used for an anchor in snow.

pitch The distance between belays on a climb.

piton A metal spike used as protection.

plunge-stepping A technique for walking down a snow slope that involves assertively stepping away from the slope and landing solidly on the heel with the leg vertical (but not with the knee locked), transferring weight to the new position.

posthole To sink deeply with each step in snow.

protection Point of attachment that links climbing rope to the terrain. Also known as *pro*.

prusik A friction hitch. Also a technique for ascending a climbing rope using friction hitches.

purifier-filter Drinking water filter designed to filter parasites, protozoa, bacteria, and viruses. *See* microfilter.

Q

quickdraw A presewn runner, typically 4 to 8 inches (10 to 20 centimeters) long, with a carabiner loop sewn into each end through which a carabiner is attached.

R

randonée skiing Ski technique used by climbers that employs hybrid equipment allowing free-heel ascent and alpine descent and that accommodates climbing boots. Also known as *alpine touring*.

rappel anchor *See* anchor.

rappelling Fundamental climbing technique of safely descending a rope using friction to control speed.

rest step Ascent technique that ends every step with a momentary stop relying on skeletal structure to give muscles a rest.

rock shoe Specialized rock climbing footwear with a sticky rubber sole.

rope drag Friction that impedes the rope's travel.

runner Length of webbing or accessory cord used to connect components of the climbing safety system. Also called a *sling*.

running belay Climbing technique in which all members of the rope team climb at the same time, relying on immediate protection rather than a fixed belay. Also called *simul-climbing*.

S

satellite communicator Electronic device that broadcasts a user's GPS location to emergency first responders via commercial satellites. Also called *satellite messengers*. May include texting, location tracking, and other nonemergency communication.

scrambling Unroped, off-trail travel that requires some use of hands.

scree Loose slope of rock fragments smaller than talus.

second The climber who follows the leader on a roped pitch. Also known as a *follower*.

self-arrest Ice-axe technique used to stop a fall on snow.

self-belay Ice-axe technique in which the ice axe is jammed straight down into the snow and held by the head or head and shaft.

serac Tower of ice on a glacier.

simul-climbing *See* running belay.

single-pulley system *See* 2:1 pulley system.

ski mountaineering Involves climbing mountains, either on skis or carrying skis, and skiing down using randonée or telemark gear and style. *See also* alpine touring, randonée skiing.

skins Strips of textured material that attach to the bottom of skis for traction, designed to let the ski slide forward on snow but not backward.

SLCD *See* spring-loaded camming device.

sling *See* runner.

smearing Rock climbing technique in which the foot points uphill and the climber maximizes contact between the rock and the sole of the shoe for friction. Also called *frictioning*.

snow pit Pit dug into snow in order to observe snow conditions.

softshell Article of clothing made from dense, stretchy, woven synthetic fabric.

Spectra *See* Dyneema.

SPF Sun protection factor, the rating system that quantifies the degree of sun protection provided by a sunscreen product.

sport climbing Technical rock climbing that relies on fixed protection (bolts) and does not usually require mountaineering skills; compare trad climbing.

spring-loaded camming device (SLCD) Active removable protection that uses spring-loaded cams to create opposing force in a crack. Also called a *cam*.

spring-loaded nut A chock that uses a small sliding piece to expand the profile of the chock after it is placed in a crack.

static rope A rope that does not stretch; used for fixed lines and hauling.

stemming Climbing technique using counterforce in which one foot presses against one feature while the other foot or an opposing hand pushes against another feature; commonly used to climb chimneys or dihedrals. Also called *bridging*.

step-kicking Climbing technique that creates ascending steps in snow.

stopper *See* wired nut.

suncup Small hollow in snow or ice that is created by melting and evaporation.

T

talus Rock fragments large enough to step on individually. *See also* scree.

team arrest Arrest attempted by several members of a rope team on a snow slope.

technical climbing Climbing in which belays or protection should be used for safety.

Ten Essentials Essential gear that should be carried on all wilderness trips. Developed by The Mountaineers.

3:1 pulley system Raising system that theoretically triples the amount of weight a rescue team could haul without a pulley. Also called *Z-pulley system*.

tie-off loop Short runner commonly used for tying off belays, for self-belay during a rappel, in aid climbing, and in rescue. Also called *hero loop*.

topos Topographic maps or climbers' route sketches.

top roping A sport climbing technique in which the climber is belayed using a rope that runs up from the belayer, through a preplaced top anchor, and back down to the climber.

trad climbing Technical rock climbing in which climbers place and remove protection; compare sport climbing.

Tricam Removable protection with a lobe-shaped camming wedge; can be set actively or passively.

tube chock Telescoping protection used for off-width cracks.

2:1 pulley system Raising system that theoretically doubles the amount of weight that a rescue team could haul without a pulley. Also called *single-pulley system*.

U

UIAA International Climbing and Mountaineering Federation, Union Internationale des Associations d'Alpinisme. The internationally recognized authority in setting standards for climbing equipment. *See also* CEN.

UPF Ultraviolet protection factor, the rating system that quantifies the degree of sun protection provided by a garment.

UTM The Universal Transverse Mercator is one of the principal coordinate systems used to define a location on the earth. *See also* coordinate system and datum.

V

verglas The thin, clear coating of ice that forms when rainfall or melting snow freezes on a rock surface.

V-thread anchor A V-shaped tunnel bored into the ice, with accessory cord or webbing threaded through the tunnel and tied to form a sling.

V-thread tool A hooking device used to pull accessory cord or webbing through the drilled tunnel of a V-thread ice anchor.

W

webbing *See* runner.

wired nut Passive removable protection. Also known as *chock*, *stopper*.

Z

Z-pulley system *See* 3:1 pulley system.