APPENDIX A

GLOSSARY

 Basic Land Navigation

Back Bearing

A back bearing is measured from the object to your position. It is the exact opposite of a direct bearing.

Base Line

An imaginary line on the ground running east-west (horizontal) measured with special accuracy to provide a base for surveying.

Cardinal Positions/Directions

North, south, east, west; used for giving directions and information from the ground or air in describing the fire.

Compass

An instrument used for showing direction, consisting of a magnetic needle swinging freely on a pivot and pointing to magnetic north.

Contour Line

A line on a map or chart indicating elevation in feet, and connects all points of the same height above sea level.

Declination

Declination is the difference in degrees between true north and magnetic north.

Degree

A unit of angular measurement equal to one-360th part of the circumference of a circle. The entire globe contains 360 degrees, each degree contains 60 minutes, and each minute contains 60 seconds.

Graphic Scale (G.S.)

A graphic scale is a line marked off on a map which compares map distances to the ground distance in "different" units of measurements.

Landmark

A feature in the landscape which can be readily recognized; anything from a prominent tree or rock, to a church or a lake.

Latitude

Angular distance, measured in degrees, creating imaginary lines circling the earth's globe. The lines extend in an easterly and westerly direction, parallel with the equator, which is 0 degrees latitude. The degrees of latitude increase as one proceeds from the equator toward either north or south poles where the latitude is 90 degrees.

Legend

A key accompanying a map which shows information needed to interpret that map. Each type of map has information represented in a different way relating to its subject matter. The legend can explain map scales, symbols and color.

Longitude

Angular distance, measured in degrees, creating imaginary lines extending from north pole to the south pole which identify geographical positions on the earth's globe. The lines are based from the Prime Meridian of 0 degree longitude which runs through Greenwich, England, extending 180 degrees westward and eastward.

Magnetic Bearing

Bearing by magnetic north rather than true north.

Magnetic North

The direction toward which a magnetic needle of a compass points.

Map

A line drawing, to some scale, of an area of the earth's surface. It shows objects and features by conventional signs.

Map Scale

Indicates the ratio or proportion of the horizontal distance on the map to the corresponding horizontal distance on the ground.

Pace

A pace is defined as the average length of two natural steps (a count is made each time the same foot touches the ground).

Planimetric Map

A map that shows the positions of features without showing the elevations of all hills and valleys of the land. It can include rivers, lakes, roads, boundaries, or other human-made symbolic features.

Principal Meridian

An imaginary line on the ground running north-south which is accurately laid out to serve as the reference meridian in land surveys.

Representative Fraction (R.F.)

A scale that expresses the ratio of the map distance to the ground distance in 'SAME' units of measurements. It is usually written as a fraction or ratio.

Section

An area of land one mile square and containing 640 acres, more or less, which is one of 36 parts of a township.

Slope (percent)

The ratio between the amount of vertical rise of a slope and horizontal distance, expressed in percent. One hundred feet of rise in 100 feet of horizontal distance equals 100 percent.

Topographic Map

A map that shows the positions of features and also represents their vertical position in a measurable form.

Topographic Terms

Depression: A low place in the ground having no outlet for surface drainage.

Hachures: A series of short, nearly parallel lines used in map making to represent a sloping surface.

Representing a depression or pit, the contour line is joined forming a circle with the

hachures on the inside of the circle.

Hill: A naturally occurring mass of earth material whose crest or summit is at a lower elevation

than a mountain.

Mesa: A flat-topped mountain with steep sides.

Ridge: A long narrow elevation of land; a steep slope or a similar range of hills or mountains.

Saddle: A depression or pass in a ridgeline.

Valley: A stretch of low land lying between hills or mountains which are sometimes occupied by a

stream.

Township

An area of land divided by township lines and range lines which is approximately 36 miles square. Each township is divided into 36 parts, each approximately one mile square, called sections. Township lines, which are 6 miles apart, run east and west parallel to the Base Line (and also parallel to lines of latitude).

Triangulation

A method of determining the location of an unknown point by using the laws of plane trigonometry.

True Bearing

Bearing by true north rather than magnetic north.

True North

A line from any position on the earth's surface to the geographic north pole. In a declination diagram of a map true north is symbolized by a line with a star at the apex.

U.S.G.S.

United States Geological Survey of the Department of the Interior, an organization established by Congress which is engaged in topographic and geologic mapping and in collection of information about the public lands.

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