

SATELLITE IMAGE ANALYSIS WORKSHEET (v 2.0)

LANDMARK : _____

LATITUDE lat : _____ DEG _____ MIN _____ SEC N/S = _____ decimal DEG N/S

LONGITUDE lng : _____ DEG _____ MIN _____ SEC E/W = _____ decimal DEG E/W

HEIGHT DETERMINATION:

B = BASELINE: _____ METERS

a = ALTITUDE: _____ DEGREES

h = HEIGHT = $B \cdot \tan(a)$ = _____ METERS

MAP SCALE:

MAP IMAGE PIXELS HORIZONTAL : _____ PIXELS

MAP IMAGE PIXELS VERTICAL : _____ PIXELS

OBJECT: _____

MEASURED LENGTH IN REAL WORLD : _____ METERS

MEASURED LENGTH ON MAP : _____ PIXELS (CM if using printout)

MAP SCALE : $K = \text{REAL WORLD} / \text{MAP} =$ _____ METERS/PIXEL (or METERS/CM)

SHADOW MEASUREMENTS:

SHADOW LENGTH ON IMAGE : $L =$ _____ PIXELS (or CM)

SHADOW TRUE LENGTH : $s = L * K =$ _____ METERS

SHADOW ANGLE TO NORTH : $C =$ _____ DEGREES

SOLAR AZIMUTH ANGLE : $Z =$ _____ DEGREES

SOLAR ALTITUDE ANGLE : $A = \text{Arctan}(h/s) =$ _____ DEGREES

TIME CALCULATION

PHI = _____ DEGREES

TIME (UTC) = _____

LOCAL TIME = _____

DATE CALCULATION

DEC = _____ DEGREES

DAY1 = _____ DAY2 = _____

DATE1 = _____ DATE2 = _____