Date		Launiupoko Beach Park	Survey Dates GPS									
1st used		VLBP (VMKL, VUKU)	1/9/95	9/3/95	2/20/96	8/13/96	1/10/97	7/7/97	1/15/98	7/7/98	1/14/99	6/29/99
1/9/95	RP#1	Telephone pole	RP1	TELPOLE	-	-	-	-	-	-	-	-
1/9/95	RP#2	LNDWD palm	-	-	-	-	-	-	-	-	-	-
1/9/95	RP#3	SWD palm	-	-	-	-	-	-	-	-	-	-
1/9/95	RP#4	on breakwater	RP4	-	-	-	-	-	-	-	-	-
1/9/95	RP#5	crack near restrooms	RP5	-	-	-	-	-	-	-	-	-
1/9/95	RP#6	nail in curb	RP6	-	SPR1	SRP	-	-	-	-	-	-
1/9/95	RP#7	GPS1 PK nail in pkg lot	RP7	-	SPR3	GPS	SRP	GPS1	GPS	-	-	-
1/9/95	RP#8	PK nail, LNDWD shoulder	RP8	-	-	-	-	-	-	-	-	-
1/9/95	RP#9	"X" GPS2 on breakwater	RP9	GROIN	SRP2	-	-	GPS2	GPS	-	GPS	-
9/3/95	RP#10	PK nail on palm, ON	-	*FRP	FRP	FRP	FRP	FRP	FRP	FRP	FRP	FRP
9/3/95	RP#11	PK nail in "W" tree, ON	-	*WTREE	BRP	BRP	BRP	BRP	BRP	BRP	BRP	BRP
7/7/97	RP#12	PK nail on path, ON	-	-	-	-	-	*GPS3	GPS3	GPS	-	-
1/14/99	RP#13	Center top of post	-	-	-	-	-	-	-	-	*SRP	-
	Start of Li	ine	base.pole	base.RP11	Indwd.rail	base.RP11	base.RP11	base.RP11	swd.rail	base.RP11	base of FRP	AT.FRP
	Line Num	ber	A(VMKL)	B(VUKU)	B(VUKU)	B(VLBP)	B(VLBP)	B(VLBP)	B(VLBP)	B(VLBP)	-	-
	bearing		228°	-	221°	-	220°	220°	234°	-	230	232

* = new PK nail or other marker

LOCATION:	on coastal rte 30, N of Olowalu and S of Lahaina

LINE-UP-A Palm at vegetation line (RP3) and power pole (rp1)

LINE-UP-B FRP palm and BRP on "W" tree

Hor.Ref: Intersection between sign and signpost (south side) of "swim at your own risk" sign

RP#1 PK nail on "JAH" Telephone pole on LNDWD side of HWY on SE side of entrance to park

RP#2 PK nail on palm at SWD edge of parking lot

RP#3 PK nail on palm at vegetation line

RP#4 Near GPS (<1m) in between boulders on top of breakwater

RP#5 in crack near women's restroom, 1m W and 0.75m LNDWD of SE corner

RP#6 PK nail at SWD top of asphalt curb at SE end of pkg.lot

RP#7 GPS point 3-4m south of parking lot entrance on landward side of parking lot (MM7A)

RP#8 PK nail in LNDWD shoulder, LNDWD side of highway

RP#9 Chiseled "x" in black/gray flattish rock on middle of 3 rock walls/jetties: looking toward RR, small cluster of palms lines up with top peak of RR roof. Point is 0.033m NW of RP4

RP#10 PK on flat landward side of palm tree ~.75m up from ground, 8th palm south of south end of rock seawall

RP#11 PK at 1.7m at base of "W" limbs in landward tamarind tree (next to guardrail)

RP#12 PK 1M LNDWD of SWD edge of old concrete path 7m SWD of 8th palm(FRP) S of S wall of breakwater (LLP3)

RP#13 Center top of post of fence at south end of parking lot

GPS1 RP7: VMKL (1/12/95), MM7A (7/7/97)

GPS2 RP9: MKL2(?) (1/9/95?) Limited information on this point

GPS3 RP12: MKL3/LBP3 (7/7/97)

NOTES:

1/9/95 GPS Survey.

1/12/95 GPS Survey.

7/7/97 GPS Survey.

GPS Positions Longitude Latitude Elevation (meters above local tidal datum)

MM7A -156.652573 20.843046 3.369 MLK3 -156.652420 20.842251 1.882

^{*}Primary GPS for elevation control: RP12/GPS3/MKL3 = 1.882

^{**}Primary reference point: RP11/BRP = 4.064