

**Figure S09:** Available Measurement Data for Ike

Type	Source	Found	Failed	No Data	Runoff	Distrust	Used	References
Wave Direction	CSI	6	1	3	0	1	2	[WAVCIS]
	NDBC	10	0	3	0	1	6	[NDBC]
Significant Wave Height	CSI	6	3	1	0	0	5	[WAVCIS]
	NDBC	10	0	0	0	1	9	[NDBC]
	AK	8	0	0	0	0	8	[Kennedy et al., 2010, 2011]
Mean Period	USACE-CHL	6	1	1	0	0	5	[Smith, 2011]
	CSI	6	3	1	0	0	5	[WAVCIS]
	NDBC	10	0	0	0	1	9	[NDBC]
Peak Period	USACE-CHL	6	1	1	0	0	5	[Smith, 2011]
	CSI	6	3	1	0	0	5	[WAVCIS]
Water Level	NDBC	10	0	0	0	1	9	[NDBC]
	AK	8	0	0	0	0	8	[Kennedy et al., 2010, 2011]
	USACE-CHL	6	1	1	0	0	5	[Smith, 2011]
	CRMS	488	72	7	0	149	332	[CRMS]
	CSI	6	2	1	0	0	5	[WAVCIS]
	NOAA	109	6	0	0	2	38	[noaatides]
High Water Marks	TCOON	29	8	0	0	0	29	[TCOON]
	AK	8	0	0	0	0	8	[Kennedy et al., 2010, 2011]
	USACE-CHL	6	1	0	0	0	6	[Smith, 2011]
	USACE	54	2	4	0	6	42	[USACE, 2009]
	USGS-DEPL	59	0	0	4	1	54	[East et al., 2008]
	USGS-PERM	107	6	15	18	9	65	[USGS, 2009, 2011]
	URS/FEMA	502	0	0	0	0	243	[URS, 2008, 2009a, b]