LATEST NEWS: Data updates will be affected by a planned power outage Wednesday 20 March 7am - 10am

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# **CDIP Quality Control Measures**

The tests applied are detemined by data/processing type, as summarized in the table below. Note that CDIP's time series products are for the most part unedited; other than checking for gaps in the data and incorrect times, the times series values are not quality-controlled. It is only when the time series are used for spectral and parameter processing that they are submitted to CDIP's full set of quality control routines.

- AR = Directional Array of Pressure Sensors
- BS = Basin Energy Processing, Pressure Sensor
- DW = Datawell Directional Buoy
- NB = Non-directional Buoy
- PR = Single Point Pressure Sensor
- SG = Surge Processing, Pressure Sensor

#### TIME SERIES VALUES

TEST: description (click name for more details)	AR	BS	DW	NB	PR	SG	
GAP TEST: edit or discard time series with missing values.	⋖	⋖		⋖	⋖	⋖	
DW STATUS/TRANSMISSION BYTE: discard imperfectly received data.			⋖				
MAX WAVE HEIGHT: check wave height against max in archive.	⋖	⋖		⋖	⋖	⋖	
FLAT EPISODES TEST: test if time series is changing too slowly.	⋖			⋖	⋖		
SPIKE EDIT: replace spikes with average of point and previous.	⋖	⋖		⋖	⋖	⋖	
MAX/MIN VALUE TEST: for water column, check if values are sensible	⋖				⋖		
MEAN SHIFT TEST: check for a shift in the mean in the series.	⋖	⋖		⋖	⋖	⋖	
EQUAL PEAKS TEST: check for successive peaks with the same value.	⋖				⋖	⋖	
ACCELERATION TEST: check if acceleration is greater than 1/3 g	⋖	⋖			⋖	⋖	
MEAN CROSSING TEST: check if there are too few mean crossings.	⋖			⋖	⋖		
PERIOD DISTRIBUTION TEST: check for excessive long-period waves.	⋖			⋖	⋖		
UNCORRECTED ENERGY COMPARISON: compare time series variance.	⋖						
DEPTH COMPARISON: compare time series means.	⋖						
SERIES COMPARISON: check correlation of time series.	⋖						
CORRECTED ENERGY COMPARISON: compare depth-corrected variance.	⋖						
SPECTRAL VALUES							
TEST: description (click name for more details)	AR	BS	DW	NB	PR	SG	
INCIDENT WAVE TEST: check that directions are incident to shore.	€						

DW STATUS/TRANSMISSION BYTE: discard imperfectly transmitted data.

BAND DIRECTION MAX/MIN: check Dmean for each band.

DW CHECK FACTORS: issue warning for bad check factors.

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SUMMARY VALUE MAX/MIN: reject Hs, Tp values outside limits.			⋖			
PARAMETER VALUES						
TEST: description (click name for more details)	AR	BS	DW	NB	PR	SG
SPIKE TEST: check for abrupt changes in values between records.	⋖	⋖	⋖	⋖	⋖	<b>√</b>
RANGE TEST: apply max/min tests to all parameters.	⋖	⋖	⋖	⋖	⋖	d
CONSECUTIVE VALUE TEST: check for excessively constant values.	⋖	⋖	⋖	⋖	⋖	<b>⋖</b>
Dp SPREAD TEST: check if Dp values are too spread out.	⋖		⋖			
Dp RANDOM TEST: check if Dp values are too variable and random.	⋖		⋖			
VISUAL INSPECTION: review monthly Hs, Tp, Dp plots.	<	⋖	<b>⋖</b>	<b>√</b>	<b>⋖</b>	1

CDIP's major funding contributors are the US Army Corps of Engineers and the California Department of Boating and Waterways.



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