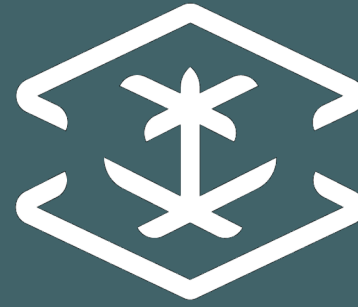


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# National Tide Gauge Network and the Importance of Accurate Data for Nautical Navigation

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# Content

- ◇ National Tide Gauge Network (NTGN).
- ◇ Tide Gauge Data Collection and Processing.
- ◇ Importance of Accurate Tide Data.
- ◇ Applications of Tide Data.



# National Tide Gauge Network (NTGN)

- ◇ Overview of the National Tide Gauge Network (NTGN).
- ◇ Purpose of Tide Gauges.



# Overview of the National Tide Gauge Network (NTGN)





## Purpose of Tide Gauges

- ◇ For safe and efficient navigation through shallow waters.
- ◇ Coastal development and engineering, and Long-term sea level assessments.
- ◇ Reduction of bathymetric soundings.
- ◇ Determination of Baseline, which is a reference for Maritime Boundaries.



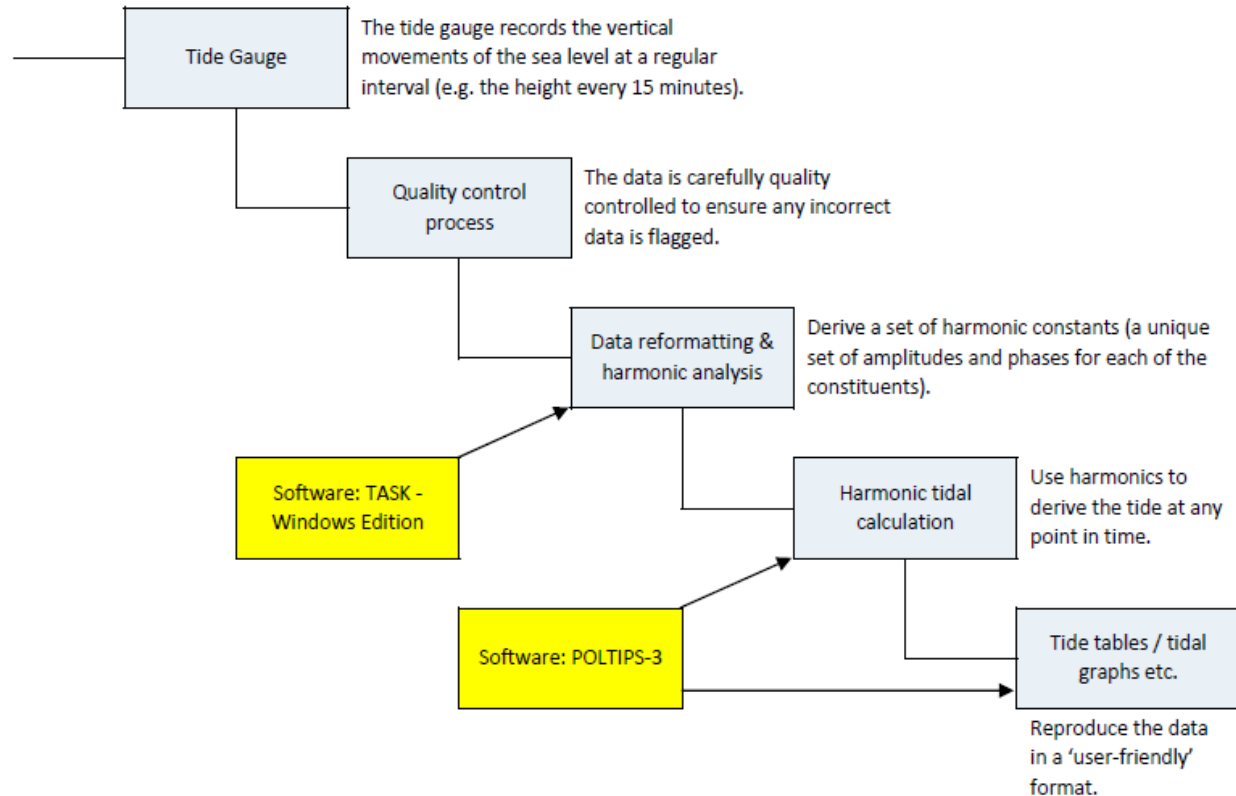
# Tide Gauge Data Collection and Processing

- ◇ Tide data processing and quality control.
- ◇ Factors affecting the accuracy of tide data.



# Tide data processing and quality control

The complete process of deriving a tide table showing the tides at any date and time into the future starts with having a good quality record of the actual tidal levels observed over as long a period as possible (ideally 18.6 years).





## Factors affecting the accuracy of tide data

- ◇ **The environmental and human factors.**
- ◇ **The location.**



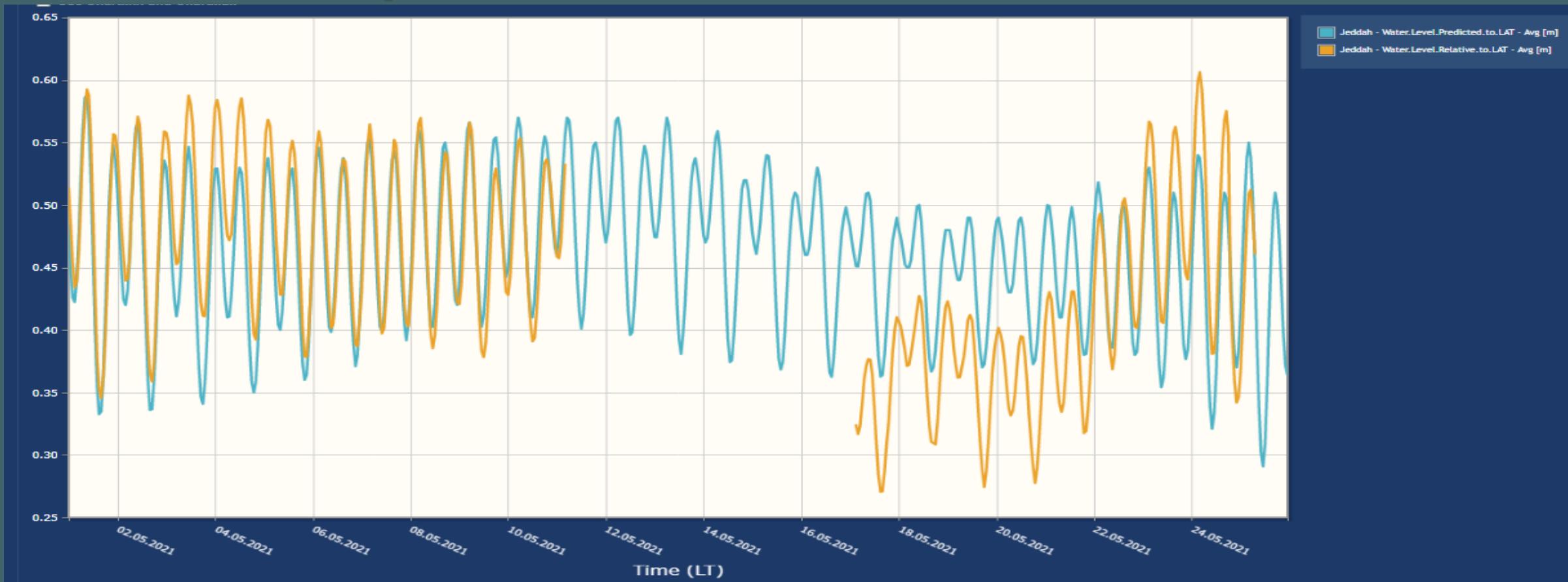


## Importance of Accurate Tide Data

- ◇ **How accurate tide data can impact nautical navigation, and the Importance of continuous and reliable tide data.**



# How accurate tide data can impact nautical navigation, and the Importance of continuous and reliable tide data





# Applications of Tide Data

Tidal Levels referred to Datum of Soundings						
Place	LAT N	LONG E	Heights in metres above datum			
			MHWS	MHWN	MLWN	MLWS
Ḍubā	27°33′	35°32′	0,9	0,8	0,4	0,3



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