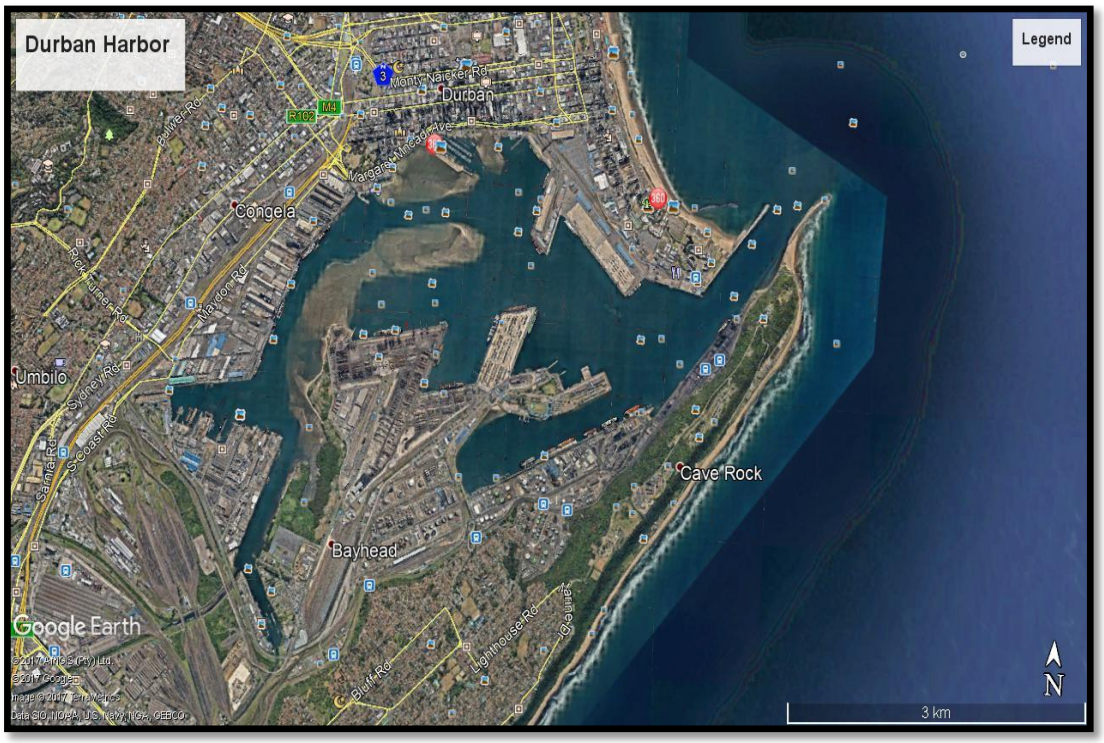
Lots Durban Harbor Storm Damage Aquatic Assessment

Fallen Gantry Aquatic Inspection Report – October 2017

INSPECTION DETAILS

Area: Durban Harbor
Client: Transet
Date of Survey: 11-17 October 2017
Elevation Datum: M.S.L.
Inspection Equipment: DTX2 ROV (Multiband Sonar)



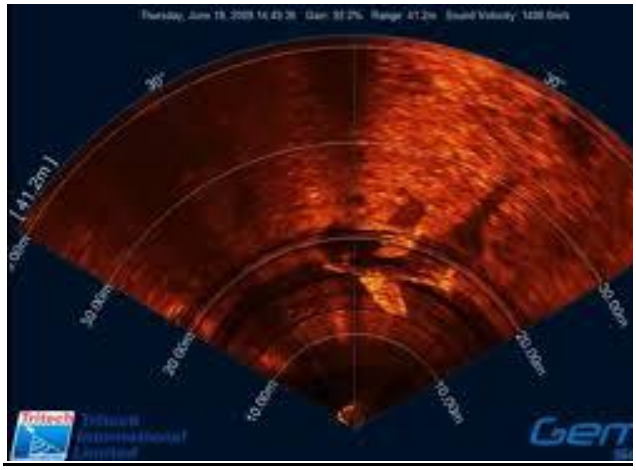
PROJECT SUMMARY

The Image below displays reference as to the relative tasks at hand.

An Aquatic Inspection was undertaken at Durban Harbor Kwa-Zulu Natal by Lots Drones. The purpose of the Inspection was to assess storm damage as a result of recent events. The Inspection encompassed the submerged Fallen Gantry. The Aquatic Inspection would ordinarily be carried out using our Aquatic Drone (DTX2 with Multibeam sonar, this UAVs entail cameras capable of high resolution sonar derived video and imagery.. The team was assigned to specific task, namely,

NB: Due to the ROV not having the Sonar attachment as yet it was necessary to employ the services of a Multibeam Manned vessel in order to arrive at a similar result.

1) **Damaged Gantry Aquatic Inspection using DTX 2 with Multi beam Sonar**



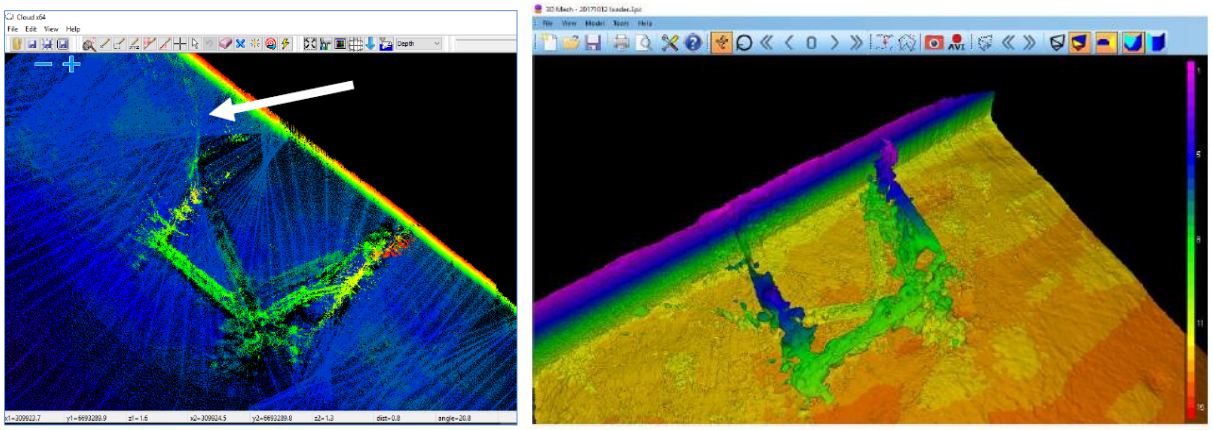
OUTPUTS & DELIVERABLES

Guidelines for effective use of deliverables:

- Ensure that survey software is installed on the computer that will be used to view deliverables
- Example – Global Mapper / TBC / Arc GIS / Model Maker /Civil Designer /OTHER

Deliverable Pack for the Specified Task Contains:

- ***3D rectified model with (viewable in survey Software)***



The Teams conducted a detail inspection & survey of a straddle loader which collapsed off Berth 104 and was submerged in water. Planned visual inspection by ROV was not possible due to the poor visibility of water & absence of on-board multi-beam sonar.

Area indicated very noisy and lightly processed to be careful not to delete actual structural returns. During high resolution full focus surveys, an as-built engineering drawing is used to assist the processor to determine real from false acoustic returns.

Future occurrences similar to this incident would definitely benefit from ROV visual assessment to assist in planning.

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