Lars Thrane A/S

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LT-300 GNSS

Horizontal Position Accuracy

LT-300 GNSS Receiver Product Highlights

- High-performance GNSS receiver with hot start capability

- UTC Time and date, position, ground speed, course over ground, magnetic variation

- 72-ch. GNSS (GPS/GLONASS/BeiDou) satellite receiver with SBAS correction

- Simultaneous NMEA 0183 and NMEA 2000

- Configurable NMEA 2000 termination resistor (open or terminated)

- Easy configurable NMEA 0183 data rate (4800 or 38400 baud)

- Pole mount or roof mount installation

- Each unit is functional tested prior to shipment

- Worldwide maritime certification

Pole mount

Roof mount

LT-300 GNSS Installation

- LT-300 GNSS receiver installed on 'Tioga' Sargo 36

- The LT-300 GNSS receiver is installed using the pole mount (optional installation with roof mount)

- The LT-300 GNSS receiver is per default configured to: GPS, GLONASS, and SBAS (EGNOS, WAAS, and MSAS)

- The LT-300 GNSS receiver is outputting data on NMEA 0183 and NMEA 2000

Results Disclaimer (important):
The purpose of this presentation is to show the LT-300 GNSS receiver horizontal position accuracy. Test results will depend on installation, calculation methods, external environments and other factors. Lars Thrane A/S can not be held responsible in any way for the results shown in this presentation.
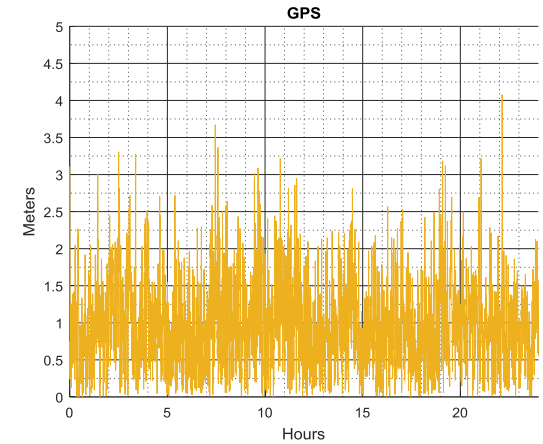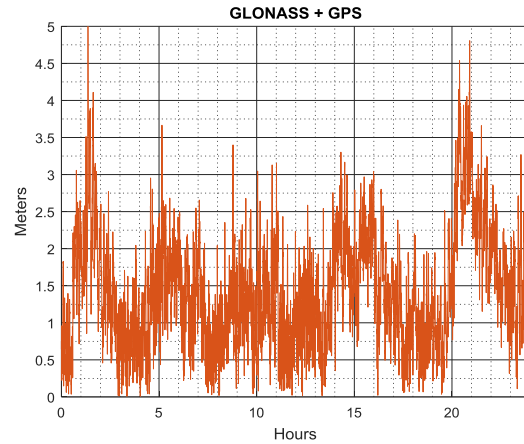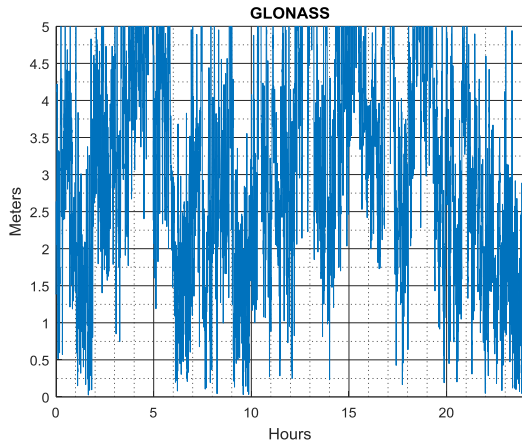
2D-Plot of Horizontal Position Error

| GNSS Satellite Receiver Configuration	
Configuration	**GNSS Satellites**
Default	GPS, SBAS, GLONASS
Option 1	GPS, GLONASS
Option 2	GPS, SBAS, BeiDou
Option 3	GPS, BeiDou
Option 4	GPS, SBAS
Option 5	GPS
Option 6	GLONASS
Option 7	BeiDou

- Measurements have been carried out in Denmark (Copenhagen), hence all combinations except for BeiDou have been tested.
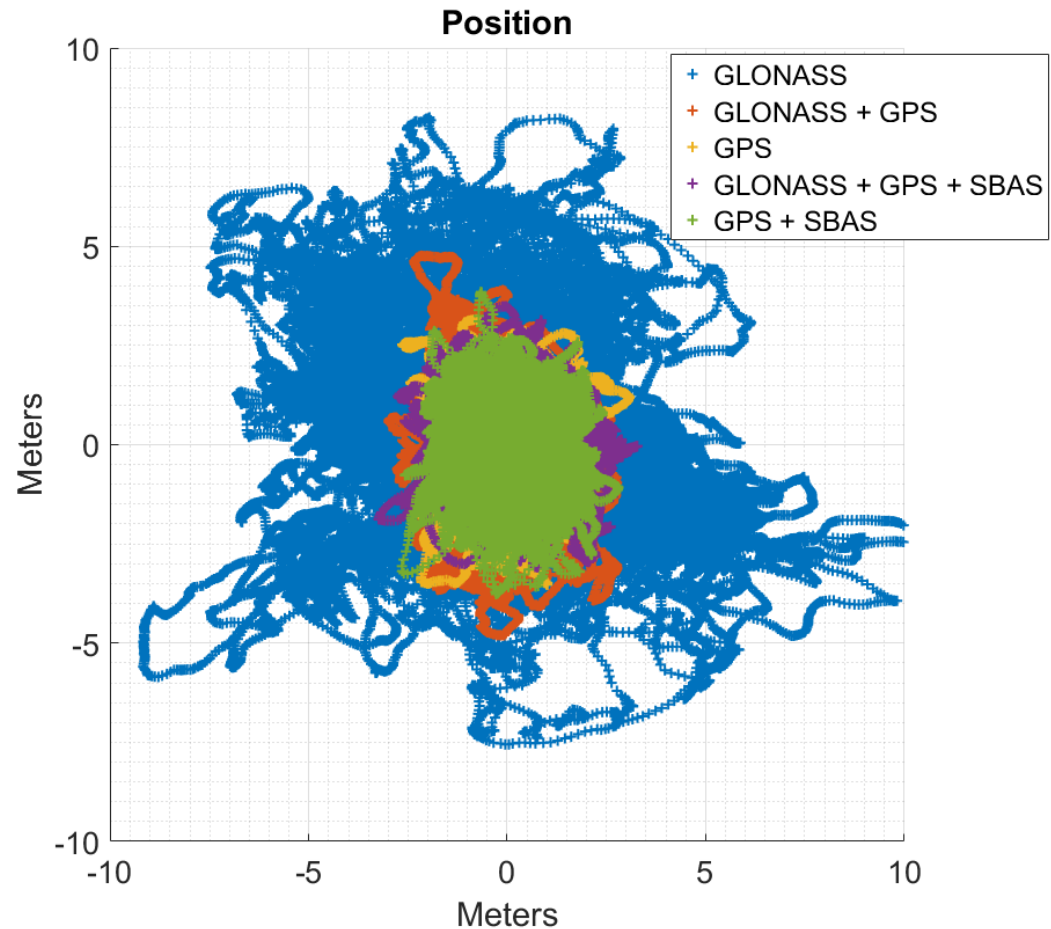
1-D Plot of Horizontal Position Error

- Each GNSS receiver configuration has been tested over 24 hours

- The horizontal error is calculated as the deviation from the average position over 24 hours
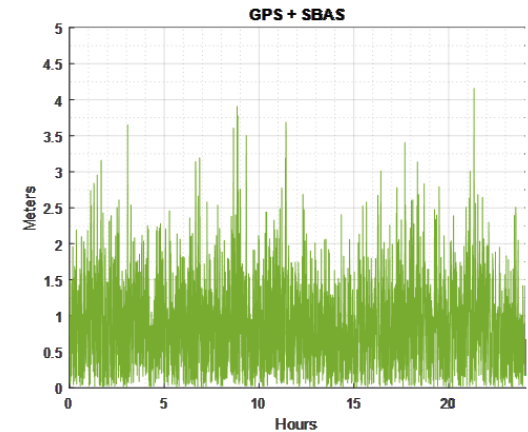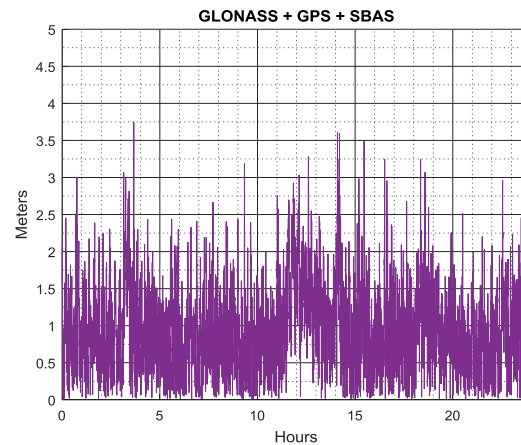
Horizontal Position Accuracy Results

Horizontal Position Accuracy			
Configuration	< 1 m.	< 1.5 m.	< 2 m.
GPS, SBAS	63 %	87 %	96 %
GPS, SBAS, GLONASS (default)	58 %	83 %	95 %
GPS	55 %	82 %	94 %
GPS, GLONASS	34 %	59 %	79 %
GLONASS	7 %	14 %	24 %

- The table above shows the measured horizontal position accuracy for the LT-300 GNSS receiver

- The LT-300 GNSS receiver has a horizontal position accuracy better than 2 meters in 95 % of the time in the default configuration
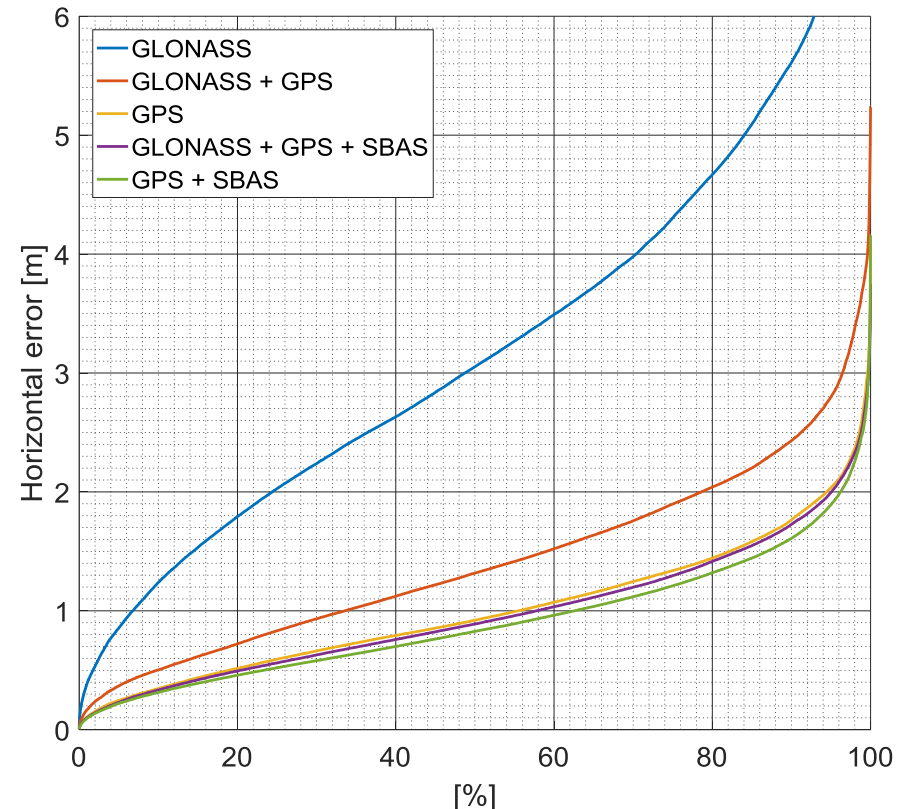
LT-300 GNSS Additional Information

- Part Number = 51-100304

- Installation and configuration details can be found in the LT-300 User and Installation Manual

- The GNSS position performance of the LT-1000 NRU is equivalent to that of the LT-300 GNSS

- Please contact Lars Thrane A/S for additional details and specifications on this product

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