Navigation QA report: ODT2601

Gulf of Mexico Exploration

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Source: /data/CruiseData/ODT2601/OpenRVDAS · 25 of 25 nav files · format nav33 (SOI logger: ISO timestamp and a comma, then GGA)

Receiver: Applanix POS/MV; talker IDs: GP (GPS, 3166952 fixes)

Generated 2026-10-29 05:39 UTC by nav-qa-processing 0.1.0, numpy 2.5.3, pandas 3.0.6, pyproj 3.8.0, shapely 2.2.0

1 of 8 checks warns: Longest gap 17:48:08.224 (64088.224 s). n/a: Within the expected area.

Checks

Check	Status	Value	Detail
Completeness	pass	96.00 %	3166952 of 3299007 0.5 s epochs
Longest gap	warn	17:48:08.224 (64088.224 s)	2 gaps of 300 s or longer
Records out of sequence	pass	0.00 %	0 records
Bad quality indicator	pass	0.00 %	0 of 3166952 records
Unreasonable speeds	pass	0.00 %	0 of 3166951 above 8.7 m s-1
Unreasonable accelerations	pass	0.00 %	0 of 3166944 above 1 m s-2
Within the expected area	n/a	no extent configured	
Over water	pass	0 over land	more than 10000 m from Natural Earth's 1:10m coasts and rivers; 104526 on land within 3000 m of water (ports)
Fixes flagged by QC	info	80	stale_repeat 80

Checks by file

What each check counted, per nav file, and the sentences the reader couldn't use (the reader and manifest errors say why). A speed, a step out of sequence or a gap is counted in the file of the fix that ends it.

File	Number of fixes	Skipped sentences	Out of sequence	Bad quality	Unreasonable speeds	Unreasonable accelerations	Gaps	Outside area	Over land	Flagged by QC
POSMV_GGA-2012-04-10-125120.txt	55837	0	0	0	0	0	0	n/a	0	0
POSMV_GGA-2012-04-10-203819.txt	3891	0	0	0	0	0	0	n/a	0	0
POSMV_GGA-2012-04-11-145852.txt	410533	0	0	0	0	0	1	n/a	0	3
POSMV_GGA-2012-04-14-000000.txt	93922	0	0	0	0	0	0	n/a	0	0
POSMV_GGA-2012-04-14-130256.txt	2407	0	0	0	0	0	0	n/a	0	0
POSMV_GGA-2012-04-14-132306.txt	135	0	0	0	0	0	0	n/a	0	0
POSMV_GGA-2012-04-14-132419.txt	50	0	0	0	0	0	0	n/a	0	0
POSMV_GGA-2012-04-14-132753.txt	75851	0	0	0	0	0	0	n/a	0	0
POSMV_GGA-2012-04-15-000000.txt	172799	0	0	0	0	0	0	n/a	0	4
POSMV_GGA-2012-04-16-000000.txt	172798	0	0	0	0	0	0	n/a	0	32
POSMV_GGA-2012-04-17-000000.txt	172800	0	0	0	0	0	0	n/a	0	20
POSMV_GGA-2012-04-18-000000.txt	172799	0	0	0	0	0	0	n/a	0	1
POSMV_GGA-2012-04-19-000000.txt	172799	0	0	0	0	0	0	n/a	0	0
POSMV_GGA-2012-04-20-000000.txt	172799	0	0	0	0	0	0	n/a	0	0
POSMV_GGA-2012-04-21-000000.txt	172799	0	0	0	0	0	0	n/a	0	14
POSMV_GGA-2012-04-22-000000.txt	172799	0	0	0	0	0	0	n/a	0	0

File	Number of fixes	Skipped sentences	Out of sequence	Bad quality	Unreasonable speeds	Unreasonable accelerations	Gaps	Outside area	Over land	Flagged by QC
POSMV_GGA-2012-04-23-000000.txt	172800	0	0	0	0	0	0	n/a	0	0
POSMV_GGA-2012-04-24-000000.txt	172798	0	0	0	0	0	0	n/a	0	0
POSMV_GGA-2012-04-25-000000.txt	172799	0	0	0	0	0	0	n/a	0	0
POSMV_GGA-2012-04-26-000000.txt	172799	0	0	0	0	0	0	n/a	0	4
POSMV_GGA-2012-04-27-000000.txt	88231	0	0	0	0	0	0	n/a	0	2
POSMV_GGA-2012-04-27-124158.txt	172	0	0	0	0	0	1	n/a	0	0
POSMV_GGA-2012-04-27-124335.txt	81167	0	0	0	0	0	0	n/a	0	0
POSMV_GGA-2012-04-28-000000.txt	172798	0	0	0	0	0	0	n/a	0	0
POSMV_GGA-2012-04-29-000000.txt	108370	0	0	0	0	0	0	n/a	0	0
Total	**3166952**	**0**	**0**	**0**	**0**	**0**	**2**	**n/a**	**0**	**80**

Statistics

Quantity	All records, as R2R reports them		Fixes that pass QC	
	Minimum or value	Maximum	Minimum or value	Maximum
Number of fixes used	3166952		3166872	
First and last fix	2012-04-10T12:51:22.128Z	2012-04-29T15:03:05.589Z	2012-04-10T12:51:22.128Z	2012-04-29T15:03:05.589Z
Most common time between fixes [s]	0.500			
Longest time between successive fixes [hh:mm:ss]	17:48:08.224			
Number of satellites used in the fix	4	12	4	12
Horizontal dilution of precision	0.7	4.2	0.7	4.2
Antenna height above mean sea level [m]	-7.05	8.11	-7.05	8.11
Speed over ground from successive positions [m s-1]	0.00	6.50	0.00	6.50
Horizontal acceleration [m s-2]	-0.624	0.615	-0.624	0.615

Products

File	Records
ODT2601_bestres.geoCSV	3166952
ODT2601_1min.geoCSV	26398
ODT2601_control.geoCSV	268

Quality control

80 of 3166952 records flagged; a record can have more than one flag. Flagged records keep a leading # in bestres and are left out of 1min, control and the speeds.

Flag	Meaning	Records	Percent
stale repeat	Repeated position while under way	80	0.00

Reader and manifest errors

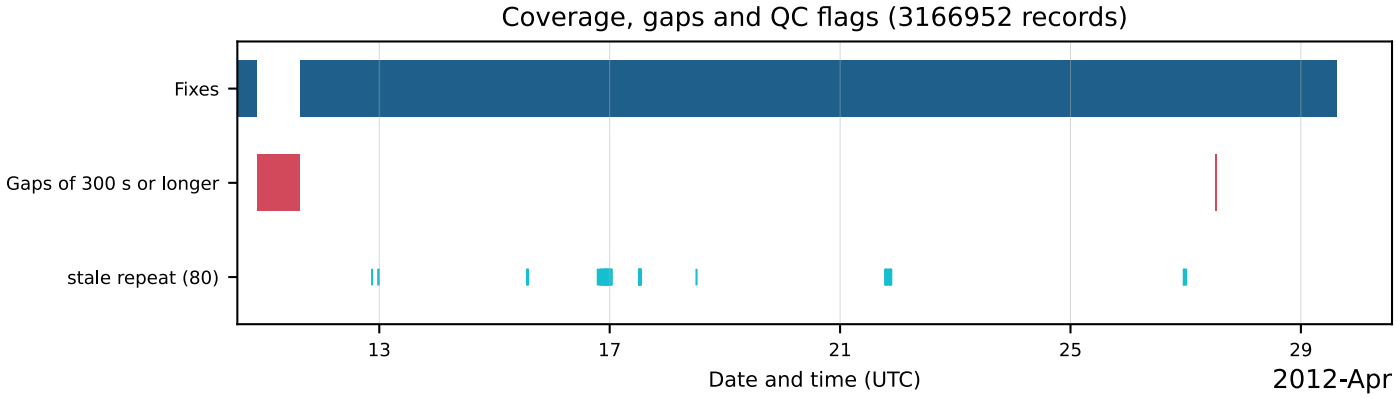
15 errors
raw/POSMV_GGA-2012-04-11-145852.txt: not in the manifest
raw/POSMV_GGA-2012-04-15-000000.txt: not in the manifest
raw/POSMV_GGA-2012-04-16-000000.txt: not in the manifest
raw/POSMV_GGA-2012-04-17-000000.txt: not in the manifest
raw/POSMV_GGA-2012-04-18-000000.txt: not in the manifest
raw/POSMV_GGA-2012-04-19-000000.txt: not in the manifest
raw/POSMV_GGA-2012-04-20-000000.txt: not in the manifest
raw/POSMV_GGA-2012-04-21-000000.txt: not in the manifest
raw/POSMV_GGA-2012-04-22-000000.txt: not in the manifest
raw/POSMV_GGA-2012-04-23-000000.txt: not in the manifest
raw/POSMV_GGA-2012-04-24-000000.txt: not in the manifest
raw/POSMV_GGA-2012-04-25-000000.txt: not in the manifest
and 3 more

Gaps of 300 s (00:05:00) or longer

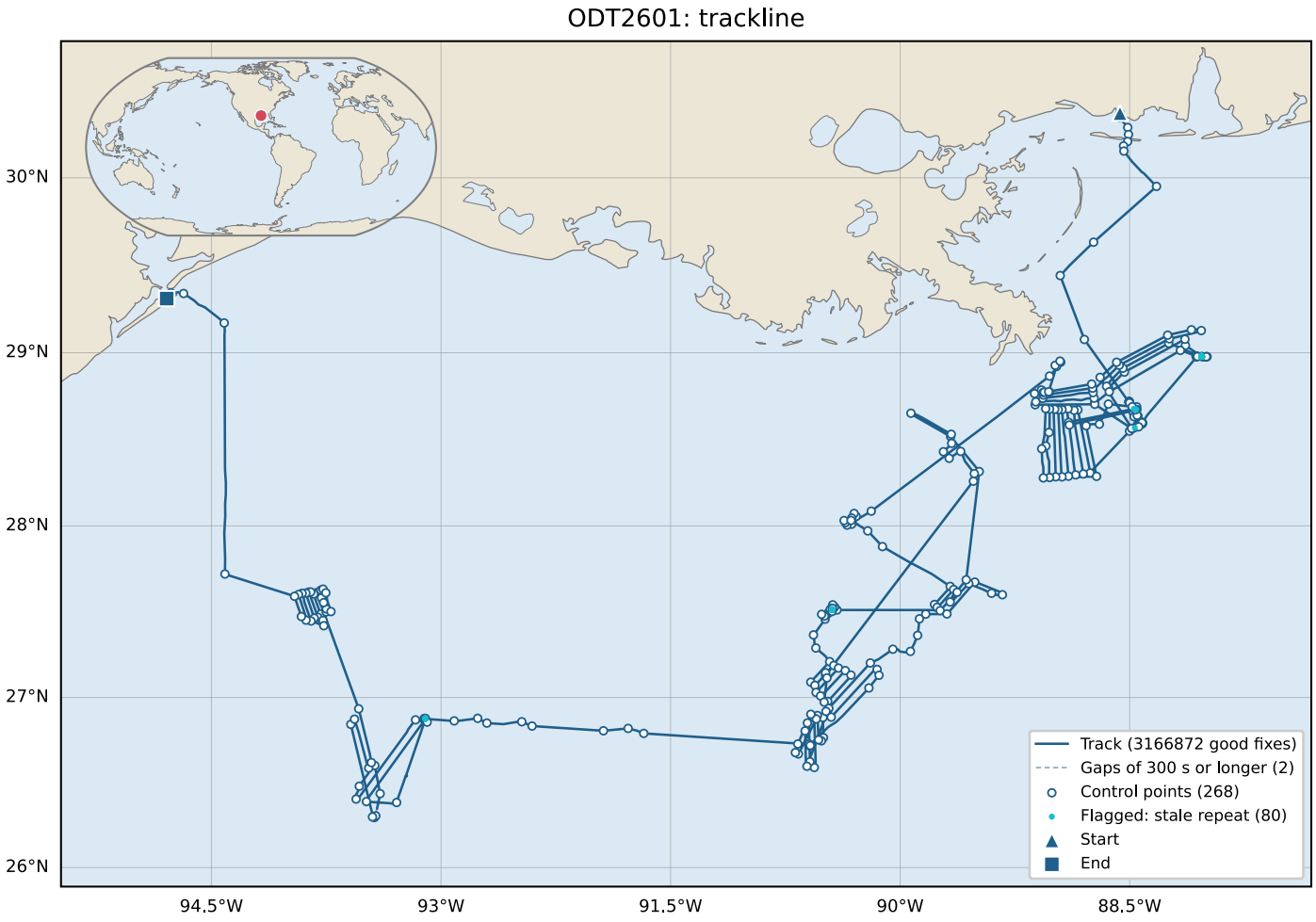
The longest first.

Last fix before	First fix after	Time between successive fixes [hh:mm:ss]	Files
2012-04-10T21:10:45.225Z	2012-04-11T14:58:53.449Z	17:48:08.224	POSMV_GGA-2012-04-10-203819.txt to POSMV_GGA-2012-04-11-145852.txt
2012-04-27T12:15:16.315Z	2012-04-27T12:41:59.822Z	00:26:43.507	POSMV_GGA-2012-04-27-000000.txt to POSMV_GGA-2012-04-27-124158.txt

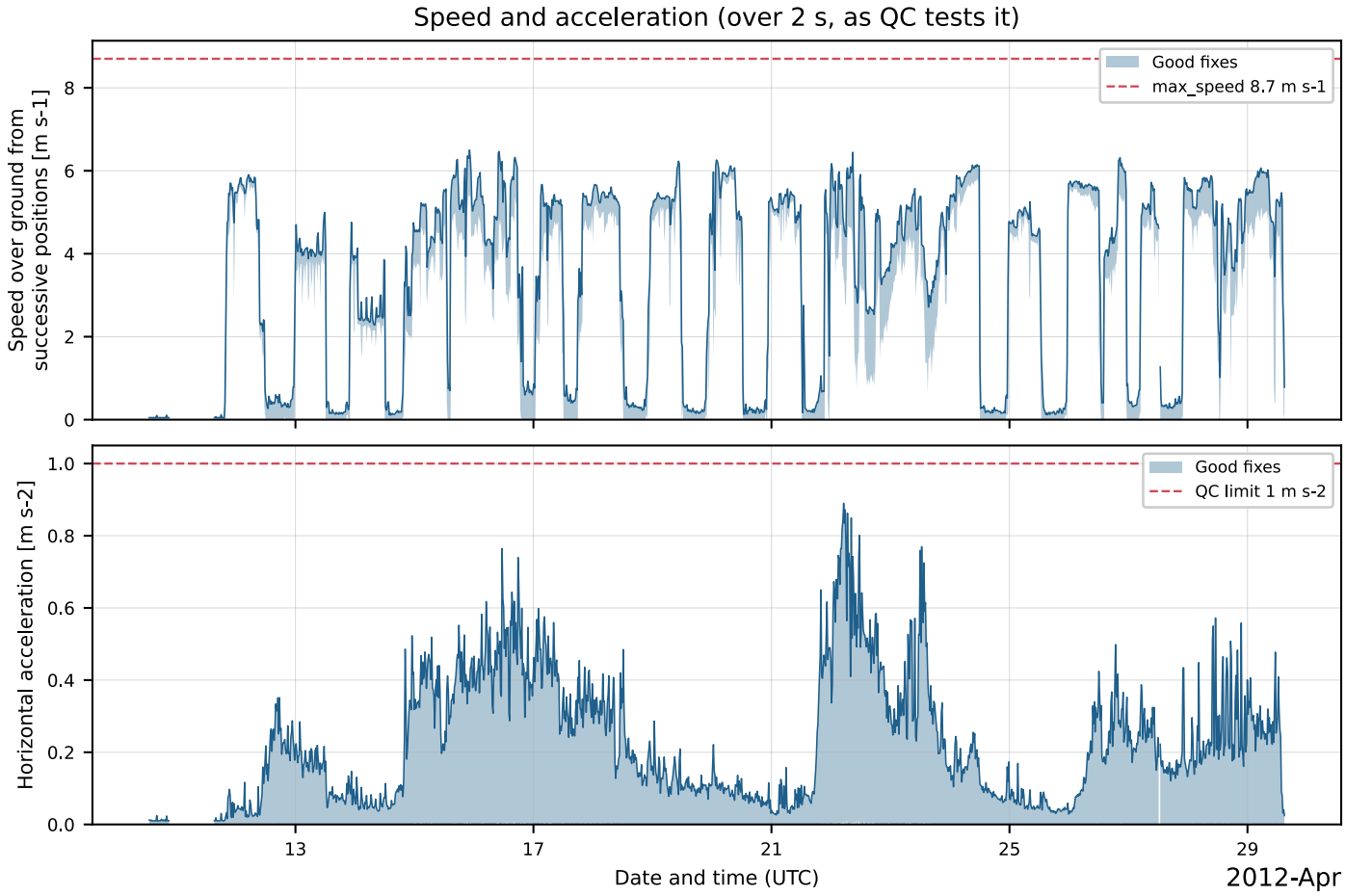
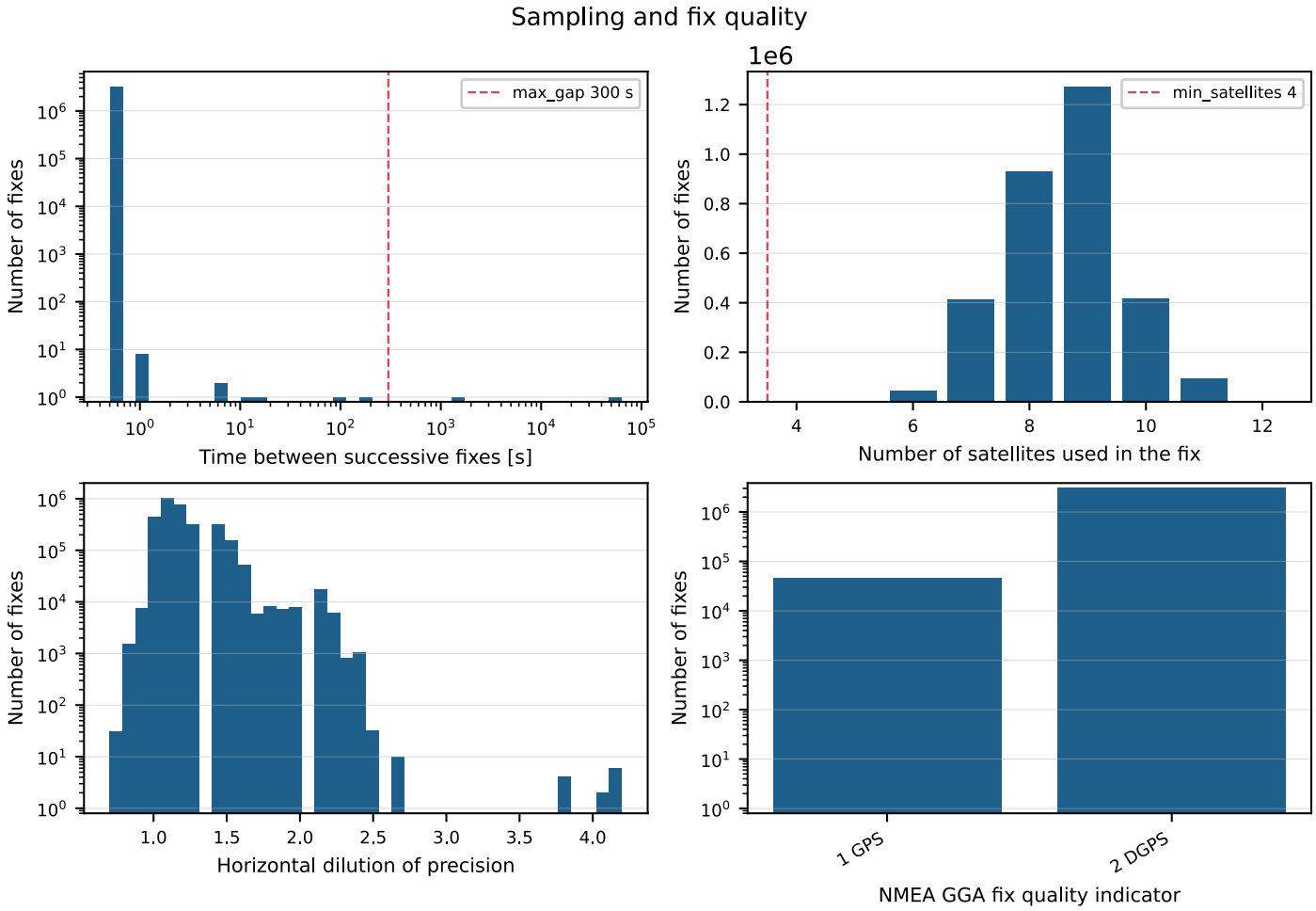
Coverage, gaps and flags



Trackline


ODT2601: trackline
30°N
29°N
28°N
27°N
26°N
94.5°W
93°W
91.5°W
90°W
88.5°W
Track (3166872 good fixes)
Gaps of 300 s or longer (2)
Control points (268)
Flagged: stale repeat (80)
Start
End

Speed and acceleration



Sampling and fix quality