

# Acoustic telemetry exploratory analysis

Summary  
Actel R package (1.3.0.9019)

Study area

Stations

Deployments

## Summary

Release sites

Target folder: C:/Users/sean.rooney/Work/R/cod\_tagging/alb\_from\_git

Warnings

Timestamp: **2025-03-10 09:18:39.201052**

Comments

Number of target tags: **20**

Biometrics

Number of listed receivers: **15** (of which **1** had no detections)

Arrival times

Data time range: 2021-07-13 19:41:29 to 2021-10-15 11:55:01 (UTC).

Individual detections

Percentage of post-release valid detections: 100%

Sensor data

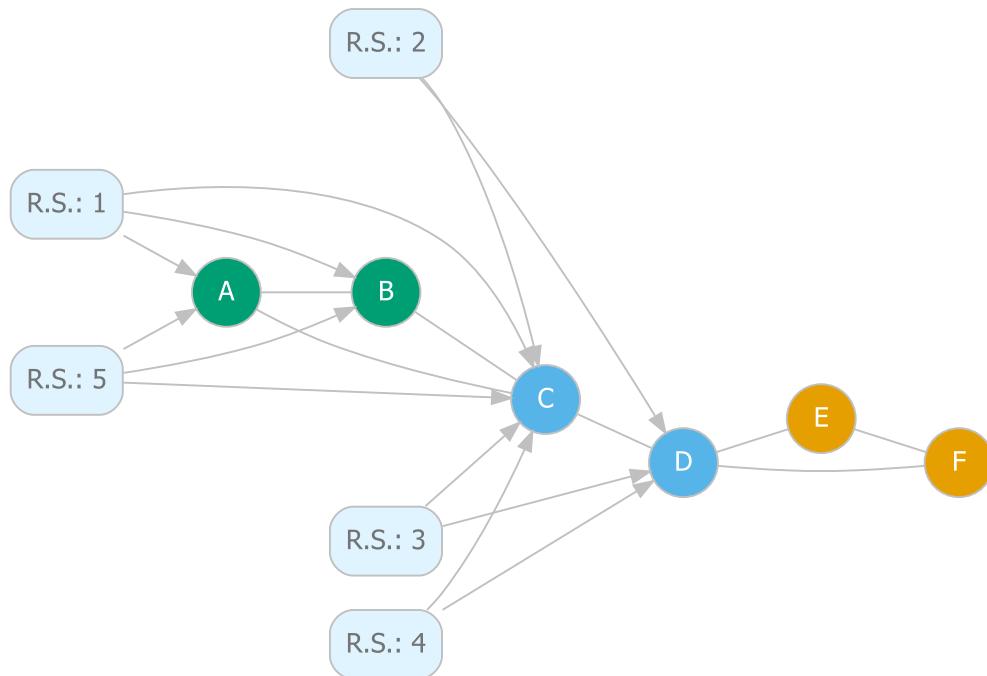
Found a bug? **Report it here.** (<https://github.com/hugomflavio/actel/issues>)

Full log

Want to cite actel in a publication? Run `citation('actel')`

## Study area

Release sites are marked with “R.S.”. Arrays connected with an arrow indicate that the tags can only pass in one direction.



## Index: Receiver stations

	<b>Station.name</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Array</b>	<b>Section</b>	<b>Standard.name</b>
Summary						
Study area	OB9	57.88498	-152.6422	F	Outer	St.1
Stations	OB5	57.88735	-152.6625	E	Outer	St.2
Deployments	OB1	57.89692	-152.6481	E	Outer	St.3
Release sites	OB8	57.89667	-152.6392	E	Outer	St.4
Warnings	IB4	57.87913	-152.6272	C	Mid	St.5
Comments	IB7	57.86427	-152.6227	A	Head	St.6
Biometrics	OB3	57.89268	-152.6545	E	Outer	St.7
Arrival times	OB2	57.89563	-152.6500	E	Outer	St.8
Individual detections	IB6	57.87172	-152.6442	B	Head	St.9
Sensor data	IB2	57.88633	-152.6271	D	Mid	St.10
Full log	IB1	57.88612	-152.6317	D	Mid	St.11
	OB4	57.89018	-152.6586	E	Outer	St.12
	OB6	57.88465	-152.6666	E	Outer	St.13
	OB7	57.88230	-152.6721	E	Outer	St.14
	IB3	57.87902	-152.6322	C	Mid	St.15

## Deployments

<b>Receiver</b>	<b>Array</b>	<b>Station.name</b>	<b>Standard.name</b>	<b>Start</b>	<b>Stop</b>
111440	F	OB9	St.1	2021-07-10 09:00:00	2021-10-12 16:00:00
111441	E	OB5	St.2	2021-07-10 09:00:00	2021-10-12 16:00:00
111442	E	OB1	St.3	2021-07-10 09:00:00	2021-10-12 16:00:00
111443	E	OB8	St.4	2021-07-10 09:00:00	2021-07-20 06:00:00
111444	C	IB4	St.5	2021-07-12 09:00:00	2021-10-12 16:00:00

	<b>Receiver</b>	<b>Array</b>	<b>Station.name</b>	<b>Standard.name</b>	<b>Start</b>	<b>Stop</b>
<b>Index:</b>	111445	A	IB7	St.6	2021-07-12 09:00:00	2021-10-15 16:00:00
Summary	111446	E	OB3	St.7	2021-07-10 09:00:00	2021-10-12 16:00:00
Study area						
Stations	111447	E	OB2	St.8	2021-07-10 09:00:00	2021-10-12 16:00:00
Deployments	111448	B	IB6	St.9	2021-07-12 09:00:00	2021-08-13 21:00:00
Release sites						
Warnings	111450	D	IB2	St.10	2021-07-12 09:00:00	2021-10-15 16:00:00
Comments	111900	D	IB1	St.11	2021-07-12 09:00:00	2021-10-12 16:00:00
Biometrics						
Arrival times	111901	E	OB4	St.12	2021-07-10 09:00:00	2021-10-12 17:00:00
Individual detections	111902	E	OB6	St.13	2021-07-10 09:00:00	2021-10-12 17:00:00
Sensor data						
Full log	136779	E	OB7	St.14	2021-07-10 09:00:00	2021-10-12 17:00:00
	136780	C	IB3	St.15	2021-07-12 09:00:00	2021-10-15 16:00:00

## Release sites

	<b>Station.name</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Array</b>	<b>Type</b>	<b>Standard.name</b>	<b>n.All</b>
2	57.88560	-152.6324	C D		Release	2	1
3	57.88152	-152.6260	C D		Release	3	4
4	57.88287	-152.6263	C D		Release	4	1
1	57.87818	-152.6347	A B C		Release	1	12
5	57.87584	-152.6289	A B C		Release	5	2

## Index: Warning messages

Summary

Warning: GUI is set to 'needed' but package 'gWidgets2tcltk' is not available. Please install it if you intend to run the GUI. Disabling GUI (i.e. GUI = 'never') for the current run.

Study area

Warning: 'speed.warning'/'speed.error' were not set, skipping speed checks.

Stations

Warning: 'inactive.warning'/'inactive.error' were not set, skipping inactivity checks.

Deployments

Release sites

Warnings

## User comments

Comments

Biometrics

No comments were included during the analysis.

Arrival times

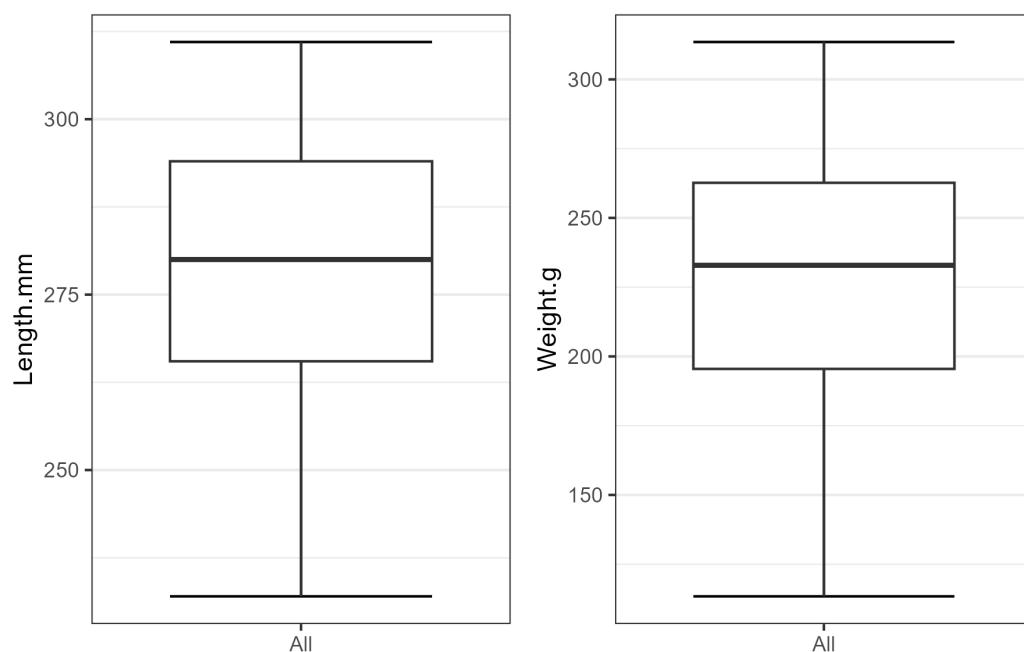
Individual detections

## Biometric graphics

Sensor data

### Note:

The data used in this graphic is the data present in the biometrics.csv file.



## Average time of arrival at each Array

### Note:

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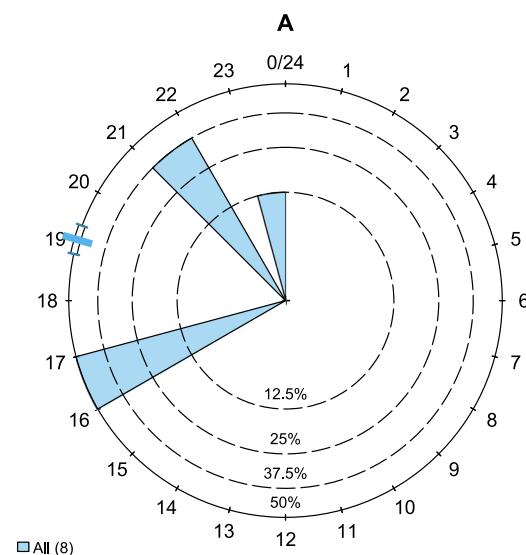
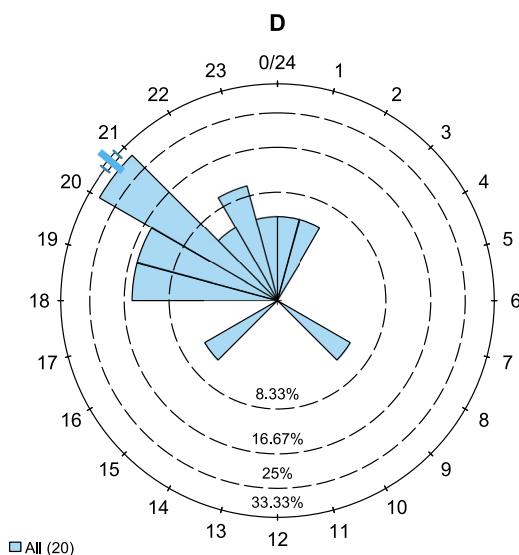
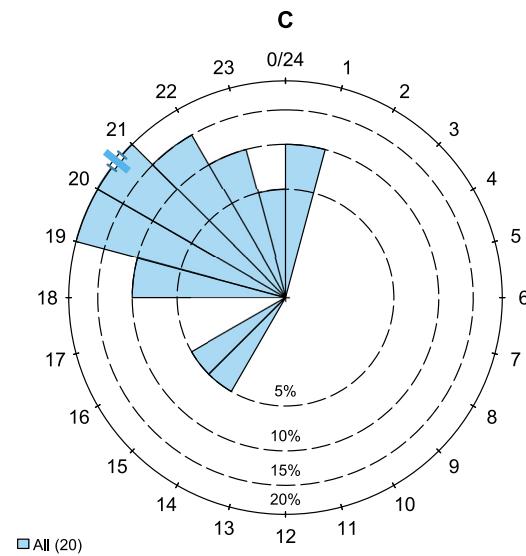
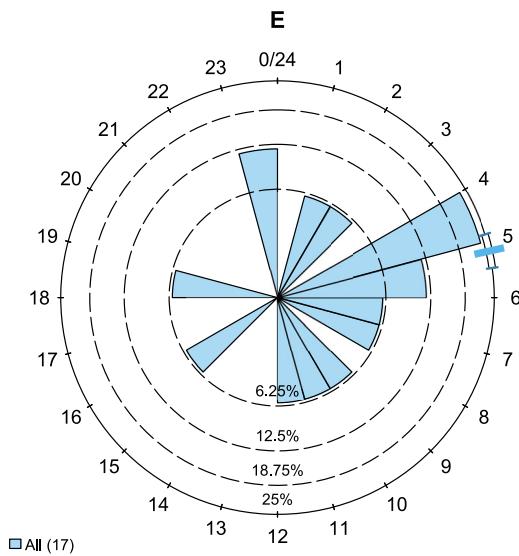
Arrival times

Individual detections

Sensor data

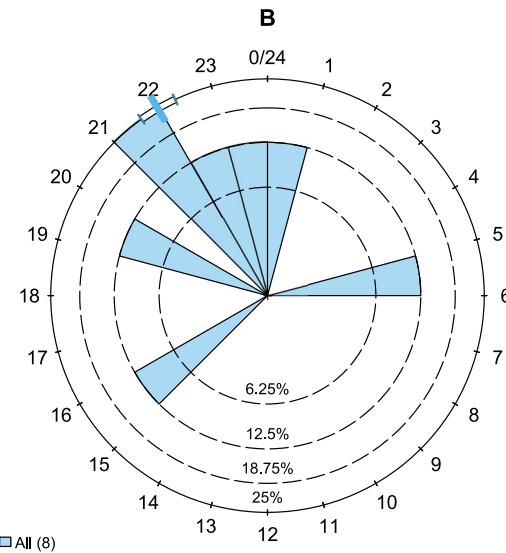
Full log

Coloured lines on the outer circle indicate the mean value for each group and the respective ranges show the standard error of the mean. Each group's bars sum to 100%. The number of data points in each group is presented between brackets in the legend of each panel. You can replicate these graphics and edit them as needed using the `plotTimes()` function. The data used in these graphics are stored in the `times` object. To obtain reports with the legacy linear circular scale, run `options(actel.circular.scale = "linear")` before running your analyses.



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## Individual detection plots

### Note:

You can choose to plot detections by station or by array using the `detections.y.axis` argument.

The detections are coloured by section. The vertical black dashed line shows the release time. The full dark-grey line shows the movement events considered valid, while the dashed dark-grey line shows the movement events considered invalid.

Manually **edited** tags are highlighted with **yellow** graphic borders.

The arrays have been aligned by section, following the order provided either in the spatial input or the `section.order` argument.

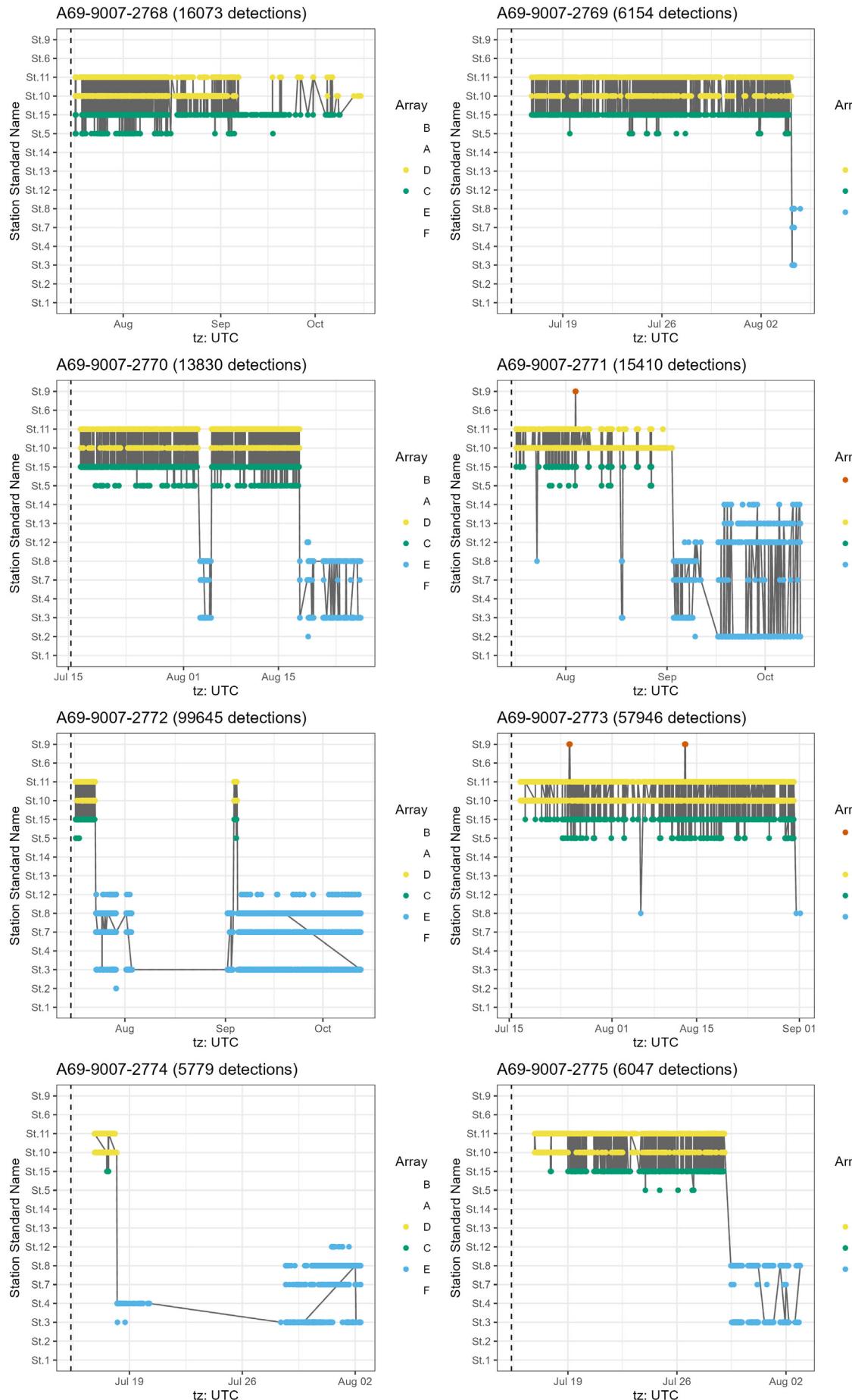
You can replicate these graphics and edit them as needed using the `plotDetections()` function.

You can also see the movement events of multiple tags simultaneously using the `plotMoves()` function.

The data used in these graphics are stored in the `detections` and `movements` objects (and respective valid counterparts).

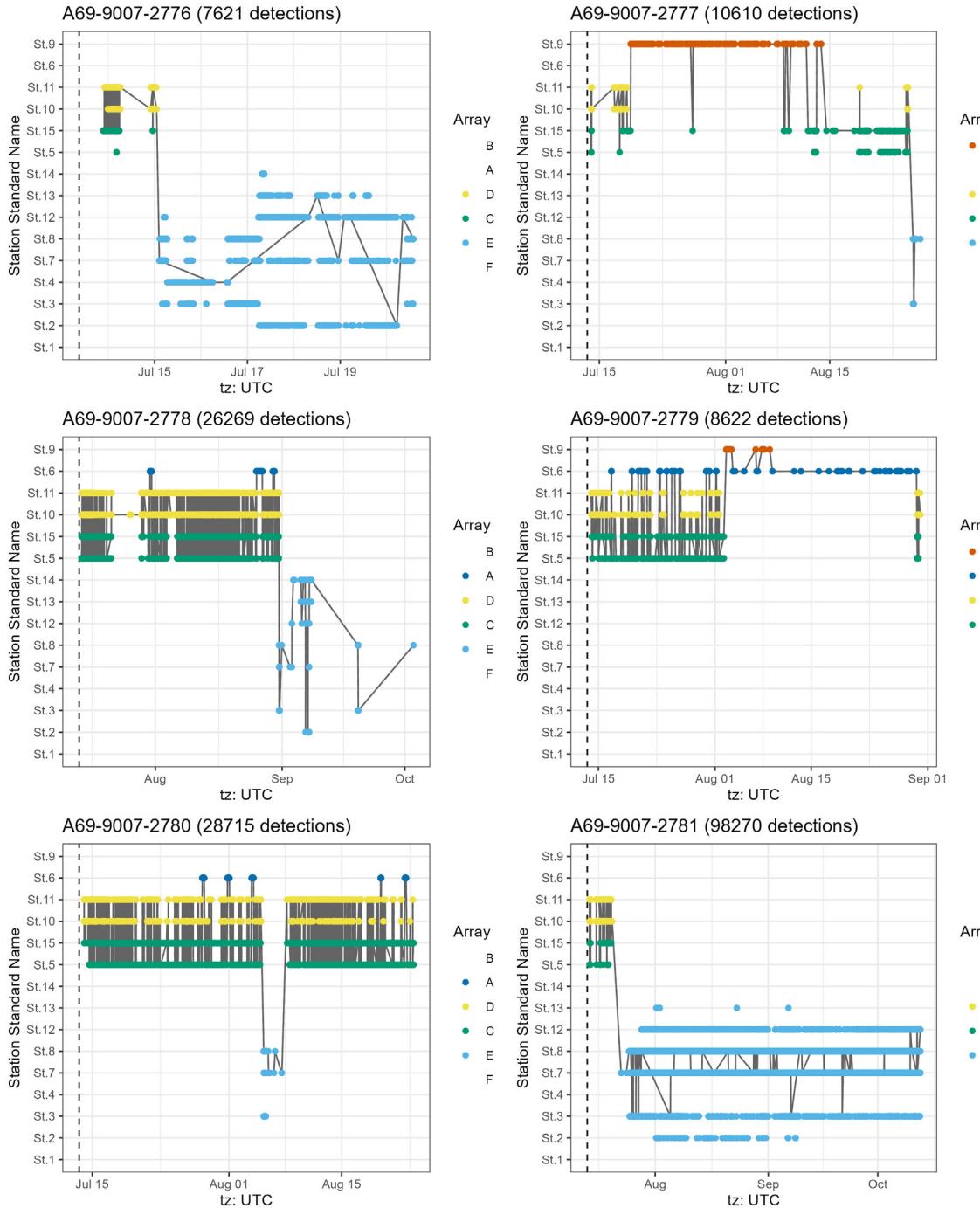
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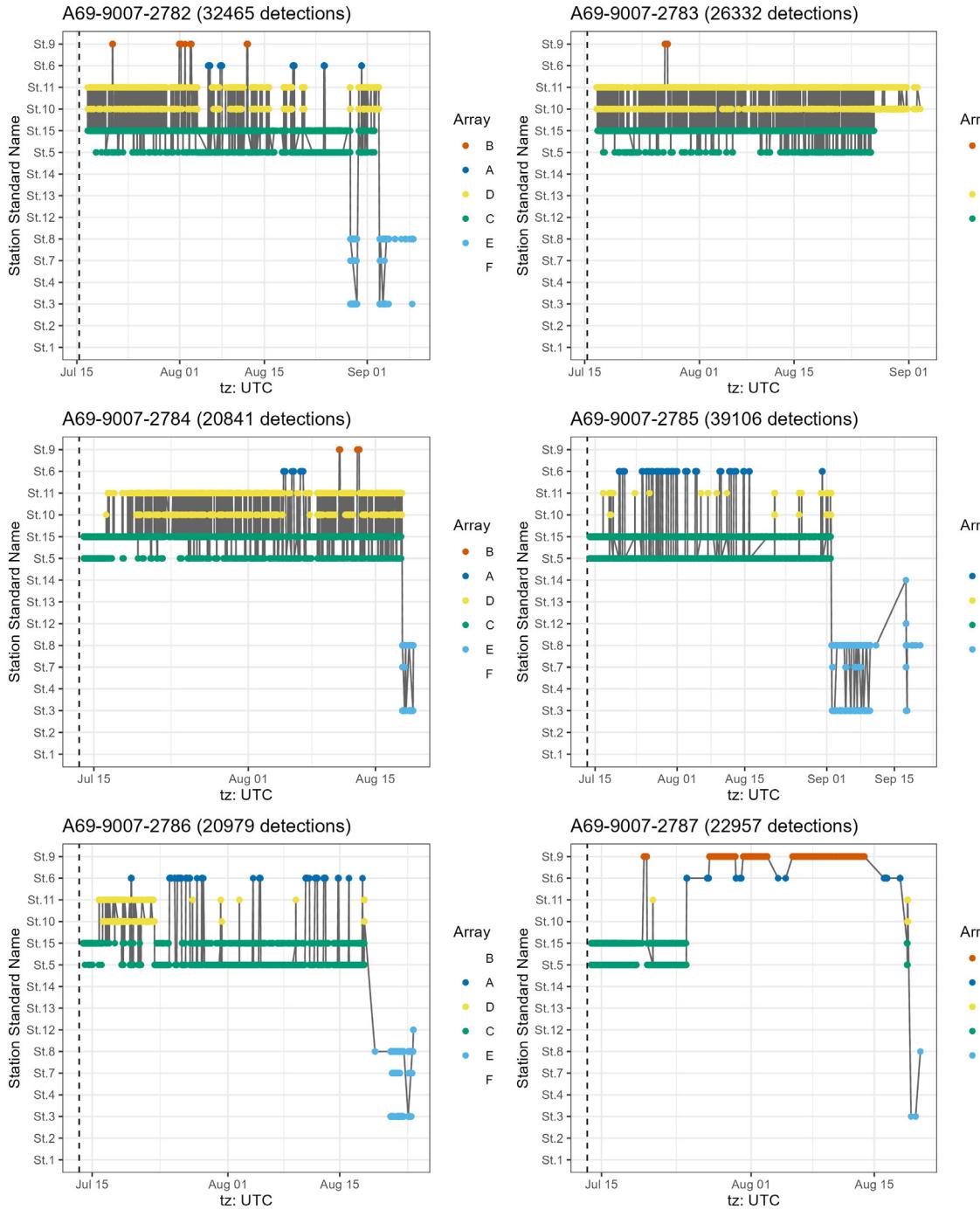
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## Sensor plots

### Note:

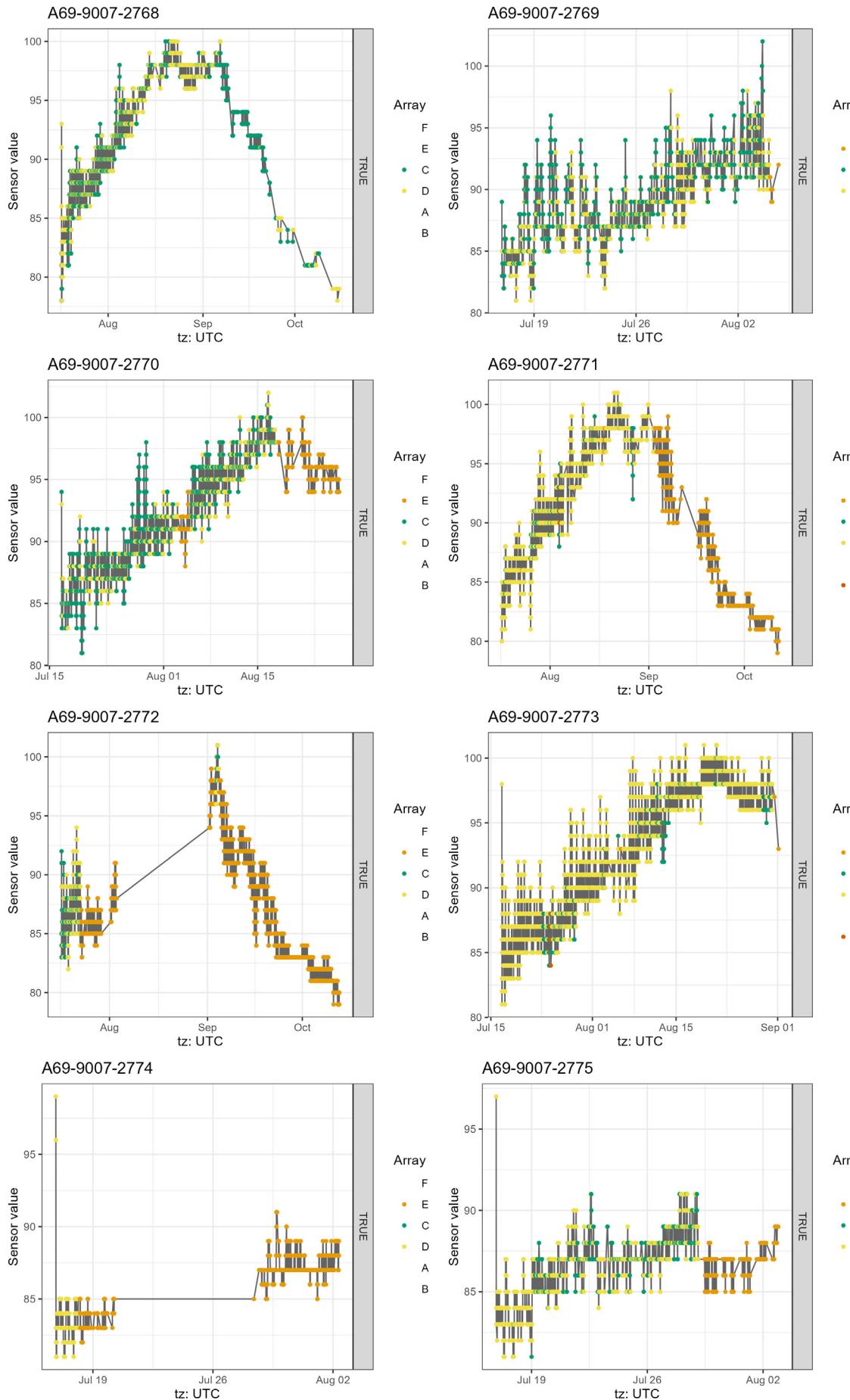
The colouring in these plots will follow that of the individual detection plots, which can be modified using `detections.y.axis`.

The data used for these graphics are stored in the `valid.detections` object.

You can replicate these graphics and edit them as needed using the `plotSensors()` function.

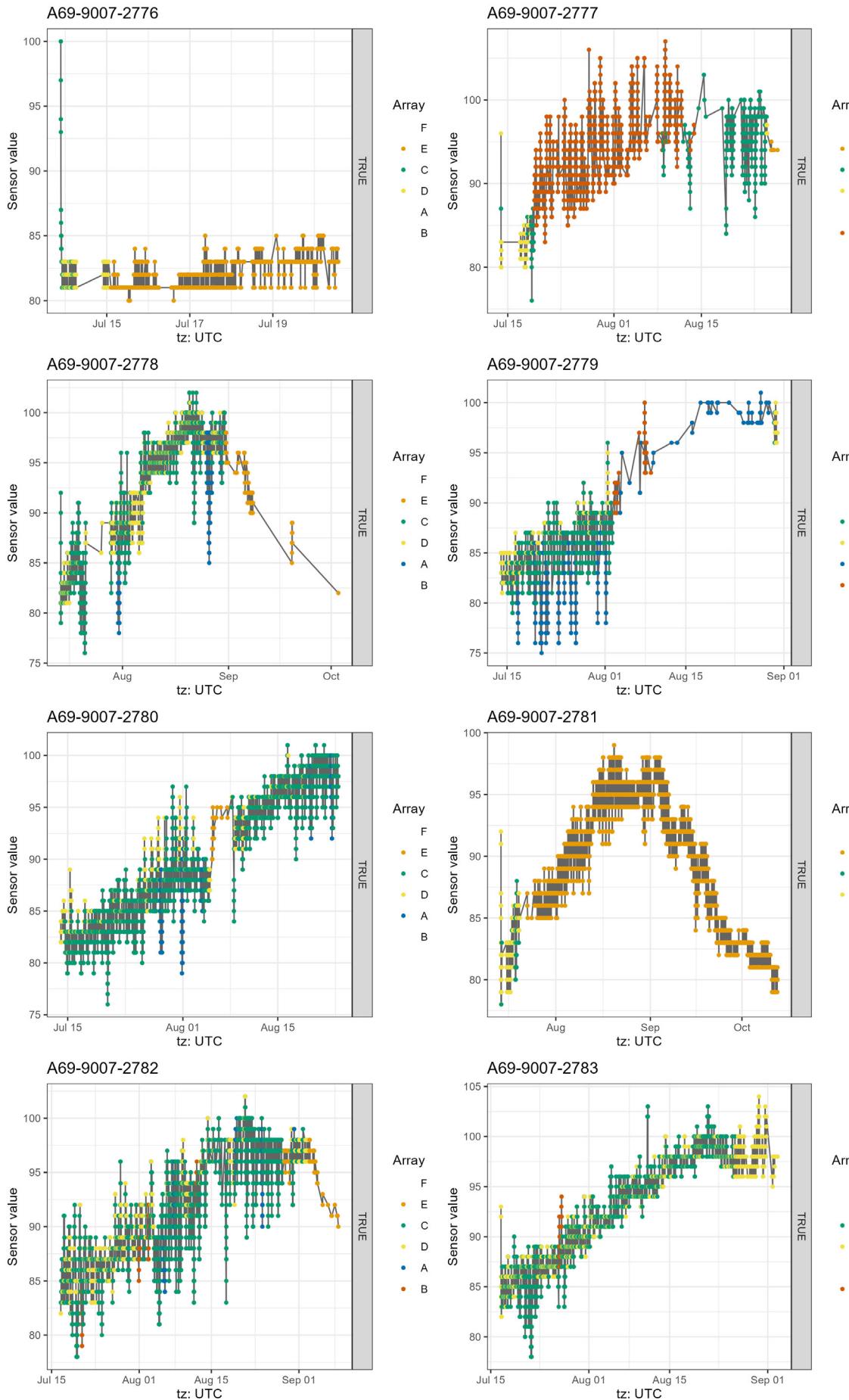
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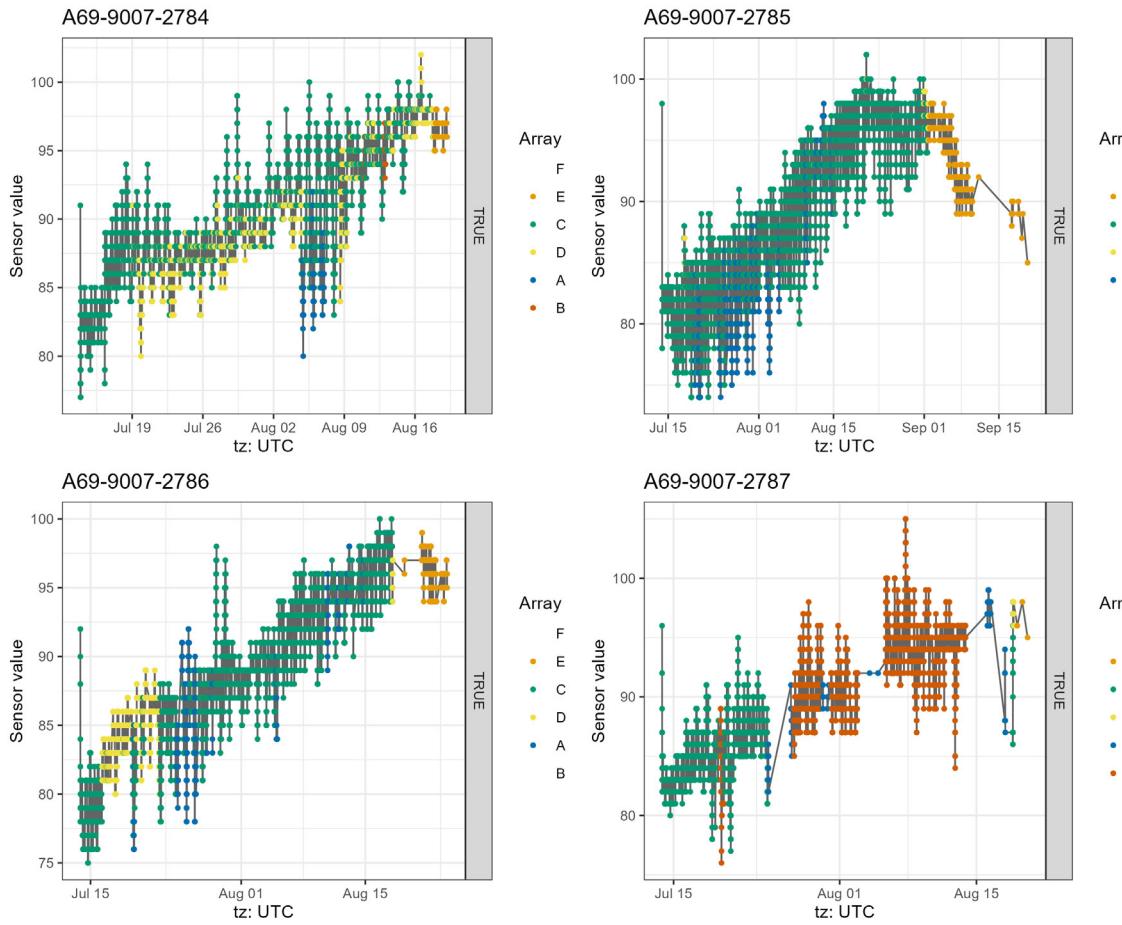
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# Index: Full log

Summary	Actel R package report. Version: 1.3.0.9019
Study area	Target folder: C:/Users/sean.rooney/Work/R/cod_tagging/alb_from_git
Stations	Timestamp: 2025-03-10 09:18:39.201052
Deployments	Function: explore()
Release sites	M: 'report' option has been activated. M: Running analysis on preloaded data (compiled on 2025-03-10 09:14:32.727601).
Warnings	Messages displayed during preload: -----
Comments	Actel R package report. Version: 1.3.0.9019
Biometrics	Target folder: C:/Users/sean.rooney/Work/R/cod_tagging/alb_from_git
Arrival times	Timestamp: 2025-03-10 09:13:29.931649
Individual detections	Function: preload()
Sensor data	M: Preloaded Release dates are already in POSIX format. Skipping timestamp format checks. M: Number of target tags: 20.
Full log	M: Preloaded deployment times are already in POSIX format. Skipping timestamp format checks. Warning: The 'Receiver' column in the detections is not of type integer. Attempting to convert. Warning: The 'Sensor.Value' column in the detections is not of type numeric. A attempting to convert. M: Multiple possible first arrays detected for release site '1'. M: Multiple possible first arrays detected for release site '2'. M: Multiple possible first arrays detected for release site '3'. M: Multiple possible first arrays detected for release site '4'. M: Multiple possible first arrays detected for release site '5'. M: Matching detections with deployment periods. Error: 3 detections for receiver 111441 do not fall within deployment periods. Warning: 64 detections for receiver 111442 do not fall within deployment periods. Discarding orphan detections. Warning: 100 detections for receiver 111443 do not fall within deployment periods. Discarding orphan detections. Warning: 151 detections for receiver 111446 do not fall within deployment periods. Discarding orphan detections. Warning: 153 detections for receiver 111447 do not fall within deployment periods. Discarding orphan detections. Warning: 606 detections for receiver 111448 do not fall within deployment periods. Discarding orphan detections.

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Warning: 43 detections for receiver 111901
          do not fall within deployment periods. Discarding orphan detections.
M: Number of ALS: 15 (of which 1 had no detections)
Warning: No detections were found for receiver(s) 111440.
M: Data time range: 2021-07-13 19:41:29 to 2021-10-15 11:55:01 (UTC).
M: Data successfully imported!
-----
M: Creating movement records for the valid tags.
M: Checking movement events quality.
Warning: 'speed.warning'/'speed.error' were not set, skipping speed checks.
Warning: 'inactive.warning'/'inactive.error' were not set, skipping inactivity checks.
M: Filtering valid array movements.
M: Compiling circular times.
M: Saving results as 'actel_explore_results.1.RData'.
M: Producing the report.
M: Drawing individual detection graphics.
M: Printing sensor values for tags with sensor data.
M: Analysis completed!

-----
User interventions:
-----
y # save results?
-----
Preload function call:
-----
preload(biometrics = biometric, spatial = spatial, deployments = deployments,
detections = detections_otn, dot = dot_string, distances = NULL, tz = 'UTC',
start.time = NULL, stop.time = NULL, section.order = NULL, exclude.tags = NULL,
disregard.parallels = FALSE, discard.orphans = FALSE)
-----
Explore function call:
-----
explore(tz = NULL, datapack = x, max.interval = 60, min.total.detections = 2,
min.per.event = 1, start.time = NULL, stop.time = NULL, speed.method = c('last
to first'), speed.warning = NULL, speed.error = NULL, jump.warning = 2, jump.e
rror = 3, inactive.warning = NULL, inactive.error = NULL, exclude.tags = NULL,
override = NULL, report = TRUE, discard.orphans = FALSE, discard.first = NULL,
auto.open = TRUE, save.detections = FALSE, GUI = 'never', save.tables.locally
= 'FALSE', print.releases = TRUE, detections.y.axis = 'auto')
-----
```