

Summary Report

Jersey Mast Emissions

Audit 2025

05 November 2025

Version 1.0

Contents

1. Overview
2. Summary of Measured Emission Levels - 2025
3. Key Findings from the 2025 audit
4. Photo pack
5. Conclusion and Recommendations

Overview

A total of 20 mobile mast sites were surveyed in Jersey in 2025. The surveys measured the levels of Electromagnetic field emissions from the sites and verified their compliance with the internationally recognised guideline levels set by the International Commission on Non-ionising Radiation Protection (ICNIRP).

The choice of sites audited in 2025 was dictated by whether they were:

- New, additional operator(s) joining the site or the site been relocated in the past 12 months
- Major changes made by the operator to the site in the past 12 months, e.g. major upgrades to new technologies such as 5G, refarming of spectrum or changes to the site hardware (antennas)
- Sites measured in the previous year with the highest emission levels

The biggest change in 2025 was the first introductions of 5G services by the operators on the island. The 5G services were confined to a few sites following trials in previous years but should form the premises of a wider deployment strategy by the operators in the coming year(s).

The Table overleaf shows the emission levels measured in 2025 (blue columns) as well as the levels previously measured at the same sites (between 2017 to 2024) as a ratio to the ICNIRP levels (yellow columns).

The arrows on the last column on the right indicate whether the site's emission level went up, down or remained stable since the site was last audited.

One site was new in 2025 and has no emission level history.

The full set of reports for the sites audited in 2025 as well as those audited in previous years can be found in <https://mastaudits.jcra.je/>

ICNIRP are a non-profit organisation that provides scientific advice and guidance on the health and environmental effects of non-ionizing radiation (NIR) to protect people and the environment from detrimental NIR exposure. Its activities include determining exposure limits for electromagnetic fields used by devices such as cellular phones and masts. It is these guideline limits which are tested against for the purpose of this mast audit. ICNIRP does not receive money from industry, its funding stems from subsidies granted by national and international public institutions

Summary of measured emission levels - 2025

Emission levels in this table are expressed as Total Exposure Quotient (EQ) aggregated across all the cellular bands (including 5G) and expressed relative to the corresponding ICNIRP guidelines.

The Total Exposure Quotient (TEQ) for each site is calculated across all detected cellular frequency bands. A Total EQ close to 1 would mean that emission levels approach the safety limit advised by ICNIRP.

Unique Site ID	Site name	Operator(s)	Site Type	Site Address	2025 audit				Previous most recent audit				
					2025 Total EQ	Total EQ as a ratio	2025 TEQ as a % of ICNIRP Limit	2025 Survey date	Previous Audit Total EQ	Previous TEQ as a ratio	Previous TEQ as a % of ICNIRP Limit	Date of previous Survey	TEQ Change
JE-004	Airport Radar	Airtel, JT, Sure	Lattice Mast	Le Mont a la Brune, Jersey Airport	0.00668	1/ 150	0.67%	16-Sep-25	0.00047	1/ 2118	0.05%	16-Aug-17	▲
JE-015	Bingle Berries	Sure	Pole Mast	La Rue de la Blanche Pierre	0.00212	1/ 472	0.21%	17-Sep-25	0.00254	1/ 394	0.25%	12-Jun-17	▼
JE-029	Communication Services Tower (La Chasse)	Airtel, JT, Sure	Lattice Mast	La Chasse Radio station/transmitter	0.00213	1/ 469	0.21%	16-Sep-25	0.00055	1/ 1831	0.05%	05-Jun-17	▲
JE-038	Dunedin Farm	Sure	Pole Mast	La Rue de Billeres	0.00463	1/ 216	0.46%	17-Sep-25	0.00135	1/ 738	0.14%	07-Jun-17	▲
JE-047	Field 426 (St Marys Village)	Airtel, JT	Monopole	La Rue du Rondin	0.00281	1/ 356	0.28%	16-Sep-25	0.00026	1/ 3901	0.03%	05-Jun-17	▲
JE-075	Green Street Car Park	Sure	Rooftop - Wall mount	Green Street	0.02160	1/ 46	2.16%	18-Sep-25	0.03162	1/ 32	3.16%	11-Jun-17	▼
JE-092	Kensington Car Park	Airtel, JT, Sure	Rooftop	Kensington Place	0.40981	1/ 2	40.98%	17-Sep-25	0.19983	1/ 5	19.98%	12-Sep-24	▲
JE-101	La Mare Wine Estate (formerly La Mare Vineyard)	JT, Sure	Pole Mast	La Rue de la Hougue Mauger	0.01083	1/ 92	1.08%	16-Sep-25	0.00157	1/ 635	0.16%	05-Jun-17	▲
JE-094	Les Charrieres	JT	Monopole	La Rues des Charrieres/Rue des Sillons	0.02754	1/ 36	2.75%	16-Sep-25	0.00942	1/ 106	0.94%	05-Jun-17	▲
JE-096	Les Fontaines (formerly La Fontaine Kiosk)	JT	Monopole	La Route du Nord	0.00257	1/ 390	0.26%	16-Sep-25	0.00891	1/ 112	0.89%	07-Jun-17	▼
JE-229	Les Pres d'Auvergne Car Park	JT	Monopole	La Route de l'Etacq	0.00549	1/ 182	0.55%	16-Sep-25					
JE-132	Mont Isaac	JT	Monopole	Coin Tourgis Nord	0.00419	1/ 239	0.42%	17-Sep-25	0.00181	1/ 552	0.18%	14-Sep-24	▲
JE-149	Quenault and Sons	Sure	Pole Mast	Seawood, La Freminerie	0.00367	1/ 273	0.37%	18-Sep-25	0.00459	1/ 218	0.46%	09-Jun-17	▼
JE-153	Regal Construction	JT	Outdoor wall	Haut Bois, La Grande Route de St Lawrence	0.01815	1/ 55	1.82%	18-Sep-25	0.00172	1/ 580	0.17%	07-Jun-17	▲
JE-210	Rue de Varvots (formerly Northern Leaf)	JT	Rooftop	La Rue des Varvots	0.00504	1/ 199	0.50%	17-Sep-25	0.00894	1/ 112	0.89%	30-Sep-21	▼
JE-052	Rue du Cerf (Field 646)	Airtel, JT, Sure	Monopole	Rue d'Olive/Rue du Cerf	0.00241	1/ 415	0.24%	16-Sep-25	0.00362	1/ 276	0.36%	05-Jun-17	▼
JE-161	Sand Street Car Park	Airtel, JT, Sure	Rooftop	Sand Street car park	0.40865	1/ 2	40.86%	17-Sep-25	0.59023	1/ 2	59.02%	12-Sep-24	▼
JE-170 & 171	St Aubin Pier	Airtel, Sure	Monopole	St. Aubin's Harbour	0.04213	1/ 24	4.21%	17-Sep-25	0.02937	1/ 34	2.94%	21-Sep-23	▲
JE-227	St Johns Ambulance	JT	Monopole	St Martin's Hall, La Grande Route de St Martin	0.00103	1/ 970	0.10%	18-Sep-25	0.00506	1/ 197	0.51%	14-Sep-24	▼
JE-187	Trinity Hill Kiosk	JT	Kiosk	Kiosk near Waitrose, Trinity Road	0.05016	1/ 20	5.02%	17-Sep-25	0.00779	1/ 128	0.78%	06-Jun-17	▲

Key Findings from the 2025 audit (page 1 of 2)

All the sites measured in 2025 were below the recommended ICNIRP Reference Levels and complied with ICNIRP's guidelines on emission levels for *General Public*.

Variations observed in 2025 are normal and would be the result of changes made to the sites by the operators (changes of technology such as migrating sites from 3G to 4G, addition of channels, addition of 5G on some sites, decommissioning of technologies), hardware changes, variations to the ambient emission levels (from nearby sites), expected variability of radiowave propagation, and changes in the actual location of the measurement probe.

It is evident from the previous table that the changes noted year-on-year generally follow a trend towards increasing overall levels, but there is no indication that these sites will exceed ICNIRP guidelines' limit during operation.

Only 8 sites out of the 20 sites surveyed in 2025 showed levels above 1% of ICNIRP guidelines – all the other sites surveyed this year had emissions levels lower than 1%. This result was expected since the target sites for this year's audit included sites where levels have previously been measured at or above the 1% of ICNIRP mark.

Below is the list of sites recorded above 1% of ICNIRP and a short explanation about the findings.

Kensington Place car park 40.98% (JE-092)

The total emission level at this private car park was measured at 40.98% of ICNIRP guidelines, so just under half the recommended levels (previously measured at 12.6% in 2021, 13% in 2022, 9.37% in 2023 and 19.98% in 2024). All 3 operators are fully active on this site and use a full spectrum allocation. We consider the low height of this site's antennas as the main contributor to its higher levels, notwithstanding those levels still remain lower than the ICNIRP guideline levels.

We recommend that the site be included in next year's mast audit as a precaution.

Sand Street car park 40.86% (site JE-161)

The total emission level at this public car park was measured at 40.86% of ICNIRP guidelines, so just under half the recommended levels (previously measured at 20% in 2019, 11.7% in 2020, 7.9% in 2021, 5.8% in 2022 and 13.4% in 2023 and 59.02% in 2024). The proximity of the high-power antennas to the public using the rooftop car park, and the presence of other sites in the surrounding area collectively contribute to the overall levels observed.

This site should be closely monitored for any changes and kept on the test list for the next audit.

Key Findings from the 2025 audit (page 2 of 2)

Trinity Hill Kiosk 5.02% (site JE-187)

The total emissions level at the kiosk outside the supermarket car park at the bottom of Trinity Road was measured at 5.02% of ICNIRP guidelines, it was at just under 1% when it was measured back in 2017. This site is used by a single operator (JT) with limited technologies and spectrum bands. As a result, levels will remain relatively constant unless major changes are brought about by the operator.

Due to previous years' results and ease of access to the public, this site will need to be measured at regular intervals in future audits.

St Aubin's Pier 4.21% (site JE-170/171)

The total emissions level at St Aubin's Harbour was measured at 4.21% of ICNIRP guidelines, similar to the 2.94% measured back in 2023 when it was last audited. This site is used by two operators who operate different antennas separated by a few metres.

Les Charrieres 2.75% (sites JE-094)

Les Charrieres site is a monopole operated by a single operator. The total emission level at the site was measured at 2.75% of ICNIRP guidelines. The site was last audited in 2017 when the levels were measured at 0.94%, so a slight increase but remains very low and of no concern to the public

Green Street Car Park 2.16% (site JE-075)

The total emission level at Green Street car park was measured at 2.16% of ICNIRP guidelines, a slight decrease compared to the 2017 levels where it was measured at 3.16%. These levels remain very low and of no concern to the public.

Regal Construction 1.82% (site JE-153)

The total emissions level at Regal Construction was measured at 1.82% of ICNIRP guidelines (0.17% in 2017). This site is used by a single operator but has gone through various upgrades in recent months.

These levels remain very low and of no concern to the public.

La Mare Wine Estate 1.08% (site JE-101)

Formerly known as La Mare Vineyard, this site's emission level was measured at 1.08% of ICNIRP guidelines (0.16% in 2017).

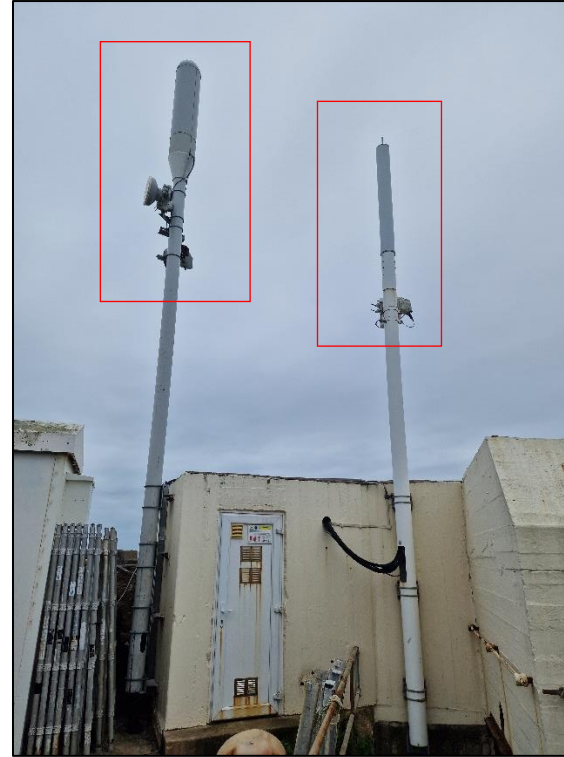
The levels indicated above all remain low or very low compared with ICNIRP guidelines and will be continually monitored by the JCRA. None of the above should be of concern to the public

Photo pack – sites with emission levels >1% of ICNIRP (1 of 2)



**Sand Street Car Park –
40.89% of ICNIRP guidelines**

**St Aubin's Pier
4.21% of ICNIRP guidelines**



**Les Charrieres -
2.75% of ICNIRP guidelines**



**Kensington Place Car Park –
40.98 % of ICNIRP guidelines**



Photo pack – sites with emission levels >1% of ICNIRP (2 of 2)

Trinity Hill Kiosk (bottom of Trinity Road) -
5.02% of ICNIRP guidelines



Regal Construction -
1.82% of ICNIRP guidelines



Green Street car park –
2.16% of ICNIRP guidelines



La Mare Wine Estate -
1.08% of ICNIRP guidelines



Conclusions and Recommendations

The emission levels measured at all the sites in 2025 were below the ICNIRP guidelines for the *General Public Reference Levels*. The findings are consistent with previous years where sites measured the highest in comparison with other sites were generally found to be ranked the highest again this year.

This year's findings confirm that:

- All the sites are safe and within the ICNIRP recommended guideline levels.
- A few sites in Jersey can be seen as being higher than the majority of the sites. These sites have aggregated emission levels of between 1.1% and 40.98% of ICNIRP guidelines.
- In general, these sites are rooftop macrocells (i.e. serving a wide area) or are located in proximity to where the public has access (rooftop car parks or accessible masts for example).
- Even with changes to these sites over the years (addition of new technologies, channels and new operators joining the site) these sites are still below the ICNIRP Guideline levels and remain safe to the public.
- In 2025, Kensington Place car park and Sand Street car park stand out from the rest of the audit sample. These two sites are safe and within the ICNIRP guidelines levels. Their operators use most of the spectrum and carriers licensed to them, resulting in the levels observed. Given the historical data and the fact these sites operate on full spectrum allocation, there is no evidence to suggest that they will increase beyond the safety levels recommended by ICNIRP.

Recommendations

From the above conclusions we recommend that an audit of RF emissions is carried out next year on a carefully selected number of sites.

The following advice should also be taken into account when planning and executing the next set of audits:

- The addition of 5G transmissions observed in 2025 will continue over the next year(s) to a wider sample of sites across the island. The sites that have been audited and found to have levels of 1% of ICNIRP Guidelines or higher in previous audits will need to be included to ensure they remain safe to the public.
- For Kensington Place and Sand Street car parks, we recommend that JCRA communicate the findings with the operators to ensure levels remain within the ICNIRP guidelines. We recommend that operators inform JCRA of any planned changes to their systems at these two sites, and that the changes are reviewed by JCRA and their independent consultants before they are implemented by the operators, particularly if they are likely to lead to increased emission levels. We recommend that these two sites are kept on the list of sites to audit in 2026.
- Review the advice regularly published by ICNIRP regarding exposure to electromagnetic emissions to ensure the limits these audits are compared against are current and relevant.
- Demonstrate that the on-going audits are transparent, regular and conducted by independent firms.
- Keep an up-to-date list of sites that are live on the island. Any sites that are decommissioned need to be removed from the web portal, this is important and provides the public with the confidence that the emissions and sites are regularly monitored.
- Continue to respond to concerns expressed by the public, by offering them advice and by continuing to publish the emission level reports to provide them with factual data about emissions in their neighbourhood



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