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CATZOC vs ENC Usage Bands

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Investigate how CATZOC is related to Usage Bands.

2 Approaches:

1. Distribution of CATZOC within each Usage Band.
2. Distribution of Usage Bands within each CATZOC category.

Analysis basis

CATCOZ	Total number of CATZOC for each usage band	Total number of ENC per usage band	Average CATZOC per ENC
Usage Band			
1 (Overview)	5636	180	31
2 (General)	13105	660	20
3 (Coastal)	56563	2683	21
4 (Approach)	115982	5458	21
5 (Harbour)	136194	6737	20
6 (Berthing)	11911	1995	6

Total: **339391** **17713**

- DB extraction date: 2021-11-05
- Average CATZOC encodings – a few ENCs large impact
 - UB 1: 3 “top” ENCs contain **997**, **844** and **682** instances.



1. Distribution of CATZOC in each usage band

CATCOZ	1 (A1)	A1%	2 (A2)	A2%	3 (B)	B%
Usage Band						
1 (Overview)	9	0.16%	29	0.51%	117	2.08%
2 (General)	899	6.86%	437	3.33%	1441	11.00%
3 (Coastal)	2512	4.44%	2302	4.07%	11755	20.78%
4 (Approach)	7468	6.44%	5456	4.70%	22626	19.51%
5 (Harbour)	9823	7.21%	4491	3.30%	34380	25.24%
6 (Berthing)	2827	23.73%	1309	10.99%	2572	21.59%

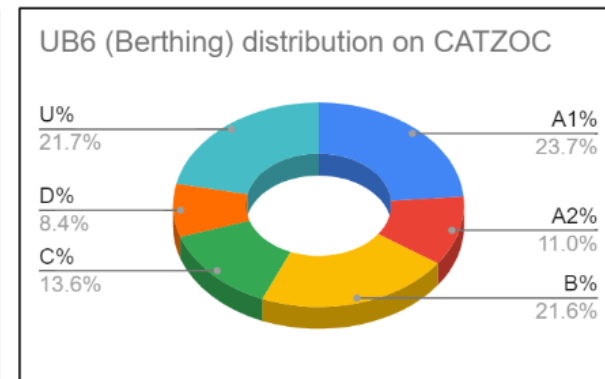
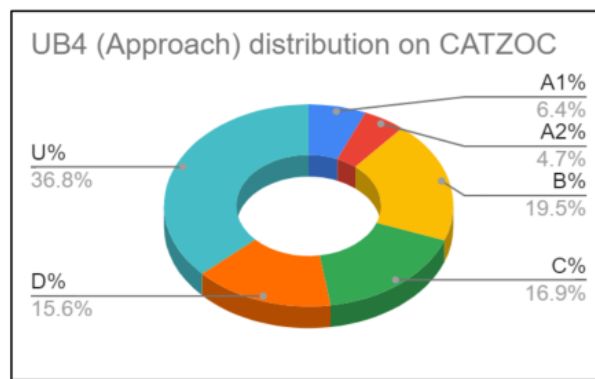
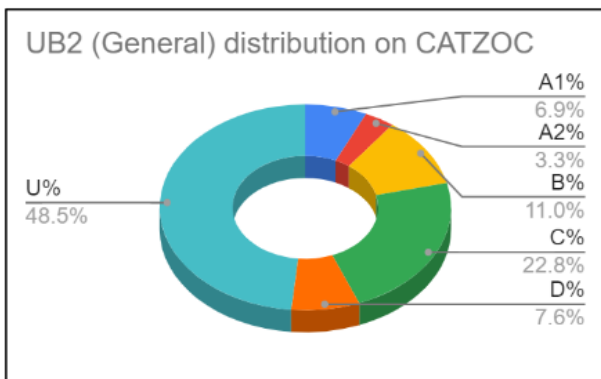
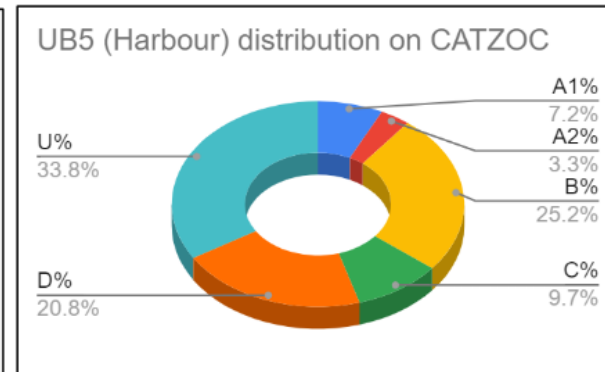
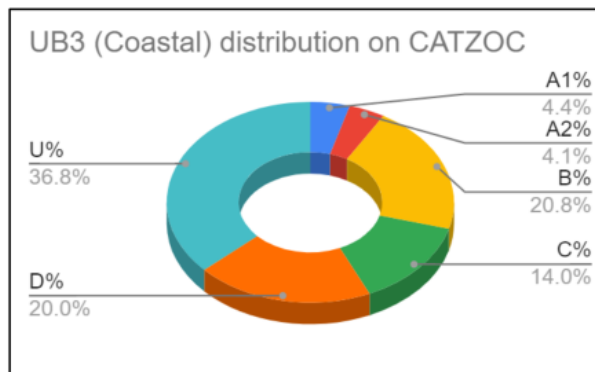
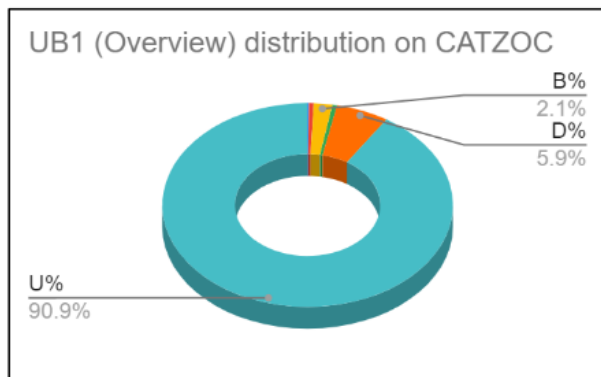
CATCOZ	4 (C)	C%	5 (D)	D%	6 (U)	U%
Usage Band						
1 (Overview)	30	0.53%	330	5.86%	5121	90.86%
2 (General)	2987	22.79%	991	7.56%	6350	48.45%
3 (Coastal)	7892	13.95%	11304	19.98%	20798	36.77%
4 (Approach)	19631	16.93%	18075	15.58%	42726	36.84%
5 (Harbour)	13165	9.67%	28319	20.79%	46016	33.79%
6 (Berthing)	1619	13.59%	1000	8.40%	2584	21.69%

Examples:

- In UB1 Overview, there are 9 instances A1 encodings - 0,16% of all CATZOC encodings in UB1.
- In UB5 Harbour, there are 34380 instances B encodings - 25,24% of all CATZOC encodings in UB5.



1. Distribution of CATZOC in each usage band



- Unassessed distribution (CATZOC:6)
 - decreases from 90% in UB 1(Overview) to 22% in UB 6 (Berthing).
- A1 distribution (CATZOC:1)
 - increases from 0% in UB 1(Overview) to 24% in UB 6 (Berthing).
- CATZOC B+C distribution
 - ~equal in UB2, 3, 4, 5 and 6



2. Distribution of UB in each CATZOC Category

CATCOZ	1 (A1)	%	2 (A2)	%	3 (B)	%
Usage Band						
1 (Overview)	9	0.04%	29	0.21%	117	0.16%
2 (General)	899	3.82%	437	3.12%	1441	1.98%
3 (Coastal)	2512	10.67%	2302	16.41%	11755	16.13%
4 (Approach)	7468	31.73%	5456	38.90%	22626	31.04%
5 (Harbour)	9823	41.73%	4491	32.02%	34380	47.17%
6 (Berthing)	2827	12.01%	1309	9.33%	2572	3.53%

CATCOZ	4 (C)	%	5 (D)	%	6 (U)	%
Usage Band						
1 (Overview)	30	0.07%	330	0.55%	5121	4.14%
2 (General)	2987	6.59%	991	1.65%	6350	5.14%
3 (Coastal)	7892	17.41%	11304	18.83%	20798	16.83%
4 (Approach)	19631	43.31%	18075	30.12%	42726	34.57%
5 (Harbour)	13165	29.05%	28319	47.18%	46016	37.23%
6 (Berthing)	1619	3.57%	1000	1.67%	2584	2.09%

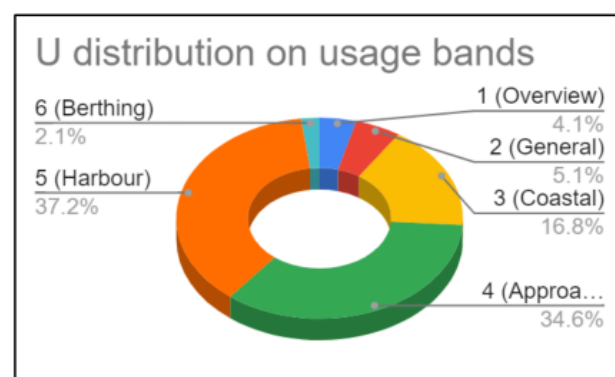
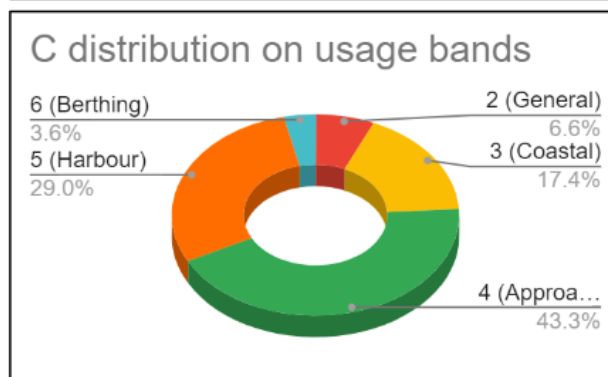
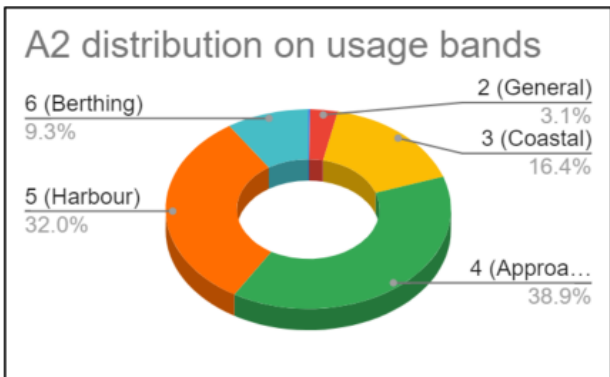
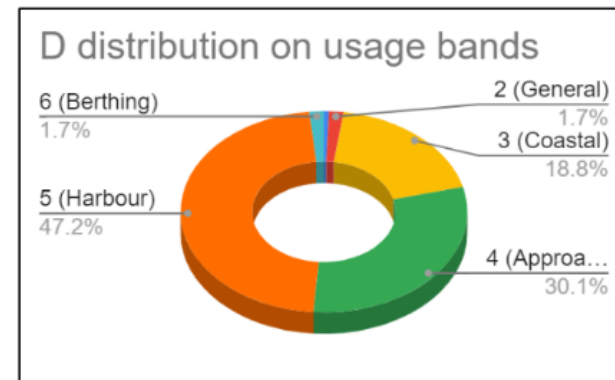
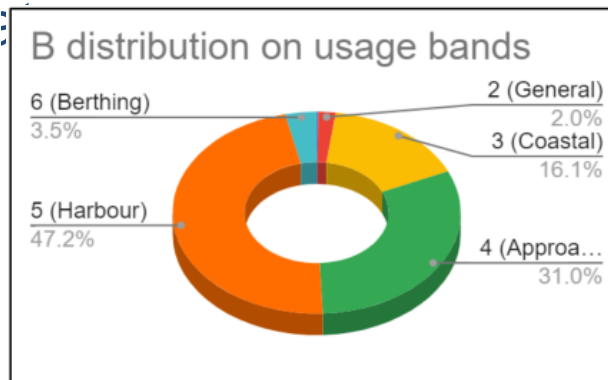
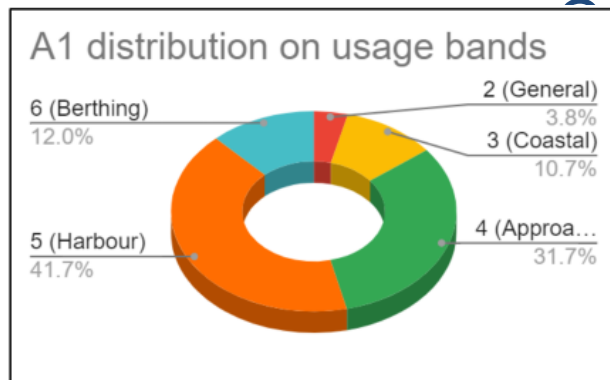
Examples:

- In UB1 Overview, there are 9 instances A1 encodings - meaning of all A1 encodings 0.04% are encoded in UB1.
- In UB5 Harbour, there are 34380 instances B encodings - meaning of all B encodings 47,17% are encoded in UB5.



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2. Distribution of UB in each CATZOC



- Of all CATZOC=A1 instances, most of them (41.73%) are encoded in usage band 5 (Harbour).
- Of all CATZOC=A2 instances, most of them (38.90%) are encoded in usage band 4 (Approach).
- Of all CATZOC=B instances, most of them (47.17%) are encoded in usage band 5 (Harbour).
- Of all CATZOC=C instances, most of them (43.31%) are encoded in usage band 4 (Approach).
- Of all CATZOC=D instances, most of them (47.18%) are encoded in usage band 5 (Harbour).
- Of all CATZOC=U instances, most of them (37.23%) are encoded in usage band 5 (Harbour).

Thank you for your attention
Questions?