

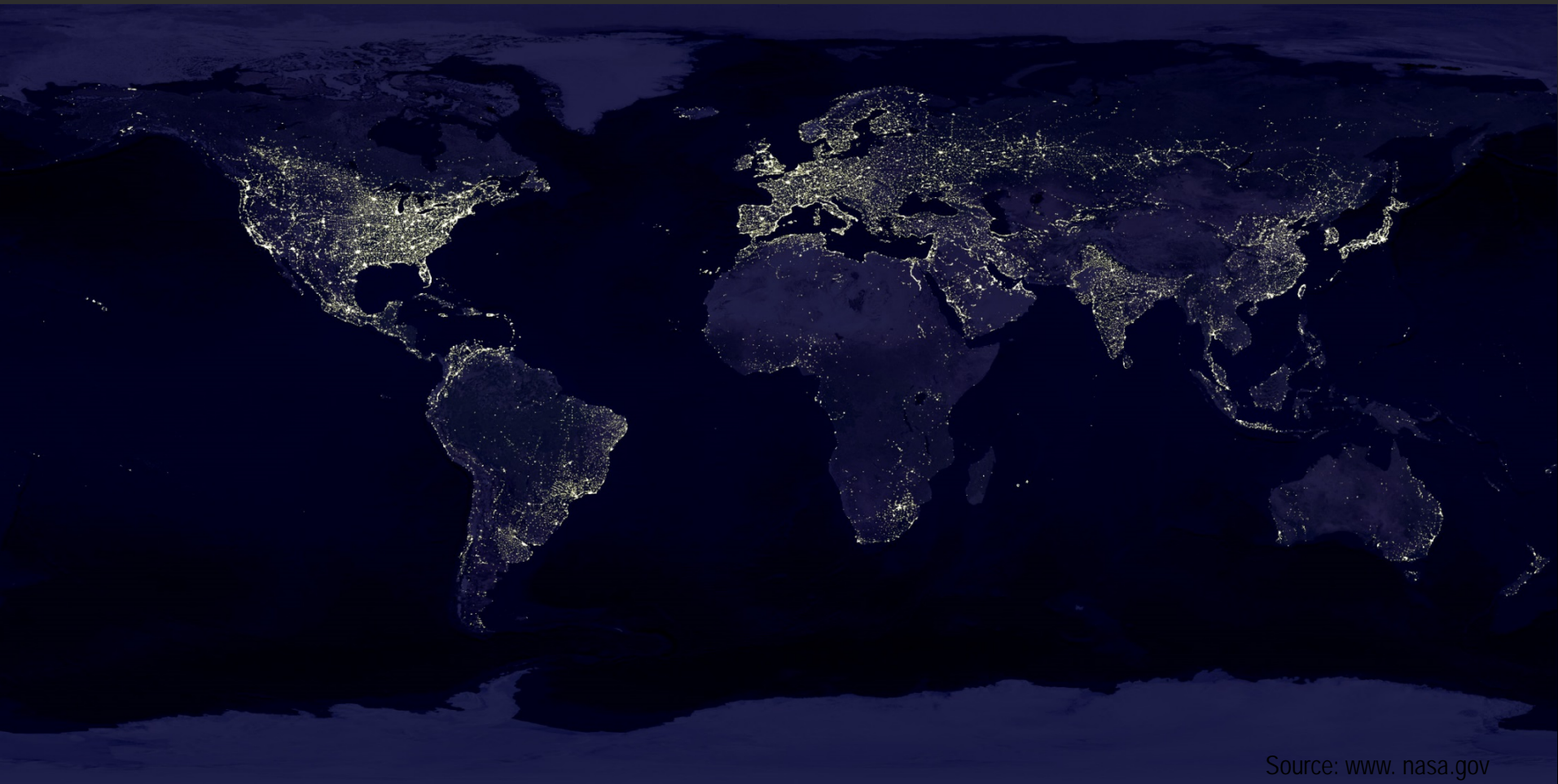


SPACE RACE HOW A SMART CITY FINDS WAYS TO USE LAND

Nancy Golubiewski

RIMU Symposium

4 July 2017

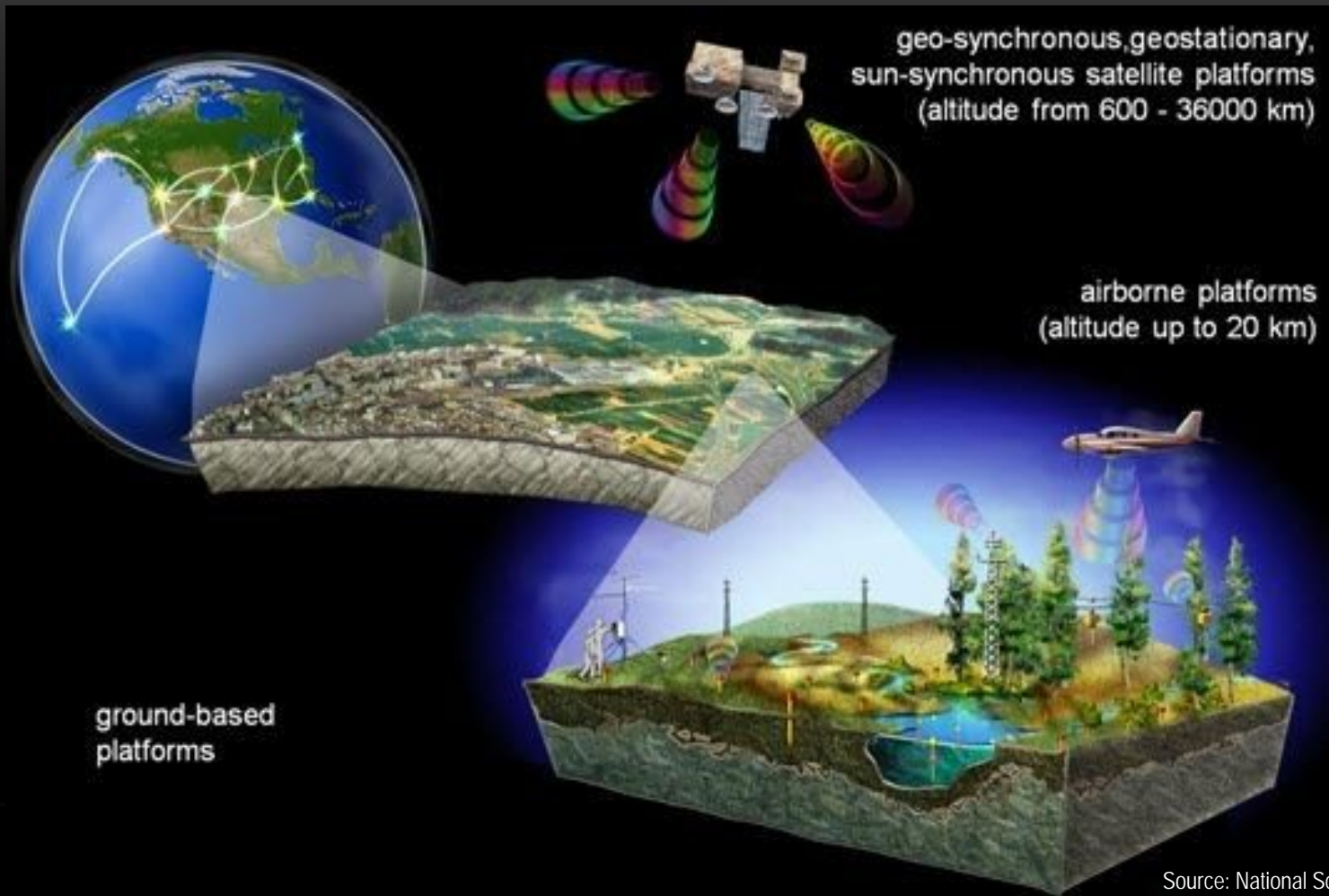


Source: www.nasa.gov



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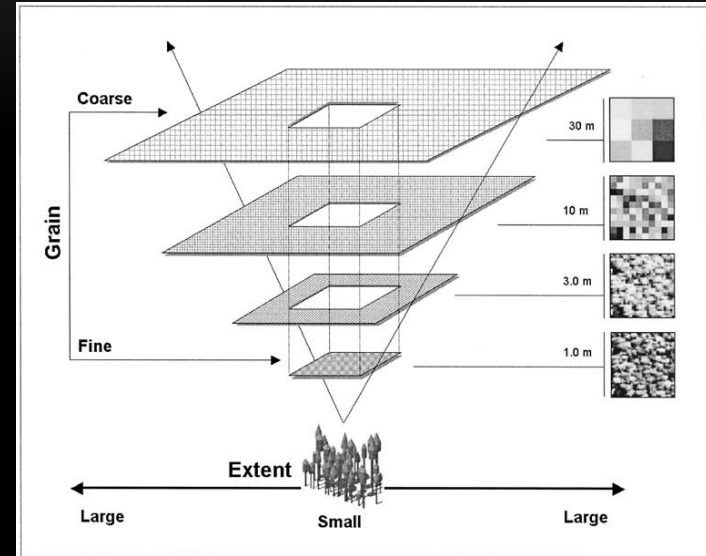


3 RESOLUTIONS

- Spatial
- Temporal
- Observational (Spectral, Returns)

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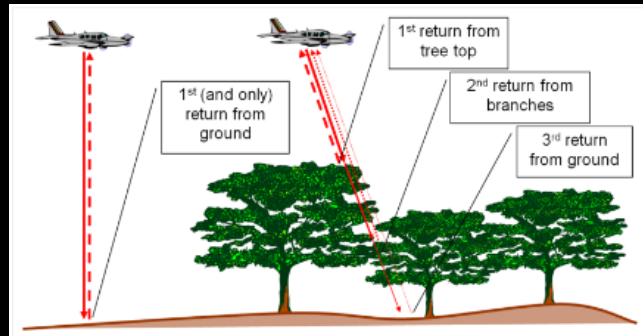
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Source: Hay et al. 2001. *Landscape Ecology*. 16:471-490.

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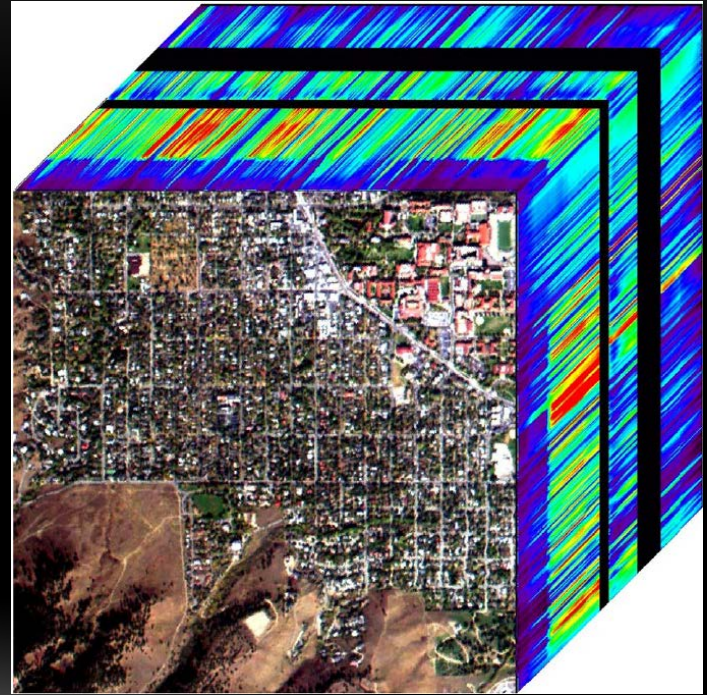


Source: <http://www.wo1.ugent.be/nl/voorbeelden/sporen-van-de-oorlog-vandaag-en-laser-scanning>



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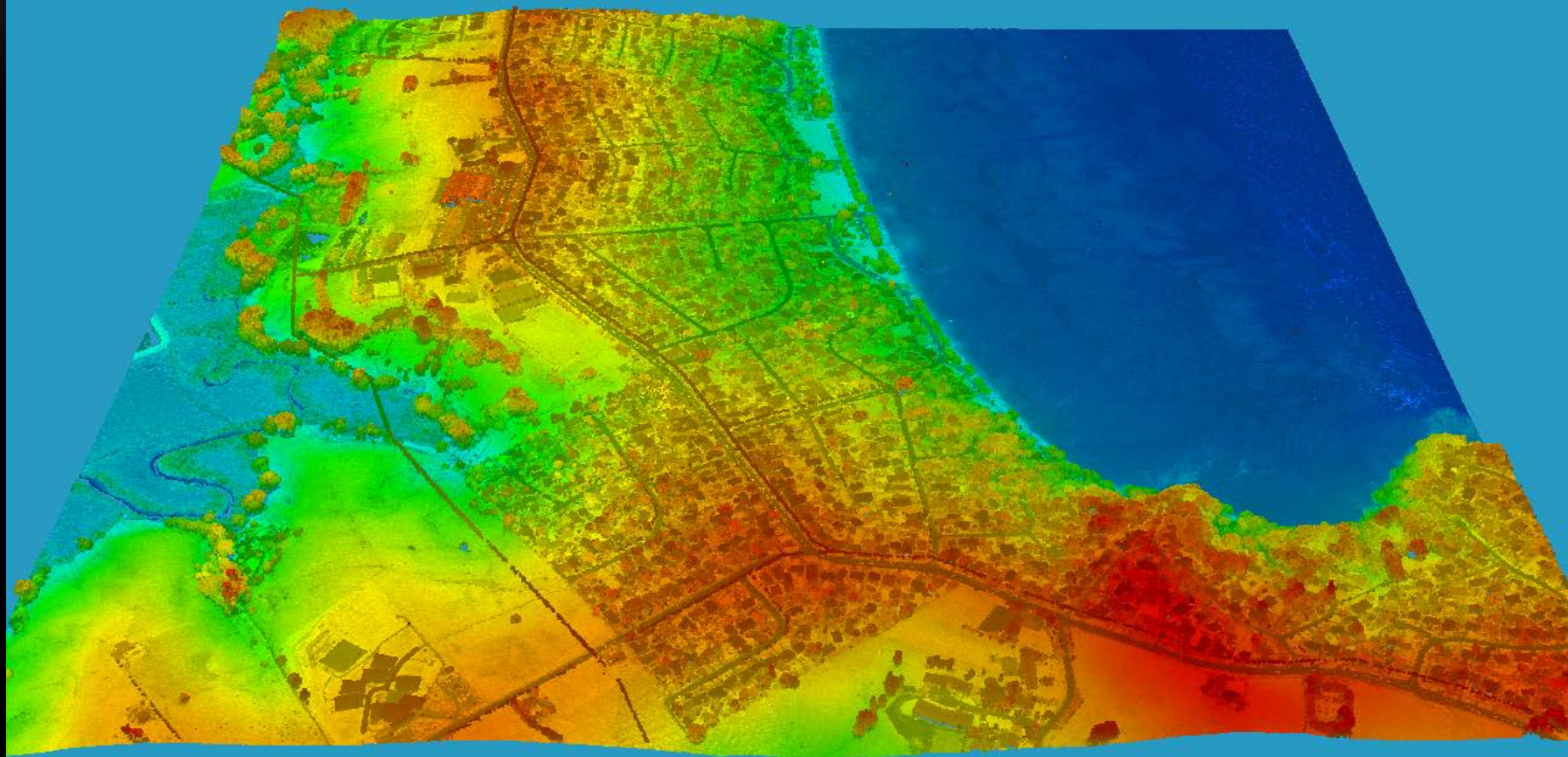


Source: Goetz. 2009. *Remote Sensing of Environment*. 113:S5-S16.

CONSTRUCTING AUCKLAND

A decade of building footprints for Auckland (2006-2017)









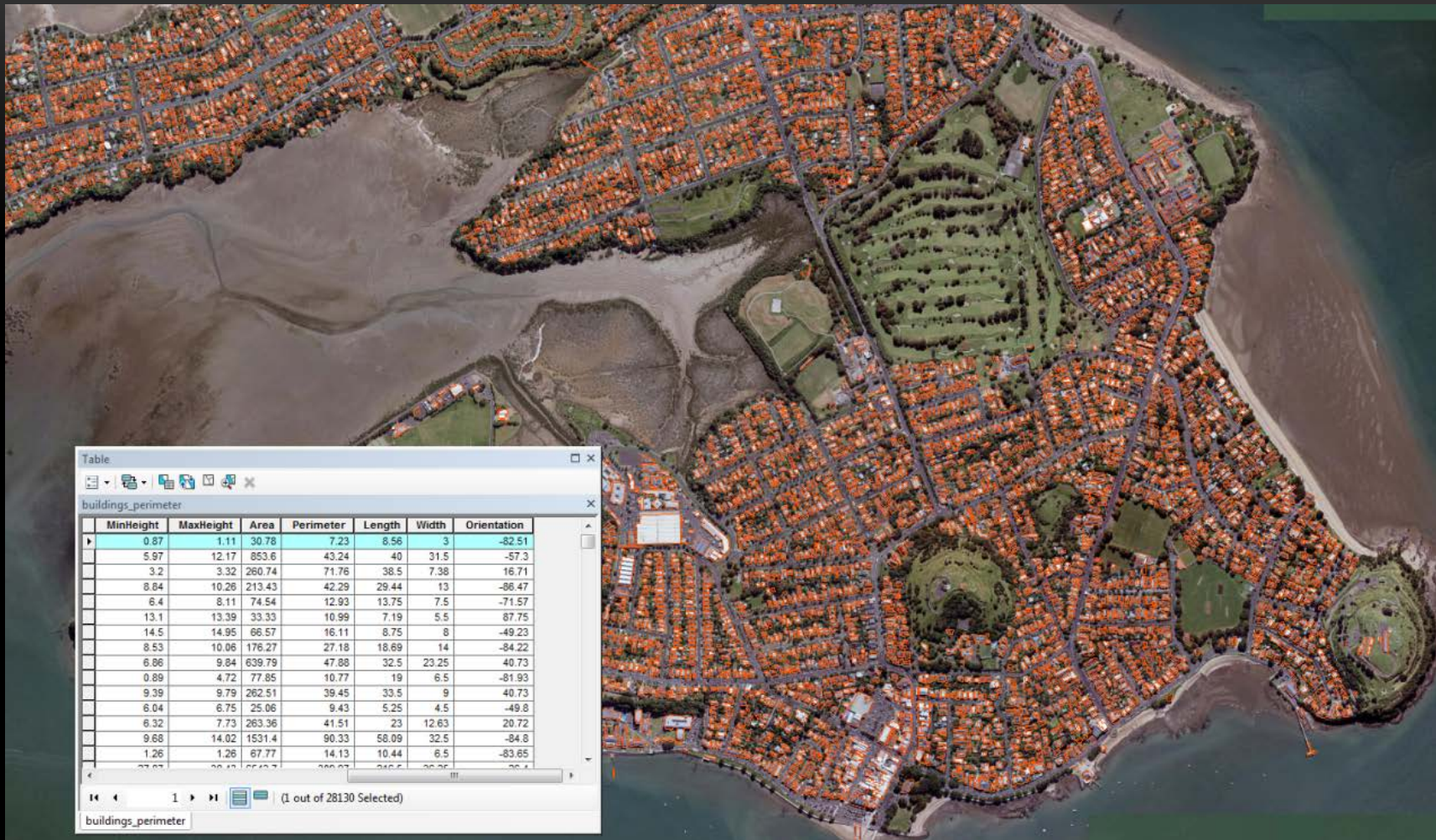


Table						
buildings_perimeter						
	MinHeight	MaxHeight	Area	Perimeter	Length	Width
▶	0.87	1.11	30.78	7.23	8.56	3
	5.97	12.17	853.6	43.24	40	31.5
	3.2	3.32	260.74	71.76	38.5	7.38
	8.84	10.26	213.43	42.29	29.44	13
	6.4	8.11	74.54	12.93	13.75	7.5
	13.1	13.39	33.33	10.99	7.19	5.5
	14.5	14.95	66.57	16.11	8.75	8
	8.53	10.06	176.27	27.18	18.69	14
	6.86	9.84	639.79	47.88	32.5	23.25
	0.89	4.72	77.85	10.77	19	6.5
	9.39	9.79	262.51	39.45	33.5	9
	6.04	6.75	25.06	9.43	5.25	4.5
	6.32	7.73	263.36	41.51	23	12.63
	9.68	14.02	1531.4	90.33	58.09	32.5
	1.26	1.28	67.77	14.13	10.44	6.5
	22.67	22.67	22.67	22.67	22.67	22.67

1 (1 out of 28130 Selected)

buildings_perimeter



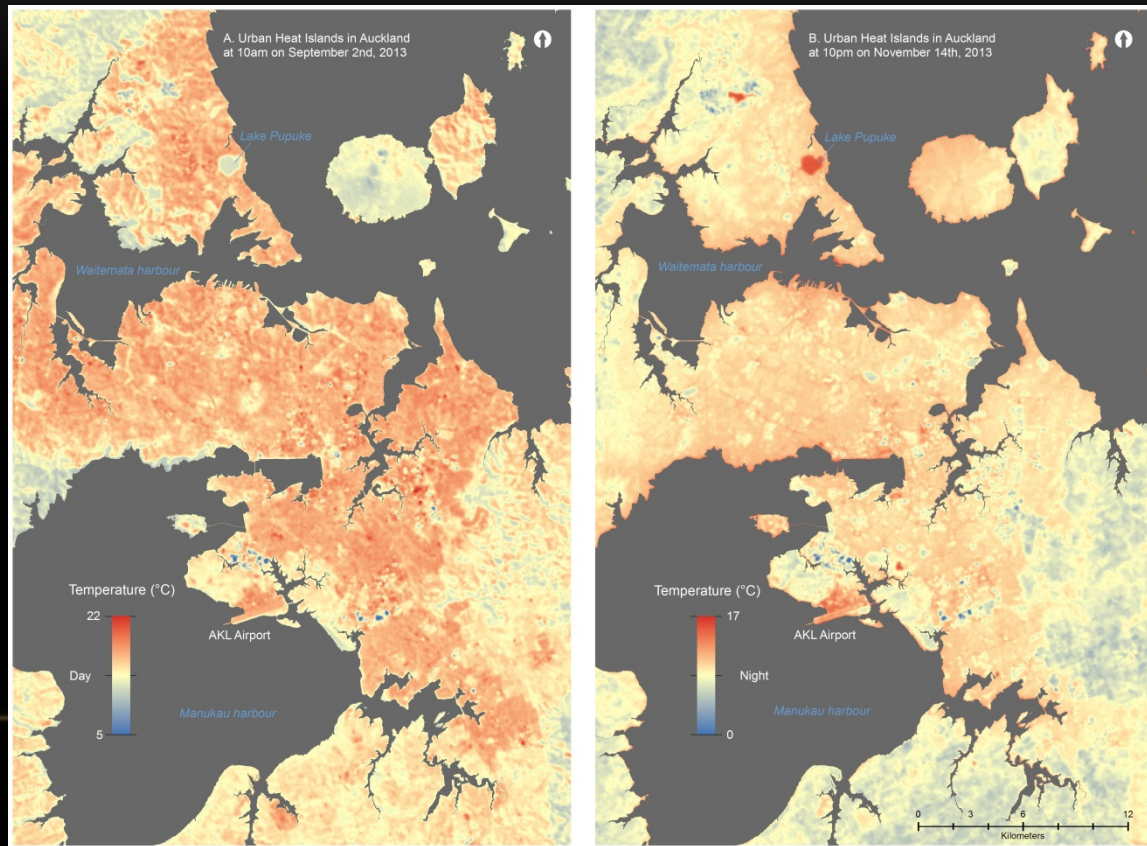
CHANGE DETECTION OF AUCKLAND'S GROWTH



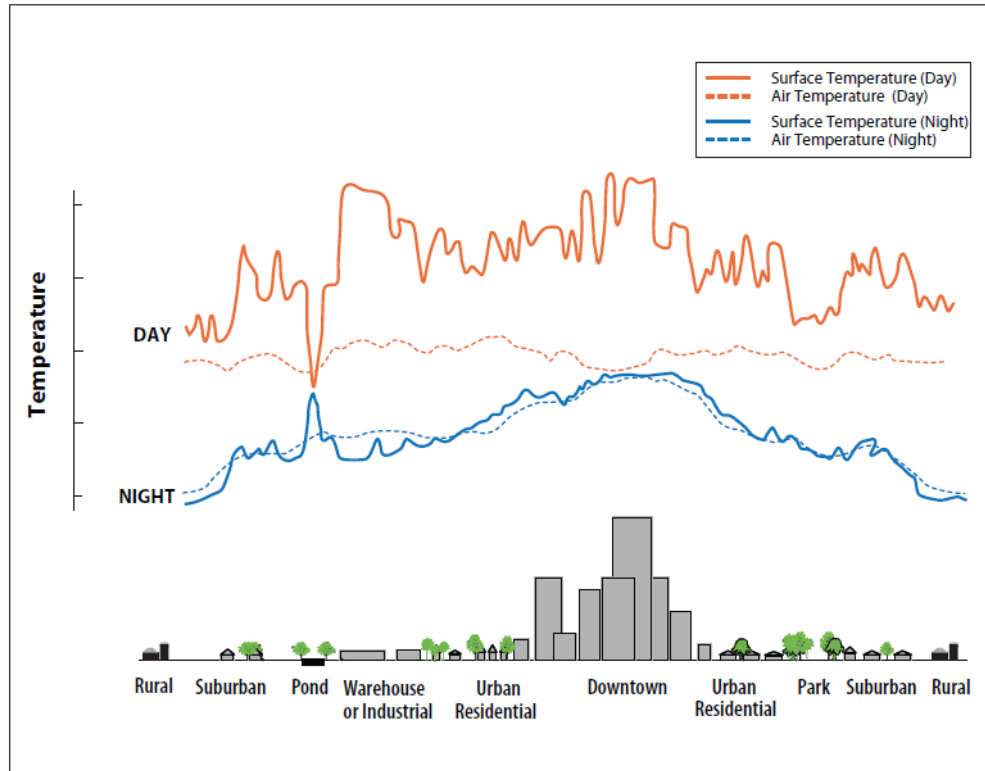




URBAN HEAT ISTHMUS? AUCKLAND'S BI-COASTAL UHI



URBAN HEAT ISLAND



Modified from Voogt, 2000

NDVI

