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LANDONLINE RECOGNISED IN COMPUTERWORLD AWARDS

The Landonline 100% e-lodgement programme has been highly commended in the recent Computerworld Excellence in the Use of ICT in Government award.

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The programme was one of four finalists. Award judges noted the system deserved “credit for driving 100% compliance to the use of Landonline as part of the long term transformation from manual processing.” And that LINZ’s approach to 100% e-lodgement “demonstrated both vision and fortitude”.

LINZ Chief Information Officer Debbie Ward said being recognised in the finals “represents the hard work of dedicated LINZ staff and Landonline customers that got us to successfully implement 100% e-lodgement. It is an example of LINZ’s drive to use technology to improve our services to New Zealanders”.

The top award went to the Department of Corrections for their initiative to block cellphone calls within prison property without affecting nearby properties.



LINZ at the Computerworld Awards (from left): Kerri Osborne (Manager Customers), Ron Munro (Manager Customer Systems), Jan Pierce (GM Customer Services), Chief Executive Colin MacDonald, Debbie Ward (Chief Information Officer) and Jan Lawrence (Product and Service Owner).



GEOSPATIAL CUSTODIAN APPOINTED



Kevin Sweeney has been appointed as LINZ’s Geospatial Custodian, and will take up the role in January 2010.

Kevin joins LINZ after 16 years of managerial and technical geospatial experience in the public, private and academic sectors in his native United States.

He and his wife and two young daughters are looking forward to relocating to Wellington from Atlanta, Georgia, early next year.

The Geospatial Custodian heads up the New Zealand Geospatial Office, which sits within LINZ. The office is tasked with championing the New Zealand Geospatial Strategy for driving the contribution spatial information and technology makes to New Zealand’s economic growth.

The opportunity to put his experience to work and assume a leadership role in the implementation of a national geospatial strategy represented “my dream job”, Kevin said.

“I’m impressed with what has already been accomplished by LINZ and the office, and convinced New Zealand has much to offer the global geospatial community.”

His aim will be to ensure New Zealand builds on its accomplishments, and assumes a geospatial leadership role internationally.

“What is often referred to as New Zealand’s isolation actually represents a unique and affirmative force for the development of a successful geospatial industry. Within a relatively small and somewhat contained community, advancement of initiatives is in fact facilitated.

“The development, implementation and marketing of a national geospatial strategy stand as a clear example of New Zealand’s advantage.”

Kevin says building successful, productive and mutually beneficial partnerships between LINZ and the broader New Zealand geospatial community is a significant challenge for the office, but one that opens up a wealth of opportunities.

Coming from the United States, Kevin believes there is greater pressure on him to prove his worth within the New Zealand geospatial community.

“But I look forward to establishing positive relationships, and hope my experience and background within the geospatial arena of a different country can bring a fresh perspective that moves the New Zealand Geospatial Strategy forward.”



LEFT: LINZ Chief Executive Colin MacDonal with Archives New Zealand Acting Chief Executive Greg Goulding.

BELOW: A hand-drawn 1873 diagram of Wellington's Miramar Peninsula depicting the Crown Grant to prominent Wellington man J.C. Crawford.



HISTORIC

LAND RECORDS MOVED TO ARCHIVES NEW ZEALAND

Some of New Zealand's oldest land records have made an historic journey from LINZ's Wellington office to Archives New Zealand for future storage and preservation.

The records include Crown Grants and the original Deeds records for the Wellington and Hawkes Bay land districts. Many of these are handwritten and have drawings of land blocks dating to when people first settled in Wellington.

The records – more than 1,500 in total – were blessed and farewelled at the LINZ office before three records were chosen to take to Archives New Zealand's Wellington office as a symbol of the transfer of care.

The remaining records will move from LINZ's Wellington Processing Centre during the next three months before its closure in April 2010.

LINZ Chief Executive Colin MacDonal said it was important to mark the special occasion, as LINZ has been recording the rights and entitlements of people and their relationship to land since the 1840s.

“These records are not only historically significant, they are also beautiful. LINZ and its predecessor departments have safeguarded these tāonga to date, so we know how important it is for them to have a good home.

“By transferring these unique records to Archives New Zealand we're ensuring they are in the best hands possible, to be preserved and accessible for generations of New Zealanders, now and in the future.”

Archives New Zealand Acting Chief Executive Greg Goulding said the occasion demonstrated the collaboration between the two agencies to ensure precious knowledge relating to New Zealand's land and heritage was not lost.

“Archives New Zealand is honoured to have Land Information New Zealand entrust these valuable records to us, and we will continue to look after them and provide a safe and secure environment for their long-term storage and access.

“We'll keep working together to pass on knowledge of the records and how to interpret the information contained in them, so that their value as a historical document is maintained.”

For more information on paper records moving and office closures, see the LINZ website: <http://www.linz.govt.nz/prp>

SURVEYORS MARK CENTENARY OF HISTORIC WAIRARAPA BASELINE

Surveyors from LINZ, GNS Science and the Wellington branch of the New Zealand Institute of Surveyors gathered in Wairarapa in late November to mark the centenary of a New Zealand land surveying milestone – the measurement of the Wairarapa “baseline”.

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The 13 km baseline was the first of eight measured throughout New Zealand by the former Lands and Survey Department in a major project between 1909 and 1949 to establish a single national datum for mapping and surveying.

“Baselines were the key to creating a national survey control network,” says Mack Thompson, Senior Cadastral Advisor at LINZ. From the accurately measured baselines surveyors could then generate a network of triangles linking trig stations from Northland to Stewart Island.

The project culminated in the Geodetic Datum 1949, which remained in use until superseded in 2000 by the GPS-compatible Geodetic Datum NZGD2000.

Current and former Surveyors-General, Don Grant and Tony Bevin, were among surveyors and family members who gathered at Bidwill Trig on a hilltop near Martinborough,

to remeasure the Wairarapa baseline 100 years on.

The landowner, John Barton, a descendant of Wairarapa’s Bidwill family, also took a keen interest.

The 1909 measurement took a team of six men 47 days to measure the baseline with 5 chain (100 metre) measuring tapes made of invar, an alloy less affected by temperature changes than the more common steel tapes.

The tape was strung between tripods and kept under an even tension. Each section was measured at least four times, and meticulous checks were made, with corrections applied for tension, temperature, slope and altitude.

Mack said the same job today could be completed in about an hour with GPS, though measurements over a couple of days allow a higher degree of precision.



LEFT: Former Surveyor-General Tony Bevin demonstrates the use of a Model 8 Geodimeter, an electronic distance measurer, which was used extensively by Lands and Survey for survey control work in the 1970s. Looking on are (from left) Peter Chambers, Cliff Couch and Mack Thompson. (Picture: Matt Amos)

ABOVE: The old and the new. A Troughton and Simms 8" Transit Theodolite, a type used in the 1920s during the first order geodetic triangulation project, and a modern GPS unit sitting atop the Bidwill Trig at the southern end of the Wairarapa Baseline. (Picture: Glen Rowe)

A guest of honour at the centenary event was Cliff Couch, a former Lands and Survey Department staff member who as a young survey cadet participated in the remeasurement of the Matamata baseline in Waikato in 1947, and was later manager of the Computing Branch.

Recounting this experience in a recent *Survey Quarterly* article, Cliff noted that “precision in measuring a baseline in a triangulation network is of utmost importance as any small error is magnified in the process of calculating the lengths of the larger triangle sides”.

So how did the 2009 remeasurement compare with the distance taped in 1909? The remeasurement, undertaken by Neville Palmer, from GNS Science, with two days of GPS data, was 6 cm shorter than the 1909 measurement. However it is likely that much of this difference is due to earth deformation during the intervening 100 years.

Remeasurements of the baseline in the 1960s and 1970s during tests of new electronic distance measuring equipment found a variation of just 2 cm or 1.5 mm per kilometre from the original taped distance.

“Whichever way you look at it, the degree of accuracy achieved by the original surveyors is very impressive,” Mack says.

“Interestingly, GNS Science have remeasured the line several times since 1995 as part of ongoing earth deformation monitoring, and it appears that the line has skewed slightly as the land has deformed.”

Mack, who organised the November gathering having delved into the history of the baseline, says it was an interesting exercise.

“For many of us it reinforced our respect for the quality of the work that was undertaken by those early surveyors often under difficult conditions.”

LINZ SUPPORTS SPATIAL INFORMATION RESEARCH PROGRAMME

LINZ is pushing ahead with its involvement in the Cooperative Research Centre for Spatial Information (CRCSI).

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CRCSI is an Australian-based collaborative joint venture leading research into spatial information: who needs it, in what form, and when – and seeking innovative solutions to these needs.

In August this year the joint venture received AU\$32 million from the Australian Government to invest in an eight-year spatial research, development and education programme. LINZ supported CRCSI's funding bid and is now a partner in the programme, known as CRCSI-2.

New Zealand Geospatial Office Acting Geospatial Custodian Adam Cooper says the CRCSI-2 programme will focus on the broad areas of:

- research and applications (in the areas of positioning, spatial infrastructures and automated spatial information generation)
- business development, and
- education.

“The eight-year CRCSI-2 initiative will focus on developing applications in the areas of health, energy provision, agriculture, defence and security, and urban development, and will involve creating technical infrastructure that could benefit both New Zealand and Australia.

“CRCSI-2 creates a vehicle for New Zealand agencies to partner with work being done in Australia and further cements the cooperative relationship between our countries.”

In November, LINZ hosted a presentation by CRCSI Chief Executive, Peter Woodgate. Peter presented to a mix of government officials and representatives from industry and the spatial sciences sector, and outlined how New Zealand can become part of the success story.

Peter's presentation can be viewed on the New Zealand Geospatial Office website: www.geospatial.govt.nz

LINZ is establishing a New Zealand coordination point for CRCSI-2 activity, and will soon be recruiting for a dedicated role to lead this, in cooperation with other sectors.

“It's an exciting time to get involved in this programme, and to contribute in a way that creates economic and societal benefits for New Zealand,” Adam says.

SURVEY STRATEGIC CONTEXT PROJECT CONCLUDES

LINZ and the New Zealand Institute of Surveyors (NZIS) have completed a joint study on the likely future of the cadastral survey industry and what can be done together to move forward.

“The ‘Survey Strategic Context’ project balanced conceptual ideas about the future with a practical view on what we could action to improve the sector,” says Surveyor-General Don Grant.

“We've ended up with a useful view of the future which incorporates both public and private sector ideas, as well as benefits for land owners. This gives us a good framework for decision making as we move forward.”

The view that has been developed is based on principles that support the discovery, access, assessment and application of an increasing range of cadastral information that defines the rights and privileges associated with land.

The cadastral surveying industry of tomorrow will meet a wider client base with differing demands involved in a range of activities such as: tenure decisions, land development, administration and management, and wider uses such as research, policy work or marketing.

At a practical level, the study recommends what challenges, strategic objectives, guiding principles and contributing actions should be addressed by LINZ and NZIS as they develop the sector together.

“The real benefit of the study has been the interaction between LINZ and NZIS, and the co-operation that will be required to work through the recommendations to overcome the challenges in the up and coming years,” says Bruce Manners, NZIS past president and working group member.

“That will require both joint and independent work and the LINZ/NZIS partnership formed during the study gives a good basis for moving forward,” says Bruce.

The final paper and information about the joint study is available from www.linz.govt.nz/survey-strategic-context



LINZ HOSTS ANZLIC MEETING

LINZ hosted the Australia New Zealand Land Information Council (ANZLIC) in November. The council meets three times a year, and this was the first meeting in New Zealand for three years.

ANZLIC comprises 10 senior officials from the Australian and New Zealand Governments, as well as Australian state and territorial governments. The council's aim is to facilitate easy and cost-effective access to the wealth of spatial data and services provided by their organisations.

ANZLIC's acting New Zealand contact officer, Geoff O'Malley from the New Zealand Geospatial Office (NZGO), said one of the more interesting projects discussed was a proposed joint Australia-New Zealand web-based spatial marketplace. This project, still in its early stages, has the aim of making geospatial information easier to discover, access and transact with.

While Australian jurisdictions are doing great things with spatial data, it's not all one-way traffic, says Geoff.

"Australia is looking to develop a national positioning infrastructure – something New Zealand is already working on with a commitment to upgrade LINZ's network of Continuously Operating Global Navigation Satellite System stations (the PositionNZ network) to provide real time data on land movement."

The Australian council members were delighted to learn about LINZ's experience in this area, thanks to a presentation from National Geodesist Graeme Blick.

LINZ involvement with ANZLIC spans a wide range of the department's activities. Many of these involvements relate to the work of ANZLIC's Intergovernmental Committee on Surveying and Mapping, whose role is to provide leadership, coordination and standards for surveying, mapping and charting, and facilitating the assemblage and maintenance of national framework datasets.

"Our membership of ANZLIC is extremely valuable," says Geoff. "The information sharing and networks we can tap into, from spatial data to surveying and mapping, and place naming, allow us to continually evaluate best practice and stops us from re-inventing the wheel."

ABOVE: Visiting ANZLIC council members are welcomed to LINZ (from left): Te Taite Cooper (kaikōrero/speaker for the manuhiri), Warwick Watkins (ANZLIC Chair), John Meyer (ANZLIC member).

SURVEYORS GET ACQUAINTED WITH NEW RULES

Seminars held by LINZ in September and October have introduced the new Rules for Cadastral Survey to more than 800 surveying professionals. The Rules come into force in May 2010.



Surveyor-General Don Grant says he was pleased with the turnout.

"Surveyors and their staff need to be up to speed with the new Rules before they come into effect. The seminars were a good way for LINZ to explain the changes face to face and answer any questions. It was good to see such a high level of interest."

The Rules are issued periodically by the Surveyor-General. Deliberately non-prescriptive, they define what must be achieved by a surveyor when conducting a survey.

The new Rules, which were approved by an expert committee in June, replace the 2002 Rules and are substantially different, says Don.

"The Rules have been completely rewritten, and this required months of content-drafting and reviewing, as well as an extensive public consultation process.

"Our approach is to regulate the industry as much as necessary, but as little as possible, so these Rules define the minimum standards we expect from surveyors – how they achieve that is up to them."

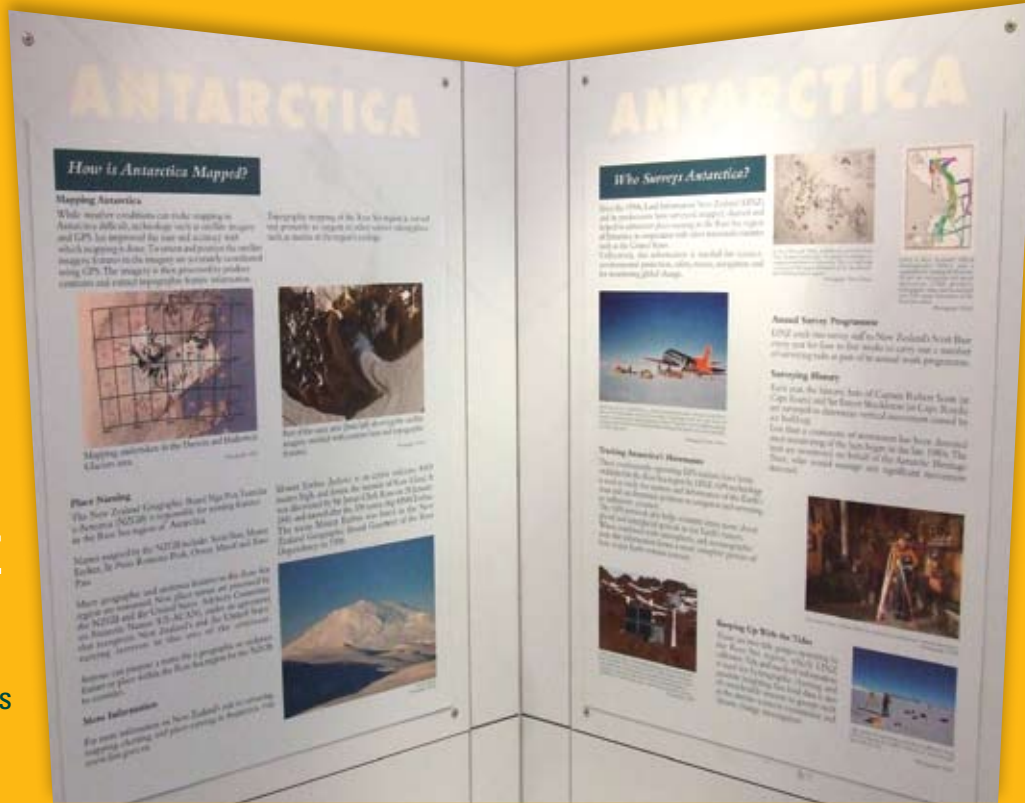
Don says the rapid development of technology meant the previous Rules quickly became outdated. "Paper-based surveys, using traditional survey instruments, were once the norm. Everything is done digitally now."

He says the new Rules have been future-proofed as much as possible. "I don't imagine they will need significant redrafting for many, many years to come."

As Landonline (the national survey and titles register) can only support one set of Rules at a time, the new Rules will need to come into effect at the same time as a Landonline upgrade.

DISPLAY LAUNCHED AT ANTARCTIC CENTRE

A new permanent display at Christchurch's International Antarctic Centre showcases LINZ's work in the Ross Sea region.



“The display focuses on LINZ’s annual work programme,” says Communications Coordinator Anthony Lapwood.

“We do some really interesting and important work down there, from calibrating sea level gauges, to surveying the historic huts of Shackleton and Scott to monitor movement, and mapping in support of other scientific work taking place, such as ecological studies.”

The history of New Zealand’s role in surveying and mapping Antarctica is also represented, including the days when

professional surveyors would apply to undertake reconnaissance mapping in the 1950s and 60s, and dog-sledges were still used to move between survey locations.

Images include a draft map from the early 1960s, modern satellite imagery and work taking place in stunning landscapes. Information about charting and place naming in the Ross Sea region is also included in the display.

The International Antarctic Centre is located at Christchurch International Airport.

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