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## 100% E-LODGE MENT – DESTINATION REACHED!

23 February marked a major milestone for LINZ with the e-lodgement of survey and title transactions becoming mandatory, and the closure of LINZ's public counters in Auckland, Wellington and Dunedin.

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Sharon Cottrell,  
General Manager Customer Services.

“It’s been a long and challenging journey towards 100% e-lodgement. Thanks to the dedication of LINZ staff, the patience and commitment of the surveying and conveyancing professions, and the expertise of our IT partners, we’ve made it,” says Colin MacDonald, Chief Executive.

“The effort that has gone into delivering Landonline has been tremendous, but it won’t be stopping there. We’ve always kept our eye on the destination of 100% e-lodgement, but we’ve also been planning for beyond 23 February – particularly on ensuring the system is supported, stable and performing to a high standard.”

### REACHING THE 100% LANDMARK

It was early 2006 when the Government announced it would enhance Landonline to enable all survey and land title transactions to be lodged electronically. At the time, the Government noted that replacing the labour-intensive, paper-based system would align with New Zealand’s E-government Strategy to improve delivery and enable greater access to information.

And improve delivery it did – the World Bank’s 2008 report on business regulations rated New Zealand as first in the world for ease of registering and transferring property, success that Sharon Cottrell, General Manager Customer Services views as a collective achievement.

“Reaching this 100% e-lodgement milestone and improving the efficiency of our title and survey system would not have been possible without the cooperation and efforts of the surveying and conveyancing communities,” says Sharon.

## OCEAN SURVEY 20/20 – BAY OF ISLANDS PROJECT COMPLETES FIRST PHASE

The largest coastal mapping survey in New Zealand waters, which covered more than 3500 square kilometres of Northland’s seabed, has revealed reefs, new information about the iconic Hole in the Rock and mapped a prominent wreck site.

Three National Institute of Water and Atmospheric Research (NIWA) vessels mapped the Bay of Islands and eastern Northland coast seabed during October and November as part of the government’s Ocean Survey 20/20 programme, co-ordinated by Land Information New Zealand (LINZ).

In total, 3530 square kilometres were surveyed from North Cape to the Poor Knights Islands. Within the Bay of Islands, most of the area between 2 and 50 metres depth has been mapped using multi-beam and sidescan sonar. Aerial photography of the area less than 2 metres deep is still to take place.

Many interesting features were mapped, including reefs and well known features like the wreck of the former naval vessel HMNZS Canterbury, which lies in around 35 metres in Deep Water Cove.

While surveying around Cape Brett, survey lines were also successfully run for the first time through the iconic Hole in the Rock, recording depths greater than 80 metres in places.

NIWA hydrographic surveyor Anne-Laure Verdier said analysis of the data collected during the mapping could uncover further wrecks and uncharted reefs.

NIWA’s bathymetric survey team is now processing the data collected, which will be used to support a biological survey of the Bay of Islands due to start in May or June next year.

Ms Verdier said the survey team had been buoyed by the support from Bay of Island locals during the project’s first phase.

“Bay of Islands people both on land and on the water have been helpful and truly interested in our work and we thank them for that,” Ms Verdier said.

“When we set off on this journey, we knew it wouldn’t be easy, but our customers’ enthusiasm has helped spur us on. From the first training session, to the last leg of the journey with the final uptake, we’ve really valued everyone’s input.”

“It’s also great to see that Landonline has improved businesses’ efficiencies, such as lower fees, and has generated greater certainty in the property rights system,” says Sharon.

So what’s next for Landonline?

“We’ve come a long way, but we have further to go,” reflects Sharon. “We have a sound system, but we will be looking to continually support Landonline and its users, and how we can make future improvements.”

This means LINZ will continue to work closely with its customers and stakeholders, especially around surveying and conveyancing trends.

“As the property market evolves, we will work to ensure Landonline is responsive to these changes, and ultimately, to our customers.”

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#### A LOOK BACK ON THE JOURNEY TRAVELLED....

- November 1997 – agreement by Government to develop ‘Landonline’
- 2000 – Landonline introduced
- 2000-2002 – remote access to survey and titles information in Landonline became progressively available to subscribers via the internet (*e-search*)
- Early 2003, Landonline was enhanced to enable conveyancers to lodge routine land title transactions in electronic form from remote locations (*e-dealings*)
- Late 2003, Landonline was enhanced to enable survey data sets to be lodged electronically (*e-survey*)
- February 2006 – announcement to phase out paper lodgement of survey and title transactions
- 1 May 2007 – electronic lodgement of Discharges
- 1 August 2007 – all Transfer and Mortgage types currently *e-dealing* capable
- 1 September 2007 – survey lodgements

#### PUBLIC COUNTERS ARE NOW CLOSED

LINZ’s public counters in Auckland, Wellington and Dunedin have now closed. For more information, visit [www.linz.govt.nz/counter-closures](http://www.linz.govt.nz/counter-closures)

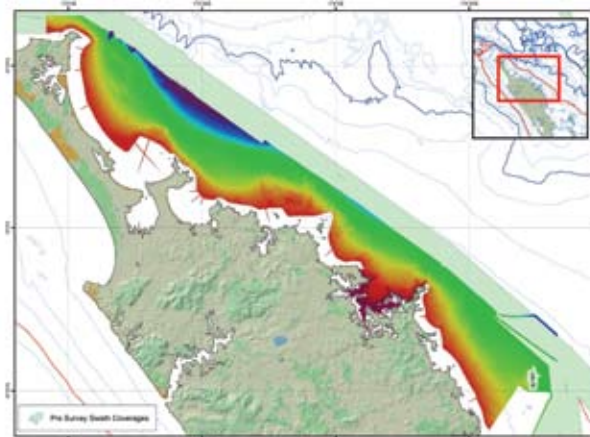
LINZ acting General Manager Policy, Richard O’Reilly, said the data collected during the project can be used by government agencies, regional and district councils and local groups to develop and manage the Bay of Islands’ coastal resources.

LINZ worked closely with NIWA, the Ministry of Fisheries, the Department of Conservation and the Northland Regional Council on design and prioritisation aspects of this survey. Other government agencies, the Far North District Council and local groups from the Bay of Islands, such as the Bay of Islands Maritime Park society and tangata whenua, have become involved as the project has progressed.

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Swath coverage surveyed by the *Pelorus* and *Tangaroa*

The GPS station and the AUT radio telescope at Warkworth.  
Picture: GNS Science.

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## NEW CHARTS WILL AID SAFER NAVIGATION

New hydrographic charts are being produced for coastal areas at opposite ends of the country – off Great Barrier Island (Aotea Island) and Paterson Inlet/Whaka a Te Wera, off Stewart Island/Rakiura.

Hydrographic surveys are under way at both locations, which haven't been surveyed for more than 40 years.

“The finished results will mean there is safer navigation through these waters,” says Data Analyst (Hydrographic) Stuart Caie.

“Both surveys are challenging as the waters are shallow and there are numerous uncharted submerged rocks to be avoided.”

Paterson Inlet is a large natural harbour with a number of bays providing shelter to vessels of all sizes in nearly all weather conditions. It's an area of significant natural beauty, with more than 90 percent of its shoreline within Rakiura National Park.

# RADIO TELESCOPE ADDS GREATER PRECISION TO GPS NETWORK

New Zealand’s first radio telescope has enhanced the country’s ability to carry out cutting-edge research in astrophysics and earth science. It will also enhance the precision of the reference frame used by ‘PositionNZ’, LINZ’s Global Positioning System (GPS) network.

Auckland University of Technology (AUT) launched the \$1 million radio telescope at Warkworth last October. One of its key features is its ability to penetrate dust clouds in outer space, to give a better picture of important astronomical objects, including the centre of our galaxy, the Milky Way.

But it’s not the far-reaching astronomical data of interest to LINZ, explains Team Manager Specialist Processing Graeme Blick.

“Data from the AUT radio telescope can be used with data from radio telescopes in other countries (such as Australia) to precisely measure the distances between the telescopes to a few millimetres.

“This is important for establishing an accurate global spatial framework that can in turn be used by other technologies,” says Graeme.

LINZ has established a PositionNZ GPS site at the radio telescope to connect measurements made from that network to the global GPS network.

“We’ve put a GPS station close to the telescope so that we can take advantage of the information it receives.

“Combining data from the telescope with that of PositionNZ will enhance the precision of the global reference frames that we rely on for defining our national datum.

“It will also establish a stable global reference frame from which changes to things such as sea level and tectonic plate movements, can be measured.”

## ABOUT POSITIONNZ

The PositionNZ network enables users to position points with an accuracy that approaches a few centimetres relative to New Zealand Geodetic Datum 2000 (NZGD2000), both horizontally and vertically.

Data from the PositionNZ network is freely available through the LINZ website. The data is used by many users, including cadastral surveys for precise positioning in many applications such as surveying, and mapping.

For more information about PositionNZ, visit the LINZ website: <http://www.linz.govt.nz/positionz>

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The inlet was partly surveyed in 1985. But with commercial activity – including tourism and aquaculture – increasing over the last 20 years, bigger vessels, including large cruise liners, are visiting more frequently. Discovery Marine Ltd of Tauranga is carrying out the survey.

The Great Barrier Island survey is being carried out by Australian firm iXSurvey. Maritime New Zealand requested the survey, which will result in large-scale charts covering the island’s entire west coast. The survey area includes the Mokohinau Islands to the northwest.

The Great Barrier coastal waters were last surveyed in 1965 and 1979, Stuart says. A full area search has never been achieved, and uncharted features may still exist. Commercial craft such as ferries, general cargo and product tankers regularly navigate through these waters and in summer, there are literally thousands of recreational craft in these waters at any one time.

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## SURVEYOR-GENERAL BAGS TOP TRIGS

Surveyor-General Don Grant created a little bit of surveying history in December when he reached the summit of Mt Brewster (2515m) in South Westland near Haast Pass.

Brewster bears the eighth highest trig mark in New Zealand, and in reaching it Don accomplished a goal of climbing the peaks with the country's 10 highest trigs – the fixed points that underpin our survey, land title and mapping systems.

Long before helicopters, pioneering surveyors and chainmen lugged equipment across inhospitable terrain as they went about establishing the geodetic network from the early days of settlement.

Trigs were established on accessible peaks and hills – in most cases a two inch pipe set into the rock over which a theodolite could be placed.

The familiar surveying icon, the 4m high, four-sided beacon, came to grace many of the trigs around the country. Their design allowed the trig to be seen from distant mountain tops and, as a side benefit, a canvas tent to be wrapped around the beacon to shelter surveyors while they did their work.

While one of the Surveyor-General's functions is to ensure trig marks are well maintained, climbing the highest trigs was for Don as much personal ambition borne from his enjoyment of tramping and climbing as it was professional interest.

When Don climbed Marlborough's Mt Tapuae-o-Uenuku in 2006, he became the first Surveyor-General to reach New Zealand's loftiest trig, located on the summit at 2884m.

For the record the mark was still in place, though a pipe attached to it had been bent over by snow.

Don says the idea to climb the high trigs had "evolved" after an earlier climb of Tapuae-o-Uenuku in 1998. After his appointment as Surveyor-General in 2005, Don convinced several of his tramping and climbing mates to give up weekends and holidays to take up the 10 trig challenge.

The other trig points fell: Mt Ruapehu (three trigs in two climbs), Mt Taranaki, Mts Manukau and Te Ao Whekere (both on the Seaward Kaikoura Range), Mt Gladstone and Mt Cold (on or near the Inland Kaikoura Range).

While physically demanding, most were straightforward climbs requiring little technical climbing know-how, but Brewster was left till last because it was always going to be the most challenging.

Preparation for Brewster involved two alpine instruction courses at the Sir Edmund Hillary Outdoor Pursuits Centre, honing skills on snow routes on Ruapehu and Taranaki, and an ascent of Mt Travers in Nelson Lakes National Park – coincidentally New Zealand's 11th highest trig point.

For the climb itself, the team hired two mountain guides to see them to the top. After waiting several days for good weather, they bagged the peak after a climb involving steep snow, a rock step and negotiating the narrow summit ridge.



“I was pretty nervous on the ridge; the biggest thing about the climb was overcoming doubt that I could do it.” To top off the climb, the remains of the disused trig beacon were still there for the Surveyor-General’s inspection.

The installation of the Brewster beacon in 1979 turned into something of an epic. Although the materials were flown to the summit by helicopter, surveyor Alan Gough (a competent climber) wisely reckoned they should climb to the summit so that he and the two chainmen assisting would know the route down if weather prevented a helicopter pick up.

Which is precisely what happened. Roped for the descent, in whiteout conditions and steady snowfall, the leading chainman slipped and dragged off the other, but fortunately Alan had them on a good belay. They eventually emerged below the cloud and were lucky enough to be picked up by helicopter before dark.

The 16 hour day Don and his companions spent completing the Brewster climb, and the other climbs they did have given them a profound respect for the work of early surveyors, Don says. “Unlike us, they didn’t have modern climbing gear and instead had to carry heavy survey equipment and tools up the mountains.”

Several prominent New Zealand surveyors-general have been memorialised in names of Southern Alps peaks – S. Percy Smith and Thomas Noel Brodrick to name two, so a suggestion that Don’s next goal might be to climb some of those peaks draws at least a thoughtful scratch of the chin!



“I was pretty nervous on the ridge; the biggest thing about the climb was overcoming doubt that I could do it.”

# LINZ FAREWELLS SENIOR STAFF

General Manager Policy Kevin Kelly (left) and Chief Information Officer Tony Lester (right) recently left LINZ for new roles.



Kevin Kelly has joined Police National Headquarters in Wellington as National Manager Legal Services.

The position reports directly to the Police Commissioner, and involves oversight of Police legal services – a role that allows him to work to his legal strengths and background.

Kevin joined LINZ in 2001 as Manager of Legal Services, and was appointed GM Policy in 2003. Last year he was Acting Chief Executive for five months until Colin MacDonald's appointment.

Managing the complexities of high country policy development, the establishment of the New Zealand Geospatial Strategy and Office, and strategy development for the Ocean Survey 20/20 programme are among some of the significant projects he's led over the past five years.

"I've enjoyed the wide and varied nature of the work, the intellectual challenge and the opportunities to develop my career. I've also valued highly the opportunities to work with a wide range of people inside and outside the department."

A big plus has been the focus and dedication of staff to the disciplines they apply at LINZ. "They are real experts – from geodesy to property managers."

Kevin believes the strategy and course for LINZ currently being shaped by Colin MacDonald places the department in good stead and will enable it able to continue making a meaningful contribution to the country.

"LINZ quietly gets on and gets things done, and is always looking to how it can add value to New Zealand years out. We're looking ahead, which is good."

Richard O'Reilly, Manager of LINZ's Land Policy team, has stepped in as acting GM Policy until an appointment is made.

Tony Lester, LINZ's Chief Information Officer (CIO) for the past four years, left in January to work with the International Monetary Fund (IMF).

His involvement with the IMF started in 2006 when he began taking time out from his role at LINZ to implement modern public service practices and approaches in developing countries such as Uganda and Sierra Leone. The next 12–18 months will see him visit Moldova, Albania and Hungary.

"I've always had a strong desire to help other countries," says Tony. "After 39 years in the public service, I've had a wonderful career and have been lucky enough to be exposed to many opportunities. I have a genuine desire to give something back, and help other countries, and now I'm acting on that."

Tony started at LINZ in 2004 in the newly created CIO position responsible for the department's new Information Technology division.

"LINZ is a fantastic organisation. It's big enough to do things, and small enough to do things well. There's so much opportunity here for knowledge and advancement, and I feel there are still many great things to come."

Tony believes a multitude of possibilities exist in the area of geospatial work.

"How does LINZ help New Zealand citizens and businesses tap into all the rich information out there and best make use of it is the big question from my perspective. We already do a great job, but I think there's a lot more to come and we're only scratching the surface when it comes to things like geospatial information. The possibilities are huge."

Debbie Ward, Manager Business Engagement, will hold the CIO reins until a replacement for Tony is appointed.

Thanks for reading *Landscan*. We welcome your feedback.

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