



# FORUM TOLD ROAD ACTIVITY IS HOLDING UP

Despite the mixed economic news, the prospects for the road construction sector continue to look pretty good. That's the fundamental message delivered to ARF members at the first industry Forum for 2008, held in Sydney in April.

Sponsored by Caterpillar, the ARF Forum attracted 124 senior industry executives from 65 public and private sector organisations.

In its regular report on road construction and maintenance activity, ARF member BIS Shrapnel reported that national construction activity had stabilised at relatively robust levels, ready for the next big wave of privately funded projects in the early to mid 2010's.

BIS Shrapnel analyst Damon Roast told Forum participants that while the current wave of privately funded toll road projects in Sydney and Melbourne was at or near its end, this was largely offset by strong levels of government road spending.

This meant activity in NSW and Victoria was 'falling back' - albeit to historically high levels - while public spending on major projects in Queensland and SA would drive strong growth in coming years. Activity in WA had peaked due to the weakening housing market, but would remain near recent highs in coming years.

The only dampening note from BIS Shrapnel was that the predicted recovery in the housing sector, and with it new roads construction in subdivisions, had been shifted out to 2009/10.

Mr Roast also noted that workforce capacity still remained a real threat in terms of delivering future road projects.

The BIS Shrapnel outlook on road activity was underscored by the regular reports from the State road authorities



ARF President Ray Fisher addresses the Forum lunch.

for Queensland, NSW and Victoria, presented by Neal Doyle, GM, Organisational Positioning and Stakeholder Relations with Queensland Department of Main Roads; David Stuart-Watt, Director of Licensing, Registration and Freight with the NSW Roads and Traffic Authority; and VICRoads CEO, Gary Liddle.

Mr Doyle also delivered an update on the Austroads agenda, noting that Australia was entering a new transport era signalled by the co-operative work currently being done on the national planning and policy frameworks, with individual states taking a lead role on different aspects of the policy agenda.

## Infrastructure Australia ready to roll

Carolyn McNally, newly appointed head of the Infrastructure Investment Division within the Commonwealth Department of Infrastructure, gave participants an update on Infrastructure Australia and its future agenda.

Ms McNally said the legislation establishing Infrastructure Australia was enacted on April 9 and the Government was now moving quickly to formulate the Board of the Advisory Council and appoint staff to the new organisation, to be based in Sydney.

One of the first tasks for the new body is to conduct a national infrastructure



Full house...over 120 industry executives took part in the April Forum.

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- Call the Executive Director, Ian Webb, on (03) 9821 5255.

audit, and Ms McNally said pre-emptive work was already underway by the Department to identify assets and policy issues with the States so that Infrastructure Australia could hit the ground running.

Ms McNally said the Department was also working closely with the states and territories to enable the Federal Government to deliver on its election commitments. As an example, \$20m had already been provided to bring forward work on the Townsville Port Access Road, she said.

### New technology

In a keynote presentation, visiting US Caterpillar executive, Dann Rawls, provided an international perspective on the latest technological advances in road construction, epitomised in Caterpillar's new AccuGrade® Compaction GPS Mapping and Measurement system.

Mr Rawls outlined how intelligent compaction technology is proving a

critical tool in delivering better, longer-life roads in an age where quality control is paramount and road maintenance budgets are stretched.

TWU Federal Secretary, Tony Sheldon, delivered a powerful presentation on the need for a continuing focus on regulatory reform in the context of the Vision Zero approach to road safety embraced by the Australian logistics industry.

Mr Sheldon spoke of the pressures placed on long distance drivers and the impacts these were having on their health and safety, both behind the wheel and off the road. He stressed the need for road safety laws, occupational health and safety and industrial laws to complement each other if the overall goals embodied in Vision Zero were to be met, particularly in respect of the trucking industry.

Geoff Rayner, from Sir Rod Eddington's Melbourne East-West Corridor Study team, also delivered an overview of the recently released

Eddington report, focussing on the transport challenges facing this crucial corridor and the proposed solutions canvassed in the report.

### Coming up

The next major event on the ARF calendar is the 5th ARF National Roads Summit, to be held in Sydney on June 17 and 18. This is the Australian road industry's pre-eminent annual gathering and will again feature international and local speakers. For more information, contact Denise McQueen on ph. (03) 8534 5021.

ARF's second Forum for 2008 is scheduled for Sydney on September 9. For more information about this and other ARF events, visit the ARF website at [www.roads.org.au](http://www.roads.org.au).

"The April Forum was again oversubscribed, so I would urge members to keep an eye on the website for details of the forthcoming September event," says ARF Chief Executive, Ian Webb.

## ARF SET TO PLAY A MAJOR ROLE IN POLICY DEBATES

The ARF has committed itself to a major, long-term research initiative that will involve members from across the industry in helping to shape the new national road transport policy agenda.

The initiative comes out of a recent ARF Board workshop that looked at how the organisation might help facilitate informed debate on some of the key road transport challenges facing Australia in the coming years.

ARF President, Ray Fisher, says the policy initiative will look at establishing working groups - or chapters - to research and draw together current and relevant information from Australia and overseas on congestion management, resource and capacity management, and sustainability as it affects the road industry.

"These issues are closely aligned with the key policy areas identified in the new National Transport Plan currently being advanced by the Commonwealth, state and territory governments, and indeed with the priorities identified by our own members," Mr Fisher says

"Urban congestion and sustainability are pressing issues for every government around Australia, while the issue of resource levelling - in other words, managing the project pipeline so that people and resources can be better utilised - was nominated in the recent ARF Skills Survey as a key challenge for governments and industry.

"We're not trying to steer these debates in any particular direction, nor are we seeking to advocate the interests of one group over another.

"Rather, we see our role as the peak road transport stakeholder group to help inform the debate - to ensure representatives of government, industry and the community have access to up-to-date and relevant information to move these debates forward."

Mr Fisher says policy breakfasts on congestion management and resource levelling are planned for the forthcoming ARF National Roads Summit, to be held in Sydney in June.

"The policy breakfasts will include an overview of how the chapters will

work and an outline of the issues themselves," he says.

"We'll also be indicating how members can be closely involved in the process as we move towards formulating the chapters and setting their respective agendas."

The February Board workshop also looked at ways of consolidating and expanding ARF's membership, which included new marketing material, further improvements to the website and e-newsletter, and strengthening of relationships with key government and private sector decision-makers, such as the new Infrastructure Australia body.

"To date the ARF has been very successful in reinventing itself to meet the emerging national challenges," Mr Fisher says.

"We now have increased our membership by over 500 per cent in the last four years. Growing and further broadening our membership will only enhance our reputation and contribution to policy debate in the industry."

# ARF MEMBER CASE STUDY

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# CATERPILLAR



AUSTRALIAN ROAD FORUM

## CAT ACCUGRADE COMPACTION OPTION LEADS TO A SUCCESSFUL JRAC DEMO

On a clear day late last June, a United States Air Force C-17 landed on a JRAC (Joint Rapid Airfield Construction) airfield in Timbercreek, in the northern Australian Outback. With a wingspan of 170 feet 9 inches and an overall length just shy of 174 feet, the pilot of this widely used cargo and troop transport aircraft is used to touching down on well-constructed, paved tarmac. But, not on this day.

According to the pilot, the newly completed JRAC airfield was, “the best ‘unsurfaced’ airfield” he’d ever landed on. Just two weeks earlier, the airfield had been a huge patch of Outback scrub brush.

JRAC (pronounced “j-rack”) was a highly successful joint military operation between the United States Military and the Royal Australian Air Force. Despite an unprecedented week’s worth of wet weather in what should have been an otherwise dry season, the team of construction specialists completed the airfield in record time. The rapid soil stabilisation fleet included a remote-controlled Cat® dozer and five standard Cat CS563E vibratory soil compactors, each field-fitted on site with the Cat intelligent compaction option—the AccuGrade Compaction GPS Mapping & Measurement technology.

The JRAC team first perfected their soil stabilisation training and material application techniques completing the site’s helipad, eventually settling on a technique of rapid compaction and “a working” of mixed fiber and rapid-setting cement. During the process, three layers of material were placed and compacted on two aprons and taxiways, and then the fiber-cement stabilisation material was applied. According to the project’s Rapid Soil Stabilisation Pillar Lead Kent Newman (as posted on the project’s blog at <https://transportation.wes.army.mil/jracblog/blog/>), “As soon as the rapid-setting cement is mixed, it begins to cure.” A final polymer surface coating was then applied making the surface impermeable to the elements.



The first C17 touching down on the new JRAC airfield.

*According to a United States Air Force C-17 Pilot, after landing on the just-completed JRAC airfield, in the Australian Outback, ...[This] newly completed airfield was, “the best ‘unsurfaced’ airfield” he’d ever landed on. Exactly two weeks earlier, the airfield had been a huge patch of Outback scrub brush.*

portation.wes.army.mil/jracblog/blog/), “As soon as the rapid-setting cement is mixed, it begins to cure.” A final polymer surface coating was then applied making the surface impermeable to the elements.

The soil compactors were operated by a team of young operators, with limited experience in soil stabilisation and compaction techniques. The AccuGrade technology fed real-time data directly to a GPS base station via radio, tracking each piece of equipment for position (within 1 to 2 cm), the level of compaction achieved and ground speed. “Our AccuGrade technology was absolutely critical to the success of this demonstration,” says Jean-Jacques Clar of the Caterpillar Tech Center (out of Mossville, Illinois in the United States) and project coordinator. “It allowed relatively novice operators to achieve unsurpassed compaction quality—rivaling compaction results of the most seasoned operators. This speaks directly to the ease-of-use of the CS563E compactor, and the intuitive AccuGrade Compaction screen and interface.”

Dean Potts, Global Paving Advanced Design Group Engineering manager explains that today’s technologies need



Cat Vibratory Soil Compactor mounted with AccuGrade technology.

to serve a "new breed of operator, one that literally grew up a part of the Nintendo generation."

"Operators just entering the field are much more comfortable and familiar with these kinds of technologies and interfaces, and are willing to quickly integrate them into their work. As our workforce continues to age, this will become even more important and gives us the unique opportunity to play off of these skills," he says.

Maria Biberdorf, Design engineer from the Advanced Design Group, helped to pull the intelligent compaction field kits and installation instructions together for the demonstration. "Our greatest challenge was working around the limited timeframe and making sure all the parts were received and shipped to the field in time. The most impressive part was that two individuals from the Cat Tech Center were able to install the option and complete the machine start-ups without a hitch. It was a well-orchestrated implementation," she says.

Biberdorf explains that the military blog allowed team members back in the United States to follow the process day-by-day. "This gave us a lot more feedback than what we normally get from our customers in the field, and it was updated daily. This was a big leap from where we were just a few years ago, and it was really gratifying to see the technology perform so well."

From the military blog, it's clear that JRAC Task Force Commander Stuart Yeaman agrees, "[W]e had some serious help in the construction from...Caterpillar, and the new [AccuGrade Compaction GPS Mapping and Measurement] technology we have had the privilege of using has contributed greatly to our speed and most importantly our accuracy." The JRAC team's Project Manager, Gary Anderton notes that,

"[From the demonstration, we] now have the direct experience that tells [us] we can build a C-17 capable runway complete with turnaround ends in less than two weeks... finished to a very high standard [meeting] both U.S. and Australian military requirements for semi-prepared airfield pavements."

To see all the details, check out the Joint Rapid Airfield Construction 2007 Demonstration Project blog at: <https://transportation.wes.army.mil/jracblog/blog/>

*For more information on the full line of industry-leading Cat soil compactors and the advanced AccuGrade Compaction GPS Mapping and Measurement technology, please contact your local Cat dealer.*



An overhead photo of the new airfield in the northern Australian Outback.

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