Madison's Lumber Reporter

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News & Updates

Madison's Announces . . .

We have completed our annual update of *Madison's Online Lumber Directory*! Don't miss out on this valuable information resource, freshly researched and updated.

The new data is being installed on the website, as an online subscription.

Get instantly connected with the Canadian solid wood and pulp and paper products industries!

Each of the more than 1,600 listings detail: locations; contact names/titles; websites and emails; species handled; rough and surfaced sizes; product mix; dry kiln and production capacities; countries of export; grading agency & mill number; plus much more.

Contact our office any time to sign up today!

Sawmill Investigaton Review Ordered

A WorkSafeBC investigation has found ample evidence that the Burns Lake sawmill accident in early 2012, which killed two workers and injuring 20 others, was "preventable."

But there will be no penalties for the operators of the mill in the village about 220 kilometres west of Prince George because the Crown says WorkSafeBC's investigation was so badly flawed – a situation that has prompted BC Premier Christy Clark to order a review into what happened. READ MORE

Canada Invests in Lumber Exports to India

The federal government is investing an additional $600,000 to spur efforts to boost lumber exports to India, a potentially large market that's home to about 1.2 billion people.

Natural Resources Minister Joe Oliver announced Wednesday the funding to Forest Innovation Investment India (FII India). Ottawa has already provided $1.6 million to FII India, which is also funded by the BC government.

The initiative showcases the use of Canadian wood to makers of office furniture, doors and window manufacturers, and builders. READ MORE

US Housing Starts

New-home construction in the US retained a strong pace in December, a sign the housing market can absorb modestly higher interest rates.

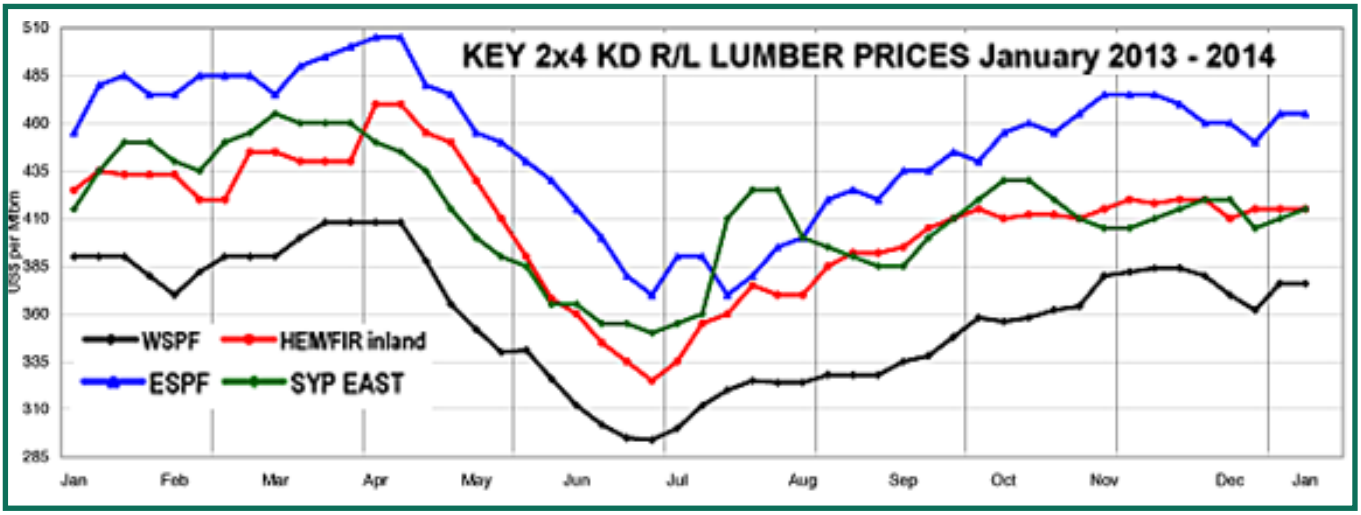
US housing starts decreased 9.8 per cent last month to a seasonally adjusted annual rate of 999,000, the Commerce Department said Friday. But the figure was well above summer levels and exceeded economists' forecast for 975,000 starts in December.

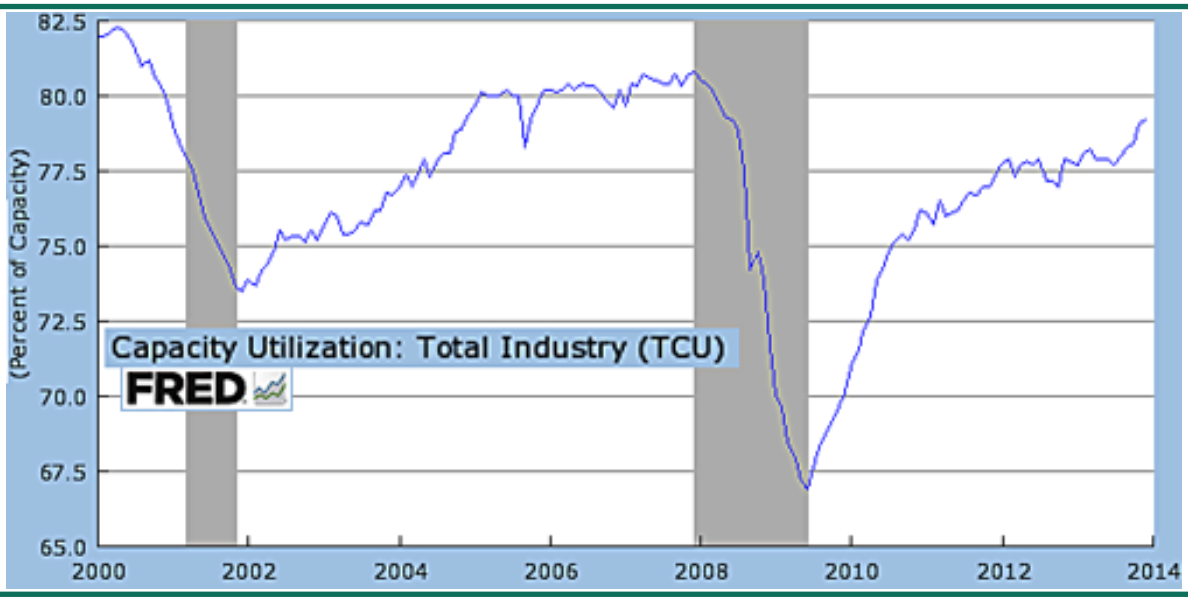
November's pace, revised up to 1.11 million from the previous estimate of 1.09 million, was the strongest in more than five years.

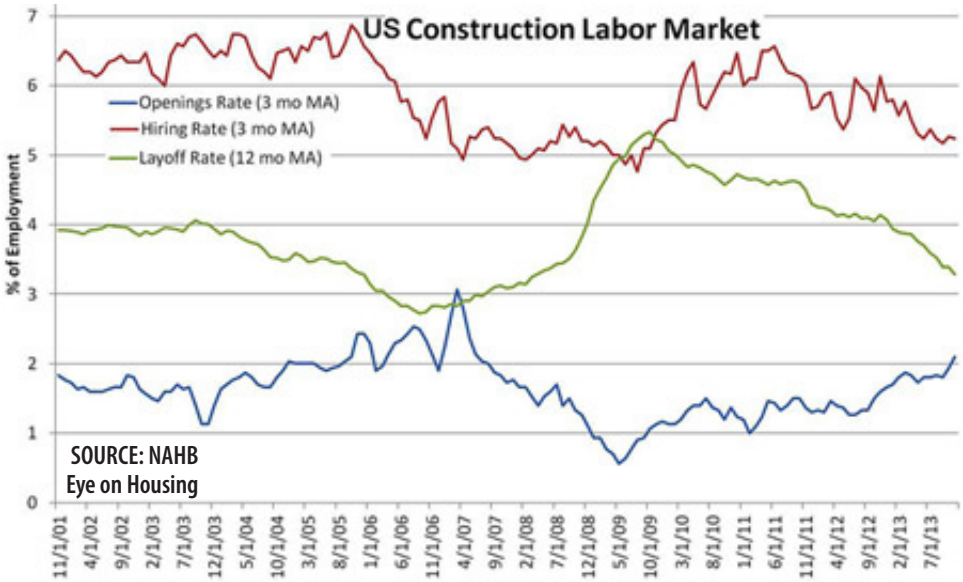
December building permits, an indicator of future construction, declined 3 per cent to a 986,000 pace. Permits also fell in November. READ MORE

Automated Survey Vehicles and LiDAR

Some new developments and discoveries in unmanned survey devices in the deployment of existing LiDAR technology will make it much easier and much less expensive to get detailed surveys of below-canopy timber supply in remote and difficult-to-reach areas. READ MORE







SOURCE: NAHB
Eye on Housing

Prices are in U.S. dollars per 1,000 fbm.

Key Prices

	This Week	Last Week	Change	Month Ago	Change	Year Ago	Change
WSPF KD R/L 2x4	**376**	376	0	384	-8	390	-14
WSPF KD R/L 2x6	**352**	352	0	366	-14	406	-54
WSPF KD R/L 2x8	**344**	342	+2	354	-10	392	-48
WSPF KD R/L 2x10	**410**	410	0	448	-38	412	-2
WSPF KD PET 2x4 Stud	**305**	315	-10	325	-20	340	-35
WSPF KD PET 2x6 Stud	**295**	295	0	315	-20	325	-30
Douglas Fir Green R/L 2x4	**385**	390	-5	345	+40	355	+30
Douglas Fir Green R/L 2x10	**510**	515	-5	540	-30	358	+152
ESPF KD 2x4 8ft Stud	**380**	385	-5	385	-5	420	-40
OSB Ontario 7/16" (CDN$)	**227**	220	+7	223	+4	375	-148
CSPlywood Toronto 3/8" (CDN$)	**380**	382	-2	378	+2	451	-71

Weekly News

Review of Sawmill Investigation

CONTINUED Clark says the people of Burns Lake deserve an explanation.

In the final report of its investigation into the incident, WorkSafeBC says sawmill management had known for some time that the dust collection system was undersized for this type of operation and had even made a down payment on a replacement.

Unfortunately, the mill's electrical supply could not handle the additional load of the new dust collection system.

"An electrical upgrade was planned, but instead of curtailing production until the upgrade was complete, production levels were increased instead."

No "adequate actions" were taken to reduce or control airborne wood dust, although this was the "root cause" of an occupational health and safety violation cited in December, 2011 – a month before the disaster.

The 87-page report finds the explosion was caused by a buildup of wood dust that was ignited by rotating belts near a conveyor-belt motor.

Canada Wood to India

CONTINUED Two-way trade between Canada and India totalled $5.1 billion in 2012, including 53,000 cubic metres of BC lumber valued at $8.7 million.

Like China, rising disposable incomes in India are fuelling demand for housing and furnishings.

India's current demand is mainly for hardwoods but the BC government also expects to see increase demand for softwoods and specialty species.

Housing Starts, US

CONTINUED For all of 2013, housing starts advanced 18.3 per cent from the prior year to 923,400.

That marked the strongest year for starts since 2007, the year the recession began. Permits were up 17.5 per cent from 2012 to 974,700, also the strongest reading since 2007.

Single-family home starts fell 7 per cent to a annual pace of 667,000 in December. Despite the drop, the level was still the second strongest reading in the category since May 2008.

Home construction figures had broadly trended up since the start of 2011 until the early part of last year. However, when interest rate rose sharply in the spring, the pace of building slowed. Rising rates make mortgage payments more expensive for buyers.

Despite the improvement during 2013, builders remain cautious. Home builder confidence slipped slightly in January, according to the National Association of Home Builders' survey released Thursday. However, the figures still indicated that most home builders view conditions favorably.

Canfor to Invest

Canfor will be adding another power-generating turbine to its biomass-fired energy system as part of $8 million in capital upgrades to its Fort St. John, BC, sawmill. the company announced Tuesday. Canfor Corporation President and CEO Don Kayne said, "This capital project will improve cost efficiency at our Fort St. John mill and help move us toward energy self-sufficiency."

The Canfor mill in Fort St. John produces 200 million board feet from logs harvested mostly from the Fort St. John Timber Supply Area annually.

Carrier Layoffs

Operations at Carrier Forest Products near Prince Albert, SK, are to cease entirely later in January, the Alberta government announced Friday. The remaining 12 workers have been issued layoff notices.

According to Shane Vermette with the Alberta Ministry of Economy, all workers at the Prince Albert sawmill have been offered jobs at Carrier's Big River, SK, operation.

He said they have the option of returning to the Carrier mill once it reopens.

Paper Excellence has indicated it will start production at the old Prince Albert pulp mill site by the summer of 2015. While a plywood mill in Hudson Bay, owned by Edgewood Forest Products, has indicated it may open in the next year or two, depending on international market prices, according to *Canadian Press*.

Calendar

January 2014

Western Silvicultural Contractors' Association 2014 Conference
Jan 27 to 29 – Kelowna, BC
http://www.wsca.ca/

February 2014

Montreal Wood Convention 2014
February 18 – Montréal, QC
http://www.montrealwoodconvention.com/en/

LiDAR

Automated Survey Vehicles

Unmanned aircraft systems (UAS) or vehicles (UAV) at an accessible price are ready to take off for the surveying and geospatial professions. Of particular interest to forest operators, UAVs are very useful for forest surveys.

For example, digital surface models and orthophotos can be created from UAV images of regrowth areas within a cutblock. Height and spatial variations and other tasks can be completed, including: Cruise plot grid creation; Sample areas selected and buffered; Individual Trees selected for height calculation; and, Tree species identification.

In practice, a laser device is attached to a drone, which is then flown above the designated area through which, for example, a utility company wants to build a power line. The laser beams scan all the surfaces below, while the built-in software communicates all the information to the company network. The softwares interpret the collected data and start picturing 3D images of all the objects the laser has detected. These 3D objects can be classified to a variety of different categories, such as buildings, trees and even the trees that are in risk of falling down.

by Kéta Kosman

UAVs or a UAS can provide tangible benefits, particularly in speed, safety, and efficiency. Several companies appear prepared to lead surveying and the geospatial community into the air with unmanned vehicles.

Planning the corridor clearance in an object-specific way makes the actual clearing more logical and logistically practical. This results in the most cost efficient path through the vegetation, while avoiding all obstacles that put the power line under any serious risk of future malfunction.

The benefits drive the acceleration of UAS usage, and the benefits start with speed.

"Speed is significantly greater than what a surveyor can do with traditional tools," said Rob Miller, the UAS portfolio manager at Trimble, a UAS mapping solutions provider based in Belgium.

In their abstract "UAV LiDAR for below-canopy forest surveys", published November 2, 2013 in the Journal of Unmanned Vehicle Systems, a group of researchers from Singapore explain that remote sensing tools are increasingly being used to survey forest structure.

"Most current methods rely on GPS signals, which are available in above-canopy surveys or in below-canopy surveys of open forests," say abstract authors Ryan Chisholm, Jinqiang Cui, Shawn Lum, and Ben Chend. "But these may be absent in below-canopy environments of dense forests."

The researchers trialled a technology that facilitates mobile surveys in GPS-denied below-canopy forest environments. The platform consists of a battery-powered UAV mounted with a LiDAR system. It lacks a GPS or any other localisation device. The vehicle is capable of an 8 min flight duration and autonomous operation but was remotely piloted in the present study.

> " The authors summarise the main current limitations of this technology and outline potential solutions. The greatest gains in precision could be achieved through use of a localisation device. The long-term factor limiting the deployment of below-canopy UAV surveys is likely to be battery technology.
>
> The full report can be found here: http://www.nrcresearchpress.com/doi/pdf/10.1139/juvs-2013-0017 "

They flew the UAV around a 20 m × 20 m patch of roadside trees and developed postprocessing software to estimate the diameter-at-breast-height (DBH) of 12 trees that were detected by the LiDAR. The method detected 73% of trees greater than 200 mm DBH within 3 m of the flight path. Smaller and more distant trees could not be detected reliably. The UAV-based DBH estimates of detected trees were positively correlated with the human-based estimates with a median absolute error of 18.1%, a root-mean-square error of 25.1% and a bias of –1.2%.

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UAS also offer advantages in safety, particularly in difficult terrain and for avoiding wildlife and snakes in land surveying. Perhaps most importantly, UAS provide great benefits in efficiency, saving time and money for firms on many projects.

"Just the fact that you can do things cheaper, you can do things yourself and you can do things on demand and get 100 times better resolution, it's become a very attractive thing," says Pat Lohman, the COO of Precision Hawk, a UAS company that was founded in Canada.

Precision Hawk has ventured into other applications, such as infrastructure surveying and 3D topographical modeling. The company used its Lancaster UAV platform to help CP Rail in Canada construct a 3D topographic model of a stretch of railroad tracks hugging the base of a cliff near Lake Superior. Working with Queen's University, CP Rail has tried to determine when rocks will fall on the tracks. The project is dangerous, and it's costly for manned aviation because it involves photographing just 1,000 feet of cliff.

Finnish utility companies have for a long time had difficulties in finding more efficient ways of clearing pathways for power lines through the dense and spread out forests of Finland. Traditionally, this would require a good deal of manpower and extremely costly helicopters, who would manually observe, calculate and analyse the possible routes. Hours of hard work would then be under risk of being overturned by a wind gust blowing a weak trunk over the completed power line.

Helsinki-based Sharper Shape is already bringing a new approach to forest surveying, which is vital for Finland's electricity grid. But its founders also want to be the top vendor of intelligence systems for drones—and not just in Finland. Sharper Shape wants to put a brain in every unmanned aerial vehicle worldwide.

With such dense and extensive tree growth, laying down power lines in the most efficient manner possible—avoiding trees without making the line longer than it needs to be, choosing which trees need to be removed, and so on—requires extensive land surveying. Helicopters are used to speed up the job, but that still requires a lot of man hours, both to fly the vehicles and to collect and analyze the data. By using laser scanning systems, UAVs and UAS have made the job a little easier.

In current practice, a Sharper Shape laser device is attached to a helicopter that flies over the forest to be surveyed. As the onboard lasers scan the ground and plot trees and other objects in 3D, software interprets the data to categorize each object in real-time. The system then analyzes the data about the forest to provide the most efficient locations for laying power lines. The software can even distinguish between a healthy tree and one that might fall down—that's vital, as a dead tree could easily fall on a power line. The laser will eventually allow Sharper Shape to ditch the helicopters in favor of unmanned vehicles.