Vehicle Dimensions and Mass (VDM) RULE IMPLEMENTATION

Opportunities for Cleaner, Safer & More Efficient Road Transport

Presentation to
ROAD CONTROLLING AUTHORITIES FORUM
Friday 23 April 2010

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General Manager Forestry and Logistics -
Pan Pac Forest Products Limited

Chair: NZFOA Transportation Committee

FOREST OWNERS ASSOCIATION

NZ Forest Owners Association

- Is a voluntary organisation representing the interests of 75% of commercial forest growers
- Member companies manage around 1.4 million ha of land, 80% in plantation trees

- Has a Transportation Committee with operator representation and aligned with Log Transport Safety Council which has as its members log transport operators, forest owners, equipment suppliers, researchers, NZTA and the Department of Labour.

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- Current NZ forest harvest is over 20 million m^3, with the capacity to increase to 30 million m^3 pa in the near future

- Forestry contributes 3% to GDP and is forecast to significantly increase over the next 15 years

- Around 35% of harvest is exported as logs

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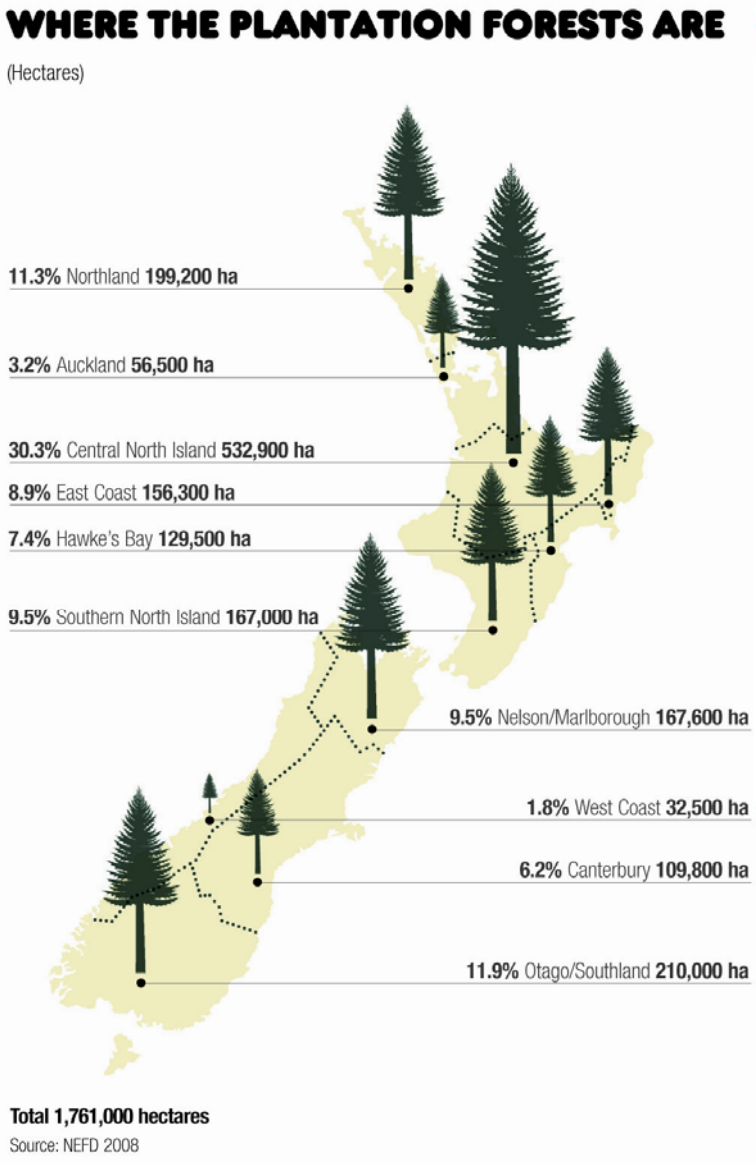
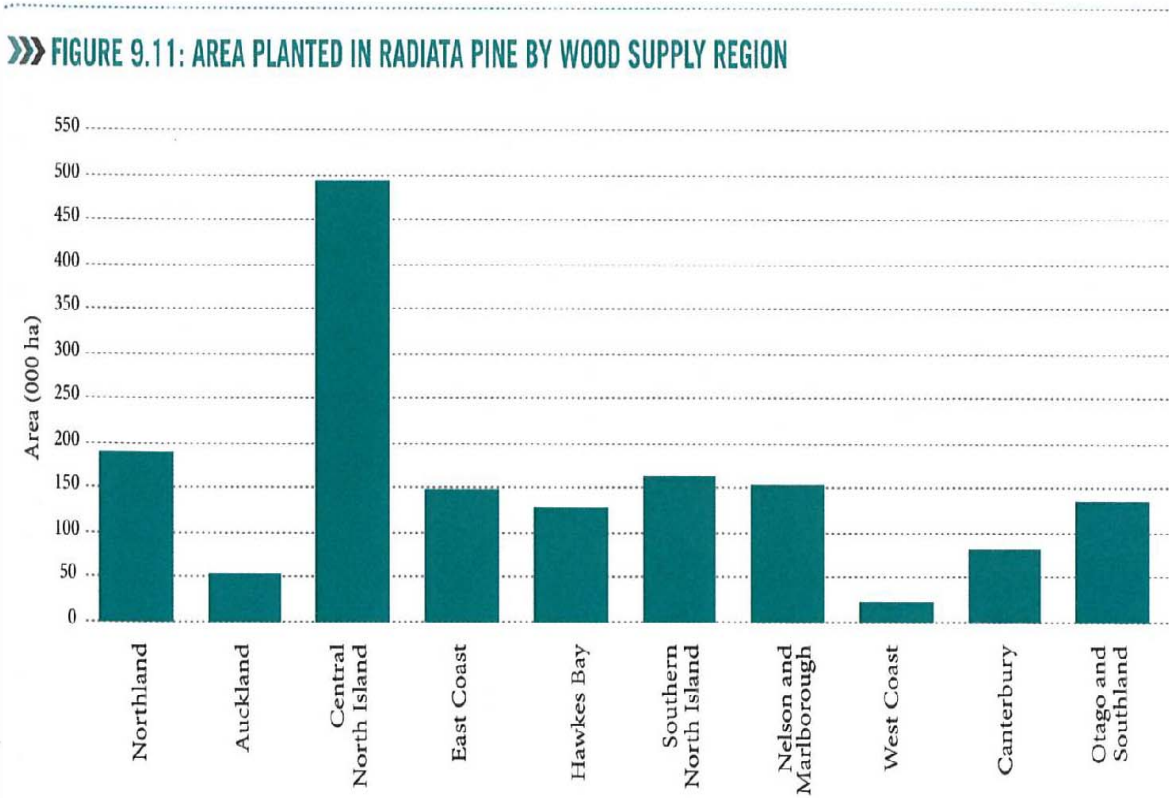
Forest Location





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- The Forest Industry produces the largest road freight commodity task in the country outside of general freight

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2007 Industry VDM Study

- Involved 40% of national forest Industry freight task
- Concessions estimated to give productivity gains of 24% and fuel savings of 9%
- Extended to the full forest industry freight task, the changes would reduce fuel consumption by 9 million litres and carbon emissions by 20,000 tonnes per annum

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VDM Trials

- December 2007 Cabinet agreed to trials

Units	Routes	Products
62t, 24m B-Train (2 units)	Pan Pac mill to Napier Port Nelson Pine Ind to Nelson Port	Timber, pulp, panels
56t, 24m Truck & trailer (5 units)	Selected Hawke's Bay, CNI and Nelson region routes	Logs
55t, 24m stem log trucks (5 units)		
52t, 20m Truck & trailer (9 units)		
52t, 20m Truck & trailer (4 units)	Selected CNI and Nelson area routes	Sawn timber, wood chips

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VDM Trials

- Only one forest Industry trial of a B-train unit was approved and was completed between October and December 2008

- No other forest industry trials were approved with the primary difficulty said to be getting approval from the RCA's with bridge limits quoted as a common issue

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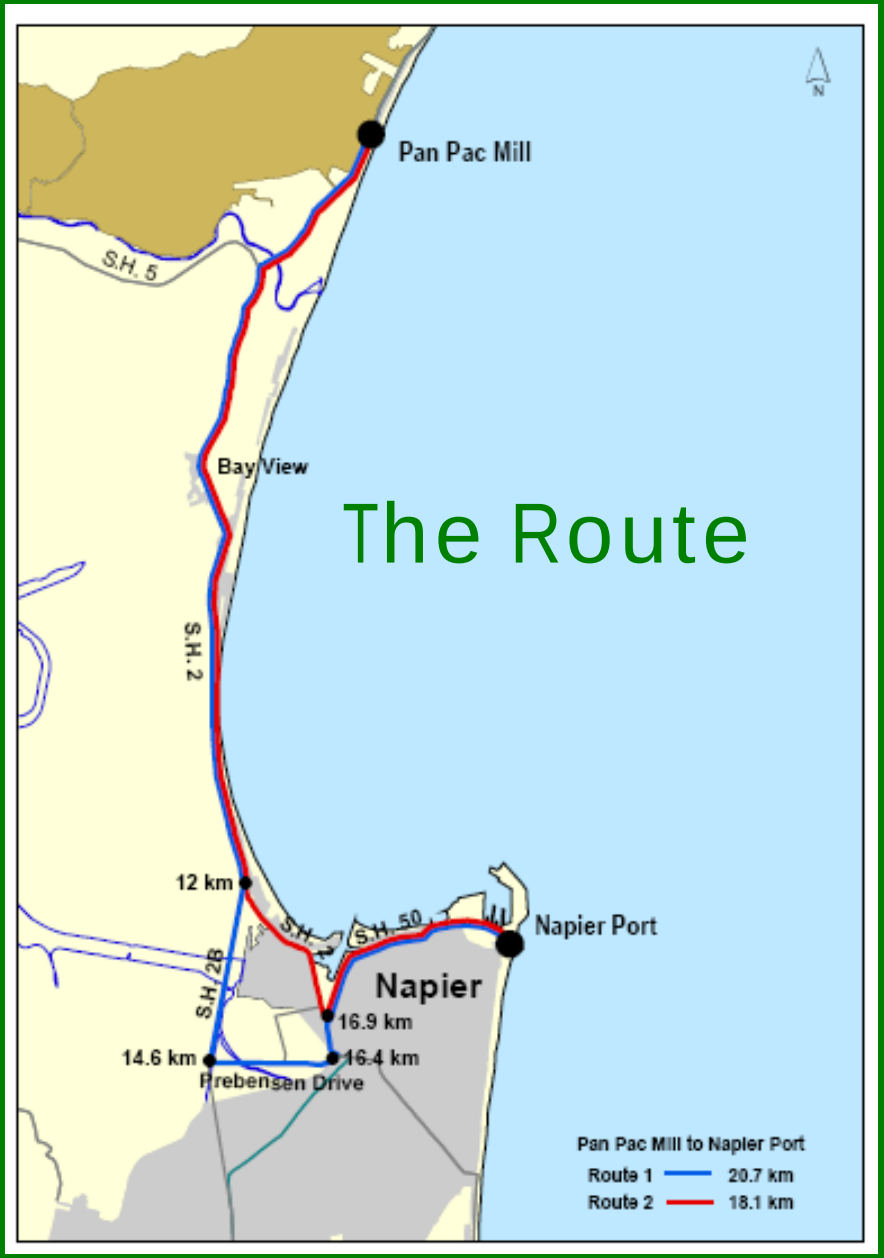
Pan Pac VDM trial



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Trial Products reflect wider industry

Pulp

Timber

Woodchips

Logs

Total wood Products 810,000 tonnes per year

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Pulp & Timber Trial

Pulp

Current unit

8x4 truck & 4 axle trailer
44 tonne GVW, 20 metre length
Average load – 4 pallets, 26.32 tonnes (pulp)
or 27m³ (timber)

Trial unit

10 axle B-Train – 8x4 truck & 2 x 3 axles trailers
61.7 tonne GVW, 25 metre length
Average load – 6 pallets, 39.48 tonnes (pulp)
or 52m³ (timber)

Timber

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Productivity & Economic Gains

Pulp productivity improvement = 50%

	Current	New	Diff
Loads	9,119	6,079	-3,040
Km's	406,687	271,125	-135,562
Fuel-Litres	195,413	164,925	-30,488
Road Tax $	$182,015	$195,892	$13,877

Timber productivity improvement = 93%

	Current	New	Diff
Loads	11,852	6,154	-5,698
Km's	528,593	274,462	-254,131
Fuel-Litres	253,989	166,955	-87,034
Road Tax $	$236,575	$198,303	-$38,272

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Productivity & Economic Gains for all Products

Productivity improvement : 63%
12,000 fewer vehicles on an annual basis
Payload current average: 26.7 tonnes
Payload new average: 43.5 tonnes

	Current	New	Diff	Diff %
Loads	30,188	18,364	-11,824	-39%
Km's	1,346,380	819,027	-527,354	-39%
Fuel-Litres	646,936	498,214	-148,722	-23%
Road Tax $	$602,580	$591,760	-$10,820	-2%

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Other key points from the trial

- Negligible difference between tracking of 20 & 25 metre trucks
- No on road issues and
- No one noticed

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Other Opportunities – Forest to Mill

Pan Pac 18 metre stem unit

37% productivity gain

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Other Opportunities – Forest to Mill

Short log unit

Current unit
8x4 truck & 4 axle trailer
44 tonne GVW, 22 metre length
Average payload – 29 tonnes

Current unit – increase GVW
8x4 truck & 4 axle trailer
53 tonne GVW, 22 metre length
Average payload – 38 tonnes

31% productivity gain

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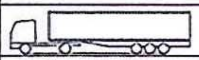
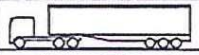
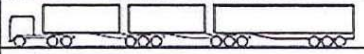
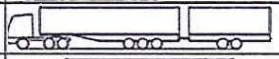
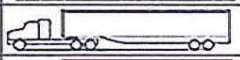
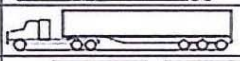
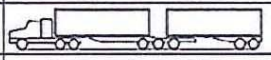
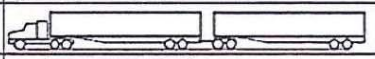
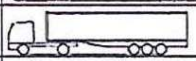
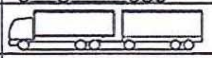
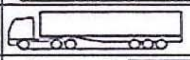
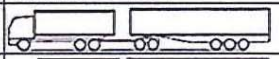
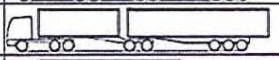
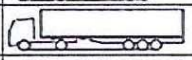
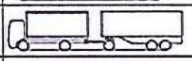
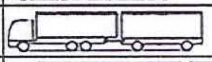
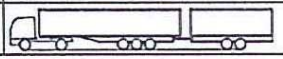
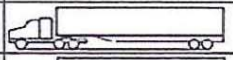
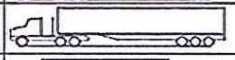
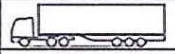
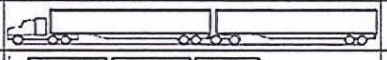
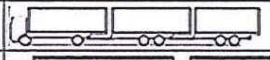
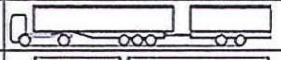
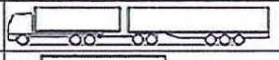
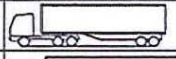
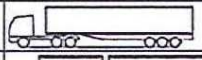
Heavy Vehicle Configurations in other countries

N°	Name	Shape	GVW (t)	Length (m)	Number of axles
0	Truck ref UE		40	16.5	5
1	Australia 1		45.50	17.31	6
2	Australia 2		68.00	25.01	9
3	Australia 3		90.50	33.31	12
4	Belgium 1		39.00	16.40	4
5	Belgium 2		60.00	25.25	8
6	Canada 1		39.50	21.55	5
7	Canada 2		46.50	21.55	6
8	Canada 3		62.50	20.43	8
9	Canada 4		62.50	38.33	9
10	Denmark 1		44.00	16.48	5
11	Denmark 2		48.00	18.75	6
12	Denmark 3		48.00	16.50	6
13	Denmark 4		60.00	25.25	8
14	Denmark 5		60.00	25.10	8
15	Europe 1		38.00	16.50	4
16	Europe 2		40.00	16.50	5
17	Europe 3		40.00	16.90	5
18	Europe 4		40.00	18.75	5
19	Germany 1		40.00	25.24	7

N°	Name	Shape	GVW (t)	Length (m)	Number of axles
20	Mexico 1		44.00	20.80	5
21	Mexico 2		48.50	20.80	6
22	United Kingdom 2		44.00	16.50	6
23	Mexico 3		66.50	39.08	9
24	Netherlands 1		50.00	24.20	6
25	Netherlands 2		60.00	25.20	7
26	Netherlands 3		60.00	25.24	8
27	South Africa 1		43.50	15.31	5
28	South Africa 2		49.30	17.75	6
29	South Africa 3		56.00	21.97	8
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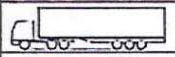
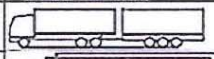
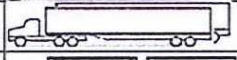
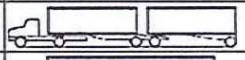
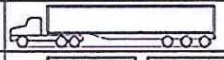
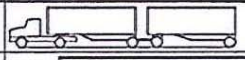
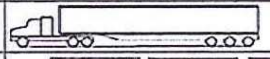
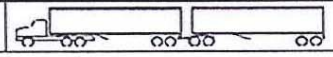
31	United Kingdom 1		44.00	16.50	6
32	United Kingdom 3		44.00	18.75	6
33	United States 1		36.35	19.77	5
34	United States 2		36.35	21.98	5
35	United States 3		41.90	19.77	6
36	United States 4		36.35	22.06	5
37	United States 5		44.10	25.12	6
38	United States 6		53.80	31.57	7
39	United States 7		57.05	30.96	9

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Barriers to Extensive Implementation of the permit system

- Restricted load carrying capacity of many highways and district roads, particularly bridge capacity and
- Gaining approval from RCA's, in many cases a multiplicity of authorities, to permit workable networks of roads

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Barriers to Extensive Implementation of the permit system

- Understandably, RCA's are concerned at the potential impact of heavier trucks on their infrastructure
- In the case of district councils, approx 50% of roading costs are met from the National Land Transport Fund, with the balance from rates revenues
- Our members are all significant rate payers

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Barriers to Extensive Implementation of the permit system

- Although the RUC's system is heavily dependent on gross vehicle weight, the charges are centrally collected
- There is no simple system for attributing increased RUC take from HPMV's, to the roads those vehicles have used
- The lack of capacity of many of the countries bridges to carry increased loads is the biggest single constraint to wide spread HPMV use in the short to medium term

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Barriers to Extensive Implementation of the permit system

- While the new Rules allow for variation from various dimensions and axle weight requirements, the opportunity to use this flexibility will be limited where a vehicle has to move between permitted and non-permitted routes

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Funding for HPMV

- We understand NZTA will provide funding for local authorities on a case-by-case basis to assess the impact of HPMV's on their roads
- NZFOA supports RCA's, and the NZTA working together with key freight operators in regions to plan the introduction of HPMV's on key routes
- The issue of how works are funded needs to be addressed

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Route Assessment

- NZFOA agrees that the assessment of potential HPMV routes needs to be prioritised
- However there also needs to be a process that ensures that we pick the low hanging fruit first
- For example the Pan Pac to Napier port route has already been assessed and a trial permit issued so the state highway section of this route should be given priority for assessment

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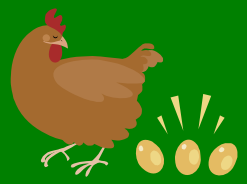
Rules for issuing permits

- Permits must be valid for much longer than a year
- Higher productivity means less trucks and drivers. It would be counter productive if the number of trucks and drivers had to be changed on a regular basis
- Some HPMV's will require the building of new special purpose trailers and equipment and a period of time much longer than a year is needed to recover the cost of capital
- NZTA needs to have the ability to pre-approve permits to allow conceptual applications to be approved



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Issues

- The new act could result in the loss of some significant benefits that were introduced in 2002 which allowed 22m length for double bunking of short logs

- This dispensation played a significant roll in the reduction in roll-over incidents within the logging fleet

- It is important that the current conditions under the 22 metre rule still apply. The new rule appears to exclude them

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Issues

- The rear under run protection requirement for any vehicles exceeding 21m length is totally unpractical for logging trucks that operate on forest roads and is specifically exempt from logging trucks in other countries
- We raised significant concerns on the requirement for rear under run protection in our submission to the June 2009 draft Rule amendment
- There has never been a rear under run accident in New Zealand involving a 22 meter Log Truck

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As an industry and as ratepayers, we would welcome working together with RCA's and NZTA to make all this happen

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TOYOTA


TOYOTA

Finally

Is this really necessary??

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Thank You

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