

Last year's snowlessness had an impact, but Canada was gangbusters. There's continued growth for six-packs.

New lift totals for the shiny new millennium (yeah, in case you've forgotten, the true start of the millennium is 2001) show a truly average year. There are 50 new lifts to record, which is only a hair below the 10 year average of 51, and the total 95,372 total VTFH added this year is at least in the same ballpark as the 10-year average of 108,555.

Repeating our annual explanation, Vertical Transport Feet/Hour (VTFH), a measurement that was initiated in SAM, is calculated by multiplying the lift's vertical in feet by the capacity in passengersper-hour. At SAM, we divide the result by 1,000, making it a measurement of the number of people a lift can transport

r,000 vertical feet in an hour. This index remains a good measure both of the work performed by the lift, as well as a sensitive gauge of investment costs.

#### Canada Scores

What makes 2001 a distinctly atypical year, however, is the geographic distribution of the new lifts. Over the past 10 years, Canada has accounted for 23 percent of the new lifts built and 20 percent of the new VTFH. This year, they have 42 percent of all new lifts and 34 percent of the new VTFH. Amazing!

Canada accounts for 19 new chairs (10 in Ontario alone) and two gondolas, including an 8-passenger leviathan by Poma at a new resort in British Columbia, Kicking Horse, which weighs in with a length of 11,188 feet, a vertical of 3,518 and VTFH of 4,222.

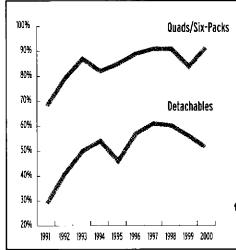
The other geographical winners this year are the Pacific states, accounting for almost 30 percent of new VTFH. Contributing to that statistic is Doppelmayr's 8-passenger gondola at Heavenly. Its 8,047 of VTFH accounts for 28 percent of the Pacific states total and, even more impressively, it alone accounts for 8.4 percent of all VTFH added in North America.

Elsewhere, it's a matter of "what a difference a year makes." Last year, the East could crow about its huge surge in

New Lifts by Region					Lift Comparison with Preceding Years											
Region	New VTFH	Surface	Chair	Gondolas/ Trams	Total	Region	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
East	11,358	-	6	-	6	East	10	6	5	15	13	11	12	10	13	6
Midwest	1,070	-	2	-	2	Midwest	6	3	3	1	4	1	10	3	4	2
Mountain	21,999	1	9	1	11	Mountain	9	11	13	13	12	24	24	21	25	11
Pacific	28,521	-	9	1	10	Pacific	5	9	9	9	5	10	9	17	10	10
Canada	32,424	-	19	2	21	Canada	18	7	11	13	7	7	6	13	11	21
Totals	95,372	1	45	4	50	Totals	48	36	41	51	41	53	61	64	63	50

New Lifts by Manufacturer					VIFH	Con	ıpar	15011	WILI	I FI	ecec	ıılıy	IGG	12		
Manufacturer	Surface	Chair	Gondolas/ Trams	Total lifts	Total VTFH	Region	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Doppelmayr	-	12	1	13	28,834	East	19,775	9,129	10,438	31,603	31,781	15,890	32,123	19,453	33,695	11,358
Garaventa CTEC	-	14	1	15	30,174	Midwest	3,624	3,083	1,556	866	1,069	95	5,929	2,185	4,373	1,070
Leitner	-	5	1	6	11,340	Mountain	27,593	26,281	33,334	28,807	19,676	59,195	71,199	69,922	52,591	21,999
Partek	-	1	-	1	402	Pacific	3,831	21,675	18,817	22,645	11,916	28,549	22,088	46,357	17,952	28,52
Poma	1	11	1	13	23,681	Canada	33,821	16,420	10,856	24,034	15,430	16,444	15,232	28,265	22,142	32,424
Riblet	-	2	-	2	941											
Totals	1	45	4	50	95,372	Totals	88,644	76,588	75,001	107,955	79,872	120,173	146,571	166,182	130,753	95,372

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			lı	stalled		district property			VTFH	NO PER
	Location	Туре	Manufacturer	HP	Length	Vert.	Cap.	Speed	(000)	
	MASSACHUSETTS									
	Jiminy Peak	6C-Det.	Garaventa CTEC	600	3922	1113	2800	1100	3116	
	NEW HAMPSHIRE									
	Bretton Woods	4C-Det.	Garaventa CTEC	500	5075	1063	2000	1070	2126	
	Mt. Sunapee	4C	Poma	150	1814	374	2200	425	823	
	NEW YORK									
	Bristol Mountain	4C	Garaventa CTEC	250	3110	543	2400	425	1303	
	NORTH CAROLINA									
	Cataloochee	4C	Garaventa CTEC	100	2098	495	1300	450	644	
	VERMONT									
	Ascutney Mountain	4C-Det.	Garaventa CTEC	700	5365	1673	2000	1000	3346	
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	MICHIGAN			in a secondario					***************************************	10000
	Bittersweet	4C-Det.	Poma	200	1816	318	2100	1100	668	
	WISCONSIN									
	Tyrol Basin	3C	Partek	75	1041	251	1600	400	402	
	1,10,200									
				Carrie de	() (A)					
	COLORADO				X			1028300		
	Aspen Highlands	2C	Poma	100	4171	743	600	525	446	
	Durango Mountain	6C-Det.	Doppelmayr	900	6309	1511	3000	1000	4533	
	Eldora Mountain	3C	Riblet	75	1437	250	1800	450	450	
	Keystone	6C-Det.	Poma	1000	5864	1600	3600	1100	5760	
	Snowmass	Platter	Poma	12	871	232	428	350	99	
	Vail	4C-Det.	Poma	600	6677	1581	1800	1100	2846	
	IDAHO									
	Schweitzer	6C-Det.	Garaventa CTEC	800	5660	1550	2800	1000	4340	
	HATU									
	Brighton	4C-Det.	Garaventa CTEC	500	4635	996	2400	1000	2390	
	The Canyons	Gondola (8)	Garaventa CTEC	300	2705	193	3000	800	579	
	WYOMING									
	Jackson Hole	4C	Garaventa CTEC	75	1893	198	1200	450	238	
	Jackson Hole	4C	Garaventa CTEC	60	1292	265	1200	450	318	
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23.0										
	CALIFORNIA									
	Heavenly	Gondola (8)	Doppelmayr	1800	12149	2874	2800	1200	8047	



# Quads/Six-Packs & Detachables as a Percentage of Total Chairlifts

Quads and six-packs returned to their dominant industry workhorse position at 91 percent of all chairlifts installed. Six-packs have gone from three in 1998 to eight this year. Significantly, their average YTFH has increased since last year by almost one-half to 3,695.6. Detachables as a percentage of all chairs declined slightly to 51 percent. new VTFH, from 19,453 in 1998 to 33,695. This year it is down to 11,358—a 67 percent drop. And, if you think that's bad, how about the Midwest with a 75 percent drop. But, to be fair, that's more a matter of a drop from four new lifts to just two. Nor were the Mountain states unaffected: Their new lift totals dropped 58 percent in new VTFH.

How did this year's new lifts get divvied up between the manufacturers? Essentially, except for Leitner, each supplier lost in VTFH from the previous year. Leitner stayed almost exactly even though with lower totals than the other majors.

# The "Big Four"

For the past three years, we have taken a look at the impact of the "big four" conglomerates (in alphabetical order: ASC, Booth Creek, Intrawest and Vail) to see how great a role these play in the overall lift-buying picture. Of the lifts built in 1997, the big four accounted for 43.1 percent of total new VTFH, a year later this had dipped to 37.8 percent and in 1999 the slide continued to 21.6 percent. This year, the percentage rebounded to 29.2 percent. (Note: this year, for the first time, we included Intrawest's partially owned Mammoth and Blue Mountain numbers.) The significance of all this? Probably not much. These folks buy lifts just like everyone else.

## Coping with Aging Lifts

What will be interesting to watch over the next few years is how the industry will cope with what is essentially an aging inventory of lifts aged 20 years old and up. Just in the decade of the 1970s, 914 new lifts were installed. Many of these are still operating, some as the vital workhorses for small and mid-size areas.

But, what has been happening in recent years is consolidation of resort uphill transportation into fewer, but much larger and more productive lifts. And much more expensive! The cost-efficiency in operations and maintenance can mean reasonable paybacks, but the cost outlays are staggering for the areas without deep pockets.

Evidence of these trends is found in this year's totals where 41 of the 45 chairlifts are 4-passenger or larger; 23 percent are detachable. This year also sets a new record of eight new 6-packs. These represent 31 percent of all new VTFH; last year's six 6-packs accounted for only 11.4 percent of VTFH. Consider also that 23, or almost one-half, of all new lifts were labeled as replacements.

But today's replacement chairlifts, even those of the greatest dimensions, minimally run over a million dollars; some substantially more. It takes a lot of hamburgers to cover the costs of just the interest on a \$3 million chairlift. (Come to think of it, perhaps that explains the high cost of ski area burgers!)

### Relocations, relocations, relocations

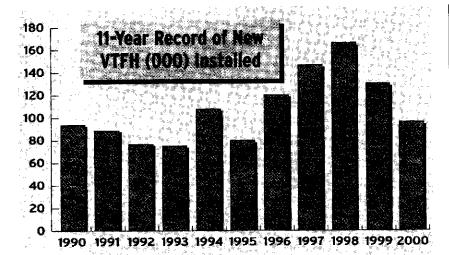
As always, one answer lies in relocated and re-engineered chairs, and there is a lively market in these. But if an area is looking for the efficiencies of a high-capacity lift, there will probably be disappointment. A typical relocated 1975 triple, for instance, will almost certainly not exceed its 1,800/hr. design capacity.

Among the other uphill conveyances, business remains brisk. We counted no less than 30 in the conveyor category, divided among three suppliers. That's up from 24 last year. There are 67 new handle and tubing tows—a category that has consolidated from eight to five suppliers. This total is up impressively from last year's 50. With nineteen identified specifically as tubing tows, tubing continues to grow exuberantly, to the delight of CFOs and customers alike.

Finally, a couple of housekeeping disclaimers. First, we list *only* new lifts and are strict about our definition of what is "new." Another explanation is that we try to report on a lift's "final" capacity, even though it may initially be installed to deliver less. This means that not all of the capacity reported is immediately available to the public.

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Location	Туре	Manufacturer	HP	Length	Vert.	Cap.	Speed	(000)
Kirkwood	4C-Det.	Doppelmayr	600	3892	1363	2400	1000	3271
Mammoth Mountain	6C-Det.	Doppelmayr	700	5354	956	2880	1000	2753
Northstar at Tahoe	4C-Det.	Garaventa CTEC	600	3175	1254	2400	1000	3010
Squaw Valley	6C-Det.	Garaventa CTEC	500	2420	967	2600	1000	2514
NEVADA								
Mt. Rose Ski Tahoe	6C-Det.	Garaventa CTEC	700	3965	1315	3000	1100	3945
OREGON								
Timberline	4C-Det.	Doppelmayr	300	4323	784	1500	1000	1176
Timberline	4C-Det.	Doppelmayr	300	4962	828	1200	1000	994
WASHINGTON								
Crystal Mountain	4C-Det.	Doppelmayr	500	2859	91 <del>6</del>	2400	1000	2198
White Pass	3C	Garaventa CTEC	150	2210	511	1200	450	613

ALBERTA								
Lake Louise	4C-Det.	Leitner	700	6081	1450	2400	1102	3480
Sunshine Village	4C-Det.	Poma	400	3 <del>9</del> 48	628	2400	1100	1507
Sunshine Village	4C	Poma	150	912	266	2400	400	638
BRITISH COLUMBIA								
Big White	Gondola (8)	Leitner	400	1909	298	3000	984	894
Fernie	4C-Det.	Leitner	700	5323	1538	2400	1102	3691
Grouse Mountain	4C-Det.	Poma	300	3329	691	2000	1000	1382
Kicking Horse $^{ ext{\textcircled{1}}}$	Gondola (8)	Poma	900	11188	3518	1200	1100	4222
Kicking Horse	4C	Poma	400	4932	1179	1800	453	2122
ONTARIO								
Beaver Valley Ski Club	4C	Doppelmayr	200	2624	488	2000	450	976
Blue Mountain	6C-Det.	Poma	500	3454	726	3600	984	2614
Calabogie Peaks	4C	Doppelmayr	200	2680	623	2400	450	1495
Caledon Ski Club	4C	Doppelmayr	100	1115	252	2400	450	605
Całedon Ski Club	4C	Doppelmayr	75	692	157	2400	450	377
Craghleith Ski Club	4C	Garaventa CTEC	250	3145	705	2400	453	1692
Georgian Peaks	4C	Leitner	250	2621	751	1800	453	1352
Georgian Peaks	4C-Det.	Leitner	400	3634	811	1200	984	973
Glen Eden	<b>4</b> C	Poma	100	1235	231	2400	450	554
Osler Bluff Ski Club	4C	Doppelmayr	300	3175	702	1800	450	1264
QUEBEC								
Camp Fortune	4C	Leitner	150	2890	528	1800	453	950
Le Chantecler	4C	Doppelmayr	200	2598	606	1890	450	1145
SASKATCHEWAN								
Wapiti Valley	4C	Riblet	100	1707	273	1800	400	491
① New area								



Handle Tows/Wire Rope Tows*									
Harusch	5	Schippers	11						
Leitner	5	Star Lifts**	32						
Multi Skilift	14	TOTAL	67						
**Includes Borer, Bruckschlogl and O'Connor.									

Conveyors*			
Magic Carpet	11	Star Lifts	15
Schippers	4	TOTAL	30

<sup>\*</sup>Not included in lift statistics.