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The 6-CLD Rosaël, France, replaces a 4-CLD built in 1985. The lift is designed to operate at wind speeds of up to 30 m/s (108 km/h). p.3



Trendsetters of Skiwelt Amadé (Austria)

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Sun Valley's first gondola lift

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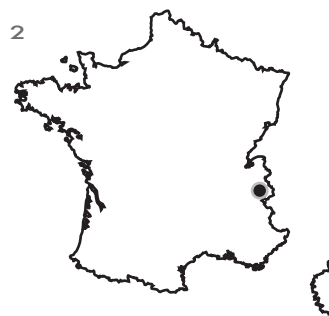
"Comfort mode" for the 8-MGD Casino Express

Stop-and-go solution for enhanced comfort in Canada. p.26

Doppelmayr built a Funifor from the Italian mountain village of Sella Nevea, up to Prevala on the Italian-Slovenian border. p.9



New lifts in Courchevel and Orelle



Les Trois Vallées in the French Alps is the world's biggest ski region. At the heart lie Courchevel and Orelle where two detachable 6-seater chairlifts from Doppelmayr opened in time for Christmas 2009.

Situated in the French region of Savoie, Les Trois Vallées prides itself on being the biggest connected ski area in the world. It lies between altitudes of 610m and 3,230m, and has 600km of ski trails as well as some 200 lifts. It encompasses 11 municipalities, which include Courchevel¹ and Orelle.

Comfortable and child-friendly

Courchevel, with almost 2,000 inhabitants and its own airport, which is also suitable for larger planes, is the more well known of the two resorts.

¹ Also well known for being a stage finish in the world-famous Tour de France

The sector consists of villages named after their respective altitudes: Courchevel Saint Bon/1100 is the original center of the resort; the other villages are 1300, 1550, 1650 and 1850. They are all linked up by roads and ropeways. This part of Trois Vallées has 150 km of ski trails and 62 ropeways.

The new 6-seater chairlift Roc Mugnier improves the connection between Courchevel 1650 and 1850. It replaces two fixed-grip chairlifts (Roc Mugnier and Pramérue). The alignment has remained virtually unchanged. The old stations were demolished and replaced by new structures.

Roc Mugnier is equipped with the child safety system Magnestick. Children



Market-oriented, flexible and geared to the future

don safety vests incorporating a magnet which attaches to another magnet in the backrest of the chair. The vests can be purchased or hired at the ski shop; the children's ski schools hand them out free of charge.

The roof of Trois Vallées

The 400-inhabitant village of Orelle is much vaunted for its charming traditional architecture with low houses and high chimneys. The center of the village lies at 900 m. Its favorable location even allows winegrowing. The vineyards are wrested from the steeply sloping mountainside

with the aid of stone walls. The municipality extends all the way up to the Sommet des Pistes (3,230 m), the highest skiable point in Trois Vallées, and beyond to the peak of Pointe du Bouchet at 3,420 m. Within the surrounding area including Val Thorens, skiers and snowboarders have 68 ski trails with a total length of 140 km as well as 30 lifts to choose from.

The new 6-CLD Rosaël replaces a 4-CLD dating from 1985. For skiers, it links up with the Trois Vallées region in the direction of Val Thorens. The lift is designed for wind speeds up to 30 m/s (108 km/h)!

The new chairlift provides a better connection within the ski area.



6-CLD Roc-Mugnier

Transport capacity	2,700 PPH
Trip time	4.2 min
Speed	5.0 m/s
Chairs	64
Interval	8.0 s
Inclined length	1,162 m
Vertical rise	360 m
Towers	11
Drive	Top
Tension	Bottom

6-CLD Rosaël

Transport capacity	2,600 PPH
Trip time	7.6 min
Speed	5.0 m/s
Chairs	109
Interval	8.3 s
Inclined length	2,260 m
Vertical rise	632 m
Towers	20
Drive	Top
Tension	Bottom

One of the Doppelmayr/Garaventa Group's recipes for success is close cooperation with customers when implementing new and innovative ideas. However, the key factor is not so much the innovations in themselves, but rather the fact that they enable ropeway and tourism operators to meet the ever-growing needs of the global tourism industry.

This is where Doppelmayr, as the ropeway industry's quality and technology leader, can really apply its strengths to make a difference, providing an impressive succession of world firsts in every aspect of ropeway technology.

One of the latest developments to be brought to market maturity is a rescue system for 3S lifts which ensures that the cabins can always be brought safely back to the station. This makes it possible to dispense with a rescue ropeway – and the undesirable challenges such a solution poses for every passenger and every lift operator. The rescue system is to be installed for the first time on the urban ropeway in Koblenz (Germany; due for completion in summer 2010) and then on the 3S Gaislachkogel 2 in Sölden (due for completion in the winter season 2010/11). Another example is the world's first operational automatic restraining bar and footrest system for safe, comfortable transport – especially for children.

We are proud of the trust that our customers place in us and look forward to presenting visitors to SAM Grenoble 2010 with proof of our capacity to innovate and our ability to deliver, in direct comparison with competitors.

Michael Doppelmayr

The trendsetters from Flachau



In the ski resort of Flachau, Salzburger Land, Doppelmayr installed the 8-seater chairlift "Star Jet 3" with orange bubbles, alternating black and orange seat upholstery and heated seats. The lift has scored a big hit with the public.

8-CLD-S-O Star Jet 3

Transport capacity	3,720 PPH
Trip time	4.1 min
Speed	5.0 m/s
Chairs	69
Interval	7.7 s
Inclined length	1,236 m
Vertical rise	263 m
Towers	16
Drive	Top
Tension	Bottom

The 8-CLD Star Jet 3 replaces the Kesselboden lift (4-CLD, Doppelmayr, built in 1986) while following a slightly different alignment. The new lift is the uppermost link in the three-leg "Star Jet"¹ lift connection from the village on the northern flank of the Griesenkareck (1,991 m). These lifts are located one behind the other. "They provide uphill transport for skiers using the adjacent slopes. This configuration gives people a wide choice of ski trails," explains Bettina Plank, from the Marketing Department at Bergbahnen Flachau.

Bird protection glass for windbreak wall and windows

The top station at 1,195 m provides access to all the other ski trails (total length 111 km/150ha surface area) and 42 lifts. Its location is very exposed to the wind. For this reason, a large glass wall was erected to shield the unloading area; it prevents the empty carriers from developing swing. A noteworthy feature

¹ All from Doppelmayr. Star Jet 1 and 2 are 6-MGDs.

of the stations is that all glass façade elements are fitted with bird protection glass. The old stations were demolished to make way for new buildings. The bottom station houses the fully automatic parking facility. The loading level was raised by approximately 2.5 m compared with the predecessor lift and the loading area was moved forward. In view of the large differences in elevation due to the terrain profile, the parking area only has a partial basement and rests on steel supports in the front section.

Flachau lies on a 900 m plateau next to the Tauern highway, 70 km from Salzburg and roughly 200 km from Munich. The area is part of the Amadé ski region, one of the biggest interconnected ski areas in the Alps.



Managing
Director Ernst
Brandstätter:
"Doppelmayr
and Bergbahnen
Flachau are a

long-standing team. We build
a lift together almost every year."



With Star Jet 3, Flachau's revitalized "Snow Space" ski area has consolidated its image as a trendsetter on the Austrian winter sports scene. Its modern architecture is underlined by the UNI-G Vision stations and orange bubbles.

Flachauwinkl: Straight from the highway to the ski slopes

The new 8-passenger gondola lift “Highliner I” takes passengers straight from the parking lot next to the highway exit in Flachauwinkl, southern Salzburgerland, to the Zauchensee ski area. Five minutes later and 600 m higher up, they change over to the 6-seater chairlift “Highliner II” immediately next to the gondola.

The two new lifts replace the Flachauwinkl 4-passenger gondola lift and the Rosskopf triple chairlift, both built in 1980.

The lift line is unchanged. The bottom station of the gondola and both stations of Highliner II were replaced, while the transformer station was retained. The top station of Highliner I was also retained but underwent refurbishment.

The new “Highport” at the base of Highliner I houses a bistro and sports shop including ski hire. The Bodenalp restaurant in the transit area between gondola and chairlift was completely modernized.

Up to 31,000 passengers an hour

The Zauchensee-Flachauwinkl ski area encompasses 65 kilometers of ski trails and 14 lifts with an hourly capacity of 31,000 passengers. At the weekends, up to 70 percent of skiers are day visitors. The high number of weekend guests is explained by the resort’s convenient location in terms of transport links; Munich is just a two-hour drive away. Access to the ski slopes via the highway exit Flachauwinkl is a genuine alternative to

travelling via the center of Altenmarkt up to the hotel village of Zauchensee seven kilometers away.

Doppelmayr took charge of the planning and project engineering for the lifts. The customer, Liftgesellschaft Zauchensee, was responsible for civil engineering works.



Highliner I (right), Highliner II (top)

8-MGD Highliner I

Transport capacity	2,800 PPH
Trip time	5.3 min
Speed	6.0 m/s
Cabins	62
Interval	14.4 s
Inclined length	1,537 m
Vertical rise	598 m
Towers	12
Drive	Top
Tension	Bottom

6-CLD Highliner II

Transport capacity	3,200 PPH
Trip time	5.5 min
Speed	5.0 m/s
Chairs	63
Interval	6.8 s
Inclined length	947 m
Vertical rise	287 m
Towers	9
Drive	Top
Tension	Top





Gondola lift full of superlatives



Since December 2009, the 6-MGD Grafenberg lift in Wagrain, Salzburgerland, has been backed up by the new 8-passenger gondola, "Grafenberg Express 1", which runs roughly parallel to it. The new installation is the first gondola with heated seats in the Amadé ski region.

The new 8-MGD Grafenberg Express 1 has two prime functions: First, it relieves the existing 6-MGD Grafenberg, enabling the long waiting times (of up to 45 minutes!) to be relegated to the past. Second, it will serve as a feeder to the planned connecting lift between the two mountains Grafenberg and Griesßkareck/Flachau.

Operation as usual during the construction phase

The old office wing that was built onto the existing Grafenberg lift had to be demolished to make way for the new bottom station. The Grafenberg lift remained

in operation. In view of the limited space available in the bottom station, a UNI-G-M station was chosen and maximum speed reduced to 5 m/s. Both stations feature the elegant Vision look.

The Grafenberg Express 1 leads directly to the bottom station of the 6-seater chairlift Grafenberg Express 2 (altitude 1,236 m) which takes passengers to the top of the Grafenberg; from here, there are two ski trails to Wagrain. The top station of the chairlift is immediately next to the top stations of the Grafenberg lift, a surface lift ("Grafenberg practice lift"), and the 6-seater chairlift "Hachau" at 1,700 m. From this point it is possible to ski down to further ski slopes and lifts.



Christoph
Baumann,
Director of
Bergbahnen
AG Wagrain:
"We've had
Doppelmayr

lifts for over 30 years. We value Doppelmayr's passion for innovation, the availability of spare parts, the support provided by Sales and After-Sales Service, and above all their people."



Bottom station of the Grafenberg Express 1. Access to the loading area is either directly from the ski slope, or by means of an escalator or elevator from the ground floor. The building accommodates cash desks, offices, a sports shop and a restaurant as well as the parking facility for the gondolas of the 6-MGD and a workshop for maintenance work on the Grafenberg lift. The parking facility for the new 8-MGD (continuous loop parking with dead-end rail) is located in the top station.

8-MGD-S Grafenberg Express 1

Transport capacity	2,400 PPH
Trip time	4.0 min
Speed	5.0 m/s
Cabins	39
Interval	12.0 s
Inclined length	948 m
Vertical rise	374 m
Towers	9
Drive	Top
Tension	Bottom

Crossing boundaries with Funifor

Doppelmayr built a Funifor from the Italian mountain village of Sella Nevea up to the 2,067m-high Prevala, right on the border between Italy and Slovenia in the Julian Alps.

Sella Nevea in the Friuli-Venezia Giulia¹ region is rightly known as the “snow pass”. The area has such reliable snowfall that it compares itself with winter resorts in the Western Alps of France and Switzerland, which lie 400m higher in altitude. In the summer, the region provides an El Dorado for mountain hikers, with its wild and romantic rifts, couloirs and forests.

Downhill to Italy or Slovenia

The new Funifor “Prevala” closes the last gap in a ropeway chain and enables skiers to make full use of the massif crowned by the 2,587 m Kanin as a ski circuit. From Prevala, a 250m-long ski route leads to Slovenia and the quad chairlift “Sedlo”. This takes passengers up to the 2,292 m Sedio, which is accessed by a lift from the village of Bovec; Bovec lies on the other side of the mountain. It is possible to ski down on both sides. In total, the ski circuit encompasses over 30 kilometers of trails, with further expansion in the pipeline. Combined tickets are already available for Bovec and Sella Nevea, and the ski area is also included in the “Cartea Neve”, the ski pass for the Friuli-Venezia Giulia region.

High flexibility, transparent operating costs

The main reasons for deciding on the Funifor system were as follows:

- Wind stability
- Operational flexibility. It's possible to run with just one or with both cabins.
- The ability to cross the steep, avalanche-prone slopes with one long rope span and
- the fact that no rescue ropeway is needed².

Long time in the making

The idea of creating this lift connection

goes back to the 1980s. But it was not until Italy and Slovenia came together under the EU's cross-border cooperation program that the project was begun in earnest. Nonetheless, the path continued to be fraught with difficulty as the top station is located near historical monuments dating from the First World War. Finally, after many compromises, planning permission was granted in 2008.

Construction was not straightforward ...

Lift construction proved to be far from easy. At the end of the winter season up to 10 meters of snow had to be cleared in some places to free up the route for construction vehicles and delivery of the machinery and equipment to the building sites. The modules for the bottom station were transported by means of special





The bottom station of the Prevala Funifor lies at an altitude of 1,848 m, the top station at 2,133 m. As general contractor, Doppelmayr Italia was responsible for the entire construction and installation work – and completed it on schedule in just five months.



vehicles over a vertical rise of 700 m from Sella Nevea via the ski slope to Refugio Gilberti at 1,848 m.

The crew took the aerial tram for the first part of their journey, and then got to their building sites either by all-terrain vehicles or on foot. A material ropeway was installed from Refugio Gilberti to the Funifor top station.

Both Bovec and Sella Nevea expect to see a huge boost to tourism.

¹ Municipality of Chiusaforte, Province of Udine

² As the haul ropes for both lines are driven independently, it is not necessary to provide a rescue carrier; in an emergency, passengers can be evacuated using the other track. A bridge is then used to enable passengers in the stranded cabin to cross to the cabin on the other side.

100 FUF Prevala

Transport capacity	1,300 PPH
Trip time	4.5 min
Speed	12.0 m/s
Cabins	2
Inclined length	1,524 m
Vertical rise	287 m
Towers	0
Drive	Bottom
Tension	Bottom



Elvio Antoniacomi, project manager at Promotur SPA, is delighted with the new

Doppelmayr Funifor. It also attracted enormous press coverage. Thanks to the new installation, tourism stands to gain on both the Italian and Slovenian sides of the border.

“Only Doppelmayr is still running!”

Venice will soon have a new transport link in the form of the CABLE Liner between the island of Tronchetto and Piazzale Roma on the edge of the historic quarter. And right from its inauguration on December 19, 2009, the people mover was able to prove itself in driving snow: “Only Doppelmayr is still running” was the headline in the Italian press.



Venice has to cope with huge traffic volumes. In addition to the usual traffic flows in and around the provincial capital and industrial center which is home to a quarter of a million inhabitants, the area attracts 15 million tourists on an annual basis!

Getting to grips with the proliferation of private cars

In view of the limited scope for accommodating the flood of cars in the two parking garages at Piazzale Roma, it was decided to redirect cars and buses to Tronchetto which has large parking facilities.

New possibilities for urban development

Tronchetto is an artificial island that was created decades ago through drainage and filling. Piers were built for the ferry connections to and from Pellestrina and Lido di Venezia, and large office buildings erected.

So what could be a more obvious solution than to put this area to a new use with the construction of new, modern buildings that would not only alleviate the shortage of parking facilities, but also address the lack of office space¹ in the center?

And besides, as the city fathers said to themselves, this would also enable the creation of retail premises and a new harbor.

Stress-free and emission-free trip to the city center

The “people mover”, as the Venetians like to call it, will provide a regular daily service between 6 am and 11 pm.

Lack of space meant that the system could only be built with a single track; the passing loop is located in the intermediate station. The elevated steel guideway



averages between five and seven meters above ground. The vehicles are fitted with low-noise rubber tires.

Three stations

The line has three stations. The Piazzale Roma station also acts as return station. The intermediate station Marittima lies on the shortest route between the historic quarter and the ferry port, and not far from the Marittima passenger terminal. This is one of the biggest and most important cruise ship ports in the entire Mediterranean. The drive system for the Cable Liner is located in the Tronchetto station.

Impressive architecture

Two bridges were erected, one across the Canale del Tronchetto – or Canale Columbuola, as it is known locally –



CLS Funicolare Terrestre Piazzale Roma – Tronchetto

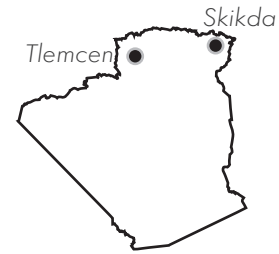
Transport capacity	3,000 pphpd
Trip time	3 min
Speed	8.0 m/s (29 km/h)
Vehicles	2 trains of 4 cars (50 passengers per car)
Length	830 m
Stations	3
Towers	52

and the other across the Canale Santa Chiara. The design of the bridge which crosses the Canale del Tronchetto is reminiscent of a seagull in flight. Both bridges were developed by Francesco Cocco, a well-known architect and designer, who also created the round steel-glass architecture of the stations.



¹ In recent years, the shortage of office space in the center of Venice has caused many public bodies and agencies as well as private companies to move their offices out to the city's periphery.

Cutting the ribbon for the "funicolare", Venice's new people mover, with 30 cm of fresh snow on the ground, driving snow and Siberian cold. From right to left: Mayor Massimo Cacciari; Undersecretary Mario Mantovani; the Patriarch of Venice, Cardinal Angelo Scola; Enrico Mingardi, City Councilor responsible for Transport; and Giorgio Nardo, President of ASM (Azienda Servizi Mobilità, a company belonging to the municipality of Venice; DCC's customer). The Cable Liner will open to the public in spring 2010.



Urban gondola lifts enjoy popularity in Algeria

Following on from Constantine (2008), the two gondola lifts in Skikda and Tlemcen have now been handed over to the customer.

The Algerian cities of Skikda and Tlemcen lie almost 800 kilometers apart: Skikda is located on the Algerian coast in the northeast and has 170,000 inhabitants. Tlemcen, in the heart of the Berber region amid the rugged Tell Atlas Mountains in the northwest, has a population of 130,000. Both cities have seen rapid growth. However, the density of buildings and the narrow, winding streets make it difficult to address public transport needs with buses or streetcars without major construction measures.

Alternative to buses and streetcars

From both the political and the financial viewpoint, aerial ropeways provide an alternative that is more easily implemented, particularly as they have long been accepted as a means of public transport in Algeria¹. Space requirements are largely limited to the tower locations and the stations.

Garaventa as general contractor

Garaventa acted as general contractor; the construction work was contracted out to Algerian companies and Algerian architects designed the stations.

Construction itself was not without difficulty. Material transport proved to be a particular challenge due to the long waiting times at the port of arrival caused by customs formalities and the fact that transport times from the coast to the interior were difficult to predict.

Difficult installation

Installation was performed using a mobile crane. It was not possible to em-

ploy a helicopter as the downwash of the blades would have blown over the flimsily built houses of the "bidonvilles" and scattered the household items which people keep on their flat roofs that serve as patios. Negotiating the winding alleyways of the city centers where the houses are built in very close proximity posed great difficulties when installing the rope.

The climate also called for special measures. The evener frame bearings, for example, had to be carefully covered to protect them against airborne sand from the Sahara. – The combination of lubricating oil and sand would act like an abrasive.

Background music and long operating times

The cabin PA system is used to provide background music. The operating times for the lifts are currently from 7 am to 8 pm in Tlemcen and from 7 am to 7 pm in Skikda; nighttime services are extended in the summer.

The ropeways are CEN-certified. The contract was awarded by EMA (Entreprise Métro d'Alger), a state-run com-

¹ Garaventa handed over a gondola lift for public transport in Constantine in 2008.



15-MGD	Tlemcen	Skikda
Transport capacity in PPH	1,500	2,000
Trip time in min	7.4	8.3
Speed in m/s	6	6
Interval in s	36	27
Stations	3	3
Cabins	25	37
Inclined length in m	1,689	1,985
Vertical rise in m	230	27.5
Towers	12	10
Drive	Top	Top
Tension	Bottom	Bottom

pany. The alignment of both systems is triangular and both have a mid station.

Gondola lifts have long been accepted as a means of public transport in Algeria’s congested cities. In Tlemcen (right), the base and mid stations are located in the city center and the upper station in an outlying district. Skikda (bottom): The mid station is located in the city, the terminals are situated on hills at the periphery.



Funicular Biel-Leubringen: Faster route for commuters



The funicular Biel-Leubringen has been completely modernized by Garaventa.

Leubringen in the Swiss canton of Bern is a suburb of the city of Biel/Bienne. The population of some 2,000 inhabitants is fairly evenly split between German and French speakers¹. Most of the residents commute to work in Biel.

The funicular was inaugurated² in 1898 and the mid station in the Beaumont district (city of Biel) added in 1905. The cabins were replaced in 1909.

In 1960, the funicular was automated and the wooden cabins were replaced by metal cabins for 80 passengers; the speed was now 5.0 m/s. A new, low-noise drive concept was introduced in



Operations manager
Josef Summermatter
has been with
FUNIC, the operating

company of the two neighboring funiculars Biel-Leubringen and Biel-Magglingen, since 1999; Magglingen, well known for the Federal Sports Center, belongs to the municipality of Leubringen. Josef Summermatter can look back on several funicular modernization projects with Garaventa. "We've always had an excellent working relationship. And whenever there was a problem, Garaventa was always on the spot. The same goes for all our contacts; my experience has always been positive – from the project manager to the fitter."

In addition to its importance for commuters, the funicular is also used by visitors to the Jura. Leubringen lies 300m above Lake Biel/Bienne.



Surface lift to the sun terrace



2003. Since then, an all-steel disk-pack coupling has been used to absorb the spring travel of the flexibly mounted main drive. The new, regulated service brake acts on the brake disk of the high-speed coupling. A 3-phase AC motor with forced ventilation is now used in the power unit.

Stations adapted for mobility-impaired passengers, tracks and vehicles replaced

In summer 2009, Garaventa modernized the funicular once again. The stations were converted to make them suitable for mobility-impaired passengers, the tracks dating from the 19th century were replaced and the almost 50-year-old cabins made way for vehicles with generously proportioned windows and mono-wheel carriages. To check the clearance in the tunnels, a 1:1 template was constructed and mounted on one of the old cabins, which was then run along the full length of the line. The drive control system and the remote technical monitoring of the cabins are also new. The refurbishment work began in May 2009 and took four months. Passenger service was shut down from July 6 to August 28. (A half-hourly bus service was provided in replacement).

¹ For that reason the French name "Evilar" is commonly used.

² Built by Von Roll Seilbahnen, which became part of the Doppelmayr Group in 1996

80-FUL Biel – Leubringen

Transport capacity	685 PPH
Trip time	4.0 min
Stopping time in stations	3 min
Speed	5.0 m/s
Carriers	2
Inclined length	920 m
Vertical rise	242 m
Drive 200 kW	Top

Garaventa installed a new platter lift in the ski resort of Nendaz (Switzerland).

The new Alpage platter lift lies in the heart of the ski area and replaces a 50-year-old T-bar. While the bottom terminal was moved a few meters uphill, the top terminal was retained in its original location. The lift line has also remained unchanged but is no longer crossed by skiers. Both terminal structures are new.

Families are welcome

Nendaz lies not far from Sion, capital of the Swiss canton of Valais. The municipality encompasses 18 villages. Nendaz is situated at an altitude of 1,400 m and provides a fascinating view of the 4,000 m Bernese, Valais and Vaud Alps. Together with the neighboring villages of Verbier, Thyon and Veysonnaz, Nendaz forms the skiers' and snowboarders' paradise known as "Les 4 Vallées" (92 lifts). The tourist village of Haute-Nendaz was awarded the Swiss Tourism Federation's quality seal "Families Welcome".

As Director Frédéric Glassey from Télénendaz sees it, the new surface lift has certainly lived up to expectations.

1-SL L'Alpage

Transport capacity	896 PPH
Trip time	5.4 min
Speed	3.0 m/s
Towing outfits	163
Interval	12.1 s
Inclined length	972 m
Vertical rise	295 m
Towers	12
Drive	Bottom
Tension	Top



Turkey: Wood effect finish for undercover



In January, Doppelmayr completed a 4-CLD in the Turkish ski resort of Konakli. Another is nearing completion. The station undercovers on these lifts are the first to incorporate a wood effect finish as a design feature.

Konakli is a new ski resort that lies to the south of the university city of Erzurum (360,000 inhabitants), capital of the largest province in Turkey's Eastern Anatolia region. It will start operations in winter 2010/11.

This will be the second ski resort in the region. Like Palandöken – a long-standing, popular ski resort in Turkey – Konakli is located on the side of the “mountain of mountains”, the 3,185 m Mount Palandöken.

Excellent public transport links

The two resorts are only separated by a mountain ridge and can be reached in a short bus journey from the city and from the airport. Up to now, no lift connection between the two resorts has been envisioned. Guests stay either in Erzurum or at one of the five hotels in Palandöken; Konakli itself has no hotels. However, both ski resorts have restaurants and ski shops as well as facilities for snowmaking.

Sole venue for the Winter Universiade 2011

The operator of both resorts is the Turkish Ski Federation, “Türkiye Kayak Federasyonu” (TKF). TKF is planning to stage the Winter Universiade 2011 exclusively in Konakli with the support of the International University Sports Federation (FISU).

The 4-CLD “Konakli A” was ready to operate in January 2010. It is the first Doppelmayr lift where the stations – including the undercover – are completely clad in steel with a wood effect finish.

Summer 2011 will see the completion of the 4-CLD, “Konakli C”. Both of these installations will serve an important role as feeder lifts.

Doppelmayr's agent in Turkey, Ungan Sanayi Tesisleri Ve Makinalari Müh, Tic, Ltd., Sti., acted as general contractor for both projects. The expansion of the

lift installations, trails and access roads is being carried out as part of a project to develop the winter sports corridor Erzurum-Erzincan-Kars, which the Turkish Ministry of Culture and Tourism has envisioned for the years 2009 to 2013.



Kurt Muhtar, General Director of the Palandöken and Konakli ski resorts, also works for the Turkish Ski

Federation: “We’ve had various Doppelmayr lift types in operation since the 1960s, and we’re sure that with proper maintenance they’ll virtually last forever!”

4-CLD Konakli Lift A

Transport capacity	1,200 PPH
Trip time	4.7 min
Speed	5.0 m/s
Chairs	43
Interval	12.0 s
Inclined length	1,209 m
Vertical rise	189 m
Towers	9
Drive	Bottom
Tension	Bottom

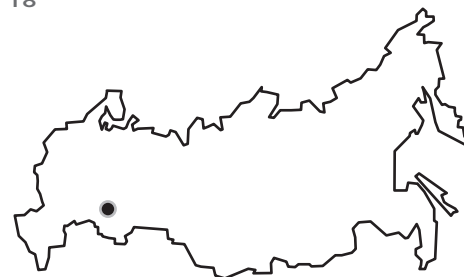
4-CLD Konakli Lift C

Transport capacity	2,378 PPH
Trip time	6.0 min
Speed	5.0 m/s
Chairs	118
Interval	6.0 s
Inclined length	1,702 m
Vertical rise	286 m
Towers	14
Drive	Bottom
Tension	Bottom



Konakli is to host the Winter Universiade 2011. In the longer term, the associated publicity is expected to bring about a 30% increase in the number of foreign winter sports visitors to Erzurum, Eastern Anatolia. The Winter Universiade is held in a different country every two years. Six disciplines, including alpine skiing, are standard. The host country can choose two optional disciplines. Erzurum is a popular vacation destination in the summer as well as in the winter. The guests are mainly from Turkey, Russia and Georgia.

Recreation area of Tuimazy



The industrial city Tuimazy in the Russian Republic of Bashkortostan can look forward to a modern, all-year recreation center. And it now has a quad chairlift from Doppelmayr.

Bashkortostan is rich in minerals. The most important of these are its large oil deposits which have earned the region the name of "second Baku". Tuimazy is a 30,000-inhabitant city in the heart of a densely populated industrial region. One of the large oil companies (OAO - Uraltehnostroy-Tuimazychim-masch) bought the former Turbase children's home at Lake Kandrakul and developed it into a large resort.



Winter sports enhance the quality of life for the industrial region of Tuimazy.

All-season recreation

This recreation area also has winter sports facilities. There is an attractive ski slope with snowmaking facilities and another is planned for the next season. The customer states two main reasons for entrusting construction of the chairlift to Doppelmayr: First, the operating company wanted the best and the most modern that the market had to offer, and second, they wanted a reliable partner. The positive experience of working with Doppelmayr not too far away in the ski resort of Almetyevsk (a major city in Tatarstan) certainly worked in Doppelmayr's favor. Moreover, Samara, where Skado (Doppelmayr Russia) is based, lies just five hours' drive from Tuimazy.

Doppelmayr as general contractor

Doppelmayr took charge of the overall planning of the ski resort and, as general contractor - with the involvement of local construction companies - installed not only the lift but also the infrastructure, from the snowmaking equipment through to floodlighting for the ski slope, the creation of a toboggan run and half pipes for snowboarders. At the same time, the lift was to be optimally integrated into the amenities for summer tourism.

4-CLF Tuimazy

Transport capacity	1,834 PPH
Trip time	2.7 min
Speed	2.3 m/s
Chairs	42
Interval	8.0 s
Inclined length	366 m
Vertical rise	76 m
Towers	4
Drive	Bottom
Tension	Bottom

Skiing near the Dnieper River



Cherkasy is a small city in central Ukraine. It was here that the “Sirius Sport Resort Wodjaniki” opened in 2008. The main attraction is the alpine skiing facility. Two Doppelmayr ropeways have been built here, a 4-CLF and a surface lift.

The Wodjaniki sports resort is a private enterprise. The operator, who now lives in the capital, Kiev, originates from the city of Cherkasy where he built up a large fruit processing plant. Initially, his prime interest – rather than any intention of making a profit – was to provide an all-year sports resort for the children of his home town; it was only later that the enterprise proved to be a money-earner.

The sports center was planned by WE-Consulting based in Millstättersee (Austria) and Kiev. The infrastructure for the winter season now essentially consists of three ski trails, a quad chairlift and a surface lift as well as – unique in Ukraine – a halfpipe and a fun park. This winter saw the addition of the third ski

trail, a snowmaking system, a ski school, cross-country ski runs, slides and other fun amenities.

It might come as a surprise that alpine skiing is possible in this area. The undulating landscape in fact possesses deep river valleys and rifts that provide good downhill runs. (The Great Plains of North America are similar in topography.) The skiing facility has been a great success. Crowds of people arrived from Kiev, which is just a three-hour drive away, despite the fact that operations had only begun on a provisional basis last winter. The demand was so great that a private travel agent organized a regular bus service. The sports resort is to be expanded. Several hundred hotel beds will soon be available, enabling guests to stay longer.



Installing the lifts in Cherkasy was a straightforward operation: the area has a good road infrastructure, the terrain is not difficult and the authorities are very helpful.

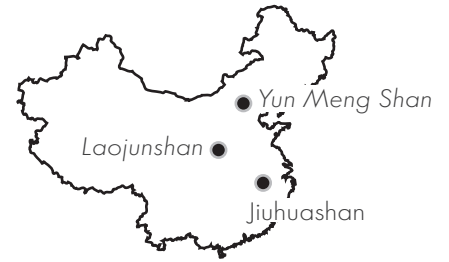
4-CLF Cherkasy 1

Transport capacity	1,976 PPH
Trip time	2.6 min
Speed	2.3 m/s
Chairs	44
Interval	7.3 s
Inclined length	356 m
Vertical rise	60 m
Towers	5
Drive	Bottom
Tension	Bottom

2-SL Cherkasy 2

Transport capacity	949 PPH
Trip time	2.2 min
Speed	2.8 m/s
Towing outfits	35
Interval	7.6 s
Inclined length	362 m
Vertical rise	46 m
Towers	4
Drive	Bottom
Tension	Bottom

China: 3 lifts in 3 idyllic landscapes



During the course of 2009 and at the beginning of 2010, Doppelmayr built 8-passenger gondola lifts in three of China's most well-known regions: in the Miyun region near Beijing, on Laojun Mountain in Henan Province and on Jiuhua Mountain in Anhui Province.

Miyun, with its huge reservoir, is a local recreation area for the inhabitants of Beijing. The lake was created in the 1960s. Its original purpose was to control the high waters of the major rivers Chaohe and Baihe, and to irrigate agricultural areas. Today, however, it acts as a drinking water reservoir for Beijing. A large part of the region is landscape conservation area.

Access to recreation area

Trips to local recreation areas are becoming increasingly attractive for Beijing's citizens: in a 2009 survey, 75 percent expressed the wish to go on short

trips. The new lift up to Yun Meng Shan, just a two-hour drive northeast of Beijing, caters precisely for this demand, particularly in view of the good public transport connections and the many hotels, private lodgings and historical buildings in the region, such as the oldest sections of the Great Wall.

Pilgrims and tourists

For tourists and Buddhist pilgrims alike, Jiuhuashan and Laojunshan are mountains of longing. Large numbers of visitors to the many hundreds of temples on Jiuhuashan come from as far away as South Korea and Japan. China's most fa-



mous poets have sung the praises of this enchanting landscape.

The Doppelmayr lift crosses impassable terrain and deep gorges with two long rope spans. For this reason, two winch-driven rescue systems were installed.

Approval for another lift

Jiuhuashan has two further ropeways which were built in 1999: a funicular from Girak (now a member of the Doppelmayr Group) and a pulsed movement aerial ropeway made in China. A project has already been approved to replace the pulsed movement installation in 2010.

Dangerous road trip in the winter can be avoided

The gondola lift up to Laojunshan is a great boon in the winter. In the past, there had only been a small chairlift which did not have anywhere near the capacity to cope with mass tourism. This made it necessary to use the road, a dangerous undertaking in the winter months when the road surface is icy.

Laojunshan is situated in Henan Province. Henan is regarded as the cradle of Chinese culture. Many emperors had their capital here, from the Xia Dynasty 3,500 years ago to the Jin Dynasty in the 13th century BC.

8-MGD Yun Meng Shan

Transport capacity	1,500 PPH
Trip time	8.0 min
Speed	6.0 m/s
Cabins	51
Interval	19.2 s
Inclined length	2,535 m
Vertical rise	621 m
Towers	11
Drive	Bottom
Tension	Top

8-MGD Jiuhuashan

Transport capacity	1,600 PPH
Trip time	9.1 min
Speed	6.0 m/s
Cabins	61
Interval	18.0 s
Inclined length	2,909 m
Vertical rise	823 m
Towers	16
Drive	Bottom
Tension	Top

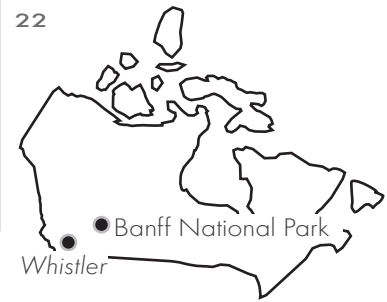
8-MGD Laojunshan

Transport capacity	1,200 PPH
Trip time	6.8 min
Speed	6.0 m/s
Cabins	35
Interval	24.0 s
Inclined length	2,114 m
Vertical rise	875 m
Towers	12
Drive	Bottom
Tension	Top

Doppelmayr success in China:
8-passenger gondola lifts
Jiuhuashan, Laojunshan



Temporary chairlift for Whistler



Doppelmayr CTEC installed a detachable quad chairlift in Whistler Creekside which was in service from mid-February to the end of March. Creekside was the venue for the alpine events at the 2010 Winter Olympics and Paralympics. In the spring, this lift will be taken down and moved to its permanent location in Banff National Park.

The bottom station of the temporary high-speed chairlift, known as the "Timing Flats Express", was located next to the base of the Creekside Gondola at the edge of Whistler Creekside Village. Running alongside the gondola, the chairlift covered the short distance up to the spectator area and finishing line of the Dave Murray race course; this is also due to be removed and relandscaped. Passengers on the Timing Flats Express – essentially spectators and journalists – travelled without skis.

4-CLD Whistler Timing Flats Express

Transport capacity	2,400 PPH
Trip time	2.2 min
Speed	5.0 m/s
Chairs	43
Interval	6.0 s
Inclined length	556 m
Vertical rise	131 m
Towers	8
Drive	Top
Tension	Top

Whistler is roughly 120 kilometers from Vancouver, the main venue for the Winter Olympics. During the Games, access to Whistler Blackcomb by private car was only possible for those with special permits (and proof that they also had a place to park). The number of room-nights showed a 20 percent increase over comparable periods in previous years.

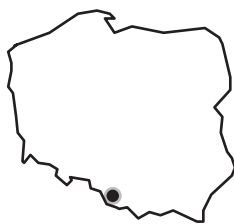
Final location in Banff National Park

Banff National Park is home to Sunshine Village Ski Resort, the final destination for the Timing Flats Express chairlift, and lies 530 kilometers to the west of Whistler (British Columbia) in the province of Alberta. The resort has skiing terrain on three mountains (3,300 acres) as well as offering 12 lifts, 107 trails and over nine meters of snow until well into the spring!

The new lift will replace the 35-year-old, three-passenger Strawberry Lift, which could only carry 1,520 passengers an hour towards the end of its service life. The old lift has been removed, the lift line lengthened slightly and a new top station will be built.



The decision to install a temporary high-speed chairlift was inspired by the need to create a fast means of transport to the 7,000-seat grandstand located 145 meters up from the base area.



4-CLF at the source of the Vistula

Throughout the planning and construction phases, meticulous attention was paid to the strict regulations which protect the natural landscape in Canada's snow resorts. To cause as little disturbance as possible, the top return station will be hauled over the snow to avoid damage to the foliage. The foundations are designed to minimize the amount of excavation required. Changes to the tower lengths and sheave assemblies have also been kept to a minimum. Because the rope is longer than at Whistler, Sunshine decided to purchase a new one to prevent an additional splice.

Lasting memory of the Olympics

Ralph Scurfield, President and CEO of Sunshine Village, is keen to emphasize the resort's commitment to protecting its natural resources. He explained to journalists that as well as minimizing costs, moving the lift and reinstalling it, rather than building a new one from scratch, will greatly reduce its environmental footprint. Environmental best practices will be employed during the installation and the greatest possible efficiency will be achieved in operation thanks to the latest lift technology. To quote Mr Scurfield in the Canadian press: "It is important to note that the people of the Bow Valley will have a lasting memory of the 2010 Games right here in their own community."

4-CLD Strawberry Express

Transport capacity	1,800 PPH
Trip time	2.9 min
Speed	5.1 m/s
Chairs	44
Interval	8.0 s
Inclined length	800 m
Vertical rise	137 m
Towers	10
Drive	Bottom
Tension	Bottom

Doppelmayr has installed a fixed-grip quad chairlift at the ski resort of Nowa Osada, in Poland's Beskid Mountains, not far from the town of Wisla. The response to the new lift has been excellent.

The Beskids are a range of low, wooded mountains. The 11,000-inhabitant town of Wisla lies in the Silesian Voivodeship (Province) which borders on the Czech Republic and Slovakia and belongs to an attractive all-year tourist region.

Many small ski resorts

A whole series of small but unconnected ski resorts are located in the Beskids. For the most part, these resorts are only served by surface lifts. The fact that Nowa Osada now boasts a fast, modern chairlift makes this already popular ski area on the 933 m Czulpel even more attractive, especially as the waiting times have been significantly reduced in comparison with the surface lift that was replaced. On good days, some 15,000 trips are recorded.

4-CLF Wisla Nowa Osada

Transport capacity	1,848 PPH
Trip time	5.7 min
Speed	2.6 m/s
Chairs	89
Interval	7.8 s
Inclined length	888 m
Vertical rise	188 m
Towers	10
Drive	Bottom
Tension	Bottom

Nowa Osada is typical of the region's resorts: two lifts (the small surface lift is 125 m long with a vertical rise of 26 m), two ski trails alongside the lifts (one is fairly short, the other is 1,500 m in length and divides in two places before merging again to form a single trail), a few farmhouses, a self-service restaurant, a small store for sports articles with ski service, a guesthouse and a parking lot.

Doppelmayr was the right choice

Wladislaw Sanecki, owner of the ski resort, took the decision to build a chairlift in 2009. "It didn't take us long to decide in favor of Doppelmayr and - with the added benefit of hindsight - I have to say that our decision was absolutely right."



Wladislaw Sanecki, proprietor of the Nowa Osada ski resort, is just as delighted with the new Doppelmayr lift as his

customers. In his view, "Doppelmayr is a company you can trust!" - And the new chairlift has also paid off in terms of operational efficiency: "That soon became clear once the lift had been in service for just a few weeks!"



Sun Valley's first gondola lift

In its 74th winter season, the US ski resort Sun Valley marked Thanksgiving Day 2009 with the opening of its very first gondola lift, the Roundhouse Express.



Sun Valley's Marketing Director Jack Sibbach proudly explains the significance of the project: "As well as realizing the biggest lift project in the US this winter, we can now also offer non-skiers the delights of a visit to Bald Mountain." – In particular, guests can enjoy year-round access to the historic Roundhouse Restaurant, built in 1939 and well known for the fine dining experience it provides.

Hotel in the heart of the ski resort

The Roundhouse Express Gondola, an 8-passenger LWI gondola lift, runs from the River Run Base Area in the heart of the ski resort to the slopes on Bald Mountain. Bald Mountain was previously accessed by two lifts: the 4-CLD River Run and the Exhibition chairlift (a triple built in 1977). The Roundhouse Express made the Exhibition chairlift superfluous. It was therefore taken down and moved to Discovery near Missoula, Montana. The top station of the Roundhouse Express is very near the top of the removed Exhibition Lift. However, this station was located closer to the Roundhouse Restaurant to make access to the restaurant more convenient for the guests. The new gondola bottom station is located directly adjacent to the main lodge at the River Run Base, providing a single lift ride to the mid mountain Roundhouse Restaurant.

Consideration for summer tourists during construction

During the construction phase, particular care was taken to minimize any interruptions to the resort's summer operations¹. Doppelmayr worked closely with the authorities on color selection, station platform design, landscaping and placement of the stations. The location of the top station had to address the needs of all lift users for fast, convenient access, whether for skiing, dining or hiking. Doppelmayr



CTEC, USA, was responsible for the ropeway equipment and lift foundations, while a local contractor supplied the storage building underneath the top station.

First chairlift in 1936

Sun Valley is the oldest year-round skiing tourist resort in the United States and home to the first chairlift in the world. Two chairlifts were built in 1936 and another in 1937, the latter of which is still standing.

Collaboration with Doppelmayr began in 1995 with the retrofitting of eight Yan detachable lifts. Then in 2007, two detachable chairlifts were built. – It

¹ The resort offers a wealth of spa facilities as well as sports amenities including golf, horse riding, hiking and tennis in the summer, sleigh rides in the winter, etc.



The Roundhouse Express Gondola was the only 8-MGD built in the US in 2009.

should be added that in 2001 Doppelmayr installed two 8-passenger gondolas and a detachable quad chairlift in SnowBasin in preparation for the 2002 Olympic Games in Salt Lake City. Both SnowBasin and Sun Valley ski resorts are part of the business empire owned by Robert Earl Holding.

Almost 31,000 lift users an hour

Sun Valley has two hotels and eight condominium developments offering some 1,200 beds. Eighty-five percent of guests come from the western part of the USA. During the winter season, the average visitor stays five to six nights, and during the summer the average guest stay is three to four days.

The resort has an uphill lift capacity of 30,500 passengers an hour. There are twenty lifts in total, 14 on Bald Mountain and six on Dollar Mountain. Sun Valley has 36.4 miles of trails. Two lifts operate during the summer season. These



Wally Huffman, Director of Resort Development at Sun Valley Company: "We looked at various lift manufacturers and concluded that Doppelmayr designs and builds a proven, dependable product. It also has to be said that a good working relationship has developed between Doppelmayr and Sun Valley."

run from the River Run Plaza extending to Lookout at the top of Bald Mountain for hikers and sightseers alike.

8-MGD Roundhouse Express Gondola

Transport capacity	2,400 PPH
Trip time	7.6 min
Speed	5.1 m/s
Cabins	56
Interval	12.0 s
Inclined length	1,993 m
Vertical rise	588 m
Towers	20
Drive	Top
Tension	Bottom

Two-speed gondola lift



Doppelmayr CTEC installed a gondola lift of the special kind between the base station in Tremblant village and the new casino on Mt. Tremblant. At the push of a button the lift can either be run at normal operating speed or in "comfort mode" (at reduced speed).

Both, the village and the resort Mt. Tremblant, are situated in the national park of the same name in the Canadian province of Quebec, roughly one and a half hours' drive northwest of Montreal. The region is totally geared toward tourism. In the winter, the 14 lifts and 95 ski trails are used by over 27,000 skiers and snowboarders an hour.

For casino guests and sports enthusiasts

In view of the fact that the Casino Express was to be used by both sports enthusiasts and casino guests, the operator Intrawest (one of the world's biggest tourist resort operators) had a very specific requirement. Loading and unloading had to offer even greater comfort than the usual high standard on Doppelmayr lifts. It had to be borne in mind that a high percentage of users would not be as physically fit as the average skier. And despite the limited space available for the stations, the lift design had to ensure high

transport capacity and high availability.

Faster or slower

The solution provided by Doppelmayr CTEC was the "comfort mode" system. In the shortened UNI-G stations, speed is reduced from 4 m/s (line) to 0.35 m/s, then two gondolas stop at the same time: one for loading, the other for unloading passengers. The spacing between gondolas is regulated automatically. If necessary, the lift can also be run at normal speed, in which case the gondolas slow down to 0.35 m/s in the stations but do not stop. The operator selects comfort or normal mode by simply actuating a switch; in addition, he can regulate transit speed in the stations and continuously adjust stopping times between eight and 14 seconds. It is also possible to extend the stopping times by reducing the number of gondolas in circulation. Transport capacity remains high in all operating modes: In comfort mode, it is only five percent lower than at normal speed!

8-MGD Casino Express

Transport capacity	1,280 PPH
Trip time	7.4 min
Speed	4.0 m/s
Cabins	31
Interval	30.5 s
Inclined length	1,528 m
Vertical rise	74 m
Towers	15
Drive	Top
Tension	Bottom



The new Casino Express 8-passenger gondola lift on the southern side of the 875 m Mt. Tremblant provides the most convenient route to the casino which opened in June 2009.

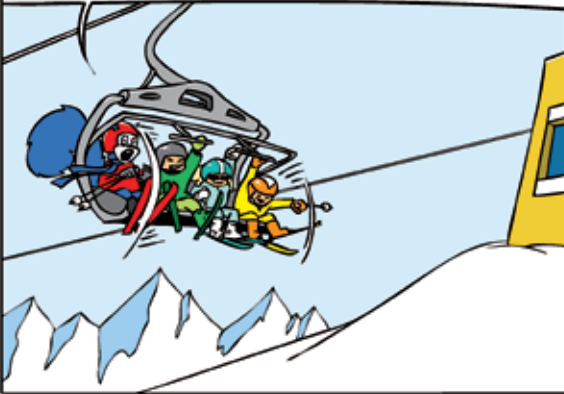
Ski fun with Skippy



Hi there, I'm Skippy!

I take a real close look to make sure children are safe. When I went skiing this year I often noticed that a lot of skiers open the bar much too soon. That's really dangerous.

No! Stop! Oh dear! What are you doing, kids? You can't open the bar yet!! That's much too soon!



Look - now's the right time. Now you can open the bar and nobody's in danger.



You can tell the grown-ups the right way to do it, as well! Bye! See you again soon!



Guess what happened to me! When I went skiing at Easter, a funny old raven came and perched on my gondola. It really made me laugh! And because I liked it so much, I decided to draw what happened. I even drew it twice! But the second picture is not quite the same as the first one. There are 10 little mistakes that make it different. Can you find them?

Maybe you would like to write and tell me all about the things you notice when you go skiing.

This is my email address: skippy@doppelmayr.com

RopeCon® wins IBJ Award



International Bulk Journal is the definitive magazine for the global dry bulk industry and awards prizes every year for exceptional achievements in this field. RopeCon®, a long-distance continuous conveyor for bulk material and unit load handling, was shortlisted in the "Innovative Technology" category. When it came to the final decision, Rope-

Con® was able to win through against four competitors. The judges considered the combination of belt conveyor and ropeway technology to be a system that opens up new perspectives in material transport. Hermann Frühstück, Managing Director of Doppelmayr Transport Technology, was presented with the award at the IBJ event in Amsterdam in November. Photo: Suzanne Bleau-Myrand, Marketing Manager of Fednav Limited, Canada (category sponsor), presenting the award to Hermann Frühstück. Right: Ray Girvan, publisher of International Bulk Journal.

Gondola lift enjoys 24 years of smooth operation

National Ski Areas Association Western Meeting in Steamboat Springs, Colorado. Mike Beeley, Vice President of Marketing at Doppelmayr CTEC, congratulated Doug Allen, Vice President Mountain Operations of Steamboat Ski Resort (Colorado), on the excellent maintenance program at Steamboat. In Mike's view, this has played a major role in enabling the Doppelmayr 8-passenger gondola lift to run safely and reliably for 24 years (75,000 hours).

Doppelmayr nominated for two Austrian state prizes

Doppelmayr's chairlift carrier with special safety function for children as well as a high level of comfort for adults was nominated for two Austrian state prizes:



one presented by the Ministry of Transport, the other by the Ministry of Economics. Photo: Innovation Award ceremony in Vienna: Manfred Österle (Carrier Design Department, Doppelmayr), Georg Man-

gott (former mayor of Serfaus and previously managing director of Seilbahnen Komperdell), Josef Sutter (Head of Engineering Section for Line Structures, Doppelmayr), Economy Minister Reinhold Mitterlehner, Christoph Hinteregger (Head of Engineering, Doppelmayr), Gerhard Gassner (Managing Director of Gassner Stahlbau, Doppelmayr Group).



Doppelmayr fan builds model ropeway



Roman Spelter, a 17-year-old mechatronics apprentice from Cologne, built a model of an 8-passenger gondola lift with mid station in his spare time. The undertaking took him 2,900 hours and cost 760 euros in materials. The model is based on a UNI-G with OMEGA cabins. The technical specifications of his "Top Express": transport length 26 m, vertical rise 5 m, 6 towers. Roman got to know lifts of this type during his summer vacations in Austria. In recognition of his impressive work, Doppelmayr invited him to a tour of the plant in Wolfurt.

Prize draw

The quiz question for the April 2010 prize draw is: **What is the name of the Doppelmayr mascot who keeps an eye on child safety?** Five digital picture frames are to be won. The judges' decision is final.

Please mail your answer to wir@doppelmayr.com by May 29, 2010, stating "Prize Draw" as the subject.

The correct answer to our prize draw question in issue No. 180 was: Riffelsee, Steibis, Schmittenhöhe. Three lucky winners have been drawn from the correct answers. Each wins an I-Pod. The winners are: Markus Müller, Neukirchen b. Hl. Blut (Germany), Doug Allen, Steamboat Springs (USA), Robert Leitner, Wolfurt (Austria). Congratulations to the winners!