

ELECTRICAL CLASSES:

E-1 Introduction to Basic Electricity

Mike Taylor • Keystone Resort

Tuesday - May 8, 2018 • 10:30 a.m. • Springhill - Main St

This course will cover the basics of electricity and will expand upon various electrical components typically found on ski lifts. Bring a calculator.

E-2 Introduction to the Usage of Digital Multi-Meter

Mike Taylor • Keystone Resort

Tuesday - May 8, 2018 • 1:00 p.m. • Spring Hill - Monument

You must bring a multi-meter to this class.

This course will cover the workings and usage of digital multi-meters.

E-3 Troubleshooting Comm-Lines and Mechanical Deropement Switches

Mike Taylor • Keystone Resort

Wednesday - May 9, 2018 • 10:30 a.m. • Parking Garage

This course utilizes a mock Comm-Line to demonstrate what type of faults can occur and how a digital multi-meter can be used to diagnose electrical problems. Prerequisite for this course is E-1 (Introduction to Basic Electricity) if one is not familiar with electrical power flow

E-4 Overhead Comm-Line Installation

Mike McMahon • Breckenridge Ski Resort

Wednesday - May 9, 2018 • 1:15 p.m. • Whitewater Creek

The presentation will be a hands on introduction to installing a Comm-Line. The presentation will show the steps needed to pull in a new Comm-Line, how to tension, and then how to "cut-in" a boot.

Hands-On Lab – E-12 Comm-Line Installation class is a prerequisite.

Each lab will be a hands-on session with 4-6 people. You will install a section of comm-line, tension it up and then cut in boot. 2-3 lab sessions will be offered. Sign up during E-12 class.

E-5 Using Vibration Analysis and Infrared Thermography to Monitor Machinery Health

Tim Williams • Vail Resorts, Inc.

Wednesday - May 9, 2018 • 10:30 a.m. • Hampton - Grand Room

Course will look at the benefits of Vibration Analysis and Infrared Thermography as technologies to include in a comprehensive preventive maintenance program. We will cover the basics of vibration analysis, the frequency spectrum and time waveforms, and the signatures of general faults such as misalignment, unbalance, gear mesh, bearing defects, and electric motor problems. We will also look at how Infrared technology can be used to diagnose electrical issues and prolong machinery life.

E-6 Lift Electric Roundtable

Todd Ruoff • Vail Mountain

Thursday - May 10, 2017 • 10:30 a.m. • Escalante Creek

Panel with Bob McDonnell

This is an open forum for all those who practice the "Dark Art of Lift Electronics". All skill levels are welcome. We will discuss all flavors of Lifts, Snowmaking, and other electrical challenges. Please bring your questions, ideas, and anything else you would like to talk about.

E-8 AC Motor Fundamentals & Best Maintenance Practices

Josh Brown • Integrated Power Services

Tuesday - May 8, 2018 • 10:30 a.m. • County/Elections Rm

Primary issues that will be covered are basic electric motor maintenance and A/C motor fundamentals. Intended audience would be maintenance personnel and reliability engineers. Takeaways from the class would include history of A/C power, best maintenance practices, and A/C motor fundamentals.

E-9 Fuseology: Overview, Application, and Selection

Bruce Dube • Intermountain Fuse Supply

Wednesday - May 9, 2018 • 3:00 p.m. • Fairfield - Mesa

What is a fuse? Why fuse? Types of Fuses? Fast or slow? Current Limiting? How do I size a fuse for a particular application? These questions and many more will be answered during the presentation. A short open book quiz including fuse and sizing problems will follow the presentation.

Class size will be limited to 25 students. "First come, first served"

E-10 Lightning and Surge Protection for Ski Lift Operations

Joe Lanzoni • Lightning Eliminators & Consultants, Inc.

Wednesday - May 9, 2018 • 1:15 p.m. • Fairfield - Mesa

Lightning can interrupt normal lift operations and damage related lift equipment. This presentation will explain how lightning forms and how electrical surges are created. It will also cover various lightning and surge protection equipment and techniques. And because grounding is an inherent part of lightning protection, and grounding is difficult in rocky locations, it will also cover grounding principles, techniques and test methods.

E-11 Low Voltage Control Circuits

3-Hour Class

Bruce Wyman • S-K-I Electric

Tuesday - May 8, 2018 • 1:00 p.m. • Plateau Creek

We will start with the symbols of the different electrical components and start to add the lines (wires) that connect them together forming series and parallel circuits resulting in a circuit diagram. The inter action of external control devices actuating the relays contained in the above circuits combine to control the electrical functions of the lift. As more components are added the basic circuits will come to light. The protocols for the layout of circuit diagrams will be explained and how to start to trace a circuit through a drawing.

E-12 D.C. Drives

Bruce Wyman • S-K-I Electric

Thursday - May 10, 2017 • 10:30 a.m. • Whitewater Creek

This class will go back to the basics of D.C. Drives. You will learn the fundamentals of D.C. Drives and see the relationship between voltage, current, and speed of D.C. drives. If you have this type of Drive, a must see.

E-13 Rope Position Detection (RPD) - Doppelmayr Systems

Mike Taylor • Keystone Resort

Thursday - May 10, 2017 • 8:30 a.m. • Fairfield - Mesa

This class will explain how proximity switches produced by Efector are utilized for haul rope location by Doppelmayr. The two methods of deropement detection (Matrix and Inherent tower) will be explained along with the troubleshooting of each system. There will be a demo of the Efector switch showing the function of the sensor.

E-14 DC Motors - Keeping the Revolution Alive

Michael Stuart • Amptech

Wednesday - May 9, 2018 • 3:00 p.m. • Whitewater Creek

This session will cover the basic theory, maintenance and troubleshooting of DC motors. Additionally, Michael will conduct an open, questions and answer forum to discuss situations electrical maintenance personnel confront on the mountain.

E-15 Ski Lift Auxiliary Diesel Engine Controls:

Modern Solutions for Legacy Systems

David Atwood • Winn-Marion, Inc.

Thursday - May 10, 2017 • 8:30 a.m. • Spring Hill - Monument

Many ski lift auxiliary diesel engines have legacy control systems with obsolete parts and inherent safety risks. The old Barber-Coleman ramp generators and speed governors are no longer available, and there are safety risks associated with the Normally Open EFC fuel actuators used on many of these engines. Operational flexibility is limited, and maintenance and troubleshooting of the system is often a troublesome effort. We will discuss these current problems along with solutions, and the benefits of upgrading to a modern control system. This class is intended for lift maintenance personnel, lift operators, and maintenance managers.

E-16 CPS's - Troubling Shooting Tower Faults

Sam Tryczak • Snowmass Ski Area

Thursday - May 10, 2017 • 8:30 a.m. • Springhill - Main St

This session will address Poma style C.P.S. faults including:

- Introduction to Trouble shooting
- 3-wire switches - 4-wire old style switches;
- 4-wire new style switches - 5-wire newest switches.

E-18 Networking and Communications

Matt Smolskis • TMMI

Tuesday - May 8, 2018 • 3:00 p.m. • Spring Hill - Monument

Panel with Ryan Henrichs

Ethernet network architecture, managed and unmanaged networks, network security.

E-19 Bearing Protection for Electric Motors

Randy Keener • Torq Engineering
Tuesday - May 8, 2018 • 3:00 p.m. • Fairfield - Mesa

Panel: Tom Leunig & Randy Keener

This presentation will cover the common causes of bearing failures in AC & DC motors resulting from induced electrical currents, especially prevalent when VFD drives are installed. The attendees will learn how to identify these bearing failures and how to address the problem. Identifying and implementing a solution will provide significantly reduced downtime and major cost savings from reduced motor failures. The presentation will feature a "hands on" format and demonstration.

E-20 Electrical Switches - Bridging the Gap Between Electrical and Mechanical

Matt Steel • Powder Mountain
Thursday - May 10, 2017 • 10:30 a.m. • Fairfield - Mesa

Without switches, the electrical control system wouldn't know what the mechanical system is doing. This session will look at different types and applications of mechanical, electro-mechanical and electronic switches. We will also cover switch logic, schematic symbols, and troubleshooting.

E-21 Applying Annex J Functional Safety 3-Hour Class

Chris Woller • Siemens
Wednesday - May 9, 2018 • 1:15 p.m. • Plateau Creek

Panel with: Greg Richards, Siemens and Will Hartmann, Skytrac

This class starts with an overview and education of applying Functional Safety to Machines. Then, we will present a variety of typical circuit examples, show how to determine Functional Safety Levels, and discuss the technology implemented with these devices. Focus is more on better understanding these devices to aid in the Troubleshooting and Maintenance of them. Application examples will be what is typically implemented and required from the ANSI B77 Standard. The teachers are long time experts in Functional Safety, and are prepared with lots of material to hopefully answer any questions that are generated from the group.

MAINTENANCE CLASSES:

M-1 Introduction to Wire Rope and Inspections

RJ Knight • Knight Equipment Co.
Tuesday - May 8, 2018 • 10:30 a.m. • Plateau Creek

Panel with Justin Knight

Terminology, constructions, and use. How wire rope is made: Basic inspection. What to look for during you weekly and monthly inspections. ANSI B77 Requirements.

M-3 Fastener Safety and Application Procedures

Mike Burgin • Lawson Products
Wednesday - May 9, 2018 • 3:00 p.m. • Hampton - Grand Room

Panel with Todd Nelson, Territory Sales Manager

Common causes and correction of fastener failures. The importance of matching the strength of fastener components, and recognized fastener standards. We will review recommended torque settings for fastener systems. Intended audience-Anyone that works on equipment or lift maintenance personnel. No specific tools, only requirement is their attention and wanting to learn more about these items.

M-4 Luff Rigging

Troy Frutiger • Vail Mountain
Wednesday - May 9, 2018 • 10:30 a.m. • Fairfield - Mesa

Rigging in the motor room can present some unique challenges. Low clearances and lack of overhead lifting beams are just a couple. Topics covered are Drifting loads from point A to point B, Sling tension calculations, D/d ratios, Leverage calculations, and Pulling force calculations.

M-5 Lifting, Pulling, & Rigging Basics

Mike Stephenson, P.E. • Stephenson Engineering, Ltd.
Tuesday - May 8, 2018 • 10:30 a.m. • Parking Classroom

Seasoned lift mechanics learn to appreciate the safety aspects of lifting, pulling, or rigging and understand the importance of knowing the weight of the object or load on the line before attempting to lift or move it. In far too many cases the technician simply guesses the load and hopes the rigging is up to the task, which can be a formula for disaster. This class will illustrate some simple rules-of-thumb, techniques to determine loads, methods to approximate the weight of objects and an explanation of the use of center of gravity for lifting and rigging. This class is intended for the novice lift technician, but veteran mechanics may also benefit from a refresher course. Bring your smart phone calculator to help solve some of the problems presented in the class.

M-7 Sheave Assembly Loads for Tower Rigging

Mike Stephenson, P.E. • Stephenson Engineering, Ltd.
Wednesday - May 9, 2018 • 1:15 p.m. • Springhill - Main St

Any mechanic who has experienced a near miss while rigging a tower to service the sheaves appreciates the importance of knowing the rope load before trying to lift it from the sheave assembly. Tower rope loads are usually provided by the lift manufacturer for a new chairlift, but how do you determine these loads for older lifts with missing or lost records? This class will review examples of incorrect rigging techniques and provide a simple method to determine the tension in the haul rope at any given tower to then derive the assembly load using the break-over angle of the rope over the sheave assemblies. Bring your smart phone calculator to help solve some of the problems presented in the class.

M-9 Old School Machinery Alignment 3-Hour Class

Brian Reihle • Vail Mountain
Tuesday - May 8, 2018 • 1:00 p.m. • Parking Classroom

Panel with Joe Klosterman Beaver Creek Lift Maintenance.

This class is by Mechanics for Mechanics, this is a hands-on open discussion class, and will be using an alignment simulator for instruction. Topics include: Types and causes of misalignment, alignment methods, Alignment preparation, soft foot. Moving the machine, simple alignment techniques, and precision alignment. Please bring your phone with a calculator. Limited to 18 participants. Sign up during check in.

M-10 Old School Cardan Shaft Alignment 3-Hour Class

Brian Reihle • Vail Mountain
Wednesday - May 9, 2018 • 1:15 p.m. • Parking Classroom

Panel with Ryan Portz, Vail Resorts Lift Mechanic.

This class is by Mechanics for Mechanics, This is a hands-on open discussion class, taught with an alignment simulator, Topics include: Cardan shaft overview, universal joint terms and operation, soft foot types and correction methods. Types and causes of misalignment in Cardan shafts, alignment methods for Cardan shafts, alignment preparation. Moving the machine to correct alignment, simple alignment techniques, and Cardan shaft operating angles and velocities. Limited to 18 participants, sign up during check-in.

M-11 Getting a Grasp on Fasteners: Confused and Bewildered, You Are Not Alone

Bob Lund • Fastenal
Tuesday - May 8, 2018 • 3:00 p.m. • Hampton - Grand Room

General assembly and maintenance teams will learn the importance of understanding lubricity in fastener assembly. We will discuss locking methods, both chemical and mechanical... what works and what doesn't. The general theme will be: Get it tight, keep it tight, and understand corrosion, all of which are much harder than you would expect.

M-12 High Pressure Hydraulic Safety Training

Rodman Flint • Enerpac
Wednesday - May 9, 2018 • 3:00 p.m. • County/Elections Rm

A Safety Seminar is a 1-1/2-hour semi-hands-on high-pressure hydraulic safety training class designed to bring awareness to common safety hazards of both reportable/non-reportable (OSHA & MSHA) conditions and product seen in the high force tools industry. The seminar discusses safety concerns when using 10,000psi equipment. Class participation is required in identifying and determining common misuse and proper set up. We also conduct a brief question & answer session at the end providing feedback to participants on current issues they may be experiencing. Maintenance, welding, electrical, metal working personnel will use our products. No tools are required to attend.

M-13 Artec Machine Gearbox Tips and Tricks

Steve Rogan • Artec Machine Systems
Wednesday - May 9, 2018 • 10:30 a.m. • Escalante Creek

This presentation will be an overview of gearbox history and theory including maintenances practices and modes of failures. The emphasis is on customers specific unites and questions with tips on preventive maintenance.

M-14 Belt Drive Optimization and Maintenance

Ben Huntoon • Gates Corporation
Tuesday - May 8, 2018 • 10:30 a.m. • Fairfield - Mesa

Maximize the performance and life of belt drives. Learn about the different types of belts and their application. Learn the best ways to inspect, install, and maintain belt drives. This training is for anyone that works on belt drives.

M-15 Introduction to Brakes - 101

Michael Lane • National Ski Areas Association
Tuesday - May 8, 2018 • 3:00 p.m. • Springhill - Main St

This class will look at the different types of brakes, their physical characteristics, components, and what the B77.1 standard requires and why. The session then applies the different brake types used on ropeways and attempts to give an overview to help you understand their operation, problems, rotation inertia (energy), brake curves as encyclopedias and a few misnomers as well.

M-16 Gearbox Inspections and Failures

Bruno Pfister • Kissling AG
Wednesday - May 9, 2018 • 1:15 p.m. • County/Elections Rm

We will present different types of gearboxes, introduce on how to inspect them and talk about the gear failures as well as bearing failures which can be found. This class is for mechanics or people interested in mechanics which want to gain more experience on gearbox inspections and failure evaluation.

M-17 The Basics of Hydraulic Mechanical Advantage

John Beckson • Keystone Resort
Thursday - May 10, 2017 • 10:30 a.m. • Springhill - Main St

This is by mechanics for mechanics. Basic math skills will be reviewed; including calculator use, basic algebra, and basic geometry. The crux of the presentation will be centered around Pascal's Law and how it applies to the use of hydraulic rams. Please bring a calculator, your phone is fine. This is a great refresher prior to Grant Ellis's "What's my tension? Don't have line calcs? We can help!" class.

M-18 Hydraulic Controls Brake Tension

3-Hour Class
William Hartman • Skytrac Inc.
Thursday - May 10, 2017 • 8:30 a.m. • Plateau Creek

*Training on hydraulic components, assemblies, diagrams, troubleshooting and theories for brake and tension systems.
3-Hour Class*

M-19 Bearing Maintenance & More - From the Manufacture

Michael Wernke • Schaeffler Group - FAG, INA, Barden
Tuesday - May 8, 2018 • 1:00 p.m. • Escalante Creek

*Panel with: Shawn Dunn
Have you ever wondered how to get the most out of your bearing installations? This class covers the fundamentals of achieving long bearing life, identifying and troubleshooting failures and operational issues. Bring your questions and examples (bearings, pictures, stories) to class for an interactive roundtable session with your real world examples*

M-20 Concerned About Aging Lifts and Other Mechanical Equipment?

Neville Sachs, PE, PLLC •
Wednesday - May 9, 2018 • 10:30 a.m. • County/Elections Rm

Many of our ski lifts are over thirty years old and much of our other machinery is aging. This presentation reviews the common causes of mechanical deterioration, what we can do to prevent further degradation, and some steps we can take to improve their mechanical reliability. It will include a section on how corrosion occurs, how it affects fatigue strength.

M-21 Failure Analysis of Ski Area Mechanical Equipment With Emphasis on Shafts and Fasteners

3-Hour Class
Neville Sachs, PE, PLLC •
Tuesday - May 8, 2018 • 1:00 p.m. • County/Elections Rm

The presentation starts by defining and showing examples of the physical, human, and latent roots (causes) of failures. It then goes into detail about how to diagnose the physical causes and includes a number of hands-on examples. The last portion of the class is a review of several ski area failures and how their diagnosis can lead to preventing additional equipment problems. Students are encouraged to bring failed parts to the class for hands-on analysis.

M-22 How and Why Accidents Happen

Neville Sachs, PE, PLLC •
Wednesday - May 9, 2018 • 3:00 p.m. • Escalante Creek

A review of the common causes of accidents looking at the human errors and systematic procedures (or lack of them) that cause accidents. In the class we'll discuss a number of practices that we can take both as individuals and supervisors to reduce the probability of future accidents. Included will be some ski area examples...

M-24 Loctite Workshop

Rick Stanley • Henkel Loctite
Tuesday - May 8, 2018 • 10:30 a.m. • Kannah Creek

The Loctite workshop will address the following: eliminating redundant repairs, minimizing chronic equipment failure, build equipment reliability from the ground up, lower maintenance costs, identify tools that make maintenance tasks easier and learn how to use Loctite tools through practice.

M-26 What's My Tension? Don't Have Line Calcs? We Can Help! 3-Hour Class

Logan Still • Vail Mountain
Thursday - May 10, 2017 • 8:30 a.m. • Hampton - Grand Room

*Panel with Troy Frutiger, Lift Maintenance, Vail Mountain
We will look at how calculate the tension on a haul rope at the location where you plan to install the rigging for a splice or project. Both hydraulic and counterweight systems will be reviewed and how to determine the initial tension in the rope plus the additional vertical component/calculated rope weight and chairs for the location along the lift line. Please bring your cell phone with a calculator.*

M-27 Manual Hoists and Cranes - "What's the Deal?"

Ken Gubanich • Denver Wire Rope
Tuesday - May 8, 2018 • 3:00 p.m. • Escalante Creek

We will demonstrate how we inspect, repair, & rebuild lever chain hoists. We will actually be taking a lever hoist apart inspect the parts, replace as necessary & reassemble.

GENERAL CLASSES:

G-1 Lift Maintenance, Quality Assurance, and NSAA's Lift Maintenance Resource Guide

Michael Lane • National Ski Areas Association
Tuesday - May 8, 2018 • 1:00 p.m. • Springhill - Main St

This class will look at the basics of what encompasses a lift maintenance program, how to build that program, and what activities, processes and procedures can be implemented to obtain "quality assurance". All of this including the soon to be released Lift Maintenance Resource Guide that is in development, all tied together to answer the simple question of why.

G-2 Knots - Slings - and Other Things

Sid Roslund • National Ski Areas Association
Tuesday - May 8, 2018 • 1:00 p.m. • Kannah Creek

*With Greg Baldacci- Park City
"Knot" is a term used to loosely describe any one of many ways to attach (cordage, rope, webbing) to an object. You only need to know about five basic knots that will hold the load and then come undone easily (without using a knife). We will also do an end splice and a back splice on a rope, a "Flemish" eye in a wire rope and build some other interesting slings.*

G-3 Work Carrier Safety

Brook Kasman • Stowe Mountain Resort
Wednesday - May 9, 2018 • 10:30 a.m. • Plateau Creek

*Panel with Travis Elmbald - Keystone Resort
You load them up and climb on, but have you done your homework? How much can they carry, have you done the grip maintenance, communication protocols, Lockout-Tagout? This open discussion will start with these items and end with a discussion of the changes for Work Carriers in the new ANSI B77.1-2017 Standard.*

G-4 Leitner-Poma of America - Manufacturers Session

Rod Stocking • Leitner-Poma of America, Inc.
Wednesday - May 9, 2018 • 10:30 a.m. • Springhill - Main St

Interactive discussion with engineering and service staff regarding the products and services we offer, annual and periodic maintenance procedures, problem resolution. Session intended for current and prospective lift users/operators. Rod Stocking-Service Manager, Jeremiah Frazier-Electrical Service Engineer, Jeff Copeland-Design Engineer, Nelson TUSBERG-Design Engineer, Charles Atchison-Electrical Engineer, Wyatt Breed-Sales Representative,

- G-6 Doppelmayr USA - MFG Session**
Planetary Gearbox Concepts
Paul Ehlert • Doppelmayr USA, Inc.
Wednesday - May 9, 2018 • 1:15 p.m. • Escalante Creek
Panel with Gary Mayo and Daniel Richer
We will discuss the following:
- Types of CAT planetary drives - How to identify important differences for maintenance;
 - Failure modes - What has happened to others, what have you experienced/
 - Accessibility without removing the rope - Safety precautions;
 - What to inspect and how;
 - Other failure prevention measures.
- G-7 Basic Mathematics for Lift Maintenance and Operations**
(Just Another Tool)
Darren Brungardt • Colorado Mountain College
Tuesday - May 8, 2018 • 3:00 p.m. • Kannah Creek
Team Taught with Brooke Kasman.
Bring a simple calculator +/- SQ Root (Check your cell phone)
This class will look at the math and formulas you need for routine operations and Maintenance of ski lifts. The class will go through the building blocks of area, volume, speed, time and then put them together with practical examples of usage at ski areas..
- G-9 Advanced Ski Lift Math and Physics**
Michael Lane • National Ski Areas Association
Wednesday - May 9, 2018 • 1:15 p.m. • Spring Hill - Monument
Bring a simple calculator +/- SQ Root (Check your cell phone)
This class will move beyond basics and will start with fundamental tensions, tower/sheave loading, rope angles, radial acceleration, grip slip forces, torque, and horsepower requirements as a few examples. From these aspects the class then can expand on drive terminal locations, loss of tension issues, simple rigging, and lift inertia.
- G-11 Lift Maintenance Safety 101 ½**
Frank Fidler • Steamboat Ski and Resort
Tuesday - May 8, 2018 • 10:30 a.m. • Escalante Creek
Panel With Mike Twede
Working safely in a dangerous environment. This session will look at preventative measures and procedures that can potentially reduce the exposure to risk technicians face as they perform maintenance on ropeway equipment. We will touch on the most dangerous aspects of our jobs with a slight emphasis on tower work. It will be a roundtable style session building off of questions and comments.
- G-12 NDT/UT Roundtable Discussion Emphasizing Ultrasonic Inspection for the Ski Industry**
Greg Floor • Wasatch NDT LLC
Wednesday - May 9, 2018 • 3:00 p.m. • Spring Hill - Monument
Topics for the discussion will be scope standardization, longitudinal and shear wave applications, specific ski lift parts that we inspect using UT and comparisons between analog and digital ultrasonic flaw detector equipment. This discussion is intended for those have received UT training and are involved with UT inspection although a trainee may attend if their sights are set on future UT training. The instructor hopes that attendees will be able to contribute to the 'shop talk' that this roundtable will afford. Attendees are welcome to bring their UT equipment to use during the roundtable.
- G-13 Detachable Mechanical Roundtable**
What We Are Seeing?
Scott Uren • Keystone
Thursday - May 10, 2017 • 10:30 a.m. • Kannah Creek
This class will be an open discussion on what issues we are seeing on our detachable, and what tools, practices, and changes are we seeing/doing. There are some older detachables out there! Let's talk about the challenges everyone is dealing with to keep them going and what mechanics/management are doing to deal with the issues. What behind the scenes challenges are you seeing with all the new bells and whistles? No topic is off limits!! Be ready to bring your problems/comments to the class to help exchange ideas or problems for some good discussions.
- G-14 Does This Happen At Your Area?**
Older Fixed Grip Mechanical Roundtable
Scott Uren • Keystone
Tuesday - May 8, 2018 • 1:00 p.m. • Hampton - Grand Room
This session will initially look at the following issues, but will branch out as questions are raised.
- Spacing of chairs and removal of chairs on older lifts;
 - Reduce Gauge bullwheel to tower alignments;
 - Slip Testing of grips.
- G-15 The adoption of the new 2017 ANSI for Colorado**
Larry Smith • CPTSB
Thursday - May 10, 2017 • 8:30 a.m. • Whitewater Creek
What's new, what's hot and what's not, and how it all fits together for new and existing tramways.
- G-16 Tax Advantages for Updating Aging Equipment**
Dave Byrd • National Ski Areas Association
Wednesday - May 9, 2018 • 1:15 p.m. • Kannah Creek
This class will take a look at the new Administrations tax policies that provide a limited time opportunity to invest in aging lifts and other capital extensive projects. The time has not been better to upgrade.
- G-20 OITAF-NACS**
2-Papers from the Silverton Symposium
Tom Scully • Safehold Special Risk
Tuesday - May 8, 2018 • 10:30 a.m. • Spring Hill - Monument
OITAF-NACS holds a Symposium every 2-years where Technical Papers on Ropeways are presented and discussed.
2 papers will be presented as an opportunity for attendees to experience the technical presentations.
Each paper presentation is 30-minutes long with 15-minutes of discussion following.
Paper 1 - The Changing Culture of Chairlift Passenger Safety - Tom Scully
Paper 2 - Relocation of RIT Track Cables in New York City - Sid Roslund
See separate page at www.rmla.org/registration for abstracts of papers to be presented.
- G-21 Tail Gate Session - Conveyor Safety**
Michael Lane • National Ski Areas Association
Thursday - May 10, 2017 • 8:30 a.m. • Escalante Creek
This round table tail gate session with Dave Kelly, Peter Kavanagh will focus on , steps, processes, procedures and potential long term work items that can be implemented, created or used to ensure all of our personnel make it home each night. We need to change our culture.
- G-22 Magic Carpet Conveyors**
Dave Kelly • Magic Carpet Lifts/RMCE, Inc.
Wednesday - May 9, 2018 • 1:15 p.m. • Hampton - Grand Room
Dave Kelly will lead a discussion on Magic Carpet Conveyors, Safety, and New Technologies.
- G-23 State of Colorado Amusement Device Safety Program**
Scott Narreau • State of Colorado Amusement Device Program
Wednesday - May 9, 2018 • 3:00 p.m. • Springhill - Main St
Overview of the rules and requirements for the safe operation of Amusement Devices.
- G-24 Record Keeping for Lifts**
Beyond Satisfying Our Lift Inspectors
Bob Ackland • Steep Management
Wednesday - May 9, 2018 • 10:30 a.m. • Spring Hill - Monument
The intent is not to focus on the more notable reason for record keeping, legal, defenses etc., but rather the inherent value knowing where one is creates purpose and leads to better quality.
- G-25 Accountability in Maintenance**
Bob Ackland • Steep Management
Thursday - May 10, 2017 • 10:30 a.m. • County/Elections Rm
Understanding the value of accountability in our lift maintenance programs. It is the teaching opportunity to improve the performance of a lift maintenance department. This course is intended for all but mainly supervisors and managers of maintenance departments.

OPERATIONS CLASSES:

- OP-1 B77.1 - Operational Responsibilities Alignment of Your Documents with the new B77.1-2017 Ropeway Standard**
Paul Rauschke • Colorado Mountain College
Wednesday - May 9, 2018 • 10:30 a.m. • Whitewater Creek
Operational and Maintenance Impacts of the new B77.1-2017 Ropeway Standard
This session will focus upon the operational and maintenance impacts of the changes resulting from the adoption of B77.1-2017. Tips on navigation and use of the Standard will also be provided.
- OP-3 Guest Services: Making the Connection**
Kyle Gornell • Steamboat Ski & Resort Corporation
Tuesday - May 8, 2018 • 1:00 p.m. • Fairfield - Mesa
This class will be a more in depth look into guest service. Topics will include a discussion of tips and techniques for making better connections with both guests and con-workers.
- OP-4 Employee Satisfaction and Retention**
Jessica Caskey • Taos Ski Valley, Inc.
Tuesday - May 8, 2018 • 10:30 a.m. • Whitewater Creek
Tips and tools to make you the most popular manager at the mountain.
- OP-5 Crucial Conversations**
Jessica Caskey • Taos Ski Valley, Inc.
Thursday - May 10, 2017 • 8:30 a.m. • Kannah Creek
Water cooler talk and gossip isn't cool, it's cruel. Be cool...lean into conflict and tackle those tough conversations!
- OP-6 Leading with Accountability**
Jessica Caskey • Taos Ski Valley, Inc.
Wednesday - May 9, 2018 • 10:30 a.m. • Kannah Creek
Don't you hate when you ask for follow-up and it never happens? How about setting deadlines and they're never met? Or holding a colleague responsible yet they let you down? Don't be that person! Learn how to be a great leader through the practice of Accountability.
- OP-7 OSHA**
Ashley Ryland • Taos Ski Valley, Inc.
Tuesday - May 8, 2018 • 1:00 p.m. • Whitewater Creek
Be an OSHA Champion. Make OSHA less daunting with our 2018 updates, tips for surviving an inspection and great ideas for setting your teams up for success!
- OP-8 Work Comp - From a Supervisor and Employee Perspective**
Ashley Ryland • Taos Ski Valley, Inc.
Wednesday - May 9, 2018 • 3:00 p.m. • Kannah Creek
We're here to remove the stigma of Work Comp! Join us as we walk through the workers comp process and learn how to share our warm and fuzzy side all while being compliant.
- OP-9 Summer Operations - What You Need to Know.**
Brian Rosser • MountainGuard Insurance Program
Thursday - May 10, 2017 • 10:30 a.m. • Colorado Credit Union
Summer operations come with their own unique challenges and operational issues that are very much different than Winter. This session will cover the unique challenges that areas are faced with and practical solutions to address summer activities.
- OP-10 Lift Operations Roundtable**
Jeff Marzka • Park City Mountain Resort
Mike Gierach • Crested Butte Mountain Resort
Tuesday - May 8, 2018 • 3:00 p.m. • Whitewater Creek
Wrap up the first day of the RMLA Conference by attending this class ! This session will serve as a sounding board for Lift Operations Supervisors and Managers to get answers to those troubling questions that have arisen over the past season. Bring your questions and problems and we can discuss potential solutions that other areas have tried. Have an idea for a class that you would like to see at a future Conference? This is a great opportunity to present your idea and get input from others in the Industry. Everyone is encouraged to attend! This session will be followed by an informal meet & greet in the Whitewater Room and Convention Center Lobby.

SUPERVISOR CLASSES:

- SV-1 Small Ski Area Roundtable**
Andy Birch • Ski Granby Ranch
Tuesday - May 8, 2018 • 10:30 a.m. • Colorado Credit Union
This will be an open discussion to look at issues and potential answers for personnel involved with small ski areas.
- SV-3 Employee Wellness and Its Effects on Performance and Retention**
Darren Northwood • Park City Mountain
Thursday - May 10, 2017 • 8:30 a.m. • County/Elections Rm
Panel with Chris Lusby, Senior Supervisor Lift Operations, Park City
We all struggle to staff every season and this puts a strain on the people who are working for us. How do we take care of those people? How do we keep them engaged? Employee wellness is not just about rewarding performance, it is about development, building trust, motivating and giving back to your employees. You are investing in your employees and this is proven to help with staff retention.
- SV-4 3D: Discipline, Documentation, and Difficult Conversations**
Jennifer Law • Vail Mountain
Tuesday - May 8, 2018 • 1:00 p.m. • Colorado Credit Union
3D: As one mountain operations leader put it, this was the best and most practical class I have ever had as a supervisor. During this hands on and interactive session, we will use a common scenario to walk through how to successfully identify the difference between coaching and discipline, how to make observations instead of inferences and communicate with your teammates, co-workers and staff to build a strong work environment.
- SV-5 Mechanics of Teamwork and Communication**
Jennifer Law • Vail Mountain
Tuesday - May 8, 2018 • 3:00 p.m. • Colorado Credit Union
Mechanics: Do you love building things and playing with Legos and/or do you wish you could communicate better or develop a stronger team? Then this session is for you! With some fun interaction, participants will dive into the challenges around good communication and how to be a better listener. We will explore communication challenges and ways to communicate to build a stronger team.
- SV-6 Leadership in Safety 3-Hour Class**
Michael Walker • Park City Mountain
Wednesday - May 9, 2018 • 1:15 p.m. • Colorado Credit Union
This discussion will include leadership lessons, mitigating risks, overcoming obstacles, and improving on wins and opportunities.
Part - 1 will focus on creating a safety culture. This starts with self-awareness and how to set the tone for your team. Then we will discuss how to analyze your team and find the areas where change and influence can occur.
Part - 2 will be a leadership discussion with safety being the focus. It will break down how to strategically assess risks and mitigate them, how your team's focus can lead to complacency, and how to manage safety policies effectively. It will end with a discussion on evaluating performance, and utilizing that data to make improvements.
- SV-7 Hot Topics in Ski Area Liability**
Brian Rosser • MountainGuard Insurance
Thursday - May 10, 2017 • 8:30 a.m. • Colorado Credit Union
This session will focus on a broad overview of current industry risk management and legal considerations that directly impact your departments. Review of cases that highlight industry issues and good investigation and documentation practices.