Maryland State Police
“Sheared Cable”

- During a night training evolution
- Planning on a Basket only drop to a confined area
- Hoist operator was using the hoist light as a search light when the bridge of his finger raised the shear cover shearing the cable
The Design
As a result...

• Discussions with manufactures
• Switch “Guard”
• Hoist light is a hoist light and not a search light
• Hoist operator verbal and visual confirmation
• Once evolution started – NO manipulations made
“Fix”
Santa Barbara County Sheriff’s Office

- Hoist Malfunction
- July 2, 2015
- Marijuana Eradication
- Extrication via hoist
- Crew Chief noticed the hoist was faster than normal and that the pendant was not responding to his inputs
Santa Barbara County Sheriff’s Office

- Alerted the pilot who overrode the hoist DOWN
- Hoist lowered faster than normal
- Subject landed faster than normal
- Hoist was removed from service
Los Angeles County Fire
August 16, 2015

- Montebello Fire
- HeloCo
- Dual Engine Failure
- 3 on board minor injuries
Travis County STAR Flight
April 27, 2015

• Kristin McLain
Night search for missing and injured hiker on the Barton Creek Greenbelt

Crew located and directed ground personnel to the victim

*STAR Flight* requested to perform a hoist extrication of a injured patient
Travis County STAR Flight

- Uneventful insertion
- During extrication a slow spin started
- Crew initiated forward air speed
- As the spin stopped, Kristin was observed to be riding lower than normal, then fell from the line
Equipment Used During Incident
Mountain Club of South Africa
Search and Rescue
June 2013

• Hoist Training Event
• 2 SAR volunteers being hoisted
• ~8-10 M, flat terrain, 1 member fell sustaining severe injuries
MCSA

- Victim failed to connect himself to the hoist hook
- Inadequate safety checks
- Checked the number of carabiners that should be connected to the hoist hook
- Failed to account for an extra carabiner attached to rope bag
Hoist configuration with the five primary connecting carabiners as expected by the hoist buddy
(for illustrative and explanatory purposes only based on interviews and submitted photos)

- Helicopter hoist hook
- Victim's main carabiner
- Two carabiners for the rope bag and Victim's backpack connected to the victim’s main carabiner
- Victim's Short Cow's Tail
- Victim's long cow's tail and carabiner (not used and stowed away e.g. by clipping to harness gear loop)
- Hoist Buddy’s main carabiner (i.e. the hoist connecting carabiner)
- Hoist Buddy’s backpack carabiner
- Hoist Buddy’s short cow's tail
- Buddy’s harness
- Victim’s harness
- Buddy’s backpack
- Victim’s backpack
- Rope bag
- Rope bag and connecting carabiner on very short sling clipped to Victim's top carabiner
- Hoist Buddy’s long cow’s tail and carabiner (not used and stowed away e.g. by clipping to harness gear loop)
Actual hoist configuration showing 5 carabiners connected to the hoist which excludes the Victim’s main hoist safety connection carabiner (illustrative and explanatory purposes only based on interviews and submitted photos)

- Hoist Buddy’s main carabiner (i.e., the hoist connecting carabiner)
- Hoist Buddy’s backpack carabiner
- Victim’s backpack carabiner with rope bag carabiner clipped directly to Hoist Buddy’s main carabiner
- Victim’s long cow’s tail carabiner (not used and stowed away e.g., by clipping to harness gear loop)
- Victim’s short cow’s tail carabiner (not connected to the hoist buddy’s main carabiner)
- Hoist Buddy’s short cow’s tail carabiner
- Hoist Buddy’s long cow’s tail carabiner (not used and stowed by clipping to harness gear loop)
- Rope bag carabiner clipped through the rope bag
- Redundant carabiner on short sling
- Victim’s harness
- Buddy’s harness
- Rope bag
- Victim’s backpack
- Victim’s backpack
- Victim’s harness
MCSA

- At commencement of hoist victim was holding on
- Victim weight partially supported by sitting on packs
- Upon arrival at helicopter unable to hold on
- Personnel on ground noticed something wrong but did not have communications with the aircraft
Mexico Rappel
Utah State Police

- Wasatch Front, Lone Peak, SW of Salt Lake City, Utah
- Night time search for missing hiker
- Victim located in the morning
- 3 one skid insertion of 5 SAR personnel
- Victim deceased
- Lowered to insertion extrication site