

The Reindeer Handler

Dedicated to health and promotion of
reindeer husbandry.

Edition #6

August 2021



Table of Contents

Science Article links.....pg 2

Welcome to RFA (Reindeer Farmers Association) pg 3

Fun Facts by the FDA.....Pg 4-6

Technology corner.....pg 7-9

Legal updates.....pg 10

Science Links

Topic Rut

Depo (medroxyprogesterone) use plus dosing for unmanageable. Bulls

https://academic.oup.com/tas/article/2/suppl_1/S94/510834

6

Rutting behavior in. bulls

<https://www.sciencedirect.com/science/article/abs/pii/S0033476264901174>

AI in reindeer by Dr. Isaac Bott

<http://zslpublications.onlinelibrary.wiley.com/doi/abs/10.1111/1/j.1469-7998.1973.tb05065x>

Ancient Reindeer DNA

<https://www.sciencedirect.com/science/article/abs/pii/S1040618210003137>

Welcome RFA



September 24th & 25th in Canton Illinois

Hosted by Snowman's Reindeer Farm

Scott and Tracy Snowman

RFA is the endeavor of reindeer farmers and info
can be found at

<https://reindeerfarmersassociation.godaddy.com>

pg. 3

Fun facts from the FDA

<https://www.fda.gov/animal-veterinary/animal-health-literacy/fun-facts-about-reindeer-and-caribou>

Fun Facts about Reindeer and Caribou

CVM's [Office of Minor Use and Minor Species Animal Drug Development](#) (OMUMS for short) works hard to make sure safe and effective drugs are available for minor species, like Santa's reindeer (or are they caribou?).

- Reindeer and caribou are the same animal (*Rangifer tarandus*) and are a member of the deer family. In Europe, they are called reindeer. In North America, the animals are called caribou if they are wild and reindeer if they are domesticated.
- Both male and female reindeer grow antlers, while in most other deer species, only the males have antlers. Compared to their body size, reindeer have the largest and heaviest antlers of all living deer species. A male's antlers can be up to 51 inches long, and a female's antlers can reach 20 inches.
- Unlike horns, antlers fall off and grow back larger each year. Male reindeer begin to grow antlers in February and female reindeer in May. Both sexes finish growing their antlers at the same time but shed them at different times of the year. Males drop their antlers in November, leaving them without antlers until the following spring, while females keep their antlers through the winter until their calves are born in May.
- Reindeer are covered in hair from their nose to the bottom of their feet (hooves). The hairy hooves may look funny, but they give reindeer a good grip when walking on frozen ground, ice, mud, and snow.
- Reindeer are the only deer species to have hair completely covering their nose. Their specialized nose helps to warm incoming cold air before it enters their lungs,

and it's also an excellent sniffer. Their good sense of smell helps the reindeer find food hidden under snow, locate danger, and recognize direction. Reindeer mainly travel into the wind so they can pick up scents.

- Reindeer eat mosses, herbs, ferns, grasses, and the shoots and leaves of shrubs and trees, especially willow and birch. In winter, they make do with lichen (also called reindeer moss) and fungi, scraping the snow away with their hooves to get it. An average adult reindeer eats 9 to 18 pounds of vegetation a day.
- Reindeer travel, feed, and rest together throughout the day in herds of 10 to a few hundred. In spring, they may form super-herds of 50,000 to 500,000 animals. The herds generally follow food sources, traveling south up to 1,000 miles when food is hard to find in winter.
- Reindeer are the only deer species to be widely domesticated. They are used as beasts of burden and farmed for their milk, meat, and hides.
- The antiparasitic drug ivermectin is FDA-approved to treat and control warbles in reindeer. Warbles is a parasitic infection caused by the reindeer warble fly. The fly's larvae can penetrate the reindeers' skin, causing harm to the milk, meat, and hides of domesticated herds. The larvae can also cause disease in people.
- Santa's reindeer were first mentioned in 1821 when New York printer William Gilley published a 16-page booklet titled *A New Year's Present to the Little Ones from Five to Twelve, Part III* by an anonymous author:

*Old Santeclaus with much delight
His reindeer drives this frosty night.
O'er chimneytops, and tracks of snow,
To bring his yearly gifts to you.*

Two years later, in 1823, the Troy Sentinel published the poem *A Visit from St. Nicholas*, commonly known as *'Twas the Night Before Christmas*. The poem featured eight flying reindeer pulling Santa's sleigh, and for the first time, they are identified by name. **(Quiz Question 1: Can you name all eight of Santa's reindeer?)**

Rudolph the Red-Nosed Reindeer began guiding Santa's sleigh in 1939, when Robert L. May wrote the story of "the most famous reindeer of all" as a Christmas coloring book for his employer, the department store Montgomery Ward. The company gave away the coloring books as holiday gifts to children to entice their parents to visit and shop at the store. **(Quiz Question 2: What two names did May consider for his red-nosed reindeer before settling on Rudolph?)**

In 1948, May's brother-in-law Johnny Marks made the story into a song. It was featured in a cartoon shown in movie theaters, but wasn't released as a stand-alone recording until 1949 when "The Singing Cowboy" Gene Autry recorded the song and its popularity soared. *Rudolph the Red-Nosed Reindeer* is one of the biggest-selling Christmas songs of all time. **(Quiz Question 3: Is Rudolph the Red-Nosed Reindeer a male or female?)**

Quiz Answers:

1. Dasher, Dancer, Prancer, Vixen, Comet, Cupid, Donner, and Blitzen.
2. Rollo and Reginald.
3. Rudolph the Red-Nosed Reindeer must be a female to have those antlers on Christmas Eve!

Sources:

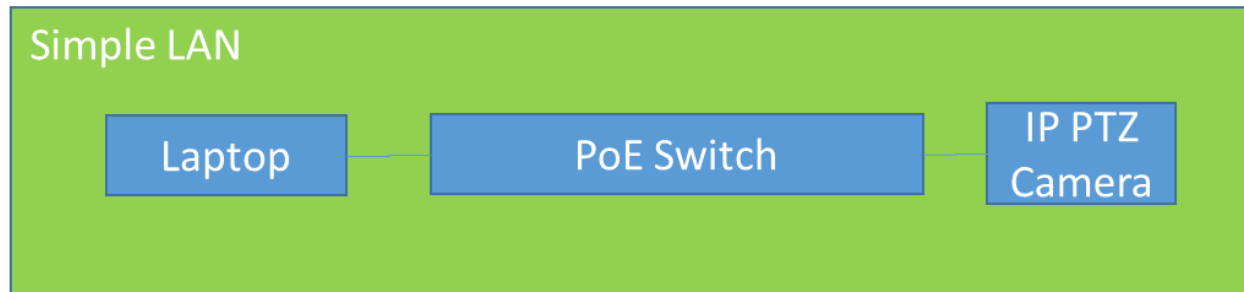
[San Diego Zoo, Reindeer \(Caribou\)External Link Disclaimer](#)

[Altogether Christmas, The History of Santa's ReindeerExternal Link Disclaimer](#)

[Altogether Christmas, The History of Rudolph the Red-Nosed ReindeerExternal Link Disclaimer](#)

Today, we will be building on the initial simple design from the first article. Without much feedback from the reindeer farming community, I have chosen to look at power and storage. Please reach out to me with any questions you want answered or topics to cover at scott@aphorpcconsulting.com for future articles.

Previous simple LAN design

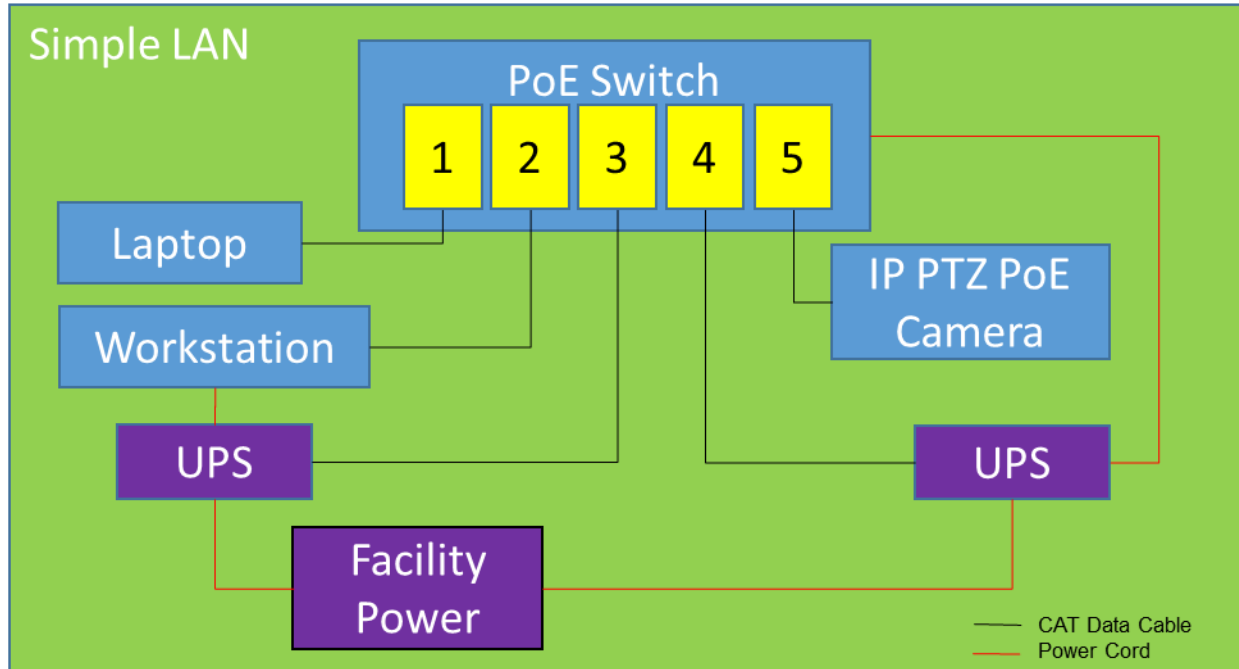


Let's add power conditioning and backup to the design. Commonly, the way this is achieved is through the addition of uninterruptable power supplies (UPS). These units commonly condition your electric provider's power to insure it meets voltage (V - Voltage), current (A - Amperage) and waveform (Sinusoidal Frequency 60Hz in the USA) specifications insuring the equipment connected to it for power are protected from the effects of deviated power such as spikes, brownouts, interference, etc. Further, when your electric provider fails to provide any electricity at all, the UPS can provide backup power from its battery for a period of time.

UPS are rated by kVAh (kilo (x1000) Volt Amp Hours) which when the total power consumed by attached devices in kVA (kilo (x1000) Volt Amps) is divided into that value gives you the number of hours it can sustain your equipment before power needs to be restored or as is often the case allows you to gracefully shutdown your system until power can be restored. Cost of these units and the amount of time they will keep your system running when power fails are usually the highest two factors considered but you should also consider the number of units needed based on physical limits, the cost of battery maintenance (usually every two years), the number of outlets needed to plug equipment into, network connectivity, and logging.

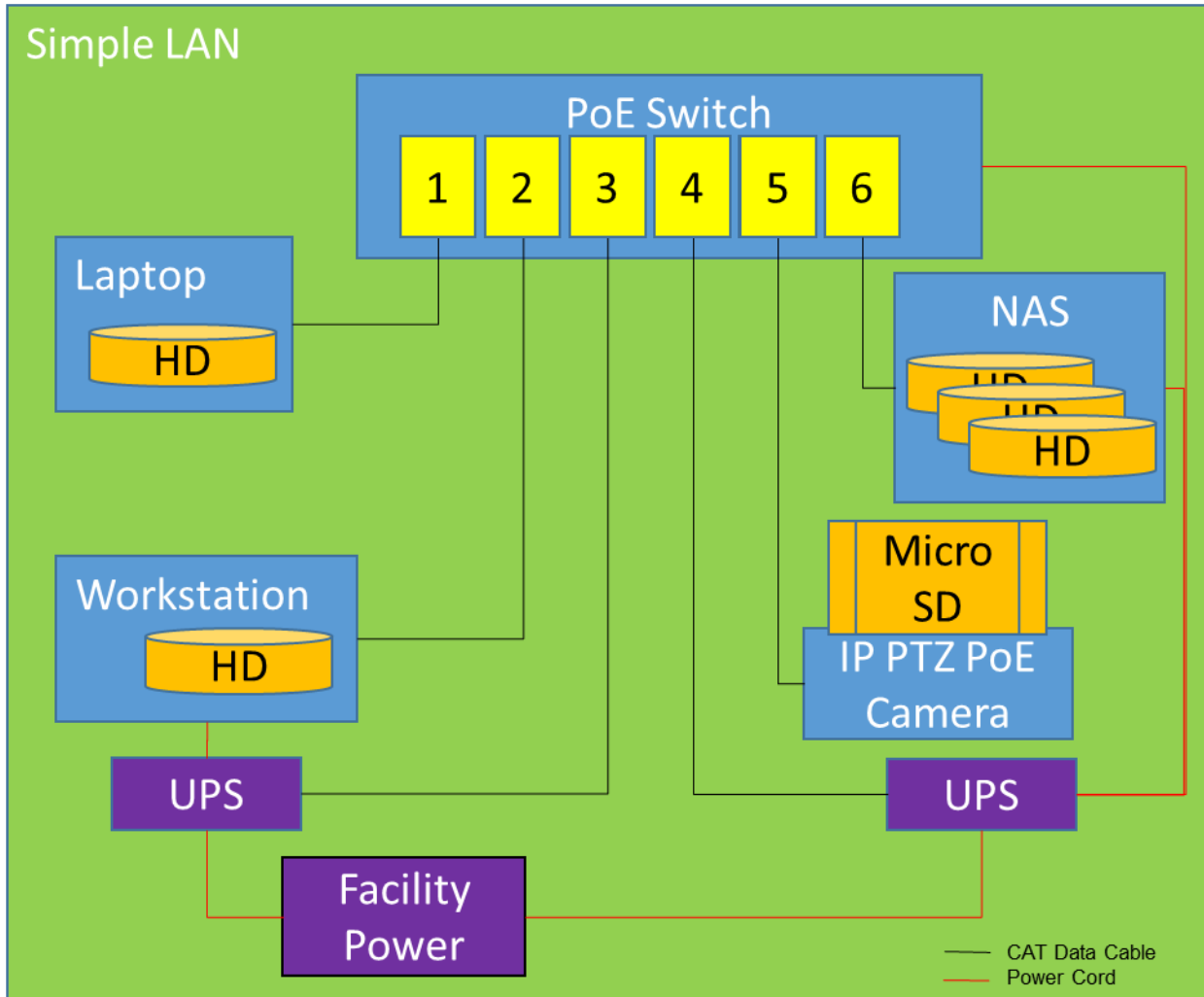
A network connection so you can monitor the state of your UPS from anywhere at any time and your UPS's ability to log what happened to your power can greatly enhance system uptime and give you great evidence for any litigation or insurance claim when needed.

Uninterruptable Power Supply addition to our Simple LAN (Large Area Network)



Now that we have our camera and equipment running and protected from power disruptions, we will dive into capturing what are camera lets us see. We have several options in digitally recording the live feed, the camera can store it internally on a Micro SD (Secure Digital) flash memory card, the digital video can be streamed to a laptop, workstation, or server to be stored on its drives, or it can be stored to network attached storage (NAS). When the camera uses its own micro SD card, the digitized video is recorded internally and doesn't use network bandwidth. Most modern cameras have a looped process that continually records and doesn't erase information until the storage is fully used. So for example, with a 1Tb (Terabyte) sized card you can store a month or better of video before overwriting occurs and if necessary pull that card and replace it with another if important video is captured. When using a laptop, workstation, or server for capture the video feed uses network bandwidth and processing time on your device in the form a running application this gives you the ability to monitor and manipulate the video capture and the camera. For example, you would run a browser to connect to the camera's internal website and then point the camera to what you want to see while saving the video onto your devices hard drive or other attached storage. Network attached storage allows for capture onto hard drives directly from the camera without the ability to manipulate the camera. As an example, a NAS can capture the digital feed and then allow others to "see" it at a later time this is useful for pre-review before public access, web site integration and links, and post editing applications.

Video storage added to our Simple LAN (Large Area Network)



For the next article I would like to start in on connecting to the Internet, which is a realistic goal most of us have in order to use our cameras off property, from our cellular phones, and to eventually realize revenue from what we are building. Again, this is a very cursory outline and each piece of technology and its interaction with other equipment has volumes of books to explore. If there are any questions or details that need further exploration please reach out. Until next time, happy reindeer farming.



<https://www.thecavalrygroup.com/>

<https://www.thecavalrygroup.com/AZA-&-PETA-The-Politics-of-Appeasement>

<https://www.thecavalrygroup.com/page-18306>

<https://the-cavalry-group.rallycongress.com/>

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