Name:

Date:

History of Parachuting Notes

Origins

* Nobody is quite sure…
* Medieval times
	+ 12th century
	+ Cliff jumps with
		- Actually more similar to large umbrellas than modern parachutes
	+ Used to entertain
* Renaissance Italy
* + 1495
	+ First blueprints for a parachute
* with cloth canopy
	+ Concept was correct
	+ Not very practical
		-
* Never actually created his parachute
* Note along with the designs
	+ “If a man is provided with a length of gummed linen cloth with a length of 12 yards on each side and 12 yards high, he can jump from any great height whatsoever without injury.”
* Finally jumped in

First Attempts

* + 1617,
	+ Device similar to Da Vinci’s
	+ Jumped from a Venice tower
	+ Published in Machinae Novae
* First recorded European parachute jump

The French…Again!

* + 1785 dropped a dog in a basket with a parachute
	+ Used parachutes in the event of
	+ Started experimenting with foldable parachutes
		- Normally had a
* Jacques and Andrew Garnerin
	+ from balloons
	+ 1797 – 8000 foot jump
		- Added a to the top to provide stability

A Spectator Sport

* + 1837 – Parachuting’s first
	+ Cone-shaped parachute became inverted
	+ Public became less enthralled after his death
* Carnival and daredevil acts
	+ Stunts on a attached to a descending parachute
	+ Parachute attached to the bottom of a balloon
	+ Fun nicknames like

Safety First

* Invented the first system
	+ Captain Thomas Baldwin, 1887
* Packing parachutes
	+ Paul Letteman and Kathchen Paulus, 1890
	+ like container
	+ Cut-away system and
		- Kathchen Paulus

First Jumps

* Grant Morton and Captain Albert Berry
	+ 1911-12, first jumps from a
	+ Morton
		- Silk parachute folded in arms
	+ Berry
		- Parachute folded in a metal case under the fuselage
		- Trapeze bar to hang onto
* Pilot Chute
	+ Pino, 1911
	+ with a rigid frame attached to a helmet
	+ Catches the wind and pulls off the helmet
	+ Pulls out the
* Military skeptical
	+ Did not believe the could withstand for more than a few seconds before

Freefall

* , 1914
	+ First jump
* Leslie Irving and Floyd Smith, 1919
	+ Proved military wrong
	+ Developed the
* Barnstorming

<https://www.youtube.com/watch?v=Y6wwizIzkmY>

WWI and WWII

* Round silk canopies the norm
	+ Used in military air corps in
* Bailout system for
* Airplane pilots instructed to land with their aircraft
	+ First airplane bailout
* WWII
	+ German Luftwaffe developed air supremacy
	+ Kurt Student developed the
		- Troops, equipment, weapons
	+ Typically used parachute systems
* Credited with being instrumental in turning the tide of the war

Post WWII

* Lots of parachutes
	+ had the courage to jump them
* Parachuting became a hobby
	+ started post WWII
* Skydivers emerge
	+ Term coined by in the mid-1950s
	+ First commercial parachuting schools began to open

Modern Parachuting

* Different parachutes
	+ Synthetic materials
		-
	+ Ram-air canopies
		- MUCH
* Most skydives involve both freefall and a parachute ride
	+ Usually jump between and feet
	+ Deploy parachute around 3500 feet
	+ 1 minute of freefall and 5 minutes of parachute ride
* First competitions in
* Many disciplines
	+ Relative work (RW)
	+
	+ Canopy relative work (CRW)
	+ Accuracy
	+
	+
	+ Wingsuiting
	+ Tracking
* People often

Changing Technologies

* Traditional canopies
	+ 1960’s saw a few changes
	+ Cut slits in them for better
	+ Relatively high rate
* Parawings
	+ 1970’s
	+ wings
	+ Designed for
		- NOT used for people (usually)
* parachute
	+ Domina Jalbert, mid-1960’s
* 2 membrane design
	+ Maintains shape by between the membranes
	+ Only open at the nose
	+ Provides a stable, inflatable, steerable parachute
	+ Stabilizers provide side to side stability

High Speeds and High Altitudes

* Knacke and Madelung
	+ Ribbon parachute system
	+ Used for payloads
* Post WWII Knacke
	+ Ring slot parachute system
	+ Still used for cargo delivery and decelerating airplanes
	+ Similar system used to decelerate
* H.G. Heinrich
	+ Guide surface parachute
	+ Used as a or for vehicle stabilization
	+ Tolerance of about
* Sims
	+ Hyperflo parachute
	+ speed range