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