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To: Whom It May Concern

Subject: Specification Information on SkyDoc™ Aerostat Products

Launcher

- Versatility
    a. Ground Based Platform
    b. Specialized Trailer with power for use in remote locations
    c. Width and height designed for Flatbed and Pickup Truck mobility
    d. Designed for transport in CH46, CH53 or fixed wing aircraft
    e. Equipped with lifting rings for transport by helicopter
    f. Used as on-site control center or relay to remote command station
- Equipment
    a. Continuous power to payload with powered aerostat tether
    b. Adaptable for HMMWV, 120/220VAC, 24V or generator electrical input
    c. Onboard air conditioning for electrical/electronic components cooling
- Components
    a. Aerostat cradle for secure storage or safe movement between locations
    b. Winch to launch and retrieve aerostat
    c. All electrical/electronic components to operate payload
    d. Temperature controlled equipment compartment
    e. On board battery bank and generator (2kw or 5kw) with fuel storage
    f. Lighting source (white and red) as needed for on-site operations
    g. Storage compartments for helium bottles, cradle, aerostat, portable lighting and extra equipment

Aerostat

- Single ply material used for all but extreme weather conditions
    a. Material is Urethane and can be 3mil or 6mil thickness
    b. Helium loss can be up to one per cent per day depending on temperature swings and aerostat pressure
    c. The aerostat design allows for additional lift with increased wind speed and has been flown in 60 mph without incident
    d. Welders grade helium is preferred
    e. Variety of colors available
- Two-ply material used for extreme weather conditions with rip stop outer shell
    a. The multiple ply SkyDoc™ Aerostat has all the attributes of the single ply
    b. Helium loss is approximately one percent per day minimum
    c. Material design is a multi-layered material with inner and outer coating for use in extreme cold weather conditions
    d. Pressure relief valve will open with increased pressure caused by increased temperature

Tether

- Varies in breaking strength characteristics from 1000lbs (454kg) to 5000lbs (2250kg)
    a. Embedded copper wire #18 gauge up to #24 gauge is available
    b. Single strand multi-mode 50micron optical fibers available
    c. Material is Spectra strength braid with polyester outer coating
    d. Total weight of tether is dependent on breaking strength requirements, altitude desired, if embedded copper wire/optical fiber needed

Winch (Vertical and Horizontal)

- Description
    a. Large frame – 4 ½ “(11.43cm) drum, 17” (43.18cm) drum ends
    b. Directional switch
    c. Various AC or DC motors available
    d. Motor brake available
    e. Electrical and/or fiber optic slip ring available for tether power to payload
    f. Variable speed level winder available
    g. 3.25 Worm Center Gear Box available with
        i. 60:1 @ 1725 RPM, 35’ (10.6m), 1000lbs (450kg) pull
        ii. 30:1 @ 3450 RPM, 70’ (21.3m), 650lbs (292.5kg) pull

The SkyDoc™ Aerostat is as highly versatile platform capable of a variety of operations. Payload weight and altitude requirements are the only limits of the SkyDoc™ Aerostat. From the desert to the Arctic and between we have flown in all types of weather with a vast variety of payloads. Our unique and patented designs allow us to stay aloft when our competition is unable to.