Preparing for long glider flights
Harry Fox 4-27-2016

1. Clothing.
    a. Be prepared for a wide variation in temperature. May be 90 degrees or more on the ground at launch, below freezing at altitude.
    b. Sun warms the glider cockpit, but:
        i. Not when you are under clouds.
        ii. Not on your feet.
    c. My standard outfit:
        i. Lightweight long sleeve shirt, long pants. Pants have a large fly.
        ii. Non-vented shoes.
        iii. Wool socks.
        iv. Gore-tex over-socks for long cold flights.
        v. Black fleece vest in cockpit, to pull on over torso if needed.
        vi. Hat for sun protection, but not so big that it scrapes the inside of the canopy (or blocks the view of the back-seat pilot).
2. Oxygen Equipment.
    a. All BASA gliders are equipped with Mountain High EDS oxygen systems. An EDS-compatible cannula costs $8.00 and can be ordered from the Mountain High website. FARs require you to also carry a mask in the cockpit. The basic EDS-compatible mask from Mountain High costs $10.00. It's a lousy mask, and I carry it mainly to be legal but also just in case my nose stuffs up. If you want a mask that really works, buy the ALPS mask from EDS, but cost is $175.00. Note: Oxymizer cannulas are NOT compatible with EDS systems and should not be used in BASA gliders.
    b. At Truckee, Air Sailing or other high altitude sites, put the cannula in your nose and turn on the EDS system before you take off. Leave it on until after you land. If you turn off oxygen while returning to the airport at, for example, 8,000 MSL, you are instantly going from sea-level oxygen saturation to 8,000 ft oxygen saturation, which is not good.
    c. A portable pulse oximeter will let you know if you are getting sufficient oxygen saturation.
3. Food.
    a. Not too much, not too little, not too spicy. Jerky or other salty snacks will stimulate drinking.

b. Please don't leave a mess of crumbs in the cockpit. This attracts rodents and ants. If you spill it, clean it up.

4. Water.

   a. You need to hydrate both before and during the flight.

   b. I use a 100 oz Camelback.

   c. Bring extra water in baggage area, in case of landout.

   d. Drink before you get thirsty. If you feel significant thirst, you are already dehydrated.

   e. I don't recommend full-strength Gatorade, as it can induce upset stomach.

   f. When you are at altitude and your extremities get cold, circulation is reduced in the extremities, forcing fluid to the core. When you warm up while descending for landing, as much as a liter of fluid can rush back into the extremities. This leaves you with not enough fluid in the brain and core. Your mental sharpness is reduced plus you are more sensitive to G effects. Be sure to drink more on the descent back to the airport.

5. Dewatering.

   a. You need a way to pee. Just saying "I won't" is not satisfactory -- this may lead you to not drink enough, ending up mentally impaired from dehydration. I don't pee on most flights, but when I need to, I really need to. You need to be prepared.

   b. DGs have holes for pee tubes in the cockpits. See end of this handout for design of your own pee tube.

   c. External catheter, draining to bag in cockpit or through cockpit hole.

   d. TravelJohn bags have absorbent gel. Bring ziplocks for the used TravelJohns.

   e. Ziplock bags with absorbent diaper material.

   f. Bring a small towel or rag, to protect cockpit cushions.

   g. Adult diapers. Get over the embarrassment -- these work.

6. Airsickness.

   a. Hot, turbulent, lots of circling -- airsickness can happen even to experienced pilots.

   b. Have a large ziplock with absorbent material.

   c. Consider acid-suppressor pills if you are prone to acid stomach (I use Famotidine which is generic for Pepsid).

   d. Use oxygen at lower altitudes if you feel queasy (i.e. 8,000 MSL or above).

7. Navigation Preparation.

    a. Sectional chart, with airstrips marked.

    b. Use Google Earth links in turnpoint database to review landout options. http://soaringweb.org/TP/Hollister

    c. Handheld GPS, or PDA with soaring software.