

Response to Dave Holland's Letter to TCRCM's President about the Attributes of Geotextile runways and examples of their successful use.

Mr. Holland was extremely critical of the current TCRCM leadership team for not providing a better flying site for his foam ducted fan aircraft, and park flyer aircraft with small wheels. In hindsight the leadership team should have taken a more aggressive runway repair approach to fix the damage caused by our supplier of irrigation water not meeting their obligations.

The attribute claims by Mr. Holland for Geotextile runways are significantly overstated and he fails to address their negative aspects, of which there are many. The significant negative aspects are:

- Exceedingly difficult to slow down when landing due to an extremely low resistant surface.
- No energy absorption for bouncy landings.
- Difficult to land or take off in any level of cross winds, which are frequent.
- Susceptible to damage by prop strikes which tears the fabric.
- Not compatible with larger model aircraft with wingspans over 50 inches and 5 lbs. of weight.
- Low melting point of 320 F to 360 F and a flash point (flammability) of 600 F . This means gas engine models with downward Pitts style exhaust stacks will damage the fabric.
- Short Lifetime due to limited tolerance from Ultraviolet (UV) Radiation. The manufacturer rates Geotextile to 600 hrs. UV lifetime. In our mid-Columbia region the annual UV Radiation exposure is 100-120 hrs./year with 50% accumulation during the summer with the other 50% accumulated during the other seasons of the year. This means that a Geotextile fabric runway would need to be **replaced every 5 years minimum**, and even more frequently if our summers continue to be similar to the past two years. The climate here in our region is totally different to the examples provided by Mr. Holland and have no relevance for comparison.
- Very Warm surface temperature. Just like your asphalt driveway the surface temperature of the fabric in the summer will be 25-30 F above ambient temperature. On a 100 F day the surface temperature of the fabric will be ~130 F.
- The soil structure and geology of our flying site (and the entire Hanford site) is half sand and half dirt, which makes it non-compactable **and not able to retain a geotextile fabric**

**installation using cleats, staples, and long spikes. Combine this with the extremely high winds during the fall and winter months there is little or no chance of the successful installation of a fabric runway.**

- High cost and long term financial liabilities. The cost estimate for purchase and installation of the Geotextile fabric runway is **\$10,000, and several hundred labor hours.** An additional **\$2,000 per year** will need to be accrued for replacement. This is in addition to the club's annual maintenance cost of ~ \$2000.

You, the TCRCM membership will need to make important decisions whether to believe Mr. Holland's sales pitch that grass runways are bad for model aviation as they limit one's ability to full fill their model aviation dreams to the fullest, and Geotextile fabric runways are the only salvation. ( There is a reason that over 75 % of the radio control model aviation flying sites in our country have grass runways. )

Does our TCRCM Flying site with it's cool and friendly grass meet your **needs** to enjoy model aviation, realizing some repair is required, or are you willing to support the **wants of a few** at a very high cost and compromise to the field. We currently have a high usage rate for the membership, which includes young students successfully flying small trainers with small wheels.