

Planning Long Flights

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Presentation for ASC
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Planning Long Cross-Country Badge and Diploma Flights

- **Equipment**
- **Rules**
- **Tasks**
- **WX**
- **Tactics**
- **Resources**

Planning for long flights

- Plan on a long flight = plan on early takeoff
 - 1000 km = 624 miles
 - 624 miles @ 80 mph = 7:48
 - 624 miles @ 70 mph = 8:55

- Plan on landing out!

Equipment

- **Sailplane**
 - **Water ballast system**
 - **O2**
 - **Instruments**
- **Land Out**
 - **Drinking Water**
 - **Survival kit**
 - **Cell Phone**
- **Documentation**
 - **FAI approved GPS**
 - **Cameras**

Rules

- **Flight can begin from undeclared departure point**
- **Can use up to 3 pre-declared turnpoints for task**
- **Turnpoints can be used in any order**
- **Must fly *around* turnpoints**

- **Barograph must be calibrated within 1 year of flight**
- **GPS must be calibrated within 2 years of flight**

OR

- **within 1 month after flight**

READ AND UNDERSTAND THE FAI RULES

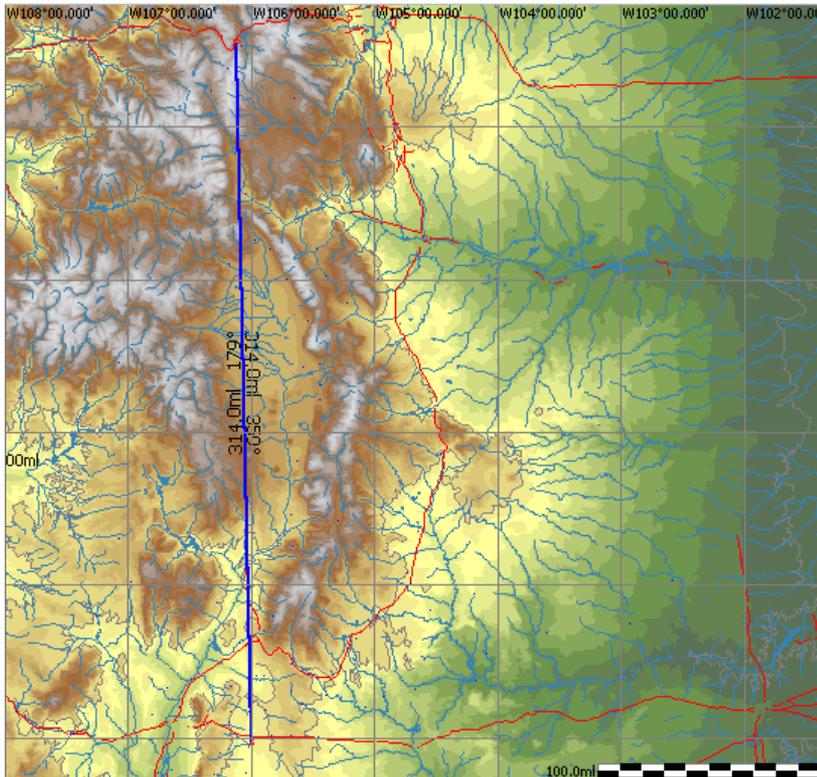
Tasks

- **This winter, lay out several tasks for various conditions, fill out paper declarations, and make copies.**
 - On the day of the flight, simply complete one of the copies and have your observer sign it. (saves mucho time!)
 - When planning tasks with long legs ensure that the total distance is somewhat greater than 624 miles to allow for new geodesic calculation (or calculate it exactly).
- **Pick turnpoints that are easily seen from the air.**
 - Keeps your head out of the cockpit and makes rounding the turnpoint easy. (**Caution** – many of the turnpoints in the Moriarty databases were designed for contests using cameras and are **NOT** at the landmark!)

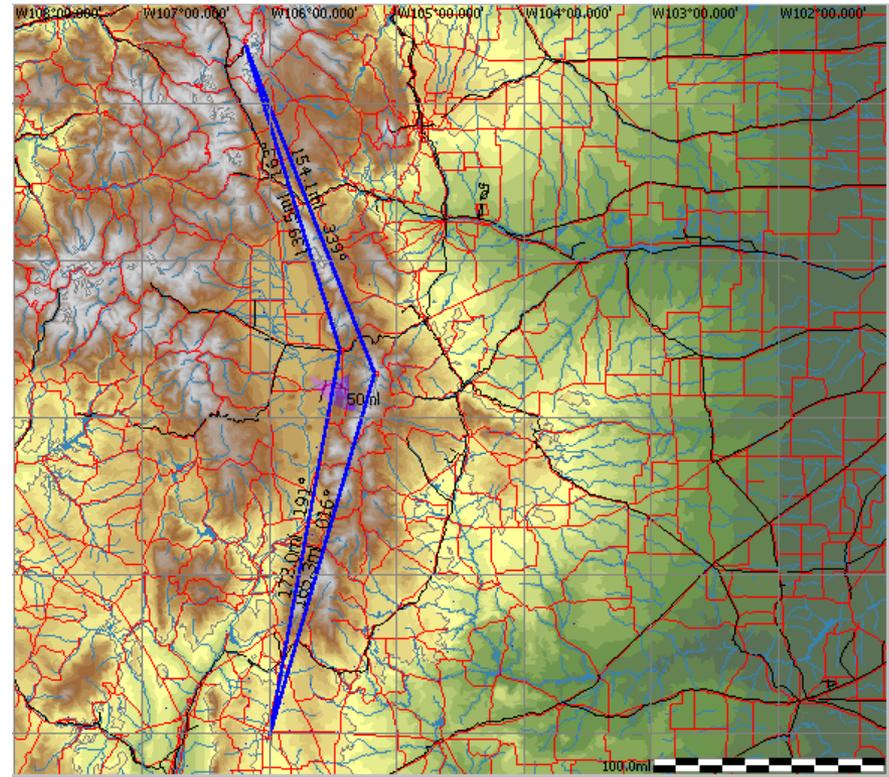
Tasks

- **Use the rules to your advantage**
 - **Use undeclared departure point to get away early**
 - **Make sure that flight will have required distance using uncertain remote start**
 - **Use up to 3 turnpoints to optimize orographic soaring, to stay in an optimum area, to provide options, or keep close to home.**

Tasks: Three turnpoints to optimize orographic soaring

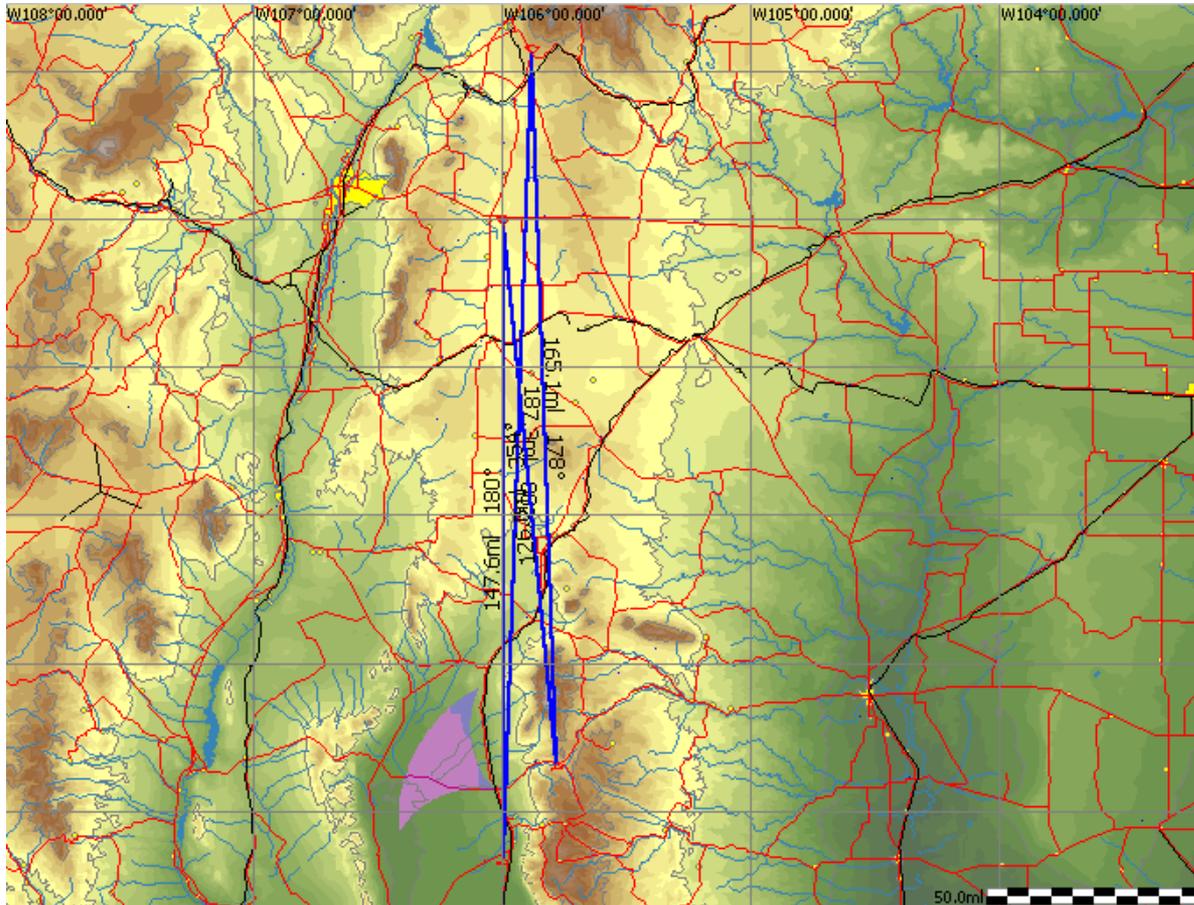


Moriarty to Ten-Mile Peak
and return (628 mi)



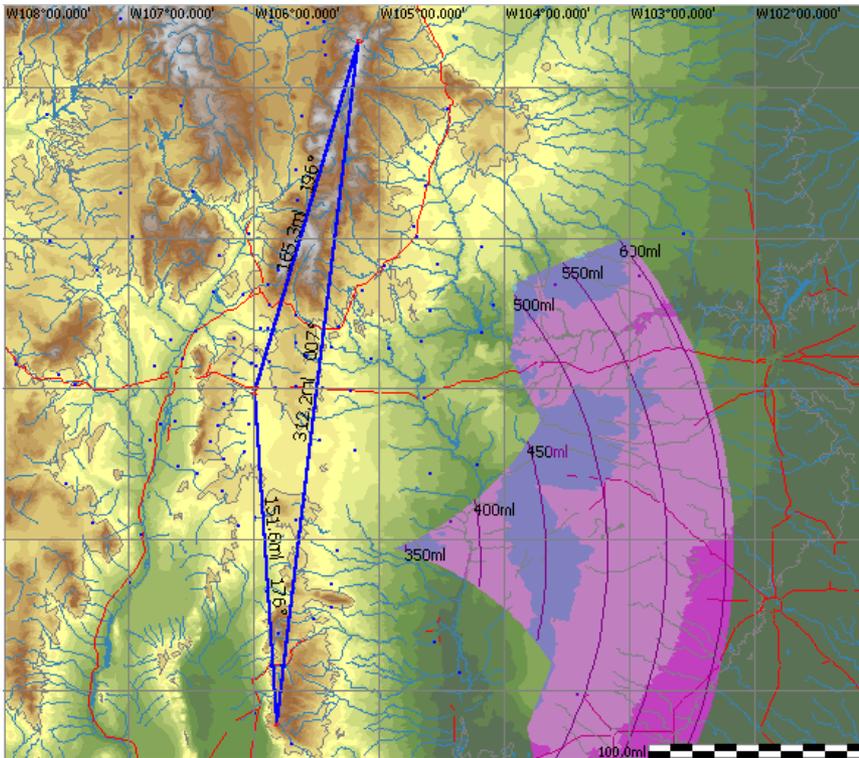
Moriarty to Trinchera to Climax to
Ft. Garland and return (631 mi)

Tasks: Use 3 turnpoints to stay in optimum area

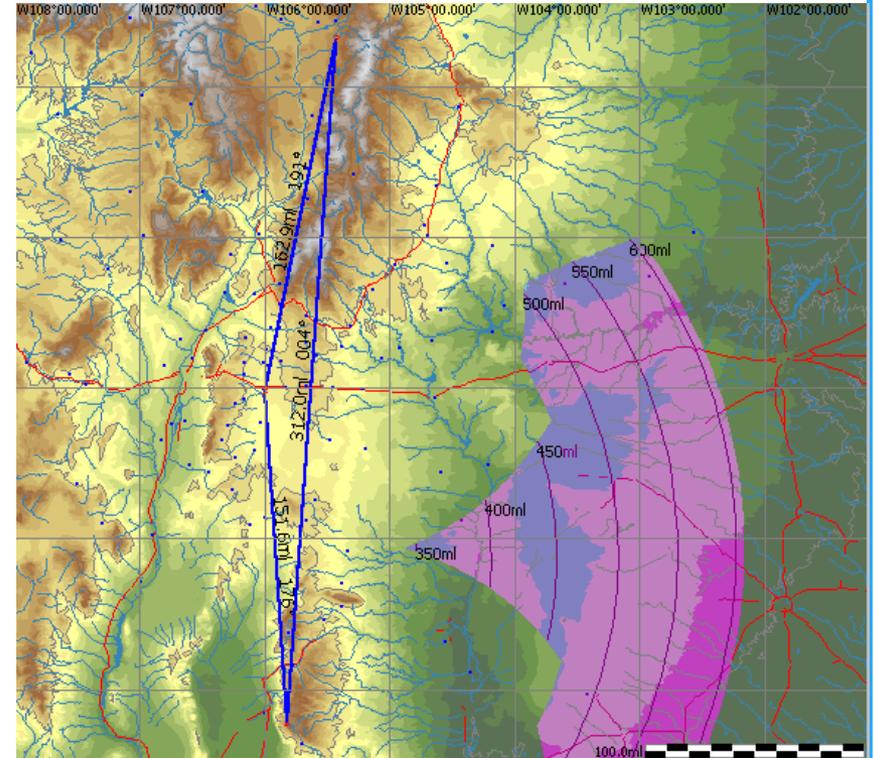


Moriarty to Sunspot to Lamy Junction to
Mescalero and return (626 miles)

Tasks: Use three turnpoints to provide options

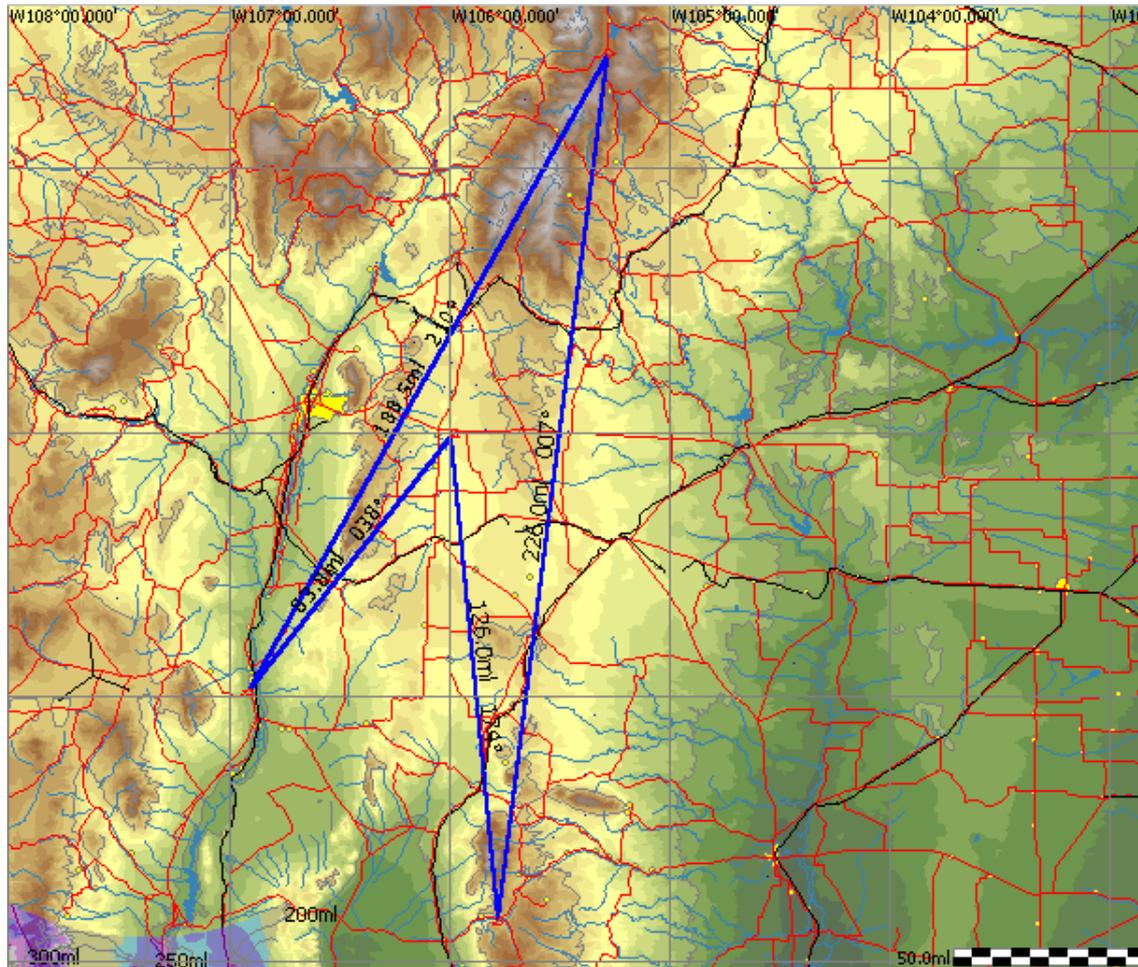


Moriarty to Sunspot to Trinchera Peak and return (629 mi)



Moriarty to Sunspot to N San Luis and return (627 mi)

TASKS: Use 3 turnpoints to stay close to home



Moriarty to Mescalero to Angel Fire to Socorro and return (624.3 mi)

Weather

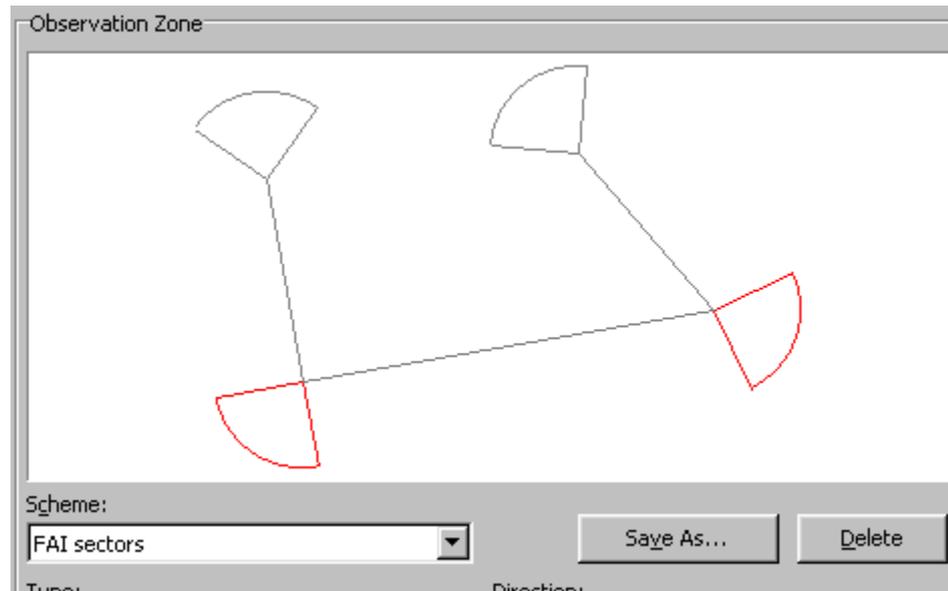
- **The best weather for long flights in NM is between May 15 and July 15.**
- **In the Southwest, during the long-flight season, the predicted diurnal temperature variation is one of the best indicators of the strength of the next day.**
 - **40 degrees F = excellent for long flights**
 - **30 degrees F = good for long flights**
 - **20 degrees F = forget it**
- **Another excellent predictor is the “height of the minus 3” from the FAA soaring forecast.**
 - **This is about the max altitude to which you can climb if there are no clouds. (but don't do this!!)**

Tactics

- **Get a solid night's sleep**
- **Plan to get an early start**
 - **Do as much of your preflight preparation the day before as possible**
 - **Assemble sailplane**
 - **Fill O2**
 - **Install Batteries**
 - **Fill Water Ballast**
 - **Make Personal Preparations**
 - **Drinking water (fill your Camelback the night before)**
 - **Load up the car**
 - **Launch as early as it is possible to stay up**
 - **Use an undeclared departure point to the West in the convergence zone**

Tactics

- **GPS “Notch”**
 - When breaking off from tow, execute tight 360.
- **Turnpoints**
 - Go all the way around the visible point



Tactics

- **Fly as fast as you dare!**
 - **Use all of the available tricks to maximize your cross-country speed.**

Resources

- **Rules**
 - **FAI Sporting Code Section 3:**
www.fai.org/sporting_code/sc3.asp
- **Tasks**
 - **SeeYou:**
www.seeyou.ws
 - **Declaration forms:**
www.ssa.org/Badges/Forms.asp
- **WX**
 - **Temperature Diurnal Variation:**
Albuquerque Journal
 - **NOAA Radar:**
www.srh.noaa.gov/radar/latest/DS.p38cr/si.kabx.shtml
 - **Dr Jack:**
www.drjack.net
 - **FAA Sounding:**
1-800-WXBRIEF-2-19
- **GENERAL XC : PASCO Seminars (UC Berkeley, Spring)**

Finally,

**remember that we are in this
spectacular sport only for enjoyment.**

HAVE A GREAT FLIGHT!