Inter-Mountain Aviation Weather Workshop

Soaring (Glider) Support
Dan Gudgel & Walt Rogers
Saturday, May 30, 2020
Personal Background
(Dan Gudgel; Gudgel Aviation)

- Aviation/Agriculture
- NWS
  - OM / Aviation Services HQ
  - “Start-up” Warning Coordination Meteorologist
  - “Specialty Programs” Service
- Aviation Support
  - Incl., Remote Events Support
- Consulting Meteorologist
Aviation Weather Support

• Standard Aviation Weather Brief (Historic)
  – Emphasis Cross-Country Flight Safety
    ... Pilot Background Info (Request)
    - Adverse Weather
    - Synoptic Situation
    - Current Weather
    - Enroute Weather; incl. Adverse Wx (redundant)
    - Destination Weather
    - Winds Aloft
    ... NOTAMs, incl. Airspace Restrictions (FAA)

• Aviation Subset / Aircraft Category: Soaring
  – WFO Area Service Need?
  – Contests (Transitory?)

• Familiarity and Knowledge of Aviation Operations
Basic Soaring Pilot Weather Needs

• Soaring Flight Likelihood

• Four (4) Lift Types
  – Ridge
  – Thermal
  – Mountain Wave
  – Convergence

Personal Observation:

Inter-Mountain Region Superior in Lift Diversity
Contest Support

- Meteorological Parameters Needed (*Thermal Lift*)
  - Sky Conditions
  - Initiation Time (subsequent height & strength evolution)
  - Max Altitude, Strength, and Time-of-Day
  - Last Useful Lift (for Task Planning)
- Launch Time Conditions
- Wind Aloft
- Communication for Decision-Making
  - Threats
  - Probabilities
  - Forecast Confidence
- Recovery Conditions
**Additional Support**

1. Decision-Support for Competition Director (CD)
   CD sets Tasks; **Resource** for CD in Decision-making
   
   *Data Collection, Wx Analysis, Contest Forecast, CD Brief... All Done with “Time Deadline”*

2. Subsequently: Contest Pilot Briefing

3. Airfield Weather Watch

4. Task Area Weather Watch
   - Including concerns for Ground Crew / Retrieves

5. Outlook
   - Overall Contest Day utilization / CD Planning Strategy
Applied Meteorology

- Meso-Scale Meteorology;
  but...aware of synoptic-scale disruptive processes

- Familiarity with Area “Lift” Mechanisms
  - Convergence Line Development and Tendencies
  - Convection Impacts

- Interpretive for ‘Educated Customer’ Decisions
  - Meteorologist local expertise relating to needs
Questions and Contact Info

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Tools and Resources Utilized...