



# Friedman Memorial Airport

FINDINGS AND RECOMMENDATIONS OF THE  
FMA VOLUNTARY NOISE ABATEMENT  
COMMITTEE, NOV. 29, 2016

# Voluntary Noise Abatement Committee

- The current Voluntary Noise Abatement (VNA) Procedures were adopted in April, 2007.
- On March 8, 2016 the Friedman Memorial Airport Authority (FMAA), in response to community concerns, convened a new Voluntary Noise Abatement Committee (VNA Committee) to review the existing procedures and recommend updates.
- Committee make-up:
  - Citizens of Hailey and Bellevue
  - Pilots, both private and commercial
  - City and county officials
  - Airport management



# Noise Abatement Constraints



- Only the FAA can mandate noise abatement procedures, and then only when noise monitoring confirms average noise levels above a predefined threshold.
- FMA doesn't meet FAA minimum noise levels for mandatory noise abatement procedures.
- FMA, however, can adopt Voluntary Noise Abatement (VNA) procedures, and use education, peer pressure, and gentle persuasion to get pilots to comply.



# Sound Can be Measured Scientifically, but Noise is Highly Subjective

- Loud rock music that is highly pleasurable to some, can be uncomfortable—even painful—to others.



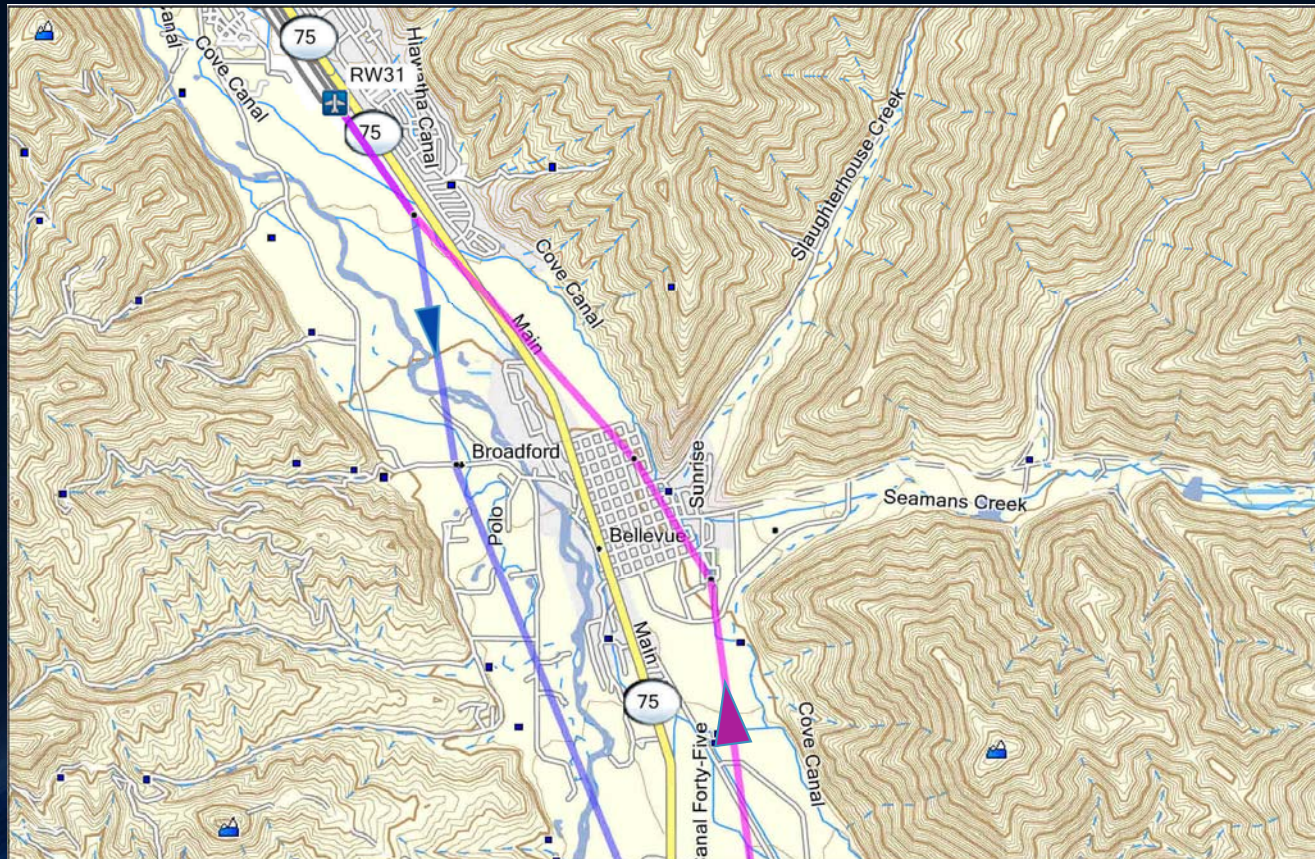
- 30 seconds of an overflying jet is more annoying than 30 minutes of a neighbor's lawn mower, even if the actual sound level, measured in decibels, is the same.

## 2007 Voluntary Noise Abatement Procedures

1. Weather permitting, aircraft over 12,500 lbs. were requested to arrive from, and depart to, the south.
2. Pilots were asked to fly specific paths to minimize noise over residential areas.

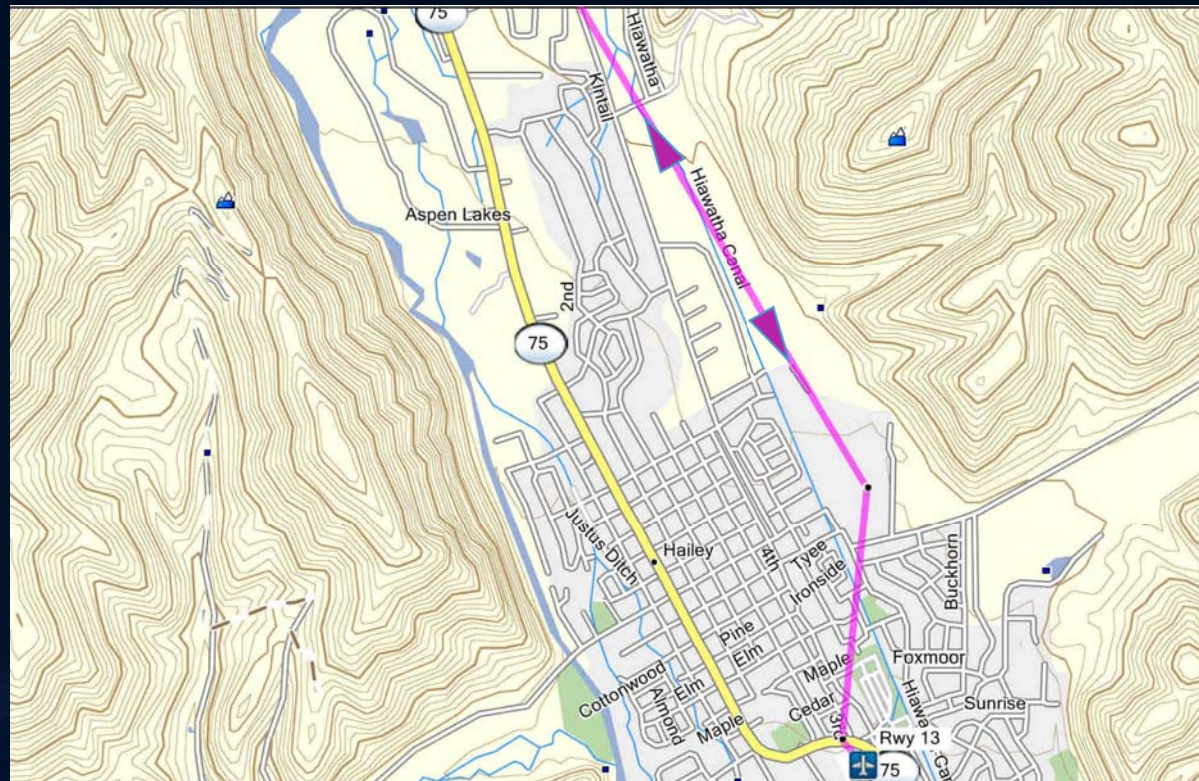


## 2007 VNA Flight Paths (South)





# 2007 VNA Flight Paths (North)



# 2007 Voluntary Noise Abatement Procedures

1. Weather permitting, aircraft over 12,500 lbs. were requested to arrive from and depart to the south.
2. Pilots were asked to fly specific paths to minimize noise over residential areas.
3. Pilots were asked to avoid operations between 11:00 pm and 6:00 am, except for emergencies, and preferably, not before 7:00 am.
4. Pilots taking off were asked to reduce power at 500' AGL.
5. Ground operations (such as pre-takeoff air conditioning) were restricted to 30 minutes.
6. Aircraft were requested to fly at 7,000 MSL (about 1,700' AGL) over Bellevue



# Getting Compliance

- VNA Procedures are published in print and on the iFlySun.com web site.
- Signs are posted at runway ends.
- Meetings held with local pilot groups.
- Notices are sent to participants in special events.
- Every arriving and departing flight is asked to follow noise abatement procedures via ATIS broadcasts to pilots.
- Noise complaint hotline: every complaint or inquiry gets checked out.
  - Violators are sent a notice (strongly!) requesting them to comply in the future.
  - The person making the inquiry is given a follow-up call with the outcome.

# Findings

## Key Committee Findings

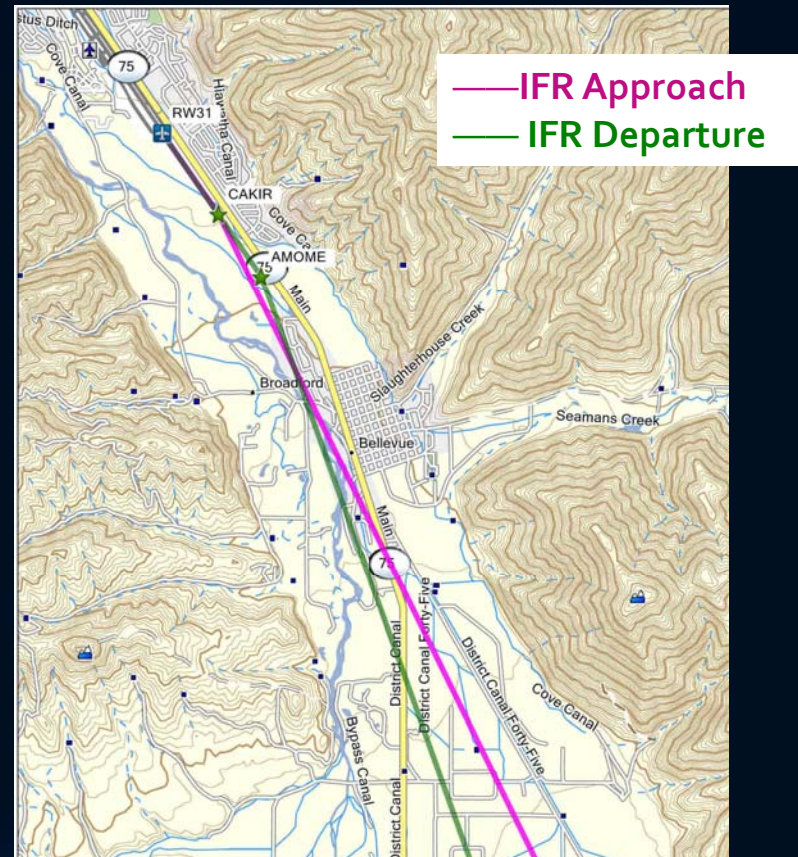
1. VNA procedures such as observing quiet hours, avoiding low-altitude flying, and operating to the south are being followed.
  - Most after-hours flights are either LifeFlight emergency flights or delayed airline flights.



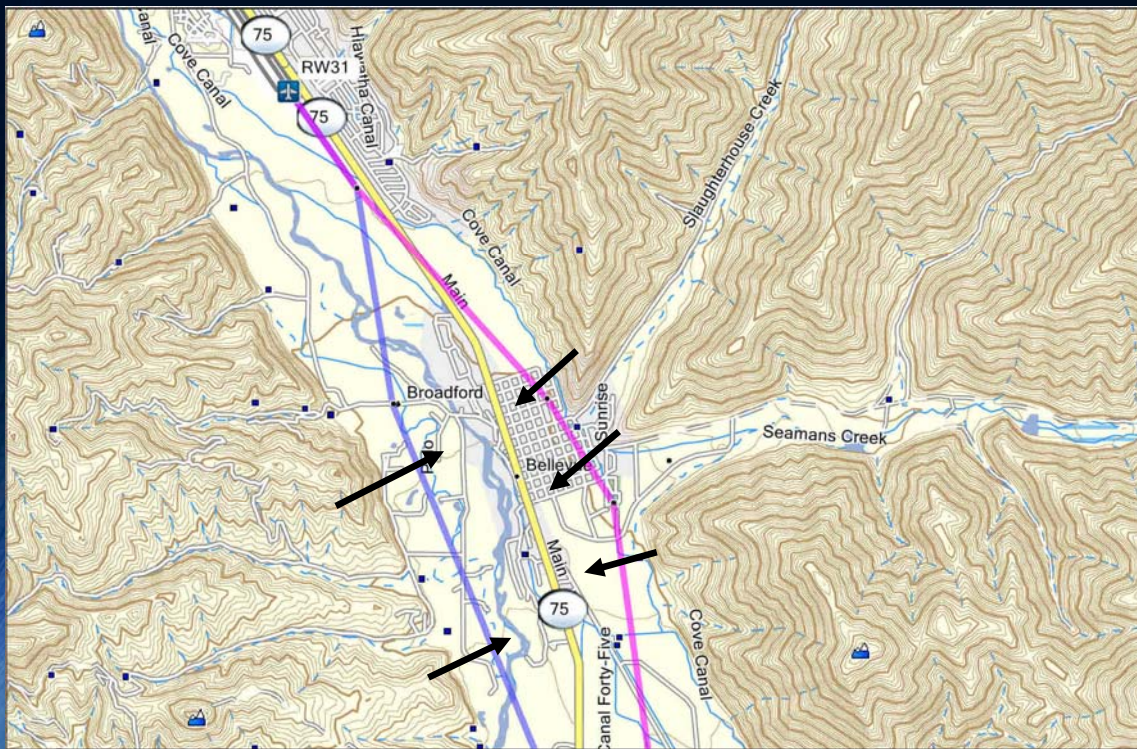
# VNA Committee Findings

2. Aircraft flying IFR (Instrument Flight Rules) must follow FAA prescribed flight paths.

They can't fly the preferred VNA routes.



# VNA Committee Findings



3. The addition of terrain avoidance warning systems on most large and turbine-powered aircraft are forcing non-IFR flights to fly inside the 2007 VNA flight paths.



## VNA Committee Findings

- Net result: flight traffic is concentrated over or near the center of the valley, directly over the center and west side of Bellevue.
- Citizen complaints that aircraft were not flying as far east or west as the published VNA procedures called for were substantiated.



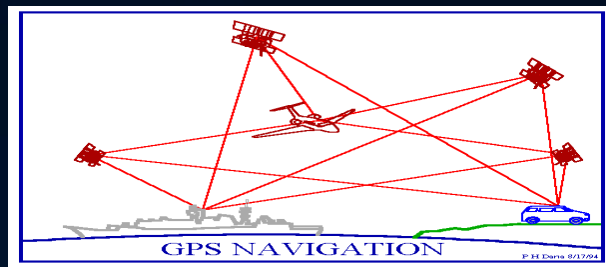
## VNA Committee Findings

4. Aircraft noise should be substantially lower than in 2007.
  - FAA restrictions on loud aircraft have eliminated the two noisiest classes of jet aircraft.
  - The number of operations at FMA in 2015 was 51% below the number in 2007.
5. Although all the available information suggests that airport noise is lower than in previous years, that is not the perception of some of the people living under the flight paths.
6. There is a lot of data on airline flights and number of operations into FMA, but it is not complete, consistent, and does not track the type of aircraft.

## VNA Committee Findings

7. Noise impact of the two new GPS approaches is expected to be mostly positive.

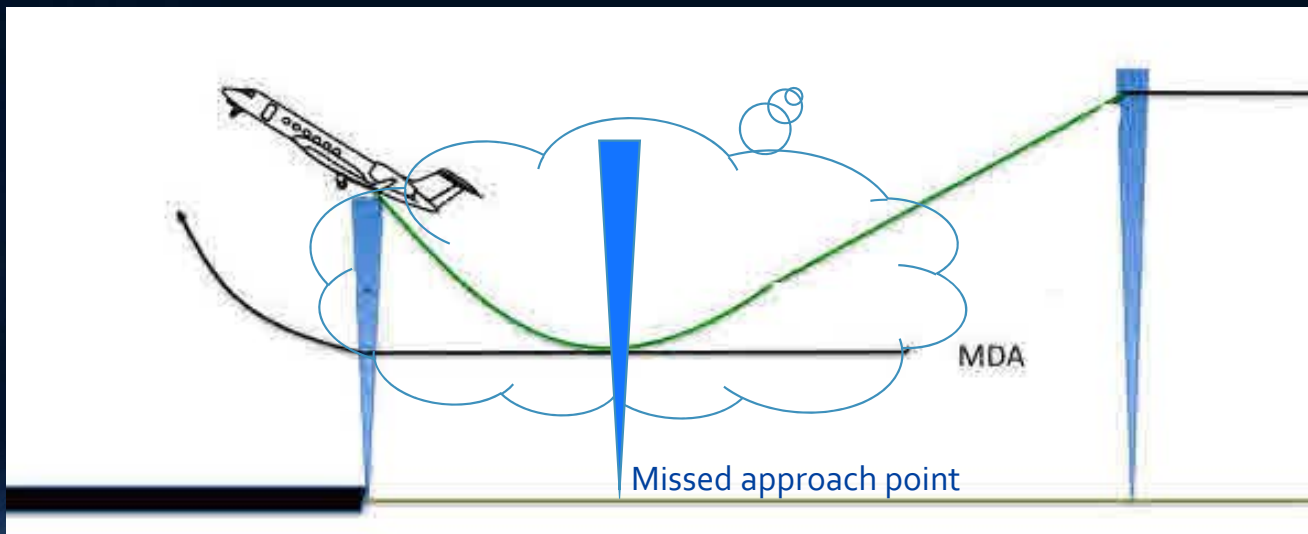
# Background: GPS Approaches





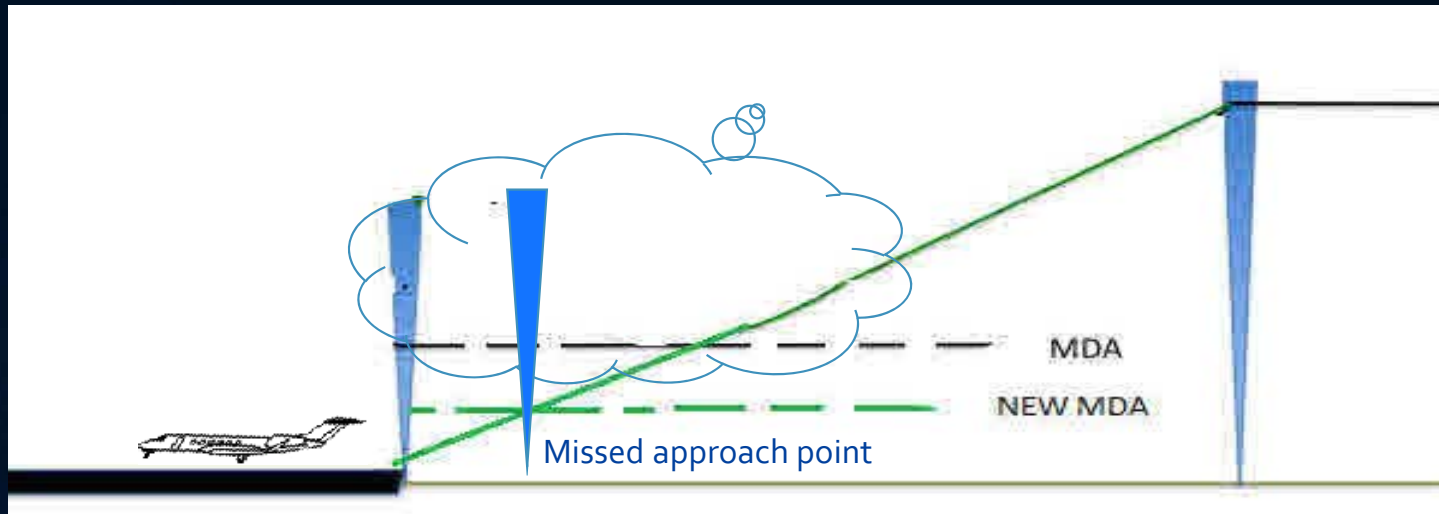
# Missed Approach

- If a pilot reaches the missed approach point shown on his display without having the runway in sight, he must terminate the approach and execute a high-power climb.



# Successful Approach

- With a lower Minimum Descent Altitude (MDA), a flight is more likely to be able to break out below the cloud layer.

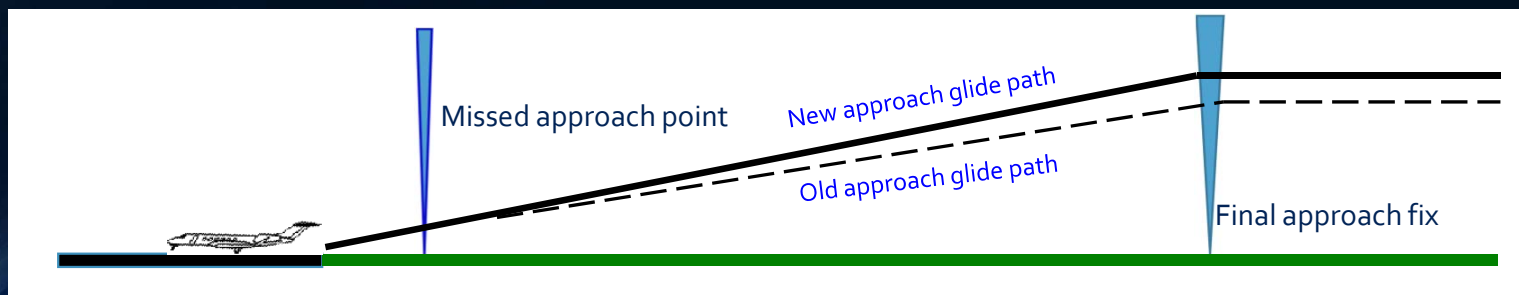


- **Result: Fewer high-power missed approaches & fewer "second tries."**

# New Instrument Approach is Steeper

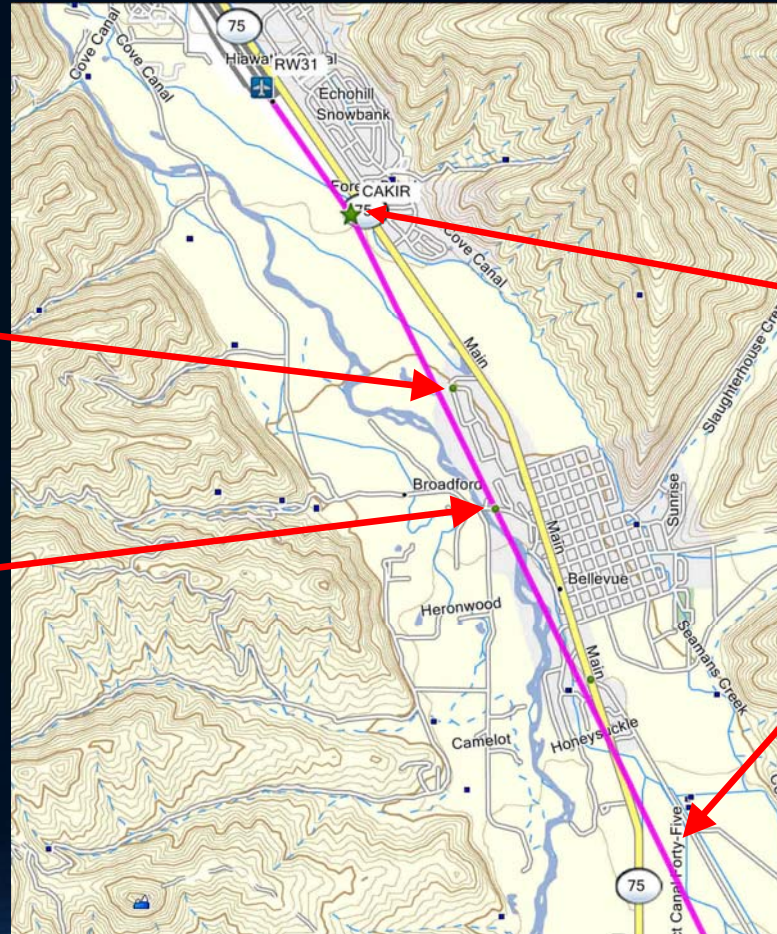
The new approach slope is steeper than the old one, from  $3.11^\circ$  to  $3.5^\circ$ .

- At any point in the approach, glide path is approximately 12.5% higher than it was before.
- Because the approach is steeper, less power is required to maintain the glide path.





# RNAV-X Approach Flight Path



## VNA Committee Findings

### 8. Other Options for Noise Abatement are Limited

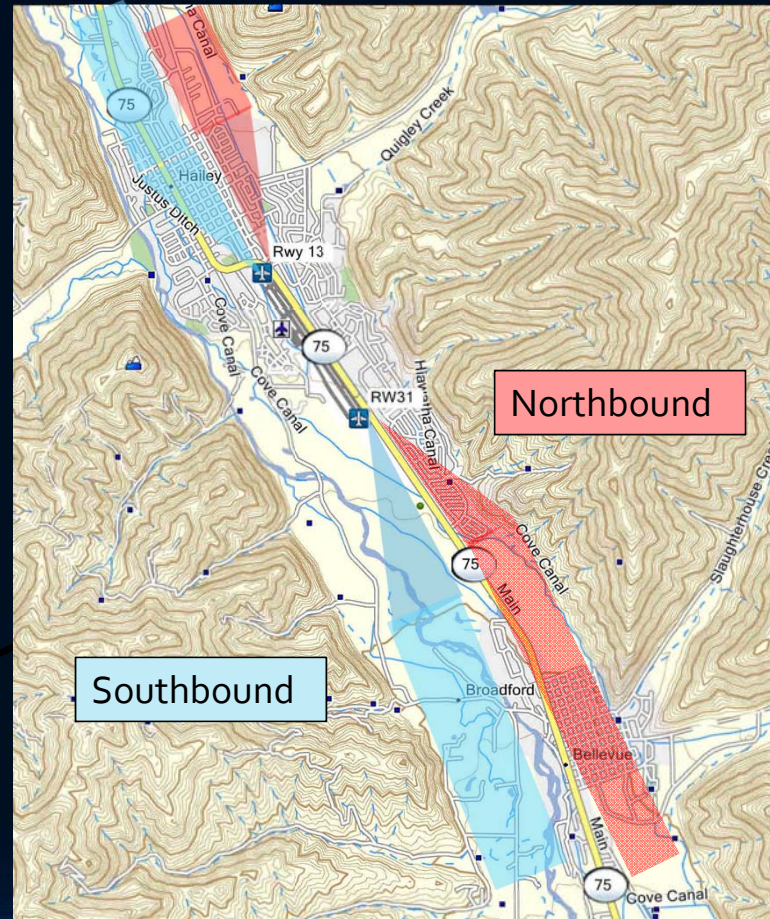
- A blast deflector at the north end of the runway would reduce some noise in Old Hailey, but would require adding an extra 500' to the runway.
- A berm between the runway and Hwy 75 would not be effective, as the jet engines are mounted too high on the airplanes' fuselages.
- Residents do not qualify for FAA noise mitigation grants because local building codes require more insulation for weather than the FAA recommends for noise mitigation.
- Growth in Hailey and Bellevue means that there are no feasible routes to avoid residential areas.

# Proposals



# Proposal 1: Traffic Zones

1. Define inbound and outbound zones rather than fixed routes.
  - Avoids head-to-head traffic
  - Allow pilots to stay as close to the sides of the valley as their operating limits allow.
  - Avoids concentrating flight paths over any single neighborhood



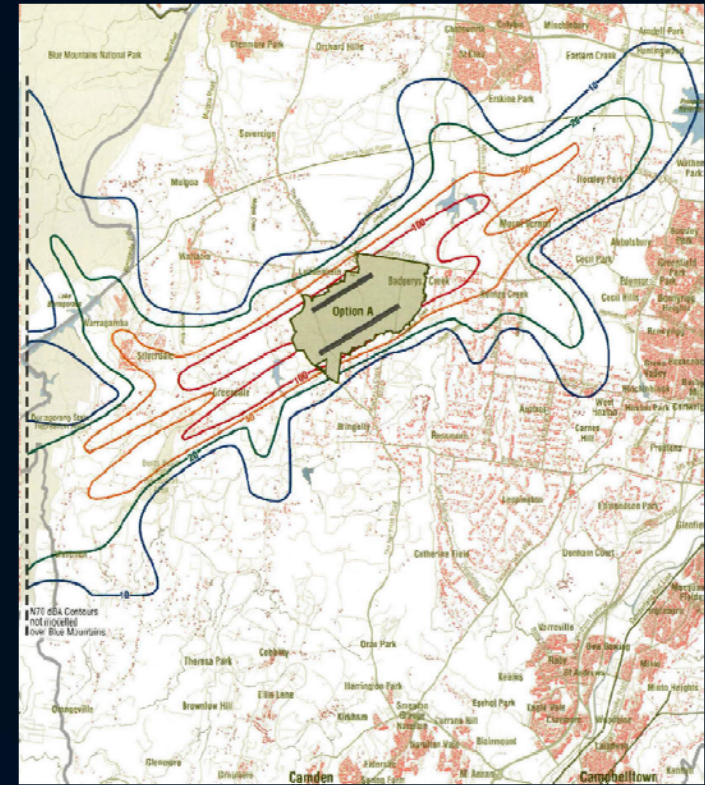
# Proposals

2. Make improvements to the airport that will reduce the number of operations, in particular, adding back the lost general aviation parking area.
3. Remove the exemption for aircraft under 12,500 lb. from taking off and landing to the north, provided the aircraft and pilot can safely do so.
4. Increase the enforcement of ground operation noise violators.
5. Get better data on current and projected noise levels.
6. Install ground-based ADS-B (aircraft tracking equipment) to accurately verify and respond to noise complaints.

# Noise Modeling

Noise modeling is a way to get scientific data to back up (or refute) anecdotal information about airport noise.

- Noise modeling is a computer simulation of aircraft operations taking into account aircraft types, weather and surrounding terrain
- Noise modeling can predict and estimate noise levels at any point on a grid anywhere on the ground in the area surrounding an airport
- Can calculate peak and average noise levels.
- Scalable for differences in hourly and seasonal traffic.





## Next Steps

- The VNA committee is proposing a series of meetings in Hailey and Bellevue to review its findings and recommendations.
- “Coffee talk” or “town hall” format to encourage a two-way dialogue of information, comments, questions, and answers.
- Incorporate community comments into final VNA procedures.
- Publish final 2016 VNA procedures.

The committee will remain available, as requested by the FMAA Board, to advise on noise-related issues.

# Committee Members

Bellevue

Susan Bernatas, Amber Mattias

Hailey

Walt Denekas (chmn), Peter Lobb

Blaine County

Pat Buchanan, Lisa Phillips

FMAA Board

Jacob Greenberg, Fritz Haemmerle

Pilot community

Steve Garman, Michael Rasch, John Strauss,  
David Wilson

Airport administration

Chris Pomeroy, Lisa Emerick, Cecilia Vega,  
George White, Rick Baird, Pete Kramer

- Special thanks to Susan Bernatas, Committee Secretary, who compiled the notes and conclusions from the committee meetings, and Chris Pomeroy and the pilots on the committee for their technical advice.

## Questions and Comments

