Langley Air Force Base
Air Installation Compatible Use Zone (AICUZ) Public Release Brief

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AICUZ OVERVIEW

- AICUZ Background (Info)
- Langley’s AICUZ Process (Info)
- Noise Contours (Info)
- Accident Potential (Info)
- Airspace Control Surfaces (Info)
- How You Can Help (Info)
- The AF Commitment (Info)
AICUZ BACKGROUND

- AICUZ is a Department of Defense (DoD) program initiated in 1973. The goals of the AICUZ Program are to:
  - Promote compatible uses of public and private lands in the vicinity of military airfields
  - Promote the public health, safety and welfare
  - Maintain future operational capability
AICUZ BACKGROUND

• An AICUZ study addresses 3 components:
  – Aircraft noise (noise contours)
  – Accident potential zones
  – Airspace control surfaces

• An AICUZ study provides a set of recommendations for compatible land use
LANGLEY’S AICUZ PROCESS

• AICUZ study kicked off in Nov 05:
  – Data collection team interviewed LAFB personnel (pilots, maintenance personnel, etc.)
  – Reviewed flight simulator data

• Air Combat Command validated data and approved the AICUZ for public release in Jul 07

• Municipalities briefed on AICUZ

• Public meeting - 28 Aug 07
NOISE CONTOURS

- AICUZ Team gathered data on how LAFB operates
  - Aircraft Operational Data
    - Where (flight paths)
    - How (altitude, airspeed, power)
    - When (frequency and time of day)
  - Maintenance Data
    - Where (aircraft location)
    - When (frequency, duration and time of day)
    - How (power and duration)
  - Airfield Orientation
  - Atmosphere (temperature/humidity)
Operational data is loaded into the NOISEMAP software program

- Generates a series of noise contours expressed in Average Day Night Sound Levels (DNL)
- Noise contours represent a noise level average over 24 hours (10 dB penalty 10 pm to 7 am), not what you hear during a single noise event
- Accepted methodology approved by the EPA; used since 1974
NOISE CONTOURS

- The AF makes recommendations for compatible land uses within those areas exposed to high levels of noise.
- Residential land use is not recommended in areas with a 75+dB DNL average, or in areas with a 65 to 75 dB DNL average without noise attenuation.
- Other noise sensitive uses are not recommended in high noise areas (i.e. schools, hospitals).
NOISE CONTOURS
Current noise contours are similar to our 1997 noise footprint.
NOISE CONTOURS

• The cumulative noise contours are similar in size to the 1997 contours because:
  – 1 FW has fewer jets than in 1997
  – The 1 FW is flying fewer sorties than in 1997
  – The F-22 climbs higher quicker

• You can expect that an airfield’s noise footprint will continue to change over time
ACCIDENT POTENTIAL

• The AF makes recommendations for compatible land uses within those areas exposed to higher accident potential

• Nothing other than minimal agricultural use is recommended in the Clear Zone

• Housing and high-intensity uses such as churches, hospitals, schools and other gathering places are not recommended in the Accident Potential Areas

• Accidents are very rare
  – The 1 FW has flown 186,182.2 hours without an accident at Langley AFB
  – There’s always a chance an accident could occur
ACCIDENT POTENTIAL

Air Force Accident Data
(838 Accidents - 1968 - 1995)

Runway

Primary Surface (On-Base)

Clear Zone

Accident Potential Zone I

Accident Potential Zone II

2000'

3000'

5000'

7000'

3000'

209 (24.9%)

230 (27.4%)

85 (10.1%)

47 (5.6%)

Other Accidents Within 10 Nautical Miles
267 (32.0%)

Accident Potential Zones are determined by statistics gathered AF-wide that show where accidents are most likely to occur.
• Imaginary Airfield Surfaces designated by the Federal Aviation Administration surround Langley

• If tall obstructions are constructed in these areas, impacts to flying activity could occur

• Examples of obstructions include
  – Permanent obstructions (cell phone towers, water towers, radio towers, etc.)
  – Temporary obstructions (cranes)
The AF recommends against construction of obstructions coming within 10' of control surfaces. Their presence could compromise the ability of aircraft to land in adverse weather. The AF also recommends against certain land uses near the airfield:
- Uses that release substances into the air
- Uses which produce light or electrical emissions
- Uses that attract birds
The AF asks municipalities to contact LAFB when a use that could impact surfaces is planned (including temporary cranes).
PARTNERING

• Recommend municipalities promote development that is compatible with AICUZ recommendations:
  – Avoid construction of housing and noise sensitive uses in high noise areas and require noise attenuation if it is built
  – Avoid population intensive uses and housing in Accident Potential Zones
  – Avoid construction of tall obstructions that violate airspace control surfaces
  – Avoid siting of land uses that could be hazardous to flight in the airfield vicinity
PARTNERING

- Recommend municipalities continue to plan for the future of Langley AFB on the Peninsula
  - Request they participate in a Joint Land Use Study
- A JLUS is a process managed by the Office of Economic Adjustment
  - Helps AF bases and municipalities use land use planning tools to work together for mutual benefit
- As a citizen you can help
  - Express your support for the AF to your local city council person or board of supervisors rep
  - Ask your community to participate in the JLUS
In an effort to minimize the impact of its flying activities on the community, Langley AFB utilizes the following:

- Implementing Quiet Hours with primary operating hours between 6:00 a.m. and 10:30 p.m.
- Installing hush houses to suppress engine test noise
- Minimizing impacts by changing the preferred runway wind limitation from 5 to 10 knots to allow for more departures over water
- We continue to work with the FAA to allow jets to climb higher faster, thereby minimizing noise
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Thanks for your attention!