



DEPARTMENT OF THE AIR FORCE  
AIR NATIONAL GUARD

30 August 2004

FROM: ANG/CE  
3500 Fetchet Avenue  
Andrews AFB, MD 20762-5157

SUBJ: ANG Engineering Technical Letter (ANGETL) 04-01; Airfield/Airspace Waiver  
Request and Renewal Process

TO: SEE DISTRIBUTION

This document supersedes ANGETL 98-3.

- Purpose:** This ANGETL provides streamlined procedures for processing new and annual renewals of waiver requests for deviations from airfield and airspace criteria and standards on land that is under Air National Guard jurisdiction. It supplements the requirements outlined in United Facilities Criteria (UFC) 3-260-1.
- Effective Date:** Immediately.
- Submittal Dates:** New waivers will be submitted upon identification. Annual renewals will be submitted by 1 February of each calendar year.
- Publication References:**

DoD Instruction 4165.57, *Air Installation Compatible Use Zone Program*  
DoD Standard 6055.9, *Ammunition and Explosives Safety Standards*  
AFI 11-218, *Aircraft Operation and Movement on the Ground*  
AFI 13-209, *Instrument Procedures*  
AFI 13-203, *Air Traffic Control*  
AFI 31-101, *Installation Security Program*  
AFI 31-209, *The Air Force Resource Protection Program*  
AFI 32-1024, *Standard Facility Requirements*  
AFI 32-1042, *Standards for Marking Airfields*  
AFI 32-1043, *Managing Aircraft Arresting Systems*  
AFI 32-1044, *Visual Air Navigation Systems*  
AFI 32-7061, *Environmental Impact Analysis Process*  
AFI 32-7062, *Air Force Comprehensive Planning*  
AFI 32-7063, *Air Installation Compatible Use Zone Program*  
AFJMAN 11-226, *United States Standard for Terminal Instrument Procedures (TERPS)*  
AFJMAN 32-8008, *General Provisions for Airfield/Heliport Pavement Design*  
AFMAN 11-230, *Instrument Procedures*  
AFMAN 32-1076, *Visual Air Navigation Facilities*  
AFMAN 91-201, *Explosives Safety Standards*

AFM 88-5CH1, *Surface Drainage Facilities for Airfields and Heliports*  
AFM 88-5CH2, *Drainage and Erosion Control Subsurface Drainage Facilities for Airfield Pavements*  
AFM 88-5CH3, *Drainage and Erosion Control Structures for Airfields and Heliports*  
AFM 88-6CH2, *Flexible Pavement Design for Airfields (Elastic Layered Method)*  
AFM 88-6CH3, *Rigid Pavements for Airfields*  
AFP 88-71, *Design Guide for Army and Air Force Airfields, Pavements, Railroads, Storm Drainage, and Earthwork*  
AFH 32-1084, *Facility Requirements Handbook*  
Draft ANGI 32-8001, *Programming Policies and Procedures, Chapter 6*  
AF ETL 94-01, *Standard Airfield Pavement Marking Schemes*  
T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*  
FAR Part 77, *Objects Affecting Navigable Air Space*  
FAA Advisory Circular 150/5300-13, *Airport Design*  
UFC 3-260-1, *Airfield and Heliport Planning and Design*

**5. Prescribed IMT:**

*NGB 321, 20040601, (IMT – V1); Request for Airfield and Airspace Criteria Waiver*

**6. Description and Implementation:**

a. Requirements in UFC 3-260-1 call for ANG/CE to establish procedures for processing new and annual renewal of deviations from airfield and airspace criteria and standards. ANG/CEPD will coordinate these waiver requests with ANG/XOOS, ANG/XOS, and ANG/C4AT and monitor corrective actions.

b. The location of an ANG installation greatly influences the airfield waiver process. Airfield waivers for an ANG installation located on a municipal airport will be evaluated differently than a stand-alone ANG installation or an ANG installation located on another federal installation. Types of situations you may encounter and the recommended guidance for that situation include:

- 1) ANG Units on Municipal Airports: ANG installations located on municipal airports or FAA-controlled airfields must apply FAA criteria to facilities such as runways and taxiways that are jointly used by civilian and military aircraft. Facilities that are for military use only, such as aircraft parking aprons, must apply Air Force/DoD criteria. Contact the municipal airport authority to request a copy of all current or requested FAA airfield waivers. Forward a copy of these waivers with your airfield/airspace waiver package. Air Force/DoD criteria will apply within the ANG lease boundary. Apply the criteria referenced in this ETL and complete an airfield/airspace waiver as required.
- 2) ANG Owned and Operated Airfields: Air Force/DoD criteria as referenced in this ETL applies to ANG owned and operated airfields. Complete an airfield/airspace waiver as required.

- 3) ANG Units Located on Other Federal Installations: Air Force/DoD criteria as referenced in this ETL applies. Contact the host and request copies of all current or requested airfield waivers pertaining to the ANG mission. Forward a copy of these waivers with your airfield/airspace waiver package.

- c. ANG units submit annually an airfield waiver renewal package in order to program for funds to correct airfield deviations to criteria.

- d. ANG units must actively manage deviations from the criteria and standards for airfields and airspace. Thorough annual reviews and aggressive pursuit of corrective actions are necessary to provide a safe aerospace environment for flight operations on and around Air National Guard facilities.

## 7. Definitions:

- a. Existing Facilities - The criteria referenced in UFC 3-260-1 is not intended to apply to existing facilities located or constructed under previous standards. These facilities can continue to be used without impairing operational efficiency and safety, and for USAF, should be identified on airfield obstruction maps using a Building Restriction Line (BRL). Existing airfield facilities need not be modified nor upgraded to conform to the criteria in this manual. If there is a change in mission which results in a reclassification of the facility, an upgrade to current standards is required. Upgraded facilities must be maintained at a level that will sustain compliance with current standards.

- b. Modification of Existing Facilities - When existing airfield facilities are modified, construction must conform to the criteria established in UFC 3-260-1 unless waived. Modified facilities must be maintained at a level that will sustain compliance with current standards.

- c. New Construction - The criteria established in UFC 3-260-1 applies to all new facilities. All new construction will comply with criteria established within this manual unless the appropriate waivers are obtained. For USAF, new facilities within the appropriate Category Code may be constructed without waiver if they are behind and beneath the established BRL. New facilities must be maintained at a level that will sustain compliance with current standards.

- d. Waivers to Criteria and Standards - When obstructions violate airfield imaginary surfaces or safe clearance criteria, they must be analyzed to determine impact to aircraft operations and a waiver request submitted. Airfield support facilities authorized to deviate from criteria (permissible deviations) do not require a waiver if sited properly and comply with frangibility requirements.

- e. Frangibility Requirement - All structures placed or constructed within the airfield environment must be made frangible unless otherwise noted in the definitions that follow or unless specifically described as exempt from frangibility requirements using the siting criteria in UFC 3-260-1. This applies for any above ground construction that is within 250 feet of the runway centerline and an extension of that dimension for 3,000 feet beyond the ends of the runway thresholds and within 200 feet of the taxiways. Frangibility implies that an object will collapse or fall over after being struck by a moving aircraft with minimal damage to the aircraft. The constructed object must not impede the motion or radically alter the path of the aircraft.

Foundations for frangible structures shall be constructed flush with finished grade. Corrective action is required if more than three-inches of the vertical surface of any foundation is exposed above finish grade. All structures shall be designed to allow performance of the structure to withstand wind loads less than 70 MPH. At wind speeds and icing conditions above permissible airfield operations conditions, deflections shall remain within the elastic performance of the structure. Maximum deflection in structures used for housing or shelter shall be less than the constructed height divided by 180 for the maximum wind event considered.

Frangible structures - Construction above the ground surface that will collapse or shatter upon impact. The structure must be designed using materials of minimum mass that will either break into segments or shatter without impaling the aircraft skin or becoming an obstacle to the continued movement of the aircraft.

Frangible Support - Used for mounting fixtures or equipment items less than two meters (six feet) in height. The structure will be of minimum mass and will separate at the base connection when struck by a moving aircraft. Upon separation of the base connection, the support must not wrap around the aircraft, impale itself in the aircraft, nor cause the aircraft to alter its path.

Low-Impact Resistant Support - Used for supporting elevated fixtures or equipment items more than two meters but less than 12 meters (6 to 40 feet) above the ground surface, typically towers or poles. Upon impact by aircraft, the structure will be designed to break away at or below the impact location and collapse without wrapping around the aircraft, impaling itself in the aircraft, or causing significant structural damage to the aircraft. The collapse may occur at a single point of failure or may be a segmented collapse. The structure shall be designed such that service of the equipment must be accomplished by lowering the equipment. The design shall not include elements that permit climbing by means of a built in ladder or other scaling devices.

Semi-Frangible Support - Used for those elevated fixtures or equipment items that must be higher than 12 meters (40 feet). The structure will be constructed of multiple elements of low-impact resistant supports. The supports may be in pairs that provide directional stability or groups that provide stability to the grouping as an element. Upon impact by aircraft, each of the supporting elements will collapse as a unit or in segments independent of the grouping. The elements of the supporting structure will not impale in the aircraft, wrap around the aircraft, or significantly change aircraft direction of travel upon impact. The group of elements may incorporate climb to service devices such as ladders provided they comply with applicable safety criteria.

f. Controlling Obstruction - When documenting waiverable items, consider grouping adjacent supporting items with a controlling obstruction, or grouping related items such as a series of drainage structures, as one waiver.

*Example 1:* The squadron operations building violates the 7H:1V Transitional Surface and apron clearance criteria. There are also four utility poles, a 36-inch tall fire hydrant, and numerous trees and shrubs located on the side of the building that is farthest away from the apron. These items are essential to provide architectural enhancement and utilities for this facility, but they also violate apron clearance criteria. Because these items

are isolated from aircraft operations by the squadron operations building, they would not become a hazard to aircraft operations until the squadron operations building is relocated. Therefore, the squadron operations building is the controlling obstruction. Develop one waiver request for the squadron operations building to include all supporting structures to analyze impact to aircraft operations.

*Example 2:* Three flight line security fences border three sides of an aircraft apron and are within the 125 foot clearance from apron boundary marking. One waiver can be completed for the fences.

- g. Temporary Waivers - Temporary waivers are established for correctable obstructions. Temporary waiver requests must indicate the action planned to correct the violation and an estimated completion date.
- h. Permanent Waivers - Use a permanent waiver when 1.) Natural geographical features violate criteria, and it is not economical or practical to remove them, 2.) Existing facilities deviate from criteria but removal is not feasible, 3.) Installation, construction, or erection of a required facility or equipment item according to criteria in UFC 3-260-1 is not practical, and 4.) Removal of the cause of the violation of criteria is not economical or practical.
- i. New Waiver Request - A request for new situations expected to deviate from the criteria and standards that do not have a waiver. These can be either temporary or permanent.
- j. Annual Renewal/Extension Request - A request for renewal of an existing temporary or permanent waiver.
- k. Land under Air National Guard Jurisdiction - Land and facilities located on DoD or civilian airports that are licensed to the Air National Guard. Procedures differ for units on civilian airports versus units on Air Force, Air Force Reserve, or Naval bases.
- l. MAJCOM/CE vs. ANG/CE - References, in the listed publications, to responsibilities of MAJCOM/CE that will be interpreted as ANG/CE for the purposes of this process.

## **8. Responsibilities:**

a. ANG/CE: Approval authority of waiver requests for deviations from criteria and standards for land under Air National Guard jurisdiction. Appropriate MAJCOMs are the approval authority for ANG units on other DoD installations.

b. ANG/CEPD:

- 1) Establish policies regarding the ANG airfield/airspace waiver program.
- 2) Manage and monitors the ANG airfield/airspace waivers program.
- 3) Coordinate waiver requests/annual renewals with ANG Operations Support, Flight Safety, and Air Traffic Systems.

- 4) Obtain ANG/CE approval of waivers, and return approved waivers to bases.
  - 5) Provide a yearly summary report of waiver numbers and remediation costs to ANG/CEP.
- c. ANG Operations Support, Flight Safety, and Air Traffic Systems:
- 1) Coordinate waiver requests/annual renewals.
  - 2) Attend the annual renewal review meeting.
- d. Base Civil Engineers:
- 1) Initiate the new and renewal waiver request process with Wing Flight Operations and Flight Safety.
  - 2) Present new and renewal waiver requests to Facilities Board for approval.
  - 3) Forward waiver requests and annual renewal packages to ANG for approval.
  - 4) Maintain a local file of all approved waivers and review them annually to ensure applicability.

9. **Approval Process:** The procedure for processing waiver requests is the same for new and annual renewal requests except for the timing. New requests should be submitted as soon as a known requirement results in a situation where a deviation from airfield or airspace criteria and standards will exist. Also, new waivers granted throughout the year will be included in the annual submittal even when that waiver is less than one year old.

- a. Process for ANG Units at Municipal Airports:
- 1) BCE requests review of compliance with airfield standards by Operations, Safety, and Communications (Air Traffic Systems).
  - 2) BCE/Operations/Safety/Communications (Air Traffic Systems) jointly develop a list of deviations including, if applicable, those waivers granted by agencies outside of ANG jurisdiction. BCE develops an estimated corrective action cost for all waivers and annotates the list accordingly. USE THE EXAMPLE in Attachment 1 when preparing these documents.
  - 3) Wing Operations presents the list of deviations to the Airfield Operations Board (AOB) for coordination and comment.
  - 4) BCE presents the package to the Base Facilities Board (FB) for coordination and comment.

- 5) BCE puts waiver request package together IAW UFC 3-260-1, reference prescribed IMT, and the submittal requirements outlined here. Include AOB and FB coordination and comments.
  - 6) BCE forwards annual renewal request package to ANG/CEPD by 1 February each year (new requests are submitted as they arise and are also included in the annual package). Air and/or Wing Commander signs package prior to submittal.
- b. Process For ANG Units at ANG-Owned and Operated Airfields:
- 1) BCE requests review of compliance with airfield standards by Operations, Safety, and Communications (Air Traffic Systems).
  - 2) BCE/Operations/Safety/Communications (Air Traffic Systems) jointly develop a list of deviations. BCE develops an estimated corrective action cost for all waivers and annotates the list accordingly. USE THE EXAMPLE in Attachment 1 when preparing these documents.
  - 3) Wing Operations presents the list of deviations to the Airfield Operations Board (AOB) for coordination and comment.
  - 4) BCE presents the package to the Base Facilities Board (FB) for coordination and comment.
  - 5) BCE puts waiver request package together IAW UFC 3-260-1, also reference prescribed IMT, and the submittal requirements outlined here. Include AOB and FB coordination and comments.
  - 6) BCE forwards annual renewal request package to ANG/CEPD by 1 February each year (new requests are submitted as they arise and are also included in the annual package). Air and/or Wing Commander signs package prior to submittal.
- c. Process For ANG Units Located on Other Federal Installations:
- 1) BCE processes all waiver requests pertaining to the ANG mission to the appropriate host MAJCOM in accordance with local procedures. Note that ANG units are still responsible to program corrective action projects for these waivers through ANG/CEP.
  - 2) Forward a copy of the approved waiver documents to ANG/CEPD and include all waivers on the annual submittal.
- d. ANG/CEPD Processing of Airfield Waiver Packages:

- 1) CEPD sends copies of airfield waiver packages to ANG Operations Support, Flight Safety, and Air Traffic Systems concurrently for advance review two weeks prior to joint review meeting.
- 2) CEPD schedules joint review meeting.
- 3) CEPD/Operations/Safety/Air Traffic Systems meet, discuss, decide, adjust, etc.
- 4) Operations Support, Flight Safety, and Air Traffic Systems coordinate on airfield waiver request package.
- 5) ANG/CEPD obtains CE approval of waiver requests.
- 6) ANG/CEPD returns approved waivers to BCE.
- 7) ANG/CEPD provides a summary report to CEP.
  - a) Report includes the number of waivers (permanent and temporary), whether it's an Air Force or FAA driven waiver, and the estimated costs/funding types to correct the deviations.
  - b) Copies of the report go to ANG Flight Operations, Flight Safety, and AFCESA.

#### **10. Submittal Requirements:**

##### **a. New Waivers Requests:**

- 1) New Waiver Request Form (see prescribed IMT)
- 2) Site plan(s) – show each deviation w/ appropriate distances
- 3) Other supporting documents (optional)
- 4) Send copies of waivers received from other agencies (i.e., Air Force MAJCOMs, FAA, etc) to ANG/CEPD.

##### **b. Annual Renewal Waiver Requests:**

- 1) Check the renewal/extension block (see prescribed IMT)
- 2) Annual Waiver Renewal Summary List (see attachment 1)
- 3) Updated site plan and deviation information as appropriate.
- 4) Include on the summary sheet any waivers initiated and/or approved by other agencies (i.e., AF MAJCOMs, FAA, ect.).





**(EXAMPLE of ANNUAL RENEWAL SUMMARY SHEET)**

**ANNUAL RENEWAL OF AIRFIELD WAIVERS**

STATE	TRACKING NUMBER	CRITERIA REFERENCE	DESCRIPTION	CORRECTIVE ACTION	PROJECT NUMBER	MILCON Or RPM	PROGRAM YEAR	PROGRAM AMOUNT	TEMP or PERM	ANG/CE APPROVAL DATE
AB	WXYZ-001	UFC 3-260-1, Table 6.1 Item 15 states that clearance from apron boundary marking to fixed or mobile obstacles shall be no less than 125 ft.	Existing Squadron Operations building is 90 ft from aircraft parking apron.	Replacement of the Squadron Operations building is scheduled for FY01 and the new site will comply with criteria.	WXYZ 011234	MILCON	FY 01	\$4,400,000	Perm	15 Jun 00
AB	WXYZ-002	UFC 3-260-1, Table 3.2 Item 12 states that the runway lateral clearance zone (1,000 ft from runway centerline) must be clear of fixed or mobile objects.	Repair work (mill & overlay) to Taxiway N begins on 15 Aug 00 with contract completion scheduled for 30 Oct 00.	Contract award scheduled for 29 Jun 00. Wing Commander approval of airfield operations plan. Airfield advisory issued.	WXYZ 002202	RPM	FY 00	\$300,000	Temp	N/A

11. The point of contact for this ANGETL is Mr. Mark Bailey, ANG/CEPD, at DSN 278-7042.

  
JANICE M. STRITZINGER, Colonel, USAF  
The Civil Engineer

Attachment:  
Example Annual Renewal Summary Sheet

DISTRIBUTION:  
Each AG (1)  
Each USPFO (1)  
Each BCE (1)  
HQ USAF/ILE (1)  
HQ AFCESA/CESC (1)  
ANG Flight Operations (1)  
ANG Flight Safety (1)  
ANG/C4AT (Air Traffic Systems) (1)  
ANG/CEC (15)