

**AFSC 3E5X1  
ENGINEERING  
CAREER FIELD EDUCATION AND TRAINING PLAN**

This change is effective with the class graduating 13 Jun 2002 in course J5ABA3E531 000, Engineering Apprentice. Compliance with AFI 36-2201, para 4.11.6.1, and other training policies and documentation is required. CFETP 3E5X1, 1 Apr 2002, is changed as follows:

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**1. Write-in Changes:**

**PART I  
SECTION A - GENERAL INFORMATION**

<u>Page</u>	<u>Para</u>	<u>Action</u>
18		Add page number 18 to page
18	last	Change "oportunities" to "opportunities"

**PART II  
SECTION A - SPECIALTY TRAINING STANDARD**

<u>Page</u>	<u>STS Element</u>	<u>Column</u>	<u>Action</u>
41	15.5	4. Course	Change "a" to "A"
41	16.2	4. Course	Change "2b" to "B"
41	16.8.2.	Task Knowledge and Technical References	Change "Utilize Tri-service CAD Standards" to "Utilize Spacial Data Standard for Facilities, Infrastructure and Environment (SDSFIE)"
41	16.8.2	4. Course	Change "a" to "A"

41	16.10.2.	Task Knowledge and Technical References	Change “Tri-service Spatial Data Standards (TSSDS)” to “Utilize Spatial Data Standard for Facilities, Infrastructure and Environment (SDSFIE)”
42	17.3.	2. Core Tasks	Change “*” to “**”
42	17.4.	2. Core Tasks	Change “*” to “**”
42	18.6.	2. Core Tasks	Change “*” to “**”
42	18.7.	2. Core Tasks	Change “*” to “**”
42	18.8.	2. Core Tasks	Change “*” to “**”
42	19.2.	2. Core Tasks	Change “*” to “**”
42	19.3.	2. Core Tasks	Change “*” to “**”
42	19.4.	2. Core Tasks	Change “*” to “**”
42	19.5.	2. Core Tasks	Change “*” to “**”
42	19.6.	2. Core Tasks	Change “*” to “**”
42	19.7.	2. Core Tasks	Change “*” to “**”
43	20.2.1.	2. Core Tasks	Change “*” to “**”
43	20.6.	2. Core Tasks	Change “*” to “**”
44	20.13.3	4. Course	Change “a” to “A”
44	20.14.1.	2. Core Tasks	Change “*” to “**”
44	20.14.2.	2. Core Tasks	Change “*” to “**”
44	20.14.3	4. Course	Change “1a” to “2b”
44	20.14.4.	2. Core Tasks	Change “*” to “**”
44	20.17	4. Course	Change “1a” to “2b”
44	20.18.	2. Core Tasks	Change “*” to “**”

**2. Page Insert Changes:**

***AFQTP Documentation Record  
For AFSC 3E5X1***

<b><u>Page</u></b>	<b><u>Action</u></b>
53 & 54	Insert new pages 53 & 54
55 & 56	Insert new pages 55 & 56

**3.** After necessary actions, file this change in the back of the CFETP.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

EARNEST O. ROBBINS, Maj Gen, USAF  
The Civil Engineer  
DCS/Installations and Logistics

Attachment  
Insert pages 53, 54, 55 and 56

1	2	3	4	5	6	7
TASK NUMBER	TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	* 5 LEVEL * * 7 LEVEL ◆ SEE NOTE 1	START DATE	COMPLETE DATE	TRAINEE'S INITIALS	TRAINER'S INITIALS
<b>16. COMPUTER AIDED DESIGN (CAD)/GEOGRAPHIC INFORMATION SYSTEM (GIS)</b> Ref: AFQTP Module 16 – COMPUTER AIDED DESIGN (CAD)/GEOGRAPHIC INFORMATION SYSTEM (GIS)						
16.1.1.	Setup Drawings	*				
16.1.2.	Utilize basic drawing commands	*				
16.1.3.	Utilize display commands	*				
16.1.4.	Create and utilize symbols	*				
16.1.5.	Utilize advanced commands	*				
16.1.6.	Utilize reference files	*				
16.1.7.	Apply scaling factors	*				
16.1.8.	Perform printing and plotting	*				
<b>17. BASE COMPREHENSIVE PLAN (BCP)</b> Ref: AFQTP Module 17 – BASE COMPREHENSIVE PLAN (BCP)						
17.2.	Airfield planning criteria	**				
17.3.	Explosive safety criteria	**				
<b>18. CIVIL ENGINEER DESIGN</b> Ref: AFQTP Module 18 - CIVIL ENGINEER DESIGN						
18.6.	Prepare materials take-offs	**				
18.7.	Estimate cost elements such as: materials, equipment and labor	**				

1	2	3	4	5	6	7
TASK NUMBER	TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	◆ SEE NOTE 1 * 5 LEVEL * 7 LEVEL	START DATE	COMPLETE DATE	TRAINEE'S INITIALS	TRAINER'S INITIALS
18.8.	Develop work statements	**				
<b>19.</b>	<b>CONTRACT MANAGEMENT</b> Ref: AFQTP Module 19 – CONTRACT MANAGEMENT					
19.2.	Enforce general provisions of contracts	**				
19.3.	Conduct constructability review	**				
19.4.	Document construction activities	**				
19.5.	Evaluate construction contract progress schedule	**				
19.6.	Evaluate progress reports	**				
19.7.	Evaluate material submittals and test reports	**				
<b>20.</b>	<b>AFS SPECIFIC CONTINGENCY RESPONSIBILITIES</b> Ref: AFQTP Module 20 – AFS SPECIFIC CONTINGENCY RESPONSIBILITIES					
20.2.1.	Perform initial airfield assessment	**				
20.2.2.	Perform airfield damage assessment	*				
20.3.	Perform Explosive Ordnance Reconnaissance (EOR)	*				
20.6.	Perform Minimum Operating Strip (MOS) selection procedures and considerations	**				
20.7.	Plot airfield damage	*				

1	2	3	4	5	6	7
TASK NUMBER	TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	* 5 LEVEL * * 7 LEVEL ◆ SEE NOTE 1	START DATE	COMPLETE DATE	TRAINEE'S INITIALS	TRAINER'S INITIALS
20.13.3.	Identify Bare Base assets	*				
20.14.1.	Apply Bare Base planning criteria	**				
20.14.2.	Perform site selection	*				
20.14.4.	Establish non-dispersed layout	**				
21.18.	Force protection engineering considerations and measures	*				

**NOTE 1:** ♦ Diamond tasks are extremely important to the career field. Diamond tasks are the same as core tasks with one exception--equipment shortfalls at most locations have created problems with the actual hands-on certification of these tasks. In instances where required equipment is not available for instruction, completion of the task's AFQTP and passing the corresponding CerTest is all that is required for upgrade and qualification training. Hands-on certification should be accomplished at the first opportunity when equipment is available. In locations where the equipment is available for hands-on certification, CerTest completion is still a mandatory requirement.

1	2	3	4	5	6	7	8
TASK NUMBER	TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	♦ SEE NOTE 1 * 5 LEVEL ** 7 LEVEL	START DATE	COMPLETE DATE	TRAINEE'S INITIALS	TRAINER'S INITIALS	CerTest COMP DATE
13.	<b>SURVEYING</b> Ref: AFQTP Module 13 – SURVEYING						
13.2.3.	Establish horizontal and vertical control by performing a traverse survey CerTests #8176 and 8177	♦					
13.2.12.	Perform a topographic survey CerTest # 8178	♦					
20.	<b>AFS SPECIFIC CONTINGENCY RESPONSIBILITIES</b> Ref: AFQTP Module 20 - AFS SPECIFIC CONTINGENCY RESPONSIBILITIES						
20.8.	Perform Crater Profile Measurement (CPM) operations CerTest #8081	♦					
20.10.	Layout Minimum Airfield Operating Strip Marking System (MAOSMS) CerTests #8091 - 8098	♦					
20.11.1.	Align MAAS CerTest #8142	♦					
20.11.2.	Align MAAS with Lightweight Fairlead Beams CerTest #8142	♦					
20.11.3.	Align MAAS with Standard Beams with deadman anchoring system CerTest #8142	♦					