

FAC 1114 RUNWAY, UNSURFACED

FY22 SUC: \$1.83 / SY
Source: Original Inflated from previous FY using ENR labor and material cost indices to measure
Source: actual inflation Army Staff-directed study, 2011

Unpaved Runway Sustainment Funding

25 Aug 2011



PURPOSE

To provide information and considerations related to sustainment of Unpaved Runways



Overarching Considerations

- Factors that determine current sustainment funds must be reviewed for accuracy.
- Fuel, material, and labor costs have all increased recently.
- Incumbent on installations to ensure unpaved surface amounts are correctly reflected in real property inventories
- Should initially focus on sustainment and follow with restoration
- Fixing algorithm must be initial priority
- Can not solicit input from other installations until initial package is complete.
- Payment for use should be considered as a future option.
- Must define path ahead and required ACSIM data points to address/champion issue.
- Landing frequency spans from 92/year to 1500/year for canvassed installations
- **Analysis to this point indicates a cost spread of .85 to 2.05 per square yard with an **average of \$1.34 to sustain** and 3.38 to 4.61 per square yard for restoration.**

DAMO TRS Guidance



DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF, G-3&57
450 ARMY PENTAGON
WASHINGTON, DC 20310-0400

REPLY TO
ATTENTION OF

DAMO-TRS

30 August 2007

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Range and Training Land Complex Maintenance

1. Reference: AR 350-19, Sustainable Range Program 30 Aug 2005
2. The goal of the Sustainable Range Program is to maximize the capability, availability, and accessibility of ranges and training land by minimizing restrictions brought about by external factors. To maximize this availability requires maintaining the facility and components to the highest standards providing the greatest capability to training Soldiers and units.
3. Funding responsibilities for improvement and maintenance of ranges and training areas can fall in several programs.
 - a. The Facility Sustainment Model System calculates range maintenance and repair requirements for each facility. The installation DPW receives an annual allocation of SRM (funded through MDEP QRPAs) based on the facility (real property) inventory and these funds should be used to maintain these ranges. SRM also includes facility improvements to meet ISR Infrastructure standards.
 - b. The Facilities Operations Model (FOM) supports range mowing operations in/around targets, etc. and is classified as Improved or Unimproved Grounds Maintenance (Service 40 or 41). The installation DPW requirement (funded through MDEP QDPW) to provide this service is identified in the FOM. DPWs will perform all Improved and Unimproved Grounds Maintenance for their installation.
 - c. The range operations program (funded through MDEP VSCW) is responsible for maintaining the targetry and operating systems on those ranges not supported through a MDEP WCLS contracted facility. When funds are available, this program will also provide for minor construction to upgrade ranges to current TC 25-8 standards.
 - d. The Integrated Training Area Management (ITAM) program (funded through MDEP TATM) is responsible for the repair of maneuver damage through land rehabilitation and maintenance projects. ITAM funds can not be used to perform routine range maintenance, range modifications or other SRM responsibilities. ITAM funds may not be used to support environmental conservation or environmental compliance requirements.

DAMO-TRS

SUBJECT: Range and Training Land Complex Maintenance

- e. U.S. ARMY PEO STRI, Program Manager Field Operations & Support provides instrumentation and targetry for digital and urban ranges. Those facilities supported by this support contract (funded through MDEP WCLS) will provide maintenance of this instrumentation and targetry.
4. The Army G-3/5/7 point of contact is Mr. Dan Smith (DAMO-TRS) at (703) 692-6412 DSN 222 or e-mail: daniel.smith2@hqda.army.mil.

Thomas E. Macia
Chief, Training Support
Systems Division

Encl:

1. Target Graphic

DISTRIBUTION:

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Locally Applied Nomenclature vs CATCD

Local Facility Nomenclature

Flight Landing Strip (FLS) – Not found in DA PAM 415-28
Aircraft Landing Strip (ALS) – Not found in DA PAM 415-28
Assault Landing Zone (ALZ) – Not found in DA PAM 415-28

Commonly used CATCD

CATCD: 11111

Long title: FIXED WING RUNWAY, UNPAVED

Short title: FW RUNWAY UNPAV

Facility type: Structure

UM1: SY

UM2: LF

Program UM: SY

FAC: 1114

FCG: F11111

Proponent: DCS, G-3

GLAC: 1740

Investment code: 01

Description: An unpaved prepared surface for training, emergency, and other special takeoff and landing operations for fixed wing aircraft. It can also accommodate rotary wing aircraft. For inventory purposes, include only the prepared runway surface.

FAC 1114 and 1166 in DA PAM 415-28

Table F-1
FAC crosswalk table, by FAC

FAC	FCG	FCG description	UM	CATCD	CATCD short title	P UM
1111	F11110	RUNWAYS, FW	SY	11110	FW RUNWAY PAVE	SY
1112	F11120	RUNWAYS, RW	SY	11120	RW RUNWAY PAVE	SY
1112	F11120	RUNWAYS, RW	SY	11130	RW LAND PAD PAV	SY
1113	F11151	RUNWAY OVERRUN	SY	11151	RUNWAY OVERRUN	SY
1114	F11111	RUNWAY, UNSURF	SY	11111	FW RUNWAY UNPAV	SY
1114	F11111	RUNWAY, UNSURF	SY	11121	RW RUNWAY UNPAV	SY
1121	F11210	TAXIWAYS, FW	SY	11212	FW TAXIWAY PAVE	SY
1122	F11220	TAXIWAYS, RW	SY	11221	RW TAXIWAY PAVE	SY
1131	F11310	PARKING, FW	SY	11310	FW PK APRN PAVE	SY
1131	F11320	PARKING, RW	SY	11320	RW PK APRN PAVE	SY
1131	F11330	MNT APRON, ACFT	SY	11330	AC MNT APR PAVE	SY
1131	F11340	ACC APRON, HGR	SY	11340	HGR ACC APR PAV	SY
1131	F11350	HOLD APRN, ACFT	SY	11350	AC HLD APRN PAV	SY
1131	F11380	LOAD APRN, ACFT	SY	11380	AC LD APRN PAVE	SY
1161	F11610	SWING BS, ACFT	SY	11610	COMP SWING BASE	SY
1163	F11370	WASH APRN, ACFT	SY	11370	AC WSH APRN PAV	SY
1166	F11131	MISC AFLD PVMTS	SY	11131	RW LAND PAD UNP	SY
1166	F11131	MISC AFLD PVMTS	SY	11213	FW TAXIWAY UNP	SY
1166	F11131	MISC AFLD PVMTS	SY	11222	RW TAXIWAY UNP	SY
1166	F11131	MISC AFLD PVMTS	SY	11311	FW PK APRN UNP	SY
1166	F11131	MISC AFLD PVMTS	SY	11321	RW PK APRN UNP	SY
1166	F11131	MISC AFLD PVMTS	SY	11331	AC MNT APR UNP	SY
1166	F11131	MISC AFLD PVMTS	SY	11341	HGR ACC APR UNP	SY
1166	F11131	MISC AFLD PVMTS	SY	11351	AC HLD APRN UNP	SY
1166	F11131	MISC AFLD PVMTS	SY	11371	AC WSH APRN UNP	SY
1166	F11131	MISC AFLD PVMTS	SY	11383	AC LD APRN UNP	SY

FAC 1114 V13 Sustainment Unit Cost

References:

TM 5-626

COE WES Technical Report GL-98-12 *Determination of Semi-Prepared Airfield Pavement Structural Requirements for Supporting C-17 Aircraft Gear*

Based on: The C-17 can take off and land on runways as short as 3,500 feet (1,064 meters) and only 90 feet wide (27.4 meters)

Fringe and overhead from Circular A-76, Attachment C, Para B2f and B5

Engineered Performance Standards Handbook, Book 11, Army TB -- 420-33, NAVFAC P -- 716.0, Air Force manual -- 85-56 NAVFAC P-710.

R. S. Means Facilities Maintenance and Repair Cost Data

U/M: SY

Mean inventory = 150,733.31 square yards = 126,031.99 square meters

Median inventory = 41,194 square yards = 34,443.849 square meters

Cost Source: R. S. Means Facilities Maintenance and Repair 2010

Cost Elements

1. Perform "windshield inspection" once per quarter
2. Detailed inspection of sample units annually
3. Correct drainage, corrugations, dust, potholes, ruts or loose aggregate as needed

Perform "windshield inspection" once per quarter

- GS-12 Hourly Rate: Basic rate 40.66/hr x 1.325 (fringe) x 1.12 (overhead) = \$60.34
- 1 hour prep time + 1 hour inspection x 4 times per year = \$482.72
- Per unit = \$482.72/150,733.31 = \$0.003/SY

Detailed Annual Inspection of Sample Units:

- Average sample = 231 square meters = 2500 SF = 278 SY
- Time requirement = .5 hr prep, 1 hr field inspection, 1 hr report preparation
- 2.5 hr x \$60.34 = \$150.85 per sample
- Number of samples (assume C-17 minimum) = $(90' \times 3500')/2500 \text{ SF} = 126 \text{ samples}$
- Annual cost = \$150.85 x 126 = \$19,007
- Per unit = \$19,007/150,733.31 = \$0.126/SY

Correct drainage, corrugations, dust, potholes, ruts or loose aggregate as needed:

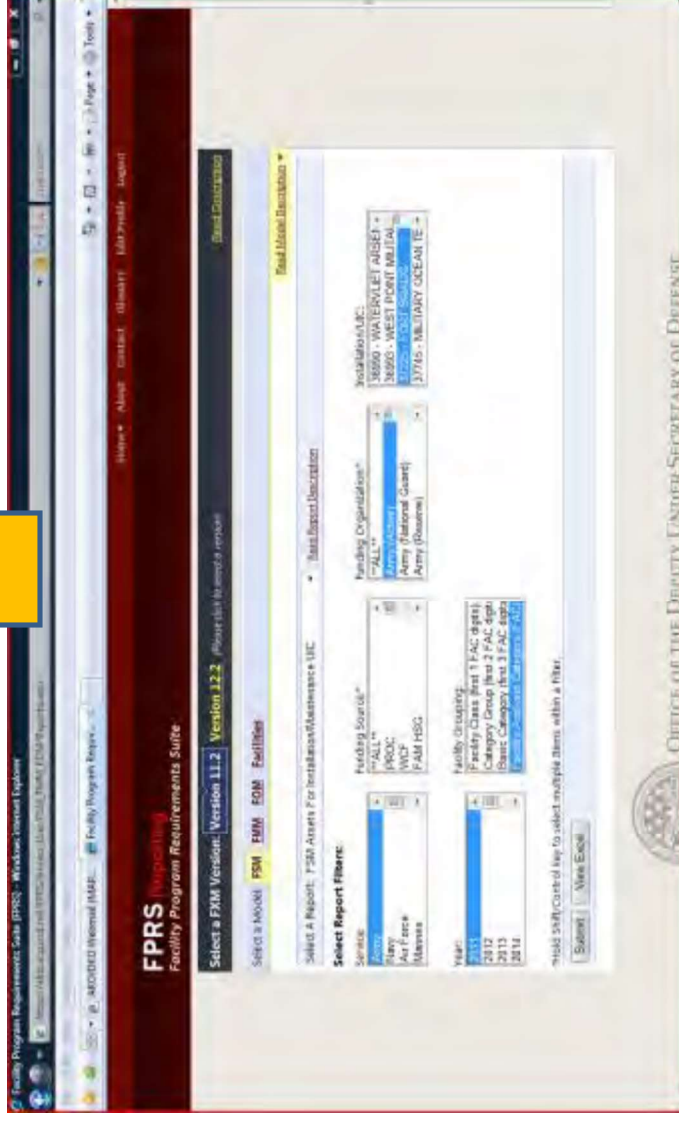
FAC1114	Runway, Unsurfaced			Mean Size		SV	150,733.31
		Width FT	Length FT	% Repaired			
	Area to be repaired	90	3500	5%			15750
		New Material Area %	Depth				
	Assumed new material to be placed	1%	0.5		CY		2.92
			Task Time		Task Units	Hours	
	spread material with grader & bulldozer		0.03149		CY		0.092
	grade using motor grader		0.0474	15000	SF		0.04977
	oil surface with oil truck & spray nozzle		0.00021		SF		3.3075
	rough roll		0.0011		SF		17.325
	finish roll with roller, broom and water down		0.00055		SF		8.6625
TOTAL Hrs							29.44
Crew	B-32C: 1 foreman, 2 laborers, 3 equipment operators, 1 grader, 1 tandem roller, 1 dozer			8	HR	\$	4,744.12
	Adjustment for Arlington VA			0.928		\$	4,402.54
TOTAL Cost						\$	16,199.50
	Per Unit						0.10747125

Total:

- Perform "windshield inspection" once per quarter \$0.003
- Detailed Annual Inspection of Sample Units \$0.126
- Correct drainage, corrugations, dust, potholes, ruts \$0.107
- Total \$0.236

Facility Support Model (FSM) Comparison (V11.2)

Installation	Reported FAC	UM/SY	Sustainment Cost	Cost/SY
AP HILL	1114 Unpaved Runway	112,223.54	\$24,046	\$0.21
FBNC	1166 Misc Airfield Pavements	13,264,445.6	\$2,662,629	\$0.20
FPLA	1114 Unpaved Runway	136,666	\$27,537	\$0.20
	1166 Misc Airfield Pavements	63,166	\$12,537	\$0.19



Note 1 : FAC 1166 contains multiple unpaved surface CATCDs.

Note 2. Minor differences in Cost/SY due to local area cost factors.

AP HILL



Task Analysis (AP Hill)

Task	Materials	Material Costs	Labor	Equipment Lease Costs	Fuel Costs
Routine Grading	0	0	3370.56	4320	2450
Repair Grading	#10 Stone Dust	41600	7302.88	2880	1575
Water Distributor	0	0	6179.36	2640	1925
Roller Compaction	0	0	6179.36	3300	1344
Inspection	0	0	421.32	0	0
Annual Estimated Costs Depending on Usage					
<div style="border: 1px solid red; padding: 5px;"> .32 sq ft = 2.88 sq yd combined cost for FY09, FY10 and FY11 to date. That equates to 176,091.84 in sustainment for this period. For the annual sustainment I broke the period down into 33 months. 176,091.84 divided by 33 months x 12 = 64,033 annual sustainment with an annual sq yd figure of 1.05 per sq yd. </div>					
Totals					
Materials	\$41,600.00		Landing Strip		Surface Type
Fuel	\$7,294.00		ALZ		
Equipment Lease	\$13,140.00		AF1		
Labor	\$23,453.48		Pender		
Total	\$85,487.48				

FAPH ALZA Utilization

MISSION DATE	UNIT	TYPE OF AIRCRAFT	# OF LANDING	# TAKE OFF	FULL STOP	TOUCH & GO	LOW APPROACH	# Jumper
6-7 Dec 10	437th Aw Charleston, SC	C-17					6	
7-Dec-10	USACATT	CASA 212	4	4	4			56
8-Dec-10	USACTT	CASA 212	6	6	6			56
8-Dec-10	USACATT(VMGR 254 AW)	C-30	4	4	4			90
8-Dec-10	437th Aw Charleston, SC	C-17 (2)					8	
10-Dec-10	AWG (Gary)	Twin Otter	6	6	6			
14-Dec-10	914th AW Cancelled mission due to WX							
14-Dec-10	440th AW, Pope AFB	C-130	10	10				2 LZSO
21-Dec-10	914th AW	C-130	1	1				
22-Jan-11	450th CAB (135th AW Support)	C-130			Drop Only		9	90
31-Jan-11	AWG (Gary)	Twin Otter	1	1			2	

FAPH ALZA Utilization

MISSION DATE	UNIT	TYPE OF AIRCRAFT	# OF LANDING	# TAKE OFF	FULL STOP	TOUCH & GO	LOW APPROACH	# Jumper
6-14 Apr 2011	Semi-Annual Maintenance							
19-20 May 2011	NVESD	C-208	8	8	8		4 each day	
23-26 May 2011	NVESD	C-208	16	16	16		4 each day	
14 June 2011	USACATT	C-7	10	10	10			144
15 June 2011	USACATT	C-7	12	12	12			114
20 June 2011	2nd MAW	C-130	1	1	1			
23 June 2011	18th Abn Corps JFEX C-17 (2) 437th AW	C-17 (2)	2	2	2			
	C-17 10186 McCord	C-17	1	1	1			
	C-17 27159 Dover	C-17	5	5	5			
24 June 2011	C-17 Dover	C-17	5	5	5		Night Opns	18

Total Landings

C17 13

C130 12

C30 4

C7 22

C208 24

CASA 212 10

Twin Otter 7

GRAND TOTAL 92

FAPH Unpaved Runway Inventory

- FAPH ALZA C130, C17, Twin Otter, DHC-4
 - 4400 Ln ft stone surface
- FAPH AF1- Casa 212, 235, Twin Otter
 - Grass strip
- FAPH PENDER AF- Twin Otter
 - Grass strip
- FAPH COOKE AF- Current ops rotary wing only
 - Grass strip

FAPH ALZA RPID 272037 – FCC 11111



FAPH AF1 RPID 272838 – FCC 11111



FAPH Cooke AF RPID 272839 – FCC 11111



FAPH Pender AF RPID 272842 – FCC 11111



AP Hill Erosion Example - C17 Turnabout



AP Hill Erosion Example - C17 Rutting



AP Hill Erosion Example C17 Ruts edge of runway night ops



AP Hill Erosion Example - Typical C17 Effects



AP Hill Erosion Example - Average ruts 7.5 to 9.5 inches



AP Hill Sustainment

Aggregates Used in Construction/Maintenance:

Base: #21A

Mid-Level: S-5 Blend (Very small aggregate with no dust)

Top: #10 Dust.

All aggregate is watered and compacted utilizing a vibratory roller.

Maintenance Cost Per Square Foot: **\$0.32* or \$1.05 per SQYD**

*Based on costs incurred over the last three fiscal years to include FY11 to date. Cost will fluctuate based on type of aircraft and usage.

FORT POLK



Fort Polk Cost per SQ YD

FLS Estimates

Self FLS

6" Cement Stabo	\$1,286,130.00	14.109/sqyd	All totals include 6" Soil Stabilization, Soil Test Team, 10% Select Fill, Boundry and Survey Markers and 5 man Survey team.
6" Asphalt Stabo	\$942,476.00	10.339/sqyd	
6" Lime Stabo	\$987,142.00	10.829/sqyd	
91,155 sq yd = 18.8336 ac			

Geronimo FLS

6" Cement Stabo	\$1,104,436.00	14.124/sqyd	All totals include 6" Soil Stabilization, Soil Test Team, 10% Select Fill, Boundry and Survey Markers and 5 man Survey team.
6" Asphalt Stabo	\$809,637.00	10.353/sqyd	
6" Lime Stabo	\$847,953.00	10.844/sqyd	
78,196 sq yd = 16.1561 ac			

Peason FLS

6" Cement Stabo	\$857,238.00	14.154/sqyd	All totals include 6" Soil Stabilization, Soil Test Team, 10% Select Fill, Boundry and Survey Markers and 5 man Survey team.
6" Asphalt Stabo	\$628,908.00	10.384/sqyd	
6" Lime Stabo	\$658,584.00	10.874/sqyd	
60,565 sq yd = 12.5134 ac			

This sustainment occurs every three years. This results of an annual cost per square yard average from **\$3.38 to \$4.61** depending on stabilization technique/materials used.

Fort Polk Comments

1. We acknowledge the Real Property data is not correct.
2. Attached is our latest calculations based on sqyds
3. **Our plan conducts in-depth repairs on a three year cycle.** So dollar figures total could be divided by three for annual costs.
4. Attached are aerial photos with areas that require sustainment. We have it broken down by surface and/or design standard.
5. We also included an overall area, we call "Sustainable Area" realizing that drainage and surrounding terrain (within reason ~ 200') need maintenance annually. This is not currently discussed in any document that we've seen. Limiting the funding to "surfaced" square yards leaves a burden on installation.

Observation: Plan seems to employ a “restoration” methodology.

Fort Polk Utilization

[illegible]

FPLA - SELF AIRSTRIP ALS



FPLA – Peason Ridge FLS



FPLA – Geronimo ALS



FORT BRAGG





Fort Bragg Facts

- A 500,000lb aircraft landing at 120kts/2Gs causes significant runway damage as do 4 engines each producing 14,400lb of thrust.
- While this is an Army-wide issue, FBNC provides an excellent case study:
 - Fort Bragg is facing significant challenges sustaining Flight Landing Strips for C17, C130, and CASA aircraft.
 - Seventy percent of runway use is in direct support of 82nd ABN DIV training.
 - Affected facilities are Holland (C17, C130), Sicily (C130), St Mere (CASA). Luzon.(C130/C17).
 - Associated Sustainment funds are insufficient. Historical annual costs (over 10 years) average \$350-450K dollars per year.
 - Primary cost is purchase of sand / clay material
 - Combat Engineers are used when possible to reduce costs and simultaneously provide training venue. (Less than 20% of the time)
 - Frequent deployment of Combat Engineers requires use of Range Maintenance (In contradiction of CLS and without proper training/certification) and or contracted labor to conduct work.
 - Reduced 82nd ABN DIV deployment OPTEMPO will increase annual use of these facilities
 - Air Force personnel request sole use of these facilities 30% of the time – and are always Joint use with Army units.

Task Analysis (Bragg)

[illegible]

Fort Bragg Utilization

MISSION DATE	ALS	TYPE OF AIRCRAFT	# OF LANDING	# TAKE OFF	FULL STOP	TOUCH & GO	LOW APPROACH	# Jumper
<div> <div> Sicily: C130,109 landings, 109 takeoffs; CASA, 68 landings, 68 takeoffs. </div> <div> Holland: C130 29 landings, 29 takeoffs; CASA, 10 landings, 10 takeoffs (Holland was closed for 9 months of FY10). </div> <div> St Mere: CASA, 237 landings, 237 takeoffs. </div> <div> Luzon: C17, 6 landings, 6 takeoffs C130, 15 landings, 15 takeoffs CASA, 35 landings, 35 takeoffs (Luzon was down for 10 months / C17 stuck on turnaround caused substantial damage) </div> </div>								
<div>   </div>								
<div> Total Landings/Takeoffs C17 6 C130 153 CASA 340 Grand Total 509 </div>								

Holland Overview

Primary Users: C130/C17

Runway Sustainment:

- REQUIRES QUARTERLY MAINTENANCE AND OPERATIONAL REPAIR DURING JFEX/JOAX
- WILL NEED TOTAL UPGRADE EVERY 10 YEARS \$4-5M (BASED ON CURRENT DAY COST) CURRENTLY UNDERGOING UPGRADE.

Annual Maintenance Costs

Sand/Clay: \$125K (ESTIMATED)

Labor: \$15K (ESTIMATED)

Misc: \$10K Fuel/Equipment

Repair (ESTIMATED)



Rhine Luzon Overview

Primary Users: C130/C17

Runway Sustainment:

- REQUIRES QUARTERLY MAINTENANCE AND OPERATIONAL REPAIR DURING JFEX/JOAX
- WILL NEED TOTAL UPGRADE EVERY 10 YEARS \$4-5M (BASED ON CURRENT DAY COST).

Annual Maintenance Costs:

Sand/Clay: \$100 (ESTIMATED)

Labor: \$15K (ESTIMATED)

Misc: FUEL/EQUIPMENT REPAIR \$10K (ESTIMATED)



Sicily Overview

Primary User: C130

Runway Sustainment:

- REQUIRES QUARTERLY MAINTENANCE AND OPERATIONAL REPAIR DURING JFEX/JOAX
- WILL NEED TOTAL UPGRADE EVERY 10 YEARS \$4-5M (BASED ON CURRENT DAY COST)

Annual Maintenance Costs:

Sand/Clay: \$125K (ESTIMATED)

Labor: \$15K (ESTIMATED)

Misc: FUEL/EQUIPMENT REPAIR \$10K (ESTIMATED)



St Mere Overview

**Primary Users: RW AND SOF
STOL AIRCRAFT**

Runway Sustainment:

- MAINTENANCE REQUIRES
QUARTLRY GRADING AND
PACKING .
- REQUIRES TOTAL UPGRADE
EVERY 10-12 YEARS .

Annual Maintenance Costs:

Sand/Clay: 2,500 CUBIC YARDS
\$25,000 (Estimated)

Labor: \$10,000 (Estimated)

Misc: FUEL/EQUIPMENT REPAIR
\$5K (Estimated)



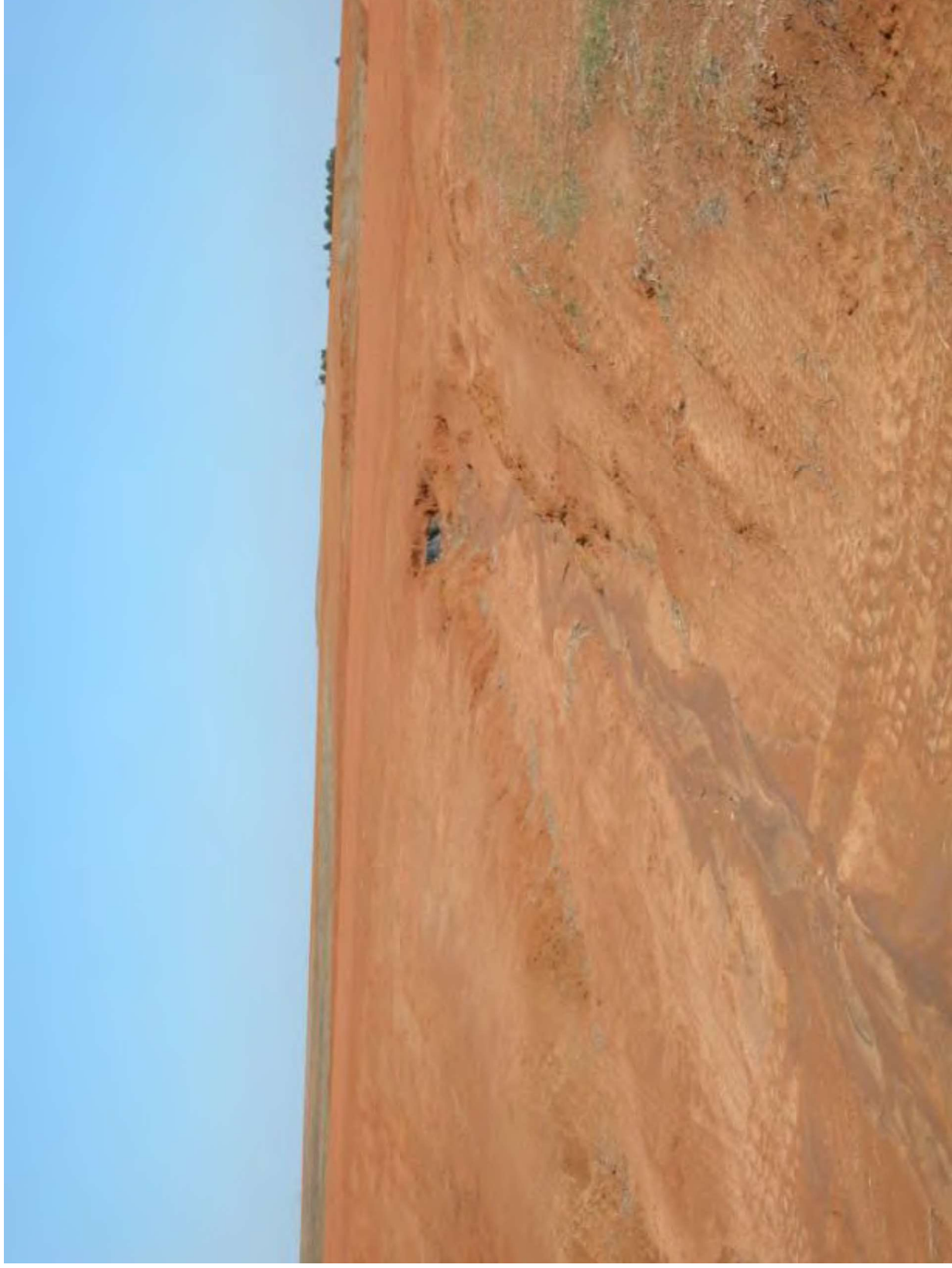
Fort Bragg Erosion Examples



Fort Bragg Erosion Examples



Fort Bragg Erosion Examples



Fort Bragg Erosion Examples



Fort Bragg Erosion Examples



Recommendations

- Ensure installations have unpaved runways correctly annotated in real property inventory and on Facility Sustainment Model (FSM). Also, ensure all other unpaved resources are annotated (i.e., taxiways, aprons).
- Assess damage immediately after C17/C130 landings. Estimate annual damage repair costs. Incorporate into SRM funding computations.
- Compare/contrast actual annual maintenance costs (per square yard) to amount programmed to establish delta.
- Evaluate current cost factor computation factors for relevance /currency.
- Refine CATCD to better identify/describe purpose, configuration, and primary use of ALZ / ALS / FLS facilities.
- **Adjust cost factors to provide realistic sustainment funding to installations.**
- Utilize Air Force Redhorse Engineers to assist with maintenance and repair of unpaved runways that support Air Force training.
- Establish a landing fee for Air Force training when not in support of Army training.

Questions

Back Ups



Heavy Aircraft Historical Use Matrix Example

Installation	Facility	C17 TO-LNDG/Yr	C130 TO-LNDG/Yr	C23 TO-LNDG/Yr	Cost Factor	Base Cos	Total Cost
Bragg	Holland	78	30	0	14.8	31000	458800
Bragg	Luzon	31	80	0	12.65	28000	354200
Bragg	St Mere	0	70	20	9.3	15000	139500
Bragg	Sicily	0	100	50	13.5	29000	391500
AIR FORCE TNG TO/LND		Holland	Luzon	St Mere	Sicily	Cost	
	C17		27	18	0	0	43000
	C130		11	15	7	13	22500
Cost Factor/Occurrence		AIRFORCE CHARGE					
	C17 TO-Landing	C17					
	C130 TO-Landing	C130					
	C23 TO-Landing						
		0.15				955	
		0.1				489	
		0.07					

Notes

- This is a possible COA to address issue.
- All numbers are arbitrary and are used for example only.
- Cost factor determined by onsite landing/TO damage analysis.
- Base sustainment cost multiplied by resultant cost factor.
- Installations responsible to provide historical TO/LNDNG iterations per facility to establish cost for ACSIM.
- Technique would enable cost assessment for billing Air Force

Other Applicable DA PAM 415-28 FCCs

CATCD: 17984

Long title: MEDIUM/HEAVY EQUIPMENT TRAINING AREA

Short title: MED/HV EQUIP TR

Facility type: Structure

UM1: AC

UM2: EA

Program UM: EA

FAC: 1790

FCG: F17900

Proponent: DCS, G-3

GLAC: 1740

Investment code: 05

Description: An **unimproved** area for training in placement, compaction, and grading of fill and training in construction of drainage structures. Training in the use and maintenance of rock crushers is also conducted at this facility.

CATCD: 89286

Long title: SEMI-IMPROVED GROUNDS

Short title: SEMI-IMP GRD

Facility type: Structure

UM1: AC

UM2: None

Program UM: None

FAC: 9999

FCG: None

Proponent: ACSIM facilities

GLAC: 1740

Investment code: 17

Description: Acreage on which periodic recurring maintenance is performed, but to a lesser degree than on improved grounds. Activities include mowing primarily for safety and security, weed and brush control, erosion control, dust control, and drainage maintenance. Types of areas include antenna fields, airfield shoulders, clear zones, drop zones, ranges, and picnic areas. Use this category for maintenance tracking use only.

Other Applicable DA PAM 415-28 FCCs

CATCD: 11213

Long title: FIXED WING TAXIWAY, UNPAVED

Short title: FW TAXIWAY UNP

Facility type: Structure

UM1: SY

UM2: None

Program UM: SY

FAC: 1166

FCG: F11131

Proponent: DCS, G-3

GLAC: 1740

Investment code: 01

Description: Unpaved prepared surfaces serving as designated pathways on an airfield constructed for taxiing fixed wing aircraft. They provide safe conditions for ground movement of aircraft between the runway and the taxi lanes serving the aircraft parking and maintenance areas. For inventory purposes, include only the prepared taxiway surface.

Table B-3

Airfield Aprons (113)—Continued

CATCD: 11311

Long title: FIXED WING PARKING APRON, UNPAVED

Short title: FW PK APRN UNP

Facility type: Structure

UM1: SY

UM2: None

Program UM: SY

FAC: 1166

FCG: F11131

Proponent: DCS, G-3

GLAC: 1740

Investment code: 01

Description: An unpaved prepared airfield surface used for fixed wing aircraft parking. The area includes parking lanes, taxi lanes, exits, and entrances. Aircraft move under their own power to the parking spaces, where they may be parked and secured with tie-downs. Parking designed to distribute aircraft for the purpose of increased survivability (dispersed hardstands) is included in this CATCD. For inventory purposes, include only the prepared apron surface.

Other Applicable DA PAM 415-28 FCCs

Table B-34

Training Facilities Other Than Buildings (179)—Continued

CATCD: 17968

Long title: ROAD/AIRFIELD CONSTRUCTION TRAINING SITE

Short title: RD/AF CONST TRN

Facility type: Structure

UM1: AC

UM2: EA

Program UM: EA

FAC: 1790

FCG: F17900

Proponent: DCS, G-3

GLAC: 1740

Investment code: 05

Description: An area for training in the placement, clearing, compaction, repair, and grading of fill and construction of drainage structures for roads and Army airfields capable of handling C-130 aircraft. Steel mats or other nonbituminous mats may be used. If the road is an actual portion of the installation's network of training area roads, it should be inventoried as a Training Area Road, Unpaved (85715). If the airfield is actually used by aircraft, it should be inventoried as an unpaved airfield facility using appropriate 100-series (Airfield Pavements) CATCDs.

FPRS Reporting

Facility Program Requirements Suite

Select a FXM Version: **Version 11.2** [Version 12.2](#) [\(Please click to select a version\)](#) [Read Description](#)

Select a Model **FSM** **FMM** **FOM** **Facilities** [Read Model Description](#)

Select A Report: FSM Assets For Installation/Maintenance UIC [Read Report Description](#)

Select Report Filters:

Service:
 Army
 Navy
 Air Force
 Marines

Funding Source:
 ALL
 PROC
 WCF
 FAM HSG

Funding Organization:
 ALL
 Army (Active)
 Army (National Guard)
 Army (Reserve)

Installation/UIC:
 36990 - WATERVLIET ARSEN
 36993 - WEST POINT MILITAF
 37225 - FORT BRAGG
 37745 - MILITARY OCEAN TE

Year:
 2011
 2012
 2013
 2014

Facility Grouping:
 Facility Class (first 1 FAC digits)
 Category Group (first 2 FAC digits)
 Basic Category (first 3 FAC digits)
[Facility Analysis-Category \(FAC\)](#)

*Hold Shift/Control key to select multiple items within a Filter.

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