

FAC 3121 Missile and Space RDT&E Facility

RUC: \$228.50 SF

Source: USACE PAX Newsletter 3.2.2 dated 20 Mar 09
Average of
 • CC 31010 Chemistry Lab
 • CC 21110 A/C Maintenance Hangar
 • CC 21120 A/C Component Maintenance
 • CC 21210 Guided Missile Maintenance Facility
Deflated to FY-09 using Appendix C\
In V12, Tri-Service and USACE PAX Newsletter values were updated while all other values were inflated only.

SUC: \$2.86 SF

Source: Cost Works model in \$FY-08, inflated to \$FY-09 using Green Book Table 5-6 (O&M less DHP)
In V12, values were inflated only.

Model follows:

Chart: A chart showing relative annual sustainment requirements follows:

FAC 3121-Missile and Space RDT&E Facility
CostWorks 2008 Quarter 2

Design Life= 55
Average S.F= 11,200

C.S.F=100 S.F; MSF=1000 S.F
Sq=100 S.F; M.L.F=1000 L.F

This spreadsheet was
exported from R.S Means
CostWorks

Terminal Cutoff is the removal of a single task occurrence if that task occurs
within 10% of the end of the design life and if the frequency of the task exceeds
20% of the design life. This prevents scheduling major work near the end of the
design life

Description	Frequency	Crew	Qty	Unit	Total In-House	Total Incl. O&P	Release	Occurrences in Design Life	Adjusted Occurrences	Terminal Cutoff
Repair brick wall - 1st floor	25	1 Bric	621.600	S.F.	22,999.20	27,947.14	2008 Qtr 2	2	1	\$ 27,947.14
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	1 Carp	72.000	Ea.	8,277.12	9,806.40	2008 Qtr 2	2	2	\$ 19,612.80
Replace 2'-0" x 3'-0" aluminum window - 1st floor	50	1 Carp	72.000	Ea.	31,579.20	36,935.28	2008 Qtr 2	1	0	\$ -
Replace glass - 1st floor (1% of glass)	1	1 Carp	4.320	S.F.	39.10	45.88	2008 Qtr 2	55	55	\$ 2,523.31
Repair 3'-9" x 5'-5" steel frame window - 1st flr.	20	1 Carp	82.000	Ea.	21,566.82	25,191.22	2008 Qtr 2	2	2	\$ 50,382.44
Refinish 3'-9" x 5'-5" st. frame window - 1st flr.	5	1 Pord	82.000	Ea.	5,518.60	6,811.74	2008 Qtr 2	11	11	\$ 74,929.14
Replace 3'-9" x 5'-5" st. frame window - 1st flr.	45	1 Carp	82.000	Ea.	127,314.02	146,483.16	2008 Qtr 2	1	1	\$ 146,483.16
Finish new 3'-9" x 5'-5" st. fr. window - 1st flr.	45	1 Pord	82.000	Ea.	4,794.54	5,911.38	2008 Qtr 2	1	1	\$ 5,911.38
Replace glass - 1st floor (1% of glass)	1	1 Carp	19.800	S.F.	179.19	210.28	2008 Qtr 2	55	55	\$ 11,565.18
Repair 12' x 12' steel roll-up door	10	1 Carp	2.000	Ea.	1,665.22	1,929.08	2008 Qtr 2	5	5	\$ 9,645.40
Refinish 12' x 12' steel roll-up door	5	1 Pord	2.000	Ea.	337.66	411.08	2008 Qtr 2	11	11	\$ 4,521.88
Replace 12' x 12' steel roll-up door	35	2 Carp	2.000	Ea.	6,650.54	7,699.10	2008 Qtr 2	1	1	\$ 7,699.10
Repair steel, painted, door	14	1 Carp	3.000	Ea.	1,747.32	2,059.08	2008 Qtr 2	3	3	\$ 6,177.24
Refinish 3'-0" x 7'-0" steel, painted, door	4	1 Pord	3.000	Ea.	98.73	120.93	2008 Qtr 2	13	13	\$ 1,572.09
Replace 3'-0" x 7'-0" steel, painted, door	45	1 Carp	3.000	Ea.	1,596.24	1,860.12	2008 Qtr 2	1	1	\$ 1,860.12
Replace tempered glass - (3% of glass)	1	1 Carp	1.890	S.F.	36.48	43.39	2008 Qtr 2	55	55	\$ 2,386.69
Debris removal and visual inspection built-up roofing	1	2 Rofc	11.200	M.S.F.	328.61	395.92	2008 Qtr 2	55	55	\$ 21,775.60
Non-destructive moisture inspection built-up roofing	5	2 Rofc	11.200	M.S.F.	1,016.74	1,229.76	2008 Qtr 2	11	11	\$ 13,527.36
Total roof replacement built-up roofing	28	G1	112.000	Sq.	63,927.36	75,706.40	2008 Qtr 2	1	1	\$ 75,706.40
Minor membrane repairs - (2% of roof area) built-up roofing	5	G5	2.240	Sq.	771.72	911.77	2008 Qtr 2	11	11	\$ 10,029.47
Flashing repairs - (2 S.F. per sq. repaired) built-up roofing	5	2 Rofc	4.480	S.F.	15.05	17.92	2008 Qtr 2	11	11	\$ 197.12
Minor membrane replacement - (25% of roof area) built-up roofing	15	G5	28.000	Sq.	16,644.04	19,854.24	2008 Qtr 2	3	3	\$ 59,562.72
Repair steel painted interior door	14	1 Carp	3.000	Ea.	503.25	594.42	2008 Qtr 2	3	3	\$ 1,783.26
Replace 3'-0" x 7'-0" steel painted interior door	60	1 Carp	3.000	Ea.	2,812.62	3,269.88	2008 Qtr 2	0	0	\$ -
Safety glass repl., (3% of glass) steel painted interior door	1	1 Carp	1.890	S.F.	32.00	38.05	2008 Qtr 2	55	55	\$ 2,092.51
Repair solid core wood door interior	11	1 Carp	6.000	Ea.	1,006.50	1,188.84	2008 Qtr 2	5	5	\$ 5,944.20
Refinish 3'-0" x 7'-0" solid core wood door interior	4	1 Pord	6.000	Ea.	253.32	311.88	2008 Qtr 2	13	13	\$ 4,054.44
Replace 3'-0" x 7'-0" solid core wood door interior	40	1 Carp	6.000	Ea.	2,200.20	2,550.72	2008 Qtr 2	1	1	\$ 2,550.72
Refinish drywall	8	1 Pord	1,628.000	S.F.	976.80	1,204.72	2008 Qtr 2	6	6	\$ 7,228.32
Replace 5/8" drywall	75	2 Carp	1,628.000	S.F.	3,630.44	4,379.32	2008 Qtr 2	0	0	\$ -
Repair 5/8" drywall - (2% of walls)	20	1 Carp	32.560	S.F.	51.77	62.19	2008 Qtr 2	2	2	\$ 124.38
Replace carpet	12	2 Tilf	110.670	S.Y.	4,994.54	5,770.33	2008 Qtr 2	4	4	\$ 23,081.34
Refinish concrete floor finished	25	2 Cefi	97.690	C.S.F.	34,136.79	41,097.21	2008 Qtr 2	2	1	\$ 41,097.21
Replace vinyl floor	18	1 Tilf	48.400	S.Y.	2,311.10	2,821.72	2008 Qtr 2	3	2	\$ 5,643.44
Replace acoustic tile ceiling, fire-rated	20	1 Carp	14.310	C.S.F.	5,769.08	6,854.49	2008 Qtr 2	2	2	\$ 13,708.98
Check / minor repairs drinking fountain	1	1 Plum	3.000	Ea.	112.74	142.02	2008 Qtr 2	55	55	\$ 7,811.10

FAC 3121-Missile and Space RDT&E Facility
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Terminal Cutoff is the removal of a single task occurrence if that task occurs
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20% of the design life. This prevents scheduling major work near the end of the
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Description	Frequency	Crew	Qty	Unit	Total In-House	Total Incl. O&P	Release	Occurrences in Design Life	Adjusted Occurrences	Terminal Cutoff
Repair internal leaks drinking fountain	4	1 Plum	3.000	Ea.	105.42	130.29	2008 Qtr 2	13	13	\$ 1,693.77
Correct water pressure drinking fountain	2	1 Plum	3.000	Ea.	96.63	121.50	2008 Qtr 2	27	27	\$ 3,280.50
Replace refrigerant drinking fountain	2	1 Plum	3.000	Ea.	47.52	56.58	2008 Qtr 2	27	27	\$ 1,527.66
Repair drain leak drinking fountain	4	1 Plum	3.000	Ea.	67.89	81.09	2008 Qtr 2	13	13	\$ 1,054.17
Replace fountain drinking fountain	10	2 Plum	3.000	Ea.	3,017.52	3,580.71	2008 Qtr 2	5	5	\$ 17,903.55
Replace eye wash station, emergency eye wash	25	2 Plum	2.000	Ea.	1,147.84	1,391.76	2008 Qtr 2	2	1	\$ 1,391.76
Inspect and clean shower head emergency shower station	3	1 Plum	2.000	Ea.	75.60	94.88	2008 Qtr 2	18	18	\$ 1,707.84
Replace shower emergency shower station	25	2 Plum	2.000	Ea.	1,452.78	1,747.16	2008 Qtr 2	2	1	\$ 1,747.16
Replace washer in spud connection lavatory, vitreous china	7	1 Plum	15.000	Ea.	360.15	424.95	2008 Qtr 2	7	7	\$ 2,974.65
Replace washer in faucet lavatory, vitreous china	2	1 Plum	15.000	Ea.	147.75	184.35	2008 Qtr 2	27	27	\$ 4,977.45
Replace faucets lavatory, vitreous china	10	1 Plum	15.000	Ea.	1,852.35	2,235.90	2008 Qtr 2	5	5	\$ 11,179.50
Clean out strainer and P trap lavatory, vitreous china	2	1 Plum	15.000	Ea.	405.60	503.55	2008 Qtr 2	27	27	\$ 13,595.85
Replace lavatory, vitreous china	35	2 Plum	15.000	Ea.	7,952.85	9,535.50	2008 Qtr 2	1	1	\$ 9,535.50
Replace washer in spud connection lavatory, iron, enamel	7	1 Plum	1.000	Ea.	20.44	23.86	2008 Qtr 2	7	7	\$ 167.02
Replace washer in faucet lavatory, iron, enamel	2	1 Plum	1.000	Ea.	9.79	12.19	2008 Qtr 2	27	27	\$ 329.13
Replace faucets lavatory, iron, enamel	10	1 Plum	1.000	Ea.	109.34	132.46	2008 Qtr 2	5	5	\$ 662.30
Clean out strainer and P trap lavatory, iron, enamel	2	1 Plum	1.000	Ea.	27.04	33.57	2008 Qtr 2	27	27	\$ 906.39
Replace lavatory, iron, enamel	40	2 Plum	1.000	Ea.	548.05	644.38	2008 Qtr 2	1	1	\$ 644.38
Replace flush valve diaphragm tankless water closet	10	1 Plum	8.000	Ea.	565.92	664.48	2008 Qtr 2	5	5	\$ 3,322.40
Rebuild flush valve tankless water closet	20	1 Plum	8.000	Ea.	1,055.84	1,280.08	2008 Qtr 2	2	2	\$ 2,560.16
Unplug clogged line tankless water closet	5	1 Plum	8.000	Ea.	1,346.08	1,681.44	2008 Qtr 2	11	11	\$ 18,495.84
Replace tankless water closet	35	2 Plum	8.000	Ea.	4,384.00	5,186.88	2008 Qtr 2	1	1	\$ 5,186.88
Replace tankless flush valve	25	1 Plum	8.000	Ea.	1,676.00	1,962.96	2008 Qtr 2	2	1	\$ 1,962.96
Replace wax ring gasket tankless water closet	5	1 Plum	8.000	Ea.	876.56	1,097.60	2008 Qtr 2	11	11	\$ 12,073.60
Replace flush valve diaphragm urinal	7	1 Plum	3.000	Ea.	212.22	249.18	2008 Qtr 2	7	7	\$ 1,744.26
Rebuild flush valve urinal	20	1 Plum	3.000	Ea.	395.94	480.03	2008 Qtr 2	2	2	\$ 960.06
Unplug line urinal	5	1 Plum	3.000	Ea.	336.42	419.73	2008 Qtr 2	11	11	\$ 4,617.03
Replace wall-hung urinal	35	2 Plum	3.000	Ea.	2,524.89	3,019.71	2008 Qtr 2	1	1	\$ 3,019.71
Inspect / check pump / motor operation, lub. circulation pump, 1/12 HP	0.5	1 Plum	1.000	Ea.	6.19	7.72	2008 Qtr 2	110	110	\$ 849.20
Replace pump / motor assembly circulation pump, 1/12 HP	10	2 Plum	1.000	Ea.	736.33	863.29	2008 Qtr 2	5	5	\$ 4,316.45
Resolder joint pipe & fittings, copper	10	1 Plum	1.000	Ea.	32.85	40.45	2008 Qtr 2	5	5	\$ 202.25
Replace pipe and fittings, copper 3/4"	20	2 Plum	16.000	L.F.	283.52	343.68	2008 Qtr 2	2	2	\$ 687.36
Replace pipe and fittings, copper 2"	25	2 Plum	16.000	L.F.	652.96	785.76	2008 Qtr 2	2	1	\$ 785.76
Remove old insulation & replace with new, pipe 3/4", wall 1"	15	1 Plum	16.000	L.F.	112.16	136.64	2008 Qtr 2	3	3	\$ 409.92
Remove old insulation & replace with new, pipe 1-1/2", wall 1"	15	1 Plum	16.000	L.F.	123.36	150.08	2008 Qtr 2	3	3	\$ 450.24
Overhaul water heater, gas / oil, 70 gallon	5	1 Plum	1.000	Ea.	126.58	158.02	2008 Qtr 2	11	11	\$ 1,738.22

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Clean & service water heater, gas / oil, 70 gallon	1	1 Plum	1.000	Ea.	151.28	188.37	2008 Qtr 2	55	55	\$ 10,360.35
Replace water heater, gas / oil, 70 gallon	12	2 Plum	1.000	Ea.	2,468.08	2,857.11	2008 Qtr 2	4	4	\$ 11,428.44
Unclog main drain pipe & fittings, cast iron	10	1 Plum	1.000	Ea.	35.62	44.41	2008 Qtr 2	5	5	\$ 222.05
Replace pipe & fittings, cast iron	40	2 Plum	16.000	L.F.	670.40	811.20	2008 Qtr 2	1	1	\$ 811.20
Unclog floor drain, PVC	20	1 Plum	1.000	Ea.	37.09	45.87	2008 Qtr 2	2	2	\$ 91.74
Repair joint pipe and fittings, PVC	10	1 Plum	1.000	Ea.	115.94	144.14	2008 Qtr 2	5	5	\$ 720.70
Replace pipe, 4" pipe and fittings, PVC	30	2 Plum	16.000	L.F.	947.20	1,171.04	2008 Qtr 2	1	1	\$ 1,171.04
General maintenance & repair drain: roof, scupper, area	1	1 Plum	3.000	Ea.	85.05	107.01	2008 Qtr 2	55	55	\$ 5,885.55
Replace drain: roof, scupper, area	40	1 Plum	3.000	Ea.	1,195.02	1,404.42	2008 Qtr 2	1	1	\$ 1,404.42
Install new 4" gasket, 1 per M.L.F. natural gas, steel/iron	30	1 Stpi	1.000	Ea.	157.52	195.63	2008 Qtr 2	1	1	\$ 195.63
Replace 10' of buried 4" diam steel pipe/M.L.F. natural gas	12	B35	1.000	Ea.	796.82	957.19	2008 Qtr 2	4	4	\$ 3,828.76
Replace fan & motor, propeller exh., 1000 CFM exhaust fan	15	Q20	2.000	Ea.	1,729.08	2,020.66	2008 Qtr 2	3	3	\$ 6,061.98
Repair single zone rooftop unit, 25 ton	10	Q6	1.000	Ea.	25,821.09	29,922.89	2008 Qtr 2	5	5	\$ 149,614.45
Replace single zone rooftop unit, 25 ton	15	Q7	2.000	Ea.	68,196.80	79,355.20	2008 Qtr 2	3	3	\$ 238,065.60
Minor repairs to fire alarm control panel	5	1 Elec	1.000	Ea.	107.84	130.97	2008 Qtr 2	11	11	\$ 1,440.67
Maintenance and inspection fire alarm control panel	0.5	1 Elec	1.000	Ea.	30.54	38.17	2008 Qtr 2	110	110	\$ 4,198.70
Replace fire alarm control panel	15	1 Elec	1.000	Ea.	2,615.62	3,107.84	2008 Qtr 2	3	3	\$ 9,323.52
Inspect sprinkler system	1	1 Plum	1.000	Ea.	26.55	32.89	2008 Qtr 2	55	55	\$ 1,808.95
Rebuild double check 3" backflow preventer sprinkler system	5	1 Plum	1.000	Ea.	598.06	715.83	2008 Qtr 2	11	11	\$ 7,874.13
Replace sprinkler head	20	1 Plum	65.000	Ea.	4,139.20	5,099.90	2008 Qtr 2	2	2	\$ 10,199.80
Replace fire alarm bell, 6"	20	1 Elec	6.000	Ea.	853.68	1,029.06	2008 Qtr 2	2	2	\$ 2,058.12
Maintenance and repair safety switch gen., 2 pole	8	1 Elec	2.000	Ea.	57.00	71.26	2008 Qtr 2	6	6	\$ 427.56
Maintenance and inspection safety switch, 2 pole	1	1 Elec	2.000	Ea.	57.00	71.26	2008 Qtr 2	55	55	\$ 3,919.30
Repair switchgear 1200 A mainframe	5	1 Elec	1.000	Ea.	1,694.09	1,975.10	2008 Qtr 2	11	11	\$ 21,726.10
Maintenance and inspection switchgear, mainframe	1	1 Elec	1.000	Ea.	45.81	57.01	2008 Qtr 2	55	55	\$ 3,135.55
Replace lamp emergency lighting fixture	2	1 Elec	8.000	Ea.	432.00	513.12	2008 Qtr 2	27	27	\$ 13,854.24
Replace emergency lighting fixture	20	1 Elec	8.000	Ea.	6,746.00	7,772.80	2008 Qtr 2	2	2	\$ 15,545.60
Maintenance and repair exit light	20	1 Elec	8.000	Ea.	262.64	318.96	2008 Qtr 2	2	2	\$ 637.92
Replace lamp exit light	5	1 Elec	8.000	Ea.	98.80	116.96	2008 Qtr 2	11	11	\$ 1,286.56
Replace lighting fixture exit light	20	1 Elec	8.000	Ea.	1,005.12	1,209.92	2008 Qtr 2	2	2	\$ 2,419.84
Replace fluor. ballast for fluorescent lighting fixture, 80 W	10	1 Elec	149.000	Ea.	14,837.42	17,891.92	2008 Qtr 2	5	5	\$ 89,459.60
Replace lamps (2 lamps) fluorescent lighting fixture, 80 W	10	1 Elec	149.000	Ea.	3,790.56	4,645.82	2008 Qtr 2	5	5	\$ 23,229.10
Maintenance and repair receptacles and plugs	20	1 Elec	120.000	Ea.	3,730.80	4,647.60	2008 Qtr 2	2	2	\$ 9,295.20
Replace receptacle/plug receptacles and plugs	20	1 Elec	120.000	Ea.	6,331.20	7,730.40	2008 Qtr 2	2	2	\$ 15,460.80
Maintenance and repair wiring devices, switches	10	1 Elec	30.000	Ea.	932.70	1,161.90	2008 Qtr 2	5	5	\$ 5,809.50
Replace switch wiring devices, switches	15	1 Elec	30.000	Ea.	1,536.30	1,870.50	2008 Qtr 2	3	3	\$ 5,611.50

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Check and repair manual pull station	10	1 Elec	2.000	Ea.	138.42	169.74	2008 Qtr 2	5	5	\$ 848.70
Replace manual pull station	15	1 Elec	2.000	Ea.	251.48	303.78	2008 Qtr 2	3	3	\$ 911.34
Repair smoke detector	10	1 Elec	40.000	Ea.	1,527.60	1,880.00	2008 Qtr 2	5	5	\$ 9,400.00
Check operation smoke detector	1	1 Elec	40.000	Ea.	456.00	572.00	2008 Qtr 2	55	55	\$ 31,460.00
Replace smoke detector	15	1 Elec	40.000	Ea.	7,582.00	9,079.60	2008 Qtr 2	3	3	\$ 27,238.80
					\$571,078.44	\$672,768.91				
									MR Subtotal	\$ 1,556,239.52
									MR Per Year	\$ 28,295.26
									PM Per Year	\$ 4,820.06
									Subtotal	\$ 33,115.32
									Total Per Unit	\$ 2.96

CostWorks 2009 Quarter 1 - FAC 3121-Missile and Space RDT&E Facility

Qty	Assembly Number	Description	Total In-House	Total Incl. O&P	Zip Code Prefix	Type	Release
9.000	B2035 225 1950	Door, emergency egress, swinging, annualized	445.59	517.59	200	FMR	2008 Qtr 2
2.000	B2035 410 1950	Door, overhead, electric, roll up, to 24' high x 25' w	480.32	580.24	200	FMR	2008 Qtr 2
3.000	C1025 110 1950	Fire doors, swinging, annualized	74.67	89.58	200	FMR	2008 Qtr 2
3.000	D2015 100 1950	Urinals, annualized	38.79	48.45	200	FMR	2008 Qtr 2
8.000	D2015 100 2950	Toilet (vacuum breaker type), annualized	103.44	129.20	200	FMR	2008 Qtr 2
15.000	D2015 100 4950	Lavatories, annualized	370.20	451.20	200	FMR	2008 Qtr 2
3.000	D2015 800 1950	Drink fountain, annualized	148.50	178.08	200	FMR	2008 Qtr 2
1.000	D2025 260 1950	Water heater, gas, to 120 gal., annualized	156.50	189.02	200	FMR	2008 Qtr 2
8.000	D3045 160 1950	VAV Boxes, annualized	490.48	608.00	200	FMR	2008 Qtr 2
2.000	D3055 220 1950	Package unit, water cooled, 3 thru 24 ton, annualiz	415.42	502.06	200	FMR	2008 Qtr 2
1.000	D4015 100 1950	Backflow prevention device, up to 4", annualized	18.89	23.42	200	FMR	2008 Qtr 2
1.000	D4015 150 1950	Extinguishing system, wet pipe, annualized	806.79	983.35	200	FMR	2008 Qtr 2
1.000	D5095 250 1950	Light, emergency, hardwired system, annualized	14.25	17.87	200	FMR	2008 Qtr 2
1.000	E1095 122 3950	Crane, electric bridge, over 15 tons, annualized	409.54	502.00	200	FMR	2008 Qtr 2
			\$3,973.38	\$4,820.06			

FAC 3121 Sustainment by Year - Terminal Cutoff Applied

