

FAC 1331 Aircraft Navigation Building

RUC: \$284.23 SF

Source: USACE PAX Newsletter 3.2.2 of Feb 08
CatCode 14110
Deflated to FY-09 using Appendix C of Newsletter
In V12, Tri-Service and USACE PAX Newsletter values were updated while
all other values were inflated only.

SUC: \$7.15 SF

Source: Cost Works model, 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 1331-Aircraft Navigation Building
CostWorks 2008 Quarter 2

Design Life= 50
Average S.F= 572

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 8" concrete block wall - 1st floor	25	1 Bric	114.800	S.F.	2,302.89	2,801.12	2008 Qtr 2	2	1	\$ 2,801.12
Replace 8" concrete block wall - 1st floor	60	2 Bric	11.480	C.S.F.	11,421.11	13,748.10	2008 Qtr 2	0	0	\$ -
Replace 8" concrete block wall - 2nd floor	60	2 Bric	10.640	C.S.F.	11,290.85	13,603.24	2008 Qtr 2	0	0	\$ -
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	1 Carp	0.200	Ea.	22.99	27.24	2008 Qtr 2	2	2	\$ 54.48
Replace 2'-0" x 3'-0" aluminum window - 1st floor	50	1 Carp	2.000	Ea.	877.20	1,025.98	2008 Qtr 2	1	0	\$ -
Replace glass - 1st floor (1% of glass)	1	1 Carp	0.120	S.F.	1.09	1.27	2008 Qtr 2	50	50	\$ 63.72
Repair 12' x 12' steel roll-up door	10	1 Carp	0.100	Ea.	83.26	96.45	2008 Qtr 2	5	5	\$ 482.27
Refinish 12' x 12' steel roll-up door	5	1 Pord	1.000	Ea.	168.83	205.54	2008 Qtr 2	10	10	\$ 2,055.40
Replace 12' x 12' steel roll-up door	35	2 Carp	1.000	Ea.	3,325.27	3,849.55	2008 Qtr 2	1	1	\$ 3,849.55
Repair steel, painted, door	14	1 Carp	0.100	Ea.	58.24	68.64	2008 Qtr 2	3	3	\$ 205.91
Refinish 3'-0" x 7'-0" steel, painted, door	4	1 Pord	1.000	Ea.	32.91	40.31	2008 Qtr 2	12	12	\$ 483.72
Replace 3'-0" x 7'-0" steel, painted, door	45	1 Carp	1.000	Ea.	532.08	620.04	2008 Qtr 2	1	1	\$ 620.04
Repair steel painted interior door	14	1 Carp	0.100	Ea.	16.78	19.81	2008 Qtr 2	3	3	\$ 59.44
Refinish 3'-0" x 7'-0" steel painted interior door	4	1 Pord	1.000	Ea.	49.40	60.82	2008 Qtr 2	12	12	\$ 729.84
Replace 3'-0" x 7'-0" steel painted interior door	60	1 Carp	1.000	Ea.	937.54	1,089.96	2008 Qtr 2	0	0	\$ -
Repair solid core wood door interior	11	1 Carp	0.200	Ea.	33.55	39.63	2008 Qtr 2	4	4	\$ 158.51
Refinish 3'-0" x 7'-0" solid core wood door interior	4	1 Pord	2.000	Ea.	84.44	103.96	2008 Qtr 2	12	12	\$ 1,247.52
Replace 3'-0" x 7'-0" solid core wood door interior	40	1 Carp	2.000	Ea.	733.40	850.24	2008 Qtr 2	1	1	\$ 850.24
Debris removal and visual inspection built-up roofing	1	2 Rofc	0.572	M.S.F.	16.78	20.22	2008 Qtr 2	50	50	\$ 1,011.01
Non-destructive moisture inspection built-up roofing	5	2 Rofc	0.572	M.S.F.	51.93	62.81	2008 Qtr 2	10	10	\$ 628.06
Total roof replacement built-up roofing	28	G1	5.720	Sq.	3,264.86	3,866.43	2008 Qtr 2	1	1	\$ 3,866.43
Minor membrane repairs - (2% of roof area) built-up roofing	5	G5	0.114	Sq.	39.28	46.40	2008 Qtr 2	10	10	\$ 464.03
Flashing repairs - (2 S.F. per sq. repaired) built-up roofing	5	2 Rofc	0.228	S.F.	0.77	0.91	2008 Qtr 2	10	10	\$ 9.12
Minor membrane replacement - (25% of roof area) built-up roofing	20	G5	1.430	Sq.	850.03	1,013.98	2008 Qtr 2	2	2	\$ 2,027.97
Refinish drywall	12	1 Pord	541.000	S.F.	324.60	400.34	2008 Qtr 2	4	3	\$ 1,201.02
Replace 5/8" drywall	75	2 Carp	541.000	S.F.	1,206.43	1,455.29	2008 Qtr 2	0	0	\$ -
Repair 5/8" drywall - (2% of walls)	20	1 Carp	10.820	S.F.	17.20	20.67	2008 Qtr 2	2	2	\$ 41.33
Refinish concrete floor finished	25	2 Cefi	5.050	C.S.F.	1,764.67	2,124.48	2008 Qtr 2	2	1	\$ 2,124.48
Replace vinyl floor	18	1 Tilf	0.023	S.Y.	1.10	1.34	2008 Qtr 2	2	2	\$ 2.68
Replace acoustic tile ceiling, fire-rated	20	1 Carp	0.460	C.S.F.	185.45	220.34	2008 Qtr 2	2	2	\$ 440.68
Refinish sheetrock ceiling	20	1 Pord	0.210	C.S.F.	26.39	32.61	2008 Qtr 2	2	2	\$ 65.22
Replace sheetrock ceiling	40	2 Carp	0.210	C.S.F.	75.25	91.88	2008 Qtr 2	1	1	\$ 91.88
Check / minor repairs drinking fountain	1	1 Plum	1.000	Ea.	37.58	47.34	2008 Qtr 2	50	50	\$ 2,367.00
Repair internal leaks drinking fountain	4	1 Plum	1.000	Ea.	35.14	43.43	2008 Qtr 2	12	12	\$ 521.16
Correct water pressure drinking fountain	2	1 Plum	1.000	Ea.	32.21	40.50	2008 Qtr 2	25	25	\$ 1,012.50
Replace refrigerant drinking fountain	2	1 Plum	1.000	Ea.	15.84	18.86	2008 Qtr 2	25	25	\$ 471.50
Repair drain leak drinking fountain	4	1 Plum	1.000	Ea.	22.63	27.03	2008 Qtr 2	12	12	\$ 324.36
Replace fountain drinking fountain	10	2 Plum	1.000	Ea.	1,005.84	1,193.57	2008 Qtr 2	5	5	\$ 5,967.85

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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
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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
Replace washer in spud connection lavatory, vitreous china	7	1 Plum	1.000	Ea.	24.01	28.33	2008 Qtr 2	7	7	\$ 198.31
Replace washer in faucet lavatory, vitreous china	2	1 Plum	1.000	Ea.	9.85	12.29	2008 Qtr 2	25	25	\$ 307.25
Replace faucets lavatory, vitreous china	10	1 Plum	1.000	Ea.	123.49	149.06	2008 Qtr 2	5	5	\$ 745.30
Clean out strainer and P trap lavatory, vitreous china	2	1 Plum	1.000	Ea.	27.04	33.57	2008 Qtr 2	25	25	\$ 839.25
Replace lavatory, vitreous china	35	2 Plum	1.000	Ea.	530.19	635.70	2008 Qtr 2	1	1	\$ 635.70
Replace faucet washer sink, iron enamel	2	1 Plum	1.000	Ea.	9.79	12.19	2008 Qtr 2	25	25	\$ 304.75
Clean trap sink, iron enamel	3	1 Plum	1.000	Ea.	6.60	8.25	2008 Qtr 2	16	16	\$ 132.00
Replace faucets sink, iron enamel	10	1 Plum	1.000	Ea.	123.49	149.06	2008 Qtr 2	5	5	\$ 745.30
Unstop sink sink, iron enamel	2	1 Plum	1.000	Ea.	32.21	40.50	2008 Qtr 2	25	25	\$ 1,012.50
Replace sink, P.E.C.I. sink, iron enamel	35	2 Plum	1.000	Ea.	552.72	657.69	2008 Qtr 2	1	1	\$ 657.69
Replace flush valve diaphragm tankless water closet	10	1 Plum	1.000	Ea.	70.74	83.06	2008 Qtr 2	5	5	\$ 415.30
Rebuild flush valve tankless water closet	20	1 Plum	1.000	Ea.	131.98	160.01	2008 Qtr 2	2	2	\$ 320.02
Unplug clogged line tankless water closet	5	1 Plum	1.000	Ea.	168.26	210.18	2008 Qtr 2	10	10	\$ 2,101.80
Replace tankless water closet	35	2 Plum	1.000	Ea.	548.00	648.36	2008 Qtr 2	1	1	\$ 648.36
Replace tankless flush valve	25	1 Plum	1.000	Ea.	209.50	245.37	2008 Qtr 2	2	1	\$ 245.37
Replace wax ring gasket tankless water closet	5	1 Plum	1.000	Ea.	109.57	137.20	2008 Qtr 2	10	10	\$ 1,372.00
Replace flush valve diaphragm urinal	7	1 Plum	1.000	Ea.	70.74	83.06	2008 Qtr 2	7	7	\$ 581.42
Rebuild flush valve urinal	20	1 Plum	1.000	Ea.	131.98	160.01	2008 Qtr 2	2	2	\$ 320.02
Unplug line urinal	5	1 Plum	1.000	Ea.	112.14	139.91	2008 Qtr 2	10	10	\$ 1,399.10
Replace wall-hung urinal	35	2 Plum	1.000	Ea.	841.63	1,006.57	2008 Qtr 2	1	1	\$ 1,006.57
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	100	100	\$ 772.00
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	2.000	Ea.	65.70	80.90	2008 Qtr 2	5	5	\$ 404.50
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
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
Drain and flush water heater, electric, 120 gallon	7	1 Plum	0.500	Ea.	113.22	141.52	2008 Qtr 2	7	7	\$ 990.64
Check operation water heater, electric, 120 gallon	3	1 Plum	0.500	Ea.	0.99	1.24	2008 Qtr 2	16	16	\$ 19.84
Replace water heater, electric, 120 gallon	15	2 Plum	0.500	Ea.	4,596.23	5,271.90	2008 Qtr 2	3	3	\$ 15,815.69
Unclog main drain pipe & fittings, cast iron	10	1 Plum	1.000	Ea.	35.62	44.41	2008 Qtr 2	5	5	\$ 222.05
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 & fittings, cast iron	40	2 Plum	8.000	L.F.	335.20	405.60	2008 Qtr 2	1	1	\$ 405.60
Replace pipe, 4" pipe and fittings, PVC	30	2 Plum	8.000	L.F.	473.60	585.52	2008 Qtr 2	1	1	\$ 585.52
Repair air conditioner, window, 1 ton	8	1 Stpi	0.500	Ea.	32.51	40.33	2008 Qtr 2	6	6	\$ 241.98
Replace air conditioner, window, 1 ton	10	L2	1.000	Ea.	648.34	752.06	2008 Qtr 2	5	5	\$ 3,760.30
Replace sprinkler head	20	1 Plum	6.000	Ea.	382.08	470.76	2008 Qtr 2	2	2	\$ 941.52
Inspect sprinkler system	1	1 Plum	1.000	Ea.	26.55	32.89	2008 Qtr 2	50	50	\$ 1,644.50
Rebuild double check 3" backflow preventer sprinkler system	5	1 Plum	1.000	Ea.	598.06	715.83	2008 Qtr 2	10	10	\$ 7,158.30

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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
Replace fire alarm bell, 6"	20	1 Elec	1.000	Ea.	142.28	171.51	2008 Qtr 2	2	2	\$ 343.02
Repair failed breaker, 3 pole circuit breaker	10	1 Elec	1.000	Ea.	342.23	400.69	2008 Qtr 2	5	5	\$ 2,003.45
Maintenance and inspection C.B., 3 pole circuit breaker	0.33	1 Elec	1.000	Ea.	22.91	28.50	2008 Qtr 2	151	151	\$ 4,303.50
Replace C.B. molded case, 600 V, 3 pole circuit breaker	50	1 Elec	1.000	Ea.	3,157.74	3,611.55	2008 Qtr 2	1	0	\$ -
Maintenance and inspection lighting panel, indoor	3	1 Elec	1.000	Ea.	28.50	35.63	2008 Qtr 2	16	16	\$ 570.08
Replace fluor. ballast for fluorescent lighting fixture, 80 W	10	1 Elec	4.000	Ea.	398.32	480.32	2008 Qtr 2	5	5	\$ 2,401.60
Replace lamps (2 lamps) fluorescent lighting fixture, 80 W	10	1 Elec	4.000	Ea.	101.76	124.72	2008 Qtr 2	5	5	\$ 623.60
Maintenance and repair receptacles and plugs	20	1 Elec	21.000	Ea.	652.89	813.33	2008 Qtr 2	2	2	\$ 1,626.66
Replace receptacle/plug receptacles and plugs	20	1 Elec	21.000	Ea.	1,107.96	1,352.82	2008 Qtr 2	2	2	\$ 2,705.64
Maintenance and repair wiring devices, switches	10	1 Elec	5.000	Ea.	155.45	193.65	2008 Qtr 2	5	5	\$ 968.25
Replace switch wiring devices, switches	15	1 Elec	5.000	Ea.	256.05	311.75	2008 Qtr 2	3	3	\$ 935.25
Check and repair manual pull station	10	1 Elec	1.000	Ea.	69.21	84.87	2008 Qtr 2	5	5	\$ 424.35
Replace manual pull station	15	1 Elec	1.000	Ea.	125.74	151.89	2008 Qtr 2	3	3	\$ 455.67
Repair smoke detector	10	1 Elec	1.000	Ea.	38.19	47.00	2008 Qtr 2	5	5	\$ 235.00
Check operation smoke detector	1	1 Elec	1.000	Ea.	11.40	14.30	2008 Qtr 2	50	50	\$ 715.00
Replace smoke detector	15	1 Elec	1.000	Ea.	189.55	226.99	2008 Qtr 2	3	3	\$ 680.97
					\$60,179.23	\$71,714.53				
									MR Subtotal	\$ 108,468.70
									MR Per Year	\$ 2,169.37
									PM Per Year	\$ 2,049.35
									Subtotal	\$ 4,218.72
									Total Per Unit	\$ 7.38

CostWorks 2009 Quarter 1 - FAC 1331-Aircraft Navigation Building

Qty	Assembly Number	Description	Total In-House	Total Incl. O&P	Zip Code	Prefix	Type	Release
1.000	B2035 410 1950	Door, overhead, electric, roll up, to 24' high x 25' w	240.16	290.12	200		FMR	2008 Qtr 2
3.000	B2035 225 1950	Door, emergency egress, swinging, annualized	148.53	172.53	200		FMR	2008 Qtr 2
1.000	C1025 110 1950	Fire doors, swinging, annualized	24.89	29.86	200		FMR	2008 Qtr 2
1.000	D2015 800 1950	Drink fountain, annualized	49.50	59.36	200		FMR	2008 Qtr 2
1.000	D2015 100 1950	Urinals, annualized	12.93	16.15	200		FMR	2008 Qtr 2
1.000	D2015 100 2950	Toilet (vacuum breaker type), annualized	12.93	16.15	200		FMR	2008 Qtr 2
1.000	D2015 100 4950	Lavatories, annualized	24.68	30.08	200		FMR	2008 Qtr 2
1.000	D3045 160 1950	VAV Boxes, annualized	61.31	76.00	200		FMR	2008 Qtr 2
1.000	D3055 210 1950	Package unit, air cooled, 3 thru 24 ton, annualized	207.71	251.03	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	D5015 220 1950	Circuit breaker, high voltage air, annualized	26.98	33.59	200		FMR	2008 Qtr 2
1.000	D5015 260 1950	Panelboard, 225 A and above, annualized	56.96	67.71	200		FMR	2008 Qtr 2
			\$1,692.26	\$2,049.35				

FAC 1331 Sustainment by Year - Terminal Cutoff Applied

