

DOCKETED  
USNRC



State's Exhibit 78

2003 JAN 29 PM 2: 55

Probability of Aircraft Conducting Air-to-Air Combat Training  
at the UTTR South Area to Crash into the PFS Facility

OFFICE OF THE SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

$H = C \times A_c \times A_{eff} / A_p$

	Lifetime F-16 Crash Rate, Normal Flight		2001 Projected Crash Rate, Normal Flight	
	R-6402	R-6406	R-6402	R-6406
hours flown	149.8670595	1101.086381	149.8670595	1101.086381
crash rate, special mode, crashes per hour	4.65E-05	4.65E-05	5.45E-05	5.45E-05
expected number of crashes per year	6.964E-03	5.116E-02	8.172E-03	6.004E-02
ground area, mi <sup>2</sup>	1295	1171.9	1295	1171.9
expected crash density, crashes/mi <sup>2</sup> /yr	5.378E-06	4.366E-05	6.311E-06	5.124E-05

		Lifetime F-16 Crash Rate, Normal Flight		2001 Projected Crash Rate, Normal Flight	
		R-6402	R-6406	R-6402	R-6406
0-3,333	arc radius (mi)	1.58	1.58	1.58	1.58
	cut-out area (Ac) mi <sup>2</sup>	0	0	0	0
	footprint Area (Ap) mi <sup>2</sup>	7.8	7.8	7.8	7.8
	Crash Rate (c)	5.37759E-06	4.36598E-05	6.31078E-06	5.12363E-05
	Crash Rate for altitude band	5.121E-07	4.15766E-06	6.00967E-07	4.87916E-06
	Probability of a crash for altitude band	0	0	0	0
3,333 - 6,667	arc radius (mi)	4.73	4.73	4.73	4.73
	cut-out area (Ac) mi <sup>2</sup>	0	0	0	0
	footprint Area (Ap) mi <sup>2</sup>	70.4	70.4	70.4	70.4
	Crash Rate (c)	5.37759E-06	4.36598E-05	6.31078E-06	5.12363E-05
	Crash Rate for altitude band	5.121E-07	4.15766E-06	6.00967E-07	4.87916E-06
	Probability of a crash for altitude band	0	0	0	0
6,667-10,000	arc radius (mi)	7.89	7.89	7.89	7.89
	cut-out area (Ac) mi <sup>2</sup>	24.5	4.5	24.5	4.5
	footprint Area (Ap) mi <sup>2</sup>	195.6	195.6	195.6	195.6
	Crash Rate (c)	5.37759E-06	4.36598E-05	6.31078E-06	5.12363E-05
	Crash Rate for altitude band	5.121E-07	4.15766E-06	6.00967E-07	4.87916E-06
	Probability of a crash for altitude band	8.58E-03	1.28E-07	1.10E-08	1.50E-08
	arc radius (mi)	10	10	10	10
	cut-out area (Ac) mi <sup>2</sup>	53	12.5	53	12.5
	footprint Area (Ap) mi <sup>2</sup>	314.2	314.2	314.2	314.2
	Crash Rate (c)	5.37759E-06	4.36598E-05	6.31078E-06	5.12363E-05
	Crash Rate for altitude band	3.84114E-06	3.11856E-05	4.5077E-06	3.65973E-05
	Probability of a crash for altitude band	8.66E-08	1.66E-08	1.02E-08	1.95E-08
Total Crash Probability from R-6402 and R-6406		2.74E-07		3.21E-07	

Note:  
Crash rate for special flight calculated in State's Exhibit 76.  
Effective Area = 0.1337 mi<sup>2</sup>, Crash Report at 16.  
Assumed equal distribution of aircraft from 0 to 35,000 feet above ground level.

Template = SECY-028

SECY-02

NUCLEAR REGULATORY COMMISSION

Document No. 78 ORIGINAL No. 78

In the matter of PES

Staff \_\_\_\_\_ IDENTIFIED \_\_\_\_\_

Applicant \_\_\_\_\_ RECEIVED ✓

Intervenor ✓ REJECTED \_\_\_\_\_

Other \_\_\_\_\_ WITHDRAWN \_\_\_\_\_

DATE 5/15/02 Witness \_\_\_\_\_

Clerk pat