

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		2001Projected 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 ²	1295	1171.9	1295	1171.9
expected crash density, crashes/mi ² /yr	5.378E-06	4.366E-05	6.311E-06	5.124E-05

		Lifetime F-16 Crash Rate, Normal Flight		2001Projected 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) mi2	0	0	0	0
	footprint Area (Ap) mi2	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) mi2	0	0	0	0
	footprint Area (Ap) mi2	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) mi2	24.5	4.5	24.5	4.5
	footprint Area (Ap) mi2	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) mi2	53	12.5	53	12.5
	footprint Area (Ap) mi2	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 mi², Crash Report at 16.
Assumed equal distribution of aircraft from 0 to 35,000 feet above ground level.

NUCLEAR REGULATORY COMMISSION

Document No. ORIGINATOR No. 78
In the matter of PES
Staff IDENTIFIED
Applicant RECEIVED
Intervenor REJECTED
Other WITHDRAWN
DATE 5/15/02 Witness
Clerk