Federal Voting Assistance Program

Comparative Risk Analysis of the Current UOCAVA Voting System and an Electronic Alternative Report Risk Analysis Questionnaire for an Electronic Voting System

THREAT VECTORS	LIKELIHOOD			IMPACT			
VOTING SCENARIO: Electronic absentee voting system with <u>balloting via Web interface</u> , <u>transmission via</u> <u>the Internet</u> , and <u>automated tabulation</u> Completed by: Cyber Security Expert 3. Data extracted.	In the context of a Federal election, what percentage of the time do you think the threat would be most likely realized AND have an observable effect? Provide minimum and maximum values. Interpret this range of values as "I think this threat would be realized AND have an observeable effect in [most likely] percent (%) of the time but this estimate could be as low as [minimum] % and as high as [maximum] %." (numbers DO NOT need to sum to 100)			In the context of a Federal election, assuming the threat is realized, what percentage of the time would it have a low, medium, and high impact? (numbers should sum to 100)			
Voting Step: POST-ELECTION AUDIT	Minimum	Most Likely	Maximum	Low	Medium	High	
ATTACKS							
INSIDER ATTACKS							
Attacks Against VRDB	0	0	1	25	50	25	
Types of threat vectors: Intentional modification of registration records; Intentional destruction of registration records; Intentional addition of fake registration records; VRDB intentional crash;							
Attacks Against Post-Election Audit	0	0	1	10	80	10	
Types of threat vectors: Intentionally compromise auditors; Intentionally select audit samples non-randomly; Intentional modification of audit results; Intentional destruction of audit results;							
UNINTENTIONAL DISRUPTIONS							
ERRORS AT LOCAL ELECTION OFFICE							
Errors in VRDB	1	5	10	25	50	25	
Types of threat vectors: Accidental modification of registration records; Accidental loss of registration records; Accidental destruction of registration records; Accidental addition of erroneous registration records; VRDB accidental crash;							
Errors in Post-Election Audit	0	1	2	20	60	20	
Types of threat vectors: Accidental non-random selection of audit samples; Accidental modification of audit results; Accidental loss of audit results; Accidental destruction of audit results;							
ACCIDENTAL DISRUPTIONS							
Disruptions by Natural Events	0	1	3	1	1	98	
Types of threat vectors: Weather-related; Earthquake; Outbreak;							

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THREAT VECTORS	LIKELIHOOD			ІМРАСТ				
VOTING SCENARIO: Electronic absentee voting system with balloting via Web interface, transmission via the Internet, and automated tabulation Completed by: Cyber Security Expert 3. Data extracted.	In the conte what percei- think the th realized AN effect? Prov of values as be realized effect in [m the time bu low as [min [maximum] need to sun	ext of a Federa htage of the ti reat would be D have an obs ide minimum alues. Interpri- "I think this ti AND have an o ost likely] pero- t this estimate imum] % and %." (numbers n to 100)	l election, me do you most likely ervable and et this range meat would observeable cent (%) of could be as as high as DO NOT	In the context of a Federal election, assuming the threat is realized, what percentage of the time would it have a low, medium, and high impact? (numbers should sum to 100)				
Voting Step: POST-ELECTION AUDIT	Minimum	Most Likely	Maximum	Low	Medium	High		
Disruptions by Environmental Events	0	3	5	5	5	90		
Types of threat vectors: Fire; Spill; Flooding;					•			
Disruptions by Human-Created Collateral Events	3	5	7	75	20	5		
Types of threat vectors: Technical failure; Labor-related; Terrorism;								