REAT VECTORS		LIKELIHOC	DD	IMPACT			
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component completed by: Cyber Security spert 3. Data extracted.	what perce think the the realized AN effect? Pro- maximum of of values as be realized effect in [m the time but low as [min]	ext of a Federa ntage of the ti treat would be ID have an ob- vide minimum 'alues. Interpr '" I think this t AND have an nost likely] per ut this estimat it this estimat imum] % and %." (numbers n to 100)	e most likely ervable and et this range hreat would observeable cent (%) of e could be as as high as	In the cont assuming t what perce it have a lo impact? (n 100)	ealized, time woul and high		
Voting Step: REGISTRATION	Minimum	Most Likely	Maximum	Low	Medium	High	
CKS							
SIDER ATTACKS							
Attacks Against VRDB	0	0	1	5	25	70	
Types of threat vectors: Intentional modification of registration records; Intentional destruction of registration records; Intentional addition of fake registration records; VRDB intentional crash;		•					
Attacks to Voter's Assistance	0	0	1	5	25	70	
Types of threat vectors: Intentional corruption by malicious insiders of information provided to voters (omission, false or incomplete statement, outdated information);							
Attacks to Voting Access	0	0	2	5	25	70	
Types of threat vectors: Intentional failure at LEO to mail or misaddress registration form and instructions; Intentional failure at LEO to mail or misaddress registration rejections; Intentional addition of confusing language on registration form and instructions;							
Attacks by Denial of Service	0	0	1	5	20	75	
Types of threat vectors: Intentional disruption of registration activities at LEO; Intentional disruption of transmission of registration materials; Intentional disruption of voter's ability to register;							
Attacks Against Registration Forms and Instructions	0	0	1	5	25	70	
Types of threat vectors: Intentional modification at LEO of registration forms and instructions; Intentional destruction at LEO of registration forms and instructions; Intentional addition at LEO of fake registration forms and instructions;							
Attacks During Transmission of Registration Forms and Instructions	0	0	1	5	25	70	
Types of threat vectors: Intentional modification of registration forms and instructions during their transmission from LEO to the voters; Intentional destruction of registration forms and instructions during their transmission from LEO to the voters; Intentional addition of fake registration forms and instructions during transmission from LEO to the voters;							

REAT VECTORS		LIKELIHOC	DD		IMPACT			
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component ompleted by: Cyber Security xpert 3. Data extracted.	what percei think the the realized AN effect? Prove maximum well of values as be realized effect in [medium the time but low as [min]	ext of a Federa ntage of the ti reat would be D have an ob- vide minimum alues. Interpr "I think this t AND have an ost likely] per t this estimat imum] % and %." (numbers n to 100)	eme do you emost likely servable and et this range hreat would observeable cent (%) of e could be as as high as	assuming the what percent it have a lo	In the context of a Federal election assuming the threat is realized, what percentage of the time woul it have a low, medium, and high impact? (numbers should sum to 100)			
Voting Step: REGISTRATION	Minimum	Most Likely	Maximum	Low	Medium	High		
Attacks During Transmission of Completed Registration Packets	0	0	2	5	25	70		
Types of threat vectors: Intentional modification of completed registration packets during their transmission from the voters to the LEO; Intentional destruction of completed registration packets during their transmission from the voters to the LEO; Intentional addition of fake completed registration packets during transmission from the voters to the LEO;								
Attacks Against Processing of Completed Registration Packets	0	0	1	5	25	70		
Types of threat vectors: Intentional modification of completed registration packets at the LEO; Intentional destruction of completed registration packets at the LEO; Intentional addition of fake completed registration packets at the LEO;								
Attacks During Transmission of Registration Rejections	0	0	1	5	50	45		
Types of threat vectors: Intentional modification of registration rejections during their transmission from LEO to the voters; Intentional destruction of registration rejections during their transmission from LEO to the voters; Intentional addition of fake registration rejections during transmission from LEO to the voters;								
UTSIDER ATTACKS								
Attacks Against Voter's Assistance	0	1	2	25	50	25		
Types of threat vectors: Intentional corruption by malicious outsiders of information provided to voters (omission, false or incomplete statement, outdated information);								
Attacks Against Marking of Registration Forms	1	1	2	25	25	50		
Types of threat vectors: Coerced registration; Masqueraded registration; Vote buying; Pay voter not to vote; Ineligible registration;								

THREAT VECTORS		LIKELIHOC)D	IMPACT			
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component Completed by: Cyber Security Expert 3. Data extracted.	what perce think the th realized AN effect? Prov maximum v of values as be realized effect in [m the time bu low as [min	ext of a Federa ntage of the ti reat would be D have an obs vide minimum alues. Interpr "I think this t AND have an ost likely] per t this estimate imum] % and %." (numbers n to 100)	eme do you emost likely servable and et this range hreat would observeable cent (%) of e could be as as high as	assuming tl	time would and high		
Voting Step: REGISTRATION	Minimum	Most Likely	Maximum	Low	Medium	High	
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 Voter's Assistance	5	25	30	50	25	25	
Types of threat vectors: Erroneous information provided to voters (omission, false or incomplete statement, outdated information);							
Errors in Registration Forms and Instructions	1	5	10	50	25	25	
Types of threat vectors: Accidental modification at LEO of registration forms and instructions; Accidental loss at LEO of registration forms and instructions; Accidental destruction at LEO of registration forms and instructions; accidental addition at LEO of erroneous registration forms and instructions;		FWAB			.		
Errors in Processing Completed Registration Packets	1	5	10	25	50	25	
Types of threat vectors: Accidental modification of completed registration packets at the LEO; Accidental loss of completed registration packets at the LEO; Accidental destruction of completed registration packets at the LEO;		FWAB					
ERRORS DURING TRANSMISSION OF ELECTION MATERIALS							
Errors in Transmission of Registration Forms and Instructions	1	5	10	25	50	25	
Types of threat vectors: Accidental modification of registration forms and instructions during their transmission from LEO to the voters; Accidental loss of registration forms and instructions during their transmission from LEO to the voters; Accidental destruction of registration forms and instructions during their transmission from LEO to the voters;							

THREAT VECTORS		LIKELIHOO	D		IMPACT		
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component Completed by: Cyber Security Expert 3. Data extracted.	what percei think the th realized AN effect? Prov maximum v of values as be realized effect in [m the time bu low as [min	ext of a Federa ntage of the ti reat would be D have an obs ride minimum alues. Interpri "I think this ti AND have and ost likely] per t this estimate imum] % and %." (numbers in to 100)	me do you most likely ervable and et this range hreat would observeable cent (%) of e could be as as high as	In the context of a Federal election assuming the threat is realized, what percentage of the time wou it have a low, medium, and high impact? (numbers should sum to 100)			
Voting Step: REGISTRATION	Minimum	Most Likely	Maximum	Low	Medium	High	
Errors in Transmission of Completed Registration Packets	1	5	10	25	50	25	
Types of threat vectors: Accidental modification of completed registration packets during their transmission from the voters to the LEO; Accidental loss of completed registration packets during their transmission from the voters to the LEO; Accidental destruction of completed registration packets during their transmission from the voters to the LEO;					•		
Errors in Transmission of Registration Rejections	1	3	5	25	25	50	
Types of threat vectors: Accidental modification of registration rejections during their transmission from LEO to the voters; Accidental loss of registration rejections during their transmission from LEO to the voters; Accidental destruction of registration rejections during their transmission from LEO to the voters;							
ERRORS AT VOTER'S LOCATION							
Errors in Voting Access	30	50	70	5	40	45	
Types of threat vectors: Mail service nonexistent, irregular and/or unreliable; Ease-of-use and clarity of registration form and instructions;							
Errors in Obtaining Voter's Assistance	1	5	7	90	5	5	
Types of threat vectors: Contact wrong LEO; Being unaware of voter's assistance resources; Putting trust in unvetted third-party resources;							
Errors in Registration Application	10	30	50	25	50	25	
Types of threat vectors: Incorrect contact information provided to LEO; Registration packet incorrectly or illegibly completed/signed; Registration form lost or damaged; Registration packet incorrectly transmitted to LEO;							
ACCIDENTAL DISRUPTIONS							
Disruptions by Natural Events	0	1	3	1	1	98	
Types of threat vectors: Weather-related; Earthquake; Outbreak;							
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	90	5	5	
Types of threat vectors: Technical failure; Labor-related; Terrorism;						-	

THREAT VECTORS		LIKELIHOO	DD	IMPACT				
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component Completed by: Cyber Security Expert 3. Data extracted.	what perce think the th realized AN effect? Prov maximum v of values as be realized effect in [m the time bu low as [min	ext of a Federa ntage of the ti preat would be ID have an obs vide minimum values. Interpr i "I think this t AND have an ost likely] per it this estimat it this estimat imum] % and %." (numbers	eme do you emost likely ervable and et this range hreat would observeable cent (%) of e could be as as high as	In the context of a Federal ele assuming the threat is realized what percentage of the time w it have a low, medium, and hi impact? (numbers should sun 100)				
	need to sur							
Voting Step: ABSENTEE BALLOT REQUEST	Minimum	Most Likely	Maximum	Low	Medium	High		
ATTACKS								
INSIDER ATTACKS								
Attacks Against VRDB	0	0	1	5	25	70		
Types of threat vectors: Intentional modification of registration records; Intentional destruction of registration records; Intentional addition of fake registration records; VRDB intentional crash;								
Attacks to Voter's Assistance	0	0	1	5	25	70		
Types of threat vectors: Intentional corruption by malicious insiders of information provided to voters (omission, false or incomplete statement, outdated information);		•						
Attacks to Voting Access	0	0	2	5	25	70		
Types of threat vectors: Intentional failure at LEO to mail or misaddress absentee ballot request form and instructions; Intentional failure at LEO to mail or misaddress absentee ballot; Intentional addition of confusing language on absentee ballot request form and instructions; Intentional addition of confusing language on instructions for marked ballot return;								
Attacks by Denial of Service	0	0	1	5	20	75		
Types of threat vectors: Intentional disruption of absentee ballot request activities at LEO; Intentional disruption of transmission of absentee ballot request materials; Intentional disruption of voter's ability to request an absentee ballot;								
Attacks Against Absentee Ballot Request Forms and Instructions	0	0	1	5	20	75		
Types of threat vectors: Intentional modification at LEO of absentee ballot request forms and instructions; Intentional destruction at LEO of absentee ballot request forms and instructions; Intentional addition at LEO of fake absentee ballot request forms and instructions;								

REAT VECTORS		LIKELIHOC	DD		IMPACT	
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component ompleted by: Cyber Security xpert 3. Data extracted.	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					ealized, time would and high
Voting Step: ABSENTEE BALLOT REQUEST	Minimum	Most Likely	Maximum	Low	Medium	High
Attacks During Transmission of Absentee Ballot Request Forms and Instructions	0	0	2	5	20	75
Types of threat vectors: Intentional modification of absentee ballot request forms and instructions during their transmission from LEO to the voters; Intentional destruction of absentee ballot request forms and instructions during their transmission from LEO to the voters; Intentional addition of fake absentee ballot request forms and instructions during transmission from LEO to the voters;					•	
Attacks During Transmission of Completed Absentee Ballot Request Packets	0	0	2	5	20	75
Types of threat vectors: Intentional modification of completed absentee ballot request packets during their transmission from the voters to the LEO; Intentional destruction of completed absentee ballot request packets during their transmission from the voters to the LEO; Intentional addition of fake completed absentee ballot request packets during transmission from the voters to the LEO;						
Attacks Against Processing of Completed Absentee Ballot Request Packets	0	0	1	5	20	75
Types of threat vectors: Intentional modification of completed absentee ballot request packets at the LEO; Intentional destruction of completed absentee ballot request packets at the LEO; Intentional addition of fake completed absentee ballot request packets at the LEO;						
Attacks During Transmission of Rejections of Absentee Ballot Requests	0	0	1	5	50	45
Types of threat vectors: Intentional modification of rejections of absentee ballot requests during their transmission from LEO to the voters; Intentional destruction of rejections of absentee ballot requests during their transmission from LEO to the voters; Intentional addition of fake rejections of absentee ballot requests during transmission from LEO to the voters;						
Attacks Against Absentee Ballots and Instructions	0	0	1	5	50	45
Types of threat vectors: Intentional modification at LEO of absentee ballots and instructions; Intentional destruction at LEO of absentee ballots and instructions; Intentional addition at LEO of fake absentee ballots and instructions;						

REAT VECTORS		LIKELIHOC	D	IMPACT			
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component ompleted by: Cyber Security xpert 3. Data extracted.	what percer think the th realized ANI effect? Prov maximum v. of values as be realized effect in [mo the time but low as [mini	ext of a Federa ntage of the ti reat would be D have an obs ide minimum alues. Interpr "I think this t AND have and ost likely] per t this estimate imum] % and %." (numbers n to 100)	me do you most likely ervable and et this range hreat would observeable cent (%) of e could be as as high as	In the context of a Federal e assuming the threat is realized what percentage of the time it have a low, medium, and impact? (numbers should so as			
Voting Step: ABSENTEE BALLOT REQUEST	Minimum	Most Likely	Maximum	Low	Medium	High	
DUTSIDER ATTACKS							
Attacks Against Voter's Assistance	0	1	2	25	50	25	
Types of threat vectors: Intentional corruption by malicious outsiders of information provided to voters (omission, false or incomplete statement, outdated information);							
Attacks by Denial of Service	0	1	2	25	25	50	
Types of threat vectors: Intentional disruption of absentee ballot request activities at LEO; Intentional disruption of transmission of absentee ballot request materials; Intentional disruption of voter's ability to request an absentee ballot;							
Attacks Against Marking of Absentee Ballot Requests	1	1	2	25	25	50	
Types of threat vectors: Coerced absentee ballot request; Masqueraded absentee ballot request; Vote buying; Pay voter not to vote; Ineligible absentee ballot request;							
TENTIONAL DISRUPTIONS							
RRORS 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 Voter's Assistance	5	25	30	50	25	25	
Types of threat vectors: Erroneous information provided to voters (omission, false or incomplete statement, outdated information);							
Errors in Absentee Ballot Request Forms and Instructions	1	5	10	75	25	25	
Types of threat vectors: Accidental modification at LEO of absentee ballot request forms and instructions; Accidental loss at LEO of absentee ballot request forms and instructions; Accidental destruction at LEO of absentee ballot request forms and instructions; Accidental addition at LEO of erroneous absentee ballot request forms and instructions;							

REAT VECTORS		LIKELIHOC	DD		IMPACT		
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component ompleted by: Cyber Security xpert 3. Data extracted.	what percei think the th realized AN effect? Prov maximum v of values as be realized effect in [m the time bu low as [min	ext of a Federa ntage of the ti reat would be D have an obs vide minimum alues. Interpr "I think this ti AND have and ost likely] per t this estimate imum] % and %." (numbers n to 100)	me do you most likely tervable and et this range hreat would observeable cent (%) of e could be as as high as	In the context of a Federal election assuming the threat is realized, what percentage of the time woul it have a low, medium, and high impact? (numbers should sum to 100)			
Voting Step: ABSENTEE BALLOT REQUEST	Minimum	Most Likely	Maximum	Low	Medium	High	
Errors in Processing Completed Absentee Ballot Request Packets	1	5	10	75	25	25	
Types of threat vectors: Accidental modification of completed absentee ballot request packets at the LEO; Accidental loss of completed absentee ballot request packets at the LEO; Accidental destruction of completed absentee ballot request packets at the LEO;					-		
Errors in Absentee Ballots and Instructions	1	5	10	25	50	25	
Types of threat vectors: Accidental modification at LEO of absentee ballots and instructions; Accidental loss at LEO of absentee ballots and instructions; Accidental destruction at LEO of absentee ballots and instructions; Accidental addition at LEO of erroneous absentee ballots and instructions;							
RRORS DURING TRANSMISSION OF ELECTION MATERIALS							
Errors in Transmission of Absentee Ballot Request Forms and Instructions	1	5	15	25	50	25	
Types of threat vectors: Accidental modification of absentee ballot request forms and instructions during their transmission from LEO to the voters; Accidental loss of absentee ballot request forms and instructions during their transmission from LEO to the voters; Accidental destruction of absentee ballot request forms and instructions during their transmission from LEO to the voters;							
Errors in Transmission of Completed Absentee Ballot Request Packets	1	5	15	25	50	25	
Types of threat vectors: Accidental modification of completed absentee ballot request packets during their transmission from the voters to the LEO; Accidental loss of completed absentee ballot request packets during their transmission from the voters to the LEO; Accidental destruction of completed absentee ballot request packets during their transmission from the voters to the LEO;							
Errors in Transmission of Rejections of Absentee Ballot Requests	1	3	5	5	50	45	
Types of threat vectors: Accidental modification of rejections of absentee ballot requests during their transmission from LEO to the voters; Accidental loss of rejections of absentee ballot requests during their transmission from LEO to the voters; Accidental destruction of rejections of absentee ballot requests during their transmission from LEO to the voters;							
RRORS AT VOTER'S LOCATION							
Errors in Voting Access	30	50	70	5	40	45	
Types of threat vectors: Mail service nonexistent, irregular and/or unreliable; Ease-of-use and clarity of absentee ballot request form and instructions;							
	-						

THREAT VECTORS		LIKELIHOC	DD	IMPACT						
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component	what percer think the the realized ANI effect? Prov maximum v	xt of a Federa ntage of the ti reat would be D have an obs ide minimum alues. Interpr	me do you e most likely servable and et this range	it have a low, medium, and high impact? (numbers should sum to						
Completed by: Cyber Security Expert 3. Data extracted.	be realized a effect in [mo the time but low as [mini	"I think this t AND have an object likely] per t this estimate fmum] % and %." (numbers t to 100)	observeable cent (%) of e could be as as high as							
Voting Step: ABSENTEE BALLOT REQUEST	Minimum	Most Likely	Maximum	Low	Medium	High				
Errors in Obtaining Voter's Assistance	1	5	7	90	5	5				
Types of threat vectors: Contact wrong LEO; Being unaware of voter's assistance resources; Putting trust in unvetted third-party resources;			<u>-</u>		-					
Errors in Absentee Ballot Requests	10	30	50	25	50	25				
Types of threat vectors: Incorrect contact information provided to LEO; Accidental loss of absentee ballot request form; Absentee ballot request packet incorrectly or illegibly completed/signed; Absentee ballot request form lost or damaged; Absentee ballot request packet incorrectly transmitted to LEO;										
ACCIDENTAL DISRUPTIONS										
Disruptions by Natural Events	0	1	3	1	1	98				
Types of threat vectors: Weather-related; Earthquake; Outbreak;										
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	90	5	5				
Types of threat vectors: Technical failure; Labor-related; Terrorism;										

THREAT VECTORS		LIKELIHOC	D		IMPACT			
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component Completed by: Cyber Security Expert 3. Data extracted.	what percer think the thi realized ANI effect? Prov maximum vi of values as be realized i effect in [mo the time but low as [mini	xt of a Federa ntage of the ti reat would be D have an obs I de minimum alues. Interpre "I think this ti AND have an o ost likely] pero t this estimate mum] % and a %." (numbers n to 100)	me do you most likely ervable and et this range hreat would observeable tent (%) of could be as as high as	In the context of a Federal electic assuming the threat is realized, what percentage of the time wou it have a low, medium, and high impact? (numbers should sum to 100)				
Voting Step: ABSENTEE BALLOT DELIVERY	Minimum	Most Likely	Maximum	Low	Medium	High		
ATTACKS								
INSIDER ATTACKS								
Attacks by Denial of Service	0	0	1	50	25	25		
Types of threat vectors: Intentional disruption of transmission of absentee ballots;								
Attacks During Transmission of Absentee Ballot and Instructions	0	0	1	25	50	25		
Types of threat vectors: Intentional modification of absentee ballots and instructions during their transmission from LEO to the voters; Intentional destruction of absentee ballots and instructions during their transmission from LEO to the voters; Intentional addition of fake absentee ballots and instructions during transmission from LEO to the voters;								
OUTSIDER ATTACKS								
Attacks by Denial of Service	0	0	1	50	25	25		
Types of threat vectors: Intentional disruption of transmission of absentee ballots;								
UNINTENTIONAL DISRUPTIONS								
ERRORS DURING TRANSMISSION OF ELECTION MATERIALS								
Errors in Transmission of Absentee Ballot and Instructions	25	30	50	50	25	25		
Types of threat vectors: Accidental modification of absentee ballots and instructions during their transmission from LEO to the voters; Accidental loss of absentee ballots and instructions during their transmission from LEO to the voters; Accidental destruction of absentee ballots and instructions during their transmission from LEO to the voters;								
ACCIDENTAL DISRUPTIONS								
Disruptions by Natural Events	0	1	3	1	1	98		
Types of threat vectors: Weather-related; Earthquake; Outbreak;								

THREAT VECTORS		LIKELIHOO	D	IMPACT				
postal mail, with no electronic component Completed by: Cyber Security	what percer think the thi realized ANI effect? Prov maximum vi of values as be realized i effect in [mo the time but low as [mini	ext of a Federa ntage of the tireat would be D have an obside minimum alues. Interpre "I think this the AND have an obst likely] pero this estimate mum] % and a %." (numbers n to 100)	me do you most likely ervable and et this range areat would observeable eent (%) of could be as as high as	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: ABSENTEE BALLOT DELIVERY	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	90	5	5		
Types of threat vectors: Technical failure; Labor-related; Terrorism;								

THREAT VECTORS		LIKELIHOC	DD		IMPACT	
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component Completed by: Cyber Security Expert 3. Data extracted.	effect? Provide minimum and maximum values. Interpret this range of values as "I think this threat would be realized AND have an observeable it have a love				ext of a Feder he threat is re ntage of the t v, medium, a umbers shoul	alized, ime would nd high
Voting Step: BALLOT MARKING	Minimum	Most Likely	Maximum	Low	Medium	High
ATTACKS OUTSIDER ATTACKS						
Attacks Against Marking Absentee Ballots and Forms Types of threat vectors: Coerced vote; Masqueraded vote; Vote buying; Pay voter not to vote; Ineligible vote;	0	2	5	50	25	25
UNINTENTIONAL DISRUPTIONS						
ERRORS AT VOTER'S LOCATION						
Errors in Voting Access	30	50	70	5	40	45
Types of threat vectors: Mail service nonexistent, irregular and/or unreliable; Ease-of-use and clarity of absentee ballot and instructions;						
Errors in Obtaining Voter's Assistance	1	5	7	90	5	5
Types of threat vectors: Contact wrong LEO; Being unaware of voter's assistance resources; Putting trust in unvetted third-party resources;						
Errors in Absentee Ballot Marking	10	30	50	25	25	50
Types of threat vectors: Marked ballot packet incorrectly or illegibly completed/signed; Absentee ballot lost or damaged; Marked ballot packet incorrectly transmitted to LEO; Marked ballot packet not transmitted to LEO;						
ACCIDENTAL DISRUPTIONS						
Disruptions by Natural Events	0	1	3	1	1	98
Types of threat vectors: Weather-related; Earthquake; Outbreak;						
Disruptions by Environmental Events	0	3	5	5	5	90
Types of threat vectors: Fire; Spill; Flooding;						

THREAT VECTORS		LIKELIHOC	D	IMPACT					
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component 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)			do you ost likely able do his range at would erveable t (%) of uld be as high as					
Voting Step: BALLOT MARKING	Minimum	Most Likely	Maximum	Low	Medium	High			
Disruptions by Human-Created Collateral Events		5	7	90	5	5			
Types of threat vectors: Technical failure; Labor-related; Terrorism;									

THREAT VECTORS		IKELIHOC)D	IMPACT				
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component	what percenthink the the realized AN effect? Prov	ntage of the t reat would be D have an ob vide minimum	of a Federal election, ge of the time do you at would be most likely lave an observable e minimum and less. Interpret this range what percentage of the time wou					
Completed by: Cyber Security Expert 3. Data extracted.	be realized effect in [m the time bu low as [min	AND have an ost likely] per t this estimat imum] % and %." (number	rcent (%) of e could be as as high as	able it have a low, medium, and high impact? (numbers should sum to the as as				
Voting Step: MARKED BALLOT RETURN	Minimum	Most Likely	Maximum	Low	Medium	High		
ATTACKS								
INSIDER ATTACKS								
Attacks by Denial of Service	0	0	1	10	10	80		
Types of threat vectors: Intentional disruption of transmission of marked ballots from voter to LEO;								
Attacks During Transmission of Marked Ballots Packets	0	0	1	10	10	80		
Types of threat vectors: Intentional modification of marked ballot packets during their transmission from LEO to the voters; Intentional destruction of marked ballot packets during their transmission from LEO to the voters; Intentional addition of fake marked ballot packets during transmission from LEO to the voters;								
OUTSIDER ATTACKS								
Attacks by Denial of Service	0	0	1	20	20	60		
Types of threat vectors: Intentional disruption of transmission of marked ballots;								
UNINTENTIONAL DISRUPTIONS								
ERRORS DURING TRANSMISSION OF ELECTION MATERIALS								
Errors in Transmission of Marked Ballot Packets	30	40	50	10	10	80		
Types of threat vectors: Accidental modification of marked ballot packets during their transmission from LEO to the voters; Accidental loss of marked ballot packets during their transmission from LEO to the voters; Accidental destruction of marked ballot packets during their transmission from LEO to the voters;								

THREAT VECTORS			LIKELIHO	OD	IMPACT					
Completed	by: Cyber Security Data extracted.	what perce think the th realized AN effect? Prov maximum v of values as be realized effect in [m the time bu low as [min	D have an obvide minimur values. Interp "I think this AND have an ost likely] pe t this estima imum] % and %." (numbe	time do you be most likely bervable in and bret this range threat would boserveable rcent (%) of the could be as that as high as	In the context of a Federal ele assuming the threat is realized what percentage of the time w it have a low, medium, and his impact? (numbers should sun 100)					
	Voting Step: MARKED BALLOT RETURN	Minimum	Most Likely	Maximum	Low	Medium	High			
ACCIDENTAL DISRUPTIONS										
Disruptions by Natural Events		0	1	3	1	1	98			
Types of threat vectors: Weather-rela	ated; Earthquake; Outbreak;									
Disruptions by Environmental Eve	nts	0	3	5	5	5	90			
Types of threat vectors: Fire; Spill; F	looding;									
Disruptions by Human-Created Co	Illateral Events	3	5	7	90	5	5			
Types of threat vectors: Technical fai	ilure; Labor-related; Terrorism;									

THREAT VECTORS		LIKELIHOO	D		IMPACT		
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component	what perce think the th realized AN effect? Pro- maximum v	ext of a Federa ntage of the ti nreat would be ID have an obs vide minimum values. Interpro	me do you e most likely ervable and et this range	to you st likely ble In the context of a Federal election assuming the threat is realized, what percentage of the time youl			
Completed by: Cyber Security	of values as "I think this threat would be realized AND have an observeable effect in [most likely] percent (%) of				w, medium, a	and high	
Expert 3. Data extracted.	low as [min	ut this estimate nimum] % and i %." (numbers n to 100)	as high as	100)			
Voting Step: RETURNED BALLOT PROCESSING & TABULATION	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 by Denial of Service	0	1	2	80	10	10	
Types of threat vectors: Intentional disruption of processing of marked ballots at LEO;							
Attacks Against Processing of Returned Ballots	0	0	1	1	1	98	
Types of threat vectors: Intentional modification of marked ballot packets at the LEO; Intentional destruction of marked ballot packets at the LEO; Intentional addition of fake marked ballot packets at the LEO;							
Attacks Against Tabulation	0	0	1	1	1	98	
Types of threat vectors: Intentional subversion of the counting process; Intentional subversion of the validation process; Intentional destruction of tabulated results; Intentional subversion of the tabulated results;							
Attacks Against Adjudication	0	5	10	50	25	25	
Types of threat vectors: Intentional refusal of legitimate ballots; Intentional acceptance of invalid ballots; Intentional misapplication of rules for determining voter's intent;							
OUTSIDER ATTACKS							
Attacks by Denial of Service	0	1	2	80	10	10	
Types of threat vectors: Intentional disruption of marked ballot processing and tabulation activities at LEO;							

THREAT VECTORS		LIKELIHOO	D	IMPACT				
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component Completed by: Cyber Security Expert 3. Data extracted.	what percei think the th realized AN effect? Prov maximum v of values as be realized effect in [m the time bu low as [min	ext of a Federa ntage of the ti reat would be D have an obs vide minimum alues. Interpre "I think this t AND have an ost likely] per t this estimate imum] % and %." (numbers n to 100)	me do you most likely ervable and et this range hreat would observeable cent (%) of e could be as as high as	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				
Voting Step: RETURNED BALLOT PROCESSING & TABULATION	Minimum	Most Likely	Maximum	Low	Medium	High		
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 Processing of Returned Ballots	1	3	5	25	50	25		
Types of threat vectors: Accidental modification of marked ballot packets at the LEO; Accidental destruction of marked ballot packets at the LEO; Accidental loss of marked ballot packets at the LEO;								
Errors in Tabulation	1	2	3	25	50	25		
Types of threat vectors: Errors in counting process; Errors in validation process; Accidental loss of tabulated results; Accidental destruction of tabulated results; Errors in publication of tabulated results;								
Errors in Adjudication	1	3	5	50	25	25		
Types of threat vectors: Accidental refusal of legitimate ballots; Accidental acceptance of invalid ballots; Accidental misapplication of rules for determining voter's intent;								
ACCIDENTAL DISRUPTIONS								
Disruptions by Natural Events	0	1	3	1	1	98		
Types of threat vectors: Weather-related; Earthquake; Outbreak;								
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	90	5	5		
Types of threat vectors: Technical failure; Labor-related; Terrorism;								

THREAT VECTORS		LIKELIHOC	DD	IMPACT			
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component Completed by: Cyber Security Expert 3. Data extracted.	what percer think the th realized ANI effect? Prov maximum v of values as be realized effect in [mo the time bu- low as [mini	ext of a Federa ntage of the ti reat would be be have an obs ride minimum alues. Interpre "I think this ti AND have an o ost likely] pere t this estimate imum] % and a %." (numbers n to 100)	me do you most likely ervable and et this range hreat would observeable cent (%) of e could be as as high as	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;							

THREAT VECTORS		LIKELIHOO	D	IMPACT					
VOTING SCENARIO: Current UOCAVA absentee voting system, restricted to paper ballots transmitted by postal mail, with no electronic component Completed by: Cyber Security Expert 3. Data extracted.	what percer think the thi realized ANI effect? Prov maximum vi of values as be realized i effect in [mo the time but low as [mini	ext of a Federa atage of the tireat would be 0 have an obside minimum alues. Interpre "I think this the AND have an obst likely] pero this estimate mum] % and a %." (numbers to 100)	me do you most likely ervable and et this range areat would observeable eent (%) of could be as as high as	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					
Voting Step: POST-ELECTION AUDIT	Minimum	Minimum Most Likely Maximum			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	90	5	5			
Types of threat vectors: Technical failure; Labor-related; Terrorism;									