SUMMARY YEAR 1
PROPOSAL BUDGET FOR NSF USE ONLY

PROPOSAL BUDG			FOR	NSF	OOL OIL	
ORGANIZATION		PRC	POSAL I	NO.		ON (month
University of Idaho					Proposed	Granted
PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR		AV	VARD NO	Э.		
A SELVICE DEPOSITION OF THE SECOND OF THE SE		NSE Funde	he			F
A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)		NSF Funde Person-mor		Regi	Funds uested By	Funds granted by N (if different
	CAL	ACAD	SUMR	pr		(if different
1.	0.00		0.50		6,675	
2.	2.00	0.00	0.00		6,462	
3.						
4.						
5.						
6. (0) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)	0.00	0.00	0.00		0	
7. (2) TOTAL SENIOR PERSONNEL (1 - 6)	2.00	0.60	0.50		13,137	
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (0) POST DOCTORAL SCHOLARS	0.00	0.00	0.00		0	
2. (0) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.00	0.00	0.00		0	
3. (2) GRADUATE STUDENTS					20,000	
4. (0) UNDERGRADUATE STUDENTS					0	
5. (1) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)					0	
6. (0) OTHER					0	
TOTAL SALARIES AND WAGES (A + B)					33,137	
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)					5,528	
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)					38,665	
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEED	NNG \$5 (١٥٥)			30,003	
equipment item 1		\$	0			
TOTAL FOLUDATAIT						
TOTAL EQUIPMENT	-colonic				0	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE	ESSIONS	;)			5,000	
	ESSIONS	5)				
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE	ESSIONS	;)	_		5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN	ESSIONS	;)			5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS	ESSIONS	5)	-		5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 0	ESSIONS	5)			5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 2. TRAVEL 0	ESSIONS	s)			5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 2. TRAVEL 3. SUBSISTENCE 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 0. TRAVEL 0. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 0. TRAVEL 0. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 0. TRAVEL 0. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 0. TRAVEL 0. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 1. STIPENDS 1. STIPENDS 2. TRAVEL 3. SUBSISTENCE	ESSIONS	s)			5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 0 0 0 0 0 0 0 0 0 0 0 0 0	ESSIONS	5)			5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PAR			3		5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 0 0 0 0 0 0 0 0 0 0 0 0 0			3		5,000 8,100	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARTICIPANTS			3		5,000 8,100	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$			3		5,000 8,100	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$			3		5,000 8,100 0 5,700	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARTICIPANTS (1) TOTAL PARTICIPANTS (2) TOTAL PARTICIPANTS (3) TOTAL PARTICIPANTS (3) TOTAL PARTICIPANTS (4) TOTAL PARTICIPANTS (5) TOTAL PARTICIPANTS (6) TOTAL PARTICIPANTS (7) TOTAL PAR			3		5,000 8,100 0 5,700 0 15,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARTICIPANTS G. OTHER DIRECT COSTS 1. MATERIALS AND SUPPLIES 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION 3. CONSULTANT SERVICES 4. COMPUTER SERVICES			3		5,000 8,100 0 5,700 0 15,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PAR G. OTHER DIRECT COSTS 1. MATERIALS AND SUPPLIES 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION 3. CONSULTANT SERVICES 4. COMPUTER SERVICES 5. SUBAWARDS			3		5,000 8,100 0 5,700 0 15,000 0	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARE G. OTHER DIRECT COSTS 1. MATERIALS AND SUPPLIES 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION 3. CONSULTANT SERVICES 4. COMPUTER SERVICES 5. SUBAWARDS 6. OTHER			3		5,000 8,100 0 5,700 0 15,000 0	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARE G. OTHER DIRECT COSTS 1. MATERIALS AND SUPPLIES 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION 3. CONSULTANT SERVICES 4. COMPUTER SERVICES 5. SUBAWARDS 6. OTHER TOTAL OTHER DIRECT COSTS			3		5,000 8,100 0 5,700 0 15,000 0 0 20,700	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PAR G. OTHER DIRECT COSTS 1. MATERIALS AND SUPPLIES 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION 3. CONSULTANT SERVICES 4. COMPUTER SERVICES 5. SUBAWARDS 6. OTHER TOTAL OTHER DIRECT COSTS H. TOTAL DIRECT COSTS (A THROUGH G)			3		5,000 8,100 0 5,700 0 15,000 0	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PAR G. OTHER DIRECT COSTS 1. MATERIALS AND SUPPLIES 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION 3. CONSULTANT SERVICES 4. COMPUTER SERVICES 5. SUBAWARDS 6. OTHER TOTAL OTHER DIRECT COSTS H. TOTAL DIRECT COSTS (A THROUGH G) I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)					5,000 8,100 0 5,700 0 15,000 0 0 20,700	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARE G. OTHER DIRECT COSTS 1. MATERIALS AND SUPPLIES 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION 3. CONSULTANT SERVICES 4. COMPUTER SERVICES 5. SUBAWARDS 6. OTHER TOTAL OTHER DIRECT COSTS H. TOTAL DIRECT COSTS (A THROUGH G) 1. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE) FirstIndirectCostItem (Rate: 26.0000, Base: 72465)			3		5,000 8,100 0 5,700 0 15,000 0 0 20,700 72,465	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PAR			3		5,000 8,100 0 5,700 0 15,000 0 20,700 72,465	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PAR			3		5,000 8,100 0 5,700 0 15,000 0 0 20,700 72,465	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARTICIP					5,000 8,100 0 5,700 0 15,000 0 20,700 72,465	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARTICIP					5,000 8,100 0 5,700 0 15,000 0 20,700 72,465	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARTICIP	RTICIPAN	T COSTS			5,000 8,100 0 5,700 0 15,000 0 20,700 72,465 18,841 91,306 0	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PAR	RTICIPAN	T COSTS	NT \$	ISF US	5,000 8,100 0 5,700 0 15,000 0 20,700 72,465 18,841 91,306 0	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PAR G. OTHER DIRECT COSTS 1. MATERIALS AND SUPPLIES 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION 3. CONSULTANT SERVICES 4. COMPUTER SERVICES 5. SUBAWARDS 6. OTHER TOTAL OTHER DIRECT COSTS H. TOTAL DIRECT COSTS (A THROUGH G) I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE) FirstIndirectCostItem (Rate: 26.0000, Base: 72465) TOTAL DIRECT AND INDIRECT COSTS (H + I) K. RESIDUAL FUNDS L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K) M. COST SHARING PROPOSED LEVEL \$ 0 AGREED LE PI/PD NAME	RTICIPAN	T COSTS	√T\$ FOR N		5,000 8,100 0 5,700 0 15,000 0 0 20,700 72,465 18,841 91,306 0 91,306	CATION
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PAR G. OTHER DIRECT COSTS 1. MATERIALS AND SUPPLIES 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION 3. CONSULTANT SERVICES 4. COMPUTER SERVICES 5. SUBAWARDS 6. OTHER TOTAL OTHER DIRECT COSTS H. TOTAL DIRECT COSTS (A THROUGH G) I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE) FirstIndirectCostItem (Rate: 26.0000, Base: 72465) TOTAL DIRECT AND INDIRECT COSTS (H + I) K. RESIDUAL FUNDS L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K) M. COST SHARING PROPOSED LEVEL \$ 0 AGREED LE	RTICIPAN	T COSTS	NT \$ FOR N CCT COS	T RAT	5,000 8,100 0 5,700 0 15,000 0 20,700 72,465 18,841 91,306 0 91,306	CATION Initials - OF

SUMMARY YEAR 2 PROPOSAL BUDGET FOR NSF USE ONLY

PROPOSAL BUDG	<u>EI</u>		FOR	NSF U	SE ONL	Υ
ORGANIZATION		PRO	DPOSAL	NO.	DURATIO	ON (months)
University of Idaho				I	roposed	Granted
PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR		A۱	WARD N	0.		
A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates		NSF Fund Person-mo	led nths	Fu	nds sted By	Funds granted by NSF
(List each separately with title, A.7. show number in brackets)	CAL	ACAD	SUMR	prop	oser	(if different)
1	0.00	0.60	0.50		6,770	
2.	2.00	0.00	0.00		6,656	
3.						
4.						
5.						
6. (0) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)	0.00	0.00	0.00		0	
7. (2) TOTAL SENIOR PERSONNEL (1 - 6)	2.00	0.60	0.50		13,426	
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (0) POST DOCTORAL SCHOLARS	0.00	0.00	0.00		0	
2. (0) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.00				Ō	
3. (2) GRADUATE STUDENTS	0.00	0.00	0.00		20,000	
4. (0) UNDERGRADUATE STUDENTS					0	
5. (1) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)					0	
6. (0) OTHER					0	
TOTAL SALARIES AND WAGES (A + B)					33,426	
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)						
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)					5,639	
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEED	INIC OF (200.)			39,065	
·		\$				
equipment item 1		Ψ	0			
TOTAL EQUIPMENT					0	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE	SSIONS	5)			5,000	
2. FOREIGN					0	
E DADTIGIDANT GUIDDONT GOGTO						
F. PARTICIPANT SUPPORT COSTS						
1. STIPENDS \$						
Z. IRAVEL On On One of the Control o						
3. SUBSISTENCE ———————————————————————————————————						
4. OTHER						
TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PAR	TICIPAN	IT COST	S		0	
G. OTHER DIRECT COSTS						
1. MATERIALS AND SUPPLIES					3,700	
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION					0	
3. CONSULTANT SERVICES					7,500	
4. COMPUTER SERVICES					0	
5. SUBAWARDS					0	
6. OTHER					0	
TOTAL OTHER DIRECT COSTS					11,200	
H. TOTAL DIRECT COSTS (A THROUGH G)					55,265	
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)						
FirstIndirectCostItem (Rate: 26.0000, Base: 55265)						
TOTAL INDIRECT COSTS (F&A)					14,369	
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)					69,634	
K. RESIDUAL FUNDS					00,001	
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)					69,634	
M. COST SHARING PROPOSED LEVEL \$ 0 AGREED LE	VEI IF I	DIFFFRF	NT \$		20,004	I.
PI/PD NAME		LIXL		ISF USE	ONI Y	
Brant G Miller	\vdash	INIDIDI	ECT COS			
ORG. REP. NAME*	D:	ate Checked		Of Rate S		Initials - ORG
Steven Kirkham		3				
SIEVEII KIIKIIAIII 2 *ELECTRON		ATURES	DECLUS	ED EOR	DEVICE	BUDGET

SUMMARY YEAR 3 PROPOSAL BUDGET FOR NSF USE ONLY

ODC A NIZATIONI					l	
ORGANIZATION		PRC	POSAL	NO.		ON (month
University of Idaho		-			Proposed	Grante
PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR		A\	WARD N	Ο.		
		NSE Eund	od			
A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates		NSF Fund Person-mor		Req	Funds uested By	Funds granted by N (if differen
(List each separately with title, A.7. show number in brackets)	CAL	ACAD	SUMR	pr	-	(if differen
1	0.00		0.50		6,868	
2.	2.00	0.00	0.00		6,856	
3.						
4.						
5.						
6. (0) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)	0.00	0.00	0.00		0	
7. (2) TOTAL SENIOR PERSONNEL (1 - 6)	2.00	0.60	0.50		13,724	
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (0) POST DOCTORAL SCHOLARS	0.00	0.00	0.00		0	
2. (0) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.00	0.00	0.00		0	
3. (0) GRADUATE STUDENTS					0	
4. (0) UNDERGRADUATE STUDENTS					0	
5. (0) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)					0	
6. (0) OTHER					0	
TOTAL SALARIES AND WAGES (A + B)					13,724	
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)					5,152	
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)					18,876	
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEED	ING \$5,0	000.)			•	
equipment item 1		\$	0			
TOTAL EQUIPMENT					0	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN	SSIONS)			5,000 0	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE	SSIONS	·)			5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS	SSIONS	i)			5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 1. STIPENDS	SSIONS	s)			5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 2. TRAVEL 0	SSIONS	·)			5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 2. TRAVEL 3. SUBSISTENCE	SSIONS	5)			5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 2. TRAVEL 0 0	SSIONS	·)			5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 2. TRAVEL 3. SUBSISTENCE 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			3		5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 2. TRAVEL 3. SUBSISTENCE 4. OTHER DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			8		5,000 0	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PAR			6		5,000 0	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARTICIPANTS (0) TOTAL PARTICIPANTS (0)			5		5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARTICIPANTS G. OTHER DIRECT COSTS 1. MATERIALS AND SUPPLIES			8		5,000	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARTI			6		5,000 0 0 3,700	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PAR G. OTHER DIRECT COSTS 1. MATERIALS AND SUPPLIES 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION 3. CONSULTANT SERVICES			5		5,000 0 0 3,700 0 7,500	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 0 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARTICIPANTS (0) TOTAL PARTICIPANTS (1) TOTAL PARTICIPA			5		5,000 0 3,700 0 7,500	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 0 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARTICIPANTS (0) TOTAL PARTICIPANTS (1) TOTAL PARTICIPANTS (1) TOTAL PARTICIPANTS (2) PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION 3. CONSULTANT SERVICES 4. COMPUTER SERVICES 5. SUBAWARDS			3		5,000 0 3,700 0 7,500 0	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 0 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARTICIPA			3		5,000 0 3,700 0 7,500 0	
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSE 2. FOREIGN F. PARTICIPANT SUPPORT COSTS 1. STIPENDS \$ 2. TRAVEL 3. SUBSISTENCE 4. OTHER TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PARTICIPANT SERVICES 1. MATERIALS AND SUPPLIES 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION 3. CONSULTANT SERVICES 4. COMPUTER SERVICES 5. SUBAWARDS 6. OTHER TOTAL OTHER DIRECT COSTS (A THROUGH G)			8		5,000 0 3,700 0 7,500 0 0	
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SUMMARY Cumulative PROPOSAL BUDGET

FOR NSF USE ONLY **ORGANIZATION** PROPOSAL NO. **DURATION** (months) University of Idaho Proposed Granted PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR AWARD NO. Funds Requested By proposer Funds granted by NSF (if different) NSF Funded Person-months A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets) ACAD | SUMR CAL 20,313 1. 0.00 1.80 1.50 2. 0.00 19,974 6.00 0.00 3. 4 5.) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE) 6. (0.00 0.00 0.00 0 7. (2) TOTAL SENIOR PERSONNEL (1 - 6) 40,287 6.00 1.80 1.50 B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS) 1. (**0**) POST DOCTORAL SCHOLARS 0.00 0.00 0.00 0 (TECHNICIAN, PROGRAMMER, ETC.) 0 0.00 0.00 0.00 4) GRADUATE STUDENTS 40,000 4. (0) UNDERGRADUATE STUDENTS 0 5. (**0**) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY) 0 6. (**0**) OTHER 0 TOTAL SALARIES AND WAGES (A + B) 80,287 C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS) 16,319 TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C) 96,606 D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING \$5,000.) \$ 0 **TOTAL EQUIPMENT** 0 E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSESSIONS) 15,000 2. FOREIGN 8.100 F. PARTICIPANT SUPPORT COSTS 0 1. STIPENDS 0 2. TRAVEL 0 3 SUBSISTENCE 0 4. OTHER TOTAL NUMBER OF PARTICIPANTS 0) TOTAL PARTICIPANT COSTS 0 G. OTHER DIRECT COSTS 1. MATERIALS AND SUPPLIES 13,100 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION 30,000 3. CONSULTANT SERVICES 4. COMPUTER SERVICES 0 5. SUBAWARDS 0 6. OTHER 0 TOTAL OTHER DIRECT COSTS 43,100 H. TOTAL DIRECT COSTS (A THROUGH G) 162,806 I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE) 42,330 TOTAL INDIRECT COSTS (F&A) J. TOTAL DIRECT AND INDIRECT COSTS (H + I) 205,136 K. RESIDUAL FUNDS 0 L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K) 205,136 M. COST SHARING PROPOSED LEVEL \$ AGREED LEVEL IF DIFFERENT \$ 0 PI/PD NAME FOR NSF USE ONLY **Brant G Miller** INDIRECT COST RATE VERIFICATION ORG. REP. NAME* Date Checked Date Of Rate Sheet Initials - ORG Steven Kirkham

Budget Justification

A. Senior Personnel

A.1. PI (base salary \$57,137.60) will devote 0.5 summer month per year (\$3,175 x3) and one course buy out per year (\$3,500.00 x3) to the project to perform administrative, research, and project directing tasks. A 3% increase has been calculated for year 2 and 3 to account for inflation. Brant G. Miller is an expert in science education, Adventure Learning, and learning technologies. Requested salary (\$20,313).

A.2. Co-PI (base salary \$38,771) will devote 2.0 calendar months to the project on curriculum design and development, science research coordination, project administration, data collection and analysis, and dissemination efforts. A 3% increase has been calculated for year 2 and 3 to account for inflation. Requested salary (\$19,974).

B. Other Personnel

B.3. Graduate Students. Two graduate students will be hired to support project management and research, including data collection and analysis, curriculum development and instruction. The graduate students will be affiliated with the McCall Outdoor Science School (MOSS) and will be designated as JSEP Scholars (\$20,000 per year for two years). [\$40,000]

C. Fringe Benefits

PI benefits are calculated at 23% summer rate and 35% academic year rate. Co-PI benefits are calculated at 46% calendar year rate per year (x3). Fringe for graduate students is calculated at 3%. Total request (\$16,319).

E. Travel

- **E.1.** Domestic Travel. Two senior personnel and two JSEP Scholars will be required to travel from Idaho to Greenland to complete the field component of the program (\$4,000 per year)(* JSEP Scholars travel to Kangerlussuaq only). The program budget will only support travel to and from Albany, New York. It is our understanding that travel between Albany and Greenland and all travel within Greenland is supported by the NSF through the New York Air National Guard (ANG). The \$4000 per year includes: Airfare (\$2000), hotel for two rooms, two nights (\$1200), ground transportation (\$200), and per diem for two days for four people (\$600). Funding is also requested for dissemination of project results and conclusions (\$1,000 per year). [\$15,000]
- **E.2.** International Travel. Funds are requested for two senior personnel to travel to Denmark to foster collaborations for the field campaign in Greenland. Two senior personnel will meet with key gymnasium personnel as well as University faculty to increase the impact the JSEP program has on Danish gymnasium age students. The funding request will go towards: Airfare (\$2,000 x2), hotel for five nights (\$1,500), ground transportation (\$1,000), and per diem for five days for two people (\$800 x2). [\$8,100]

G. Other Direct Costs

G.1. Materials and Supplies

Education - Student groups at two locations will be provided with a kit including basic learning materials and a low cost instrumentation suite that is complementary to science research instrumentation of AL@GL partners. Each kit is intended to service 30 students. One kit will be required for each participating site (i.e. Greenland and the McCall Outdoor Science School). The table below is an example of a suite of learning tools that will be purchased to give students authentic scientific experiences that represent the science of an Arctic research project, in this case ICECAPS.

Documentation and Communication - Additional documentation and communication equipment will be purchased to enhance the quality of media products. Audio/Visual support will include lens for DSLR for high-end photo and video documentation (\$500). Custom Rite in the Rain lab notebooks will be purchased for students at each site (\$500). [\$1,000]

Extreme Cold Weather gear – Funding is requested to shore up ECWG. Additional items include Sorel boots (\$150 x2) and assorted hats, gloves and base layers (\$350 x2). [\$1,000]

G.3. Consultant Services

Web Development - Communication between educators, participants within the program, program sites, parents, and the outside world will be conducted through a web-based environment. Quantitative metrics of web use will also be important in the evaluation of the program. Funding is requested for a web developer to ensure that the online environment incorporates Adventure Learning framework principles for maximum collaboration and interaction with the seamless ability to incorporate synchronous activities. Contract salary and server space and maintenance is requested at \$10,000 for year one and \$2,500 for year two and three. [\$15,000]

External Evaluation - an external evaluator will be hired to develop and implement an evaluation plan (\$5,000 per year). Tasks will include evaluation plan development and consulting with senior personnel. As a result of the designed evaluation plan the external evaluator will solicit and collect predetermined documents and data for the purpose of preparing reports to the NSF as well as formative evaluations that will enhance the project as it is being conducted. [\$15,000]