

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 7 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
----------------------------------	----------------	----------------------------------

4. TITLE AND SUBTITLE RESEARCH PROPOSAL QUARTERLY STATUS REPORT	5. FUNDING NUMBERS
--	--------------------

6. AUTHOR(S) AIR FORCE OFFICE OF SCIENTIFIC RESEARCH

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) AIR FORCE OFFICE OF SCIENTIFIC RESEARCH/XPT 110 DUNCAN AVENUE SUITE B116 BOLLING AFB DC 20332-0001	8. PERFORMING ORGANIZATION REPORT NUMBER AFOSR-TR-95-0256
--	--

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) AIR FORCE OFFICE OF SCIENTIFIC RESEARCH/XPT 110 DUNCAN AVENUE SUITE B116 BOLLING AFB DC 20332-0001	10. SPONSORING/MONITORING AGENCY REPORT NUMBER
---	--

11. SUPPLEMENTARY NOTES	
12a. DISTRIBUTION/AVAILABILITY STATEMENT APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED	

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words) THIS RESEARCH PROPOSAL STATUS REPORT IS PUBLISHED QUARTERLY AS OF MARCH, JUNE, SEPTEMBER AND DECEMBER OF EACH YEAR.

19950410 089

14. SUBJECT TERMS	15. NUMBER OF PAGES
17. SECURITY CLASSIFICATION OF REPORT UNCL	16. PRICE CODE
18. SECURITY CLASSIFICATION OF THIS PAGE UNCL	19. SECURITY CLASSIFICATION OF ABSTRACT UNCL
20. LIMITATION OF ABSTRACT UNCL	

RESEARCH PROPOSAL

QUARTERLY STATUS REPORT

FOURTH QUARTER 1994

Accession For	
NTIS	CRA&I <input checked="" type="checkbox"/>
DTIC	TAB <input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification
By
Distribution /
Availability Codes	
Dist	Avail and / or Special
A-1	

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH SCIENTIFIC STAFF DIRECTORY
BOLLING AIR FORCE BASE DC 20332

CC/CD - OFFICE OF THE DIRECTOR

Dr Helmut Hellwig Director EXT 5017
Col George K. Haritos Deputy Director EXT 5017

NA - DIRECTORATE OF AEROSPACE & MATERIALS SCIENCES	EXT	NL - DIRECTORATE OF CHEMISTRY & LIFE SCIENCES	EXT
Dr C.I. Jim Chang (Director)	4987	Dr William O. Berry (Director)	4278
Dr Mitat Birkan	4938	Dr Michael Berman	5021
Dr Walter Jones	0470	Lt Col Dan Collins	5021
Lt Col Martin Lewis	6963	Dr John Tangney	5021
Dr James McMichael	4936	Dr Gen Haddad	5021
Dr Alexander Pechenik	4962	Dr Fred Hedberg	5021
Dr Alan H. Rosenstein	4960	Dr Walter Kozumbo	5021
Dr Len Sakell	4935	Dr Charles Y.C. Lee	5021
Dr Julian Tishkoff	0465		
Capt Charles Ward	4960		
Dr Spencer Wu	6962		

NE - DIRECTORATE OF PHYSICS & ELECTRONICS	EXT	NM - DIRECTORATE OF MATHEMATICS & GEOSCIENCES	EXT
Dr Horst Wittmann (Director)	4984	Dr Charles Holland (Director)	5025
Dr Robert Barker	5011	Dr Stan Dickinson	4964
Dr Alan E. Craig	4934	Dr Neal Glassman	5026
Dr Ralph E. Kelley	4908	Dr Marc Jacobs	5027
Lt Col Germot Pomrenke	4931	Maj James Kroll	5028
Dr Howard Schlossberg	4906	Maj David Luginbuhl	5028
Lt Col Billy Smith	4907	Dr Arje Nachman	4939
Dr Harold Weinstock	4933	Dr Henry R. Radoski	4939
Dr Gerald I. Witt	4932	Dr Jon Sjogren	4940
		Dr Abraham Waksman	5028
		Maj Scott Schreck	5028

NI - DIRECTORATE OF ACADEMIC & INTERNATIONAL AFFAIRS	EXT	Commercial (202) 767-XXXX
Col Robert L. Herklotz (Director)	4969	DSN 297-XXXX
Dr Koto White	4969	
Maj David C. Hart	5013	
Capt Stuart Sheldon	5013	
Dr Jerome Franck	4970	

INTRODUCTION

The Research Proposal Quarterly Status Report is published quarterly (March, June, September, and December) by the Air Force Office of Scientific Research (AFOSR). It lists all the research proposals received by AFOSR during the past six months along with the action taken (Initiated, Declined or Withdrawn on each report).

The report is divided into two parts. The Institution Index lists proposals alphabetically by institution. This is followed by a more detailed listing by Directorate, and by Program Manager within the Directorate.

PURPOSE

This report is designed to inform other Government sponsoring agencies of the proposals received by the AFOSR and the action taken on these proposals. Readers must keep in mind that declined proposals should not necessarily be considered as scientifically unacceptable; many declinations result from a lack of funds or as a result of special programmatic emphasis.

AFOSR MISSION

The Air Force Office of Scientific Research (AFOSR) is the single manager of the Air Force Defense Research Sciences Program (Program Element 61102F) and the primary Air Force agency for the extramural support of fundamental scientific research. To sponsor and sustain basic research and ensure access to research results in support of the Air Force goals of control and maximum utilization of air and space. The AFOSR is organized under the Director, Science and Technology, Air Force Materiel Command.

AFOSR awards grants and contracts for research in areas of science relevant to the needs of the Air Force. Research is selected for support from proposals received in response to the Broad Agency Announcement originating from scientists investigating problems involving the search for new knowledge and the expansion of scientific principles. Selection is on the basis of scientific potential for improving Air Force operational capabilities, originality, significance of science, the qualification of the principal investigators, and the reasonableness of the proposed budget.

KEY TO READING THE DATA

Title - The title of the research proposal.

Institution - The organization, (e.g., college/university, company) at which the research will be conducted.

Investigator - The Principal Investigators proposing the research.

Type - N indicates a new research effort.

- R indicates a continuation of an ongoing research effort.

Months - The duration of the research proposal.

Received - The month and year in which the AFOSR received the proposal.

Amount - The funds requested of the AFOSR for support of the research proposal.

Status - A = ACCEPTED indicates that the review has been completed and the proposal recommended for funding.

- D = DECLINED indicates the proposal has been reviewed but will not be funded by the AFOSR.

- BLANK SPACE = indicates the proposal is being reviewed.

- W = WITHDRAWN indicates that the proposal submitted was removed from further consideration at the proposer's request.

Program Manager - The AFOSR scientific staff member assigned the responsibility for the technical evaluation of the proposal.

Proposal # - An AFOSR Directorate assigned control number to uniquely identify the research proposal.

Initiate - The proposal has been recommended to the AFOSR Directorate of Contracts for the amount and duration.

Start Date - The recommended date for commencement of the research.

Total Amount - The estimated number of dollars recommended for support of the research effort; the actual amount is subject to negotiation.

PART 1

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 1

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
CHEMICAL PROCESSING ADVANCED CERAMICS Southwest Research Institute	Schwab Stuart	N 36 04/10/94 \$450,000	A PECHENIK 95-NA-001	\$122,139 01/03/95 \$450,000
DYNAMICS AND STABILITY OF BASIC MOLTEN MICRODROP DEPOSITION PROCESSES Massachusetts Institute of Technology	Sonin Ain	N 36 04/10/94 \$337,704	LEWIS 95-NA-002	
DEVELOPMENT OF A MICROMECHANIC THEORY OF CRACK INITIATION UNDER HIGH-CYCLE FATIGUE Univ of California, Los Angeles	Lin T	N 36 04/10/94 \$315,760	WU 95-NA-003	
MICROMECHANICS IN COMPOSITE MATERIALS Naval Research Laboratory	Sanday Carlos	N 12 06/10/94 \$60,000	A WU 95-NA-004	\$60,000 01/12/94 \$60,000
APPROXIMATE BOUNDARY CONDITIONS AND SUBGRID-SCALE MODELING OF THE NEAR-WALL LAYER Univ of Maryland	Piomelli Ugo	N 36 07/10/94 \$209,868	MCMICHAEL 95-NA-005	
UNSTRUCTURED H-P FINITE ELEMENT METHODS FOR UNSTEADY HIGH SPEED VISCOUS FLOWS Brown University	Karniadakis George Em	N 18 07/10/94 \$155,000	A SAKELL 95-NA-006	\$55,000 01/04/95 \$155,000
UNSTEADY THREE-DIMENSIONAL AERODYNAMIC FLOW Lehigh University	Rockwell Donald	N 24 13/10/94 \$140,000	A SAKELL 95-NA-007	\$140,000 01/04/95 \$140,000
NON-OXIDE STRUCTURAL CERAMICS - ALLOY DESIGN FOR IMPROVED SINTERABILITY AND MECHANICAL PERFORMANCE Univ of Michigan	Chen I-Mei	N 36 20/10/94 \$600,000	A PECHENIK 95-NA-008	\$200,000 01/02/95 \$600,000
MICROSTRUCTURAL DESIGN OF TOUGH CERAMICS FOR CONTACT DAMAGE RESISTANCE Lehigh University	Chan Helen	N 36 20/10/94 \$450,000	A PECHENIK 95-NA-009	\$150,000 15/02/95 \$450,000

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
BREAKDOWN OF TRAILING VORTICES IN COMPRESSIBLE FLOWS PAST WINGS AND CONICAL BODIES Univ of Houston	Hussain Fazle	N 36 26/10/94 \$200,000	A SAKELL 95-NA-010	\$50,000 01/04/95 \$200,000
AN ANALYTICAL AND EXPERIMENTAL STUDY OF FRACTURE AND FATIGUE OF MICRO ELECTROMECHANICAL SYSTEMS Case Western Reserve University	Ballarini Roberto	N 36 26/10/94 \$364,577	JONES 95-NA-011	
EXPERIMENTAL STUDIES OF LOW-AND HIGH-DENSITY HYPERVELOCITY REAL GAS AIR FLOWS OVER ELLIPTIC CONES AT ANGLES OF ATTACK Calspan-UB Research Center	Holden Michael	N 24 26/10/94 \$286,442	A SAKELL 95-NA-012	\$99,965 01/04/95 \$234,997
MICROMECHANICS OF PARTICULATE MATERIALS WITH BINDERS Univ of Massachusetts	Chang Ching	N 36 26/10/94 \$276,118	A LEWIS 95-NA-013	\$110,706 01/01/95 \$276,118
CROSS-DISCIPLINARY MATERIALS RESEARCH PROGRAM Univ of Pittsburgh	Pettit Fred	N 24 27/10/94 \$2,456,000	A WARD 95-NA-014	\$2,456,000 01/02/95 \$2,456,000
THE AERO-OPTICS OF TURBULENT COMPRESSIBLE SHEAR LAYERS Princeton University	Miles Richard	N 36 27/10/94 \$491,577	MCMICHAEL 95-NA-015	
MODELING THE QUASI-STATIC BEHAVIOR OF DRY AND SATURATED ASSEMBLIES OF SPHERES Stanford University	Borja Ronaldo	N 36 27/10/94 \$286,505	LEWIS 95-NA-016	
EFFECT OF SURFACE ROUGHNESS ON THE GUIDED WAVE ULTRASONIC CHARACTERIZATION IN AEROSPACE STRUCTURES Iowa State University	Chimenti Dale	N 36 27/10/94 \$265,400	A WU 95-NA-017	\$100,000 01/04/95 \$100,000
MICROSTRUCTURE AND MACROSCOPIC BEHAVIOR OF RANDOM COMPOSITE MATERIALS Princeton University	Torquato Salvatore	N 36 28/10/94 \$265,513	WU 95-NA-018	

10

TITLE TITLE (CONT-) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
PEER REVIEW (RFP-94-0002)	Chang	N 48 31/10/94 \$1,600,000	A WU 95-NA-019	\$333,320 20/11/94 \$1,600,000
AIR Force Office of Scientific Research	C. I.			
FAILURE CRITERIA FOR COMPOSITES Univ of Michigan	Maas	N 36 01/11/94 \$197,772	A JONES 95-NA-020	\$54,069 01/04/95 \$172,134
MECHANICS OF LONG-TERM BEHAVIOR OF HIGH TEMPERATURE POLYMER COMPOSITES Virginia Polytechnic Inst & State Univ	Reifsnider	N 36 01/11/94 \$278,444	A JONES 95-NA-021	\$86,590 15/03/95 \$275,532
INFLUENCE OF LOADING FREQUENCY ON THE FATIGUE LIFE AND FRICTIONAL HEATING OF FIBER-REINFORCED CERAMIC COMPOSITES Univ of Michigan	Holmes	N 24 03/11/94 \$169,539	A PECHENIK 95-NA-022	\$84,446 15/02/95 \$169,539
(HBCU/MI FAST95) FAST CENTER FOR STRUCTURAL INTEGRITY OF AEROSPACE SYSTEMS Clark Atlanta University	Badir	N 36 08/11/94 \$3,584,090	WU 95-NA-023	
(HBCU/MI FAST95) FAST CENTER FOR STRUCTURAL INTEGRITY OF AEROSPACE SYSTEMS Univ of Texas, El Paso	Osegueda	N 36 08/11/94 \$3,600,000	WU 95-NA-024	
LAYER STRUCTURE COMPOUNDS AS BOUNDARY PHASES IN CERAMIC MATRIX COMPOSITES Arizona State University	Petuskey	N 36 15/11/94 \$534,000	A PECHENIK 95-NA-025	\$178,000 15/01/95 \$534,000
PHASE TRANSFORMATIONS OF A SILICIDE PRECIPITATE-STRENGTHENED BATA- TITANIUM ALLOY Naval Research Laboratory	Spanos	N 12 15/11/94 \$50,000	A WARD 95-NA-026	\$5,000 01/01/95 \$5,000
CONTROLLED SEGREGATION FOR INTERFACE MODIFICATION IN YAG/ALUMINA COMPOSITES Univ of Pennsylvania	Bonnell	N 36 16/11/94 \$448,850	A PECHENIK 95-NA-027	\$149,850 01/03/95 \$448,850

130

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 4

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AN INVESTIGATION INTO THE NONLINEAR ASPENTS OF FLUTTER AND BUFFET Virginia Polytechnic Inst & State Univ	Mayfeh Ali	N 24 18/11/94 \$160,000	A WU 95-NA-028	\$160,000 15/03/95 \$160,000
THE EFFECT OF PROCESSING ON THE INTERFACE, MICROSTRUCTURE, AND PROPERTIES OF COATED FIBER REINFORCED GLASS-CERAMIC MATRIX COMPSIS United Technologies Research Center	Brennan John	N 38 30/11/94 \$454,050	A PECHENIK 95-NA-029	\$137,131 15/02/95 \$454,050
NUMERICAL SIMULATION OF BURNETT EQUATIONS Wichita State University	Agarwal Ramesh	N 20 05/12/94 \$63,214	A SAKELL 95-NA-030	\$63,214 01/02/95 \$63,214
HOLOGRAPHIC TECHNIQUE FOR MEASUREMENTS AND VISUALIZATION IN LIQUID PROPELLANT ATOMIZATION Univ of Illinois - Chicago	Poulikakos D	N 36 07/12/94 \$249,269	A BIRKAN 95-NA-031	\$79,428 01/06/95 \$249,269
COMBUSTION OF ALUMINUM AGGLOMERATES ON SOLID PROPELLANTS Brigham Young University		N 12 07/12/94 \$69,910	BIRKAN 95-NA-032	\$69,910 15/03/95 \$69,910
COMBUSTION OF ALUMINUM AGGLOMERATES ON SOLID PROPELLANTS Brigham Young University	Beckstead M	N 12 07/12/94 \$69,910	A BIRKAN 95-NA-033	\$69,910 15/03/95 \$69,910
OPTIMIZATION OF THE ABLATIVE PULSED PLASMA THRUSTER FOR AIR FORCE MISSIONS Princeton University	Choueiri Edgar	N 36 07/12/94 \$252,266	A BIRKAN 95-NA-034	\$91,454 01/03/95 \$252,266
DEVELOPMENT OF A STRUCTURE-BASED TURBULENCE MODEL Stanford University	Reynolds William	N 32 07/12/94 \$360,014	A MCMICHAEL 95-NA-035	\$88,919 01/03/95 \$360,014
THREE DIMENSIONAL MODEL DEVELOPMENT FOR PLASMA PLUMES Massachusetts Institute of Technology	Hastings Daniel	N 36 07/12/94 \$333,477	A BIRKAN 95-NA-036	\$103,400 01/08/95 \$333,477

TITLE (CONT.-) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
() CAASERT95) MECHANICAL BEHAVIOR OF GRANULAR ASSEMBLIES USING A LATTICE TYPE APPROACH Univ of Arizona	Muniram	N 36 08/12/94 \$151,328	LEWIS 95-NA-037	
() CAASERT95) PETROLEUM HYDROCARBON MIGRATION & BIODEGRADATION IN COLD REGION SOILS Univ of New Hampshire	Thomas	N 36 08/12/94 \$207,024	LEWIS 95-NA-038	
() CAASERT95) AUGMENTATION REQUEST FOR A STUDY ON THE SUBSURFACE TRANSPORT AND CLEANUP OF A DENSE CHLORINATED SOLVENT Auburn University	Oktay	N 36 08/12/94 \$126,470	LEWIS 95-NA-039	
() CAASERT95) EXTENSION OF RESEARCH ON GRANULAR INSTABILITY TO HIGHER ORDER CONTINUUM THEORIES Univ of Southern California	Jean-Pierre	N 36 08/12/94 \$173,065	LEWIS 95-NA-040	
() CAASERT95) SHEAR BANDING AND CRACK PROPAGATION IN GEOMATERIALS: CLAYS AND SANDS Case Western Reserve University	Adel	N 36 08/12/94 \$112,841	LEWIS 95-NA-041	
() CAASERT95) VISCOUS EFFECTS IN PORE SCALE MODELING OF IMMISCIBLE FLUID FLOW THROUGH POROUS MEDIA Colorado State University	Deanna	N 36 08/12/94 \$183,049	LEWIS 95-NA-042	
() MODELING AND ACTIVE CONTROL OF NONLINEAR UNSTEADY MOTIONS IN COMBUSTION CHAMBERS California Institute of Technology	F.	N 12 08/12/94 \$50,000	A BIRKAN 95-NA-043	\$50,000 01/04/95 \$50,000
() CAASERT95) EFFECTS OF GRANULAR MICROSTRUCTURE ON FATIGUE LIFE OF HIGH-TEMPERATURE CERAMICS Univ of California, San Diego	Nemat-Nasser	N 36 08/12/94 \$140,982	LEWIS 95-NA-044	
() CAASERT95) UNSTABLE FINGERED FLOW IN SOIL-OIL-WATER-AIR SYSTEMS THEORETICAL PREDICTIONS AND EXPERIMENTAL VERIFICATION Cornell University	Tammo	N 36 08/12/94 \$196,057	LEWIS 95-NA-045	

10
10/10/95

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 6

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
CAASERT95) ADVANCED SURFACTANTS FOR CONTAINMENT OF HALOCARBON CONTAMINATION AND MOLECULAR Univ of Wyoming	Carron	N 36 08/12/94 \$176,750	LEWIS 95-NA-046	\$377,070 15/05/95 \$750,000
(S8IR95) FLEXIBLE HEAT FLUX SENSOR ARRAYS Advanced Micromachines	Bang	N 24 09/12/94 \$750,000	MCMICHAEL 95-NA-047	\$300,000 01/05/95 \$603,690
(S8IR95) HIGH TEMPERATURE SENSORS AND ARRAYS FPR TURBOMACHINES Vatell Corporation	Hager	N 24 09/12/94 \$603,690	MCMICHAEL 95-NA-048	\$300,000 01/05/95 \$603,690
(S8IR95) UNSTEADY HEAT TRANSFER AND PRESSURE SENSORS BASED ON LUMINESCENT PHOSPHORS Engineering Sciences Inc	Yu	N 24 09/12/94 \$597,633	MCMICHAEL 95-NA-049	
AASERT95/SYNTHESIS, CONSOLIDATION, AND CHARACTERIZATION OF NANOCRYSTALLINE TiAl AND NiAl Washington University	Sastry	N 36 12/12/94 \$180,501	WARD 95-NA-050	
AASERT95/EXPERIMENTS TO CHECK A NEW MODEL OF THE BRITTLE-TO-DUCTILE TRANSITION TEMPERATURE Univ of Pennsylvania	Pope	N 36 12/12/94 \$286,900	WARD 95-NA-051	
AASERT95 A STUDY OF THE KINETICS OF PHASE TRANSFORMATIONS IN NB-TI-AL ALLOYS Univ of Cincinnati	Vasudevan	N 36 12/12/94 \$167,675	WARD 95-NA-052	
AASERT95 FATIGUE OF TOUGHENED SILICIDES Case Western Reserve University	Lewandowski	N 36 12/12/94 \$150,000	WARD 95-NA-053	
CAASERT95) UNSTRUCTURED GRID TECHNOLOGY RESEARCH FOR SIMULATION OF UNSTEADY, VISCOUS FLOW Mississippi State University	Harcum	N 36 13/12/94 \$149,771	SAKELL 95-NA-054	

02/15/95

02/15/95

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 7

TITLE
TITLE (CONT.)
INSTITUTION

TYPE/MONTHS
RECEIVED
AMOUNT

STATUS
PROGRAM MANAGER
PROPOSAL #

INITIATE
START DATE
TOT AMT

CAASERT95) MULTIPLE SCALE SIMULATION & MASSIVE PARALLEL
COMPUTATION FOR DIRECT NUMERICAL SIMULATION OF TURBULENT FLOW
Univ of Colorado at Denver
Liu
Chacqun

N 36
13/12/94
\$209,320

SAKELL
95-NA-055

CAASERT95) TIME ACCURATE COMPUTATION OF UNSTEADY SHOCK TUNNEL
FLOWS WITH COUPLED DIAPHRAGM RUPTURE MECHANICS
North Carolina State University
McRae
D Scott

N 36
13/12/94
\$253,282

SAKELL
95-NA-056

CAASERT95) STABILITY & TRANSITION OF HYPERSONIC BOUNDARY-LAYER
FLOWS INCLUDING THE EFFECTS OF ABLATION
Arizona State University
Reed
Helen

N 36
13/12/94
\$192,905

SAKELL
95-NA-057

CAASERT95) EXPERIMENTAL STUDY OF NORMAL SHOCK WAVE-VORTEX
INTERACTION
Polytechnic Univ. - Weber Research Inst.
Kalkhoran
Iraq

N 36
13/12/94
\$139,829

SAKELL
95-NA-058

CASERT95) A STUDY OF HIGH SPEED INLETS UTILIZING ADVANCED
OPTICAL DIAGNOSTICS
Ohio State University
Samimy
Mo

N 36
13/12/94
\$114,781

SAKELL
95-NA-059

CAASERT95) LAMINAR-TURBULENT TRANSITION IN HIGH-SPEED BOUNDARY
LAYERS WITH CURVATURE: ADDITIONAL MEASUREMENTS AT NON-ZERO ANGLE
Purdue University
Schneider
Steven

N 35
13/12/94
\$164,263

SAKELL
95-NA-060

CAASERT95) DEVELOPMENT OF COMPUTATIONAL FLUID DYNAMICS
INTERDISCIPLINARY METHODS
Georgia Institute of Tech
Smith
Marilyn

N 36
13/12/94
\$84,352

SAKELL
95-NA-061

CAASERT95) DIRECT NUMERICAL SIMULATION & LINEAR ANALYSIS OF
STABILITY OF NONEQUILIBRIUM HYPERSONIC BOUNDARY LAYER
Univ of California, Los Angeles
Zhong
Xiaolin

N 36
13/12/94
\$152,874

SAKELL
95-NA-062

CAASERT95) ACTIVE CONTROL OF CAVITY OSCILLATIONS
Georgia Institute of Tech
Ahuja
Krishan

N 36
13/12/94
\$167,669

SAKELL
95-NA-063

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 8

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
CAASERT95) DIRECT NUMERICAL SIMULATION OF SHOCKWAVE TURBULENT BOUNDARY LAYER INTERACTION Univ of Alabama	Chung	N 36 13/12/94 \$97,338	SAKELL 95-NA-064	
CAASERT95) STUDENT RESEARCH ON NON-OXIDE STRUCTURAL CERAMICS - ALLOY DESIGN FOR IMPROVED SINTERABILITY & MECHANICAL PERFORMANCE Univ of Michigan	Chen I-Mei	N 36 13/12/94 \$172,333	PECHENIK 95-NA-065	
CAASERT95) PREPARATION AND PROPERTIES OF NANOPHASE AND MANOCOMPOSITE OF OXIDE COATINGS Northwestern University	Sproul William	N 36 13/12/94 \$174,745	PECHENIK 95-NA-066	
CAASERT95) THEORETICAL BASIS FOR FRACTURE & WEAR-IN COVALENTLY BONDED MATERIALS Univ of Florida	Whitney E Dow	N 36 13/12/94 \$98,692	PECHENIK 95-NA-067	
CAASERT95) INVESTIGATION OF BORON AS A BARRIER TO DIFFUSION/ DISSOLUTION-RELATED WEAR OF CERAMIC CUTTING TOOLS IN THE PLATINUM Univ of Florida	Whitney E Dow	N 36 13/12/94 \$99,496	PECHENIK 95-NA-068	
CAASERT95) THEORETICAL BASIS FOR FRACTURE & WEAR IS COVALENTLY BONDED MATERIALS Univ of Florida	Mecholsky, Jr J J	N 36 13/12/94 \$98,692	PECHENIK 95-NA-069	
CAASERT95) SENSOR & ACTUATOR PLACEMENT & SHAPE DESIGN OF SMART STRUCTURES Wright State University	Grandhi Ramana	N 36 13/12/94 \$137,461	MU 95-NA-070	
CAASERT95) AEROSERVOELASTIC PROBLEMS ASSOCIATED WITH EXTERNAL STORES & INNOVATIVE SCALING LAWS FOR SUCH PROBLEMS Univ of California, Los Angeles	Friedmann Perets	N 36 13/12/94 \$97,080	MU 95-NA-071	
CAASERT95) INSTABILITIES IN CELLULAR SOLIDS Univ of Texas at Austin	Kyriakides Stellos	N 36 13/12/94 \$138,480	MU 95-NA-072	

63

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
(CAASERT95) LIMIT CYCLE OSCILLATIONS (LCO) AND NONLINEAR AEROELASTIC WING RESPONSE Duke University	Dowell Earl	N 36 13/12/94 \$142,108	WU 95-NA-073	
(CAASERT95) CRACK PROPAGATION BY ELEMENT-FREE GALERKIN METHODS Northwestern University	Belytschko Ted	N 36 13/12/94 \$160,474	WU 95-NA-074	
(CAASERT95) DAMAGE AND FRACTURE IN QUASI-BRITTLE MATERIALS Northwestern University	Bazant Zdenek	N 36 13/12/94 \$170,811	WU 95-NA-075	
(CAASERT95) REDUCTION OF GAS TURBINE BLADE/HUB HEAT TRANSFER USING A FENCE DEVICE Virginia Polytechnic Inst & State Univ	Simpson Roger	N 36 13/12/94 \$131,029	MCMICHAEL 95-NA-076	
(CAASERT95) MICRO FLUID DYNAMICS IN MICRO-SIZED MICROCHANNEL California Institute of Technology	Tai Yu-Chang	N 36 13/12/94 \$230,496	MCMICHAEL 95-NA-077	
(CAASERT95) GRADUATE STUDENT SUPPORT FOR DEVELOPMENT OF DOPPLER GLOBAL VELOCIMETRY West Virginia University Research Corp	Kuhlman John	N 36 13/12/94 \$115,401	MCMICHAEL 95-NA-078	
(CAASERT95) FLUID AND THERMAL MODELLING OF MICROMACHINES DEVICES Massachusetts Institute of Technology	Breuer Kenneth	N 36 13/12/94 \$213,037	MCMICHAEL 95-NA-079	
(CAASERT95) STRUCTURE BASED TURBULENCE MODELING Stanford University	Reynolds William	N 36 13/12/94 \$147,645	MCMICHAEL 95-NA-080	
(CAASERT95) ADVANCED CONCEPTS FOR BOUNDARY LAYER CONTROL Univ of California, Los Angeles	Kim John	N 36 13/12/94 \$96,939	MCMICHAEL 95-NA-081	

REPORT DATE 02/15/75

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 10

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
(CAASERT95) APPLICATION OF MOLECULAR TAGGING DIAGNOSTICS TO TURBULENT MIXING ENHANCEMENT AND CONTROL STUDIES Michigan State University	Koochesfahani Manoochehr	N 36 13/12/94 \$195,217	MCMICHAEL 95-NA-082	
(CASSERT95) FLOW THROUGH A MICRON SIZE CHANNEL Univ of California, Los Angeles	Ho Chih-Ming	N 36 13/12/94 \$172,758	MCMICHAEL 95-NA-083	
(CAASERT95) SCATTERING PROCESSES ASSOCIATED WITH INSTABILITY WAVES IN COMPRESSIBLE SHEAR LAYERS Univ of Arizona	Kerschen Edward	N 36 13/12/94 \$248,575	MCMICHAEL 95-NA-084	
(CAASERT95) RECEPTIVITY OF LARGE DISTURBANCES IN BOUNDARY-LAYER TRANSITION Arizona State University	Saric William	N 36 13/12/94 \$105,517	MCMICHAEL 95-NA-085	
(AASERT95/ THREE DIMENSIONAL MODEL DEVELOPMENTS FOR PLASMA PLUMES Massachusetts Institute of Technology	Hastings Daniel	N 36 13/12/94 \$187,231	BIRKAN 95-NA-086	
(AASERT95/ STUDENT RESEARCH IN ROCKET AND PLUME REACTION KINETICS Rensselaer Polytechnic Institute	Fontijn Arthur	N 36 13/12/94 \$296,941	BIRKAN 95-NA-087	
(AASERT95/ ELECTRON-BEAM FLUORESCENCE MEASUREMENT ON HYDROGEN Univ of California, San Diego		N 36 13/12/94 \$100,901	BIRKAN 95-NA-088	
(AASERT95/ DYNAMIC RESPONSES OF SUPERCRITICAL DROPLET VAPORIZATION AND COMBUSTION TO ACOUSTIC OSCILLATIONS Pennsylvania State University		N 36 13/12/94 \$121,345	BIRKAN 95-NA-089	
(AASERT95/ OPTIMIZATION OF NON-EQUILIBRIUM HYDRAZINE ARCJETS Univ of Illinois		N 36 13/12/94 \$206,783	BIRKAN 95-NA-090	

REPORT DATE 02/15/95 PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
 DIRECTORATE OF AEROSPACE SCIENCES

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AAASERT95/ SUPPORT FOR GRADUATE RESEARCH IN SUPERSONIC REACTING FLOWS Stanford University		N 36 13/12/94 \$206,670	TISHKOFF 95-NA-091	
AAASERT95/ SCIENCE AND ENGINEERING TRAINING IN COMBUSTION AND PROPULSION Princeton University		N 36 13/12/94 \$246,020	TISHKOFF 95-NA-092	
AAASERT95/ MODELING OF DEPOSIT FORMATION DURING THERMAL DEGRADATION OF COAL-DERIVED JET FUELS Pennsylvania State University		N 36 13/12/94 \$108,671	TISHKOFF 95-NA-093	
AAASERT95 DEVELOPMENT OF A TECHNIQUE TO DETERMINE THE MORPHOLOGY AND DYNAMICS OF AGGLOMERATES IN CHEMICALLY REACTING FLOWS Louisiana State University		N 36 13/12/94 \$122,792	TISHKOFF 95-NA-094	
AAASERT95/ MICROMECHANISM BASED MODELLING OF METAL MATRIX COMPOSITES Texas Engineering Experiment Station		N 36 14/12/94 \$148,194	JONES 95-NA-095	
AAASERT95/ PROCESSING OF FUNCTIONALLY GRADED COATING Univ of Washington		N 36 14/12/94 \$118,333	JONES 95-NA-096	
AAASERT95/ BALLISTIC RAM PERFORATION OF COMPOSITE CURVED PANELS Univ of New Orleans		N 36 14/12/94 \$147,943	JONES 95-NA-097	
AAASERT95/ CYCLIC AND FATIGUE DAMAGE IN HIGH TEMPERATURE METAL MATRIX COMPOSITES Louisiana State University		N 36 14/12/94 \$165,735	JONES 95-NA-098	
AAASERT95/ EFFECTS OF SERVICE ENVIRONMENT ON THE MECHANICAL BEHAVIOR OF COMPOSITE LAMINATES CONTAINING STRESS CONCENTRATIONS Univ of Dayton		N 36 14/12/94 \$97,957	JONES 95-NA-099	

11

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF AEROSPACE SCIENCES

PAGE 12

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95/ NON-DESTRUCTIVE EVALUATION OF ADVANCED COMPOSITES Tulane University		N 36 14/12/94 \$109,605	JONES 95-NA-100	
AASERT95/ ANALYSIS OF NON-AXISYMMETRIC CRACKING IN CERAMIC MATRIX COMPOSITES Univ of Missouri		N 36 14/12/94 \$104,901	JONES 95-NA-101	
AASERT95/ THE AIR FORCE GRADUATE SCHOLARS FOR HIGH TEMPERATURE MATERIALS Univ of South Carolina		N 36 14/12/94 \$157,354	JONES 95-NA-102	
AASERT95/ FUNCTIONALLY GRADIENT MATERIALS: DEVELOPEMNTY OF THERMAL BARRIER COATINGS AND INTERPHASE Pennsylvania State University		N 36 14/12/94 \$240,355	JONES 95-NA-103	
AASERT95/ FAILURE PROGRESSION IN CERAMIC COMPOSITE LAMINATES Univ of Tennessee		N 36 14/12/94 \$75,976	JONES 95-NA-104	
AASERT95/ FAILURE INITIATION AND RUPTURE OF FIBER-REINFORCED CERAMICS Univ of New Mexico		N 36 14/12/94 \$133,360	JONES 95-NA-105	
AASERT95/ FRACTURE AND FATIGUE CRACK GROWTH BEHAVIOR OF ADVANCED CERAMIC MATRIX COMPOSITES Univ of Dayton		N 36 14/12/94 \$94,250	JONES 95-NA-106	
ON-LINE PROCESSING OF THERMOPLASTIC COMPOSITE MATERIALS Stanford University	Isal Stephen	N 12 14/12/94 \$49,984	A WU 95-NA-107	\$49,984 01/04/95 \$49,984
SECONDARY BREAKUP AND TURBULENCE INTERACTIONS OF OKOPS Univ of Michigan	Faeth Gerard	N 36 15/12/94 \$342,200	A TISHKOFF 95-NA-108	\$109,675 15/07/95 \$342,200

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
 DIRECTORATE OF AEROSPACE SCIENCES

PAGE 13

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
RESEARCH ON OPTICS AND MICROELECTRONICS THIS FILM RELIABILITY Aerospace Corporation	Kitchens Hallie	N 12 16/12/94 \$50,000	A WU 95-NA-109	\$50,000 01/06/95 \$50,000
BIOMOLECULAR PLASMA PROCESSES IN HIGH PERFORMANCE ARCJETS PLASMA MODELING Univ of Illinois	Burton Rodney	N 12 20/12/94 \$90,000	A BIRKAM 95-NA-110	\$90,000 01/08/95 \$90,000
FUNDAMENTAL STUDIES OF THE ELECTRODE REGIONS IN ARCJET THRUSTERS Stanford University	Cappelli Mark	R 36 20/12/94 \$299,810	A BIRKAM 95-NA-111	\$103,345 01/08/95 \$299,810
DROPLET COLLISION IN LIQUID PROPULSION COMBUSTION Princeton University	Law C	R 24 20/12/94 \$115,000	A BIRKAM 95-NA-112	\$115,000 01/05/95 \$115,000
SUPPORT FOR COMBUSTION INSTITUTE Combustion Institute	Sawyer R	N 24 20/12/94 \$20,000	A BIRKAM 95-NA-113	\$20,000 01/04/95 \$20,000
SPACECRAFT INTERACTION STUDIES WITH A1 KW CLASS CLOSED-DRIFT HALL THRUSTERS Univ of Michigan	Gallimore Alec	N 36 20/12/94 \$371,665	A BIRKAM 95-NA-114	\$127,738 01/04/95 \$615,592
PREPARATION AND CHARACTERIZATION OF SUPERHARD MATERIALS OF CRYSTALLINE CARBON NITRIDE Northwestern University	Wong Ming-Show	N 36 20/12/94 \$299,828	A PECHENIK 95-NA-115	\$198,847 01/05/95 \$298,829
MULTIPLE SCALE REPRODUCING KERNEL METHODS FOR COMPRESSIBLE FLOW- STRUCTURE SYSTEMS Northwestern University	Liu Wing Kam	N 12 20/12/94 \$79,723	A WU 95-NA-116	\$79,723 01/04/95 \$79,723
ANODE CURRENT ATTACHMENT IN COLLISIONAL PLASMAS Olin Aerospace Corp	Butler G	N 18 20/12/94 \$129,768	A BIRKAM 95-NA-117	\$48,224 01/04/95 \$129,768

TITLE TITLE (CONT-) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
HIGH PRESSURE DROPLET VAPORIZATION AND DYNAMICS APPLIED COMBUSTION Pennsylvania State University	Yang Vigor	N 36 21/12/94 \$183,506	A BIRKAN 95-NA-118	\$183,506 01/03/95 \$183,506
CONTRIBUTIONS OF SHEAR COAXIAL INJECTORS TO LIQUID ROCKET MOTOR COMBUSTION INSTABILITIES Pennsylvania State University	Micci Michael	N 24 21/12/94 \$142,782	A BIRKAN 95-NA-119	\$142,782 01/03/95 \$142,782
COMBUSTION KINETICS OF HEDMS AND METALLIC FUELS Rensselaer Polytechnic Institute	Fontijn Arthur	N 36 21/12/94 \$298,987	A BIRKAN 95-NA-120	\$99,641 15/03/95 \$298,987
CERAMIC MATRIX COMPOSITES FOR GAS TURBINE ENGINES Georgia Tech Research Corporation	Starr Thomas	N 60 22/12/94 \$3,115,672	WARD 95-NA-121	
PRET/95 A UNIVERSITY-INDUSTRY PARTNERSHIP FOR RESEARCH AND TRANSITION OF GAMMA TITANIUM ALUMINIDES Carnegie-Mellon University	Pollock Tressa	N 60 22/12/94 \$3,685,106	A WARD 95-NA-122	\$745,157 01/05/95 \$3,735,106
ADVANCED HIGH TEMPERATURE MOLYBDENUM ALLOYS United Technologies Research Center	Gianneli Anthony	N 12 22/12/94 \$199,730	A WARD 95-NA-123	\$199,730 01/04/95 \$199,730
MIXED ATOMISTIC/CONTINUUM STUDIES OF DEFECTS IN ELECTRONIC AND STRUCTURAL MATERIALS Brown University	Freund L	N 36 23/12/94 \$367,492	A JONES 95-NA-124	\$246,480 15/03/95 \$367,492
OPTICAL PHASE CORRECTION IN A PLANE SHEAR LAYER USING PARALLEL OPTELECTRONIC IMAGE PROCESSING, GLOBAL OPTICAL FLOW DIAGNOSTICS Univ of Illinois	Pearlstein Arne	N 36 27/12/94 \$234,070	A MCMICHAEL 95-NA-125	\$78,072 01/04/95 \$234,070
DAMAGE ACCUMULATION MECHANISMS IN TBC COATED SINGLE CRYSTAL SUPERALLOY Wayne State University	Newaz Golam	N 36 27/12/94 \$240,379	A JONES 95-NA-126	\$99,312 15/03/95 \$240,379

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
 DIRECTORATE OF AEROSPACE SCIENCES

PAGE 15

TITLE (CONT-) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
RESEARCH FOR ADVANCED AIRCRAFT ENGINE STRUCTURES AT TEXAS A&M UNIVERSITY, 1995-96 Texas A and M Research Foundation	Vance	R 12 27/12/94 \$42,962	A JONES 95-NA-127	\$42,962 15/08/95 \$42,962
NON-CONTACT ULTRASOUND SYSTEM FOR DETECTION OF FATIGUE AND CORROSION DAMAGE IN AIRCRAFT Johns Hopkins University	Green, Jr.	N 12 27/12/94 \$99,758	A JONES 95-NA-128	\$99,758 01/04/95 \$99,758
ACTUATORS AND SENSORS FOR TURBULENT BOUNDARY LAYER CONTROL Stanford University	Reynolds	N 32 28/12/94 \$329,841	A MCMICHAEL 95-NA-129	\$89,953 01/04/95 \$329,841
SURFACE MODIFICATION OF STRUCTURAL CERAMICS BY ION IMPLANATATION AND POST-IMPLANTATION ANNEALING A1203 AND Si3N4 Univ of California, Los Angeles	Ardeil	N 12 28/12/94 \$50,000	A PECHENIK 95-NA-130	\$50,000 01/02/95 \$50,000
PARTICLE DISPERSION IN TURBULENT SPRAYS Univ of California, Davis	Kennedy	N 36 28/12/94 \$266,829	A TISHKOFF 95-NA-131	\$92,647 01/08/95 \$260,829
BIAXIAL FAILURE ANALYSIS OF GRAPHITE/POLYIMIDE COMPOSITES Oregon Graduate Institute	Kumosa	N 36 29/12/94 \$173,648	A JONES 95-NA-132	\$60,638 15/03/95 \$173,648
IMPLEMENTATION OF ELECTRICAL RESISTIVITY TO EVALUATE OXIDATION RESISTANCE OF CARBON-CARBON COMPOSITES Texas Engineering Experiment Station	Uchoa	R 12 29/12/94 \$75,554	A JONES 95-NA-133	\$75,554 15/08/95 \$75,554
PROVIDE GRAPHICS SUPPORT FOR PROFESSOR PARVIZ MOIN, STANFORD UNIVERSITY, AFOSR GRANT 93-1-0078 NASA - Ames Research Center	Mansour	N 12 29/12/94 \$32,506	A MCMICHAEL 95-NA-134	\$32,506 01/10/94 \$32,506

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF CHEMICAL AND ATMOSPHERIC SCIENCES

PAGE 1

TITLE
TITLE (CONT.)
INSTITUTION

SUPRAMOLECULAR ORGANIZATION USING A SYNTHETIC ANALOGUE OF BIOMINER
ALIZATION
Pennsylvania State University

INVESTIGATOR

Bianconi Patricia

DEVELOPMENT OF A STRUCTURE-BASED TURBULENCE MODEL

Stanford University

Reynolds

TYPE/MONTHS
RECEIVED
AMOUNT

R 36
03/10/94
\$450,000

N 32
07/12/94
\$360,014

INITIATE
START DATE
TOT AMT

A
HEDBERG
95-NC-001
\$150,000
01/06/95
\$450,000

STATUS
PROGRAM MANAGER
PROPOSAL #

A
HEDBERG
95-NC-001

M
MCHICHAEL
95-NC-002

10/15/94

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM PROPOSAL #	INITIATE START DATE TOT AMT
HBCU/NI FAST 95 ESTABLISHMENT OF AN AF FUTURE AEROSPACE SCIENCE & TECHNOLOGY CENTER FOR INFRARED SURVEILLANCE & COUNTERMEASURES Fisk University	Warren Collins	N 36 08/11/94 \$3,597,908	POMRENKE 95-NE-019	
HBCU/NI FAST 95 FAST CENTER FOR IR SEMICONDUCTOR TECHNOLOGY(FIRST) Univ of New Mexico	Malloy Kevin	N 36 08/11/94 \$3,590,068	POMRENKE 95-NE-020	
RARE-EARTH-DOPED SILICON CARBIDE AND NITRIDE SEMICONDUCTORS FOR HIGH SPEED OPTICAL FIBER COMMUNICATIONS TECHNOLOGY AT 1.3-1.55 UM Univ of Cincinnati	Andrew Stecki	N 36 10/11/94 \$379,135	POMRENKE 95-NE-021	
NEURAL NETWORK DETERMINATION OF OPTICAL PHASE CORRECTION IN A PLAN E SHSPEAR LAYER USING PARALLEL OPTOELECTRONIC IMAGE PROCESSING.GLOU Georgia Institute of Tech	Mark Allen	N 36 10/11/94 \$146,564	CRAIG 95-NE-022	
LOW TEMPERATURE SUPERCONDUCTOR DIGITAL ELECTRONICS State University of New York	Likharev Konstantin	N 24 14/11/94 \$2,888,886	A WEINSTOCK 95-NE-023	\$1,450,000 15/09/95 \$2,900,000
MECHANISM OF MICROSTRUCTURE DEVELOPMENT IN MELT-TEXTURED V-BA-CU-0 SUPERCONDUCTORS Intermagetics General Corp	Selvamannickam V	N 36 14/11/94 \$202,189	A WEINSTOCK 95-NE-024	\$68,871 15/03/95 \$196,026
DEVICE PROPERTIES OF METAL-SEMICONDUCTOR COMPOSITE MATERIALS FOR INFRARED DETECTION Howard University	Bates, Jr Clayton	N 36 15/11/94 \$500,000	POMREMKE 95-NE-025	
S&IR95 MATERIALS FOR PERSISTENT SPECTRAL HOLEBURNING RESEARCH Scientific Materials Corp	Hutcheson Ralph	N 24 16/11/94 \$564,864	A CRAIG 95-NE-026	\$300,000 01/05/95 \$564,864
S&IR95 DOUBLED DIODE LASER Jeacon Research Co	G. Deacon David	N 24 16/11/94 \$750,000	SCHLOSSBER 95-NE-027	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 4

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
SBIR95 COMPACT TUNABLE LIGHT SOURCES BASED ON NON-LINEAR OPTICS Focused Research Inc	Day Timothy	N 24 16/11/94 \$746,505	SCHLOSSBER 95-NE-028	
SBIR95 LOW COST COMPACT BLUE LASER Spectra Diode Laboratories, Inc	Sanders Steve	N 24 16/11/94 \$731,116	SCHLOSSBER 95-NE-029	
SBIR95 COMMERCIAL PHOTOREFRACTIVE DEVICES USING NON- STOICHIOMETRIC III-V SEMICONDUCTORS Core Tek Inc	Tayebati Parvis	N 24 16/11/94 \$750,234	WITT 95-NE-030	
SBIR95 5-PICOSECOND PHOTOCONDUCTIVE SAMPLING OSCILLOSCOPE PICOTRONIX	Williamson Steven	N 24 16/11/94 \$750,000	WITT 95-NE-031	
SBIR95 OPTO-ELECTRONIC COMPONENTS FROM NON-STOICHIOMETRIC III-V MATERIALS Scientific Research Associates, Inc.	Grubin Harold	N 24 16/11/94 \$749,528	WITT 95-NE-032	
1995 GORDON CONFERENCE ON ATOMIC PHYSICS Gordon Research Conferences Inc	Greene Chris	N 12 17/11/94 \$4,975	KELLEY 95-NE-033	
CAASERT-95) NEGATIVE-ENERGY CYCLOTRON RESONANCE MASER Univ of California, Davis	Luhmann, Jr Neville	N 36 23/11/94 \$150,000	BARKER 95-NE-034	
CAASERT-95) HIGH PERFORMANCE GYROKLYSTRON AMPLIFIER Univ of California, Davis	Luhmann, Jr Neville	N 36 23/11/94 \$150,000	BARKER 95-NE-035	
CAASERT-95) BASIC RESEARCH IN MICROWAVE-PLASMA INTERACTION Polytechnic Univ. - Weber Research Inst.	Kuo Spencer	N 36 23/11/94 \$63,864	BARKER 95-NE-036	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT C 1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 1

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
THEORETICAL & EXPERIMENTAL DEVELOPMENT OF COMPOSITE MATERIAL VACUUM FIELD EMITTERS: APPLICATION TO RF GENERATION AMPLIFICATION Pennsylvania State University	Cutler Paul	N 36 04/10/94 \$77,615	D BARKER 95-NE-001	
LABORATORY EXAMINATION OF SUPERCONDUCTIVITY IN MATERIALS POSSESSING P AND P-LIKE ORBITAL ELECTRONIC DELOCALIZATION New Mexico State University	Bentley James	N 36 04/10/94 \$426,591	D WEINSTOCK 95-NE-002	
SUPPORT OF THE 5TH INTERNATIONAL CONFERENCE ON CHEMICAL BEAM EPITAXY AND RELATED GROWTH TECHNIQUES Univ of California, San Diego	Tu Charles	N 12 11/10/94 \$4,000	POMRENKE 95-NE-003	
OPTICAL COMPUTING SUBSYSTEMS DEMONSTRATION Optivision, Inc.	Derstine Matthew	N 14 11/10/94 \$610,636	CRAIG 95-NE-004	
EVALUATION OF LOW TEMPERATURE GROWN GaAs FOR APPLICATIONS TO GATE INSULATOR AND PASSIVATION Motorola Phoenix Corp Research Lab	Abrokwah Jon	N 36 13/10/94 \$1,385,726	WITT 95-NE-005	
DESIGN AND CHARACTERIZATION OF MIS TRANSISTORS FROM III-V SEMICONDUCTORS Univ of Illinois	Morkoc Hadis	N 36 14/10/94 \$600,000	A WITT 95-NE-006	\$285,000 01/04/95 \$855,000
THE NEXT STEP IN PHOTONIC DEVICE CHARACTERIZATION & DEVELOPMENT: INTEGRATING DRAMATIC NEAR-FIELD OPTICAL DEVELOPMENTS WITH FEMTOSEC Cornell University	Lewis Aaron	N 36 14/10/94 \$360,153	SCHLOSSBER 95-NE-007	
RESEARCH ON SILICON-BASED OPTICAL DEVICES Carnegie-Mellon University	Grove David	N 36 19/10/94 \$398,982	A POMRENKE 95-NE-008	\$125,000 01/02/95 \$398,982
TUNABLE & EFFICIENT MID-INFRARED OPTICAL PARAMETRIC OSCILLATORS & AMPLIFIERS & FREQUENCY DOUBLERS BASED ON NOVEL SEMICONDUCTOR STRUC Bowling Green State University	Ding Yujie	N 36 19/10/94 \$224,817	SCHLOSSBER 95-NE-009	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 2

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
PROPOSAL FOR SUPPORT OF WORKSHOP ON NON-STOICHIOMETRIC GAAS AND RE LATED MATERIALS Univ of Texas at Austin	Campbell Joe	N 12 24/10/94 \$7,425	A WITT 95-NE-010	\$7,425 15/02/95 \$7,425
DIAGNOSTICS AND STORAGE OF TURBULENCE DISTORTED WAVEFRONTS BY USING SPECTRAL HOLE BURNING MATERIALS SRI International	Kachru Ravinder	N 36 25/10/94 \$479,847	A CRAIG 95-NE-011	\$119,997 01/04/95 \$359,946
FREQUENCY STABILIZATION OF SEMICONDUCTOR DIODE LASERS BY OPTICAL FEEDBACK FROM QUARTZ MICROSPHERES California Institute of Technology	Kimble H	N 36 25/10/94 \$642,164	CRAIG 95-NE-012	
SCATTERING OF MICROWAVES BY STEADY-STATE PLASMA SLABS, COLUMNS, AND LAYERS AT ATMOSPHERIC PRESSURE Univ of Tennessee	Laroussi Mounir	N 36 28/10/94 \$135,597	A BARKER 95-NE-013	\$51,723 01/03/95 \$135,597
MONTE-CARLO STUDY OF SEVERAL STATISTICAL MECHANICAL MODELS OF EPITAXIAL GROWTH Southern University A&M College	Lam Pui-Man	N 36 31/10/94 \$175,878	A POMRENKE 95-NE-014	\$60,000 01/03/95 \$60,000
ORGANIZATION OF THE 1995 PHOTONIC SCIENCE TOPICAL MEETINGS Optical Society of America	Hennage David	N 12 03/11/94 \$90,000	A SCHLOSSBER 95-NE-015	\$60,000 01/03/95 \$60,000
HBCU/MI FAST 95 HOWARD UNIVERSITY AIR FORCE FUTURE AEROSPACE SCIENCE AND TECHNOLOGY CENTER (HUFASST) Howard University	Coleman Don	N 36 08/11/94 \$3,585,674	WEINSTOCK 95-NE-016	
HBCU/MI FAST 95 FUTURE AEROSPACE SCIENCE AND TECHNOLOGY CENTER IN MICROWAVE CRYOELECTRONICS FOR SPACE APPLICATIONS Florida International University	Larkins, Jr Grover	N 36 08/11/94 \$3,592,697	WEINSTOCK 95-NE-017	
HBCU/MI FAST 95 AIR FORCE FAST CENTER FOR INFRARED SURVEILLANCE AND COUNTERMEASURES Hampton University	Huang In	N 36 08/11/94 \$1,942,648	POMRENKE 95-NE-018	

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
 DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
(CAASERT-95) GRADUATE STUDENT RESEARCH ON MILLIMETER WAVE SOURCES Univ of Michigan	Gilgenbach Ronald	N 36 23/11/94 \$113,510	BARKER 95-NE-037	
(CAASERT-95) A COMPACT ULTRA-WIDEBAND MILLIMETER-AVE PHOTOCATHODE FREE-ELECTRON LASER OPERATING AT GIGAHERTZ REPETITION RATES IN Univ of California, Davis	Luhmann, Jr Neville	N 36 23/11/94 \$150,000	BARKER 95-NE-038	
(CAASERT-95) TRANSPORT PROCESSFS IN PLASMAS Rutgers - The State University	Lebowitz Joel	N 36 23/11/94 \$181,559	BARKER 95-NE-039	
(CAASERT-95) RESEARCH TRAINING FOR MINORITY STUDENTS Knoxville College	Rader Mark	N 36 23/11/94 \$261,729	BARKER 95-NE-040	
(CAASERT-95) MEASUREMENT OF INTERNAL PLASMA FIELDS USING A FREE- FLIGHT PROBE Univ of Washington	Jarboe Thomas	N 36 23/11/94 \$137,082	BARKER 95-NE-041	
(CAASERT-95) OPTICAL EMISSION FROM SI AND SIGE ALLOYS AND SUPERLATTICES Univ of Rochester	Hall Dennis	N 36 23/11/94 \$116,305	BARKER 95-NE-042	
(CAASERT-95) HIGH EFFICIENCY, LARGE INPUT-OUTPUT ISOLATION, 1.55 UM WAVELENGTH CONVERTER Univ of Maryland	Degenais Mario	N 24 23/11/94 \$127,014	CRAIG 95-NE-043	
(CAASERT-95) CASCADING FOR NONLINEAR OPTICS Univ of Central Florida	Stegeman George I	N 36 23/11/94 \$136,559	CRAIG 95-NE-044	
(CAASERT-95) AUGMENTATION FOR 1-DIMENSIONAL OPTICALLY INTER- CONNECTED CAMERAS USING SILICON NEURAL NETWORKS Georgia Institute of Tech	Jokerst Nan Marie	N 36 23/11/94 \$150,653	CRAIG 95-NE-045	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 6

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
CAASERT-95) SPATIAL SOLUTION INTERACTIONS Univ of Colorado	Wagner Kelvin	N 36 23/11/94 \$152,421	CRAIG 95-NE-046	
CAASERT-95) WIDE ANGULAR APERTURE ACOUSTOOPTIC DEVICES Univ of Colorado	Wagner Kelvin	N 36 23/11/94 \$135,105	CRAIG 95-NE-047	
CAASERT-95) VIOLET AND ULTRA VIOLET SEMICONDUCTOR LASERS FOR HIGH DENSITY OPTICAL MEMORIES Cornell University	Eastman Lester	N 36 23/11/94 \$178,226	CRAIG 95-NE-048	
CAASERT-95) ADAPTIVE PHASED-ARRAY RADAR SIGNAL PROCESSING USING PHOTOREFRACTIVE VOLUME HOLOGRAM Univ of Colorado	Wagner Kelvin	N 36 23/11/94 \$135,105	CRAIG 95-NE-049	
CAASERT-95) MULTIWAVELENGTH ARITHMETIC LOGIC UNIT USING OPTICAL FOUR-WAVE MIXING Univ of California, Santa Barbara	Yeh Pochi	N 36 23/11/94 \$148,066	CRAIG 95-NE-050	
CAASERT-95) GRADUATE AND UNDERGRADUATE STUDIES OF MATERIALS FOR OPTICAL MEMORIES AND SIGNAL PROCESSING Montana State University	Cone Rufus	N 36 23/11/94 \$109,231	CRAIG 95-NE-051	
CAASERT-95) SPATIAL-SPECTRAL HOLOGRAPHY: PRINCIPLES AND APPLICATIONS Univ of Oregon	Mossberg Thomas	N 36 23/11/94 \$118,766	CRAIG 95-NE-052	
CAASERT-95) NOISE CHARACTERIZATION OF DEVICES FOR OPTICAL COMPUTING Texas Tech University	Walkup John	N 36 23/11/94 \$117,658	CRAIG 95-NE-053	
CAASERT-95) DESIGN, FABRICATION, AND TEST OF ELECTRO-OPTICAL BEAM STEERING MICRO DEVICES FOR OPTICAL MEMORY SYSTEMS Syracuse University	Song Q. Wang	N 36 23/11/94 \$103,044	CRAIG 95-NE-054	

REPORT DATE 02/15/95
 PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
 DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
CAASERT-95) OGRAM AND OOSP SMART PIXEL CHIPSET DEVELOPMENT Univ of North Carolina	Klamille Fouad	N 24 23/11/94 \$110,346	CRAIG 95-NE-055	
CAASERT-95_ COHERENT TRANSIENT PROCESSORS AND MATERIALS Univ of Washington	Babbitt Hm Randall	N 30 23/11/94 \$184,690	CRAIG 95-NE-056	
CAASERT-95) LOW COST FABRICATION METHOD FOR COLOR FILTER OF FLAT PANFL DISPLAY Univ of Alabama	Shen Dashen	N 36 23/11/94 \$163,660	CRAIG 95-NE-057	
CAASERT-95)PRECISION MEASUREMENTS WITH HYDROGEN AND RUBIDIUM MASERS Smithsonian Institution	Walsworth Ronald	N 24 23/11/94 \$34,754	KELLEY 95-NE-058	
CAASERT-95) DISSOCIATIVE RECOMINATION AND ATOMIC BEAM COOLING STUDIES USING LASER RADIATION Florida International University	Hardy Kenneth	N 36 23/11/94 \$190,575	KELLEY 95-NE-059	
CAASERT-95) ANTIPTONS AND ANTIHYDROGEN Harvard University	Gabrielse Gerald	N 36 23/11/94 \$285,184	KELLEY 95-NE-060	
CAASERT-95) PATH INTEGRAL STUDIES OF ENERGETIC IMPURITIES IN H2/HE SLURRIES Univ of California, Berkeley	Whaley Katherine	N 36 23/11/94 \$80,453	KELLEY 95-NE-061	
CAASERT-95) MOLECULAR BEAM EPITAXIALLY GROWN CODE FOR X-RAY DETECTORS Univ of Illinois - Chicago	Faurie Jean-Pierre	N 36 23/11/94 \$233,850	POMRENKE 95-NE-062	
CAASERT-95) GROWTH AND MODELLING OF CD (1-X) ZN(X) TE ALLOY EPILAYERS Univ of Illinois - Chicago	Sivanathan Sivalingam	N 36 23/11/94 \$129,141	POMRENKE 95-NE-063	

33

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 8

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
(AASERT-95) GRADUATE STUDENT SUPPORT California Institute of Technology	McGill Thomas	N 36 23/11/94 \$148,232	POMRENKE 95-NE-064	
(AASERT-95) SURFACE CHEMISTRY AND MATERIALS SYNTHESIS Cornell University	Ho Wilson	N 36 23/11/94 \$118,000	POMRENKE 95-NE-065	
(AASERT-95) CRITICAL-COMPOSITION BUFFER LAYERS BY GAS-SOURCE MBE Colorado State University	Robinson Gary	N 36 23/11/94 \$133,000	POMRENKE 95-NE-066	
(AASERT-95) RARE EARTH DOPANT SOURCES FOR SEMICONDUCTORS Georgia Institute of Tech	Rees, Jr William	N 36 23/11/94 \$270,750	POMRENKE 95-NE-067	
(AASERT-95) MICROMACHINED SUBSTRATES FOR MICROWAVE AND MN-WAVE ANTENNA APPLICATIONS Univ of Michigan	B. Katechi Linda	N 36 23/11/94 \$131,137	POMRENKE 95-NE-068	
(AASERT-95) OPTICAL & ELECTRICAL INVESTIGATIONS OF WIDEGAP NITRIDES FOR APPLICATIONS IN EPITAXIAL GROWTH & DEVICES Oklahoma State University	Song Jin-Joo	N 36 23/11/94 \$116,909	POMRENKE 95-NE-069	
(AASERT-95) ULTRAFAST GF LIGHT MODULATOR AT 1.55 MICROMETER City College - CUNY	Shum Kal	N 36 23/11/94 \$136,833	POMRENKE 95-NE-070	
(AASERT-95) IMPACT OF CARRIER DYNAMICS AND RELATED OPTICAL NON- LINEARITIES ON MID-IR DIODE Univ of Iowa	Boggers Thomas	N 36 23/11/94 \$99,127	POMRENKE 95-NE-071	
(AASERT-95) DEVELOPING PARE-EARTH-DOPED SEMICONDUCTOR LIGHT SOURCES Univ of Arizona	Gibbs Hyatt	N 36 23/11/94 \$125,000	POMRENKE 95-NE-072	

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
CAASERT-95) RARE EARTH ELEMENT IMPURITIES AND SEMICONDUCTORS Case Western Reserve University	Lambrecht Walter R.L.	N 36 23/11/94 \$129,277	POMRENKE 95-NE-073	
CAASERT-95) BAND OFFSETS AND INFRARED DETECTOR APPLICATIONS OF (SII-XV GEXCY) ALLOYS) Princeton University	Sturm James	N 36 23/11/94 \$140,078	POMRENKE 95-NE-074	
CAASERT-95) HIGH RESOLUTION THERMOREFRACTIVE FACEPLATES Univ of Dayton	Becker Roger	N 36 23/11/94 \$94,253	POMRENKE 95-NE-075	
CAASERT-95) NONLINEAR OPTICAL SPECTROSCOPY Univ of Central Florida	VanStryland Eric	N 36 23/11/94 \$100,598	SCHLOSSBER 95-NE-076	
CAASERT-95) TIME RESOLVED SITE-SELECTIVE FOURIER-TRANSFORM SPECTROSCOPY OF DYNAMIC LASER CRYSTALS Univ of Central Florida	Peale Robert	N 36 23/11/94 \$109,770	SCHLOSSBER 95-NE-077	
CAASERT-95) OPTICAL INTERACTIONS WITH SINGLE MAGNETIC DOMAINS Univ of Southern California	Hellwarth Robert	N 36 23/11/94 \$109,830	SCHLOSSBER 95-NE-078	
CAASERT-95) NON-LINEAR OPTICAL DEVICES IN GAN/ALXGAI-XN FOR BLUE/ UV WAVELENGTHS Univ of New Mexico	Jain Ravi	N 36 23/11/94 \$160,600	SCHLOSSBER 95-NE-079	
CAASERT-95) FIBER LASER INTRA CAVITY SPECTROSCOPY (FLICS) Brown University	Morses Theodore	N 36 23/11/94 \$267,754	SCHLOSSBER 95-NE-080	
CAASERT-95) ASYNCHRONOUS MODELOCKING OF FIBER LASERS Massachusetts Institute of Technology	Ippen Erich	N 36 23/11/94 \$150,845	SCHLOSSBER 95-NE-081	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 10

TITLE
TITLE (CONT.)
INSTITUTION

INVESTIGATOR

TYPE/MONTHS
RECEIVED
AMOUNT

INITIATE
START DATE
TOT AMT

STATUS
PROGRAM MANAGER
PROPOSAL #

(CAASERT-95) SHORT WAVELENGTH FIBER LASERS

Univ of Illinois

Eden

J. Gary

N 36
23/11/94
\$183,472

SCHLOSSBER
95-NE-082

(CAASERT-95) MICROWAVE-OPTICAL INTERACTIVE DEVICES

Univ of California, Los Angeles

Fetterman

Harold

N 36
23/11/94
\$225,828

SCHLOSSBER
95-NE-083

(CAASERT-95) NONLINEAR OPTICAL PROPERTIES OF PHOTOACTIVE YELLOW
PROTEIN

Univ of Arizona

Gibbs

Hyatt

N 36
23/11/94
\$125,000

SCHLOSSBER
95-NE-084

(CAASERT-95) INTEGRATED MACH-ZEHNDER INTERFEROMETERS FOR THE STUDY
OF CORRELATED PHOTON-PAIR PHENOMENA

Columbia University

Osgood, Jr

Richard

N 36
23/11/94
\$150,686

SCHLOSSBER
95-NE-085

(CAASERT-95) 400-1000 GHZ, SUBMICRON SCHOTTKY-COLLECTOR
HETEROJUNCTION BIPOLAR TRANSISTORS

Univ of California, Santa Barbara

Rodwell

Mark

N 36
23/11/94
\$211,646

SCHLOSSBER
95-NE-086

(CAASERT-95) QUANTUM DOT PHOSPHORS FOR CONVENTIONAL AND PHOTONIC
LASTING PIXEL APPLICATIONS

Brown University

Lawandy

Nabil

N 36
23/11/94
\$284,640

SCHLOSSBER
95-NE-087

(CAASERT-95) PROBABILISTIC UNCERTAINTY ANALYSIS OF LASER/MATERIAL
INTERACTIONS

Univ of New Mexico

EI-Genk

Mohamed

N 36
23/11/94
\$94,208

SCHLOSSBER
95-NE-088

(CAASERT-95) FRAHERTZ EM RADIATION FROM ELECTRO-OPTIC CRYSTALS

Ronsselaer Polytechnic Institute

Zhang

XI-Cheng

N 36
23/11/94
\$130,075

SCHLOSSBER
95-NE-089

(CAASERT-95) DESIGN/FABRICATION OF A GUIDED WAVE OPTICAL SWITCH
BASED ON PHASFD ARRAY PRINCIPLES

Washington University

Krchnavek

Robert

N 36
29/11/94
\$152,358

CRAIG
95-NE-090

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 11

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
(AASERT-95) ACTIVE INTEGRATED BEAM STEERING AND SWITCHING ARRAY WITH ALL OPTICAL CONTROL Univ of California, Los Angeles	Itoh Tatsuo	N 36 29/11/94 \$113,776	SMITH 95-NE-091	
(AASERT-95) THEORETICAL EXPLORATION AND ANALYSIS OF LONG WAVELENGTH QUANTUM WELL INFRARED DETECTORS AND LASERS Univ of California, Los Angeles	Pan Dee-Son	N 36 29/11/94 \$98,613	SMITH 95-NE-092	
(AASERT-95) ULTRA-HIGH SPEED OPTICAL-FREQUENCY TRANSLATOR BASED ON ULTRAFAST PHENOMENA IN QUANTUM WELL LASERS Univ of California, Berkeley	Boker Jeffrey	N 36 29/11/94 \$155,680	SMITH 95-NE-093	
(AASERT-95) STUDENT TRAINING IN HIGH-TEMPERATURE SUPERCONDUCTING ELECTRONICS Univ of Rochester	Sobolewski Roman	N 36 29/11/94 \$124,624	WEINSTOCK 95-NE-094	
(AASERT-95) CANDIDATE ORGANIC SUPERCONDUCTORS Univ of Alabama	Meltzer Robert	N 36 29/11/94 \$211,477	WEINSTOCK 95-NE-095	
(AASERT-95) HIGH TEMPERATURE SUPERCONDUCTING COMPOUNDS Univ of Minnesota	Goldman Allen	N 36 29/11/94 \$150,000	WEINSTOCK 95-NE-096	
(AASERT-95) FEMTOSECOND NEAR-FIELD SPIN MICROSCOPY OF MAGNETIC/ SUPERCONDUCTING HETEROSTRUCTURES Univ of California, Santa Barbara	Awschelow David	N 36 29/11/94 \$150,000	WEINSTOCK 95-NE-097	
(AASERT-95) COMPUTER MODELLING AND SIMULATION OF SINGLE-ELECTRON DEVICES State University of New York	Likharov Konstantin	N 36 29/11/94 \$130,411	WEINSTOCK 95-NE-098	
(AASERT-95) STUDENT TRAINING IN LOW-TEMPERATURE-GROWN III-V Univ of Rochester	Fauchet Phillippe	N 36 29/11/94 \$90,504	WITT 95-NE-099	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 12

TITLE INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
CAASERT-95) A STUDY OF PHYSICAL MECHANISMS GOVERNING THE RELIABILITY OF ALGAAAS/GAAS HETEROJUNCTION SIPOLAR TRANSISTORS Univ of Central Florida	LIU	N 36 29/11/94 \$120,564	WITT 95-NE-100	
CAASERT-95) GAAS-GAAMP SUPERLATTICES FOR INTERSUBBAND PHOTODETECTION Northwestern University	Razeghi	N 36 29/11/94 \$242,221	WITT 95-NE-101	
CAASERT-95) FABRICATION OF A SUB-5 NM SILICON NANO-WIRES AND NANO-DEVICES Univ of California, Berkeley	Bokor	N 36 29/11/94 \$162,717	WITT 95-NE-102	
CAASERT-95) TIME RESOLVED LASER VISUALIZATION FOR ADVANCED BALLISTICS AND AERODYNAMICS RESEARCH Univ of Florida	Anderson	N 36 29/11/94 \$135,106	WITT 95-NE-103	
CAASERT-95) PHOTOASSISTED CHEMICAL VAPOR DEPOSITION FOR PACKAGING AND FABRICATION OF WIDE-BAND GAP SEMICONDUCTING DEVICES Univ of Nebraska	Langell	N 36 29/11/94 \$153,513	WITT 95-NE-104	
CAASERT-95) LOW DISLOCATION DENSITY III-V AND III-VI FILMS ON SI VIA SAWTOOTH-RELIEF Massachusetts Institute of Technology	Kolodziejwski	N 36 29/11/94 \$161,294	WITT 95-NE-105	
SOLUBILITY OF RARE EARTH IONS IN SILICA FIBERS; EFFECTS OF COMPOSITION & PROCESSING ON ATOMISTIC STRUCTURE & OPTICAL PROPERTI Rutgers, The State University	Garofalini	N 36 29/11/94 \$450,833	POMRENKE 95-NE-106	
INTERNATIONAL SYMPOSIUM ON THE SCIENCE AND TECHNOLOGY OF ATOMICALLY ENGINEFRED MATERIALS Virginia Commonwealth University	Jena	N 12 29/11/94 \$10,000	KELLEY 95-NE-107	
8AA94-8 MAGNETIC MATERIALS MICROCHARACTERIZATION INITIATIVE Lawrence Berkeley Laboratory	Krishnan	N 36 30/11/94 \$7,000,000	WITT 95-NE-108	

REPORT DATE 02/15/95

PAGE 13

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
0AA94-8 ATOMIC RESOLUTION IMAGING AND SPECTROSCOPY OF THIN FILM STRUCTURES Lawrence Berkeley Laboratory	Salmeron Miquel	N 36 30/11/94 \$3,839,000	MITT 95-NE-109	
0AA94-8 ATOMIC SCALE RESOLUTION SPECTROSCOPY APPLIED TO THIN FILM CHARACTERIZATION Univ of Wisconsin	Lagally Max	N 36 01/12/94 \$2,685,000	MITT 95-NE-110	
3AA94-8 ATOMIC SCALE RESOLUTION SPECTROSCOPY APPLIED TO THIN FILM CHARACTERIZATION Univ of Minnesota	Palmstria Christopher	N 36 01/12/94 \$3,000,000	MITT 95-NE-111	
0AA94-8 ATOMIC SCALE RESOLUTION SPECTROSCOPY APPLIED TO THIN FILM CHARACTERIZATION Cornell University	Silcox John	N 36 01/12/94 \$3,357,963	MITT 95-NE-112	
OPTICAL HOLE BURNING STUDIES IN GLASSES DOPED WITH DYES AND RARE-EARTH IONS Alabama A&M University	Reddy B	N 36 07/12/94 \$376,344	CRAIG 95-NE-113	
TUNABLE ELECTRICALLY-PUMPED RARE-EARTH-DOPED NITRIDE LASERS Univ of Colorado	Feuerstein Robert	N 36 08/12/94 \$229,725	POMRENKE 95-NE-114	\$24,824 01/04/95 \$229,725
ANISOTROPIC RELAXATION IN GASES Columbia University	Hartmann Sven	N 36 12/12/94 \$416,680	KELLEY 95-NE-115	
PUBLICATION OF PROCEEDINGS FOR THE 1994 APPLIED SUPERCONDUCTIVITY CONFERENCE IEEE Publishing Services	Burgmeyer Ann	N 04 13/12/94 \$5,000	A WEINSTOCK 95-NE-116	\$5,000 15/03/94 \$5,000
EPITAXIAL METALLIC COMPOUNDS FOR IDEAL CONTACTS TO COMPOUND SEMICONDUCTORS Univ of Minnesota	Palmstrom Christopher	N 36 13/12/94 \$638,626	A POMRENKE 95-NE-117	\$209,734 01/05/95 \$628,627

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 14

TITLE	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
PROGRAM OF RESEARCH IN LASER OSCILLATOR PHYSICS AND LASER DEVICE PERFORMANCE Stanford University	Siegman	R 36 14/12/94 \$596,463	SCHLOSSBER 95-NE-118	
A RECONFIGURABLE FREE-SPACE OPTICAL BACKPLANE Univ of Colorado	Hinton	N 24 14/12/94 \$557,445	D CRAIG 95-NE-119	
SILICON OPTICAL DATA LINK Massachusetts Institute of Technology	Kimerling	N 36 14/12/94 \$360,000	A POMRENKE 95-NE-121	\$60,000 01/04/95 \$360,009
PRECISE TIME AND TIME INTERVAL APPLICATIONS AND PLANNING MEETING NASA - Goddard Space Flight Center	Granato	N 01 15/12/94 \$5,750	A KELLEY 95-NE-122	\$5,750 01/12/94 \$5,750
MURI94 CONSORTIUM ON HIGH ENERGY MICROWAVE SOURCES Univ of California, Davis	Luhmann	N 60 20/12/94 \$5,000,000	A BARKER 95-NE-123	\$1,000,000 15/03/95 \$5,000,000
MULTISPECTRAL TARGET DETECTION AND ESTIMATION IN THE THERMAL INFRARED New York Institute of Technology	Cheung	N 36 20/12/94 \$347,375	WITT 95-NE-124	
ADVANCED ELECTRONICS AND OPTO-ELECTRONICS VIA NON-STOICHIOMETRIC II-V MATERIALS Univ of Rochester	Wicks	N 60 22/12/94 \$3,750,000	D WITT 95-NE-125	
CENTER FOR NON-STOICHIOMETRIC SEMICONDUCTORS Univ of California, Santa Barbara	Mishra	N 60 22/12/94 \$3,750,000	A WITT 95-NE-126	\$925,891 01/05/95 \$3,749,999
NON-STOICHIOMETRIC SEMICONDUCTORS FOR ULTRAFAST OPTOELECTRONICS Univ of Michigan	Whitaker	N 60 22/12/94 \$4,536,553	D WITT 95-NE-127	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF ELECTRONIC AND MATERIAL SCIENCES

PAGE 15

TITLE (CONT.)
INSTITUTION

INVESTIGATOR

ORGANIZATION OF THE 1995 ULTRAFAST ELECTRONICS AND OPTOELECTRONICS
TOPICAL MEETING
Optical Society of America

Hennage

David

TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
N 12 22/12/94 \$5,000	A WITT 95-NE-128	\$5,000 01/04/95 \$5,000

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF EDUCATION, ACADEMIC AND INDUSTRY AFFAIRS

PAGE 1

TITLE	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
BIOREMEDIATION POTENTIAL OF TUNICATES Univ of West Florida	Collard Jr Sneed	N 12 19/10/94 \$94,249	A SHELDON 95-NI-001	\$70,687 01/01/95 \$70,687
EFFICIENT FREQUENCY UP-CONVERSION AND DOWN-CONVERSION USING OPTICAL PARAMETRIC OSCILLATION Univ of New Mexico	Moore Gerald	N 12 19/10/94 \$68,227	A SHELDON 95-NI-002	\$65,543 15/10/94 \$65,543
LABORATORY GRADUATE FELLOWSHIP PROGRAM Office of Naval Research	Hughes Debbie	N 12 21/10/94 \$800,000	A SHELDON 95-NI-003	\$800,000 01/10/94 \$800,000
INFORMATION FOR SELF-MOTION AND SPATIAL ORIENTATION Univ of Minnesota	Pick, Jr Herbert	N 12 24/10/94 \$89,211	A SHELDON 95-NI-004	\$66,081 01/01/95 \$66,081
FORMAL METHODS APPLIED TO SYSTEM DESIGN Syracuse Univ - Dept Elec & Computer Eng	Chin Shiu-Kai	N 12 01/11/94 \$117,942	A SHELDON 95-NI-005	\$88,478 01/01/95 \$88,478
NATIONAL DEFENSE SCIENCE AND ENGINEERING GRADUATE FELLOWSHIP PROGRAM Office of Naval Research	Hughes Debbie	N 12 04/11/94 \$1,134,158	A SHELDON 95-NI-006	\$1,134,158 01/10/94 \$1,134,158
EQUATORIAL IONGSPHERIC CAMPAIGN Phillips Lab - Geophysics Directorate	Valenzuela Jorge	N 01 23/11/94 \$3,700	A ZARBO 95-NI-007	\$3,700 12/12/94 \$3,700
INSTRUCTIONAL DESIGN FOUNDATIONS FOR COLLABORATIVE DISTANCE LEARNING Universite De Montreal	Bourdeau Jacqueline	N 01 27/12/94 \$2,500	A ZARBO 95-NI-008	\$2,500 12/02/95 \$2,500

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF LIFE SCIENCES

PAGE 1

TITLE
TITLE (CONT.)
INSTITUTION

TYPE/MONTHS
RECEIVED
AMOUNT

INITIATE
START DATE
TOT AMT

STATUS
PROGRAM MANAGER
PROPOSAL #

MOLECULAR APPROACH TO HYPOTHALAMIC RHYTHMS
Scripps Clinic and Research Foundation

INVESTIGATOR
Sutcliffe
Gregor

R 36
05/10/94
\$609,205

A
HADDAD
95-NL-001

\$170,000
15/03/95
\$470,000

OURIP-94 HIGH-INTENSITY HIGH-RESOLUTION SOLID-STATE TUNABLE LASERS
IN THE UV-IR FOR INTERFACE CHEMISTRY RESEARCH
Univ of Southern California

Reisler
Hanna

N 12
12/10/94
\$220,000

A
BERMAN
95-NL-002

\$220,000
01/12/94
\$220,000

ORGANIC AND POLYMERIC MATERIALS: SOLID STATE PROPERTIES AND SMART
MATERIALS
Univ of Florida

Reynolds
John

N 01
13/10/94
\$6,000

LEE
95-NL-003

RIGID-ROD POLYPARAPHENYLENE POLYMERS: AN EXPERIMENTAL AND THEORETI
CAL STUDY OF STRUCTURE/PROPERTY RELATIONSHIPS
Michigan Molecular Institute

Mansfield
Marc

N 36
14/10/94
\$602,585

LEE
95-NL-004

MECHANISM AND DOSE RESPONSE FOR THE CARCINOGENIC ACTIVITY OF TRICH
LOROETHYLENE IN MOUSE LIVER
Medical College of Ohio

Pereira
Michael

N 36
17/10/94
\$449,817

KOZUMBO
95-NL-005

DEVELOPMENT OF ADVANCED OPTICAL MATERIALS
Alabama A&M University

Reddy
B.R.

N 36
17/10/94
\$423,719

ERSTFELD
95-NL-006

SYNTHESIS AND CHARACTERIZATION OF RARE EARTH DOPED SOL-GEL SILICA
Univ of Wisconsin

Gray
Kevin

N 36
18/10/94
\$215,600

D
ERSTFELD
95-NL-007

THE REGULATION OF MAMMALIAN CIRCADIAN PHYSIOLOGY BY LIGHT
Univ of Virginia

Foster
Russell

R 36
20/10/94
\$605,197

A
HADDAD
95-NL-008

\$220,000
15/03/95
\$220,000

STUDY OF SCN NEUROCHEMISTRY USING IN VIVO BRAIN MICRODIALYSIS IN T
HE CONSCIOUS BRAIN: CORRELATION WITH ACTIVITY RHYTHMS
Kent State University

David

R 12
02/11/94
\$124,000

A
HADDAD
95-NL-009

\$124,263
01/02/95
\$124,000

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
 DIRECTORATE OF LIFE SCIENCES

PAGE 2

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
HBCU/MI FAST95 - FAST CENTER IN LIGHTWEIGHT STRUCTURAL MATERIALS A ND PROCESSING Clark Atlanta University	Mintz Eric	N 12 08/11/94 \$3,598,502	LEE 95-NL-010	
HBCU/MI FAST95 - AIR FORCE FAST CENTER FOR LIGHTWEIGHT STRUCTURAL MATERIALS AND PROCESSING Prairie View A&M University	Biney Paul	N 12 08/11/94 \$3,598,099	LEE 95-NL-011	
HBCU/MI FAST95 - CENTER FOR ENVIRONMENTAL RESEARCH AND TRAINING Virginia State University	Agrawal Krishan	N 12 08/11/94 \$3,322,843	KOZUMBO 95-NL-012	
HBCU/MI FAST95 - AIR FORCE FAST CENTER FOR ENVIRONMENTAL REMEDIATI ON, FATE AND TRANSPORT OF HAZARDOUS CHEMICALS Tuskegee University	Halle Kebede	N 12 08/11/94 \$3,600,000	KOZUMBO 95-NL-013	
HBCU/MI FAST95 - ESTABLISH AN AIR FORCE FAST CENTER FOR ENVIRONMEN TAL REMEDIATION, FATE & TRANSPORT OF HAZARDOUS CHEMICALS Jackson State University	Huang Huey-Min	N 12 08/11/94 \$3,190,137	KOZUMBO 95-NL-014	
HBCU/MI FAST95 - AIR FORCE FAST CENTER FOR ENVIRONMENTAL REMEDIATI ON, FATE AND TRANSPORT OF HAZARDOUS CHEMICALS New Mexico State University	Shada Ron	N 12 08/11/94 \$3,599,954	KOZUMBO 95-NL-015	
HBCU/MI FAST95 AIR FORCE FAST CENTER FOR ENVIRONMENTAL REMEDIATION & FATE AND TRANSPORT OF HAZARDOUS CHEMICALS North Carolina A&T State University	Kabadi Vinsyak	N 12 08/11/94 \$3,600,000	KOZUMBO 95-NL-016	
HBCU/MI FAST95 CENTER FOR ENVIRONMENTAL REMEDIATION AND EDUCATION Johnson C. Smith University	Mbamalu Godwin	N 12 08/11/94 \$3,170,480	KOZUMBO 95-NL-017	
MOLECULAR STUDY OF 2,4-DINITROTOLUENE DEGRADATION BY BACTERIA General Atomics	Suen Men-Chen	N 36 08/11/94 \$540,474	A KOZUMBO 95-NL-018	\$174,637 25/04/95 \$540,473

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
ADVANCED SIMULATION OF METAL CLUSTERS Clark Atlanta University	Wang Xiao-Qian	N 36 16/11/94 \$298,808	BERMAN 95-NL-019	
MINERALOGIC AND TEXTURAL CONTROLS ON IN-SITU BIOREMEDIATION Louisiana State University	Ferrell, Jr. Ray	N 36 21/11/94 \$472,187	KOZUMBO 95-NL-020	
FUNDAMENTAL MODELS FOR PREDICTING LIFETIME PERFORMANCE OF HIGH PER FORMANCE POLYMERIC MATERIALS Purdue Research Foundation	Caruthers James	N 36 21/11/94 \$155,114	A LEE 95-NL-021	\$62,718 01/03/95 \$155,114
SBIR95 MM-WAVE CORROSION ANALYSIS AND DETECTION Conductus, Inc.	Martens Jon	N 24 22/11/94 \$749,958	HEDBERG 95-NL-022	
SBIR95 INFRARED DETECTION OF ATMOSPHERIC CORROSION ON METALLIC SUR FACES Aerodyne Research Inc	Freedman A	N 24 22/11/94 \$499,773	HEDBERG 95-NL-023	
SBIR95 THE USE OF ELECTROCHEMISTRY AND ELLIPSOMETRY FOR IDENTIFYIN G AND EVALUATING CORROSION ON AIRCRAFT Dacco SCI Inc	Dacres Chester	N 24 22/11/94 \$749,033	A HEDBERG 95-NL-024	\$347,000 15/05/95 \$749,033
SBIR95 ELECTROCHEMICAL IMPEDANCE PATTERN RECOGNITION FOR DETECTION OF HIDDEN CHEMICAL CORROSION ON AIRCRAFT COMPONENTS Eltron Research Inc	Sammells Anthony	N 24 22/11/94 \$685,965	A HEDBERG 95-NL-025	\$300,000 15/05/95 \$685,965
SBIR95 CORROSION OF AIRCRAFT MATERIALS: CORRELATION BETWEEN NANOME TER SCALE AND MACROSCOPIC STRUCTURAL DAMAGE PARAMETERS LYNNTech, Inc.	Gonzales-Martin Anuncia	N 24 22/11/94 \$594,307	A HEDBERG 95-NL-026	\$294,000 15/05/95 \$594,307
AAERT95 OPTIMIZATION OF NRA FINGERPRINTING WITH SOIL EXTRACTED ME SSENGER RNA Univ of Tennessee	Fleming James	N 36 23/11/94 \$75,000	KOZUMBO 95-NL-027	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF LIFE SCIENCES

PAGE 4

TITLE
TITLE (CONT.)
INSTITUTION

INVESTIGATOR

TYPE/MONTHS
RECEIVED
AMOUNT

STATUS
PROGRAM MANAGER
PROPOSAL #

INITIATE
START DATE
TOT AMT

AAASERT95 TRADEOFFS BETWEEN SPATIAL AND COLOR VISION

Univ of Pennsylvania

Buchsbaum

Gershon

N 36
23/11/94
\$142,011

TANGNEY
95-NL-028

AAASERT95 FUNDAMENTAL STUDIES ON SUPERCRITICAL FLUID INTERACTIONS WITH SOLUTES AND MICROPOROUS SOLIDS

Worcester Polytechnic Institute

Moser

William

N 36
23/11/94
\$261,083

ERSTFELD
95-NL-029

AAASERT95 RELATIONSHIP BETWEEN CORTICAL γ -AMINOBU TYRIC ACID (GABA) -RECEPTOR REGULATION AND EXPRESSION OF STRESS-MEDIATED CHANGES IN-LSU Medical Center In New Orleans

LSU Medical Center In New Orleans

Prasad

Chandan

N 36
23/11/94
\$80,857

HADDAD
95-NL-030

AAASERT95 SITE-SPECIFIC MOLECULAR-SURFACE INTERACTIONS ON METAL OXIDES

Univ of Southern California

Wittig

Curt

N 36
23/11/94
\$101,058

BERMAN
95-NL-031

AAASERT95 BIODEGRADATION OF NITROAROMATIC COMPOUNDS

Univ of Iowa

Gibson

David

N 36
23/11/94
\$169,380

HEDBERG
95-NL-032

AAASERT95 SPECTRAL DISPERSION STUDIES OF SECOND-ORDER MOLECULAR OPTICAL NONLINEARITIES: BEYOND THE TWO-LEVEL MODEL

Case Western Reserve University

Singer

Kenneth

N 36
23/11/94
\$172,457

LEE
95-NL-033

AAASERT95 INVESTIGATION OF REPLACEMENTS FOR HALON FIRE EXTINGUISHERS

Univ of North Texas

Marshall

Paul

N 36
23/11/94
\$109,296

HEDBERG
95-NL-034

AAASERT95 AN AAASERT PROPOSAL FOR THE DEVELOPMENT OF ADVANCED PHOTONIC MATERIALS

Univ of Southern California

Dalton

Larry

N 36
23/11/94
\$283,231

LEE
95-NL-035

EVALUATION OF LIFE SCIENCES RESEARCH PROGRAM

Competitive Solicitation

Not Identified

N 60
28/11/94
\$1,470,000

A
COLLINS
95-NL-036

\$243,393
01/03/95
\$1,470,000

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AAASERT95 IDENTIFICATION OF CRITICAL HIGH TEMPERATURE POLYMER MATRI X CARBON FIBER COMPOSITE AGING MECHANISMS IN FUTURE AIR FORCE ... Michigan State University	Morgan	N 36 28/11/94 \$113,978	LEE 95-NL-037	
AAASERT95 INVESTIGATION OF HYPERTHERMAL ENERGY ION/SURFACE REACTION S Univ of Notre Dame	Jacobs	N 36 28/11/94 \$110,540	BERMAN 95-NL-038	
AAASERT95 MODELING MICROBICITY TOXICITY IN CONTINUOUS FLOW SYSTEMS New Mexico State University	Khandan	N 36 29/11/94 \$160,345	KOZUMBO 95-NL-039	
AAASERT95 DEVELOPMENT OF NONLINEAR OPTICS PROGRAM AT IIT Illinois Institute of Technology	Mandal	N 36 29/11/94 \$162,864	LEE 95-NL-040	
AAASERT95 ANISOTROPIC PROPERTIES OF ORIENTED (PERFLUORINATED IONOMER) R)/(IONORGANIC OXIDE) NANOCOMPOSITES Univ of Southern Mississippi	Mauritz	N 36 29/11/94 \$218,005	LEE 95-NL-041	
AAASERT95 SYNTHESIS OF CARBON PRECURSORS CONTAINING B, N AND O SPEC IES FOR THE PREPARATION OF OXIDATIVELY STABLE CARBON Pennsylvania State University	Chung	N 36 29/11/94 \$117,226	HEDBERG 95-NL-042	
AAASERT95 AUGMENTATION AWARD FOR TRAINING IN METALLIC CORROSION SCI ENCE Univ of Chicago	Sibener	N 36 29/11/94 \$149,000	HEDBERG 95-NL-043	
AAASERT95 TRANSFERABLE VIBRATIONAL FORCE FIELDS Univ of Arkansas	Pulay	N 36 29/11/94 \$79,474	BERMAN 95-NL-044	
AAASERT95 EFFECT OF EXERCISE ON CORE BODY TEMPERATURE AND PLASMA ME LATONIN RHYTHMS Harvard University	Czeisler	N 36 29/11/94 \$218,734	HADDAD 95-NL-045	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF LIFE SCIENCES

PAGE 6

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AAASERT95 METALLO-CARBOHEDRENES -- STUDY OF A NEW CLASS OF MATERIAL S AND SOME OTHER RELATED TRANSITION METAL NITRIDES AND SILICIDES Pennsylvania State University	A.W. Castleman, Jr.	N 36 29/11/94 \$201,913	BERMAN 95-NL-046	
AAASERT95 SPECTROSCOPY OF MIXED METAL CLUSTERS ATTACHED TO LARGE H2 OR HE CLUSTERS Princeton University	Giacinto Scoles	N 36 29/11/94 \$156,724	BERMAN 95-NL-047	
AAASERT95 BASIC STUDIES ON THE CATALYTIC EFFECTS OF SOLID WEAR DEBR IS ON LUBRICANT DEGRADATION ON THE SILICON NITRIDE-M-50 STEEL Univ of Florida	James Adair	N 36 29/11/94 \$103,217	ERSTFELD 95-NL-048	
AAASERT95 VIBRATIONAL SPECTROELECTROCHEMISTRY OF MOLTEN HALIDE SYST EMS Univ of Tennessee	Gleb Mamantov	N 36 29/11/94 \$75,781	HEDBERG 95-NL-049	
AAASERT95 RESPONSE OF FLORIDA GRASSHOPPER SPARROW AND SNAIL KITE FO ODS TO FIRE ANT REDUCTION ON AVON PARK BOMBING RANGE, FLORIDA Texas Tech University	Stephen Demarais	N 36 29/11/94 \$132,894	KOZUMBO 95-NL-050	
AAASERT95 AUGEMENTATION TO GRANT AFOSR-94-1-0306 University of Idaho	Ronald Crawford	N 36 29/11/94 \$130,820	KOZUMBO 95-NL-051	
THEORETICAL AND EXPERIMENTAL STUDIES OF AUDITORY PROCFSSING Univ of Maryland	Shihab Shamma	R 36 06/12/94 \$462,971	COLLINS 95-NL-052	
MELATONIN, THE PINEAL GLAND AND CIRCADIAN RHYTHMS Texas A and M Research Foundation	Vincent Cassone	R 36 07/12/94 \$476,873	A HADDAD 95-NL-053	\$121,514 01/05/95 \$221,514
AAASERT95 POLED POLYMER PROCESSING FOR CASCADED NONLINEARITIES Univ of Central Florida	George Stegeman	N 36 07/12/94 \$136,559	LEE 95-NL-054	

REPORT DATE 02/15/95
 PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
 DIRECTORATE OF LIFE SCIENCES

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AAASERT95 AGING AND DURABILITY OF HIGH TEMPERATURE ELECTRICAL WIRING Washington University	Wolf Clarence	N 36 07/12/94 \$196,645	LEE 95-NL-055	
AAASERT95 CHARACTERIZATION OF OPTICAL PROPERTIES OF THIN NONLINEAR OPTICAL POLYMER FILMS Purdue University	Lackritz Hillary	N 36 07/12/94 \$93,569	LEE 95-NL-056	
AAASERT95 STABILITY OF EPoxidATION FRONTS Univ of Southern Mississippi	Pojman John	N 36 07/12/94 \$141,792	LEE 95-NL-057	
AAASERT95 CONJUGATED POLYMERS WITH DEGENERATE GROUND STATE: THE ROUTE TO HIGH PERFORMANCE NLO RESPONSE Univ of California, Santa Barbara	Heeger Alan	N 36 07/12/94 \$216,305	LEE 95-NL-058	
AAASERT95 NEW PHOTOREFRACTIVE POLYMERS EXHIBITTING ENHANCED PERFORMANCE NCS Univ of Chicago	Yu Luping	N 36 07/12/94 \$132,137	LEE 95-NL-059	
AAASERT95 PHOTOREFRACTIVE POLYMERS FOR PHOTONIC APPLICATIONS Univ of Arizona	Peyghambarian Nasser	N 36 07/12/94 \$129,000	LEE 95-NL-060	
AAASERT95 FUNDAMENTAL MODELS FOR PREDICTING LIFETIME PERFORMANCE OF HIGH PERFORMANCE POLYMERIC MATERIALS Purdue University	Caruthers James	N 36 07/12/94 \$184,962	LEE 95-NL-061	
AAASERT95 DEVELOPMENT OF ADVANCED PHOTONIC MATERIALS Univ of Southern California	Dalton Larry	N 36 07/12/94 \$283,231	LEE 95-NL-062	
AAASERT95 SUPPORT IN AUXETIC POLYMERS Univ of Southern Mississippi	Griffin Anselm	N 36 07/12/94 \$193,649	LEE 95-NL-063	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF LIFE SCIENCES

PAGE 8

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95 COGNITIVE AND NEUROSCIENCE TRAINING IN MOTOR CONTROL Univ of Maryland	Steinman Robert	N 36 08/12/94 \$367,652	COLLINS 95-NL-064	
AASERT95 VISUALLY-GUIDED NAVIGATION Univ of California, Berkeley	Banks Martin	N 36 08/12/94 \$166,180	COLLINS 95-NL-065	
AASERT95 USING SPATIAL FRAMEWORKS IN PERCEPTION AND MEMORY Northeastern University	Bryant David	N 36 08/12/94 \$70,151	COLLINS 95-NL-066	
AASERT95 INFLUENCE OF MULTISENSORY STIMULATION ON OCULAR MOTOR PER FORMANCE Univ of Pittsburgh	Furman Joseph	N 36 08/12/94 \$179,678	COLLINS 95-NL-067	
AASERT95 STUDENT TRAINING FOR RESEARCH ON AUDITORY ORIENTATION Stanford University	Lackner James	N 36 08/12/94 \$25,877	COLLINS 95-NL-068	
AASERT95 MOLECULAR ANALYSIS OF NITROAROMATIC HYDROCARBON DEGRADATI ON BY GRAM POSITIVE BACTERIA Rutgers - The State University	Zylstra Gerben	N 36 08/12/94 \$163,925	KOZUMBO 95-NL-069	
AASERT95 RESEARCH TRAINING OF THE EFFECTS OF TOXIC SUBSTANCES ON T HE LUNGS Univ of Arizona	Witten Mark	N 36 08/12/94 \$192,736	KOZUMBO 95-NL-070	
AASERT95 EFFECTS OF MICROBIAL POPULATION INTERACTIONS ON THE MOBIL IZATION AND MINERALIZATION OF JET FUEL Univ of West Florida	Snyder Richard	N 36 08/12/94 \$226,182	KOZUMBO 95-NL-071	
AASERT95 XENOBIOLOGIC METABOLISM AND ACTION IN ENDOTHELIIUM Woods Hole Oceanographic Institute	Stegeman John	N 36 08/12/94 \$123,301	KOZUMBO 95-NL-072	

REPORT DATE 02/15/95
 PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
 DIRECTORATE OF LIFE SCIENCES

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
CELL CULTURE AND TRANSPLANTATION OF THE SUPRACHIASMATIC CIRCADIAN PACEMAKER Univ of Toronto	Ralph Martin	R 36 08/12/94 \$442,703	HADDAD 95-NL-073	
ASSESSING THE BIOAVAILABILITY OF MICELLAR-PHASE, LOW-SOLUBILITY HY DROCARBONS, DURING SURFACTANT-ENHANCED BIOTREMEDIATION Princeton University	Peter Jaffe	R 36 08/12/94 \$341,168	KOZUMBO 95-NL-074	
MICROBIAL AND SORPTIVE MECHANISMS CONTROLLING THE FATE OF FUEL COM PONENTS IN SOIL Cornell University	Eugene Madson	R 36 08/12/94 \$585,157	A KOZUMBO 95-NL-075	\$143,770 01/05/95 \$427,520
CHANGES IN BIODEGRADATION AND TOXICITY BECAUSE OF POLLUTANT SEQUES TRATION IN SOIL Cornell University	Alexander Martin	N 36 08/12/94 \$457,019	A KOZUMBO 95-NL-076	\$144,238 01/05/95 \$457,019
THE NEURAL BASIS AND FUNCTIONAL CHARACTERISTICS OF PERIPHERAL VISI ON Yorford University	Malcolm Young	N 36 08/12/94 \$310,050	COLLINS 95-NL-077	
LEAD-FREE AND GOLD-FREE MICROELECTRONIC SOLDERS Univ of California, Los Angeles	Alfred Yue	N 12 09/12/94 \$150,000	HEDBERG 95-NL-078	
AAASRT95 THEORETICAL STUDIES OF ENERGETIC MATERIALS Oklahoma State University	Donald Thompson	N 36 09/12/94 \$170,944	BERMAN 95-NL-079	
AAASRT95 SHOCK INITIATION OF ENERGETIC MATERIALS: THE FIRST FEW NA NOSECONDS Univ of Illinois - Urbana Champaign	Dana Dlott	N 36 09/12/94 \$207,000	BERMAN 95-NL-080	
AAASRT95 EXTENSIONS OF THE EQUATION-OF-MOTION COUPLED CLUSTER METH OD FOR EXCITED STATES Univ of Florida	Rodney Bartlett	N 36 09/12/94 \$103,751	BERMAN 95-NL-081	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF LIFE SCIENCES

PAGE 10

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95 THEORETICAL STUDIES OF MET-CARS: METALLO-CARBOHEDRENES Univ of Georgia	Schaefer III Henry	N 36 09/12/94 \$264,748	BERMAN 95-NL-082	
AASERT95 ULTRAFAST DYNAMICS OF ENERGETIC ADDITIVES IN O2 CLUSTERS: GRADUATE TRAINING IN CHEMICAL PHYSICS AT JILA Univ of Colorado	Lineberger W. Carl	N 36 09/12/94 \$236,997	BERMAN 95-NL-083	
AASERT95 LARGE AMPLITUDE MOTIONS IN POLYATOMIC MOLECULES Massachusetts Institute of Technology	Field Robert	N 36 09/12/94 \$260,956	BERMAN 95-NL-084	
AASERT95 ENERGY TRANSFER PROCESSES IN IODINE LASERS Emory University	Heaven Michael	N 36 09/12/94 \$73,324	BERMAN 95-NL-085	
AASERT95 A CELLULAR AND COMPUTATIONAL ANALYSIS OF THE ROLE OF SHOR T-TERM AND LONG-TERM INHIBITION IN INFORMATION PROCESSING IN AN... Yale University	Carew Thomas	N 36 12/12/94 \$105,601	HADDAD 95-NL-086	
AASERT95 BASIC MECHANISMS AND IMPLICATIONS OF NON-PHOTIC ENTRAINME NT OF CIRCADIAN RHYTHMICITY Univ of Chicago	Van Cauter Eve	N 36 12/12/94 \$392,663	HADDAD 95-NL-087	
AASERT95 CONTROL OF CIRCADIAN BEHAVIOR BY LIGHT AND TRANSPLANTED S UPERCHROMATIC NUCLEI Univ of Virginia	Foster Russell	N 36 12/12/94 \$163,454	HADDAD 95-NL-088	
AASERT95 BIOMOLECULAR MASK FORMATION USING UV PATTERNED SAM FILMS Univ of Colorado	Douglas Lecturer	N 36 12/12/94 \$140,744	HEDBERG 95-NL-089	
AASERT95 RESEARCH TRAINING FOR THE COMPUTER-AIDED MOLECULAR DESIGN OF SYNTHETIC DEVICES BASED ON NATURAL ANTIFREZZES Univ of Missouri	Welsh William	N 36 12/12/94 \$140,535	HEDBERG 95-NL-090	

REPORT DATE 02/15/95
 PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
 DIRECTORATE OF LIFE SCIENCES

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AAASRT95 SMART MATERIALS BY EXTRUSION SOLID FREE-FORM FABRICATION Univ of Arizona	Colvert Paul	N 36 12/12/94 \$152,240	HEDBERG 95-NL-091	
AAASRT95 ESTER ELIMINATION REACTIONS AS A METHOD TO CONTROL STRUCTURAL EVOLUTION Univ of New Mexico	Hampden-Smith Mark	N 36 12/12/94 \$167,314	ERSTFELD 95-NL-092	
AAASRT95 NANOMETRIC STUDIES OF THE STRUCTURE AND TRIBOLOGY OF CARBON NITRIDE MATERIALS Harvard University	Lieber Charles	N 36 12/12/94 \$169,473	ERSTFELD 95-NL-093	
AAASRT95 SURFACE CRACK PROPAGATION UNDER THE INFLUENCE OF LUBRICATING FLUIDS Univ of Illinois	Hala K. Jimmy	N 36 12/12/94 \$264,393	ERSTFELD 95-NL-094	
AAASRT95 2-DIMENSIONAL ISLANDS AS TEMPLATES FOR QUANTUM COLUMNS Univ of California, San Diego	Kummel Andrew	N 36 12/12/94 \$134,741	ERSTFELD 95-NL-095	
MULTIGRID METHOD FOR LARGE SCALE ELECTRONIC STRUCTURE OF MATERIALS Univ of Cincinnati	Beck Thomas	N 12 12/12/94 \$25,000	BERMAN 95-NL-096	
POLYMER ELECTRO-OPTIC DEVICES AND FOUNDRY ROI Technology	Jen Alex K-Y	N 36 14/12/94 \$1,200,000	LEE 95-NL-097	
ELEVENTH INTERDISCIPLINARY LASER SCIENCE CONFERENCE (ILS-XI) Univ of Arizona	Psychambarian Nasser	N 12 20/12/94 \$5,000	BERMAN 95-NL-098	
ELEVENTH INTERDISCIPLINARY LASER SCIENCE CONFERENCE (ILS-XI) Univ of Arizona	Psychambarian Nasser	N 12 20/12/94 \$5,000	BERMAN 95-NL-099	

REPORT DATE 02/15/95
 PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
 DIRECTORATE OF LIFE SCIENCES

PAGE 12

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
CONFERENCE ON THE DYNAMICS OF MOLECULAR COLLISIONS Univ of California, Berkeley	Neuemark Daniel	N 06 20/12/94 \$11,357	A BERMAN 95-NL-100	\$11,356 01/03/95 \$11,356
ORGANIZATION OF THE 1995 MODERN SPECTROSCOPY OF SOLIDS, LIQUIDS AN D GASES TOPICAL Optical Society of America	Hennage David	N 12 21/12/94 \$10,000	D BERMAN 95-NL-101	
SYNTHESIS AND MANIPULATION OF NANOSCALE ELECTROACTIVE OBJECTS AND THEIR USE IN INFORMATION STORAGE North Carolina State University	Gorman Christopher	N 36 21/12/94 \$439,309	LEE 95-NL-102	
A TRI-SERVICE WORKSHOP ON BIOAVAILABILITY OF ORGANIC CONTAMINANTS IN SOILS AND SEDIMENTS Rutgers, The State Univ, Coll of Enginr	Kosson David	N 12 22/12/94 \$61,885	A KOZUMBO 95-NL-103	\$20,628 15/03/95 \$20,628
PRET95 HOMEOSTATIC & CIRCADIAN REGULATION OF WAKEFULNESS DURING JE T LAG AND SLEEP DEPRIVATION: EFFECT OF WAKE-PROMOTING COUNTERMEASU Univ of Pennsylvania	Dinges David	N 36 23/12/94 \$2,977,244	A HADDAD 95-NL-104	\$549,680 28/04/95 \$2,889,680
PRET95 NIGHT WORK, JET LAG AND SLEEP DEPRIVATION: PHYSIOLOGY AND C OUNTERMEASURES Univ of Chicago	Van Cauter Eve	N 36 23/12/94 \$3,233,475	HADDAD 95-NL-105	
PRET95 AMELIORATING THE EFFECTS OF Jct LAG AND SLEEP DEPRIVATION Univ of Pittsburgh	Moore Robert	N 36 23/12/94 \$3,599,040	HADDAD 95-NL-106	
DIRECT WRITING OF ELECTRICALLY CONDUCTIVE ORGANIC STRUCTURES -- AP PLICATIONS IN NANOLITHOGRAPHY North Carolina State University	Gorman Christopher	N 36 23/12/94 \$479,309	LEE 95-NL-107	

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
COMPUTATIONAL METHODS FOR THE SIMULATION OF NONCONVEX VARIATIONAL PROBLEMS FOR APPLICATIONS TO SMART MATERIALS Central State University	Turner, Jr.	N 36 05/10/94 \$600,000	A NACHMAN 95-NM-001	\$200,000 01/05/95 \$600,000
INVESTIGATIONS OF CRITICAL PROBLEMS IN ROUGH SURFACE SCATTERING Virginia Polytechnic Inst & State Univ	Brown Gary	N 36 05/10/94 \$179,993	NACHMAN 95-NM-002	
CONFERENCE ON DYNAMICAL SYSTEMS AND APPLICATIONS Society for Industrial & Applied Math	Kolata William	N 12 05/10/94 \$10,000	NACHMAN 95-NM-003	
CIRCUIT COVERS, INTEGER FLOWS AND PETERSEN MINOR - RESEARCH IN GRAPH THEORY West Virginia University Research Corp	Zhang Cun-Quan	N 36 05/10/94 \$83,721	D GLASSMAN 95-NM-004	
PARALLEL ADAPTIVE METHODS FOR MODELING NONEQUILIBRIUM FLUIDS AND PLASMAS Univ of Michigan	Gombosi Tamas	N 12 12/10/94 \$50,000	A JACOBS 95-NM-005	\$50,000 01/03/95 \$50,000
VECTOR-VALUED MALVAR WAVELETS Air Force Institute of Technology	SUTER BRUCE	N 12 26/10/94 \$22,000	A SJOEGREN 95-NM-006	\$5,848 01/11/94 \$22,000
BOARD ON EARTH SCIENCES AND RESOURCES National Academy of Sciences	Price Jonathan	N 12 31/10/94 \$15,000	A DICKINSON 95-NM-007	\$15,000 01/04/95 \$15,000
THE NONLINEAR CONTROL THEORY OF COMPLEX MECHANICAL SYSTEMS Boston University	Baillieul John	N 36 01/11/94 \$283,665	A JACOBS 95-NM-008	\$85,101 15/06/95 \$172,535
AN EXPERIMENTAL STUDY OF THE NON-LINEAR RHEOLOGY OF ROCK AT MODERATE STRAINS New England Research Inc.	Boitnott Greg	N 20 07/11/94 \$140,591	A DICKINSON 95-NM-009	\$44,986 01/02/95 \$140,591

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 2

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
SAMPLED-DATA SYSTEMS; THEORY AND APPLICATIONS Univ of Michigan	Kabamba Pierre	N 36 08/11/94 \$482,468	JACOBS 95-NM-010	
EQUATIONS OF MOTION OF DILUTE GASES WITH APPLICATIONS TO FLIGHT AT HIGH ALTITUDES Cambridge Hydrodynamics Incorporated	Goldhirsch Isaac	N 24 08/11/94 \$135,361	JACOBS 95-NM-011	
ROBUST FIXED-ARCHITECTURE Georgia Institute of Tech	Haddad Wassim	N 36 08/11/94 \$234,017	JACOBS 95-NM-012	
(HRCU/MI FAST95) A TEST BED FOR C3I FAULT TOLERANT DISTRIBUTED COMPUTING Alabama A&M University	Terrill Alan	N 36 09/11/94 \$3,282,122	LUGINBUHL 95-NM-013	
SINGULAR PERTURBATION FOR NONLINEAR DYNAMICAL SYSTEMS Southern Methodist University	Haberman Richard	N 36 09/11/94 \$121,771	NACHMAN 95-NM-014	
APPLICATION AND DEVELOPMENT OF NEW DECS TECHNIQUES TO MANUFACTURING PROCESS CONTROL Univ of Cincinnati	daker albert	N 36 09/11/94 \$295,011	GLASSMAN 95-NM-015	
INTERNATIONAL CONGRESS ON INDUSTRIAL AND APPLIED MATHEMATICS Society for Industrial & Applied Math	Kolata William	N 12 09/11/94 \$85,300	D JACOBS 95-NM-016	
SURVIVABLE NETWORKS, PLOWS AND RELATED PROBLEMS West Virginia University Research Corp	Lai H.	N 36 09/11/94 \$80,543	D GLASSMAN 95-NM-017	
PATTERN FORMATION IN NONLINEAR PARTIAL DIFFERENTIAL EQUATIONS Univ of Central Florida	Choudhury S. Roy	N 24 09/11/94 \$85,296	D NACHMAN 95-NM-018	

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
MODELING AND CONTROL OF NONLINEAR SYSTEMS Univ of Colorado	Hauser	N 12 09/11/94 \$74,418	JACOBS 95-NM-019	
(HBCU/MI FAST95) HOWARD UNIVERSITY AIR FORCE FUTURE AEROSPACE SCIENCE & TECHNOLOGY CENTER (HUFASST) Howard University	Coleman	N 36 09/11/94 \$3,585,674	LUGINBUHL 95-NM-020	
COMPUTATIONAL MODELING OF ELECTROMAGNETIC WAVES IN LINEARLY DISPERSIVE INHOMOGENEOUS DIELECTRICS University of Idaho	Young	N 03 09/11/94 \$25,308	NACHMAN 95-NM-021	
EFFICIENT ALGORITHMS AND DATA STRUCTURES IN GEOMETRIC DESIGN Purdue Research Foundation	Bajaj	N 36 10/11/94 \$380,582	D GLASSMAN 95-NM-022	
GRAVITY WAVE MODELING & AIRGLOW APPLICATIONS Univ of Colorado	Fritts	N 36 10/11/94 \$208,955	A KROLL 95-NM-023	\$102,000 01/05/95 \$208,955
ANALYSIS, COMPUTATION & APPLICATION IN NONLINEAR MECHANICS Univ of Maryland	Haddock	N 33 10/11/94 \$475,300	A NACHMAN 95-NM-024	\$120,300 15/02/95 \$475,300
(SBIR95) RADARSAR, A NEW TECHNOLOGY FOR HIGH PERFORMANCE METEOROLOGICAL APERTURE SYNTHESIS RADIOMETRY Radsar Group	Edelsohn	N 24 17/11/94 \$662,749	KROLL 95-NM-025	
(SBIR95) DEVELOPMENT OF A NOVEL WIND LIDAR Science & Engineering Services	Lee	N 24 17/11/94 \$355,458	KROLL 95-NM-026	
(SBIR95) A SMALL AUTONOMOUS AIRCRAFT FOR REMOTE SENSING OF THE ATMOSPHERE The Insitu Group	McGeer	N 24 17/11/94 \$749,505	KROLL 95-NM-027	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 4

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
(SBR95) MULTIDIMENSIONAL LOGISTICS NETWORK MODELING USING MULTIDIMENSIONAL SPREADSHEET & MATHEMATICAL PROGRAMMING SOFTWARE CAPS Logistics, INC	William Mullity	N 24 17/11/94 \$747,763	GLASSMAN 95-NM-028	
(SBR95) USER-FRIENDLY MICROCOMPUTER INTERFACE WITH OPTIMIZATION LANGUAGES Primal Solutions, Inc.	Sam Savage	N 24 17/11/94 \$750,000	GLASSMAN 95-NM-029	
IMPROVED MULTIVARIATE QUALITY CONTROL PROCEDURES Georgia Institute of Tech	Hayter Anthony	N 36 18/11/94 \$134,438	SJOGREN 95-NM-030	
DISTRIBUTED DETECTION THEORY AND DATA FUSION Syracuse Univ - Dept Elec & Computer Eng	Varshney Prasad	N 12 18/11/94 \$66,565	SJOGREN 95-NM-031	
NUMERICAL TREATMENT OF RANDOM NEURAL NETWORKS AND APPLICATION Clark Atlanta University	Sambandham M.	N 36 18/11/94 \$167,532	SJOGREN 95-NM-032	
TWO DIMENSIONAL ADAPTIVE NONLINEAR DIGITAL FILTERS Univ of Colorado at Denver	Bose Tamal	N 36 18/11/94 \$210,784	SJOGREN 95-NM-033	
NONLINEAR ROBUST CONTROL: THEORY AND APPLICATIONS Carnegie-Mellon University	McEneaney William	N 36 18/11/94 \$87,091	A JACOBS 95-NM-034	\$23,061 01/04/95 \$87,091
WAVELET ANALYSIS IN POLAR COORDINATES Florida Atlantic University	Johnston Carolyn	N 36 18/11/94 \$264,075	SJOGREN 95-NM-035	
MECHANISMS FOR SCALABLE OBJECT SHARING IN MIND MULTIPROCESSING SYSTEMS Univ of North Carolina	Anderson James	N 36 18/11/94 \$282,914	LUGINBUHL 95-NM-036	

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
 DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
ALGORITHMS AND SOFTWARE FOR COMBINED H2/H-INFINITY CONTROL Virginia Polytechnic Inst & State Univ	Watson Layne	N 36 18/11/94 \$190,739	JACOBS 95-NM-037	
COMPUTATIONAL ALGORITHMS BASED ON HAMILTON'S PRINCIPLE Dartmouth College	Lewis H. Ralph	N 36 18/11/94 \$462,457	JACOBS 95-NM-038	
THE PHYSICAL ORIGIN OF IN-CLOUD LIGHTNING PROCESSES DETERMINED FROM MULTIPLE-STATION WIDEBAND ELFCRIC FIELD MEASUREMENTS Univ of Florida	Thomson Ewen	N 36 18/11/94 \$152,297	A KROLL 95-NM-039	\$152,297 01/01/95 \$152,297
OPTIMIZATION PROBLEMS IN MULTISENSOR/MULTITARGET TRACKING Colorado State University	Poore Aubrey	N 36 21/11/94 \$183,517	A GLASSMAN 95-NM-040	\$58,730 01/04/95 \$183,517
ON ROBUST STABILITY OF INTERVAL POLYTOPES OF CHARACTERISTIC POLYNOMIALS Wright State University	Pujara L.	N 24 21/11/94 \$118,079	D JACOBS 95-NM-041	
MANAGING THE CHOICE OF SURROGATE VARIATES AND THE USE OF APPROXIMATION MODELS TO OPTIMIZE EXPENSIVE FUNCTIONS Rice University	Dennis, Jr. John	R 36 21/11/94 \$450,756	A GLASSMAN 95-NM-042	\$280,701 01/03/95 \$450,756
ESTIMATION WITH MULTISENSOR-MULTISCAN DETECTION FUSION Univ of Connecticut	Bar-Shalom Yaakov	N 36 21/11/94 \$193,431	A GLASSMAN 95-NM-043	\$59,238 01/03/95 \$182,051
INTERNATIONAL CONFERENCE ON COMPLEMENTARITY PROBLEMS Johns Hopkins University	Pang Jong-Shi	N 12 21/11/94 \$52,200	O GLASSMAN 95-NM-044	
STOCHASTIC MODELS FOR RELIABILITY OF SYSTEMS WITH DEPENDENCIES AMONG COMPONENTS Univ of South Carolina	Lynch James	N 36 21/11/94 \$247,566	SJOGREN 95-NM-045	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 6

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
MODELING & COMPUTATION OF FREE SURFACE FLOWS OF LIQUID CRYSTAL POLYMERS & INTERFACIAL INSTABILITY Indiana University-Purdue Univ at Indpls	Wang	N 36 21/11/94 \$80,537	NACHMAN 95-NM-046	
NONPARAMETRIC METHODS FOR QUALITY CONTROL & RELIABILITY Florida State University	Hollander	N 24 21/11/94 \$118,781	SJOGREN 95-NM-047	
ALGORITHMS FOR GEOMETRIC COMPUTATIONS IN SOLID MODELERS FOR ELECTRONIC PROTOTYPING Univ of Michigan	Dutta	N 36 21/11/94 \$381,299	A GLASSMAN 95-NM-048	\$87,338 01/03/95 \$298,399
DEVELOPMENT AND TESTING OF PHYSICAL ALGORITHMS FOR CLOUD FORECASTING ON THE MESOSCALE Colorado State University	Cotton	N 36 21/11/94 \$296,326	A KROLL 95-NM-049	\$85,563 15/01/95 \$269,326
MULTIDIMENSIONAL PROBLEMS IN DYNAMIC PLASTICITY State University of New York	Pitman	N 60 21/11/94 \$213,593	NACHMAN 95-NM-050	
OPERATING SYSTEMS FOR SCALABLE MASSIVELY PARALLEL COMPUTERS Univ of California, Irvine	Scherson	N 36 21/11/94 \$299,385	LUGINBUHL 95-NM-051	
INTERNATIONAL CONFERENCE ON CONTROL AND INFORMATION 1995 Univ of Illinois - Chicago	Yau	N 12 21/11/94 \$5,000	D JACOBS 95-NM-052	
AAERT95/USAF ADVANCED TACTICAL COMMUNICATIONS SIGNAL PROCESSING Univ of Kansas, Center for Research	Prescott	N 36 22/11/94 \$128,237	SJOGREN 95-NM-053	
AAERT95/ACTIVE CONTROL OF SLOSH Univ of Michigan	Bernstein	N 36 22/11/94 \$125,280	JACOBS 95-NM-054	

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AAASRT95/DETERMINATION OF LIGHTNING PARAMETERS FROM WIDEBAND ELECTRIC FIELDS RECORDED AT MULTIPLE STATIONS Univ of Florida	Thomson	N 36 22/11/94 \$114,382	KROLL 95-NM-055	
AAASRT95/BAYESIAN NETWORK MODELS FOR PATTERN AND PLAN RECOGNITION Univ of Michigan	Wellman	N 36 22/11/94 \$114,654	WAKSMAN 95-NM-056	
AAASRT95/GRADUATE STUDENT RESEARCH ON DESIGN & IMPLEMENTATION OF FAULT-TOLERANT ASYNCHRONOUS SYSTEMS N.Y. U. Courant Institute Math Science	Kedem	N 36 22/11/94 \$274,442	LUGINBUHL 95-NM-057	
AAASRT95/RUN-TIME ASSURANCE FOR DISTRIBUTED SENSOR MONITORING Univ of Missouri	McMillin	N 36 22/11/94 \$175,214	LUGINBUHL 95-NM-058	
AAASRT95/IMPROVED LOCATION, GREEN'S FUNCTIONS, & SOURCE DISCRIMINATION FOR REGIONAL EVENTS IN KOREA AND IPAN Pennsylvania State University	Alexander	N 36 22/11/94 \$130,643	DICKINSON 95-NM-059	
AAASRT95/FIRST ORDER CORRECTION TO EIGENVALUES OF PERIODIC COMPOSITES Rutgers - The State University	Vogelius	N 36 22/11/94 \$28,797	NACHMAN 95-NM-060	
AAASRT95/ADAPTED WAVEFORM ANALYSIS FOR TARGET RECOGNITION DISCRIMINATION AND FEATURE EXTRACTION Yale University	Coifman	N 36 22/11/94 \$209,863	SJOGREN 95-NM-061	
AAASRT95/SAAR IMAGE-TO SITE MODEL REGISTRATION Univ of Maryland	Chellappa	N 36 22/11/94 \$100,172	SJOGREN 95-NM-062	
AAASRT95/RESEARCH TRAINING IN SYSTEM SUPPORT FOR MULTIMEDIA APPLICATIONS ON MOBILE HOSTS Carnegie-Mellon University	Satyanarayanan	N 36 22/11/94 \$108,593	LUGINBUHL 95-NM-063	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 8

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95/NAVIGATING IN DISCRETE ENVIRONMENTS Univ of Maryland	Khuller	N 36 22/11/94 \$102,213	SJOGREN 95-NM-064	
AASERT95/ MODELLING NOVEL WAVELENGTH AND ULTRA-SHORT TIME-SCALE PHENOMENA IN NONLINEAR OPTICS Univ of Arizona	Moloney	N 36 22/11/94 \$227,389	NACHMAN 95-NM-065	
AASERT95/NONLINEAR ROBUST CONTROL THEORY AND APPLICATIONS California Institute of Technology	Doyle	N 36 22/11/94 \$130,512	JACOBS 95-NM-066	
AASERT95/IMPROVED PARAMETERIZATIONS OF CONVECTION AND CLOUD COVER State University Of New York - Rsch Fnd	Malcek	N 22/11/94 \$6,116,216	KROLL 95-NM-067	
AASERT95/ADAPTIVE AND PARALLEL COMPUTATIONAL TECHNIQUES IN MATERIALS SCIENCE Kensselaer Polytechnic Institute	Flaherty	N 36 22/11/94 \$129,481	JACOBS 95-NM-068	
AASERT95/JOINT CHANNEL POWER AND BASE STATION ASSIGNMENT FOR EFFICIENT WIRELESS ACCESS Polytechnic University	Tassiulas	N 36 22/11/94 \$172,990	SJOGREN 95-NM-069	
AASERT95/HIGH ORDER ACCURACY COMPUTATIONAL METHODS IN AERODYNAMICS USING PARALLEL ARCHITECTURES Brown University	Gottlieb	N 36 22/11/94 \$124,969	JACOBS 95-NM-070	
AASERT95/ENABLING KNOWLEDGE SHARING AMONG DISTRIBUTED APPLICATIONS North Carolina A&T State University	Golstein	N 36 22/11/94 \$59,911	LUGINBUHL 95-NM-071	
AASERT95/DYNAMICAL SYSTEMS TECHNIQUES IN NONLINEAR OPTICS Brown University	Jones	N 36 22/11/94 \$124,969	NACHMAN 95-NM-072	

Christopher

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AAASRT95/ADAPTIVE RECONFIGURATION ALGORITHMS FOR REAL-TIME DISTRIBUTED SYSTEMS Univ of Massachusetts	Genz Aura	N 36 22/11/94 \$144,400	LUGINBUHL 95-NM-073	
AAASRT95/THE ROLE OF FUNCTIONALITY IN RECOGNIZING/USING ARTIFACTS Univ of South Florida	Bowyer Kevin	N 36 22/11/94 \$156,419	WAKSMAN 95-NM-074	
AAASRT95/INTEGRATED LEARNING SYSTEMS AND DYNAMIC RECOGNITION FOR COMPUTER VISION George Mason University	Michalski Ryszard	N 36 22/11/94 \$219,431	WAKSMAN 95-NM-075	
AAASRT95/GRAPHICAL USER INTERFACES FOR EFIT, MACH 2 AND MACH 3 CODES Univ of Washington	Eberhardt D. Scott	N 36 22/11/94 \$186,712	JACOBS 95-NM-076	
AAASRT95/BLIND ADAPTIVE BEAMFORMING FOR MOBILE COMMUNICATIONS Purdue Research Foundation	Zoltowski Michael	N 36 22/11/94 \$75,364	SJOGREN 95-NM-077	
AAASRT95/ROBUST ADAPTIVE CONTROL AND IT'S APPLICATIONS TO MISSILE AUTOPILOTS Louisiana State University	Gu Guoxiang	N 36 22/11/94 \$64,960	JACOBS 95-NM-078	
AAASRT95/DYNAMICS OF SOLITARY WAVE PULSES NEAR THE ZERO-DISPERSION WAVELENGTH IN OPTICAL FIBERS Massachusetts Institute of Technology	Akylas Triantaphyllos	N 36 22/11/94 \$124,565	WACHMAN 95-NM-079	
AAASRT95/REMOTE SENSING AND ICE MICROPHYSICS MODELING INVOLVING CIRRUS CLOUDS Univ of Utah	Liu K.	N 36 22/11/94 \$154,532	KROLL 95-NM-080	
AAASRT95/MULTIRESOLUTION METHODS IN SPACE-TIME TRACKING AND IMAGE RECONSTRUCTION Massachusetts Institute of Technology	Willisky Alan	N 36 22/11/94 \$148,874	SJOGREN 95-NM-081	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 10

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95/CRUSTAL STRUCTURE ESTIMATION USING SEISMIC DATA, GRAVITY ANOMALIES, AND A NULLSPACE PROJECTOR Princeton University	Nolet Augustinus	N 36 22/11/94 \$61,426	DICKINSON 95-NM-082	
AASERT95/DOCTORAL RESEARCH IN WAVELET NDE AND NOVEL DIELECTRICS Univ of Missouri	DeFacio Brian	N 36 22/11/94 \$84,424	NACHMAN 95-NM-083	
AASERT95/DEVELOPMENT & IMPLEMENTATION OF A TOWERING CUMHULI & TRANSIENT CUMHULONIMBI PARAMETERIZATION USING LARGE EDDY... Colorado State University	William Cotton	N 36 22/11/94 \$126,429	KROLL 95-NM-084	
AASERT95/COMPUTATIONAL METHODS FOR NONLINEAR CONTROL SYSTEMS Washington University	Byrnes Christopher	N 36 23/11/94 \$230,544	JACOBS 95-NM-085	
AASERT95/PARALLEL AND DISTRIBUTED COMPUTING PLATFORM FOR ATM CLUSTERS Cornell University	VonEicken Thorsten	N 36 23/11/94 \$339,153	LUGINBUHL 95-NM-086	
AASERT95/AUTOMATIC METHODS & TOOLS FOR THE VERIFICATION OF HYBRID SYSTEMS Cornell University	Henzinger Thomas	N 36 23/11/94 \$174,681	LUGINBUHL 95-NM-087	
AASERT95/ VISUALIZATION OF REMOTELY-SENSED HELIOSPHERIC PLASMAS Univ of California, San Diego	Jackson Bernard	N 36 23/11/94 \$98,065	RADOSKI 95-NM-088	
AASERT95/IDEALIZED MODELING STUDIES OF LONG-LIVED, LARGE AMPLITUDE INERTIA-GRAVITY WAVES State University of New York - Rsch Fnd	dosart Lance	N 36 23/11/94 \$117,061	KROLL 95-NM-089	
AASERT95/WAVEGUIDE CONTROLS ON REGIONAL WAVES Univ of California, Santa Cruz	Lay Thorne	N 36 23/11/94 \$115,917	DICKINSON 95-NM-090	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 11

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95/STUDENT AUGMENTATION FOR CRYSTAL GROWTH RESEARCH State University of New York	Prasad Vishwanath	N 36 23/11/94 \$144,211	JACOBS 95-NM-091	
AASERT95/COMPUTATIONAL METHODS FOR CONTROL IN PARTIAL DIFFERENTIAL EQUATIONS North Carolina State University	Bankds H.	N 36 23/11/94 \$179,700	JACOBS 95-NM-092	
AASERT95/ STOCHASTIC CONTROL AND NONLINEAR ESTIMATION Brown University	Fleming Wendell	N 36 23/11/94 \$124,969	JACOBS 95-NM-093	
AASERT95/ESTIMATION OF CRUST-MANTLE HETEROGENEITY IN AN EXTENDED PHANEROZOIC TERRANE: COMBINED ANALYSIS OF SEISMIC REFLECTION ... Rice University	Levander Alan	N 36 23/11/94 \$97,505	DICKINSON 95-NM-094	
AASERT95/PATTERN RECOGNITION ALGORITHMS FOR DIGITAL IMAGE ANALYSIS Univ of Vermont	Snapp Robert	N 36 23/11/94 \$120,339	WAKSMAN 95-NM-095	
AASERT95/ NEW TECHNIQUES FOR DATA COMPRESSION Duke University	Vitter Jeffery	N 36 23/11/94 \$358,732	LUGINBUHL 95-NM-096	
AASERT95/TIME-CRITICAL PLANNING & SCHEDULING FOR MILITARY TRANSPORTATION PROBLEMS Brown University	Dean Thomas	N 36 23/11/94 \$131,598	WAKSMAN 95-NM-097	
AASERT95/ADVANCED HARD REAL-TIME OPERATING SYSTEMS: THE MARUTI PROJECT Univ of Maryland	Agrawala Ashok	N 36 23/11/94 \$188,819	LUGINBUHL 95-NM-098	
AASERT95/ STATISTICAL METHODS & STOCHASTIC PROCESSES IN SOFTWARE ENGINEERING - CASE STUDIES & APPLICATIONS Univ of Tennessee	Poore J.	N 36 23/11/94 \$101,002	LUGINBUHL 95-NM-099	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 12

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AASERT95/MAKING FAST MESSY ALGORITHMS FASTER Univ of Illinois	Goldberg David	N 36 23/11/94 \$212,182	GLASSMAN 95-NM-100	
AASERT95/RESEARCH INTO DEVELOPMENT OF EXECUTABLE REFERENCE ARCHITECTURES FOR AVIONICS SYSTEMS Stanford University	Luckham David	N 36 23/11/94 \$162,542	LUGINBUHL 95-NM-101	
AASERT95/VARIABLE STORE FLUTTER SUPPRESSION Virginia Polytechnic Inst & State Univ	Inman Daniel	N 36 23/11/94 \$129,242	JACOBS 95-NM-102	
AASERT95/INNOVATIVE SEISMIC ARRAY ANALYSIS FOR STUDIES OF WAVE PROPAGATION IN THE EARTH Indiana University/Bryan Hall	Pavlis Gary	N 36 23/11/94 \$96,462	DICKINSON 95-NM-103	
AASERT95/SUPPLEMENTAL STUDENT SUPPORT FOR RESEARCH ON LEARNING OBJECT AND SCENE Univ of Massachusetts	Riseman Edward	N 36 23/11/94 \$230,828	WAKSMAN 95-NM-104	
AASERT95/AUGMENTATION AWARD FOR MODELING AND CONTROL OF NONLINEAR SYSTEMS Univ of Colorado	Hauser John	N 36 23/11/94 \$140,538	JACOBS 95-NM-105	
AASERT95/RESEARCH TRAINING IN MULTIREOLUTION MODELING Carnegie-Mellon University	Heckbert Paul	N 36 23/11/94 \$172,637	LUGINBUHL 95-NM-106	
AASERT95/FAULT-TOLERANCE IN DISTRIBUTED & MULTIPROCESSOR REAL-TIME SYSTEMS Texas Engineering Experiment Station	Pradhan Dhiraj	N 36 23/11/94 \$198,468	LUGINBUHL 95-NM-107	
AASERT95/SOFTWARE ENGINEERING TECHNIQUES FOR SAFE INTERNET SERVICES Univ of Southern California	Danzig Peter	N 36 23/11/94 \$234,762	LUGINBUHL 95-NM-108	

REPORT DATE 02/15/95
 PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
 AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
 DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
AAERT95/COMPUTATION & VISUALIZATION IN NONLINEAR MECHANICS Univ of Maryland	Maddocks John	N 36 23/11/94 \$158,156	NACHMAN 95-NM-109	
AAERT95/INFRARED STUDIES OF SOLAR CONVECTION New Jersey Institute of Technology	Goode Philip	N 36 29/11/94 \$160,085	RADOSKI 95-NM-110	
EURASIAN SURFACE WAVE PHENOMENOLOGY AND INVERSION FOR CRUSTAL AND UPPER MANTLE STRUCTURES Univ of Colorado	Levshin Anatoli	N 20 08/12/94 \$186,724	A DICKINSON 95-NM-111	\$74,785 01/03/95 \$186,724
ROBUST ADAPTIVE ALGORITHMS FOR RECONFIGURATION FLIGHT CONTROL Univ of Utah	Rodson Marc	N 36 08/12/94 \$244,392	A JACOBS 95-NM-112	\$64,882 01/07/95 \$204,705
METRIC UNCERTAINTY & ROBUST CONTROL OF NONLINEAR SYSTEMS Univ of Minnesota	Georgiou Tryphon	N 36 08/12/94 \$167,167	JACOBS 95-NM-113	
SUPERRESOLUTION OF PASSIVE MILLIMETER-WAVE IMAGING Auburn University	Reeves Stanley	N 36 08/12/94 \$163,888	A SJOGREN 95-NM-114	\$61,138 16/06/95 \$111,405
ANALYSIS & COMPUTATION OF VISCOUS FLOWS: 3D FLOWS, SEPARATION AND TRANSITION Iowa State University	Rothmayer Aircic	N 36 08/12/94 \$222,967	A NACHMAN 95-NM-115	\$88,517 01/05/95 \$222,967
PREDICTOR-CORRECTOR METHODS FOR THE LOCAL STABILIZATION OF ILL-POSED INVERSE PROBLEMS Michigan State University	Lamm Patricia	N 36 08/12/94 \$176,120	D NACHMAN 95-NM-116	
MATHEMATICAL & NUMERICAL ANALYSIS OF KINETIC QUANTUM TRANSPORT MODELS FOR SEMICONDUCTORS Purdue Research Foundation	Arnold Anton	N 36 08/12/94 \$87,852	NACHMAN 95-NM-117	

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 14

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
INVARIANT OBJECT RECOGNITION USING RADIAL SHAPE DESCRIPTORS Illinois Institute of Technology	Ben-Arie Jezekeiel	N 36 14/12/94 \$159,022	WAKSMAN 95-NM-118	
AIRGLOW SPECTROSCOPY & THERMOSPHERIC REMOTE SENSING USING GLO-2 DATA Computational Physics	Strickland Douglas	N 36 14/12/94 \$298,894	KROLL 95-NM-119	
A CRYSTAL-GRAVIMETRIC HYDROMETER FOR ACCURATE HUMIDITY MEASUREMENTS FROM UAV AND BALLOON PLATFORMS PhotoMetrics, Inc.	Trombridge Christian	N 09 14/12/94 \$75,187	KROLL 95-NM-120	
COMPOSITIONAL MODELING FOR COMPUTER-BASED TUTORING OF PREDICTION TASKS Univ of Texas at Austin	Porter Bruce	N 12 14/12/94 \$97,000	WAKSMAN 95-NM-121	\$97,000 01/04/95 \$97,000
SOLVING POLYNOMIAL EQUATIONS & INVARIANT COMPUTATIONS State University of New York	Kapur Deepak	N 36 15/12/94 \$401,578	WAKSMAN 95-NM-122	\$105,000 01/04/95 \$315,000
USE OF REMOTE MEASUREMENTS AND SURFACE OBSERVATIONS TO IMPROVE SURFACE HUMIDITY AND TEMPERATURE FORECASTS IN MESOSCALE MODELS Pennsylvania State University	Carlson T.	N 36 16/12/94 \$243,204	KROLL 95-NM-123	\$75,292 01/03/95 \$243,204
(PRET) GE PROGRAM ON CONTROLLED-COMBUSTION TECHNOLOGY Univ of Michigan	Bernstein Dennis	N 60 20/12/94 \$3,689,451	JACOBS 95-NM-124	
HITRAN MOLECULAR SPECTROSCOPY Smithsonian Institution	Rothman Laurence	N 36 21/12/94 \$582,441	KROLL 95-NM-125	
SENSOR MANAGEMENT Univ of Minnesota	Friedman Avner	N 12 21/12/94 \$55,000	A SJOGREN 95-NM-126	\$55,000 01/04/95 \$55,000

TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
THE ROLE OF KNOWLEDGE ABOUT FUNCTIONALITY IN RECOGNIZING AND UTILIZING ARTIFACTS Univ of South Florida	Bowyer Kevin	N 36 21/12/94 \$243,986	A WAKSMAN 95-NM-127	\$60,000 15/04/95 \$180,000
PRET/ROBUST NONLINEAR CONTROL OF STALL AND FLUTTER IN AEROENGINES Univ of California, Santa Barbara	Kokotovic Peter	N 36 22/12/94 \$3,833,338	A JACOBS 95-NM-128	\$745,970 28/04/95 \$3,140,338
PRET/U OF M-MCDONNELL DOUGLAS AEROSPACE IMPROVED AIR VEHICLE PERFORMANCE USING ROBUST NONLINEAR CONTROL Univ of Michigan	McClamroch N. Harris	N 60 22/12/94 \$3,484,964	JACOBS 95-NM-129	
PRET/IMPROVED AIR VEHICLE PERFORMANCE USING ROBUST NONLINEAR CONTROL Washington University	Byrnes Christopher	N 36 22/12/94 \$3,907,270	JACOBS 95-NM-130	
(PRET) ROBUST NONLINEAR CONTROL THEORY WITH APPLICATIONS TO AEROSPACE VEHICLES California Institute of Technology	Doyle John	N 60 23/12/94 \$3,853,298	A JACOBS 95-NM-131	\$500,000 28/04/95 \$2,100,000
(PRET) COMPUTER-AIDED NONLINEAR CONTROL DESIGN FOR FLIGHT AND ENGINE SYSTEMS Univ of California, Berkeley	Packard Andrew	N 60 23/12/94 \$3,507,967	JACOBS 95-NM-132	
GLOBAL RESONANCE EFFECTS ON DEEP SPACE ORBITS Univ of Texas at Austin	Szebehely Victor	N 24 28/12/94 \$230,718	NACHMAN 95-NM-133	
AN INTEGRATED APPROACH TO APPROXIMATE REASONING FOR OPERATIONS RESEARCH, CONTROL, AND DECISION SRI International	Ruspini Enrique	N 36 28/12/94 \$224,955	WAKSMAN 95-NM-134	
MICROMETEOROLOGY OF FRONTS (MICROFRONTS) PROJECTS National Science Foundation	Stephens Pamela	N 07 28/12/94 \$15,000	A KROLL 95-NM-135	\$5,230 01/03/95 \$5,230

REPORT DATE 02/15/95

PROPOSAL STATUS REPORT (1 OCT 94 - 31 DEC 94)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
DIRECTORATE OF MATHEMATICAL & INFORMATION SCIENCES

PAGE 16

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
ADAPTIVE & NEURAL CONTROL FOR NONLINEAR MANEUVERS OF AIRCRAFT Univ of Nevada	Singh Aahjendra	N 24 29/12/94 \$174,480	JACOBS 95-NM-136	
SYSTEM IDENTIFICATION & ROBUST CONTROL DESIGN: A UNIFYING APPROACH Integrated Systems, Inc.	Kosut Robert	N 36 29/12/94 \$284,687	JACOBS 95-NM-137	
TOOLS FOR TIME-FREQUENCY ANALYSIS Princeton University	Daubechies Ingrid	N 30 29/12/94 \$186,527	A SJOGREN 95-NM-138	\$109,896 01/04/95 \$186,527
VIEW-BASED LEARNING FOR QUASI-INVARIANT IMAGE RECOGNITION Michigan State University	Weng John	N 36 29/12/94 \$281,191	WAKSMAN 95-NM-139	
FAILURE DIAGNOSIS FOR DISCRETE EVENT SYSTEMS Univ of Michigan	Teneketzis Demosthenis	N 36 29/12/94 \$447,972	GLASSMAN 95-NM-140	
COMPUTATIONAL & MATHEMATICAL INVESTIGATIONS IN OPTIMIZATION Cornell University	Todd M.	N 36 29/12/94 \$344,000	GLASSMAN 95-NM-141	