GRI in Spirit of '86.

Atmospheric Sciences: Centers of Focus at SUNY Albany

Introduction

Atmospheric Sciences at SUNY Albany has demonstrated and established a strong scientific presence within the national and international community. This position is traceable to successes in several areas including the establishment of the Whiteface Mountain observational facility for monitoring atmospheric phenomena; basic research and development efforts in cloud physics, synoptic forecasting and the use of computer based analysis tools, lightning and state of the art systems for its detection and polar meteorology to name but a few. This record has been established through the diligent efforts of both the Atmospheric Sciences Research Center and the Atmospheric Sciences Department.

If atmospheric sciences is to grow and maintain a competitive edge in pursuing research initiatives in the future, it must encompass a broader disciplinary base from which to develop and draw the necessary expertise as well as develop the necessary student resource. The Atmospheric Sciences: Centers of Focus concept at SUNY Albany provides an opportunity to meet this challenge. The initiative is envisioned as a multidisciplinary programmatic effort which will develop and draw upon, in varying degrees, the Departments of Atmospheric Science, Chemistry, Environmental Health and Toxicology, Computer Science, and Physics. The Atmospheric Sciences Research Center will take a leadership role and provide the conduit for the integration of these multidisciplinary programmatic efforts.

Programmatic Initiatives

Within the Atmospheric Sciences Research Center, the Whiteface Mountain Observational facility has assumed a position of national and international prominence. The facility provides research and monitoring of acid deposition phenomena in mountainous regions and a characterization of the physical and chemical processes associated with the acidification of cloud water and its ultimate deposition into forest canopies in elevated regions. An indication of the facility's scientific acceptance and recognition might best be appreciated in the context that the three major national monitoring activities associated with acidic deposition in this country all have sites at Whiteface Mountain.

In addition, anticipated support for a complementary program has been proposed which will augment the cloud acidification and deposition measurements with a sophisticated trace gas measurement program. These programs in concert will place the Whiteface Mountain facility in a unique position of providing a regional characterization and benchmark for chemical constituents representative of the industrialized North American continent as well as providing the most comprehensive gas- and liquid-phase collocated data set gathered in the U.S. to date.

Such a measurement capability places Atmospheric Sciences at SUNY Albany in a rather formidable position with regard to future research initiatives in the atmospheric sciences for the following reasons. The uniqueness and demand for this data set for use in chemical and physical process evaluation studies and its use with diagnostic tools to elucidate

our understanding of integrated process systems is enviable and affords SUNY scientists an extremely competitive position to be at the forefront of these activities and provide direction for future follow on efforts.

The measurement capability at Whiteface provides a broader, more fundamental basis regarding long term research perspectives in the Atmospheric Sciences. The major national research initiative in the atmospheric sciences starting in 1987 will be associated with atmospheric chemistry and its global implications with regard to processes which may affect climate and the biosphere. The baseline trace gas monitoring being considered for Whiteface will be the only comprehensive data base available to establish the necessary benchmark for characterizing chemical constituents of continental origins on the regional scale prior to their blending into the more ubiquitous global background. Since a significant portion of the science is thought to be dependent upon our understanding of this transition regime, we feel again that we are in a position of strength to capture major parts of this research component.

The Director of the Atmospheric Sciences Research Center has targeted two research areas for expansion as part of the program's core activities. These include building a capability in atmospheric chemistry with a focus on measurements and process development and evaluation and establishing a computer model development capability for simulating atmospheric processes.

Recent discussions that have been initiated by ASRC indicate that it may be quite possible to bring to SUNY Albany a modeling group of international prominence. The group consisting of ten to twelve people, includes mathematicians, atmospheric chemists, meteorologists, and computer scientists. Attracting the program to Albany with the two ASRC line positions will be difficult but not impossible, the remainder of the personnel on the project will be offered soft money positions. This program's primary responsiblity is to build a comprehensive Eulerian modeling system for understanding the relationship between pollutant emissions and acid deposition in the United States and Canada. It is internationally recognized and viewed as one of the most important research activities within the National Acid Deposition Program. The program would bring a major computing resource and substantial extramural funds to the campus as well as instant recognition for the atmospheric sciences at Albany as a world class leader in atmospheric modeling.

An added benefit and in reality a major incentive for pursuing this capability is to position the Atmospheric Sciences at Albany for the opportunities that are foreseen in the long term research perspective. It is clear from the new atmospheric chemistry initiative that modeling from regional to global scales will be in significant demand. We feel that this modeling program and its associated core personnel, the concurrent interests in mesoscale and synoptic meteorology within the Atmospheric Sciences Department, and the Whiteface and associated monitoring networks which can provide evaluative data bases for the modeling activity provide a complementary package of unprecedented magnitude and dimension for attracting funds from this new national research initiative.

The two initiatives discussed above are concrete examples which have already been set in motion, but they represent only a sampling of the possibilities that such an expansion program would stimulate. For example, the fields of air pollution meteorology, air quality modeling and pollution exposure assessment all require multidisciplinary research and development approaches. ASRC expertise is currently available for modeling the chemical and meteorological processes associated with the formation and fate of air toxics in urban environments. Such a program can be the core to broad based multidisciplinary efforts coupling researchers from the Departments of Environmental Health and Toxicology, Atmospheric Science, and Chemistry. Basic research supporting such integrated programs might include for example: in Environmental Health and Toxicology -mechanisms and models for estimating human exposure and health impacts or pharmokinetic techniques for estimating toxicity of chemical constituents in the environment; in Atmospheric Science -boundary layer dynamics and atmospheric dispersion including the use of large eddy simulation modeling as a theoretical laboratory for turbulence studies as well as field and laboratory work to study these phenomena; in Chemistry - photochemical and gas kinetic studies of rates and pathways for the formation and destruction of toxic substances in the atmosphere.

The opportunities that these programmatic initiatives present in the context of the Centers of Focus concept are as follows:

The initiatives would benefit immediately from the development of core faculty within the Atmospheric Sciences and Chemistry Departments with a strong emphasis to be part of a multidisciplinary team and a desire to work in part on integrated research efforts. An Institutional stimulus for promoting such strong integrated multidisciplinary teams would be to have all faculty appointments associated with the Centers of Focus joint in nature.

In the Atmospheric Sciences at least three faculty positions would be desirable: 1) a numerical mesoscale modeler - with interests in coupling meteorological models to atmospheric process models and the development of boundary processes within mesoscale models; 2) synoptic meteorologist - with interests in coupling advanced synoptic forecasting techniques with mesoscale models to develop advanced four-dimensional data assimilation procedures for the meteorological models which drive the atmospheric processes model; and 3) fluid dynamist - with interests in turbulence and characterization of the surface boundary layer processes and the use of large eddy simulation techniques as a tool for their elucidation.

In Chemistry three faculty positions would also be warranted: 1) physical/atmospheric chemist - with interest in the mechanisms of gas- and liquid- reaction processes of atmospheric constituents and their theoretical treatment in atmospheric modeling systems; 2) physical/analytical chemist - with interests in development of advanced instrumentation technologies for the measurement of trace constituents and transient species in clean and contaminated atmospheres due to man's

activities; 3) physical chemist - with interests in experimental photochemical and gas kinetic studies of chemical constituents found in polluted environments.

A faculty position in Environmental Health and Toxicology is also suggested, but its focus is currently less defined. An environmental toxicologist with interests in human exposure to air toxics is certainly one possibility.

At least four research support staff positions are envisioned to implement the core multidisciplinary integrated research programs at the Atmospheric Sciences Center these would include: 1) mathematical modeler - with interests in developing large computer codes for integrating atmospheric dynamics and chemical and physical processes; 2) cloud physicist - with interest in modeling the physical and chemical processes affecting transformations and deposition of atmospheric constituents within cloud systems; 3) aerosol physicist/ atmospheric chemist - with interests in field measurement of aerosols and mechanisms for gas to particle transformation and aerosol growth in the atmosphere; 4) physical/ analytical chemist - with interests in maintaining state of the art instrumentation in the field for measuring atmospheric trace gases and transient species.

In addition, a support staff position is recommended in the computer sciences center to develop and maintain systems capabilities for the use of satellite links to major research computing facilities (e.g., the Cray XMP at the National Center for Atmospheric Research) in the atmospheric sciences.

It is anticipated that with the proposed core faculty and research support staff that a minimum of ten assistantships would be expected and that the programmatic initiative would generated extramural support for a minimum of thirty graduate students requiring tuition waivers.

Equipment and Facility

Equipment budgets fall into two major categories with regard to the programmatic initiatives. Laboratory and field equipment required to initiate research activities in the appropriate departments and computer resources and associated hardware for the support of theoretical/modeling related work. The two experimental programs identified in the Chemistry Department and Atmospheric Sciences Center respectively could start effectively with equipment budgets of the order of $80,000. to $100,000 each.

The computer resource and associated hardware requirements which would serve both the Atmospheric Sciences Department and the Center will involve approximately $60,000. to $80,000. for installation and operation of satellite technology for remote access links to major computing systems in the atmospheric sciences and an additional $100,000. onsite hardware for offline data analysis and advanced graphics capabilities for working in

4-dimensional data assimilation. Finally, for general purpose research and development computer support (e.g., VAX 8600 level computing) approximately $500,000. which would include the cpu and associated peripheral hardware support.

It is quite apparent that with the proposed expansions associated with the Atmospheric Sciences Center concept that serious consideration must be given to establishing a permanent facility on campus to house the Center and most appropriately the Atmospheric Sciences Department. The ASRC presently occupies 38,000 sq ft at Dudley Observatory, the addition of the modeling group alone (10-12 positions and their computer resource) will require a minimum addition of 10,000 sq ft.

Benefits

The benefits of having an Atmospheric Sciences Center of world class distinction are more than obvious. In addition to developing a broader external funding base which we anticipate will extend to our academic departments, the national and international recognition will greatly improve our student faculty ratios and place us in an extremely competitive position to attract the best students in the country. The support of the Center of Focus concept will also indicate to sponsors of large integrated research programs the University's strong commitment and interest in such multidisciplinary work.

Finally, there has been considerable discussion regarding the possibility of expanded curricula for specialty tracks within the atmospheric sciences and chemistry programs. Specialty tracks in air pollution meteorology, atmospheric chemistry, atmospheric modeling are just a few that have been suggested. The expansion envisioned in the Centers concept would make such programs a definite reality and would provide a major stimulus for our undergraduate enrollment.

UNIVERSITY AT
ALBANY
STATE UNIVERSITY OF NEW YORK

Department of Atmospheric Scien
518 442-45

Reply to:

Dr. Volker A. Mohnen

100 Fuller Road
Albany, NY 12205
Tel.: 518/442-3819
FAX: 518/442-3867

Earth Science 21
Albany, New Yor
1222

MEMORANDUM

TO: Lance Bosart
Professor, Department of Atmospheric Science

FROM: Volker A. Mohnen

DATE: 19 July 1990

SUBJECT: Response to Prof. Bosart's memo dated 18 July 1990 distributed to the faculty, administration and outside consultants

Your recent memorandum cannot and should not remain unanswered. It exhibits a frightening lack of comprehension of problems that exist within the Department and between ASRC and the Department. More importantly, however, it totally ignores the recent events that led to the upcoming visit of Professors Baer and Duce. You imply in your memo that "solutions to perceived problems (that may or may not exist)" should be developed within the group. We tried this recently. We pledged cooperation, communication and open dialogues. Yet, a very small group (Professors Keyser, Loesch and Molinari) with you as their leader decided (1) to bypass open faculty discussions and (2) to meet separately with the Dean without informing the faculty discussing the future of the Department and other policy related matters. In addition, the same small group under your leadership, met with the President, again, without any prior consultation or notification of the faculty. My open letter to you questioning the rationale of this approach remains unanswered to this day.

You obviously initiated the administrative contacts, bypassing all normal channels and leaving quite a few faculty members stunned by your broken promises for open dialogue. Now you reverse yourself again by denying the very same administrators--whom you contacted first--the right for an independent assessment. Worse, you question their integrity by implying that they can no longer perform in office due to their imminent departure. If you are indeed so much concerned about the change in administration, why did you insist on meeting with them in the first place? Equally disturbing to me is your request that "the report should be reviewed by both DAS and ASRC members before it is formally passed on to

the Administration." To me, this is censorship and implies that we have no trust in the academic judgement and professional integrity of our outside consultants. What are you so afraid of?

Your response is very symptomatic for some of the problems you created in the Department: You do whatever necessary to have it your way. If it doesn't work out, you cry foul. This approach is unworkable for a department which is faced with many opportunities and challenges and which has the potential for significant growth taking into account the resources that may be available to us through ASRC.

I therefore urge you (and the small number of faculty members who are in your group) to become more tolerant and open minded. We do have problems and they can no longer be pushed under the rug. The past few months have proven that we have great difficulties resolving them within the Department.

cc: President O'Leary
Vice President Gullahorn
Dean Wulff
Prof. Baer
Prof. Duce
DAS Faculty
ASRC Faculty

V. Mahnen

18 July 1990

MEMO TO: Kenneth Demerjian, Chair
Department of Atmospheric Science

FROM: Lance Bosart Lance Bosart

SUBJECT: *Concerns on Upcoming External Review of the Department of Atmospheric Science and the Atmospheric Sciences Research Center*

I am concerned that next week's external review of the Department of Atmospheric Science (DAS) and the Atmospheric Sciences Research Center (ASRC) offers great risk of a counterproductive and potentially damaging outcome to both groups unless it is handled with considerable care and discretion. My understanding is that the review process was initiated by Vice-President Warren Ilchman two months ago and agreed to by President Vincent O'Leary. Since Vice-President Ilchman has already left the University and President O'leary completes his term of office in less than two weeks, it would seem proper that any academic policy issues be left to the new administration and the Graduate Academic Council. The latter is responsible for overseeing the formal Departmental review this fall.

Genuine, long-term cooperation between the DAS and the ASRC cannot be mandated through top-down administrative fiat. It must develop freely and naturally from the bottom-up through the efforts of individual scientists, a process for which there is considerable precedent both internally and externally. The recent internal investigation of the status of DAS/ASRC relations at the request of then-Vice-President Ilchman is an apt example of the difficulties that can arise inadvertently when solutions to perceived problems (that may or may not exist) are initiated unilaterally by the administration without the direct consultation and involvement of all concerned. My worry is that a similar situation quite likely will arise next week because of the "pressure" to produce a report that can be acted upon at the last minute by President O'Leary before he leaves office. At the very least, a draft copy of the report should be reviewed by both DAS and ASRC members before it is formally passed on to the administration. To do otherwise risks the possible adoption of potentially irrevocable courses of action that may be exceedingly difficult to undo in the coming months and years.

cc: President O'Leary
Vice-President Gullahorn
Dean Wulff
Professor Baer
Professor Duce
DAS Faculty
ASRC Faculty

M E M O R A N D U M

TO: Eric Block

FROM: Lawrence Snyder

DATE: October 28, 1986

SUBJECT: Appointment of Julius S. Chang

I would like to see Dr. Chang hired by the University. The research of Julius S. Chang is of high importance for public policy based on information integrated from several scientific disciplines. This integration is characteristic of many frontiers of research in our time.

Dr. Chang employs chemical kinetics in his models of the atmosphere , but he is not primarily a chemist. His appointment will probably not survive normal chemistry department procedures, where his appointment will be judged almost entirely by his impact on chemistry, as it is perceived by the faculty.

I support the University policy of promoting the excellent research program of the ASRC. Vigorous research growth there will have a favorable impact on the external view of our campus, and on the research opportunities of chemistry faculty. Experimental and theoretical physical chemists will particularly benefit.

For these reasons I would, as a chemist and as a member of the larger University community, like to see Julius Chang hired.

The appointment should be given a special status, which recognizes that it is interdisciplinary, even though there is a nominal assignment to an existing department. If there is a nominal assignment of Dr. Chang to Chemistry, I think there should be a mutually agreed upon level of participation in teaching and other departmental activities.

In summary, I support a nominal appointment of Julius Chang to the chemistry department to meet the special needs of the University administration in hiring him.

LS:aw

Telephone Systems Office
518/442-3456

State University of New York at Albany

Business Administration B21, Albany, New York 12222

E. McLaren

MEMORANDUM

DATE: August 4, 1986

TO: Departmental Representatives

FROM: Gary R. Pelton
Director, Telephone Systems Office

A recent announcement to Deans, Directors and Department Chairs, advised that an Administrative and Maintenance/Operation charge is now being levied against the University's institutional services. As mentioned telephone recharge operation is included in this group. Accordingly, assessment of this charge is being initiated effective with the billing for June service. The SUNY wide charge is applied only to Non-State and Non-Research accounts. Therefore, the attached telephone bill will reflect the additional charge for the Administrative and Maintenance/Operation if your account is an IFR account or any other account not receiving direct support from a state allocation, or sponsored research funds managed by the Research Foundation.

The recharge rates effective at this time for telephone service are not being adjusted. The Administrative and Maintenance/Operation charge is strictly an additional expense and is reflected that way on your monthly billing. No portion of this charge is retained by the Telephone Account. The imposition of this charge is consistent with the pricing mechanism that supports this service area's ability to maintain a self supporting basis. The charge totaling 15.51% is applied to the total amount of your monthly charge.

All personal phone calls are subject to the Administrative and Maintenance/Operation charge. The personal reimbursement form has been restructured to accommodate the additional charge. The Administrative and Maintenance/Operation charge of 15.51% is applied to the total amount of your monthly charge or the total cost of a personal phone call plus the Federal Excise Tax of 3% and the Local Sales Tax of 7%. For your convenience and use I have attached a copy of the reimbursement form. Please photocopy this form at your convenience whenever payment for personal telephone calls is processed.

Should you have any questions, please call the Telephone Systems Office at 3456.

GRP:lk
Attachment

STATE UNIVERSITY OF NEW YORK AT ALBANY
Telephone Systems Office, BA B-21, (442-3456)

Department credit for personal (Toll, WATS, or Local) calls may be obtained by returning this form along with a personal check or money order to the Telephone Systems Office.

DEPARTMENT: _____ DEPT. NR: _____

NAME: _____ TYPE OF CREDIT: TOLL _____
WATS _____
TELEPHONE NUMBER: _____ TMR _____

1). Total amount of all personal calls (as shown on statement) $ _____
2). Add 3% for Federal Excise Tax _____
3). Add an additional 7% of total for those calls that were made WITHIN New York State. (There is no local tax to be included for out-of-state calls) _____
4). Total of 1, 2 and 3 Subtotal _____
5). Administrative and M & O assessment of 15.51% of line #4 _____
6). Make check or money order, payable to "SUNY at Albany" for the total amount Total _____

Under no circumstances should payment be forwarded to the Telephone Company

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ABC

from

$v = \sqrt{3RT/M}$ g/m * 1000 g / kg / 1000 g.

ABC

	M	v
(H)	2.016	1.9 km/s
(N)	28	0.5 "

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@ 518 · 462 · 5539.

Call Monday or Tues. –

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INSTITUTION 28010 SUNY AT ALBANY
DEPARTMENT 860206 00 ATMOSPHERIC SCIENCES RES CENTER
SUB ACCT 860206 00 ATMOSPHERIC SCIENCES RES CENTER

STATION 442-3847

TOLL DETAIL

STATION	DATE	TIME	NUMBER CALLED	EXCEPTION	CITY	STATE	CALL TYPE	DURATION	AMOUNT	CORRECT ROUTE	EXCEPTION
442-3847	06-04	01:46 PM	518 946-7191		WILMINGTON	NY	TOLL	1.0	.38	WATS	.21
442-3847	06-05	02:29 PM	518 946-7191		WILMINGTON	NY	TOLL	6.0	1.53	WATS	.52
442-3847	06-24	11:32 AM	518 946-7191		WILMINGTON	NY	TOLL	7.0	1.76	WATS	.58
					SUB TOTAL CALLS	3		14.0	3.67		1.31

LOCAL DETAIL

STATION	DATE	TIME	NUMBER CALLED	EXCEPTION	CITY	STATE	CALL TYPE	DURATION	AMOUNT	CORRECT ROUTE	EXCEPTION
442-3847	06-06	09:58 AM	518 457-2344		ALBANY	NY	LOCAL	1.0	.11		
442-3847	06-06	10:47 AM	518 457-2344		ALBANY	NY	LOCAL	2.0	.11		
442-3847	06-06	10:49 AM	518 457-2475		ALBANY	NY	LOCAL	8.0	.14		
442-3847	06-06	10:59 AM	518 457-2344		ALBANY	NY	LOCAL	2.0	.11		
442-3847	06-06	11:01 AM	518 457-7370		ALBANY	NY	LOCAL	1.0	.11		
442-3847	06-06	11:23 AM	518 457-2344		ALBANY	NY	LOCAL	1.0	.11		
442-3847	06-06	03:33 PM	518 458-7501		ALBANY	NY	LOCAL	2.0	.11		
442-3847	06-23	09:54 AM	518 283-6962		TROY	NY	LOCAL	1.0	.11		
442-3847	06-30	10:31 AM	518 283-6962		TROY	NY	LOCAL	4.0	.11		
442-3847	06-30	10:41 AM	518 283-6962		TROY	NY	LOCAL	2.0	.11		
					SUB TOTAL CALLS	10		24.0	1.13		

WATS DETAIL

STATION	DATE	TIME	NUMBER CALLED	EXCEPTION	CITY	STATE	CALL TYPE	DURATION	AMOUNT	CORRECT ROUTE	EXCEPTION
442-3847	06-04	01:21 PM	301 441-3700		BERWYN	MD	WATS	3.0	.52		
442-3847	06-06	09:40 AM	919 737-3311		RALEIGH	NC	WATS	3.0	.59		
442-3847	06-06	10:18 AM	202 447-2511		WASHINGTON	DC	WATS	4.0	.79		
					SUB TOTAL CALLS	3		10.0	1.90		

OTHER CHARGES AND CREDITS

STATION	ADJ TYPE	ADJUSTMENT DESCRIPTION	AMOUNT	CALLS	MINUTES
442-3847	WATS	PRORATED WATS CHARGE	.36		
		SUB TOTAL	.36		

INSTITUTION 28010 SUNY AT ALBANY
DEPARTMENT 860206 00 ATMOSPHERIC SCIENCES RES CENTER
SUB ACCT 860206 00 ATMOSPHERIC SCIENCES RES CENTER

STATION 442-3847

EQUIPMENT

STATION	DESCRIPTION	COUNT	AMOUNT
442-3847	INTERCONNECT EQUIPMENT	1	18.16
	SUB TOTAL	1	18.16

STATION 442-3847

1. TOLL	3.67	4. F-X		7. OCC	.36	10. TOTAL	25.22
2. LOCAL	1.13	5. WATS	1.90	8. MESSAGE UNIT			
3. TIE LINE		6. OTHER		9. EQUIPMENT	18.16		

AIGHT BILL OF LADING Origin

Shipper's No. _____

Agent's No. _____

VAN'S AUTO & AIR EXPRESS, INC.

P.O. BOX 2340
NEWBURGH, N.Y. 12550
(914) 564-9340

REF# 1121211377-0 AWB# 220-3505-0330 HAB# 17174653

ECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading.

rom SCHENKERS INTL. FORWARDERS /LUFTHANSA CARGO, Date 9/20/, 19 85

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e property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned and destined as indicated below, which said mpany (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed here- nder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the ipper and accepted for himself and his assigns.

Consigned to COLLECTOR OF CUSTOMS ALBANY
SUNYA PROF. EUGENE MCLAREY SCIENCE RES. CENTER 1400 WASH AVE. ALBANY N.Y

Destination ALBANY N.Y. Street 1400 WASH. AVE. ALBANY N.Y. 12005 City,

ATTENTION: MARIA KRAVITS County State

Routing

Delivering Carrier

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C. O. D. charge to be paid by { Shipper / Consignee XX

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

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Per _____
(The signature here acknowledges only the amount prepaid.)

Charges Advanced:

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This was paid to:
Schenkers Intl. FORWARDERS
invoice # K25243 -- $91.10 12-6-85
320-1243-A-6507-R30105
Copy of check

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NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____

Carmine Vitale
Per CARMINE VITALE Shipper

Per SCHENKERS INTL. 025243 Agent

Permanent Address of Shipper: _____ Street, _____ City _____ State

ORIGINAL

AIGHT BILL OF LADING Origin

Shipper's No._____

Agent's No._____

VAN'S AUTO & AIR EXPRESS, INC.

P.O. BOX 2340
NEWBURGH, N.Y. 12550
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COLLECTOR OF CUSTOMS ALBANY

Consigned to SUNYA PROF. EUGENE MCLAREY SCIENCE RES. CENTER 1400 WASH AVE. ALBANY N.Y

Destination ALBANY N.Y. Street 1400 WASH. AVE ALBANY N.Y. 12005 City,

ATTENTION:: MARIE KRAVITZ County State

Routing

Delivering Carrier COL

Collect On Delivery $ $91.10 and remit to: SCHENKERS INTL. FRWDRS.

147-29 Street 182ST City JAMAICA N.Y. State

C. O. D. charge to be paid by { Shipper / Consignee XX

1	CTN. SCIENTIFIC INSTRUMENTS		53#
	I.T.#57944084 IN BOND		
	SHIPPER: ZENTRUE FUEH		M 36.10
	COUNTRY: GERMANY		
	FREIGHT IS AT LUFTHANSA CARGO		C/C 20.
	PICK UP ORDER		56.10

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The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor.)

If charges are to be prepaid, write or stamp here, "To be Prepaid."

PREPAID

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Agent or Cashier

Per _____
(The signature here acknowledges only the amount prepaid.)

Charges Advanced:

$_____

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."
"This is to certify that the above named articles are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation."
NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
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Budget Bureau No.

Entry No. 87944084

Class of Entry I.T.
(I.T.) (Wd.T.) (Wd. Ex.) (T.E.) (Drawback, etc.)

Dist. No. 10 Port Code No. 12 First U. S. Port of Unlading New York

Port of New York Date 9/20/85

Imported by Schenkers International Forwarders, Inc. to be shipped

via VANS AUTO & AIR SERVICE consigned to
(C. H. L. number) (Vessel or carrier) (Car number and initial) (Pier or station)

District Director of Customs ALBANY N.Y. Final foreign destination

Consignee PROF. EUGENE MCLAREN SCI. RESEARCH CENTER 1400 WASH AVE. ALBANY N.Y. 12005
(At customs port of exit or destination)

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(Above information to be furnished only when merchandise is imported by vessel)

Imported on the CARGO LH404/19 Flag GERMAN on 9/19/85 via LUFTHANSA
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Exported from GERMANY on 9/19/85 Goods now at LUFTHANSA CARGO BLDG 261
(Country) (Date) (Name of warehouse, station, pier, etc.)

Marks and Numbers of Packages	Description and Quantity of Merchandise Number and Kind of Packages (Describe fully as per shipping papers)	Gross Weight in Pounds	Value (Dollars only)	Rate	Duty
1 CTN.	SCIENTIFIC INSTRUMENTS	130	EST VALUE 85.00		
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			SHIPPER:: DENTRUE FUER		
			COUNTRY:: GERMANY		
	BOND ON FILE 102242				

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(Port)

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Laden on the

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which cleared for

packages (were) (were labeled) or corded and

on

(Date)

as verified by export records.

Inspector or Warehouse officer

(Date)

(Date)

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Loaren

TO CONSIGNEE CODX, SUNY PROF. EUGENE MC LEARY C/O US CUSTOMS/ALBANY ADDRESS SCIENCE RES. CTR/ 1400 WASHINGTON AV ALBANY, N.Y. 12005

mc Loaren

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1 CTN	SCIENTIFIC INSTR.	53	M	U. New York N. Y.			
	ATT: MARIE KRAVITZ 442-4437	C/CL	M	Delivery Authorized		36.10	
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MEMO-LETTER

TO EUGENE MC LEARY
C/O ATMOSPHERIC SCIENCE RESEARCH CNTR
STATE UNIVERSITY OF N.Y. AT ALBANY
ALBANY, NY 12222

DATE Nov 7, 1985

SUBJECT C.O.D
Due October

DEAR MR. MC LEARY,

ENCLOSED PLEASE FIND ALL PAPERWORK I HAVE REGARDING THE C.O.D. DUE SCHENKERS INT'L FOR THE CARTON OF SCIENCE INSTR. WE DELIVERED TO YOU ON 10-15-85. THE AMOUNT OF THE CO.O.D. IS $91.10. AS WE DISCUSSED THESE ARE THE FREIGHT CHARGES DUE ~~XME~~ SCHENKERS INT'L FOR DELIVERY OF THE FREIGHT. OUR FRT CHARGES ARE INCLUDED IN THIS AMT. IF YOU NEED ANY ADDITIONAL INFORMATION PLEASE CONTACT ME AT THE ABOVE ADDRESS OR PHONE NUMBER. THANK YOU FOR YOUR COOPERATION IN THIS MATTER.

MARLENE OF VAN'S AUTO AND AIR EXPRESS.

Atmospheric Sciences Research Center
Earth Science Building - Room 324
State University of New York at Albany
1400 Washington Avenue
Albany, New York 12222

MEMORANDUM

TO: ASRC STAFF

FROM: RON STEWART

DATE: JANUARY 6, 1986

As of this date, all typing will go to Mary Lee and then be reallocated at her discretion. This will allow more efficient use of the word processor for all staff with short papers (letters, etc.) being typed by Sydelle.

Thank you.

RS:mlh

Atmospheric Sciences Research Center
Earth Science Building - Room 324
State University of New York at Albany
1400 Washington Avenue
Albany, New York 12222

August 7, 1984

Dr. Eugene McLaren
Department of Chemistry

Dear Gene:

You may or may not know that I have decided to retire from the Directorship of the Atmospheric Sciences Research Center in May, 1985. By that time I will have served two consecutive five-year terms in the Director's position, preceded by a one-year term as Acting Director and a three-year term as Associate Director.

It is my strong desire to become more deeply involved in research and academic teaching and to minimize the administrative workload. I have discussed the situation with the President of my University and an offer from this University of a professorship in atmospheric sciences is under consideration. My current position is in the category of management/confidential with no tenure, serving at the pleasure of the President, while the professorship under consideration would carry a nine-month academic appointment and tenure.

The University has asked me to provide a few references who could be contacted for evaluation of my candidacy as a professor in atmospheric sciences, according to the standard regulations for such appointments. The purpose of my letter is to ask your permission to use your name as a reference. Please let me know at your earliest convenience if you are willing to serve as a reference.

I am enclosing our latest bi-annual report telling you all about the "great things" that have happened over the past two years. If you have any questions, please do not hesitate to contact me.

Sincerely yours,

Volker A. Mohnen

University News

September 11, 1985 State University of New York at Albany Volume 9, Number 2

ASRC Wins $3.5 Million Grant

Network Of Scientists To Examine Why Forests Die

With a $3.5 million grant from the federal government, the University's Atmospheric Sciences Research Center is leading an ambitious effort to evaluate the effect of airborne contaminants on the forests of the eastern U.S.

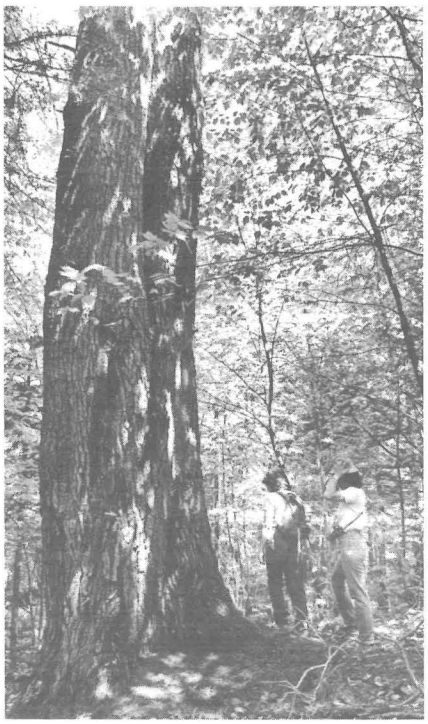
"Why do forests die in the East? That is the question we're investigating," says ASRC Director Volker Mohnen, who is directing the project funded by the Environmental Protection Agency.

In search of answers, the project is enlisting atmospheric scientists and forest specialists throughout the East to gather extensive data ranging from the kinds and amounts of chemicals that drop on forest canopies to the nature of forest soils.

Field stations are being established at sites in the Laurentians — the chain of mountains including the Smokies, the Shenandoahs and eastern Canadian mountains — and Appalachians. The ASRC's Whiteface Mountain Field Station will also collect data needed for this latest project, along with the data it already collects for its various other research projects.

Spruce and firs in the Adirondacks and Appalachians show signs of "significant damage," says Mohnen.

"Particularly in the higher elevations, we see such signs of decline as skinnier annual tree rings over the last 15 to 20 years," he says. "Trees appear to succumb more readily to pests and climatic stress."



Adirondack forest preserve: Showing signs of damage.

Acid rain has sometimes been identified as the No. 1 villain responsible for forest damage, as well as such other ecological problems as the disappearance of fish from many Adirondack lakes. Acid rain is precipitation acidified by sulfur and nitrogen emissions from burning fossil fuels in power plants and cars.

But Mohnen says that acid rain is probably too simple an explanation and that scientists need to look at more than "one potential villain."

To that end, project scientists will carefully measure at each site not only the concentrations of nitrates and sulfates, but also of heavy metals and such other substances as ozone and hydrogen peroxide.

Forest specialists, in turn, will analyze the different kinds of soil and try to determine the effect of various contaminants on different types of soil.

"Many areas, for example, have two to three times the acid deposition of the Adirondacks," says Mohnen. "But the Adirondacks stand out in having problems because the granitic bedrock and thin, calcium-poor soils cannot neutralize the acid."

Signalling the project's importance to his agency, EPA Administrator Lee Thomas visited the Whiteface Mountain Field Station last month to observe the ASRC's research in action.

Mary Fiess

AROUND CAMPUS

President's House: A house at 410 Loudonville Road in Loudonville has been purchased by the University at Albany Benevolent Association to be used as a residence for the campus president. The 14-room house, purchased for $225,000, will be leased to the University for $20,000 a year, according to Donald L. Dundon, director of real estate for SUNY. After 20 years, the Benevolent Association intends to convey the property to the University as a permanent residence for the president.

New EOP Director: Carson Carr, project director of the Upward Bound program at LeMoyne University in Syracuse, has been named director of Albany's Educational Opportunity Program. He replaces Vernon Buck, who retired.

Programs and Priorities: Copies of *Programs and Priorities 1985* are now being mailed out to the faculty and professional staff. Copies are also available at the fall faculty meeting today at 3 p.m. in the Campus Center Ballroom. *Programs and Priorities* provides a retrospective look at the accomplishments of the past year and an overview of the programs, activities and services to which the University will give primary attention in the coming year.

Inside:

Mental Agility, Sophistication and Flexibility — One Way to Get It.

INTERDISCIPLINARY IDEAS

CROSSING INTELLECTUAL FRONTIERS

Students from Widely Divergent Disciplines Find Common Ground in the University's New D.A. in Humanistic Studies

BY CHRISTINE MCKNIGHT

Jana De Benedetti's dream is to someday be a rabbi. Elizabeth Lopes wants to teach drama, especially the use of theatrical masks, back in her native Brazil. Gloria Shepherd would like to combine a career in human resource management with teaching Afro-American literature.

Despite widely divergent career goals, they are all enrolled in the same graduate program at the University — the Doctor of Arts in Humanistic Studies. Students in this unusual program, now a year old, come from a dozen different disciplines, but they have much in common.

They are concerned about becoming too highly specialized, for one thing. They are willing to try to communicate across the spectrum of academic disciplines. And they are practical people.

"The nice thing is that it is an interdisciplinary degree," explains De Benedetti, a Brooklyn native who has a bachelor's degree in Judaic Studies and a master's degree in philosophy from Albany. "It allows me to keep many options open that a Ph.D. might not have allowed me to do. It also allows me to keep alive my rabbinical goal because I will have training in Jewish studies, philosophy and linguistics."

Lopes: "A Ph.D. would have been too specialized."

Even if she doesn't reach that goal, De Benedetti says, she feels confident her D.A. will help her secure a job teaching in a two- or four-year college in Israel, where she and her husband, Arrigo, eventually plan to settle. Arrigo received his Ph.D. in molecular biology from Albany last spring.

Lopes, who has bachelor's and master's degrees in theater from Albany, took further training at the Sorbonne in Paris and has since pursued a specialty in theatrical masks. To learn more about masks in her native Brazil, she studied primitive cultures on her own, but she felt she needed additional training to give herself more flexibility as a professor at the University of Campenas, where she has already taught.

With a concentration in anthropology under the D.A. program, she will carry out the field work for her thesis on the myths and culture of Maya masks in Mexico's Chiapas province, where she will live among Maya Indians, learning about and helping them preserve their mask culture. One of the first students to apply to the program, she eventually hopes to return to Brazil and teach theater at the University of Campenas.

"What attracted me was the opportunity to have a secondary field of study — in this case, anthropology — because of my interest in masks and primitive cultures," Lopes explained. "A Ph.D. in theater would have been too specialized, but this fits my needs perfectly. It will allow me to teach not only in theater but also in the Literature, Anthropology and Humanities departments" at the University of Campenas.

Shepherd wants to combine her interest in Afro-American literature with her knowledge of black culture, a major focus of her current job as affirmative action officer at the state's Division of Criminal Justice Services. While she hopes to remain in the human relations field, she sees the D.A. as a possible route to an adjunct professorship in Afro-American literature at an area college or University.

"It's a practical degree," says Shepherd. "It allows you to venture into areas which you can actually utilize outside academe. It's a degree that sensitizes you to other disciplines, and I think it's more marketable in many ways than a Ph.D."

Comments like these are music to the ears of the French Department's Martin Kanes, the D.A. program's self-styled male midwife and godfather.

"There has always been a problem with what to do with the really good mind that doesn't lend itself to disciplinary restrictions," said Kanes, who chaired the campus committee which developed the D.A. "This program gives students a sense of intellectual freedom. They follow their own curiosity and they set up their programs in terms of what's bugging them. And that's always the way you get the best work."

Kanes, too, sees it as a practical degree.

"We hope the program will give our students depth, flexibility, mental agility, sophistication — all of those things you must have to cross over from one discipline to another," he said. "And those are the kinds of things that make an individual an extremely valuable employee in both the public and private sector."

Designed to attract people who are interested in self-development, career change and career advancement, the program now enrolls about two dozen graduate students. Kanes expects the program to continue to grow, with enrollment eventually leveling off at about 40.

To earn a D.A. in Humanistic Studies, candidates must take courses in two fields. At least one of these fields must be in the humanities. Other requirements include an internship, a qualifying exam and a dissertation. In all, the program involves 60 to 70 credits beyond the undergraduate degree. Departments help shape each individual's proposed program, and work closely with the Humanistic Studies Advisory Committee.

The D.A. in Humanistic Studies is one of only five or six programs of its kind in the country, according to Judith A. Ramaley, executive vice president for academic affairs.

"This is an interdisciplinary activity that brings together faculty from several academic units, transcending school and college boundaries," Ramaley said. "By relying on the strength of doctoral quality faculty not only in the humanities but in such related fields as anthropology, philosophy, English and education, we have a program which sets us apart. It is an important way in which we can share our intellectual resources."

"It's a degree that I think is more marketable in many ways than a Ph.D."

While there are other interdisciplinary programs around, Albany's D.A. differs from others, Kanes said.

"Instead of setting up a series of courses which students have to complete, this sets up a framework and leaves it up to the student to fill certain categories with whatever content is appropriate to their goals," he said.

The program is self-generating, but the framework is carefully controlled. And departmental cooperation is an essential ingredient. No one is even admitted to the D.A., until the D.A. Committee has approved a statement of purpose and the department concerned has evaluated the application.

"A program like this works only in terms of people and individuals," Kanes said. "When it works, it works gorgeously, but it's not for everyone. That's why we have a very elaborate filtering system."

Besides those in the humanities, departments working with D.A. students include anthropology, history, Afro-American studies, Puerto Rican, Latin American and Caribbean studies and various departments within the School of Education.

"There is no typical student," explained Kanes. "We have them coming from every point on the academic compass. Some have jobs and are coming back for professional development, and some are interested in personal growth."

Foreign students, said Kanes, have been particularly attracted to the program.

Kanes, who taught the program's first colloquium last fall, remembers it as a somewhat daring experiment in communicating across the frontiers of different disciplines.

"I had no idea what would happen when I walked into that colloquium," he recalled recently. "There were 12 hot-shot students drawn from a variety of different disciplines — theater, philosophy, classics, linguistics, English, education, Spanish and Afro-American studies. They all had their different professional vocabularies and perspectives."

The colloquium, one of the D.A.'s core requirements, dealt with humanistic semiology — the theory of signs and how humans make and manipulate symbols. It focused on great thinkers like Plato, St. Augustine and Peirse — all of whom had written about how the human mind grasps the world.

"It's the glue that holds it all together intellectually," explained Kanes, who is teaching the same colloquium this fall. "Every discipline, no matter what it is, is based on a conventional use of symbols. The question was, could we talk across the boundaries of those disciplines?

"At first I was uncertain, but about halfway through the course, things fell together. It ended up being absolutely fascinating and successful, but I had no way of knowing that at first. I felt wonderful."

Back Page Briefs

Fall Faculty Meeting

The annual fall faculty meeting is today, Sept. 11, at 3 p.m. in the Campus Center Ballroom. President O'Leary will address the meeting. Coffee and tea are available beginning at 2:30 p.m.

The Physics of Star Wars

Keith Ratcliff of the Physics Department will discuss "The Physics of Star Wars" this Friday, Sept. 13, at 3 p.m. The colloquium, sponsored by the Physics Department, will be in PH 129, with coffee at 2:30 p.m.

Ensemble Concert

The Adirondack Percussion Ensemble will give its debut concert on Saturday, Sept. 14, at 8 p.m. in the Recital Hall of the Performing Arts Center. For more information call Alton McCloud at 442-3995.

Music Faculty Concert

Pianist William Jones will open the 1985-86 Department of Music Faculty Showcase Concert Series with works by Bach, Schumann, Ravel and others. The concert will be on Sunday, Sept. 22 at 2:30 p.m. in the Recital Hall of the Performing Arts Center. For more information call 442-3997.

Council to Meet

The University Council will hold its first meeting of the year on Thursday, Sept. 26 at 4 p.m. in AD 253.

Hispanic Heritage Week

The departments of Puerto Rican, Latin American and Caribbean Studies, and Hispanic and Italian Studies will cosponsor the showing of two Latin American films in celebration of Hispanic Heritage Week next Wednesday Sept. 18, at 4 p.m. and Thursday, Sept. 19, at 2 p.m. The two films are *El Norte* and *Alsino and the Condor*.

Writer's Institute Hosts Nicholasa Mohr

The New York Writer's Institute and the Puerto Rican, Latin American and Caribbean Studies Department will cosponsor a lecture by Puerto Rican author Nicholasa Mohr on Thursday, Sept. 19, at 4 p.m. in HU 354. The lecture is entitled "A Personal Odyssey into Fiction."

The Problems of Soviet Youth

The SUNYA Women's International Committee will sponsor a tea on Sunday, Oct. 6 in BIO 248. The guest speaker will be Dorothy McClellan, who will speak on the problems and opportunities of Soviet youth.

Women As Managers

The Center for Women in Government's Managing series begins this Thursday, Sept. 12, at 4:15 p.m. with a course on labor relations. Five additional courses and the two-day "Women as Managers" seminar will also be offered. For more information call 442-3900.

Simple Nonparametric Tests

The Department of Mathematics and Statistics will host Ramesh Korwar from the University of Massachusetts at a colloquium today at 4:15 p.m. Korwar's talk, which will begin at 4:15 p.m. in ES 140, is entitled, "Simple Nonparametric Tests for a Known Standard Survival Based on Censored Data." It is open to the public. Tea will be served at 3:30 p.m

Civil Service Leader to Speak

Karen Burstein, president of the New York State Civil Service Commission, will speak at the University this Thursday, Sept. 12, as the guest of the Academic Affairs Secretarial/Clerical Council. Burstein's talk, at 1 p.m. in LC 23, is open to the entire campus.

University Composers Featured

Capitol Chamber Artists will launch its 17th season this Thursday, Sept. 12, at Page Hall with a world premiere of "Shaker Dancers" for flute, violin, cello, horn and piano by Leonard Kastle of the Music Department. Kastle will perform the piano part of his new work. Works by Joel Chadabe of the Music Department will be featured later in the season. For more information call 489-0507.

Henry Hudson's River

An award-winning film on the early years of the Hudson River will be shown Sunday, Sept. 22, at 3 p.m. at the Albany Institute of History and Art as part of the "Experiencing Albany" series. The showing precedes a planned river cruise of the Hudson on Sunday, Sept. 29 sponsored by the SUNYA Friends of the Libraries. For more information call 442-3577.

Experiencing Albany

The finale of the "Experiencing Albany" lecture series will be held at the University's Art Gallery on Sunday, Sept. 15 at 3 p.m. The event will feature a collection of maritime prints and live folk music.

Alumni Athletes

An estimated 150 alumni from the class years 1970-85 are expected to turn out this Saturday, Sept. 14, for an Alumni Quad Old-timers' Day which will include softball on Beverwyck Park and conviviality at O'Heaney's. The annual event is an outgrowth of the intramural sports program offered by Alumni Quad.

Grenander to Speak

M.E. Grenander of the English Department will be one of the lecturers in the Asa Gray Seminar Series at Utica College on Oct. 14. Her work is entitled "Roger Sperry's Mind/Brain Research: Implications for the Humane Sciences."

Albany's Historic Churches

A series of presentations looking at Albany's historic churches and synagogues will open in October and run through the city's tricentennial. The presentations are an outgrowth of the "Experiencing Albany" heritage series, funded by the National Endowment for the Humanities and coordinated by the University Libraries. Anne F. Roberts is project director.

Society Wins Citation

The University's chapter of Phi Alpha Theta, the international honor society in history, has won the honor society's "Best Chapter" award for the second year in a row. Chi Delta chapter shares the honor for last year with the chapter at New Mexico State University. William Reedy, an associate professor of history, is the chapter adviser.

Briefs Compiled by Mary Elizabeth Walsh

University News

Published Wednesdays during full weeks of class by the University Relations Office, State University of New York at Albany, Albany, NY 12222. Christine McKnight, editor. Susan Freeman, production artist. Typesetting by ECC Graphics.

Submit items for publication in writing one week in advance to AD 238, 442-3071.

Atmospheric Sciences Research Center
Earth Science Building - Room 324
State University of New York at Albany
1400 Washington Avenue
Albany, New York 12222

To: A.S.R.C. Staff

From: Anne Marie Pitaniello

Date: September 5, 1985

Just to make life more difficult, there has been a slight change in the charging procedure at State Photo since I sent out the previous memo. When you charge at the Stuyvesant Plaza State Photo, please make sure the State Photo charge number their personnel look up in their computer print-out is under Research Foundation SUNYA, followed by Research Center, NOT Atmospheric Sciences as I previously stated. There is a phone number after the words "Research Center", 442-3819; this is Daryl's office phone. PLEASE make sure you have the proper State Photo charge written on your slip, otherwise the department will be billed for your supplies.

Finally, as a reminder, always return the pink billing slip to Daryl, as this is the only invoice State Photo gives. Thanks!!!

To: A.S.R.C. Staff

From: Anne Marie

Date: August 30, 1985

As of September 15, there will be a new policy concerning charging items at the State Photo store at the Stuyvesant Shopping Plaza. If anyone needs supplies they must first go to Daryl and pick up a 'credit card' which has been issued by State Photo. This card is only good at the Stuyvesant Plaza store at the end of Fuller Road. This is where you should go if you wish to purchase at a State Photo retail store.

Presenting the credit card will assure the person behind the counter you are an employee of the research center. However, this does not guarantee you will be allowed to charge. The person behind the counter must look up our account number on their master file. You must tell them it is under The Research Foundation of the State of New York - Atmospheric Science. (This is important! It will not be found under A.S.R.C. or State University.) Failure to realize this will only complicate matters and more than not, they will not allow you to charge. State Photo must have THEIR account number on the bill. You should then write YOUR account (grant number) when they ask you to sign.

The invoice slip given to you is the only itemized bill A.S.R.C. will receive. It is important (MANDATORY!) you give this slip to Daryl when you promptly return the 'credit card.'

This system is new to both us and State Photo, so we hope it will work as smoothly as possible for everyone's sake. Please cooperate!!

Atmospheric Sciences Research Center
Earth Science Building - Room 324
State University of New York at Albany
1400 Washington Avenue
Albany, New York 12222

MEMORANDUM

TO: Frank Lucarelli

FROM: James E. Jiusto

DATE: 23 February 1983

SUBJECT: New Purchasing Rules on Research Grants

REF: 26 January 1983 Memo of Jack Haggerty on this subject

Under the new guidelines suggested, it is indicated that all purchases require prior approval and/or a P.O. from Tom McLaughlin's office. Such a procedure, if implemented, would pose serious implications for SUNYA research and future grant funding. Comments on the subject are as follows:

a. Having been on NSF and NOAA Advisory Panels and being familiar with several funding agency procedures, it is my conviction that this approach is not in keeping with the philosophy of federal contract monitors. They expect high quality research and prompt results with a minimum of red tape. The NSF OPAS procedures recently instituted at SUNY to streamline operations at the local level is one obvious example.

b. With innovative laboratory or field research, the unexpected (changing needs, equipment breakdown, etc.) is the rule--not the exception. The principal investigator must have the flexibility to quickly obtain or replace small items on his own authority. (The original $200 ceiling would be preferable to the more recent $100 limit.) Obviously good business practices must be followed by all, but overly restrictive policies that hamper research efficiency are not in the best interests of the government or Universities.

c. This past year my colleagues and I conducted what some consider the largest field program on radiation fog ever attempted in this country (at the Albany Airport, 1 Sept - 7 Nov 1982). Sponsors were the NSF and the Army Research Office (ARO). Some 8 other University and Government Laboratories participated. Rush orders, some after 5 PM and on Saturdays, were commonplace and essential to keep all things running on schedule. The program was a success judged by the amount of quality data obtained and the fact that:

(1) the ARO has increased this year's budget allocation by 45%, and
(2) a two year NSF grant extension is virtually assured.

d. Graduate students, particularly masters candidates, work on a tight time schedule. It is no small matter to keep ahead of their research needs so that timely graduation can take place; purchase order flexibility has been one indispensable part of this process.

e. It is strange that a project director, who must use considerable ingenuity and talent to obtain a federal research grant, then lacks the authority to purchase a 50¢ to $50 item. We all want to stretch our research dollars to the maximum. Tom McLaughlin's office has been a great help at times in achieving this end, particularly on standard items. For sole-source items and for small purchases where the cost of time (idled manpower) far outweighs the unit cost, it is in everyones interest for the P.D. to act independently and expeditously.

f. To my knowledge the Research Foundation of SUNY was established in 1950 with many goals, not the least of which were to promote research and to facilitate its execution in as smooth a fashion as possible. It was recognized that State and research needs can differ significantly.

g. If the federal auditors are responsible for this new procedure, we must help educate them. When they periodically meet to discuss or present their preliminary audit findings, I suggest that 2-3 experienced University researchers routinely be present. With constructive inputs from both sides, I believe we can improve rather than hamstring research efficiency (and accountability).

h. Everyone knows it is a very competitive research arena today. We should not adopt any procedures that will frustrate research groups and graduate students, impair their productivity, and ultimately lead to loss of federal grants to institutions employing more progressive procedures. SUNYA and NY State can ill afford that.

If you share some of these sentiments, it is my hope you will bring them to the attention of appropriate individuals and help rescind the new purchasing rules. If I can be of help in this matter or aid in the general topic of SUNY research effectiveness, please let me know.

James E. Jiusto
ASRC

cc: J. Haggerty

V.A. Mohnen, Director, ASRC

Atmospheric Sciences Research Center
Earth Science Building - Room 324
State University of New York at Albany
1400 Washington Avenue
Albany, New York 12222

A.S.R.C. - BITS

Memorandum

TO: The ASRC Staff

FROM: Vince Schaefer

DATE: April 23, 1984

From time to time the questions arise -- how come ASRC is such a fun place to work, how come things go so well and how come we don't know much about what is going on? Etc., etc.

These and other questions are not easy to answer but I strongly urge every one associated with ASRC to read "In Search of Excellence" by Peters and Waterman, Harper Row. Paperback cost: $8.95. Some answers to your questions will be found in this intriguing book if you read it through fully.

When I was given the privilege 25 years ago of putting ASRC together and then in 1966 to assemble its core staff I knew very little about administration or organization, but had the good fortune to have worked for 25 years in a relatively small organization that was a fun place to be -- the General Electric Research Laboratory. This was a place which had been put together by Dr. Willis R. Whitney shortly after the turn of the century. As a youngster I got to know Doc Whitney and when I finally managed by persistence to get into the Lab as a graduating apprentice boy and seven years later to be selected by Doc Whitney and Irving Langmuir to become Langmuir's assistant the year after he received the Nobel Prize, I couldn't understand my good fortune. However, over the years I came to realize that the Whitney lab was the kind of place where excitement reigned and where it was a great privilege to work. As I learned later, Doc Whitney selected the very best people he could find and then left them alone.

The wages were not high (I was paid $2,698.00 after I had been associated with Langmuir for eight years, but I would have worked for nothing if I didn't have to eat and have a family to raise!

As Peters and Waterman point out the "excellent companies" are often places of turmoil, excitement, disorder, person to person communication, where "small is beautiful" even within large companies like 3M, Wang, Maytag, HP, and the like. They are places where if an organization chart is put together, it is out of date before it is assembled. The dominant theme that permeates such a place is the sense of freedom -- where everyone does a better job than he or she thinks is possible.

I am writing in this vein since it appears to me that ASRC might be approaching a crossroads and it behooves all of us to be thinking about ways in which we can singly and collectively do everything possible to assure a continuation of ASRC as a choice place to be.

V.J. Schaefer
April 4, 1984
VJS:a

Note: From time to time I intend to pass on to you bits of information that I write or encounter that relate in one way or another to ASRC, its interests and basic philosophy. I hope they merit your consideration. Incidentally, similar "Bits" are welcome from any and all of you.

Circulation: To <u>all</u> who are in the ASRC extended family.

Atmospheric Sciences Research Center
Earth Science Building - Room 324
State University of New York at Albany
1400 Washington Avenue
Albany, New York 12222

30 March 1984

Dr. John W. Shumaker
Vice President for Research
State University of New York at Albany

Dear John:

In just over a year from now Volker Mohnen will step aside as director of the ASRC, having served in that position for two consecutive five-year terms. In the interest of seeing a smooth transition in the directorship, we feel that a search committee for the new director should be set up without delay. A year is not an excessive amount of time to search for a person with the high qualifications we feel an ASRC director must have.

A second reason for appointing a search committee at this time is that the committee could benefit from meeting with Drs. Brook, Calvert, and Koomanoff when they are on campus the first week in May to review the activities of the ASRC. Such a meeting would not only demonstrate to our visitors that SUNYA is committed to find an outstanding person to replace Volker, but the search committee could take advantage of any advice the external reviewers might have.

If you wish to discuss this further, we would be most happy to meet with you.

Sincerely,

Duncan C. Blanchard

Bernard Vonnegut

DCB:BV:spm

Atmospheric Sciences Research Center
Earth Science Building - Room 324
State University of New York at Albany
1400 Washington Avenue
Albany, New York 12222

December 29, 1983

Dr. John Shumaker
State University of New York at Albany

Dear Dr. Shumaker:

Professor Bernard Vonnegut will reach his 70th birthday in August, 1984. Bernie has been with the Atmospheric Sciences Research Center since 1967, and during his tenure with the University has received all the recognition that an atmospheric scientist could ever ask for. Professor Vonnegut is as active today as a researcher and teacher as he was 20 years ago. His research for the Space Shuttle, for which he received an award, and his teaching activity, which is documented by the Albany Student Union, both make it abundantly clear that Professor Vonnegut is still a most valuable racing horse in SUNYA's stable.

With this letter I would like to officially request on behalf of the entire ASRC staff that Bernie be granted an exemption from mandatory retirement and that his appointment be continued beyond age 70, in accordance with the rules and regulations of the Board of Trustees. I would be most pleased if you and President O'Leary agreed with my recommendation and initiated the necessary steps to be taken at this time.

You can rest assured that Professor Vonnegut will continue to provide scientific leadership to the University, teach graduate students and attract research funds from private and federal sources that are so desperately needed at this time.

Sincerely,

Volker A. Mohnen
Director

Enclosure

State University of New York at Albany

January 31, 1984

Dr. Jack Calvert, Senior Scientist
National Center for Atmospheric Research
P.O. Box 3000
Boulder, Colorado 80307

Dear Dr. Calvert:

I am writing to you to confirm our invitation for you to serve as a consultant with Dr. Marx Brook and Dr. Frederick Koomanoff to review our Atmospheric Sciences Research Center on May 3 and 4, 1984.

The State University of New York at Albany through its Council on Research has established procedures for the review of research centers and institutes. Your visit is the key feature of those procedures. President Vincent O'Leary, Dr. Judith Ramaley, Vice President for Academic Affairs, and I are delighted that we shall have a chance to discuss the Center and its activities with you.

Specifically, this invitation calls for you and Drs. Brook and Koomanoff to visit our campus on May 3 and 4, to meet with the Center staff, appropriate faculty, to review our research facilities and activities, review the qualifications of the staff, and to undertake any other activities you deem pertinent. During your visit, we would like you to meet with concerned members of the university's administrative staff. After your visit, we would expect to receive a written report giving your evaluation of the Center, its strengths, weaknesses, and potential.

With regard to financial arrangements, we are able to cover your travel and expenses in Albany and to pay an honorarium of $150 a day for each day of consultation plus $150 for your written report, a total honorarium of $450 plus expenses. Please make the necessary travel arrangements from your end and keep a record of all expenses incurred. We will reimburse you for the expenses and provide the honorarium in one check following your return. Please let me know if this is acceptable.

Please let me know as soon as you have made your travel arrangements so that we may finalize your itinerary on campus. It would be helpful if you could arrive on the evening of May 2 and plan to leave late afternoon or evening on May 4. If you wish, we shall be happy to make reservations for you at a motel adjacent to the campus.

The Atmospheric Sciences Research Center is preparing a self-study document which we will send later. In addition, we will furnish you with appropriate bulletins and other information which describes our policies, requirements and programs. If you wish to call at our expense for further information or to discuss arrangements, please call Mr McFarland at (518) 457-4635.

Dr. Volker Mohnen, Director, Atmospheric Sciences Research Center joins me in extending this invitation. Thank you for accepting and we look forward to seeing you in May.

Sincerely,

John W. Shumaker
Acting Vice President for
Research and Educational Development

JWS/km

cc: Vice President Ramaley
Dean Wulff
Dr. Mohnen ✓
Mr. McFarland

Atmospheric Sciences Research Center
Earth Science Building - Room 324
State University of New York at Albany
1400 Washington Avenue
Albany, New York 12222

TO: ASRC Staff

FROM: Ray Castillo RAC

DATE: January 24,]984

RE: Secretarial assignments

I hope you will all welcome our new secretary, Ms. Iris Singer, who will be with us for at least six weeks and replaces Ann Pioggia who moves to the Director's office.

The assignments for senior staff and research personnel are listed below:

Mary Lee	Iris	Ann
A. Hogan	R. Castillo	V. Mohnen
R. Cipriano	R. Stewart	D. Blanchard
E. Barreto	R. Perez	V. Schaefer
G. Lala	B. Bailey	
J. Kadlecek	R. Cheng	
	D. McClenahan	

RAC:amp

Atmospheric Sciences Research Center
Earth Science Building - Room 324
State University of New York at Albany
1400 Washington Avenue
Albany, New York 12222

November 23, 1983

Dr. John W. Shumaker
A. D. 218

Dear John:

Thank you very much for your response dated November 18, 1983. I very much appreciate the time you took in presenting to me in writing your current position. The very fact that you are chagrined (and not a little so) has probably helped you in making your points as clearly as possible. This is precisely what I wanted to achieve. Needless to say, I disagree with your position, and I will subsequently present my point of view again. Before doing so, I want to assure you that we are engaged in a professional dialogue that is necessary and must take place. This in no way should interfere with our social relationship. But smiles and nice words simply don't replace the necessary dialogue in times of conflict. I hope, therefore, that we are not going down the road to a personal conflict.

I have served this University for almost 17 years. I believe that I know this University. I have seen it grow and retrench (more of the latter and only a glimpse of memory remains of the first). The one basic element in the overall University policy still awaits implementation--I mean the pledge first voiced by Emmett Field and subsequently renewed on many occasions by President O'Leary--to place quality and achievements above all other criteria when it comes to further imposed budget cuts. It is so easy to simply impose budget constraints equally on all of us by establishing "quotas" that have to be met by the end of a budget year. Your response is indeed a precise example of the above.

I am quite capable, I think, of counting up the various line items that ASRC has lost, or that any other unit on this campus has lost. To impose quota and to subsequently police constraints is a job that requires little administrative courage and almost no vision.

To establish a quality assurance program and to officially recognize the ugly, the good and the bad is indeed the biggest challenge that a University faces, not just at our campus. You may again disagree with me on that, but I do not believe that we have successfully implemented such a program on this campus.

Dr. John W. Shumaker

My ongoing fight for positions that we are in the process of losing, not a request for any new positions or any new monies, must therefore be viewed as a challenge to you and to the President of the University to appropriately categorize us. As a result of this process, I would expect you to tell ASRC that we have not lived up to the standard set by this University and therefore should not be considered for resources.

In the absence of such a quality assurance and reward system, you simply will aggravate a tense situation by adding insult to injury. If the only criteria is bad luck--i.e., resignation of a person from a line item at the wrong administrative time--then we will have soon demoralized those University scientists, both researchers and teachers as well as individual University units, who simply believe in the American system of success. My eyes and my mind may be clouded by the events of the past two years and hence I may be unable to see your or the President's efforts in implementing a reward-based system at our University. If it does indeed exist, then I do not understand your letter to me, and I would have to conclude that ASRC has performed badly.

Yes, we do have to sit down to discuss this and other matters.

Sincerely,

Volker A. Mohnen
Director

bcc: D. Blanchard
R. Stewart
V. Schaefer
E. McLaren

Atmospheric Sciences Research Center
Earth Science Building - Room 324
State University of New York at Albany
1400 Washington Avenue
Albany, New York 12222

MEMORANDUM

TO: ASRC STAFF

FROM: MARY LEE

DATE: JULY 1, 1983

RE: 86206 ACCOUNT

Below is a listing of the expenditures and balances on the 86206 account received as of today's date.

CATEGORY	ALLOCATION	EXPENDITURES	BALANCE
Communications	$12,007.00	$ 5,041.96	$ 6,965.04
Repairs and Supplies	35,576.00	13,531.98	22,044.02
Central Stores	1,843.00	175.06	1,667.94
Central Duplicating	842.00	215.75	626.25
Rapid Copy	674.00	156.74	517.26
Postage	3,804.00	1,268.00	2,536.00
Totals	$54,746.00	$20,389.49	$34,356.51
Equipment	$ 2,700.00	$ 640.00	$ 2,060.00

Atmospheric Sciences Research Center
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1400 Washington Avenue
Albany, New York 12222

TO: ASRC Senior Staff

FROM: R. Castillo

DATE: July 12, 1983

RE: Advertisement of Vacancy

ASRC has been given approval to advertise a vacancy but not to fill the position. This is similar to the situation with Bill Winter's position which is now frozen. Should you wish to contact friends regarding this position, please see me for a job description.

RAC:amp

Atmospheric Sciences Research Center
Earth Science Building - Room 324
State University of New York at Albany
1400 Washington Avenue
Albany, New York 12222

TO: ASRC Staff - Research Project Directors

FROM: Ray Castillo

DATE: February 16, 1983

RE: New purchasing regulations for the Research Foundation

Having talked with Tom McLaughlin, I can only list below the salient features of what is now in effect:

1. For local pick-up or emergencies under $100., you should obtain a PO number from Tom and proceed accordingly. A requisition, with supporting documentation (receipts, etc.), must still be submitted.

2. Everything over $100. should go through our internal procedures directly to Tom McLaughlin.

In the past, SUNYA was the only SUNY institution not under the procedure currently in effect, i.e., V.P. Hartigan is the Research Foundation designee for SUNYA. Currently, V.P. Hartigan is inquiring of Frank Lucarelli and Frank DiSanto if there have been any complaints of the system now in effect. I suggest that you might want to communicate your concerns regarding this new purchasing policy as soon as possible to one of the three gentlemen noted above.

RAC:amp

Atmospheric Sciences Research Center
Earth Science Building - Room 324
State University of New York at Albany
1400 Washington Avenue
Albany, New York 12222

TO: Pat Auricchio

FROM: Raymond Castillo RAC

DATE: October 26, 1982

RE: Telephone Installation

Please install a non-key set in room 121 at ASRC. This phone and line are to have the charges billed to Dr. Eugene McLaren, Contract No. 320-301B.

Please contact me if you have any questions.

RAC:amp

Atmospheric Sciences Research Center
Earth Science Building - Room 324
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1400 Washington Avenue
Albany, New York 12222

MEMORANDUM

TO: ASRC STAFF

FROM: MARY LEE

DATE: AUGUST 23, 1982

RE: 86206 EXPENDITURES

Listed below are the allocations, expenditures as of this date, and balances for the 86206 account.

CATEGORY	ALLOCATION	EXPENDITURE	BALANCE
COMMUNICATIONS	$12,294.00	$ 7,165.58	$ 5,128.42
COPIER SUPPLIES & RENTAL	(taken out of Repairs & Supplies which includes $1,210.39 for rental and $1,280 for supplies and repairs)		
REPAIRS & SUPPLIES	34,938.00	9,497.13	25,440.87
CENTRAL STORES	1,843.00	875.24	967.76
CENTRAL DUPLICATING	1,342.00	1,174.68	167.32
POSTAGE	4,135.00	1,722.90	2,412.10
RAPID COPY	1,174.00	924.90	249.10
TOTALS	$55,726.00	$21,360.43	$34,365.57
EQUIPMENT	$ 2,700.00	$ 1,245.85	$ 1,454.14

STATE UNIVERSITY OF NEW YORK
AT ALBANY

OFFICE OF THE VICE PRESIDENT
FINANCE AND BUSINESS

ALBANY, N. Y. 12222

August 11, 1982

TO: Vice Presidents, Deans, Directors, Department Chairs and Other Telephone Users

FROM: John A. Hartigan John Hartigan

SUBJECT: Termination of Tie Line Service

In contemplation of the need to eliminate tie lines, staff has searched diligently over the summer for a viable option. I am pleased to announce that we have identified one that we can afford. Effective August 25th, we will switch over from tie lines to WATS lines, with eight lines servicing the Uptown Campus and two the Draper complex.

In order to avoid anticipated prohibitive rate increases for tie lines and continue to provide the most efficient and the least expensive telephone service possible, campus management has decided on the following:

1. Disconnection of the tie lines, effective August 25, 1982.

2. Institution of intrastate WATS service, effective August 25, to replace the tie lines.

3. Establishment of a chargeback system similar to telephone tolls to bill users of the WATS system for actual usage costs.

4. Allocation of additional S & E funds to state accounts to cover most if not all of the cost of WATS line usage in 1982-83.

5. Institution of a detailed "toll statement" for WATS line usage, to substantiate WATS chargebacks and to serve as a control device for department managers to identify telephone traffic and thereby reduce unnecessary or unwarranted calls.

Initially, all phones that now have tie line access automatically will be converted to WATS access. Like tie lines presently, our WATS lines will be available only between the hours of 8:00 a.m. and 6:00 p.m. Unlike tie lines, however, Washington, D.C. will not be accessible over the WATS line service;

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TO: ASRC Staff

E. Barreto	D. Blanchard	B. Bailey
A. Hogan	R. Cipriano	E. McLaren
R. Stewart	B. Vonnegut	J. Jiusto
	D. McClenahan	G. Lala

FROM: Volker Mohnen VAM

DATE: June 7, 1982

RE: Machining Work

Dr. Harry Hamilton has extended to us the use of the departmental machine shop under Andy Landor. The usual procedure is to take over all materials and diagrams for Andy to fabricate what you want done. He will usually indicate a completion date and phone you when the work is completed.

It should be appreciated that the following types of work are inappropriate to the above understanding:

1. Work away from the campus area.

2. Outside consulting work.

3. Mass production of an instrument.

VAM:amp
cc: Dr. Harry Hamilton

Eugene McLaren (320-6109A)
E.S. - 324

all out-of-state calls will have to be made in the traditional long distance method. As a footnote in regard to Washington, D.C., we did examine the traffic patterns and there is no way we can provide an economical alternative to that of straight toll calls at this time.

It is of paramount importance that all managers and telephone users within our departments realize that WATS line usage will not be free. While WATS will be considerably less expensive than tie lines under the anticipated increased rates for long distance calls, you can anticipate on average that you will be billed about 23 cents per minute for WATS usage. You should also realize that WATS service will be substantially more expensive than the present cost of tie lines. WATS usage will be charged to your departmental telephone allocation.

In view of increases in WATS calls it is imperative that managers conserve and control the system. WATS access should be restricted to those lines and phones that must have access and can be controlled. Failure to control WATS usage will result in substantial charges to heavy users and, in the event of state accounts, costs in excess of the amounts that will be allocated for this purpose. Further, since accounts will be charged for actual WATS usage a manager might wish to examine the accessibility of this service within his/her department.

To assist managers in controlling WATS usage, you will receive each month a detailed statement of WATS activity including date, time, destination and cost of call, together with the phone number of the calling party.

Making calls over the WATS service will be slightly different than the routine now used for tie lines, and will consist of the following three steps:

1. Dial the WATS access code: 180
2. Wait for dial tone. (If busy signal, hang up and try again)
3. Dial the desired number as follows:

   Area Code (if outside of 518) + 7-digit telephone number

Information on budgetary allocations to state accounts will be forthcoming under separate cover from the Office of Financial Management. Those departments or offices that have any questions about the telephone system itself, including monthly bills, or would like to make changes to lines or phones with WATS access, are advised to contact Mr. Pat Auricchio (7-7518) in the University's Telecommunications Office.

This is the only distribution of this announcement. Since only managers responsible for the departmental telephone bill are in a position to control your lines and instruments and know your authorized users, we must rely on you to notify your faculty and staff of this scheduled change, its ramifications, and the new dialing procedures.

cc: President O'Leary

36th GASEOUS ELECTRONICS CONFERENCE

11-14 October 1983

Albany, New York

Name _____

Address _____

_____ Zip _____

Please keep me on mailing list for this meeting	☐ Yes	☐ No
I plan to attend	☐ Yes	☐ No
I plan to submit an abstract	☐ Yes	☐ No
If I attend, I will bring my spouse	☐ Yes	☐ No
Please keep me on mailing list for future meetings	☐ Yes	☐ No

Place
13¢
Stamp
Here

DR. G. A. FARRALL
36th Gaseous Electronics Conference
General Electric Research and Development Center
P.O. Box 8
Schenectady, New York 12301

THIRTY-SIXTH ANNUAL
GASEOUS ELECTRONICS CONFERENCE
October 11-14, 1983

Atmospheric Sciences Research Center

GENERAL ELECTRIC
CORPORATE RESEARCH AND DEVELOPMENT

A Topical Conference of
The American Physical Society

Sponsored by:
Atmospheric Sciences Research Center,
State University of New York at Albany
and General Electric Corporate
Research and Development
American Physical Society
Division of Electron
and Atomic Physics

P R E L I M I N A R Y A N N O U N C E M E N T

GENERAL

The Thirty-Sixth Annual Gaseous Electronics Conference will be held on 11-14 October at the campus of the State University at Albany. The meeting is a topical conference of the American Physical Society and is sponsored by the Division of Electron and Atomic Physics.

The Gaseous Electronics Conference invites papers on basic phenomena and collisional and plasma processes in ionized gases. Specifically, the role of such fundamental processes in electric discharges, arcs, gas lasers, high pressure breakdown, switching, plasma chemistry and atmospheric phenomena is considered to be within the scope of the conference.

General Topics

1. Electron Collisions
2. Attachment
3. Photon Interactions
4. Metastables and Excitation Transfer
5. Heavy Particle Collisions and Molecular Interactions
6. Distributions and Transport Properties
7. Breakdown and Corona
8. Glow Discharges General
9. Glow Discharges Boundary Related phenomena
10. Applied Atmospheric Chemistry

Arc Discharges

11. Arc Discharges - General
12. Gas Dynamic and Magnetic Phenomena
13. Electrode Effects and Vacuum Arcs

Laser-Related Topics

14. Laser Discharge Kinetics
15. Self-Sustained Laser Discharges
16. Lasers Sustained by Auxiliary Sources of Ionization

Papers that are devoted to specific devices or engineering applications lie outside the scope of the conference unless the physics of the problem constitutes the major part of the work and is clearly indicated in the abstract. Likewise, collision phenomena concerned primarily with "high energy" (above 1 keV) processes are not regarded as appropriate subject matter for the conference. However, those papers in which "high energy" collisions are important to understanding basic processes of gaseous electronics will be considered.

The Conference Executive Committee reserve the right to limit the number of papers accepted so as to provide for effective presentation within available time. Abstracts submitted must contain sufficient new information to warrant presentation and must accurately reflect the contents of the papers to be presented.

Abstracts of all papers accepted for presentation will be printed in the GEC Book of Abstracts. These abstracts will be published, after the meeting, in the Bulletin of the American Physical Society at the option of the authors. A publication fee of $20 per abstract must be paid by the authors in order to have the abstract published in the APS bulletin.

Regular Papers — Deadline 29 July 1983

Generally about seven minutes of presentation time will be allocated to a "regular paper." The abstract must conform to the rules and format set forth in recent issues of the Bulletin of the American Physical Society. A form is enclosed on which the abstract should be typed; the entire abstract must lie within the blue 12.0 x 10.5 cm rectangle in the lower half of the page. In the upper left part of the page, please type in the name and address of the author to whom correspondence concerning the paper should be directed. It is important that authors indicate the subject category of their papers by circling the appropriate number with black ink in the upper right side of the abstract form. Abstracts should be sent, with a covering letter, indicating the number of abstracts enclosed and their titles to

George A. Farrall
36th Gaseous Electronics Conference
G.E. Research and Development Center
P.O. Box 8
Schenectady, NY 12301

They must be received at the Secretary's address on or before 29 July 1983. Please allow sufficient time for clearance of abstracts and papers for work that is supported by Government agencies. The Executive Committee will return unopened all abstracts received after the date and such papers will not be considered for presentation. You should allow sufficient mailing time.

Long Papers — Deadline 8 July 1983

The "long papers" are reserved for the presentation of noteworthy completed research works of sufficient scope and complexity to require a substantially longer time for effective presentation than that allotted to regular papers. The presentation time for a long paper is about twenty minutes. Authors who wish their contributions to be considered as "long papers" should send to the conference Secretary the following:

(i) An abstract in the same format as described under "Regular Papers".

(ii) A more detailed description of the work typed on one sheet of 21.5 x 28 cm (8 1/2" x 11") paper with a margin of at least 2 cm at the top, 2 cm at the bottom, and 2.5 cm at each side of the paper.

Both the abstract and the one-page detailed description must be received at the Secretary's address on or before 8 July 1983, to be assured of consideration. Please note that this deadline is 3 weeks before the deadline for regular papers. As in the case for regular papers, please allow sufficient time for clearance of abstracts and papers for work that is supported by Government agencies. It is anticipated that only a few will be selected for presentation as long papers. Decisions concerning selection of long papers and allocation of presentation time will be made by the Executive Committee. Abstracts that the Committee cannot include in the schedule for presentation as long papers will be automatically considered for the category of regular papers.

Poster Papers

Most authors will have personally experienced the difficulty of summarizing their data and results in seven minutes. It may be of interest to consider the advantages of a poster presentation. Such sessions have operated successfully at many conferences and are often deemed to be the optimal means for the presentation of results that are rich in important detail. The ambience is less formal and extremely conducive to the exchange of ideas.

The Executive Committee would like to urge your voluntary participation in one or more poster sessions. This year on the enclosed forms for the preparation of abstracts you will notice the option to request a poster presentation. If you feel your material might benefit from the more detailed presentation allowed by the poster format, please indicate this by circling "poster" on the form.

Depending upon the number of request and contiguity of topics one or more poster sessions may be organized to accommodate those requesting placement in such a format.

Workshop

The Executive Committee is making the following arrangements regarding workshops:

1) Formal workshops: Professors Verdeyen and Oskam are arranging a workshop on "Gaseous Electronics Phenomena in Plasma Processing" and Dr. Pitchford and Professor Kundhart are arranging a workshop on "High Pressure Breakdown."

2) Informal workshops will be held to discuss basic processes in arcs and other subjects of interest.

3) A number of small rooms will be available for informal discussions and small workshops. The rooms will be available on a first-come basis, but reservations may be made through the Secretary.

Accommodation/Travel

It is anticipated that it will be possible to house all participants at one of the two contiguous hotels, the Thruway House and the Ramada Inn. To insure that your choice can be accommodated, early registration is advised. In any case reservations must be placed by September 26, 1983. Detailed information regarding room reservations and travel suggestions will be covered in future announcements.

QUESTIONNAIRE CARD

If there is a possibility that you will attend this meeting, please fill out the enclosed card and return it, preferably before 18 May 1983. Subsequent mailings concerning this year's meeting will be sent only to those requesting them via this card or otherwise. If you do not plan to attend this year's meeting, your response to question 5 will help us maintain an appropriate mailing list for future meetings.

GUEST PROGRAM

A program for guests which will feature unique attractions of the area is being planned. In addition, evening entertainment for conferees and guests is being planned.

Instructions for Abstract Format

The abstract should be typed as one indented paragraph, single-spaced, in a column 12.0 cm wide (4¾ in) by not more than 10.5 cm long (4⅛ in). (An outline of the rectangle may be drawn in light blue pencil since the blue lines will not be reproduced in photographic copying.) Do not exceed these margins. This space includes title, authors and their affiliations, footnote references, etc.; in the format shown below. The space allotted corresponds to about a 200 word abstract for elite type.

Indent the first line 8 spaces for later insertion of the abstract number. Begin with the title, using a capital letter to start each significant word, and underline the title. Continue with the name of the author(s) in all capital letters, followed by the condensed name of their institution, underlined and with initial capital letters. Next comes a dash, followed by the text of the abstract.

Skip one line between the body of the abstract and the footnotes. Footnotes to the title and byline are indicated by superscript symbols *†=, and footnotes to the text of the abstract by superscript numbers.

A sample abstract is shown below:

Emission of Free-free Radiation from Electrons in Argon,* C. YAMABE and A.V. PHELPS, JILA, U. of Colorado and NBS --Emission coefficients have been measured for the production of free-free radiation by moderate energy electrons in argon using a drift tube. Independent measurements were made at 0.5, 0.7 and 1.3 μm for $5\times10^{-22} < E/N < 5\times10^{-21}$ V m^2, i.e., mean electron energies between 1.7 and 5 eV. The argon density was 3 to 15×10^{24} m^{-3} and the electron current was 1 to 4×10^{-8} A. The measured coefficients average 15% higher than calculations using cross section formulas of Firsov and Chibisov[1] and 20% higher than theoretical and experimental values of Rutscher and Pfau[2] for a diffuse positive column. The variations of the emission coefficients with argon density and E/N are in very good agreement with calculations for $E/N < 3\times10^{-21}$ V m^2. At higher E/N line emission interferes.

*Work supported in part by Air Force Wright Aeronautical Laboratories.

[1]O.B. Firsov and M.I. Chibisov, Zh. Eksp. Teor. Fiz. 39, 1770 (1960).

[2]A. Rutscher and S. Pfau, Physica 81C, 395 (1976).

THIRTY-SIXTH GASEOUS ELECTRONICS CONFERENCE

11-14 October 1983

ALBANY, NEW YORK

PLEASE TYPE NAME, ADDRESS & TELEPHONE NUMBER

DO NOT WRITE IN THIS SPACE

Serial No. _____

Accepted: Yes _____ No _____

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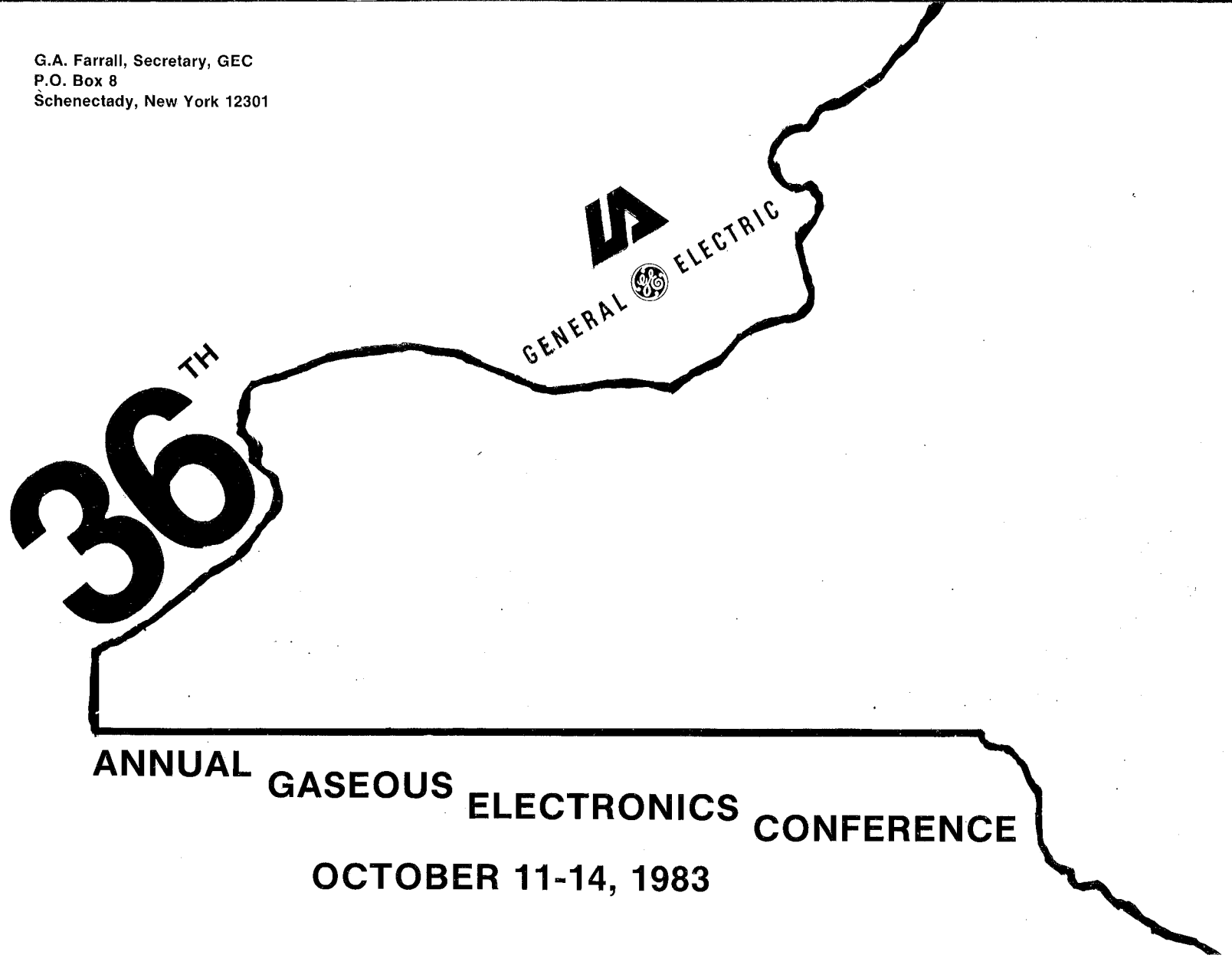


State University of New York
State University Plaza
Albany, New York 12246

Office of the Chancellor

January 27, 1984

Dr. Volker A. Mohnen
Director
Atmospheric Sciences Research Center
State University at Albany
1400 Washington Avenue
Albany, New York 12222

Dear Dr. Mohnen:

Thank you for your letter and the enclosed copy of your 1982-83 report on the Atmospheric Sciences Research Center. It makes interesting and encouraging reading, and I compliment you and your faculty on your stewardship.

I also appreciate your comments on my recent article on international studies. It is particularly heartening to know that the University community is sensitive to the international aspects of disciplines besides foreign language and area studies. It has become a popular cliche to note that the community of scholars is increasingly a global village, but too often taking note of it is as far as we go. Your efforts to integrate an international awareness concretely into the Center's research program deserves recognition as an example to be emulated throughout the University.

Sincerely,

Clifton R. Wharton, Jr.
Chancellor

CAREERS IN SCIENCE

:60 Second PSA

Solving today's environmental problems depends on science. . .Dr. Volker Mohnen is an atmospheric scientist studying changes in the Adirondack Mountains.

We collect clouds here, we collect precipitation,

in an attempt to assess how much pollution-related ions arrive at this sensitive region.

I think our ultimate goal is understanding

where the precipitation quality comes from that we measure here. . .what happens to it on its way from sources to its ultimate sink which is this mountain here or the Adirondacks at large,

and to eventually come forward with a relationship that links sources somewhere in this country

with the receptor areas such as Whiteface Mountain.

Science. . .the key to finding answers to difficult questions. . .and to finding solutions that work.

Consider a career in science.

presented by the ALLIANCE FOR BALANCED ENVIRONMENTAL SOLUTIONS

February 8, 1972

MINUTES
ASRC STAFF MEETING
JANUARY 14, 1972

The meeting was called to order at 12:05PM by Dr. Schaefer. An attendance sheet was circulated. There were twenty members present.

INTRODUCTION

Dr, Schaefer announced that this meeting had been called to initiate long and short range planning for ASRC, to review ASRC from its inception to the present, and to inform the staff members on recent organizational matters. Dr. Schaefer also indicated that he felt there was no emergency facing ASRC and regular staff meetings would help ensure that none develop. He reported that he had had excellent discussions with President Benezet who was pleased with the direction of ASRC.

A brief history reviewing the general trends of ASRC then followed. Dr. Schaefer emphasized that he deplores some of the back-biting and politicking that occurs in some of the other departments of the University and that he will never deviate from the concept of a University whose various members work for the good of the whole. As a group of individualists, ASRC still proves to be a viable group whose real mark of success has been in the members' ability to "scrounge" money. As one goal to keep in mind, ASRC should remain visible to the public and be responsive to ways of improving its public image, such as considering cooperative activities with the community.

In closing, Dr. Schaefer said that he has asked Dr. Mohnen to assume full responsibility within ASRC and that he gives Dr. Mohnen his full support.

Dr. Mohnen then indicated that this was the first of many such meetings and in the future two separate groups would be recognized, the "nuclei" group of ASRC Research Associates and the larger group including joint-appointees.

FUNDING 1967-1972

Mr. McClenahan presented a chart of trends in the budget expenditures of the last 5 years. The chart covered three major areas of spending, salaries, temporary service, and supplies and expenses, and included an analysis of State and Federal money coming into ASRC. Salaries have increased slightly to a present $320,000.00, temporary service has decreased slightly to $30,000.00 and supplies and expenses have remained fairly consistent considering cost increases. Federal grants continued to increase to a present level of $500,000.00 FY 1971 which represents the total active grants in 1971-2. The New York State Air Pollution contract has been factored into this sum of outside money, although the figure represents NSF, ONR, and NIH primarily. It was also stressed that Federal funding may not continue at the present level if no new positions are added to ASRC.

There have been ten basic positions within ASRC since 1967-68 and one Research Associate position is now frozen. The allocation from the State for salaries in 1970-71 was $454,321.00 and the actual expendiure was $320,000.00. The money available for student assistantships depends upon federal funds which averages $60,000.00 per Research Associate. This direct relationship between federal funding and positions should be the basis for fighting for new positions.

REQUESTED FUNDING 1972-73

Dr. Mohnen then presented an explanation of the State salaried positions in ASRC which now total 21 at $454,321.00 (requested) and are hoped to be increased to 25 in FY 1972-73 at $516,474.00 (requested). However, at the time of the meeting, the actual amount requested from the State inFY 1972-73 is unknown. The two major problems facing ASRC in the coming year are 1) unfreeze one position and 2) recover one position. The emphasis of ASRC should be on getting Federal funding through twelve researchers.
Point - Orville: Although ASRC personnel are not totally supported by the State, they are fully salaried with State funds which puts them in a more competative position for Federal funds than other research organizations.
Point - Jiusto: The budget chart should reflect how much State/Federal money is vectored back into SUNYA in student scholarships, tools for students, money into the Research Foundation ect.

Dr. Benezet quoted $3,114,000.00 in Federal money for the SUNYA campus; of this,, 1/6 was raised by ASRC to maintain a good balance between the State salaries and Federal money.

Finally, Dr. Mohnen noted that, in order to change the negative attitude the administration has shown toward the organization, ASRC must become aware of trends within the system and become administratively up-to-date with the specifications of SUNYA administration.

JOINT APPOINTMENTS

In the past 4 years, it has been sufficient for Dr. Schaefer to write a letter of joint appointment or for the President to make appointments on the recommendation of Dr. Schaefer. In that time, several joint appointments have been made and have been considered adventageous because they improve the quality of research. With the increasing emphasis on procedure, it is necessary to reevaluate criteria for such appointments; 2 suggestions were presented to the members for consideration. 1) Such appointments must be beneficial to the person and to ASRC, and 2) there should be a time limit of 3 years with a term appointment signed by the President, Dean Mathews, or the Director of ASRC.
Question - Blanchard: Are there joint appointments with part-time salaries?

No State funds or temporary service money is used for such appointments.

Federal money is the source of joint appointments which relieves such procedure of any criticism.
Point - Kim: Whether or not a joint appointee contributes to ASRC, there is a certain status in the association. He strongly supports the 2 criteria suggested.
Question - McClenahan: Would a committee of Research Associates approve joint appointments in the future?

Such appointments would be made similarly to the other department appointments in SUNY. Senior and Research Associates would have the vote on joint appointments within ASRC but could vote on individual criteria for such appointments.
Point- McLaren: He supports the criteria and further suggests that such appointments be made from the University at large, not just from SUNYA. Also, should the prerogatives of a joint appointee (use of facilities, funding, etc.) be clarified?

It is the privilege of the 12 nuclei people to discuss and decide prerogatives of this kind. At the next meeting of ASRC, only the nuclei people would meet to discuss this. It was basically felt that joint appointees held privileges in research and not in administration.

As a discussion point, it was suggested that a single university title, consistent with the rest of the system, be applied to all joint appointees.

The two suggestions were put to the members as a motion by Mr. Stewart. Mr. Falconer seconded.

The criteria for selecting joint appointees will be:
1) beneficial to the person and to ASRC, and
2) such appointments will be for a term of 3 years and may be reviewed at the end of that term.

The motion was passed unanimously.

It was again emphasized that the reevaluation and refinement of joint appointments would clarify ASRC's active research role and such activity must be SUNY-wide to enhance the image of ASRC.
Question - Baretto: Could industrial research labs also be included in the search?
Point: Lettau: One of the advantages of an appointee is the benefit through association with ASRC.
Point: Orville: Another advantage to the appointee is the subsequent association with NSF.
Question - Lettau: If research is proposed with a member of ASRC, doesn't the co-investigator have to be a joint appointee?

Dr. Schaefer responded that the time will come when we must be more stringent with the facilities and equipment of ASRC as well as our associations. There have been names strongly affiliated with ASRC in the past that are no longer here. What is proposed is essentially a new start with each appointee discussing his own association with ASRC.

GRADUATE STUDENT SUPPORT

ASRC's role in graduate student support, specifically for this summer, is very important. As far as time and money allow, the organization would like to continue its current active support of graduate students. However, it is up to the individual how to spend his grant money; ASRC administration can only make policy statements for the use of summer State funds. It was suggested that temporary service money be given to graduate students from SUNYA only for the summer. The reason for supporting this suggestion was that ASRC must attract attention and one way is to offer scholarships; the goal would be to get one student each from biology, chemistry, and physics to emphasize the interdisciplinary nature of ASRC.

Point - Blanchard: There are currently 44 students supported from various sources within the Department of Atmospheric Science. The bulk of this support is in the form of research assistantships with 19 (almost half) of the students supervised by ASRC personnel. During the summer, the students have the option of continuing their work at $1,000.00; essentially, all take this option. Therefore, ASRC has 19 students doing research during the summer. He strongly supports the summer employment of students, regardless of the major department.

Question - Orville: Why are undergraduates not included in this summer policy?

If we want to emphasize research, we benefit by using a pre-trained graduate. The procedure for selecting such a graduate student is as follows: a letter from the member of ASRC who wishes to have a particular student goes to the appropriate department chairman informing him that a student has accepted summer employment with him.

Point - Kim: The University has considered reducing summer stipends by 1/3 and now is considering a straight cut of $300.00. Of course the department chairmen are fighting this proposal.

Is one graduate from each department guaranteed if ASRC allots all temporary service money to the graduate students?

The nuclei members will vote on this policy at their meeting. The selection of students will be voted on by all. A short intent for research must accompany the presentation of any student for consideration. It was assumed that this policy was accepted by everyone present.

EXPANDED USE OF ASRC FACILITIES AND FIELD STATIONS

Primarily, ASRC would like to see the increased use of the field stations, even by other people when we are not using them. The goal here is to get SUNY groups as much involved as possible. Additional money for these stations is secondary to the image of ASRC increasing the activity of its stations. In the end, each field station will be evaluated by ASRC nuclei and joint appointees. Mr. Falconer presented a rough estimate of expenses and activities at the Whiteface Mountain station. Mr. Stewart gave the figures for operation of the Lake George field station, and Mr. Cheng submitted a report on the microscope work at the Fuller

Road laboratory. The map room facility on the campus is necessary according to Mr. Falconer.

ASRC has been forced to relinquish the guest house due to lack of use. Also, students are not using the many facilities available to them. It was suggested that an "extern-ship" would increase activities at these various stations. Ultimately, ASRC must justify their existence and would hope to make them self-supporting on Federal grants and take them off the State budget. The nuclei group will be encouraged to ask everyone what research can and is being proposed for these facilities. There has been a great deal of misunderstanding to date on the use of facilities, possibly because very few statements have been made on the policy for facility use. There have been accusations of misuse of the facilities none of which have ever been proved.

All personal property now stored in the hangar of ASRC 5 River Field Station must be removed or justified; we cannot risk having rumors of misuse spread. Regarding the recently issued policy statement on the use of State vehicles, all users of State-owned vehicles in ASRC will be required to complete forms on mileage, destination, and purpose of trips made.
Question - Blanchard: Will there be exceptions when private vehicles, planes or other property are used for research?

Of course.
Point - Stewart: He is aware that business phones within ASRC have been used for personal matters.

This indicates another type of misuse of facilities that must not be allowed. Although there are many exceptions to such policy statements, each muct be reported and examined carefully. There again, the nuclei members of ASRC will make final decisions. Only such strict procedures will improve ASRC's reputation. Any exceptions that are made will be reported to everyone. In addition, any joint research done with a joint appointee must explain any deviations from the normal procedure.

Point - McClenahan: Telephone costs have been in excess of $100,000.00 for this past year; such a figure demands a drastic change, such as departments paying toll calls charged to supplies and expenses.
Point - Orville: He does not feel that requesting money from Federal sources for phone expenses is out of order.
Point - Schaefer: Since ASRC does not request salaries for principal investigators, why not request phone expenses. We should be doing all NSF allows to get funds.

The members present were advised that the next meeting of ASRC nuclei group would be announced and that the minutes of this meeting would be submitted to all present today for approval. The meeting was adjourned at 2:20 PM.

Respectfully submitted,

Catharine Owen

Catharine Owen

ATTENDANCE for meeting of 14 January, 1972

Vincent J Schaefer

Volker Mohnen

J. S. [illegible]

N. R. Gokhale

E. BARRETO

James Jiusto

Eugene McLaren

J.A. Rich

Roger J. Cheng

Alfred Hulstrom.

Bernhard Lettau

James A. Coburn

D.C. Blanchard.

[illegible]

Raymond E. Falconer

David J. Michalsky

Richard E. Orville

Carl Ketcham

[illegible]

Catharine Owen

WORKING DRAFT

5/5/94 & 7/15/944 (JMS)

EXHIBITS FOR

ATMOSHPERIC SCIENCES RESEARCH CENTER FIELD AND LABORATORY EXPERIMENTAL DISCOVERIES

Background

The Atmospheric Sciences Research Center, begun in 1961, was the home base for a wide variety of field and laboratory experiments. Scientific activities were stimulated by several individuals in association with the late Vincent J. Schaefer (1906-1993).

A display of instruments, photographs, descriptions and publications of these scientists during the early years of ASRC is being arranged for historic and educational purposes. An area approximately 200 sq ft has been identified at ASRC on Fuller Road facility in Albany to display these seminal works.

Below is a preliminary list of possible exhibit topics and available materials to initiate the effort. These ideas have been discussed by Bernie Vonnegut, Eugene MacLearn, Duncan Blanchard, Ray Falconer, Oscar Lanford, Roger Cheng, Susan Schaefer and James M. Schaefer.

Weather Modification Vincent J. Schaefer

[Method: Field Observation; Laboratory Model; Field Demonstration]

Display Equipment: Original GE cold chamber in which the laboratory discovery was made in 1946. Seeding chute from plane.

Publication: Reprint of "The production of Ice Crystals in a Cloud of Supercooled Water Droplets" Science, November 15, 1946, Vol. 104, No. 2707, pages 457-459.

Photographs:
1. Schaefer, Langmuir and Vonnegut over cold box.
2. "Racetrack" of modified clouds after seeding.
3. Schaefer dropping dry ice into chute inside plane.

Description of discovery: From unpublished biography of VJS or numerous papers on topic.

ASRC Link **Yellowstone Field Experiments**

Snowflake Replication Technique Vincent J. Schaefer

[Method: Field Observation & Outdoor Laboratory Experiments to Indoor Laboratory]

Equipment: Snowflake capturing kit with velveteen tray, slides, Formvar bottle, dropper, glass wand.

Publications: Ice crystal replication technique description in Science, 1941, Vol. 93, pg. 239 & Nature, 1942, Vol. 149, pg. 81.

Photographs: 1. Schaefer at table outdoors collecting snowflakes from VJS biography.
2. Cheng at microscope
3. Snowflake photomicrographs

Graphics: Description of Formvar discovery: From unpublished biography of VJS.

ASRC Link **Schaefer & Cheng publication on electrically charged ice particles and ice multiplier effects corroboration at MIT & Russia**

Global Survey of Aerosols Vincent J. Schaefer

[Method: Field Observation, Field Experimentation and Laboratory Experiments]

Equipment: Kit for air sampling & reaction solutions
Gardner Counter
Aitken Particle Counter

Photographs: Schaefer at lava caves in Northern Arizona
Schaefer & Falconer at Whiteface Mtn.

Publication: Copy of "A Global Survey of Air Pollution" ASRC Publ.

Descriptions and Graphs showing patterns of "clean" and "dirty" air.
Personal notes and quotes from VJS Logs for Kaparowitz Project.

ASRC Link Acid Rain studies and global warming research.

Nat~~ional~~ Science Institute Vincent J. Schaefer

[Method: Classroom lectures, Field & Laboratory experimentations.]

Photographs of groups of students and indivuduals in one on one photos with mentor(s) at project sites.

Map or chart of site locations for NSI projects (Whiteface Mtn. Fleischmann Hall, Flagstaff, AZ, Fredonia, NY Campus, Durango, CO, Windsor, CT. etc.

Exhibit workbooks of students and final reports.

ASRC Link University Educational Program

James M. Schaefer, Ph.D.

39 Schermerhorn Road, RD#3
Schenectady, NY 12306-9801
518/393-8978 vm 518/374-6882 fax

January 25, 1994

Steve DeLong, Ph.D.
Executive Vice President
S.U.N.Y. at Albany
Administration Building
1400 Washington Ave.
Albany, NY 12203

Dear Vice President DeLong:

I am writing regarding the status of plans for the new building for Atmospheric Sciences Research Center at S.U.N.Y./ Albany.

I think some space needs to be set aside in that building for permanent display of several historically important scientific discoveries by atmospheric science pioneers, such as my late father, Vincent J. Schaefer, who helped establish ASRC as an institution on the Albany campus.

Since my father died this past summer the family has been transferring archival materials to the University at Albany Library. His gift agreement excluded laboratory equipment, some of which has significant scientific and historic value. For example we have equipment through which my father discovered the 'cloud seeding' principle, invented snowflake replication, as well as the W.W.II smoke generator, and researched global air pollution. His scientific colleagues with whom I've consulted all agree that a permanent display of this scientific equipment would be of great educational merit and adequate space needs to be secured.

It is my view that a room for **"Cloud Seeding" and Other Atmospheric Science Experiments of Vincent J. Schaefer** needs to be provided in the new building.

I would like to hear from you about this idea.

Sincerely,

James M. Schaefer, Ph.D.

cc: Jean Gullahorn, Ph.D., Vice President for Research
Bernard Vonnegut, Ph.D. Professor Emeritus
Garland Lala, Ph.D., Director, ASRC
Susan Schaefer Sullivan & Katherine Schaefer Miller

MINUTES OF THE MEETING
Department of Atmospheric Science
Sept. 2, 1992

Present: Bosart, Czapski, Demerjian, Idone, Keesee, Keyser, Knight, Loesch, Mohnen, Molinari, Scott and Vonnegut.

The sole purpose of this meeting was to discuss plans for the new building (the Center for Environmental Sciences and Technology Management) for which funds were approved by the N.Y. State Legislature over the summer.

The DAS convened at 4:04 P.M. with the introduction of Vice President DeLong who was asked by J. Scott to review the latest plans and news. The original bill was for $12,000,000 and $10,000,000 were approved for building construction. A major fund raising effort is being organized by Victor Riley of KeyCorp to equip and endow the Center (the goal being about $2,000,000). The chance that the funding for construction will start in the next fiscal year (July 1993) is about 80-90%. Therefore, we will need to have the broad design features of the building quite soon and planning should start in the next month.

The building size will now be 75,000 square feet (gross) in three stories. There is no official word that the Weather Service will be housed in or near the building, but President Swygert has been working on this prospect at a high level in NOAA. There will be no problem accommodating an attached NWS building.

DeLong answered concerns expressed by various DAS members including issues about "guaranteed" space, classrooms for teaching and building architecture. He emphasized that the new building will be a "showpiece" structure and will house "state of the art" research and teaching facilities. Many members of the business community have given strong support to the building as you have read in letters from President Swygert and Ron Hoskins and in the news.

After VP DeLong's departure the DAS discussed ways to coordinate planning for space in the new building. Volker Mohnen proposed that a formal vote be taken that the DAS move to the new facility. The resolution is: "The DAS welcomes the opportunity to move to the new building (Center for Environmental Science and Technology Management) and will enter into the planning, in cooperation with the ASRC, so that the two groups will effectively utilize the new space". The resolution was seconded by Dave Knight and was approved unanimously after a brief discussion.

Ken Demerjian suggested that it would be best if the DAS and ASRC work separately on planning for space and that a DAS space committee be appointed to start gathering ideas. He suggested that the breakdown of considerations by this committee be in three categories including (1) individual faculty space requirements, (2) DAS teaching requirements and (3) general purpose space including other users. Dan Keyser asked if Meso Inc. would be coming into the building and Ken thought that they would not likely be considered a good fit for the building (Technology Management etc.) concept.

J. Scott asked Lance Bosart, Vince Idone and Bob Keesee to serve on the DAS new building space committee and that they start coordinating DAS needs for space very soon. All agreed and Lance agreed to serve as chair of the committee.

The meeting was adjourned at 5:10 P.M.

Respectfully Submitted
J. T. Scott

UNIVERSITY AT
ALBANY
STATE UNIVERSITY OF NEW YORK

Department of Atmospheric Science
518 442-4556

Earth Science 218
Albany, New York
12222

MEMORANDUM

Nov. 7, 1990.

TO: Jeanne E. Gullahorn, Acting Executive Vice President for Academic Affairs.

FROM: Kenneth L. Demerjian, Director, Atmospheric Sciences Research Center.
Jon T. Scott, Interim Chairman, Department of Atmospheric Sciences.

SUBJECT: Response of ASRC-DAS to the consultants (F. Baer and R. Duce) on improving academic programs in atmospheric science at SUNYA.

Enclosed please find our joint Atmospheric Sciences Research Center and Department of Atmospheric response to the consultant's report of July 30, 1990 regarding the improvement of programs in Atmospheric Sciences at the University at Albany. Over the past two months our meetings and discussions of the future of Atmospheric Sciences in Albany have proved to be most fruitful and revealing and we believe we have met the consultant's challenge in an appropriate manner.

In our response, and executive summary, we review our deliberations and present a proposal for implementing a "joint strategy plan" suggested by the consultants. We hope that our report will further your understanding of the history of these two groups and how we might improve our academic programs. We point out at the outset that we in ASRC and DAS have always preferred to be called the "Atmospheric Sciences Group" of SUNYA and, therefore, that steps to improve the working relations between the two separate units does not come unwelcomed.

cc: D. Wulff
S. DeLong

IMPROVING ATMOSPHERIC SCIENCE PROGRAMS AT SUNYA
Executive Summary

The accompanying report discusses the history of academic programs in atmospheric science at SUNYA, organized jointly by the Department of Atmospheric Science (DAS) and the Atmospheric Sciences Research Center (ASRC). The emphasis in this report is on how these two groups responded to a recent review of two outside consultants, F. Baer of the Univ of Maryland and R. Duce of the Univ. of Rhode Island (BD). BD recommended that, with greater cooperation between the two units, the SUNYA academic program could become a national leader in the atmospheric sciences by implementing a "joint strategy plan". Since receiving the BD report in early August of 1990 the DAS and ASRC have met, formally, five times and have held innumerable informal gatherings to discuss the ramifications of a such a plan and how it might be implemented given the different histories and separate administrative structures of ASRC and DAS. In this executive summary we sketch our response to BD and its rationale.

The emphasis of the BD report was that the SUNYA academic potential was larger than now exists, because joint efforts between the two units could, and should, improve our academic program. They point out that the combined strengths of ASRC and DAS would add up to a program which is highly visible and contains the same themes as recognized in a recent NSF-UCAR report: "The Atmospheric Sciences - A Vision For 1989-1994". BD recommend the use of joint appointments between the two units to bring about more cooperation on academic (and research) programs.

Although the DAS and ASRC have cooperated on academic programs for twenty seven years via Adjunct Appointments of various ASRC personnel in the DAS the use of joint appointments was never formalized to optimize the academic performance of the DAS. After realizing that we would not be able to implement the specific kind of joint appointments suggested by BD without changing the administrative structure of the two units we devised a plan for two types of appointments which would be differentiated by the intensity of interest and commitment to academics. These would be the Joint Appointment in Atmospheric Sciences and the existing Adjunct Appointment. The fundamental difference (Section V of the report) is that the Joint Appointees would be involved in organizing the academic program and would vote on academic matters by becoming members of the Faculty of Atmospheric Science (FAS). They would vote on all matters in the DAS except those dealing with tenure and promotion, hiring and firing, although their advisory votes would be tallied on such matters. The Adjunct Appointees would teach courses and be involved on the committees of the DAS, but would not be voting members of the FAS.

After the concept of Joint Appointments was resolved we agreed upon a general plan for the academic program which would contain four "sub-programs" having some degree of autonomy. These would be (1) Synoptic-Dynamic-Mesoscale Meteorology, (2) Atmospheric Physics, (3) Atmospheric Chemistry and (4) Global and Environmental Systems. At our final meeting on this broadening of our program we identified four persons from ASRC who should be involved at the Joint Appointment level (Chang, Fitzjarrald, Lala and Wang). These we suggested be given titles of Senior Research Professor which is in line with our former title of "Research Professor" for the Adjunct positions. We also identified three persons to serve at the Adjunct level (Harrison, Schwab and Walcek). They

already have titles of Research Professor. The expertise of these ASRC personnel in teaching and student advisement would give the FAS a "critical mass" in each of the four sub-programs. We also determined that all of the present DAS faculty could provide needed expertise in some of the present ASRC research activities and meetings are underway to discuss research collaboration. Steps are being taken to offer DAS faculty titles in ASRC as Research Associates or Senior Research Associates. Two members of DAS (Czapski, and Scott) would have titles in ASRC upgraded to "Senior Research Associate" and the same appointment would be offered to Professors Bosart, Keyser, Loesch and Molinari. Professors Demerjian, Mohnen and Kim already have titles in ASRC and Professor Knight would be offered the title of "Research Associate".

With the creation of the Joint Appointment title for atmospheric scientists and the definition of the Faculty of Atmospheric Sciences we believe that we can implement our plan to strengthen the academic program at Albany. Since our discipline is growing rapidly and becoming more influential to Government policy we feel that we serve the State and Nation well to increase our visibility. Although we believe that our present program is quite strong, with renewed cooperation, coupled with the retention of our turnover and GRI lines, we can become one of the world leaders in the in our discipline in a reasonably short time. We urge President Swygert to take the necessary steps to help us in this endeavor.

IMPROVING ATMOSPHERIC SCIENCE PROGRAMS AT SUNYA

"Collaboration is a sensitive merging of egos.
It is a journey toward a finished product
that one hopes will be satisfactory."
(Borrowed from D. Knight as "Anonymous".)

I. INTRODUCTION

The purpose of this report is to propose a method by which the programs in atmospheric science at SUNYA might be improved with some changes in the existing structure. The two separate groups representing the atmospheric science as a discipline are the Atmospheric Sciences Research Center (hereafter ASRC) and the Department of Atmospheric Sciences (DAS). They have existed at SUNYA without major changes since 1962 soon after SUNYA became a University Center. Those associated with either group prefer to be called, informally, the "Atmospheric Sciences Group" of SUNYA. We discuss herein the history of these two groups, highlights of a recent external advisory report by two atmospheric scientists, how the ASRC-DAS responded to the report of these consultants, our proposal and recommendation on how we think we can improve our program in the study of this expanding field of knowledge.

II. A BRIEF HISTORY OF ASRC-DAS.

The ASRC was formed at SUNYA in 1961 by the urging of Oscar Lanford, then Dean of the College of Arts and Sciences, who asked Vincent Schaefer to join the faculty at SUNYA and to help organize a program in atmospheric science. Schaefer had spent many productive years in atmospheric research with Irving Langmuir and others at the General Electric Research Laboratory in Schenectady. Vince presented his arguments to various state budget committees that a research-oriented center would be an asset at a University Center and he succeeded in convincing them that a significant number of state-supported research lines would not only produce productive research, but would help the State of New York in certain aspects of applied research. In the beginning the ASRC had statewide responsibilities and, for example, was mandated to cooperate with all units of SUNY. After some time this became impractical and the ASRC became attached to the University at Albany with only minor affiliations to other SUNY units.

Soon after ASRC was formed Schaefer and Lanford (the first official Director of ASRC) and the Associate Dean of Science and Mathematics, Eugene McLaren (the second Director) helped establish a Department of Atmospheric Science which would cooperate with ASRC, but whose main mission would be to organize and operate graduate and undergraduate programs (only at SUNYA). Narayan Gokhale, a cloud physicist like Schaefer, was hired in 1962 as the first Chairman of DAS.

The two groups were separate and distinct in their missions. The ASRC reported (and still does) to the Vice President for Research and all the senior level positions are designated "Research Scientist". For most of the intervening years these lines were "Non-Teaching Professionals" and the teaching of courses or administration of academic programs was never officially a part of their duties and responsibilities. On the other hand those hired in the DAS were under the usual rubric of academic positions with duties to teach, undertake research,

help administer academic programs and participate in university or community service. The Chairman of DAS reported to the Associate Dean of Science and Mathematics (when the College of Arts and Sciences was one entity) and now reports to the Dean of the College of Science and Mathematics who reports to the Executive Vice President for Academic Affairs.

Over the past twenty eight years the distinction between ASRC and DAS was never clear to the general public, others at SUNYA and possibly even to members of the two groups. For example, when a professor in another department would ask a member of DAS his specialty he might say: "Oh you're with ASRC?" (and vice versa). Despite the fact that they have usually been housed in different buildings the relationship between the units became more intimate. This was because more of the ASRC scientists became involved in teaching, advising of graduate students and even, in some cases, the teaching of undergraduate courses. In addition, many of the members of the DAS participated jointly with ASRC scientists in research projects often with great success.

Despite the increase in cooperation between ASRC and DAS appropriate procedures by which the ASRC scientists would be recognized for their efforts in helping with the academic programs and students of the DAS was never formalized. We simply agreed that it was generally a good thing for ASRC members to participate in the DAS programs and saw no need for documenting the specific duties, responsibilities and privileges of such an arrangement.

In all academic departments at universities differences of opinion on how to implement such things as the content, requirements, examination procedures etc. of the program results in some difficulties and dissension. When the program is organized by two different units reporting in two different administrative channels of a university it should be expected that such differences of opinion might be magnified. We in the "Atmospheric Science Group" do not feel that we have, in any way, run into difficulties which go beyond those of any typical academic department at SUNYA. Nevertheless we have had some problems concerning the administration of academic programs which need to be resolved. This may have led to the consultation of two external reviewers, F. Baer and R. Duce (hereafter BD), who reported to President O'Leary on July 30, 1990 after a visit with the ASRC-DAS a week earlier.

III. MAJOR POINTS OF THE CONSULTANT'S REPORT.

The report submitted by Professors F. Baer and R. Duce (BD) contains some cogent advice to the ASRC-DAS group which might not be obtained from within SUNYA. BD emphasize that the SUNYA programs in Atmospheric Science might not be as highly recognized as the potential exists given the financial support provided to the two units. They state that it is the academic programs which are of most concern since the research accomplishments of the ASRC and DAS are recognized internationally. They point out that realization of the true potential of our support by members of the two groups could "catapult the atmospheric sciences program at SUNY to the top in a very short period."

BD point out that although the missions of the ASRC and DAS are different that "both the Department and the Center at SUNY Albany can and should contribute to the academic enterprise...to optimize their training potential and their scientific productivity". They point to the need for training and research in fields such as synoptic/dynamic and mesoscale meteorology, global environmental

change, atmospheric chemistry, atmospheric physics and solar energy, all of which have been traditional strengths of the atmospheric science group at SUNYA. We note that these programs are given high priority in the NSF-UCAR report "The Atmospheric Sciences - A Vision For 1989-1994" mentioned by BD.

Some specific recommendations were provided by BD. They suggest that the ASRC-DAS and the SUNYA administration outline a "joint strategy plan" which will speed the process of improvement in academic programs. They recommend that joint appointments be established for candidates acceptable to both organizations and that such candidates be subject to the full duties and have full privileges in both organizations including the voting on tenure and promotion. When questions arise about joint appointments between the two units, BD suggest that external guidance should be sought, if these cannot be handled internally. BD recommend that the ASRC and DAS be housed in one location and that the assigning of FTE loads to the research scientists of ASRC, when they participate in the activities of DAS, should not affect the present support level of either unit. Lastly, BD recognize that there is a current leadership vacuum in the DAS and, they feel, that a DAS Chairman should be recruited from outside of SUNYA.

IV. THE ASRC-DAS RESPONSE.

After receiving the July 30,1990 (BD) report from Professors Baer and Duce President O'Leary referred it to Jeanne Gullahorn, Vice President for Research (now Acting Executive Vice President for Academic Affairs) who asked Kenneth Demerjian,the Director of ASRC and at the time also the Chairman of DAS, to respond by early September. It proved to be difficult to produce such an early response since many ASRC and DAS members were involved with summer field research, research meetings or on vacation and it was next to impossible to get a significant number of persons from the two units to any meeting. It was suggested that the two groups meet for a "retreat in August to come up with a "joint strategy plan" along the lines suggested by BD. This proved impractical and it was decided that each group would meet separately in August with a joint meeting sometime in September when classes would resume. There were quite a few memoranda which were circulated and although formal meetings were few there was plenty of discussion.

The DAS met for one full day on Aug. 15, 1990 to discuss the BD report and attempt to implement the "joint strategy plan" particularly with regard to the joint appointments and the current problem of DAS Chair. The joint appointment plan outlined by BD was accepted with some specification of the duties, responsibilities and privileges of ASRC members who would participate in the academic programs of DAS. The BD recommendation that such joint appointments vote on tenure and promotion in both units was accepted. It was decided that the DAS would be able to find an acceptable DAS Chair from within, but that a request be made for a top person in Atmospheric Physics who might serve as Chair at a future time.

A response by the ASRC on how the DAS reacted to the BD report was not formalized because most in ASRC did not think that the plan for joint appointments could not be implemented. On Sept. 12, 1990 Ken Demerjian outlined the difficulties of such joint appointments to ASRC-DAS in a memo stating that persons with joint appointments would be subject to "double jeopardy" in tenure and promotion decisions and that if research lines of ASRC were to be converted to academic lines there may be additional losses at times of budget difficulties

because the FTE loading of the DAS may be inadequate. Moreover some pointed out that there would be conflict in such lines regarding how the union (UUP) defined the duties and responsibilities and procedures for granting tenure and promotion.

In this same memo of Sept. 12, 1990 Demerjian pointed out that a resolution to the joint appointment problem might reside in the new procedures for the School of Public Health (SPH). The SPH invites scientists from various agencies such as the N.Y. State Department of Health to become Professors at various levels with both "unqualified" and "qualified" appointments. The level (rank) is generally governed by the rank of the appointee's primary institution.

At the regular DAS meeting on Sept. 12, 1990 the subject of how to implement the BD report on joint appointments was discussed with the ASRC Adjuncts (those who now participate in DAS affairs) attending. Four different modes of implementation were discussed including: (A) the existing method of Adjunct Appointments in Atmospheric Science, (B) the DAS proposal which was an attempt to apply the BD suggestion literally, (C) the SPH model and (D) larger models such as "School of..." in which the DAS and ASRC would be housed under the same administration.

Most thought that, if possible, we should go beyond mode (A) and that the joint appointment method suggested by BD (mode B) was too difficult to implement and that we not, at this time, re-structure the administration of the two units (D) if a possibility exists to obtain a smooth arrangement for handling academic affairs with a strong input from ASRC. Thus we decided to hold a special meeting to see if the SPH model (C) could work in our situation and a meeting was called for Sept. 19.

At the Sept. 19 meeting (16 in attendance) each member of DAS and ASRC was asked to express how they felt about: (1) whether we should have one or two kinds of appointments for the ASRC researchers who want to participate in academic programs, (2) what should be the duties and responsibilities of the appointees and should these be fixed or negotiated on an individual basis, (3) what privileges should be granted the appointees (including who votes on hiring, firing, tenure and promotion).

As each person stated his opinion on these items many other problems surfaced relating to cooperation in academics. These dealt mainly with questions such as: how should appointments be initiated, how should ASRC people be rewarded for their service in the DAS, how much external advice would be required before appointments are granted, if a type of appointment were formed with a lot of duties and responsibilities should this be routinely offered or only to a few, should the higher responsibility appointments only be offered to tenured ASRC researchers, should there be reciprocity of appointments? None of these were resolved, but it was suggested that if a plan were drafted that the ASRC-DAS group could reach consensus on these questions.

There was consensus (perhaps unanimity) that the ASRC researchers should participate in DAS academic programs. There was consensus that the Atmospheric Sciences Group should be housed in the same building, but some minority voice that, if good will could be maintained with some routine procedures, even separate housing could work. A strong voice was heard (perhaps consensus) that the integrity of ASRC should be maintained, that the flexibility of its research capability was desirable, that its success in attracting research funding was due

to its unique design ("not many universities have something like a mini NCAR") and should not be changed, and, that it is a good place for people who were inclined somewhat more toward research than academics.

Regarding the first point about the nature of joint appointments (1 above) there was consensus that there be two types, one for those who would only participate in a minor way in academic affairs and those who desired a strong voice on academics. The minority was not vocal, but merely felt that one kind was enough for their purposes. Many ASRC researchers thought that they did not desire a great involvement in academics.

Several in DAS suggested that the duties and responsibilities (item 2) of the appointees be somewhat fixed or at least that guidelines be established although some strong opinions were voiced that duties and responsibilities should be negotiated. Some stated that the responsibility of teaching was also a privilege and that such things are not distinct.

Consensus was easily reached that decisions on tenure and promotion, hiring and firing and such things remain within each unit, but that reciprocal advice be sought on such matters. No one in ASRC thought that they needed to vote on tenure and promotion in the DAS and the reverse was true.

It was decided that a plan for implementing the SPH model for joint appointments be drafted and a draft report to President Swygert be written and presented to the ASRC-DAS group as soon as possible. This was accomplished on Sept. 27, and a meeting was called for Oct. 3, 1990 to discuss this draft report. The main item of discussion was the proposal for providing Joint Appointments for members of ASRC, or other agencies, who would participate in academic matters of DAS. This is presented in Section V below.

V. JOINT APPOINTMENTS IN THE DEPARTMENT OF ATMOSPHERIC SCIENCE AT SUNYA.

In consideration of the foregoing we propose that major improvements in academic programs in atmospheric sciences at SUNYA can be made by implementing one fundamental change in our current procedures. We propose to add a second kind of appointment for ASRC researchers who will be involved with DAS programs. We term this the "Joint" Appointment. While this kind of appointment is designed especially for those in ASRC it might also be offered to appropriate atmospheric scientists in other agencies following the model used for implementing the programs of the School of Public Health. This kind of appointment will have duties, responsibilities and privileges which generally go beyond our present "Adjunct" appointment under which ASRC members (and others in State agencies) have participated in DAS academic matters in the past. The two types of appointments are defined in the following along with our proposed definition of the "Faculty of Atmospheric Sciences".

A. The Joint Appointment in Atmospheric Sciences is intended for those in ASRC (or other agency) who will participate at a relatively high level in organizing and implementing academic programs in the atmospheric sciences at SUNYA. The appointment process may be initiated by a member of the Faculty of Atmospheric Sciences (FAS), the Director of ASRC, or the Chairman of the DAS. It is granted by approval of the FAS and, if approved, the Joint Appointee becomes a member of the FAS.

The term of the Joint Appointee and his/her duties and responsibilities are subject to negotiation between the ASRC Research Scientist (or atmospheric scientist from another agency), the Director of ASRC (or other agency) and the Chairman of DAS who, together, will outline a program of participation for the proposed Joint Appointee which is then approved by majority vote of the FAS. In general, it is expected that each term of appointment be at least three (3) years and that the duties include, but may not be limited to, the participation in all DAS activities, teaching of one or more of any of the DAS courses per year, as appropriate and as designated by the Chair of DAS, advising of graduate and undergraduate students and serving on one or more of the committees which govern academic affairs in the DAS. Joint Appointees will have full voting privileges on all academic matters, but will not vote on tenure and promotion of members of DAS. They will, however, be asked to advise the FAS on matters of tenure and promotion.

B. The Adjunct Appointment in Atmospheric Sciences is intended for those in ASRC (or any other appropriate agency) who will teach one or more courses in the DAS and participate in academic matters. The course(s) to be taught and the term of appointment are negotiated between the prospective appointee, the Chair of the DAS and the appropriate administrator of the prospective Adjunct's agency and are subject to the approval of the FAS. Adjuncts are not members of FAS, but they may serve on any of the DAS committees and otherwise participate in DAS academic affairs. They vote in committee, but not on the larger policy issues which come before the FAS. In general, the term of appointment is three (3) years and, usually, one course per year is taught by the Adjunct Appointee. Adjuncts are encouraged, strongly, to advise and support graduate and undergraduate students.

C. The Faculty of Atmospheric Sciences. The FAS includes all members of DAS and all members of ASRC (or appropriate agency) who have Joint Appointments in DAS. Those with Adjunct Appointments will not be voting members of the FAS, but may participate in DAS activities as appropriate to DAS and ASRC activities.

VI. IMPLEMENTING THE "JOINT STRATEGY PLAN" FOR IMPROVEMENT OF THE ATMOSPHERIC SCIENCE ACADEMIC PROGRAM.

At the Oct. 3, 1990 DAS-ASRC meeting a proposal for implementing the "joint strategy plan" was brought forward. The basic ingredients were that the DAS offer four graduate "sub-programs" (concentrations which have some degree of autonomy) including (1) Synoptic, Dynamic and Mesoscale Meteorology, (2) Atmospheric Physics, (3) Atmospheric Chemistry and (4) a new sub-program entitled "Global and Environmental Systems". The latter would make use of our existing capabilities in teaching and research in sub-disciplines such as air pollution, climate modeling, acid deposition studies and modeling, hydrometeorology, climatology, solar and atmospheric radiation, biogeochemistry, oceanography, bioclimatology, applied solar energy, remote sensing and courses from other departments such as Geography, Geological Sciences, Biological Sciences and Public Affairs. There would be strong ties with the other three sub-programs and some suggested that the Global and Environmental Systems sub-program would serve as a receptor of courses and ideas from our other strengths; it would be a "synthesizing" group of faculty and students on environmental problems and global change.

There was consensus that a concentration in global and environmental systems be developed and such a sub-program was approved by the DAS faculty on Oct. 22, 1990. The feeling of most, if not all, of the ASRC-DAS group members was that, with four programs and good advertisement, we could grow from our present 50 graduate and undergraduate students (each) to about 80-100 each in about five years and a plan to renew vigorous recruitment at undergraduate physics, mathematics and engineering departments was discussed. A revised, brochure-poster to aid in the recruitment of new graduate students has been in preparation for some time and should be finished in time for advertisement in December. In the meantime several excellent graduate student applications have been received from students interested in atmospheric chemistry and global environment.

We are contacting 143 undergraduates from over the entire U.S. students who have obtained high SAT scores who expressed an interest in atmospheric science as a major. We plan to step up local and N.Y. State high school recruitment.

A final discussion of the implementation of the "joint strategy plan" was held by DAS on Oct 22, 1990 to determine how the needs of the four sub-programs would be met. Four ASRC Research Scientists were identified to be invited at the "Joint Appointment" level and three (without tenure) would remain at the Adjunct level. The DAS would then have "critical masses" in all four sub-programs. At the same meeting the subject of reciprocity was discussed and it was agreed that DAS faculty should be offered the title of Research Associate or Senior Research Associate in ASRC to collaborate in areas of joint research interests.

At the Oct. 22 meeting several of the minor BD points were discussed including development of a visiting professor program and increased visibility of our seminar series. It was agreed to offer Marx Brook the title of Visiting Professor. Marx is an internationally known expert in atmospheric electricity who has worked for several years with several of our faculty and will collaborate with members of our lightning group. To increase the effectiveness of our weekly seminars each DAS member was asked to invite one seminar speaker over the next year.

VII. DEPARTMENT CHAIR

Upon Professor Demerjian's request to step down as DAS Chair effective Sept. 1, 1990, a full consensus on the DAS-ASRC response to the BD report was still under development. In addition, one of their recommendations pertained directly to chairing the DAS. It was therefore the consensus of the faculty and with the approval of the Dean of Science and Mathematics that an interim chair be appointed, until all aspects of the BD report had been addressed and appropriate discussions completed. Professor Scott was identified and agreed to serve as interim chair, and Professor Demerjian agreed to work closely with him to provide both continuity in the transition and help with the development of the BD response. For the past two months Professor Scott has performed his duties well and has taken the lead in developing the DAS-ASRC coordinated response to the BD report.

Based on the demonstrated performance of Prof. Scott over the last two months and the exceptional commitment and enthusiasm he has brought in chairing the department, the faculty would like to recommend that he be made permanent Chair for the standard three-year term. During this time the DAS would like to recruit a faculty member, with chairperson potential, but who would be given the

opportunity to establish his/her research program prior to committing to chairing the department.

VIII. CONCLUSIONS AND RECOMMENDATION.

We conclude that for the indefinite future the DAS and ASRC can, and should, resolve the problems of joint participation in the academic programs in atmospheric science at SUNYA as suggested in the BD "joint strategy plan". We find strong consensus that some modification of the School of Public Health model of implementing joint appointments, as outlined in Section V above, would work in our unique situation and should be put into action as soon as possible. While the wording we use may not satisfy current SUNYA administrative protocol we believe that the details of our proposal can easily be altered to conform to the protocol without changing the spirit of our plan.

We urge, very strongly, that President Swygert take steps to implement the Joint Appointment title and the concept of the Faculty of Atmospheric Science. With these important steps taken we, in the DAS and ASRC, believe we can leap into the first rank of Atmospheric Science Programs in the world in a rather short time.

Aug 3 1990

To Members of A.S.R.C.

It has come to my attention that some of the recent additions to our Staff are not aware of the early history of ASRC and the basic philosophy which has governed us for nearly thirty years.

ASRC was initially formed to encourage basic and applied research in the Atmospheric Sciences. At that time even the term was new, Meteorology having been the term used for a long time.

We envisaged becoming involved in many new activities ranging from air quality and air chemistry, to weather modification, solar energy, mountain weather, meso-meteorology, cloud physics and thunderstorms.

Our initial staff was assembled based on excellence. I sought the very best scientists I could attract to Albany and was not unduly concerned about their current interests. I had observed at the G.E. Research Laboratory (on which ASRC was modeled) that top people were highly adaptable and could be depended on to make

major contributions to knowledge no matter what their current interests might be.

When I was initially called before the Budget people in the State Legislature to state my needs and purposes I was very frank with them and told them if they would give us line items of substantial salaries I would not ask them for equipment money or assistance to graduate students. I was confident that the kind of scientists I sought to hire could obtain public or private funding for whatever they needed.

A.S.R.C. was never planned as a teaching Center. To fulfill that need within two years we formed the Department of Atmospheric Science to take care of this activity. As soon as it was established and functioning we arranged to have members of the ASRC Staff available to them by invitation of their Faculty. However at no time was it a requisite for members of the ASRC Staff that they teach. This informal arrangement worked extremely well since such a mechanism

gave the ASRC Staff member a contact with Graduat Students, many of whom elected to obtain their advanced degree with ASRC on a subject not available from their own Faculty.

It was always recognized that all ASRC Staff members had the privelege of spending a day a week on consulting work in public or private organizations, since we recognized that such activity kept the individual in contact with the cutting edge of new scientific knowledge and such contacts frequently led to an excellent source of jobs for our Graduate Students.

It was an unwritten policy that Staff Members were not to be concerned about administrative matters. As Dr Whitney of the earlier mentioned G. E. Research Lab. remarked to my boss when the latter mentioned that he couldn't see that anything he was doing could benefit General Electric, Whitney said "Thats my concern, not yours!" A few weeks later Dr Langmuir discovered the

importance of the gas filled lamp, which at the time, was credited with the saving of at least a million dollars a night!

The Research Lab at G.E was a joy to work at. Between 1932 and 1950 it was great fun to be there. Then things changed, subtly at first until those of us who knew the "Golden Years" finally realized it was time to move on!

I hope the present uncertainties that I am glimpsing are not serious ones, and that the old time enthusiasm and adventure which we have enjoyed over the years can continue.

I have no doubt in my mind that as separate entities A.S.R.C and D.A.S. can become a marvelous place to be and one of the leading groups in the World.

Vincent J. Schaefer ("Vince")
"Woestyne South" (my home)
Aug. 3, 1990

TO: Members of the DAS and ASRC

FROM: Ken Demerjian

DATE: August 25, 1988

SUBJECT: Atmospheric Sciences at Albany (ASA) Strategic Plan Draft for Review and Comment

Please find attached a copy of our draft strategic plan for atmospheric sciences at Albany for your review and comment.

This document represents my perspective and that of the drafting committee (L. Bosart, J. Chang, G. Lala, J. Molinari and R. Orville) as to the direction atmospheric sciences should be taking over the course of the next decade.

It outlines a conceptual framework and philosophy for atmospheric sciences at Albany which we would like to implement with the help of our University Administration.

I would very much like your comments as soon as possible, since we will be meeting with Drs. Ilchman, Gullahorn and Wulff to discuss this material next week prior to meeting with the president.

A Strategic Plan for the Atmospheric Sciences at the University of Albany State University of New York

A Cooperative of the Department of Atmospheric Science and the Atmospheric Sciences Research Center

Background

Early this summer members of the search committee for the Chair of the Department of Atmospheric Science approached Dr. Kenneth Demerjian, Director of the Atmospheric Science Research Center, with a proposal to consider serving a term as the Department Chair, placing the two organizations under one leadership. Their vision was and is that a combined leadership at this time would be beneficial to Atmospheric Sciences at Albany (ASA) and to the overall success of the individual organizations themselves. They take the position, as the does the Director, that this action should not be interpreted as an attempt to merge the two groups. Quite the contrary, it is felt by each organization that the unique attributes and agendas each has developed to meet its mission and obligations have served the University well and it is in the University's best interest to sustain and nurture these distinct entities. While the organizations should remain distinct, we feel that the forging of a cooperative initiative under one leadership within the two organizations will stimulate a synergism that will lead the atmospheric sciences at

Albany to a level of unprecedented academic and research distinction.

The consensus is that we have a target of opportunity that will allow vision and hard work to propel Atmospheric Sciences at Albany (ASA) to a state of academic and research excellence that would be unequalled in the nation scale. This fact has provided the compelling arguments and impetus for the proposed partnership. The goal in unifying the atmospheric science leadership is to develop a strategic plan for the ASA over the next decade which will build on the existing strengths and related subdisciplines within the organizations such that it will achieve recognized national and international stature. In achieving that goal it is also strongly felt that the strategic plan must be implemented and professionally managed under the guidance of one leader.

The strategic plan that follows outlines the proposed steps to achieving our goal, providing both our rationale and expectations as we precede with the strategy. It is not a wish list, but a methodical, well conceived plan for the future of the ASA.

Recent Trends

Research

External research funding for the two organizations has been outstanding, with funding for each showing growth over the past five years, with exceptional returns on state dollars invested versus external dollars received.

Figure 1 shows the combined external research funding trends for the

two organizations over the past five years. The Center and Department have attracted over 30 millions of dollars over this period, an average of approximately 6 million dollars per year. Over the last three years the average external funding was even greater, at 8 million dollars per year. This broad base of external research support has resulted in these two organizations generating more than $6.00 of external support for every $1.00 it received from the state of New York for salaries and expenses in the 1987-88 fiscal year. The combined rate of return on external support for the two organizations, that is the ratio of indirect to direct expenditures, was 14% in the 1987-88 fiscal year.

Student enrollments

Undergraduate majors in the department traditionally have been small, averaging approximately ten graduates per year. Figure 2 provides historical trends for all degrees granted in the department for the past five years. This suggests also a rather stable graduate enrollment, with approximately ten advanced degrees award per year.

Strategic Plan and Action Agenda

The vision and goal of the proposed DAS-ASRC Cooperative is to establish the University at Albany as the premier educational institution to study atmospheric sciences. To accomplish this goal, we must achieve the following objectives: 1) expand both our undergraduate and graduate enrollments; 2) build upon and stimulate the diversification and integration of our current research expertise to broaden the research scope of the Cooperative from which to expand our external funding base; 3) expand the atmospheric sciences curriculum to provide the necessary course

work to support the first two objectives; and 4) expand linkages to government and private sector users of meteorological data to allow the development of a strong applied science component. To accomplish these goals requires that we address three important areas - Facilities, Staffing and Operational support.

Facilities

Long Term Needs

There has been a long standing and well recognized position by many at the University that there is need for a research building on campus that will house the ASRC and DAS and related operations. It is also quite apparent that this need will be exacerbated as we implement the proposed cooperative program. Proposals for a campus research building in the state budget for capital improvements continue to be superseded by other projects on the University's priorities list. We are not critical of the difficult decisions that must be made with regard to these matters, but if we are to achieve the vision and expectations outlined in this plan, a new facility must become available. Therefore, we propose that a task force be established within the ASA, headed by Dr. Harry Hamilton, which will explore all avenues and means of support to construct without or with minimal state funds a campus research building dedicated to the atmospheric sciences. A first priority of the Task Force will be to explore immediately the opportunities presented by the National Weather Service inquiry regarding establishing a forecasting center on campus in collaboration with the Department and its associated faculty. This may provide the necessary cornerstone to move the effort forward. The Task Force will, in cooperation with members of the Cooperative and administration, develop a plan of action with the goal of delivering a

facility on campus by the year 1991. We ask for the full cooperation and support of the administration in pursuing this endeavor.

Short Term Needs

The expanding programs of both organizations have pushed their research space requirements to the limits. In the case of the Center, new space can be gotten only by renovation or addition to their facility. In the case of the department, the situation is far more bleak: it is bursting at the seams, with decisions regarding research versus classroom space constantly being debated, and deals for trading space with other departments constantly being negotiated.

One critical need which we would like resolved immediately is the assignment of a classroom to the department which will house desktop computers and dedicated terminals for use in teaching a variety of current and new atmospheric science courses to be offered in the department. The facility will allow access to national meteorological data bases via the NSF Unidata system concept as well as atmospheric modeling systems available on ASRC computers. In addition to the classroom space, the teaching laboratory will require approximately $20,000. in equipment support for the necessary interfacing hardware.

Staffing

There has been a concerted effort at the Center to build and expand upon its atmospheric chemistry and aerosol research capabilities. These areas will not only compliment and broaden the Center's research agenda, but also provides a core staff that will support the development of a specialty track in atmospheric chemistry and process science within the

Department. This specialty track will also serve as a shared resource for the departments of Chemistry and Environmental Health and Toxicology. In addition the ASA proposes to develop a curriculum which will offer the opportunity for our students to earn a math/physics minor in atmospheric science. We feel that the optional minor will enhance and strengthen the program, broaden it's appeal, and provide the basic prerequisite math/physics course work necessary in the pursuit of many of the research opportunities available at ASA.

The atmospheric chemistry initiative, part of a proposed GRI initiative outlined last year and one which received very positive reviews, targeted expansion in atmospheric chemistry with particular emphasis in the areas of physical and analytical chemistry. Positions were identified in three areas of critical need: 1) research and development expertise in high technology instrumentation for use in the measurement of trace chemical constituents in the atmosphere; 2) research and development expertise in high technology instrumentation for use in aerosol chemistry and physics measurements; and 3) research and development expertise in laboratory studies of the kinetics and mechanisms of elementary chemical reactions important in atmospheric transformation processes as well as complex chemical systems which will provide insight into the mechanistic details of atmospheric systems. Delays in the GRI required that the Center proceeded to fulfill these critical objectives by redirecting two of its vacancies

into these areas. The reviewed and recommended GRI positions for the Center now provide the only opportunity to complete this objective. Therefore we are requesting that a GRI position in atmospheric chemistry be

established within the ASA.

The relatively new theoretical modeling program at the Center and the expanding mesoscale and synoptic meteorology programs in the Department are an important element in our long-term research planning strategy. The Global Tropospheric Chemistry[2-3], Global Climate[4] and STORM[5] Programs, represent the nation's priority science initiatives and highlight the need for integrated multidisciplinary research teams. The atmospheric modeling program and its associated core personnel at the Center, the concurrent interests in mesoscale and synoptic meteorology within the Department, and the Whiteface Mountain and associated monitoring networks provide a critical core for research in model development and evaluation. We believe that this critical core, complemented with the addition of a climate/radiation specialist and a general circulation modeler would present a research team of unprecedented strength and dimension for competing and attracting research programs within these new national research initiates. Therefore we are requesting that two additional GRI positions be established within the ASA.

An additional complement to the ASA's core research team for the global chemistry and climate initiatives will be the recruitment of a cloud physicist (rebuilding strength in an area once the hallmark of atmospheric science at Albany). Cloud processes play a critical role in our understanding the radiative distribution of energy and the fate and distribution of trace chemical constituents, including water and condensation nuclei. In addition, understanding the dynamics of cloud processes is essential to future advancements in our synoptic and mesoscale modeling systems. Currently, the Department does not have a faculty member

in this area of expertise, while the Center has two. To stimulate interaction and collaboration with Center research staff and fill a current gap in the overall Cooperative, we request that a GRI position be made available for a cloud dynamist and assigned to the ASA.

Operational Support

Dr. Demerjian has reviewed the current operation of the Department and interviewed faculty with regard to their views on the past successes and problems in its operation. He and the faculties have concluded that in order to maintain effective leadership in both organization, each must have a second in command who serves as administrator and can stand in for the Director/Chairman during his absence. The Center currently has an associate director, Ronald Stewart who serves this function, and we are proposing that a counterpart position, associate chairman, be established within the Department. Dr. Hamilton has been approached by Dr. Demerjian to serve in this capacity (over the next two years) at the same time that he provides leadership in acquiring a building. His extensive administrative experience at the University and Department level is invaluable to our initial charge of setting procedural guidelines for administrative and operational matters of the Department. In addition he has the faculty's, Center's and particularly Dr. Demerjian's confidence as an effective co-leader. We hope to have Dr. Hamilton's response within the week. The Department's proposed Organizational Chart is as shown in Figure xx.

In reviewing the Department's day-to-day operation, several pieces of support equipment have been identified as crucial in helping faculty in

performing their teaching duties and expediting communications within the Department as well as with the Center. These include: 1) a xerox machine with password accounting capability; 2) a desktop computer with terminal emulator software to allow access to University mainframes and faculty minicomputers; and 3) a Fax machine. We anticipate that the total equipment required will not cost more than $25,000.

Expectations

This plan sounds very ambitious and productive, but one might ask, What evidence is there that would indicate that the atmospheric sciences will have the long-term extramural funding to support this initiative and the next generation of scientists it would produce?

Even though the recent trends in atmospheric science research at Albany have, by all accounts, been a very impressive record, let's take a brief look at the facts with regard to why we believe that trend will continue. First, the atmospheric sciences are more than ever in the public eye and the subject of political and social debate. We read almost daily of scientific findings that point to our atmospheric environment being driven to its limits. Subjects include: the depletion of the stratospheric ozone layer and its harmful consequences on human health and ecology of our planet; the ever increasing burden of radiatively-active trace gases accumulating in the atmosphere and their consequent impact with regard to climate change and global warming; the increasing exposure of the environment to oxidants and acid-bearing species and their potentially deleterious effects on aquatic and terrestrial ecosystems; and the health consequences of long-term ubiquitous exposures to toxic substances. In addition we have seen the continued importance and need for advances in

weather prediction to meet the needs of our transportation systems, the agricultural industry, and that of the general public welfare.

These are just a sample of the atmospheric science-related issues that are becoming part of the nation's science research agenda today and for the decades to come and which are reflected in proposed and recently initiated national research programs. These national programs include: the Global Tropospheric Chemistry Program, National Climate Program, NASA's Earth Observing System Program (EOS), and Stormscale Operational and Research Meteorology Program (STORM).

The significance of perturbations, as a result of human activity, on the natural physical, chemical, and biological cycles essential to life on earth are only now becoming apparent. Atmospheric chemistry, dynamic and physical meteorology, and the mathematical modelling of the complex interactions of these systems are critical elements in the development of our understanding of the global environment. It is becoming abundantly clear that the scope and breadth of the science entailed in these global environmental issues requires an in-depth understanding and integration of atmospheric chemistry, physical and dynamic synoptic and mesometeorology and the biogeochemical sciences. Within the ASRC and DAS we have specific core talent to address several of the critical research elements related to these global issues. Our proposed strategy is to build on that capability in order to capture a much larger and broader component of these national research initiatives.

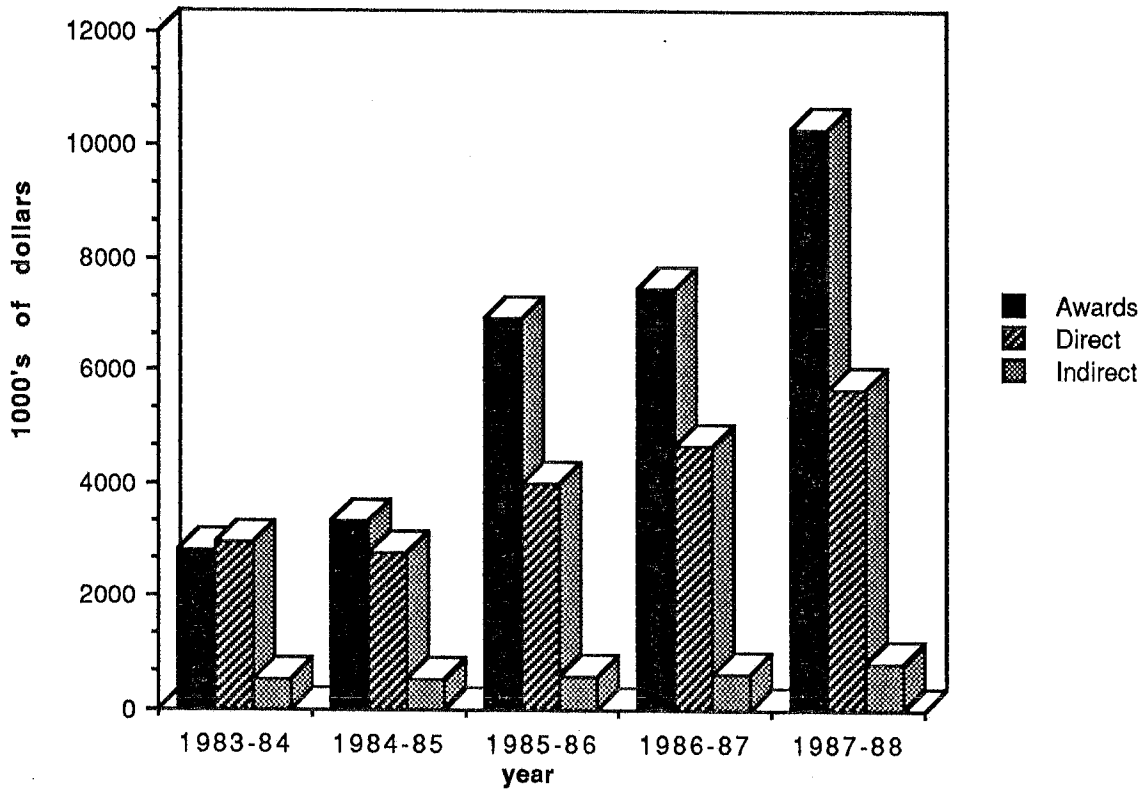
We anticipate that with the implementation of the proposed strategy that the atmospheric sciences will sustain a level of growth in total

extramural research funds of approximately 10% per year over the next decade. As part of this effort, we plan to compete for one of the National Science Foundation's new Science and Technology Centers and a NOAA research center in synoptic meteorology.

In addition we want to double our undergraduate enrollment by 1995 and increase our graduate enrollment by 50% in that same time interval. One element of this expanded enrollment will be the development and implementation of a specialty track in atmospheric chemistry and related process sciences within the Department that will also contribute as a shared resource with the Department of Chemistry and the Department of Environmental Health and Toxicology within the School of Public Health. The specialty track courses will be taught predominantly by Center research staff holding adjunct appointments within the Department. A second element of the ASA's concerted effort to expand the curricula and provide the basics necessary to produce competitive, quality graduates, will be the development of math/physics minor for the atmospheric sciences graduate program. Within the fall semester, we will prepare an outline for core course requirements in applied math and physics that we propose be offered on campus as part of the new Applied Math/Physics minor within the atmospheric sciences and begin exploring options for its implementation.

Finally we will develop a plan for establishing a Visiting Scientist program in atmospheric sciences that will attract distinguished national and international scientists to our campus, who will study, teach and collaborated in our research efforts.

Atmospheric Sciences at Albany
Five Year External Funding Profile



Department Atmospheric Science
Degrees Granted 1983-1988