Active

Project #: G-35-699
Center #: R6453-0A0
Contract #: AGR DTD 880114
Prime #: 
Subprojects ?: N
Main project #: 

Project unit: GEO SCI
Project director(s): DAVIS D D

Sponsor/division names: ATLANTA UNIV CENTER / ATLANTA, GA
Sponsor/division codes: 400 / 007

Award period: 870915 to 880914 (performance) 881214 (reports)

Sponsor amount
Contract value 0.00
Funded 0.00
Cost sharing amount

Does subcontracting plan apply ?: N

Title: A STUDY OF CHEMICAL TRENDS AND PROCESSES AS RELATED TO PHOTOCHEMICAL OXIDANTS

PROJECT ADMINISTRATION DATA

OCA contact: Ina R. Lashley 894-4820
Sponsor technical contact
(000)000-0000

Sponsor issuing office
ATLANTA UNIVERSITY CENTER
(404)523-5150
MS. LINDA ROBERSON
360 WESTVIEW DR., SW
ATLANTA GA 30310

Security class (U,C,S,TS) : U
Defense priority rating : NA
Equipment title vests with: Sponsor
NONE PROPOSED.

ONR resident rep. is ACO (Y/N): N
NA supplemental sheet
GIT

Administrative comments -
LTR DTD 1/14/88 AUTHORIZES SUB-GRANT IA0 $33,673 THRU 9/14/88. THIS IS A SUB-
GRANT UNDER NSF PRIME. NSF FL 200 WILL GOVERN.
# NOTICE OF PROJECT CLOSEOUT

**Closeout Notice Date:** 05/30/90  
**Original Closeout Started:** 01/05/90

## Project Information
- **Project No.**: G-35-699  
- **Center No.**: R6453-0A0  
- **Project Director**: BRADSHAW J D  
- **School/Lab**: E & A SCI  
- **Sponsor**: ATLANTA UNIVERSITY/ATLANTA, GA  
- **Contract/Grant No.**: AGR DTD 880114  
- **Contract Entity**: GTRC  
- **Prime Contract No.**: ATM-8703759

## Title
*A STUDY OF CHEMICAL TRENDS AND PROCESSES AS RELATED TO PHOTOCHEMICAL OXID*

## Effective Completion Date
- **Performance**: 890914
- **Reports**: 891215

## Closeout Actions Required:

<table>
<thead>
<tr>
<th>Item</th>
<th>Y/N</th>
<th>Date</th>
<th>Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Invoice or Copy of Final Invoice</td>
<td>Y</td>
<td>200507</td>
<td></td>
</tr>
<tr>
<td>Final Report of Inventions and/or Subcontracts</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government Property Inventory &amp; Related Certificate</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classified Material Certificate</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Release and Assignment</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>N</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Comments

**Subproject Under Main Project No.**

**Continues Project No.**

## Distribution Required:

<table>
<thead>
<tr>
<th>Distribution Requirement</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Director</td>
<td>Y</td>
</tr>
<tr>
<td>Administrative Network Representative</td>
<td>Y</td>
</tr>
<tr>
<td>GTRI Accounting/Grants and Contracts</td>
<td>Y</td>
</tr>
<tr>
<td>Procurement/Supply Services</td>
<td>Y</td>
</tr>
<tr>
<td>Research Property Management</td>
<td>Y</td>
</tr>
<tr>
<td>Research Security Services</td>
<td>N</td>
</tr>
<tr>
<td>Reports Coordinator (OCA)</td>
<td>Y</td>
</tr>
<tr>
<td>GTRC</td>
<td>Y</td>
</tr>
<tr>
<td>Project File</td>
<td>Y</td>
</tr>
<tr>
<td>Other</td>
<td>N</td>
</tr>
</tbody>
</table>

**Other**
ANNUAL REPORT

"A Study of Chemical Trends and Processes as Related to Photochemical Oxidants"

Submitted To:

Dr. John Hall

Atlanta University Center
Dolphus E. Milligan Science Research Institute
440 Westview Drive, S.W.
Atlanta, Georgia 30310

Submitted By:

Dr. John Bradshaw
Dr. Douglas D. Davis
Dr. Scott T. Sandholm

Georgia Institute of Technology
School of Geophysical Sciences
Atlanta, Georgia 30332-0340
During the first year of the sub-grant, Georgia Tech personnel aided in defining key components which have now been acquired by AUC personnel for construction of a Tunable Diode Laser System for the detection of gas phase hydrogen peroxide.

In addition to this effort, work has continued on refining the Kok/Lazrus method for determination of aqueous phase hydrogen peroxide. Plans for transferring this technology to AUC personnel during the second year are now underway.

A plan of action for providing base data support measurements at the Stone Mountain Field Sampling Site have now been finalized and should be implemented during the second year of this effort. Included in these plans are manpower to maintain the site with year round base data support measurements as well as to assist in the collection of rain water on a pseudo-continuous (event) basis.
A Chemical Climatology of Photochemical Oxidants:  
Second Year Report

Submitted to:

Dr. John H. Hall, Jr.  
Atlanta University Center, Inc.  
Dolphus E. Milligan Science Research Institute  
Earth and Atmospheric Sciences Program  
440 Westview Drive, SW  
Atlanta, Georgia 30310

Submitted by:

Dr. John Bradshaw  
School of Earth and Atmospheric Sciences  
Georgia Institute Of Technology  
Atlanta, Georgia 30332
Second Year Report

During the second year effort, technology and equipment (on loan from Georgia Tech) was transferred to AUC personnel for the measurement of aqueous phase hydrogen peroxide (H₂O₂). Routine measurements of aqueous H₂O₂ are now being carried out at AUC under the direction of Dr. Robert Stickel. Final components for the tunable diode laser gas phase sensor were acquired (multi-pass white-all via AUC and optical table/I.R. monochrometer on loan from Georgia Tech) and transferred to AUC facilities, where phase 1 evaluation of the instrument is underway. Preparations are underway to provide accommodations and meteorological/chemical measurements in support of a Stone Mountain based field experiment now scheduled for Spring 1990.