



*U.S. Department of Energy's
Office of Science*

ARM Aerial Vehicle Program (AAVP)

*ARM Science Team Meeting
Hyatt Regency Monterey
Monterey, CA*

Rickey Petty
March 29th, 2007



ARM-UAV conducted 12 major field campaigns

Field Campaigns to date:

- Fall 1993, Edwards AFB, CA
- Spring 1994, Northern OK
- Fall 1995, Northern OK
- Spring 1996, Northern OK
- Fall 1996, Northern OK
- Fall 1997, Northern OK
- Spring 1999, PMRF Kauai, HI
- Summer 1999, Monterey, CA
- Winter 2000, Northern OK
- Fall 2002, Northern OK
- Fall 2004, North Slope, AK
- Winter 2006, Darwin, Australia



GA-ASI "GNAT 750"
(F93, S94)



Grob "Egrett"
(F95, S96)



GA-ASI "Altus I" (F96, F97)



GA-ASI "Altus II"
(Su99)



Proteus(F04, W06)



Twin Otter
(F93, S94, F95, S96, F96,
F97, Sp99, Su99, W00)

AGENCY COLLABORATION FOR UAV ACTIVITIES
Teleconference Call, April 15, 2004 10:30-12:30 (EDT)
Toll Free Number: 800-857-6553, PASSCODE: 21536

NASA

Ghassam Asrar
Mary Cleave
Kevin Peterson
Jack Kaye
Terry Hertz
Cheryl Yuhas
John Sharkey
Randy Albertson

NOAA

Greg Withee
Sandy Macdonald
Elizabeth White
Mike Crison
LCDR Brad Kears
Sara Summers
Mike Aslaksen

DOE

Ari Patrinos
Jerry Ellwood
Rick Petty
Will Bolton
Greg McFarquhar
Ken Black
Tim Tooman

10:30-10:45 Opening – Cheryl Yuhas

Introductions
Goals and Objectives of this telecon
General summary of activities to date

10:45-11:30 Agency Summaries - Cheryl, Sandy, Rick

Science as the driver
New capability a component of a future operational global observing system
Each Agency's critical and unique contribution to the joint initiative (the sum is greater than the parts)
The benefits of a UAV program to each agency
How a UAV program fits into each Agency's strategic plan

11:30-11:45 Connection to CCSP – Rick Petty

11:45-12:00 Agency Roles and Responsibilities – John Sharkey

Develop and sign MOA by end of FY2004
Formulation of a joint agency FY07 initiative
Coordinate Agency budget process

12:20-12:25 Comments, Q&A, Discussion – Sandy MacDonald, facilitator

Joint-sponsored workshop July 2004 (10 mins)
Purpose/participants
Verbal endorsement from all Agencies
Agency Commitment to resources (25 mins)
Assign workforce from now-early 2005
FY 2007
Allocate resources to near-term field experiments

12:25 – 12:40 – Cheryl Yuhas

Wrap-up/Action items

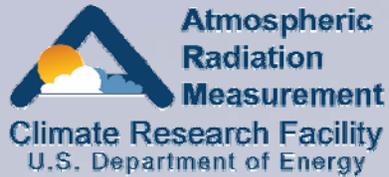


DOE National Laboratories

LAB 06-20

- July 31st, 2006
- Routine and IOP measurements
- Fostering of miniaturization instruments
- Funding \$2.7M
- PNNL

AAVP Organization



DOE Program Manager
Rickey Petty

AVP Chief Scientist
Greg McFarquhar

Technical Director
Jimmy Voyles

**Mission Science and
Logistics Liaison**
Beat Schmid

**Aerial Vehicle, Instrumentation
Engineering and
Flight Support**
Jim Mather

Product Delivery
Matt McDuff





Information Required for AAVP Use

- Instrumentation for science experiment
- Aircraft inlet (heated/air-pumped, etc.)
- Approved racks for installation
- Weight of instrumentation
- Power requirements (i.e. AC/DC, Amps, etc.)