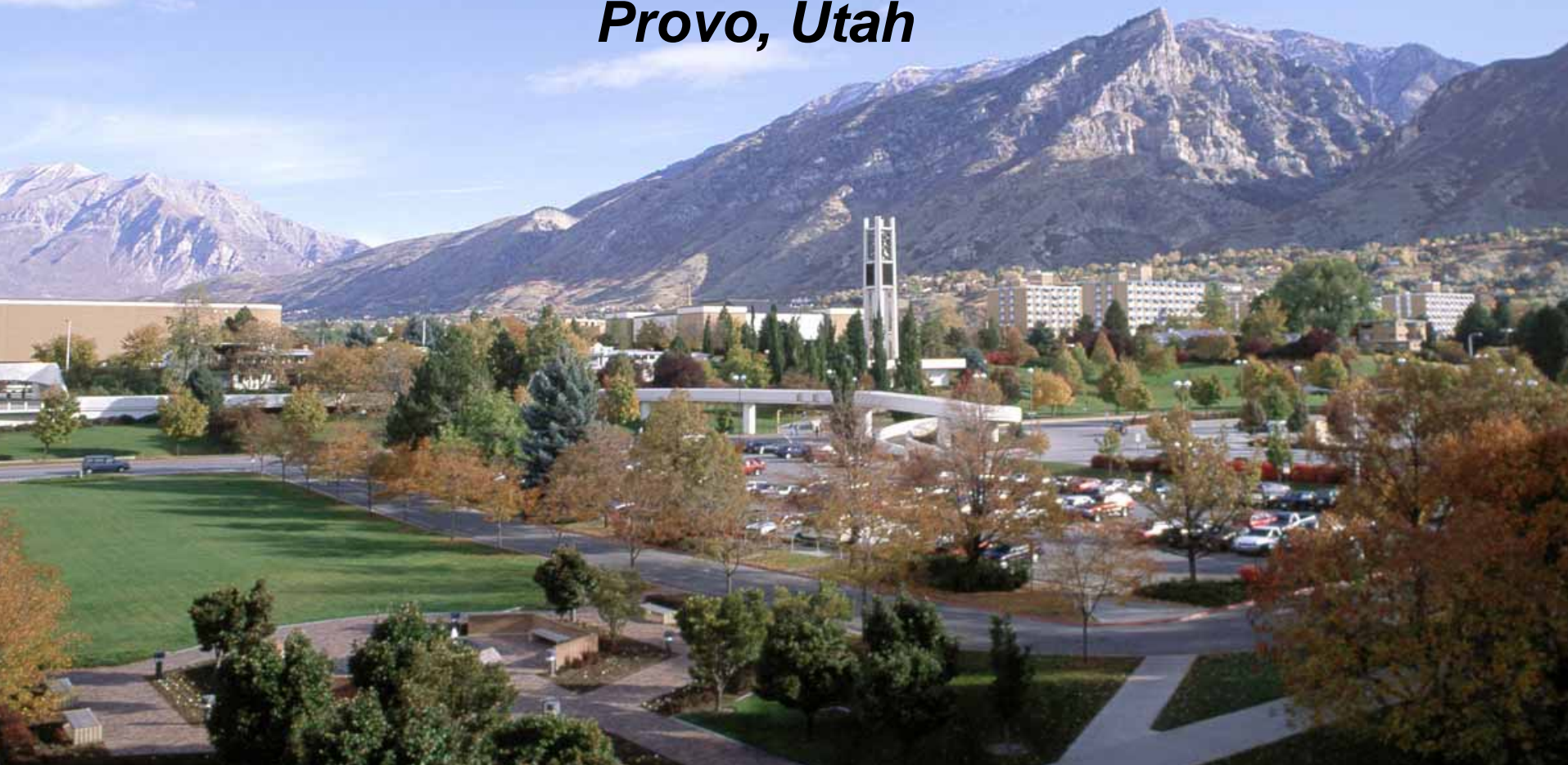


The 22nd Annual ACERC Conference



***February 26-27, 2008
Provo, Utah***



Current ACERC Mission

***To develop advanced combustion technology
through fundamental engineering research
and educational programs
aimed at the solution of critical national problems***





Current Research Interests

Industries

- Electric power
- Chemical processes
- Forest products
- Forest Service
- Solid Waste
- Transportation
- Cement/Concrete
- Glass
- Military (safety)

Fuels

- Coal
- Biomass
- Black liquor
- Petroleum coke
- Hydrogen
- Municipal solid waste
- Natural gas
- Jet & diesel fuel
- Metallurgical coke
- Soot/model hydrocarbons
- Live fuels (wildland fires)
- Foams

Subjects

- Combustion/
Gasification
- Ash
Formation, Deposition,
Corrosion, Use
- Soot/Aerosol
formation
- NO_x, SCR
- Mercury emissions
- Heat transfer
(convective, radiative)
- CFD, Fluid/Fixed
Beds
- Parallel computing

**See Poster Session
Titles (in program)
for a Complete List
of Active Projects**



Professors Involved

| | | | |
|---------------------|-----|----------------------|------|
| • Larry Baxter* | ChE | • Calvin Bartholomew | ChE |
| • Tom Fletcher* | ChE | • Jeffrey Bons | ME |
| • Matt Jones | ME | • Hugh Hales | ChE |
| • Dan Maynes | ME | • Bill Hecker | ChE |
| • Dale Tree* | ME | • Matt Linford | Chem |
| • Merrill Beckstead | ChE | • Dennis Tulley | Stat |
| | | • Brent Webb | ME |



***ACERC Executive Committee**



Who Really Does The Work

(at BYU)

- 21 Graduate Students
- 17 Undergraduate Students
- Carina Alleman (secretary)



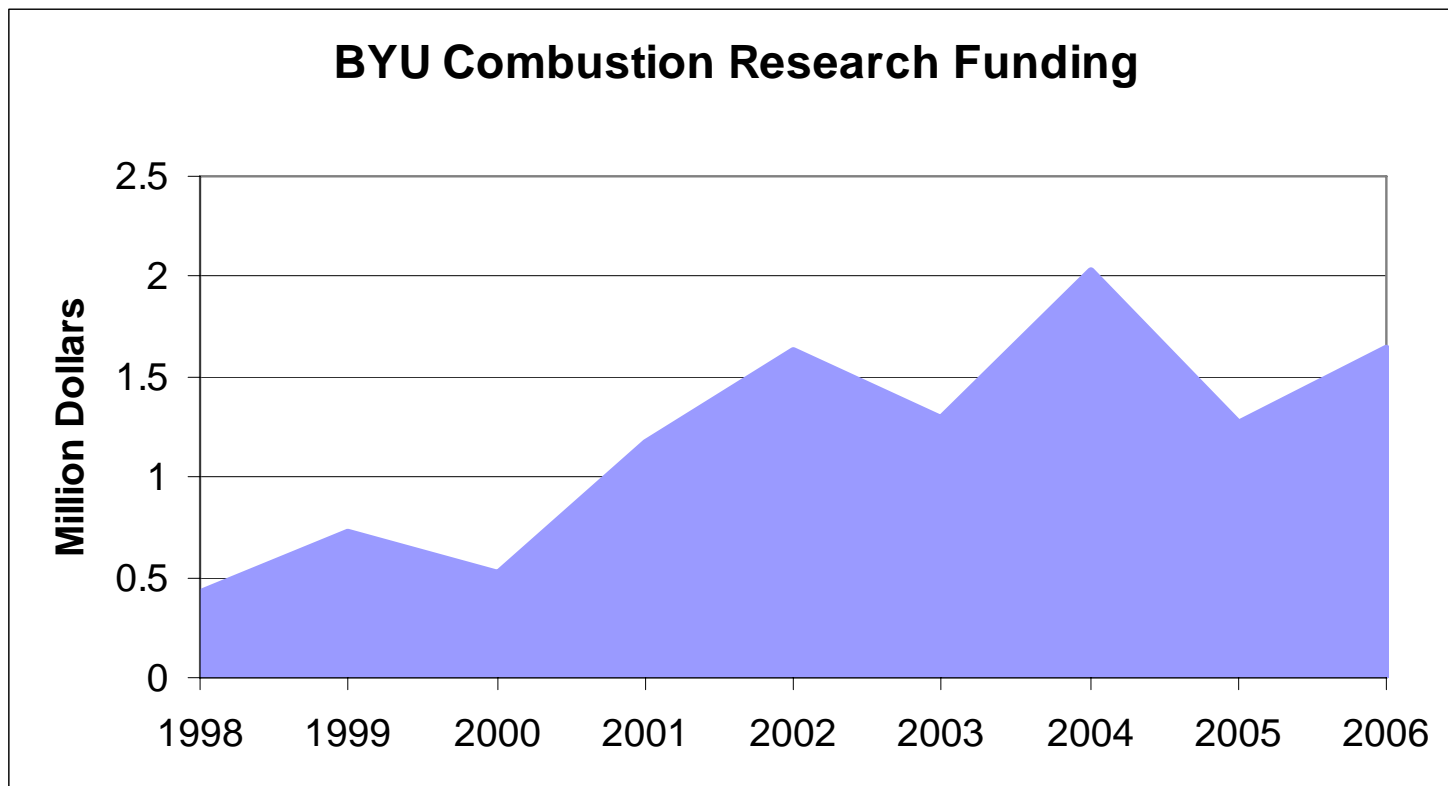
Graduate students receiving degrees in 2007:

- Brad Damstedt, PhD ChE (Praxair) – Cofiring of Biomass & Coal
- Paul Foster, MS ChE (Aiken, SC) – Solar CO Production
- Greg Gessel, MS ChE (ExxonMobil) – Oil Reservoir Simulation
- Kyle Larsen, PhD ME (College E. Utah) – Particle Dispersion
- Ralph Price, PhD ChE (Alion Science & Tech) – Solar CO Production
- Shuangzhen Wang, PhD ChE (Certain-Teed Corp) – Biomass Ash in Concrete



BYU Combustion Funds

1998-2006



- Maintaining an active research program
- Most funding goes to students



Current Industrial Members

- **American Air Liquide**
- **Alstom Power**
- **Babcock & Wilcox**
- **Praxair**



Membership Benefits

- Access to students
- Joint proposals
- Influence direction of large & energetic research program
- Receive rapid feedback regarding current work
- Use of facilities/computers as visiting scientist
- Copies of theses and dissertations
- Publication lists
- Student resumes
- Highly discounted license for software
- Coordination of student internships/co-ops
- Tax deductible
- Reduced fees to annual ACERC conference
- Voice at members' meeting

Cost: \$5K/yr



Industrial Participants

(ACERC annual conference participants, 2006-2007)

Alion Science &
Technology

Detroit Stoker Co.

Reaction Engineering
International

ALSTOM Power*

Dong Energy

Southern Company

American Air Liquide*

GE Global Research

US Department of Energy

The Babcock & Wilcox
Company*

Headwaters

UT Div of Public Utilities

Biomass & Geothermal

John Zink Company

University of Utah

Combustion Resources

Puson National University

ConocoPhillips

Praxair*

***Current ACERC Industrial Members**



News



- **Larry Baxter returns from sabbatical**



- **Cal Bartholomew**
 - Retiring in 2008
 - Started Fischer-Tropsch Consortium



- **Jeffrey Bons (ME) moved to Ohio State, 2007**

- **Carina gave birth to a little boy, Joshua**





2008 Conference Agenda

Tuesday Morning

Chair: ?

- **Deposition Research**

Tuesday Afternoon

Chair: *Joseph D. Smith*

- **Combustion-Related Processes**
- **Discussion of Special Initiatives (3-4 pm)**

Tuesday Evening

- **Student Posters (4-6 pm)**

Wednesday

- **Member Breakfast**

Wednesday Morning

Chair: *Ken Nichols*

- **Biomass**

Wednesday Afternoon

Chair: *Brad Damstedt*

- **Coal**



2008 Post-Conference Agenda

Thursday

- **Coal-Biomass Cofiring Workshop**

Friday

- **DK-BYU Programmatic Meeting**

Saturday

- **Ski Trip**