

Caribbean Basins, Tectonics and Hydrocarbons

Phase I



September 1, 2005

Volume 1.1

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Welcome to the CBTH study and newsletter

Welcome to the CBTH consortium at the University of Texas! Thank you for your support and we look forward to working with you for the entire three-year duration of CBTH Phase I. A digital version of this newsletter is also available at the CBTH website:

www.ig.utexas.edu/research/project/cbth

Progress reporting to the CBTH sponsoring companies will take several forms.

- We will send out the newsletter every four months of the project starting with this issue on September

1, 2005. These newsletters will keep you up to date on our recent work posted on the web site and sent to you in hard copy; current events related to CBTH; and our future plans. We will also list in the newsletter new data that has been posted to the CBTH site.

- We will organize a year-end meeting to be held at the University of Texas at Austin, Friday, September 1, 2006. During this one day meeting, we will organize a series of oral presentations and informal discussions that will summarize results and plans for the coming year, and a workshop to teach our sponsors on how to gain maximum efficiency from our database.
- We would be available for a one-day in-house company visit per year to our sponsors in Houston, provided our travel expenses are paid. If additional in-house visits are needed or if your offices are located outside of Houston, we would be available on a paid consultant basis.
- We plan to attend the annual meeting of the AAPG where we can meet with you informally.

If you are not a member and are interested in participating in the CBTH consortium, we encourage you to take a minute to review the web page

(www.ig.utexas.edu/research/projects/cbth) where you can also download our project proposal. Please feel free to contact us at cbth@ig.utexas.edu

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Philosophy and Objectives

Our goal is to merge as much on-land and offshore data as possible within a GIS database to enhance our sponsors' prospects for major oil and gas discoveries in the on- and offshore region of northern South America. While our focus is subsurface data particularly in the unexplored offshore areas, we realize the importance of integrating the geologic record from mature on-land basins. We have no attachment to existing tectonic models and instead would like to use the project data to drive the tectonic model rather than vice versa.

The key to unraveling this complex area is to organize the various data that now exists into a user-friendly GIS environment. Most companies have at some time invested time and man-hours in this region but can be hard pressed to retrieve their prior information and knowledge base - thus, they are forced to "reinvent the wheel" with each new bid round.

We can help you with this problem since we are confident that we now have more data on this region than any other single university, company or consulting group. We look forward to transferring this knowledge to your company along with a depth of understanding that may not accompany other commercially available databases for the region.

Our goal is to complete the southern Caribbean Phase I by 2008 and the northern

Caribbean-southern Gulf of Mexico Phase II by 2011. We are modeling the organization and sponsor activities of the CBTH Phase I after the highly successful 11 year-old Gulf Basin Depositional Synthesis study of the Gulf of Mexico (PIs: Galloway, Buffler, Ganey-Curry) (www.ig.utexas.edu/research/projects/gbds/gbds.htm)

Our eventual goal in six years time is to combine the GIS database of CBTH (Phase I and II) with the GBDS GIS database. This would provide an integrated GIS database extending from the northern Gulf of Mexico to Suriname.

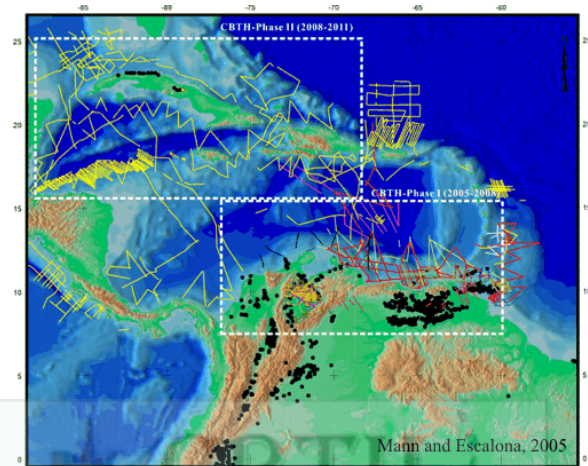


Figure 1. Phase I and Phase II areas of CBTH.

Keeping in Touch

We can work more effectively with you and your company if you can inform us of your main areas of interest in this vast region. (The CBTH Phase I study area covers about

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the same area as the state of Texas.) If we are aware of your specific areas of interest, we can focus our reporting to you (i.e., forward you specific maps or previous works of interest). If you have not developed specific areas of interest, please let us know that also. This partnership will work best if we are able to communicate in one of the modes listed above. At the least, your company will be extracting the data from our website and providing us input on those data. At the most, your company will send one or more representatives to the annual meeting in September of each year, read and provide us input from the newsletters, invite us for a one day visit if you are in Houston, and visit with us at the AAPG annual meeting.



Meet the CBTH Research Team

We are starting the project with three researchers and hope to add one UT post-doctoral researcher, one UT MS-level graduate student, and one UT undergraduate student over the course of the first year. Since we are part of a university, research "products" that you are supporting with your annual payments are trained geoscientists. These students would be available for internships at your company. So please let us know if you would like to support them as interns working on BS, MS or PhD degrees or following the completion of their degree.

The work for this study will be conducted at the University of Texas Institute for

Geophysics, a leading center for processing and interpretation of seismic data and tectonic studies since 1972 (www.ig.utexas.edu). We are one of the three units of the Jackson School of Geosciences of the University of Texas along with the Department of Geological Sciences (teaching arm dealing mainly with outcrop geology – www.geo.utexas.edu) and the Bureau of Economic Geology (functions as the Texas Geological Survey – www.beg.utexas.edu). Our building is located off campus in north Austin. For directions see: www.ig.utexas.edu/about/directions.htm.

Paul Mann, PhD, (UTIG Senior Research Scientist), is the principal investigator of CBTH. Paul's interest in the CBTH study area extends back to the late 1980's when he began work on Lake Maracaibo. This work expanded to eastern Venezuela and Trinidad in the late 1990's and continued with the formation of the DM2 consortium study of the Trinidad margin in 2001. The DM2 Trinidad consortium (jointly supervised with Lesli Wood at the Bureau of Economic Geology) will end in December, 2005. The CBTH project will allow Paul an opportunity to complete a regional study that encompasses all his previous and more localized studies. To learn more about Paul and his previous research, visit his website at: www.ig.utexas.edu/people/staff/paulm/

Alejandro Escalona, PhD, (UTIG Postdoctoral Researcher) is a fulltime researcher on CBTH. He completed his PhD on the subsurface geology of the Maracaibo basin in 2003 and is now

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incorporating the regional geology of the entire northern margin of South America. His interests are basin analysis, petroleum systems, and reservoir characterization. Much of Alejandro's PhD results on the Maracaibo basin will appear as a special issue of the AAPG Bulletin in February 2006. To learn more about Alejandro and his previous research, visit his website at: www.ig.utexas.edu/people/staff/escalona/

Lisa Bingham, BA, (UTIG Research Assistant and GIS developer) Lisa completed her undergraduate degree at UT in May, 2005, and is continuing as a fulltime employee on this study and the GBDS consortium (W. Galloway, principal investigator). She is developing our GIS database that will be released in stages to the sponsors starting September 1, 2005. She will also be available for training sponsors in the use of the GIS database. To learn more about Lisa, visit her website at: www.ig.utexas.edu/people/staff/watson/



Meet our Sponsors

As of September 1, we have six committed sponsors for CBTH. The following people have volunteered to serve as our main contacts for CBTH. Please let us know if your company representative changes over the three-year course of this study.

BHP Billiton Petroleum, Inc.

Karen Tindale
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Houston, Texas

British Gas T&T Limited

Andrew Sharp
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Port-of-Spain, Trinidad

British Petroleum Trinidad and Tobago

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Port-of-Spain, Trinidad

Exxon Mobil Exploration Company

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Houston, Texas

NewField Exploration

Bruno Maldonado
bmaldonado@newfld.com
Houston, Texas; ?? Brazil?

Repsol

Max Torres
maxtorres@repsolypf.com
The Woodlands, Texas

CBTH software support

Landmark Graphics (software support)

Connie Johnson
cmjohnson@lgc.com

Landmark Graphics is kindly providing our interpretative software.

IVS3D (software support)

Bill McKernan
bmckernan@ivs3d.com

We are also using an exciting visualization package called Fledermaus from IVS3D. We are using the software to create

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interactive “flyovers” that combine topography, bathymetry, surface geology and seismic reflection profiles.



Your Payments

We greatly appreciate the promptness all of you have shown. As a result, we are starting the project on-schedule on September 1, 2005. We will send invoices May 1, 2006 and 2007 with payment deadlines of September 1 of the same year for the second and third years of Phase I. Please note that there are many unrelated industry consortium groups at UT (some listed in the “Other UT Consortia” section of the newsletter) so it is important that you follow the instructions on our invoice for sending your check or wire transfer for CBTH.



Progress and Upcoming Information

The CBTH website was launched August 23, 2005.

www.ig.utexas.edu/research/project/cbth/



Figure 2. CBTH Home Page

The website allows the general public to view basic information about the project. Each sponsor will have password access to the current data released. The data released September 1, 2005 includes:

- Venezuela Margin (Venmar) database – a compilation of well, seismic and other related data for the north Venezuela and Trinidad areas
- short movies of topographic data and plate reconstructions
- Recent UTIG poster presentations, theses and dissertations
- Plate reconstructions and paleogeographic maps

This information is updated on a regular basis as more data becomes available. We will alert contact people when updates occur.

The coming months will bring more interpreted seismic data and poster presentations as the compilation is an ongoing task. Two UT MS students, David Soto and Emilio Garciacaro, will be finishing research in the Spring of 2006. Their MS theses will be made available to our sponsors.



Other UT Consortia

Here is a listing of other industry consortia currently supported at UTIG and BEG:

- Gulf Basin Depositional Systems (UTIG)

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- Gulf Intraslope Basins Project (UTIG)
- Instrumented Oil Field (BEG, UTIG, Petr. Org)
- PLATES (UTIG)
- Applied Geodynamics Laboratory (BEG)
- Fracture Research and Application Consortium (BEG)
- Exploration Geophysics Laboratory (BEG)
- Fluid-Rock-Seismic Technology (BEG)
- Quantitative Clastics Laboratory (BEG)
- Reservoir Characterization Research Laboratory (BEG)

You can visit the web pages of the UTIG consortia at:
www.ig.utexas.edu/research/projects/projects.htm#industry

and the BEG consortia at:
www.beg.utexas.edu/mainweb/indust01.htm



Data Distribution

Listed below are the new data that will be added to the sponsor webpages on September 1, 2005. Please take a moment to check out the new seismic data that has been added to the Venmar database. We have also added Fledermaus flyover animations that can be viewed.

- Theses and Dissertations*

- Escalona, PhD, 2003; Jaimes, MS, 2003; Aitken, MS, 2005; Gorney, MS, 2005
- AGU Posters*
Aitken et al., 2004; Chaderton et al., 2004; Christeson et al., 2004; Cruz et al., 2004; Escalona and Mann, 2004; Gorney et al., 2004; Kroehler et al., 2004; Soto, et al., 2004; Wright and Wyld, 2004
- AAPG Posters*
Escalona and Mann, 2004; Mann et al., 2004
- Map collection^
Quaternary faults: Audemard et al;
Satellite gravity map: Sandwell and Smith, 1997;
Bathymetry/Topography: Sandwell and Smith, 1997, GEBCO and NASA SRTM; Earthquakes by depth; Earthquake focal mechanisms; Geology of North South America; GPS Vector compilation
- SEGY of Gulfex lines and navigation files^
528_120VZ_1; 529_120_VZ_1;
530_121VZ_2; 531_121VZ_5;
532_121_VZ5; 533_121_VZ7;
573_124VB_7
- Venmar database, Block I^ (~2GB)
- Plate reconstruction PowerPoint^ (Cretaceous to Recent)
- Paleogeographic maps^ for northern South America

* Digital and paper

^ Digital only

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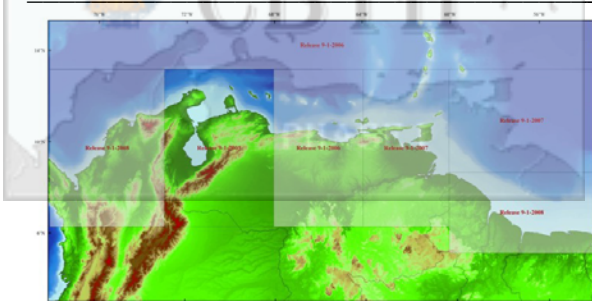


Figure 3. Release blocks for CBTH (Phase I).

We have divided the Phase I study area into seven blocks that will be released over the next three years. Blocks will be released in a general west to east pattern that roughly coincides with upcoming bid rounds in Venezuela and Trinidad. In 2008, we will releasedata from Colombia and Suriname.



Past Meetings

AAPG annual meeting Calgary 2005: Drs. Paul Mann and Alejandro Escalona gave a talk titled “Regional offshore mapping of structures and depocenters of Venezuela and Trinidad: Implications for deepwater exploration in the Caribbean” providing our first attempt at matching Paleogene and Neogene offshore depocenters with onland fluvial systems. Visualization movies and CBTH information were also provided at the JSG booth.



Upcoming Meetings

Don't forget to stop by the UT booth at SEG (Nov. 6-11), AGU (Dec. 5-9) and AAPG (April 9-12) and for updates on CBTH. We will be showing visualization movies from the Caribbean region using Fledermaus (www.ivs3d.com).

Integrated Ocean Drilling Program (IODP):

In March 2006 we will be convening for an IODP workshop of the Caribbean region in Austin, TX held by UTIG. The topic of the workshop is “The Interaction of Neogene Tectonics, Stratigraphy, and Ocean Circulation in the Southeastern Caribbean”. The workshop will provide future insight for deep-water drilling projects in the Caribbean region. Visit www.iodp.org for more information.

Short courses: We are planning to hold a Northern South America shortcourse in Houston, Texas, just after the SEG annual meeting (November 11-12) and at the AAPG annual meeting (April 13-14, 2006). Please let us know if you will be interested in sending representatives to this shortcourse or if you are interested on having it taught at your company. Please contact Paul Mann (pmann@ig.utexas.edu) or Alejandro Escalona (escalona@ig.utexas.edu) for more information. For course content, go to: www.ig.utexas.edu/research/projects/cbth/links.htm

September 11-13, 2006, UTIG researchers (W. Galloway, P. Mann and A. Escalona) will be teaching a Gulf of Mexico-Caribbean shortcourse at the AAPG fall training course. We will be sending more information about this shortcourse in early 2006.

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We look forward to seeing you at AAPG and the short courses! If you have new hires or transfers with the group, these courses provide a quick way to get them “up to speed”. Keep an eye on our website for updates and more information for these upcoming events.

www.ig.utexas.edu/research/projects/cbth/links.htm



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