

ISAES field trip to the Rio Grande rift and Valles Caldera

August 22-26, 2007

Trip leaders: C. Siddoway / N. Dunbar, W. McIntosh, and P. Kyle
Colorado College / New Mexico Tech University

Excursion coordinator: Christine Siddoway, Colorado College, csiddoway@coloradocollege.edu

Costs covered by field trip fee include: surface transportation, accommodation (4 nights), breakfast and lunch meals, and geological literature. Evening meals, air travel, and accommodation on the night of Aug. 21 are the responsibility of the participant.

16 July 2007

Dear Friends and Colleagues:

Thank you for your interest in the ISAES field trip to the Rio Grande rift and Valles Caldera, on August 22-26, 2007. This email contains organizational and payment instructions for the trip, together with trip itinerary. Entry level information on New Mexico geology, authored by some of the field trip leaders, can be found at <http://geoinfo.nmt.edu/tour/>. A 2004 publication from the New Mexico Bureau of Geology is online at <http://geoinfo.nmt.edu/publications/bulletins/160/home.html>. A relevant paper on Colorado volcanism is Paper 10 by W McIntosh, for the area to be traversed on the first day of the excursion: volcanism in Colorado, in the region surrounding the northern RGR. Further suggestions on current literature will be provided in subsequent emails.

The day by day itinerary is as follows:

Wednesday, August 22: We will depart at approximately 1 p.m. from Colorado Springs, and drive, with 2 to 3 stops, through the Rocky Mountain Front Range to the northern Rio Grande rift. On the first night we will stay at a rustic lodge on the margin of the historic Baca land grant, in Crestone, Colorado. The site is upon a precipitous segment of the eastern rift flank, with jagged mountain peaks rising to elevations of 4250m. A meal and a good night's sleep are on the agenda for international travelers on the first night of the trip.

Thursday, August 23: We will depart early, and progress to the west, then south, along the Rio Grande rift axis. Topics and stops will highlight volcanism in the San Juan Mountains, including La Garita volcanic center and Taos flood basalts; sedimentary and volcanic deposits of the Santa Fe group; and important rift structures including the Jemez lineament and Embudo faults. A lunchtime stop at the famed San Francisco chapel, a subject of paintings by Southwest artist Georgia O'Keefe, will be possible if weather permits. The day's destination is Abiquiu (of geological interest; and longtime home of Georgia O'Keefe), where we will stay at Ghost Ranch conference center. The last stop of the day will be a vertical section through classic Colorado Plateau stratigraphy (Mesozoic section), at Echo Amphitheater. By the end of Day 2, we will have traversed three structural and sedimentary basins of the northern RGR: the Upper Arkansas, San Luis, and Espanola Basins.

Friday, August 24; we will rise early and commence the short journey into the Jemez Mountains, site of voluminous silicic pyroclastic volcanism associated with the Valles Caldera. We will rendezvous with trip co-leaders McIntosh, Dunbar and Kyle at the town of Los Alamos, before

crossing the Valles caldera rim and entering the vast crater; complete with resurgent dome, ring domes, and caldera moat features. We will spend 2 consecutive nights in rustic hotel accommodation at upper elevations in the Jemez Mountains.

Saturday, August 25: The focus of study is sites peripheral to the caldera rim and flanks, with focus on caldera stratigraphy and pyroclastic outflow sheets including Bandolier tuff; with a look into the pre-Puebloan cultural history of the region and aspects of Pleistocene-Recent climate change. Transportation will be provided to Jemez Springs on Saturday evening, where various options for evening meal are available.

Sunday, Aug 26: The trip concludes with a drive from the Jemez Mountains/Valles caldera into the Albuquerque basin, with vantage points on the eastern rift flank corresponding to the Sandia range, and views of rift axis volcanic centers active in Quaternary to Recent time.

As you plan for the field trip, several items are important:

1. Attire: The Southwest USA can be very hot in August. Wear light clothing that offers good skin coverage and sun protection. Sun screen is a must for our field studies, due to thin, dry air at elevations of 1830 to 2220 meters; with field stops at elevations up to 2600m. A hat with a brim is important, for protection from the sun. The walking will be moderate and sometimes off-trail in the Valles Grande. A pair of good shoes or light boots will be suitable for the walking planned for this trip; Heavy climbing boots will not be necessary. Evenings may be cool enough to require a light jacket, and mountain rains often occur in the afternoon, so rain protection is a good idea.
2. Rock hammers/international travel: It can be possible to borrow a rock pick or sledge hammer from the Colorado College Geology Dept for the duration of the trip—in order to avoid traveling with a suspicious item such as a rock hammer! Please inform Christine in advance of the trip if you require a hammer or sledge.
3. Arrival in Colorado Springs: Trip participants may arrive the day before or before noon on the morning of departure, August 22. Two times of airport pickup will be arranged on Aug 21, and one pickup on Aug 22; so please inform Christine of your arrival airline, flight number and arrival time. The field trip departure on Aug 22 will be from two sites: the Econolodge on Nevada Avenue and the Colorado College campus.
4. Accommodation in Colorado Springs (at the expense of participants): Basic, economical accommodation can be arranged at the Econolodge, north of downtown Colorado Springs (within walking distance of city center), at your own expense. **Please inform Christine if you require a reservation for the night of Aug 21; and if you are willing to share a room/preference about roommate.** Please stand by for specific information about room rate.
5. The field trip departure on Aug 22 will be from the Colorado College campus (Geology Dept) at 1 p.m., and from the Econolodge on Nevada Avenue at 1:15 p.m.

6. August 26 / air travel from Albuquerque, New Mexico to Santa Barbara, CA: Participants will be transported to the Albuquerque airport by 11 a.m. on Aug. 26. Departures as early as 12:00 PM will be possible. A number of airlines provide flights to Santa Barbara (SBA); with a connection in one airport hub such as Las Vegas, Phoenix, or Los Angeles. An efficient way to arrange international air travel may be with destination/departure cities of Colorado Springs (COS) and Los Angeles (LAX), with an "open jaw" from Aug 21 to Sept 1, in between; and then to purchase a one-way fare from Albuquerque (ABQ) to SBA. A current one-way fare on USAirways departs at 12:04 p.m./arrives SBA at 2:57 p.m., with connection in Phoenix, AZ, for a cost of USD \$160 (flight #s 407 and 2721). See <http://www.usairways.com>, or www.Expedia.com for more options. (*air travel costs are to be covered by trip participants*)

To the extent possible, I am happy to assist with travel advice and perspective on times/distances.

4. PAYMENT INFORMATION for the trip is below, for two individuals who did not yet submit payment.

5. Participant list is provided at the end of this message.

If you have further questions at this point, please e-mail csiddoway@coloradocollege.edu. I will ask for your airline arrival information details (airline, flight number and arrival time) closer to the start of the trip. We looking forward to sharing some good North American rift geology with all of you!

Sincerely,
Christine, Nelia, Bill and Phil

Christine/ contact information:
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Fax: (719) 389-6910
csiddoway@coloradocollege.edu

PAYMENT GUIDELINES for the excursion fee.

The financial accounts for the Rio Grande rift field trip and other ISAES excursions are being handled through Colorado College, by the ISAES Field Trips coordinator, Christine Siddoway.

The participation fee for the Grand Canyon trip is \$385.00. This price includes transportation, lodging, breakfast, and lunch. Other meals and incidental expenses are to be paid by the participants. Participants also are responsible for arranging their own air travel to Colorado Springs and from Albuquerque, New Mexico, to Santa Barbara CA. These terms are stated on the Symposium website at <http://isaes2007.geol.ucsb.edu/ProgramFieldExcursions.html> .

Payment may be made by check from a U.S. bank account or by international wire transfer payable to Colorado College according to the guidelines below. An international cashiers check or money order issued in U.S. Dollars is also an option; however payment by credit card is not possible for ISAES X field excursions. **We do require payment of the excursion fee immediately, in order to reserve your place.**

1. Payment by check: Make out the check in the amount of \$385.00, payable to **Colorado College**. Please include the notation: **144101-ISAES** on the check. This is the institutional account designated for field excursion funds. Please mail the payment to:

Geology Department
Colorado College
Attn: C. Siddoway / ISAES X field trips
14 E Cache la Poudre
Colorado Springs, CO 80903 USA

2. Payment using INTERNAT'L WIRE TRANSFER OF FUNDS. Details for the financial institution needed to complete a wire transfer are as follows. Please include the notation: **144101-ISAES** on the check. If you choose to pay by this means, please send an email to csiddoway@coloradocollege.edu with information about the bank name and location where the international wire will originate; and to confirm the amount of funds submitted.

Swift Code: WFBIUS6S
Account Number: 5058058099
Bank Name: Wells Fargo Bank, N.A., San Francisco, California USA
Branch Address: 90 S. Cascade Avenue, Colorado Springs, CO 80903
For the benefit of: The Colorado College
14 E. Cache La Poudre
Colorado Springs, CO 80903

If assistance is needed regarding these wiring instructions, please call

Wells Fargo Banker: Brian Homme 719-577-5414

Wells Fargo Service Representative: Karen Pickarts 719-577-5419

Please contact Christine Siddoway for assistance if you face any difficulty with these payment arrangements, or if for any reason you require a letter of invitation for the field excursion participation (as relating to visa application, for example). We look forward to seeing you in Colorado, New Mexico, and then in Santa Barbara, CA, on the occasion of ISAES X.

Warm wishes,

Christine Smith Siddoway csiddoway@coloradocollege.edu

>ISAES 10 Field Trip Coordinator<

<http://isaes2007.geol.ucsb.edu/index.html>

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Colorado Springs, CO 80903 38.82° N, 104.72° W, 1881 meters

http://www.coloradocollege.edu/dept/GY/faculty_christine_siddoway.asp

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Participant list:

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