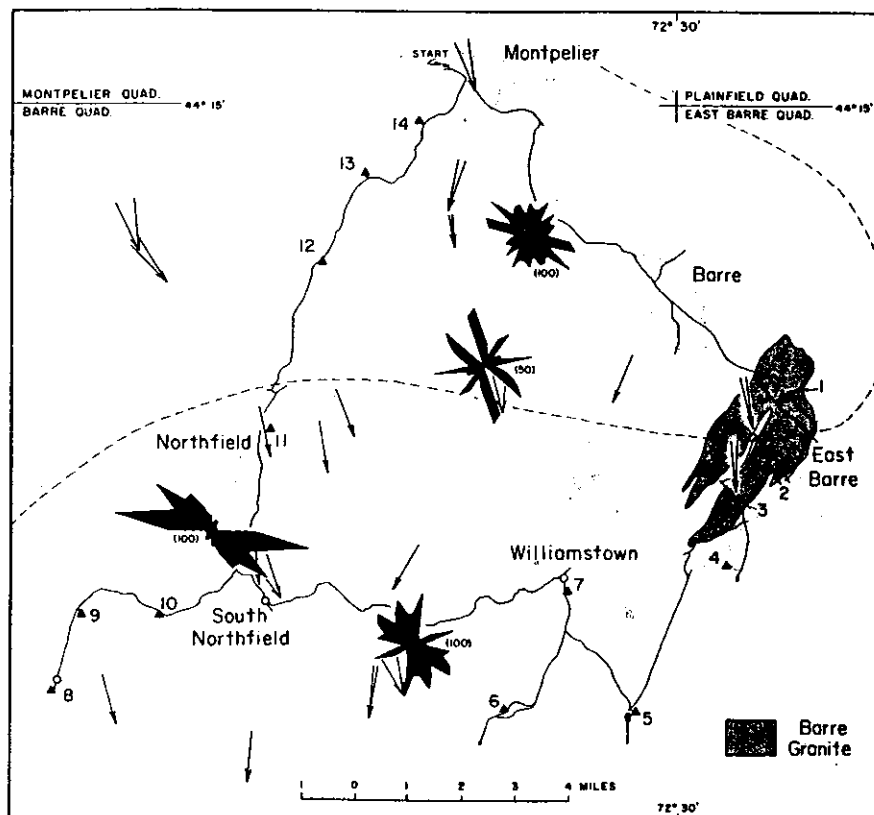


# Glacial, Late-Glacial and Postglacial History of Central Vermont

Guidebook for the 66<sup>th</sup> Annual Meeting of the Northeast  
Friends of the Pleistocene

Montpelier, Vermont  
May 23-25, 2003

Field Trip Leaders: Frederick D. Larsen  
Stephen F. Wright  
George E. Springston  
Richard K. Dunn



## DEDICATION

### Ernest H. Muller

The Friends of the Pleistocene, an organization (or non-organization) without officers and dues, is greatly appreciative of Ernie Muller's service as our guiding mentor. Ernie has been the one to recruit, cajole, and twist the arms of trip leaders for over a decade. It has been hard to say 'NO'. Friends trips over the last decade reflect Ernie's grasp of current research and field work in the Northeast and his undying interest in the work of others from western New York to Nova Scotia.

Ernie has been an excellent listener and supporter of his students and colleagues. He embraces new ideas with a respectful professional skepticism. As his former students will certainly attest, his criticisms are challenging but always constructive and his thoughtful analyses and gentle suggestions have given us direction and opened our minds to a multitude of new ideas. As the sign in his office at Syracuse reads, "I said maybe and that's final." For so many of us, Ernie epitomizes the ideal of gentleman-scholar and we are proud to call him a colleague and Friend.

Thank you Ernie!



Cover: Directional features in central Vermont: striations, till fabrics and a crag-and tail (at 5) (Larsen, 1972). Dashed line is edge of "Burlington drift" of Stewart and MacClintock (1969, 1970).

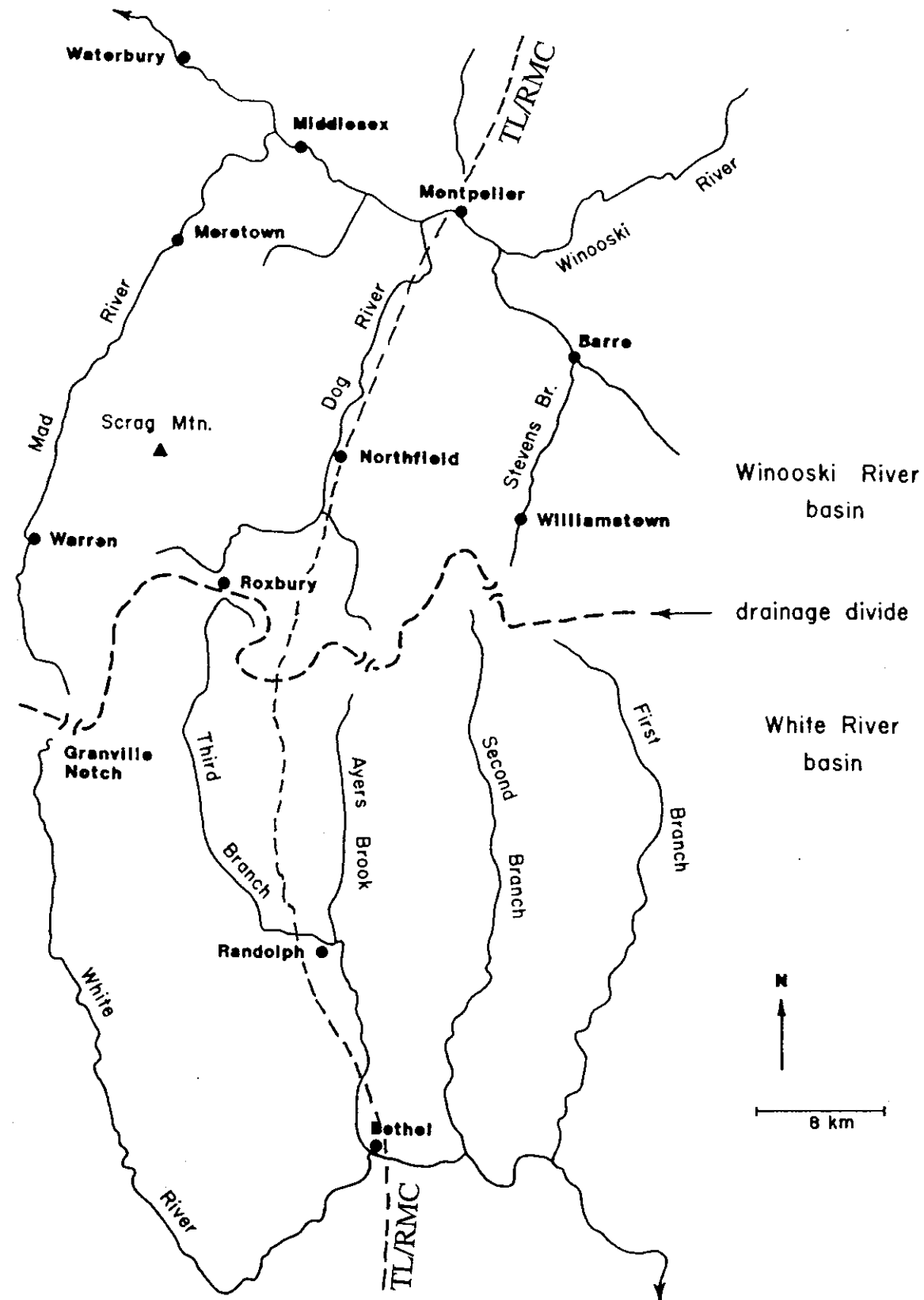
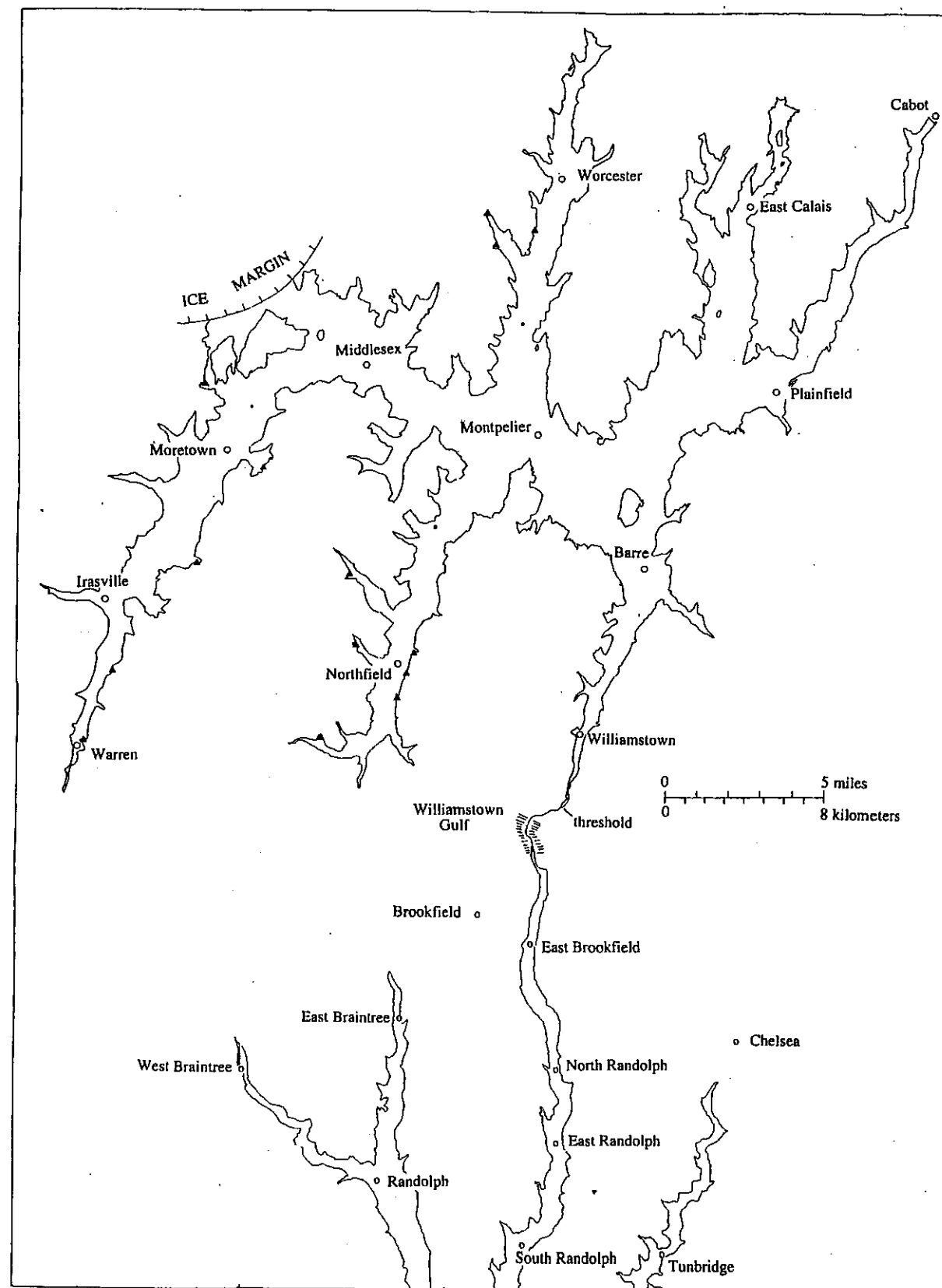


Figure 1. Stream drainage





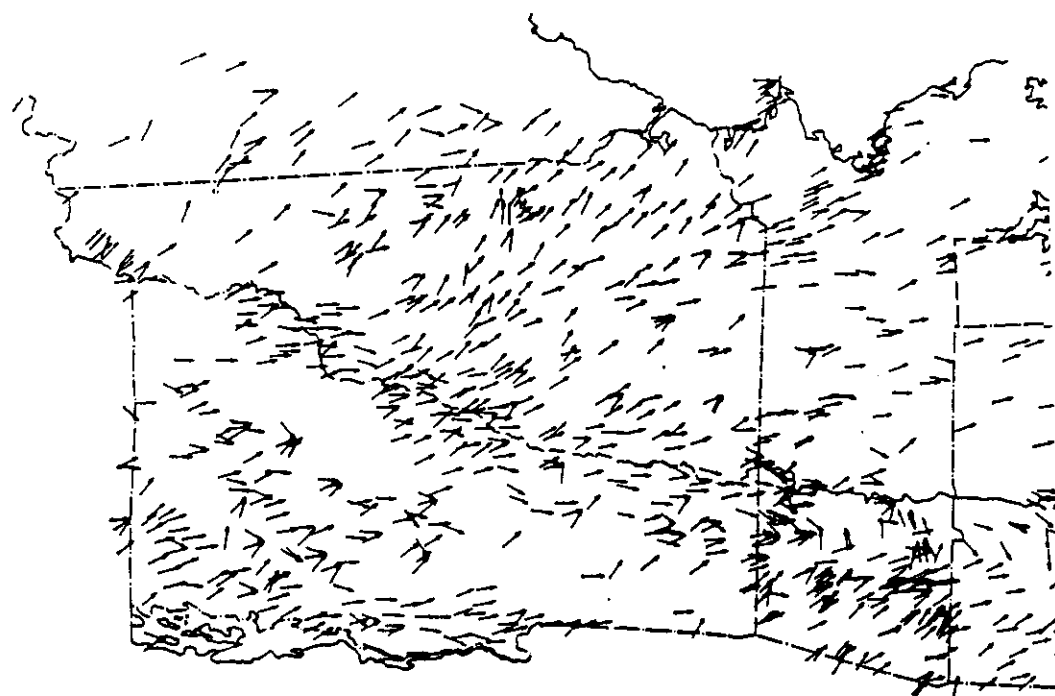






Figure 10. Distribution of some erratics of reddish-brown quartzite (solid dots) derived from the Monkton quartzite (solid black areas).

**Ice-contact deposits:** The most significant ice-contact deposits in central Vermont are esker sediments and associated proximal and distal subaqueous outwash. Larsen (1987b) developed a model stratigraphic section for gravel deposits in the north-draining Dog River valley that is similar to one presented by Rust and Romanelli (1975) for the Ottawa, Ontario, region. The model stratigraphic section is applicable to deposits in the south-draining Second Branch valley (Stop 1) and the north-draining Stevens Branch valley (Stop 4). The model (Fig. 11) is comprised of 3 fining-upward units that are often capped by stream-terrace deposits.







## ROAD LOG - DAY 1

**Assembly time and place: Saturday, May 24, 2003, 8:00 AM. South parking lot at Econo Lodge, Montpelier, Vermont. Cumulative mileage will be given, including average mileage in pits. Stops on private property require permission from the land owner.**

0.0 mi Proceed west from Econo Lodge on Derby Drive, north on Mountain

similar to those at Stop 1 are well exposed; at 36.1 driveway/farm road to Stop X on the right.

### STOP X: STRATIGRAPHIC SECTION ON JOHN RACE PROPERTY

There is not room at this site for a large group. See John Race for permission to go on the land. A tight bend of the Second Branch is migrating south into bottom deposits of Lake Hitchcock (Fig. 13). The 35-foot section of distal subaqueous outwash was formed more than 100 ft below the

## STOP 2: TOWN OF BROOKFIELD PIT (formerly John Wheatley pit) (Larsen)

It is not as obvious as it used to be, but this pit is located in a convex-up landform that is interpreted to be a high gravel bar. The surface elevation of the landform is about 730 ft ASL (from the topographic map) and the projected level of Lake Hitchcock is 785 ft ASL. The pit was opened in the mid-90's and was first observed and studied by the glacial geology class at Norwich University in the fall of 1999. The pit has









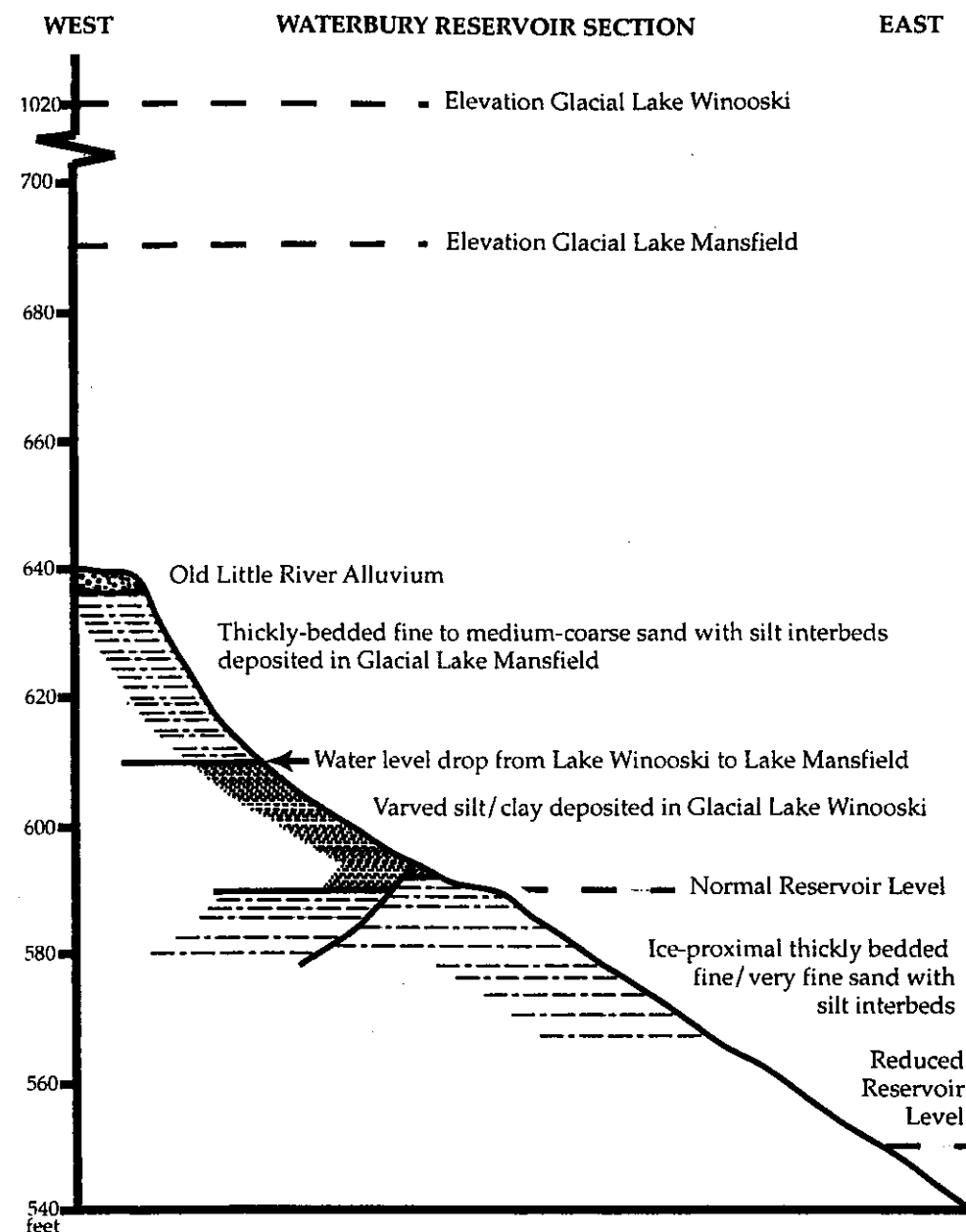


























- |          |                                                                                  |                          |
|----------|----------------------------------------------------------------------------------|--------------------------|
| 64. 2001 | Najat Bhiry / Jean-Claude Dionne / Martine Clet / Serge Occhietti / Jehan Rondot | Quebec City region, QC   |
| 65. 2002 | Woody Thompson / Carol Hildreth / Dick Boisvert / Chris Dorion / Brian Fowler    | Northern White Mtns., NH |
| 66. 2003 | Fred Larsen / Stephen Wright<br>George Springston / Richard Dunn                 | Central Vermont          |