SEA FLOOR TOPOGRAPHY AND BACKSCATTER DIFFERENCE OF THE HISTORIC AREA REMEDIATION SITE (HARS)

a. 1996 - 1998 | b. 1998 - 2000 | c. 1996 - 2000

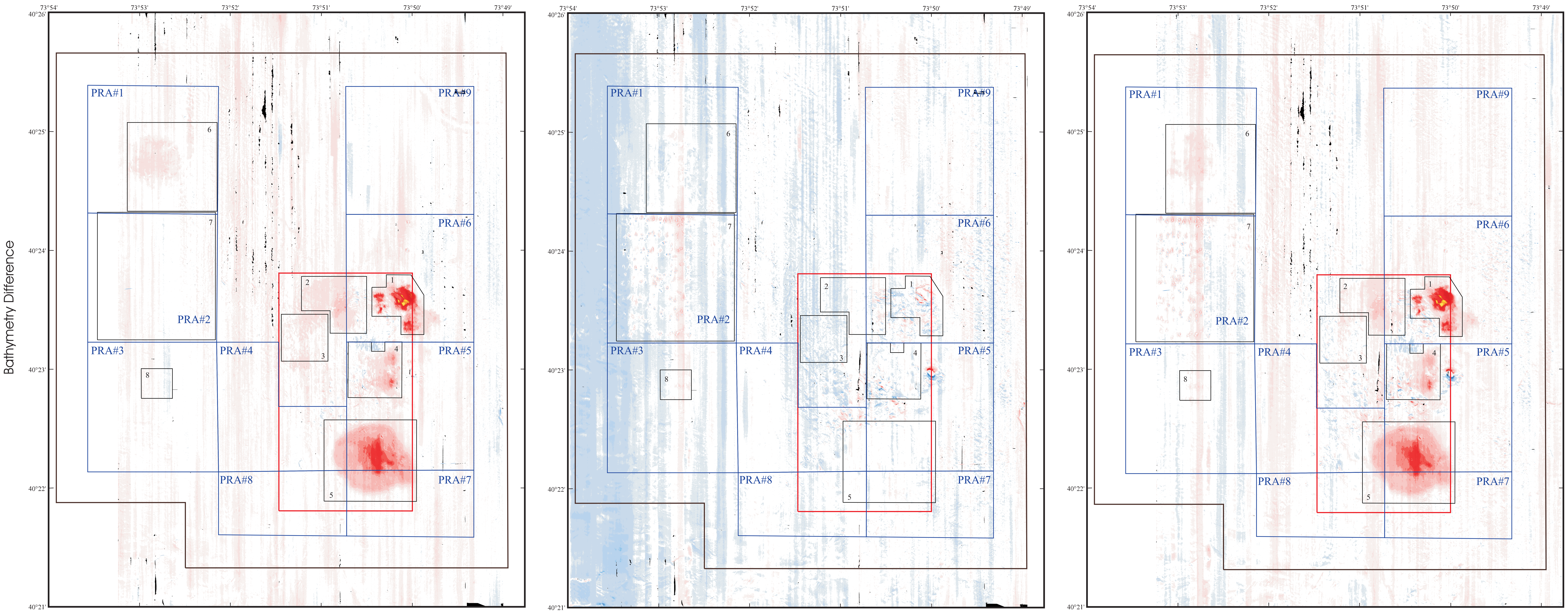

Figure 8. (a) Topography observed in the1998 survey subtracted from the1996 survey, (b) topography observed in 2000 subtracted from 1998, and (c) topography observed in the 2000 subtracted from 1996. Positive features indicate shallower water in the later year as compared to the earlier year. Negative features indicate deepening of the water. Between 1996 and 1998, the mean difference in depth across the entire survey area was 24 cm and between 1998 and 2000 the mean difference was 14 cm; both values are within the estimated system accuracy of 30 cm. Local changes in depth are observed where dredged material was placed between the 1996, 1998 and 2000 surveys. More accurate information on the amount of material placed at each site and the water content of the sediment on the seafloor is needed to determine if any of the material placed on the sea floor in the HARS has been eroded and transported from the site. However, the data suggest little net accumulation in Area 3, compared to the other areas that received similar amounts of material (Figure 6, Table 1). The material placed in Area 3 was mud and silt which spreads easily during placement and may be easily eroded. Some loss of material is more likely at this shallow site than from deeper areas. The feature centered near 40°22.97' N., 73°50' W. results from a small offset in an apparent position of the sharp mound that rises to within 12 m of the surface. The north-south stripes, running parallel to the survey tracklines, are artifacts of environmental conditions during data collection.

Topographic Difference (cm)

- -750 - -650
- -650 - -550
- -550 - -450
- -450 - -350
- -350 - -250
- -250 - -200
- -200 - -150
- -150 - -100
- -100 - -50
- -50 - -25
- -25 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- 200 - 250
- 250 - 300
- 300 - 350
- 350 - 400
- 400 - 450
- 450 - 500
- 500 - 550
- 550 - 600
- 600 - 650
- 650 - 700
- 750 - 800
- 700 - 750
- 800 - 850
- No Data

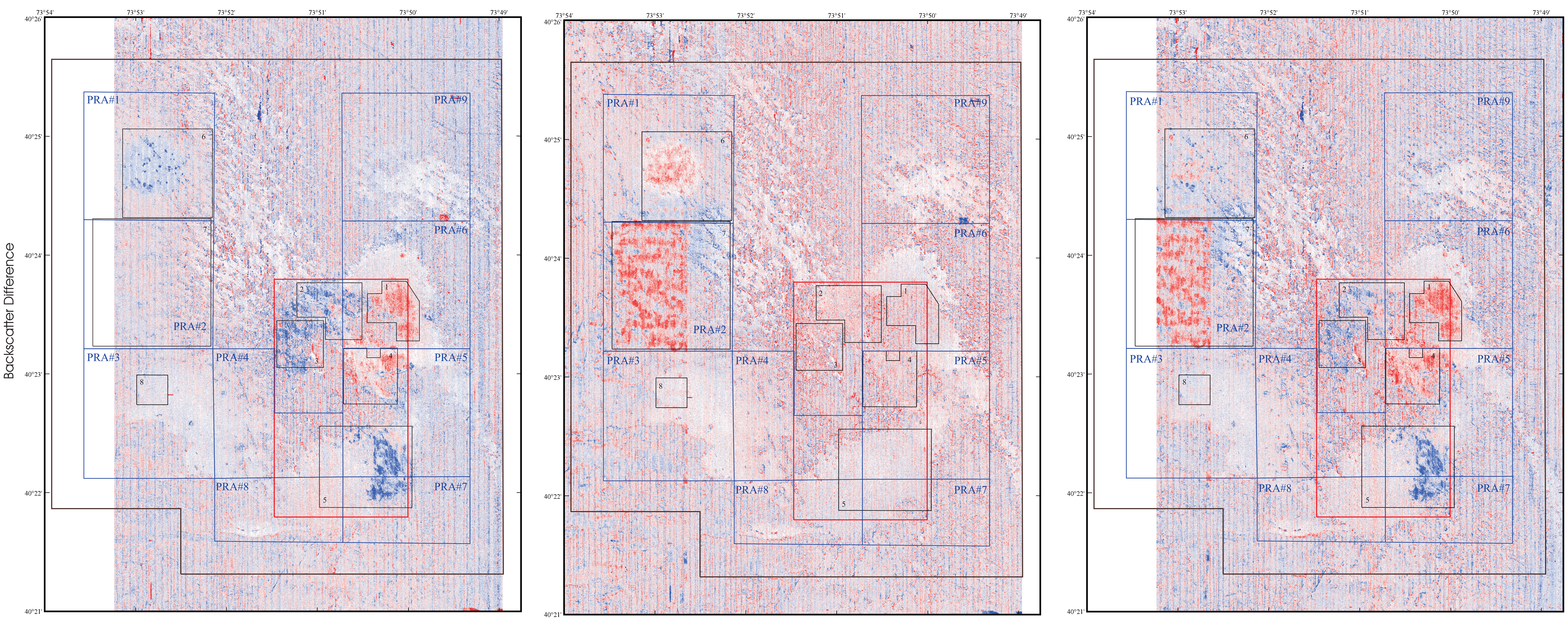

Figure 9. (a) Backscatter intensity observed in 1998 subtracted form 1996, (b) backscatter intensity observed in 2000 subtracted from 1998, and (c) backscatter intensity observed in 2000 subtracted from 1996. Areas of reduced backscatter intensity in the later year are shown in blue shades, areas of increased backscatter are shown in red shades. Areas of no change are shown in white. Placement of dredged material can result in either increased or decreased backscatter intensity. For example, between 1996 and 1998, note the higher backscatter intensity in Areas 1 and 4, and generally lower backscatter intensity in Areas 2, 3, 5, and 6. Between 1998 and 2000, Area 7 had increased backscatter intensity. The broad areas of low backscatter intensity in the HARS region (see large areas of dark blue in figure 6b in the southwest corner centered at 40°22.5' N., 73°525' W., along the eastern margin centered at 40°24.0' N., 73°50.0 W., and along the crest of the ridge centered at 73°51.5' W.) show little change in backscatter intensity between the surveys. These are interpreted to be areas of fine-sediment accumulation where additional fine-grained sediment accumulation from distant sources would not be expected to change the backscatter intensity characteristics from year to year. The north-south stripes, running parallel to the survey tracklines, are artifacts of data collection and environmental conditions.

Backscatter Difference (cm)

- -254 - -204
- -203 - -153
- -152 - -102
- -101 - -50
- -50 - -11
- -10 - 10
- 11 - 50
- 51 - 101
- 102 - 152
- 153 - 203
- 204 - 254
- No Data

Scale 1 : 25,000
(1 cm on the map equals 250 m on the sea floor)
km
0 2 4