



Fig. 10. As for Fig. 9, but for the surface values of eigenvectors (30, 31, 33, 34). The variables shown are indicated by the bottom titles. These four vectors are associated with the dominant internal variability of the Adventure Bank Vortex and Maltese Channel Crest.

topographic Rossby wave patterns propagating along the steep Ionian slope (Fig. 2). Their dominant wavelength is about 120 km. The maps (1a–2a) show that in the surface, both vectors are dominated by their total velocity anomalies.<sup>2</sup> The non-dimensional surface tracer anomalies are almost one order of magnitude less. The cross-sections (1b–2b) show maxima for temperature within 20 to 70 m, depths of the MAW

<sup>2</sup> In the normalization (Appendix A), amplitudes are divided by the number of vectors (289), hence leading to magnitudes of order  $10^{-2}$ , for  $T$ ,  $S$ ,  $\hat{u}$  and  $\hat{v}$  fields, and  $10^{-14}$  for  $\psi$  (the  $10^{12}$  arises from Sv units).