

Estimates of the neutral delay,  $\ell$ , for each site in a GPS network

For each site  $k$  in the network

Identify the timeseries,  $\ell_i$ , for each site,  $i$ , surrounding the site  $k$  within a radius of  $x$  km

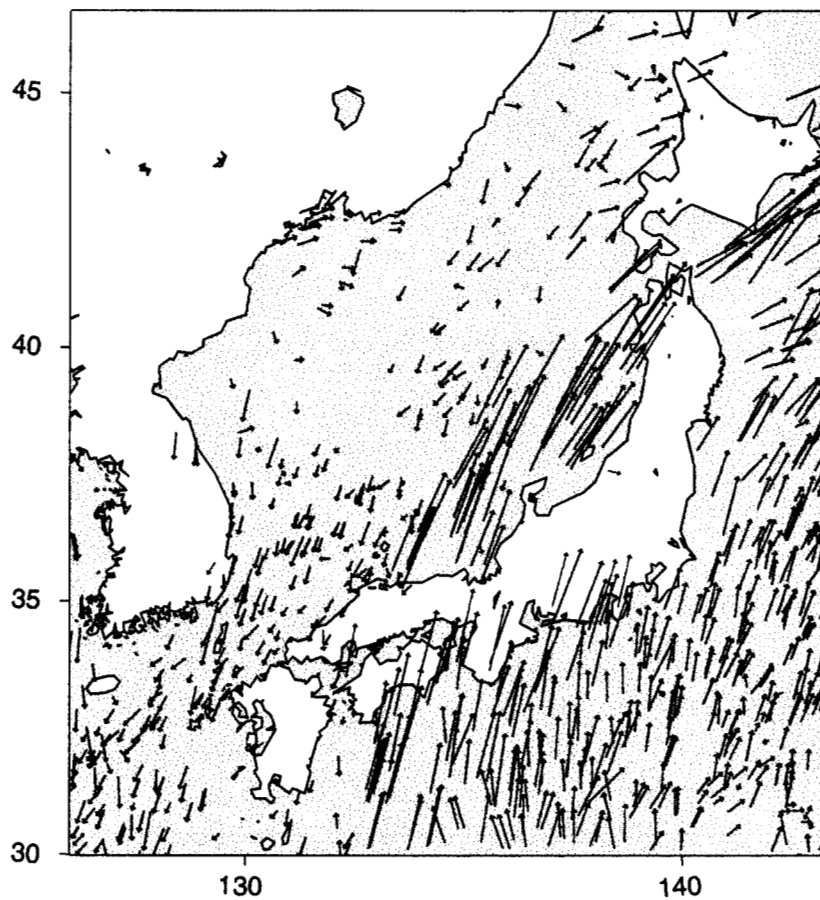
Using the model:  
 $\ell_i(t) = \ell_k(t + \tau_i) + w(t)$   
 $\tau_i$  can be found as the MLE.

Calculate the distance,  $d_i$ , between the sites  $k$  and  $i$ .

Estimate the water vapor wind-vector,  $\mathbf{v}_k$ , assuming the model:  
 $\frac{\mathbf{v}_k}{|\mathbf{v}_k|^2} \cdot \mathbf{d}_i = \tau_i$   
using the Gauss-Newton method for non-linear least-squares.

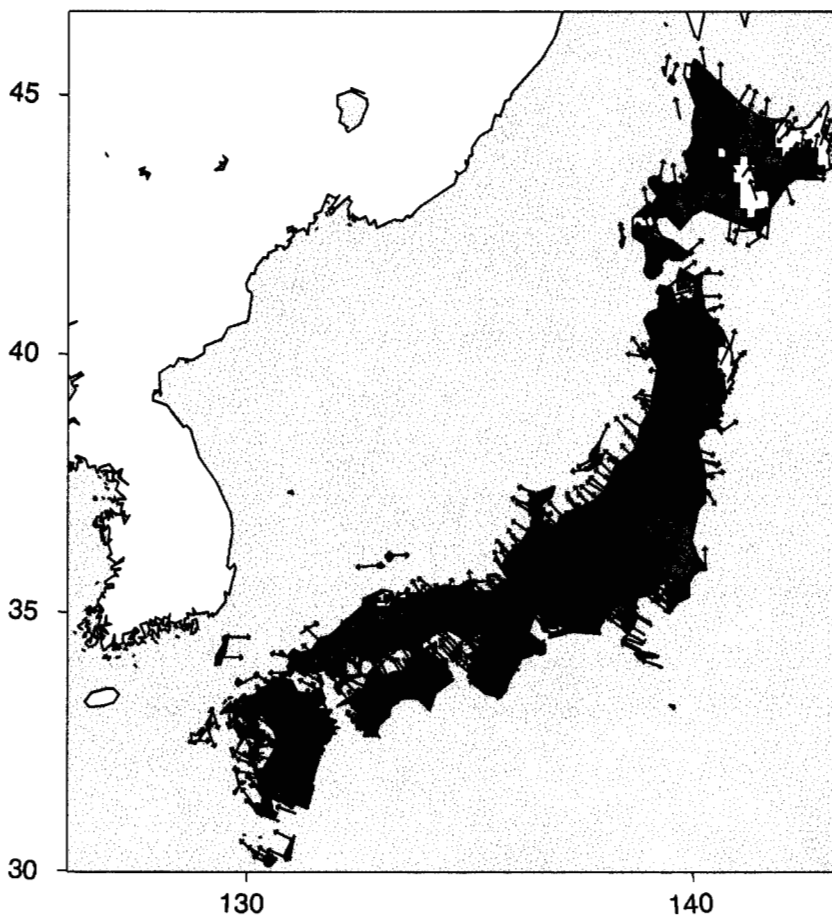
$\mathbf{v}_k$

17 September 1998



GMS5

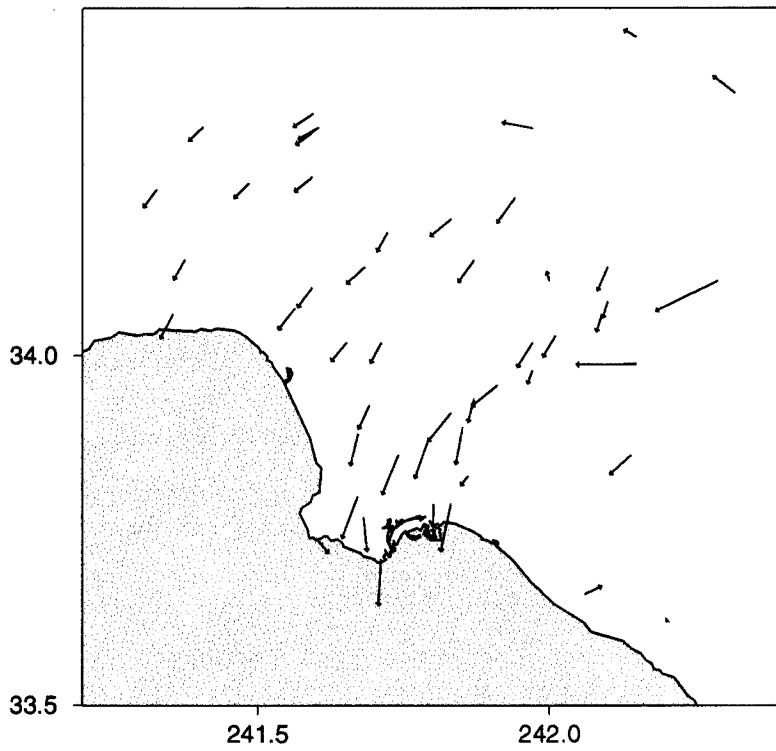
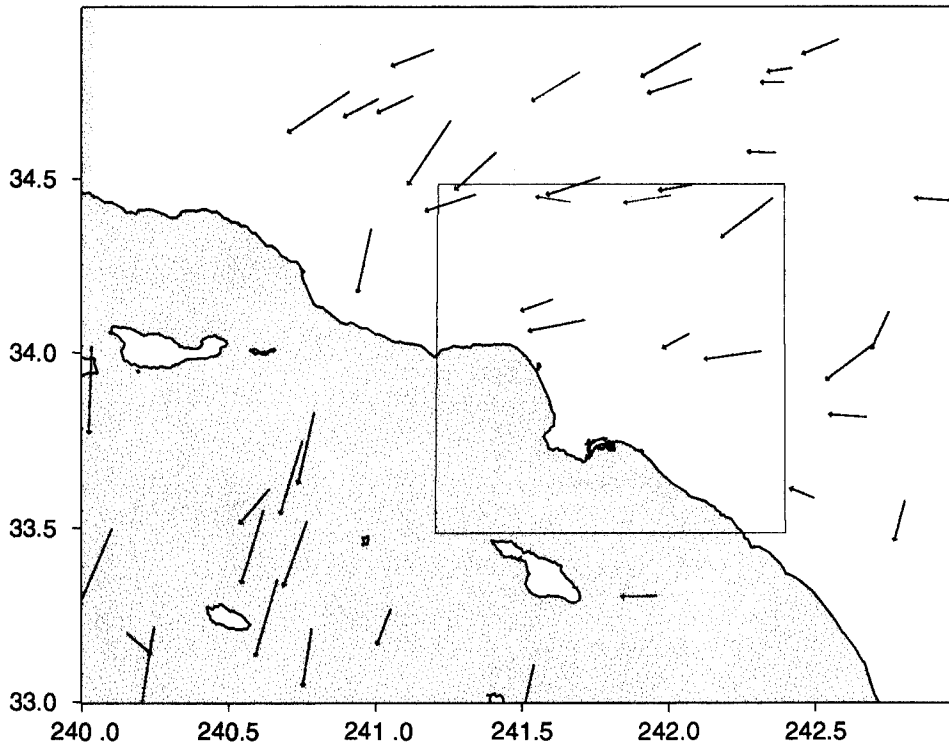
- WV
- IR
- Visible
- ↖ 15 m/s



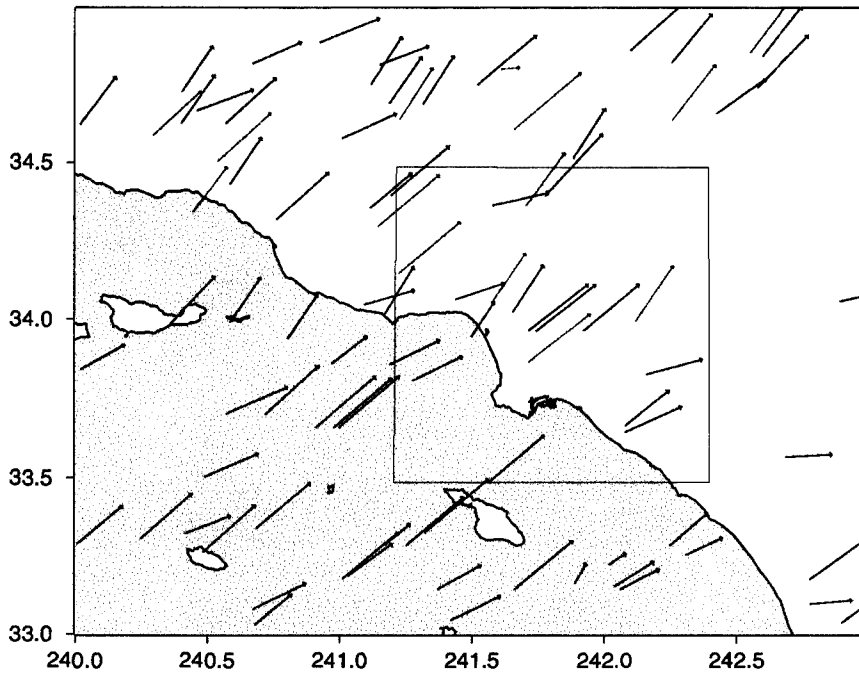
GPS

- 50
  - 45
  - 40
  - 35
  - 30
  - 25
  - 20
  - 15
  - 10
  - 5
  - 0
- m/s

22 May 1999

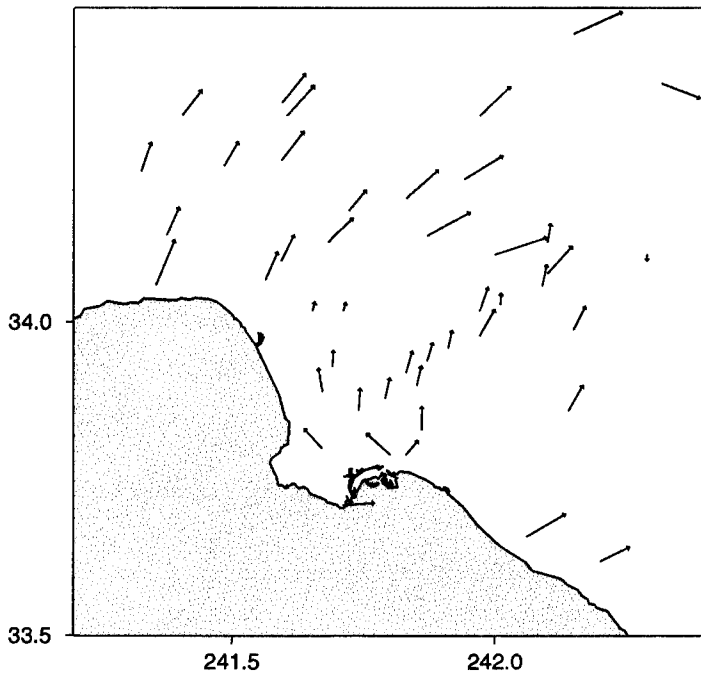


18 May 1999



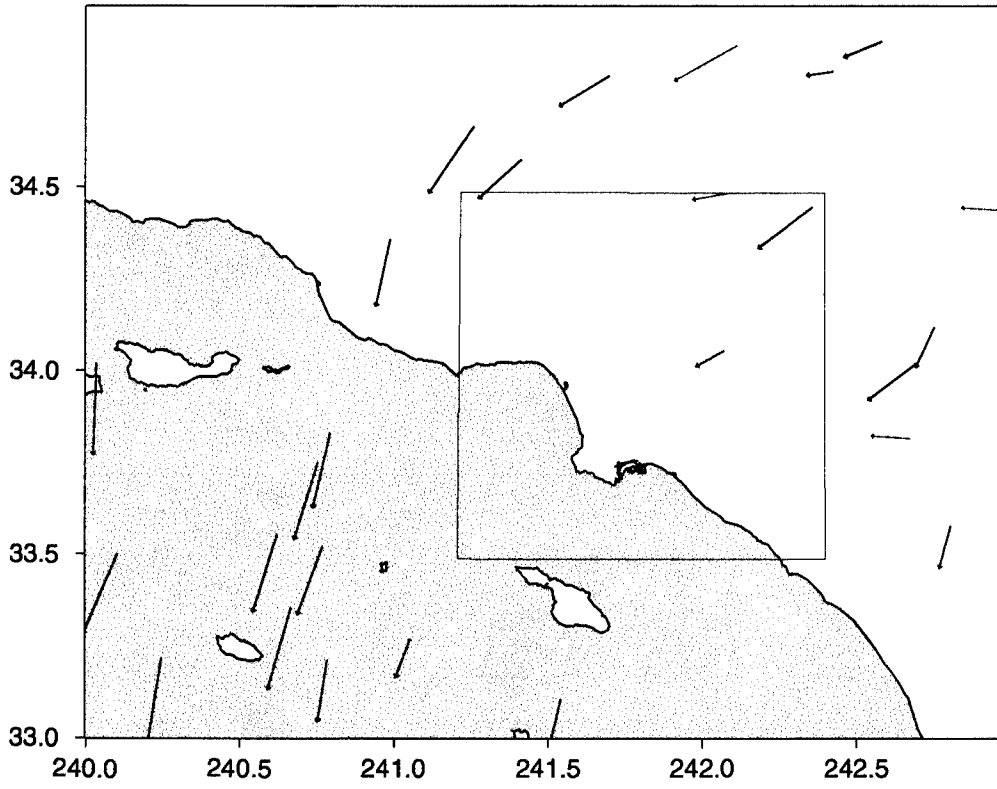
GOES

- WV
- IR
- Visible

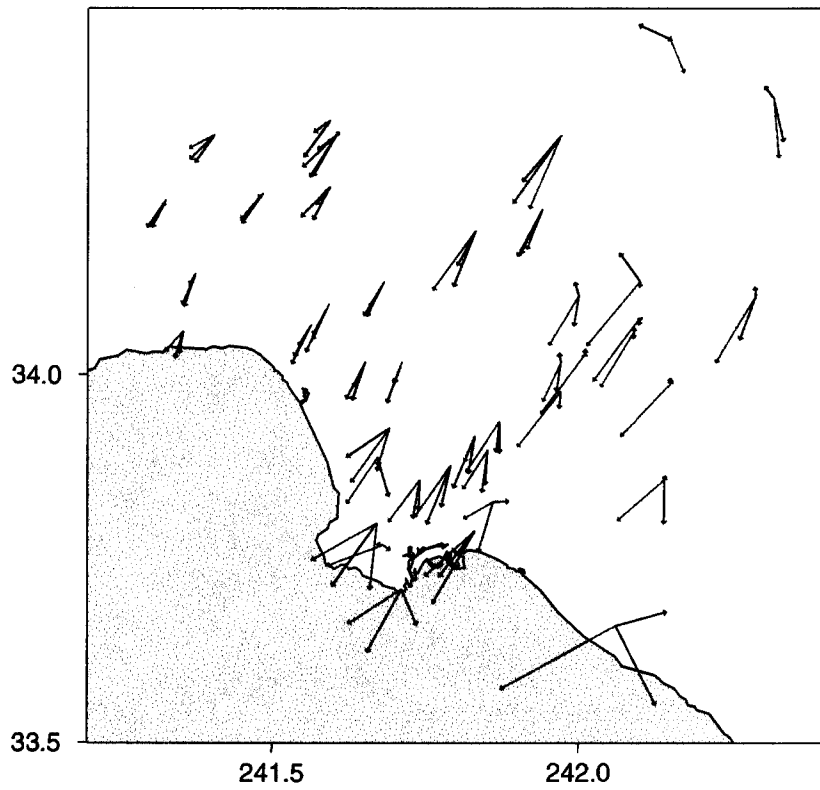
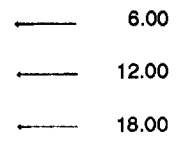


GPS

22 May 1999



GOES



GPS

3 May 1999

