

Katrina Hindcast - Scenario A1: Regional waves

- The next set of slides (Figures 12a-q) depict at discrete time steps Hurricane Katrina's wave activity as it developed in the region.
- In Southeastern Louisiana and Mississippi, wind waves exceeded 48 ft, and rapidly changed in both wave height and wave period as they moved into shallow shelf waters and broke over the barrier islands. In fact, most barrier island sheltered waters do not experience waves greater than 8 to 10 ft, while wetlands do not experience waves greater than 5 to 8 ft.
- In addition, mean wave periods diminish from 12 to 14 seconds in front of the barrier islands to generally less than 6 seconds behind the barrier islands, showing that the long period swell from the ocean is effectively eliminated in the sheltered regions, and the wind seas are generated across the extensive sounds and low-lying wetlands with 10 to 18 ft of water over them for much of the storm.
- The extensive shallow water-bodies and low-lying wetlands east of the Mississippi River encourage development of surge and wind seas in the region driven by easterly winds. The MRGO has little impact on these surge and wave processes.

8/29/2005 at 2 am CDT

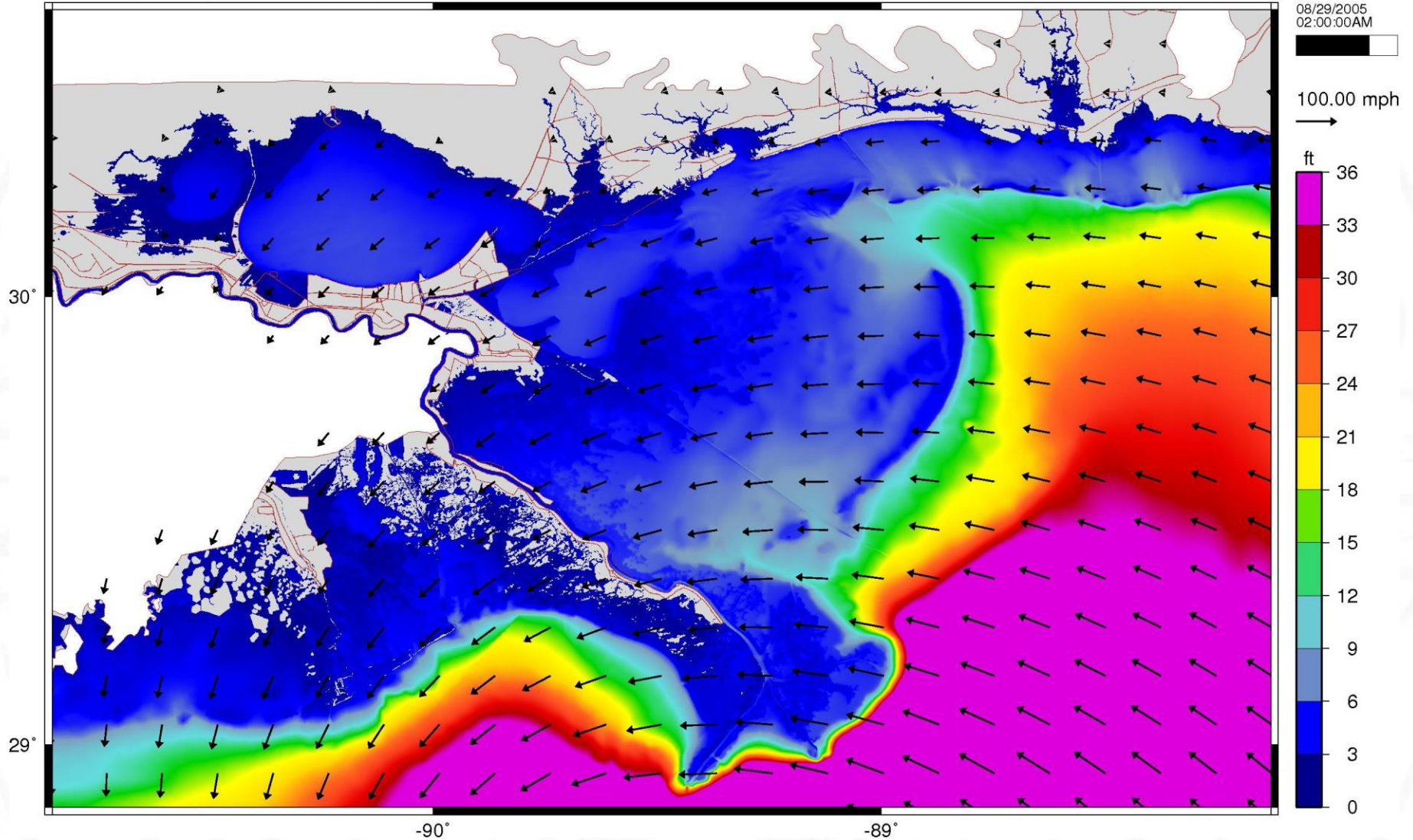


Figure 12a

8/29/2005 at 4 am CDT

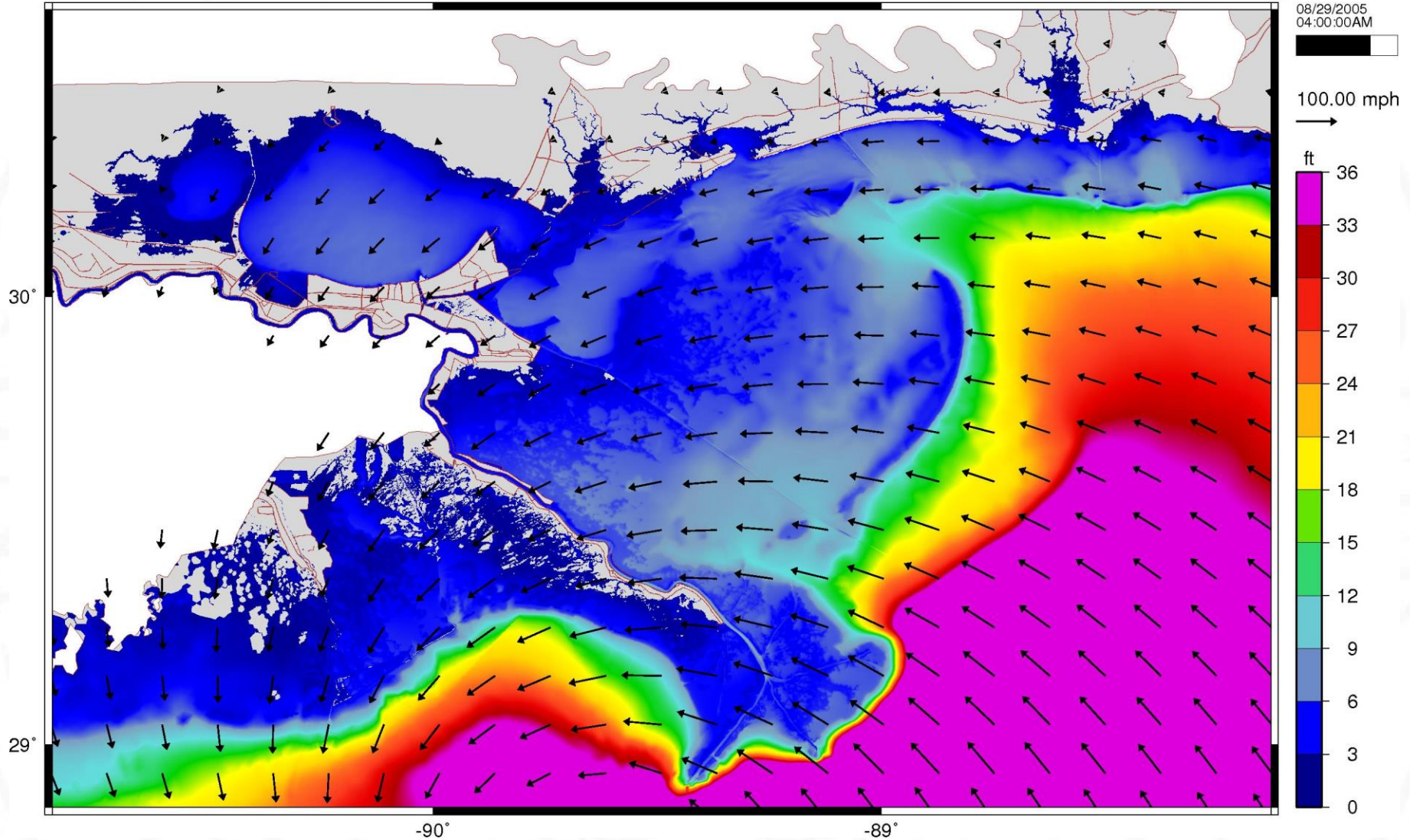


Figure 12b

8/29/2005 at 6 am CDT

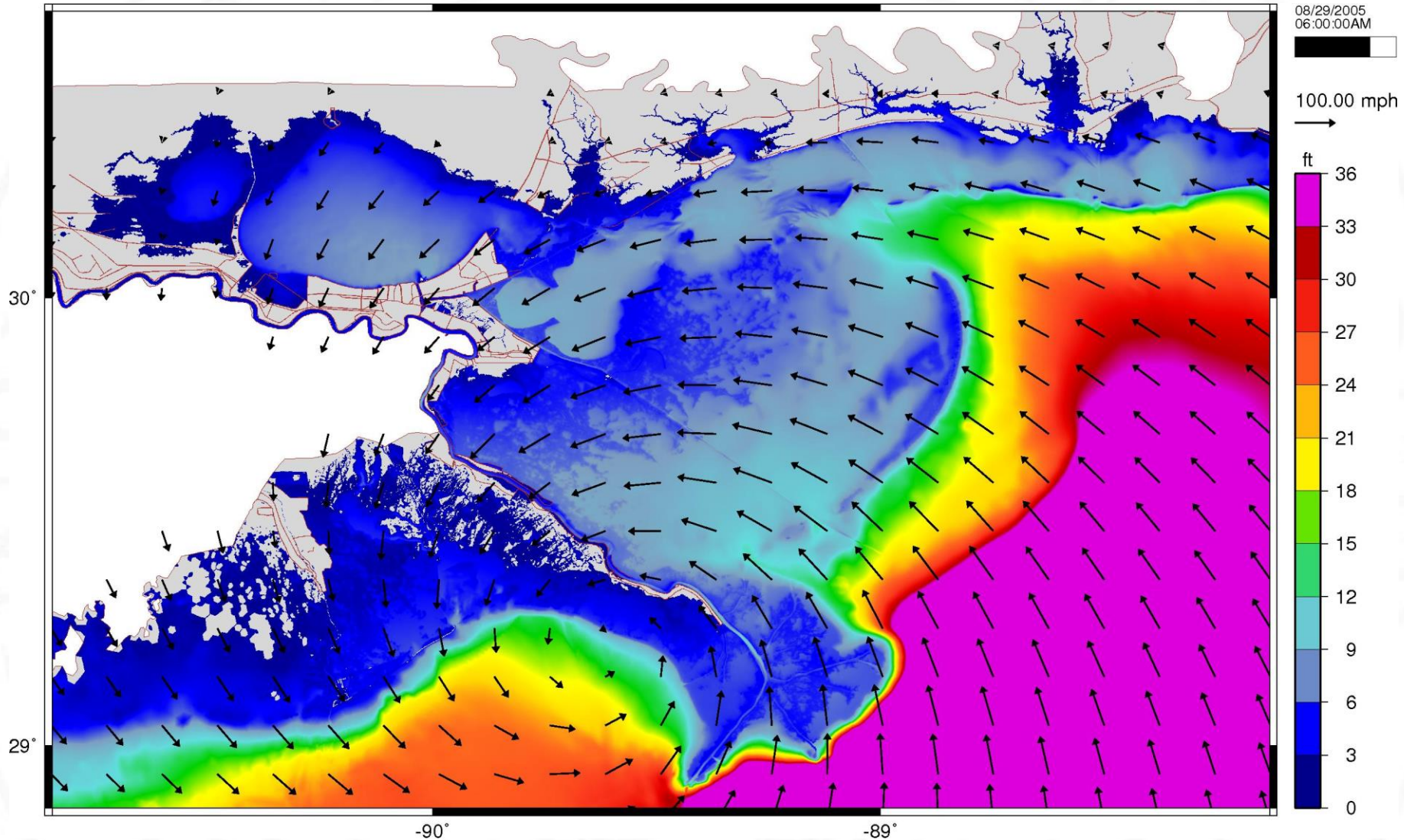


Figure 12c

8/29/2005 at 7 am CDT

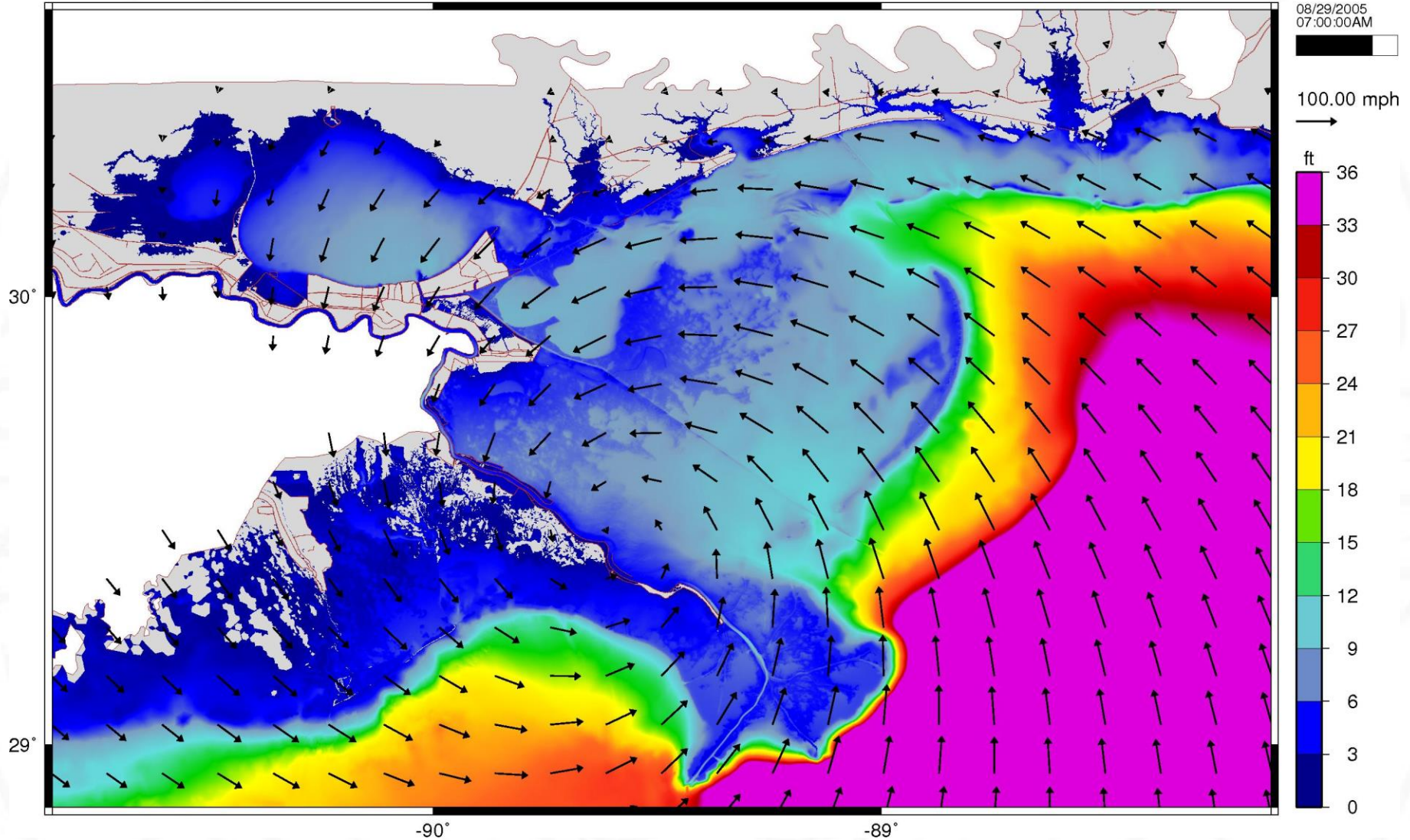


Figure 12d

8/29/2005 at 8 am CDT

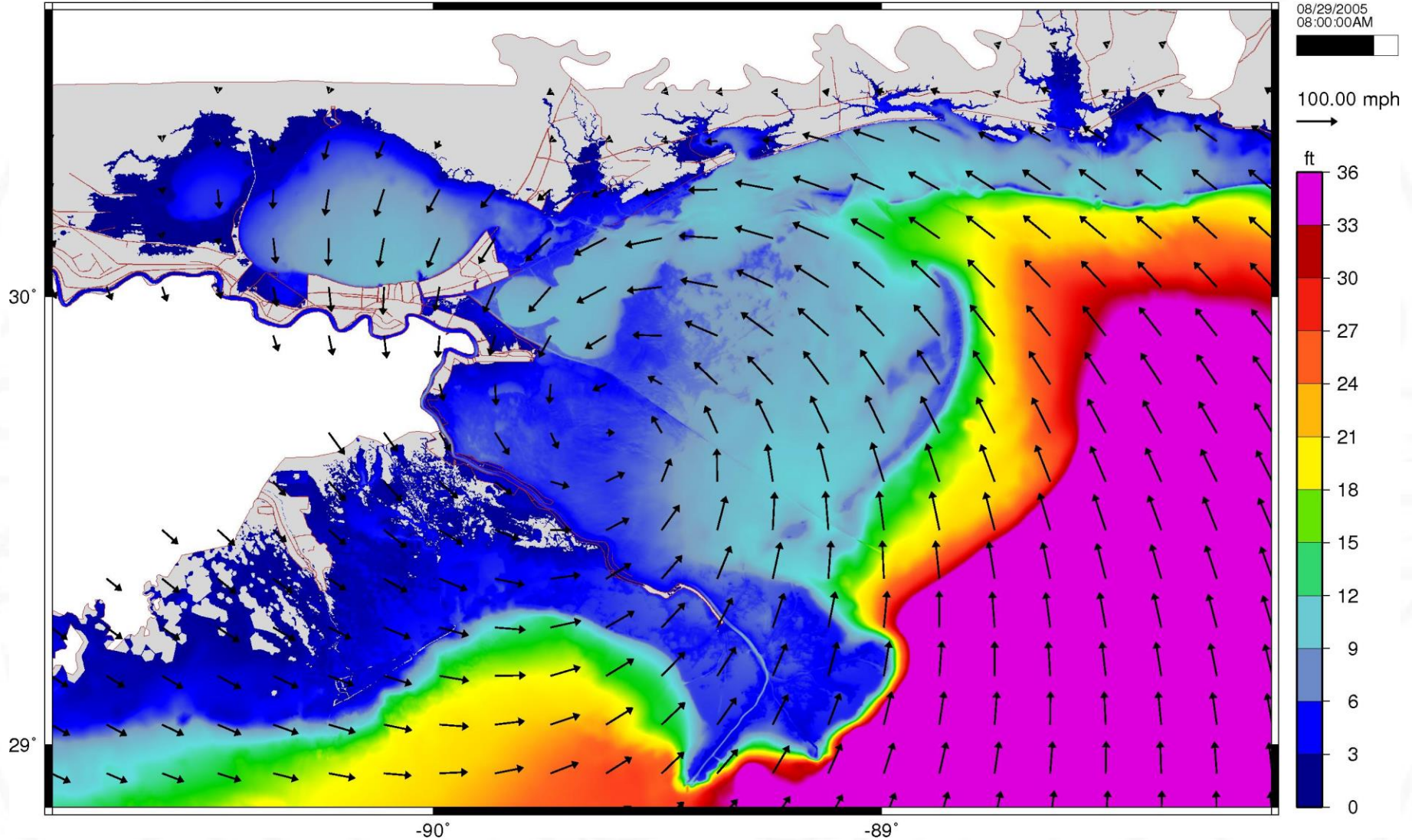


Figure 12e

8/29/2005 at 9 am CDT

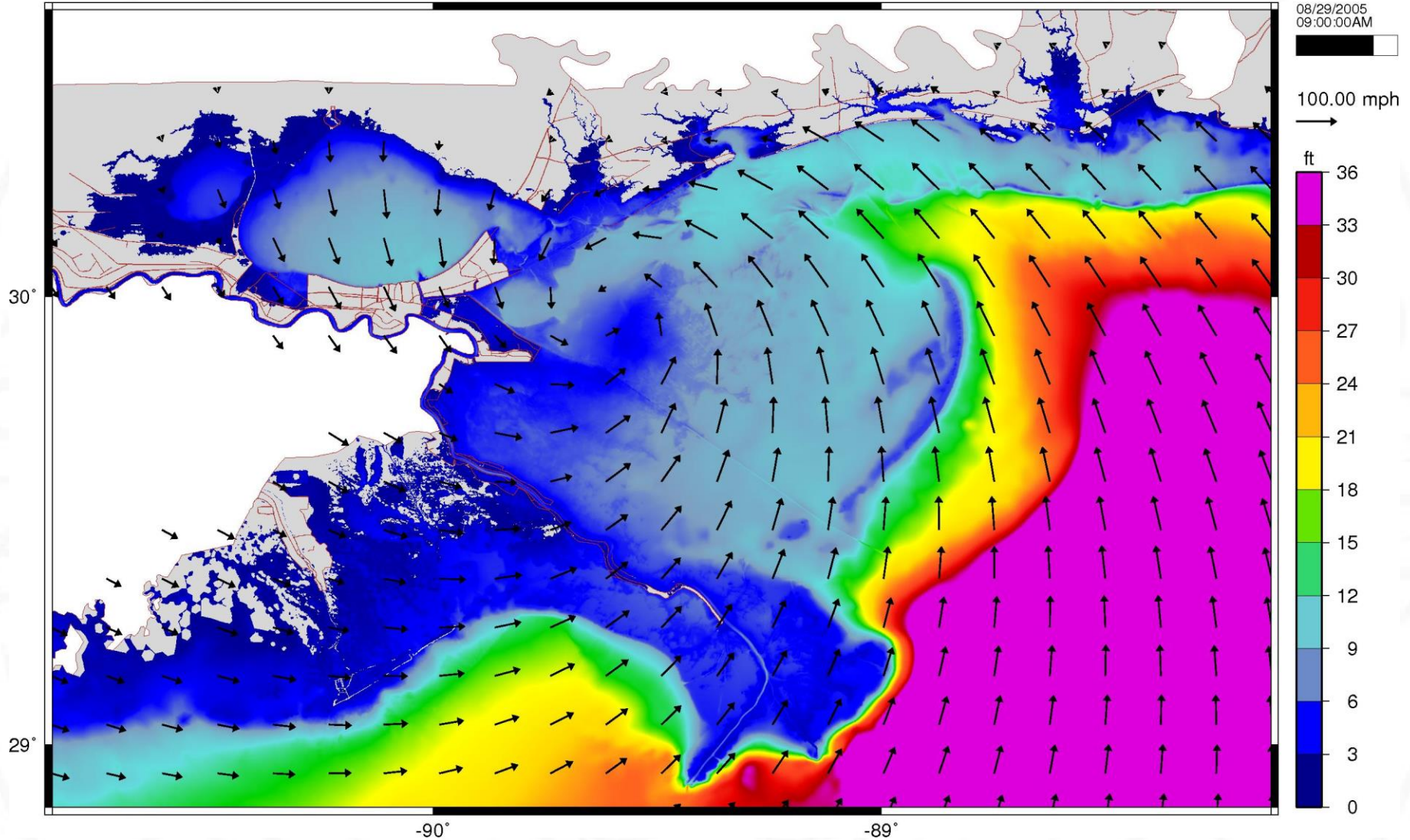


Figure 12f

8/29/2005 at 10 am CDT

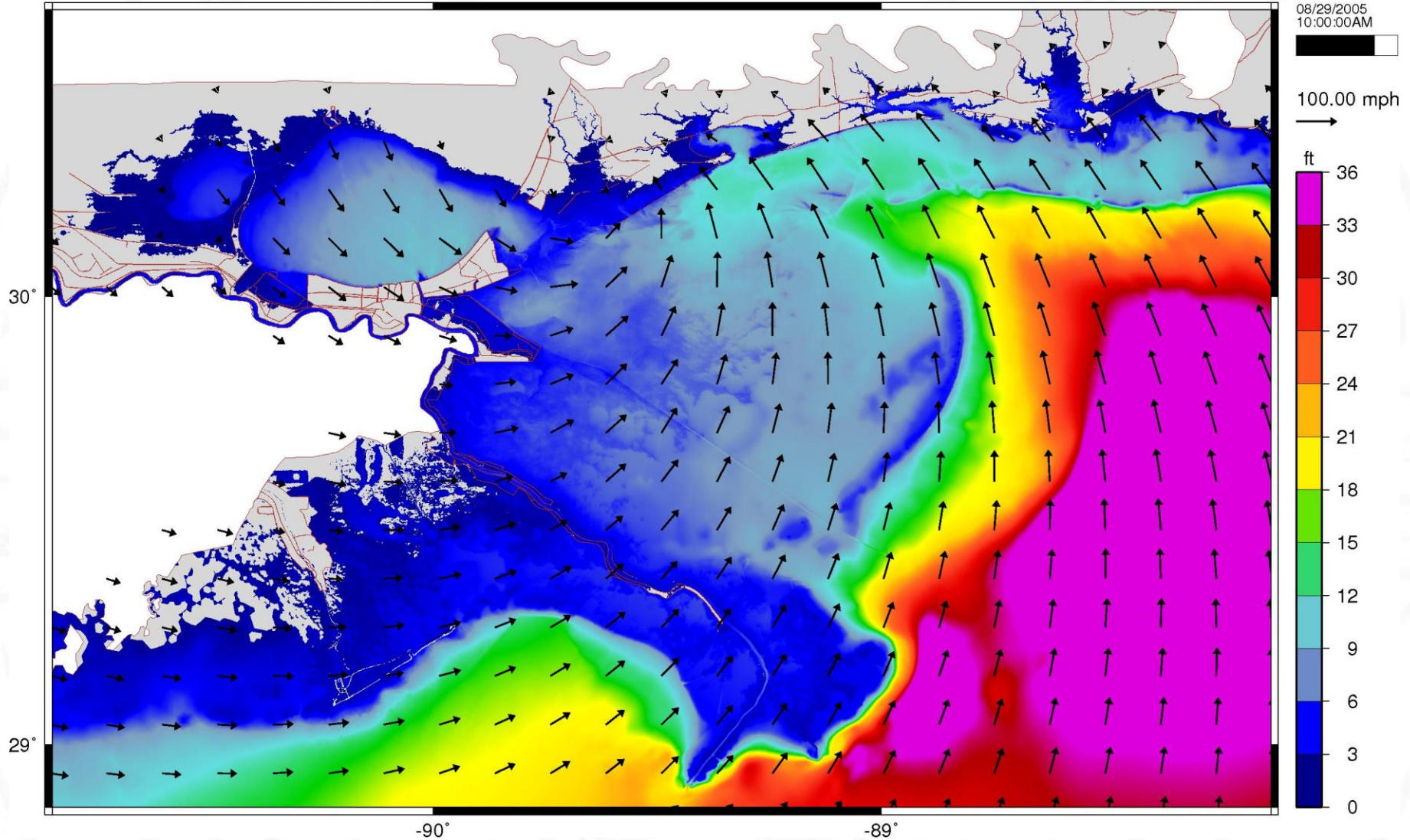


Figure 12g

8/29/2005 at 11 am CDT

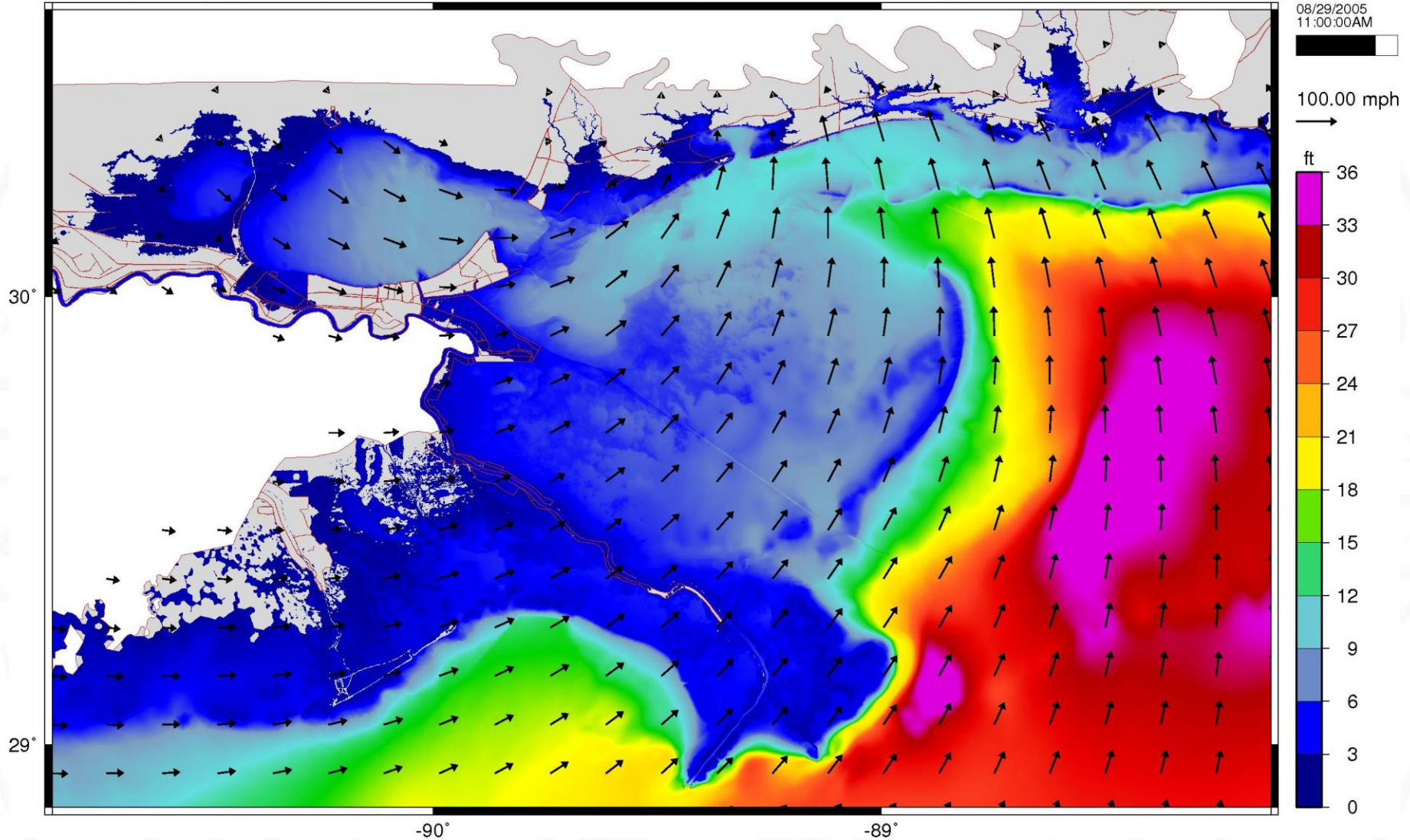


Figure 12h

8/29/2005 at 12 pm CDT

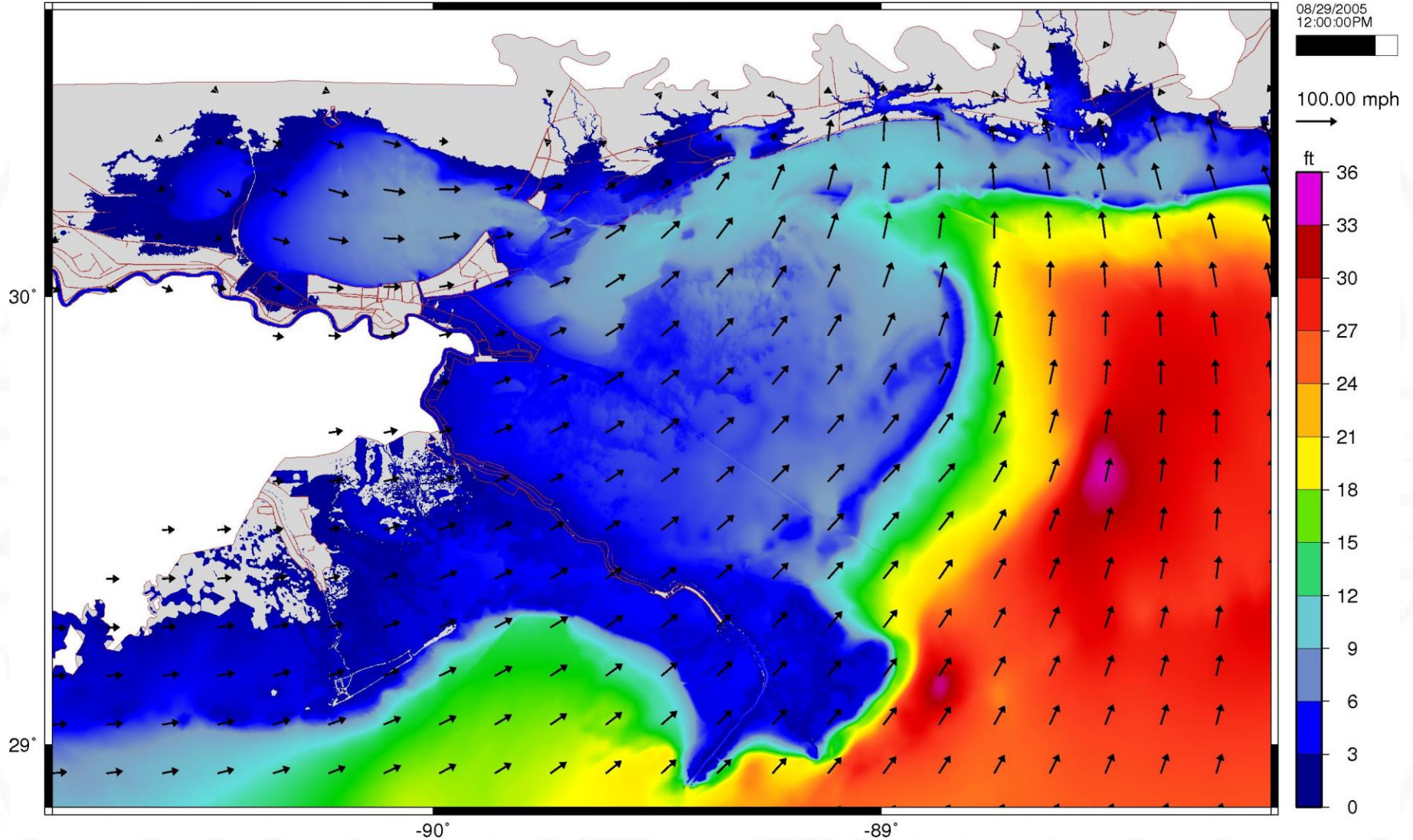


Figure 12i

8/29/2005 at 1 pm CDT

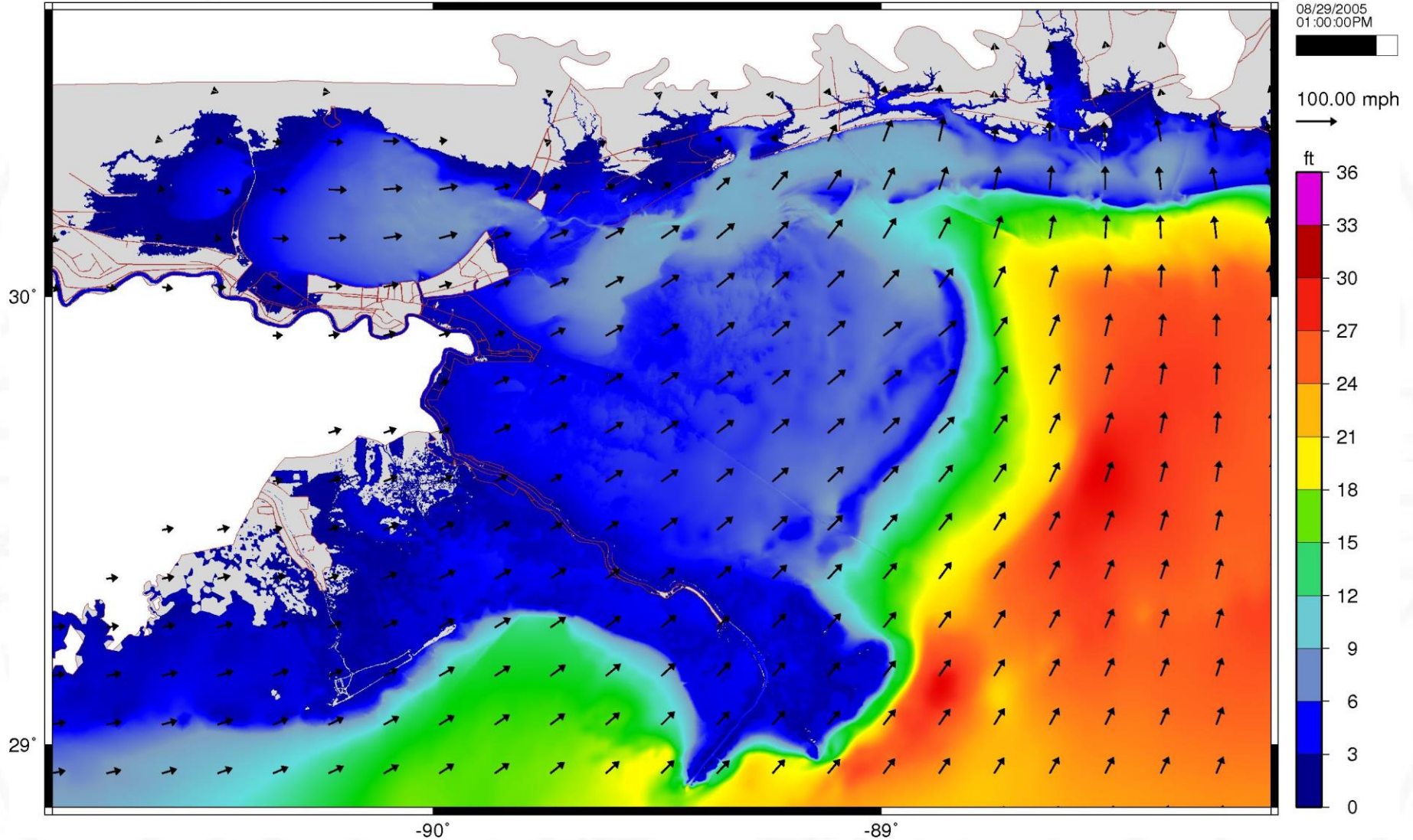


Figure 12j

8/29/2005 at 2 pm CDT

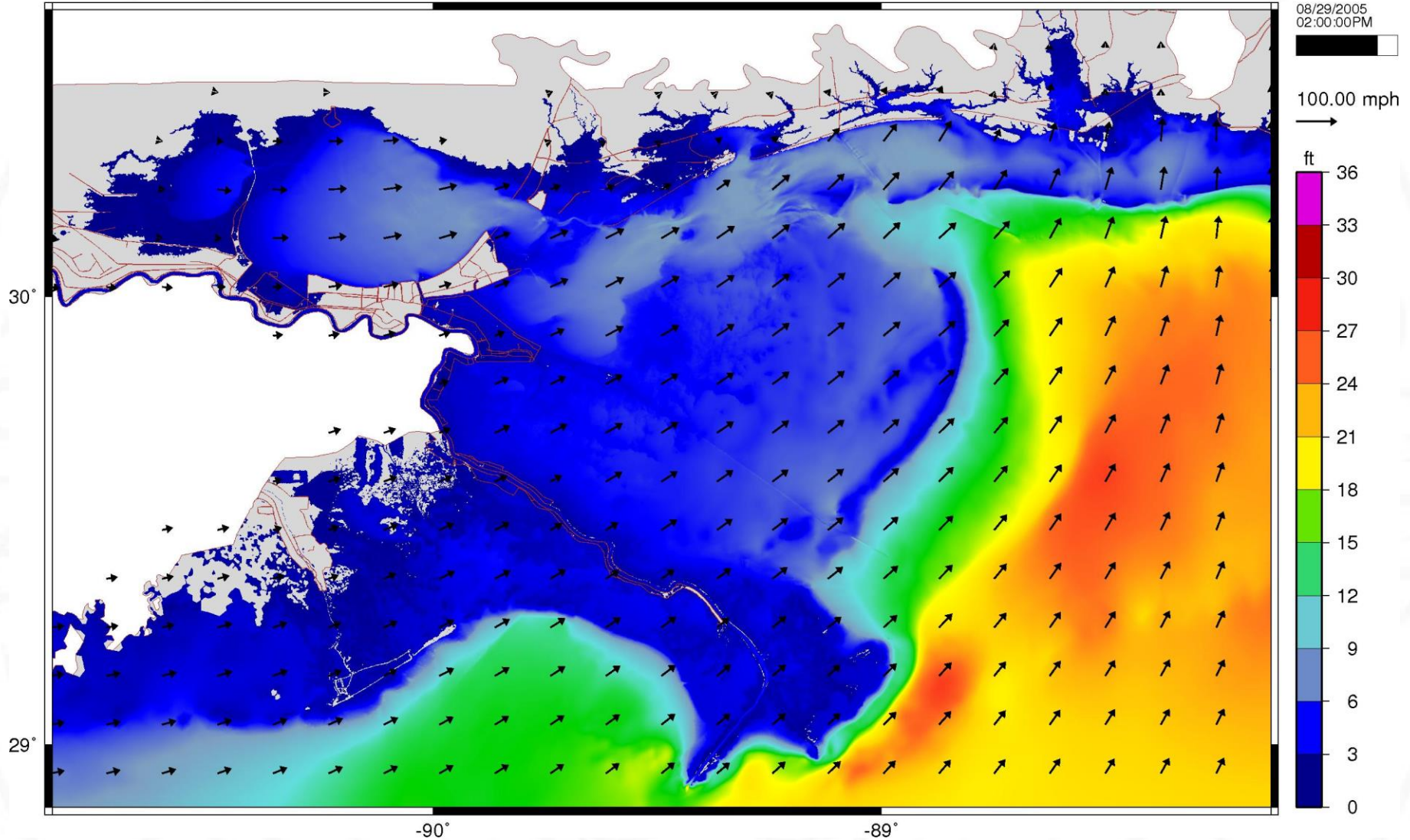


Figure 12k

8/29/2005 at 3 pm CDT

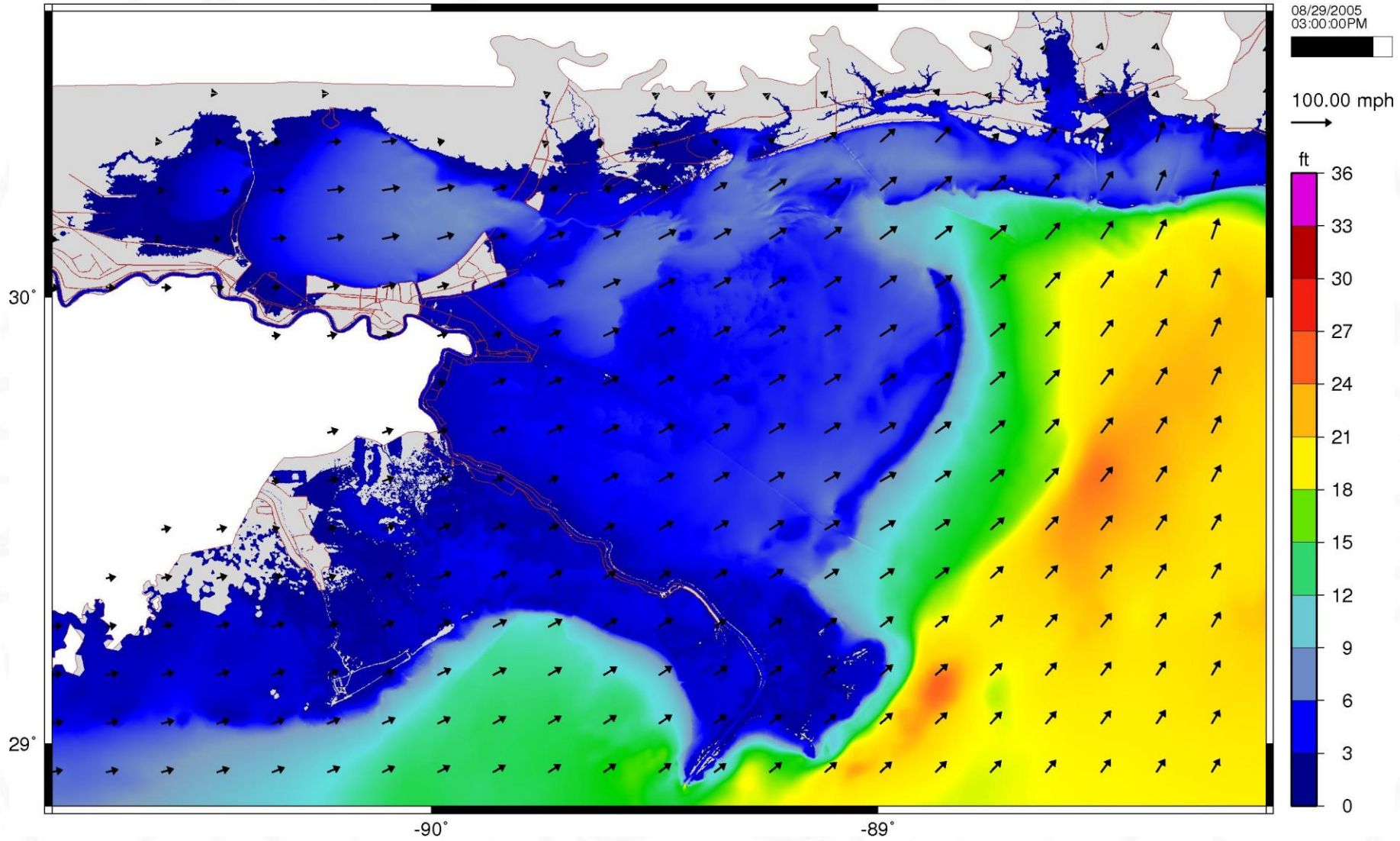


Figure 12I

8/29/2005 at 4 pm CDT

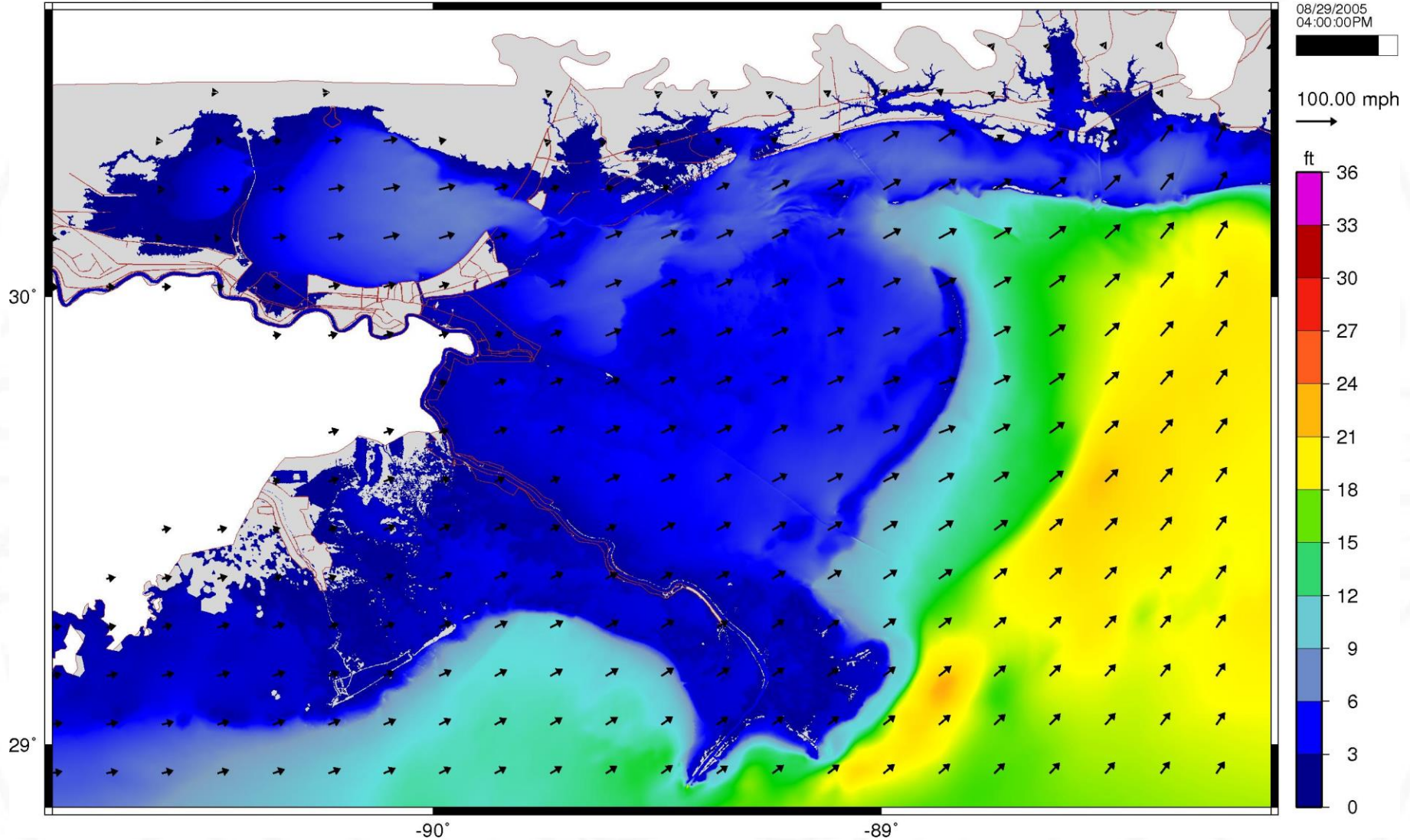


Figure 12m

8/29/2005 at 6 pm CDT

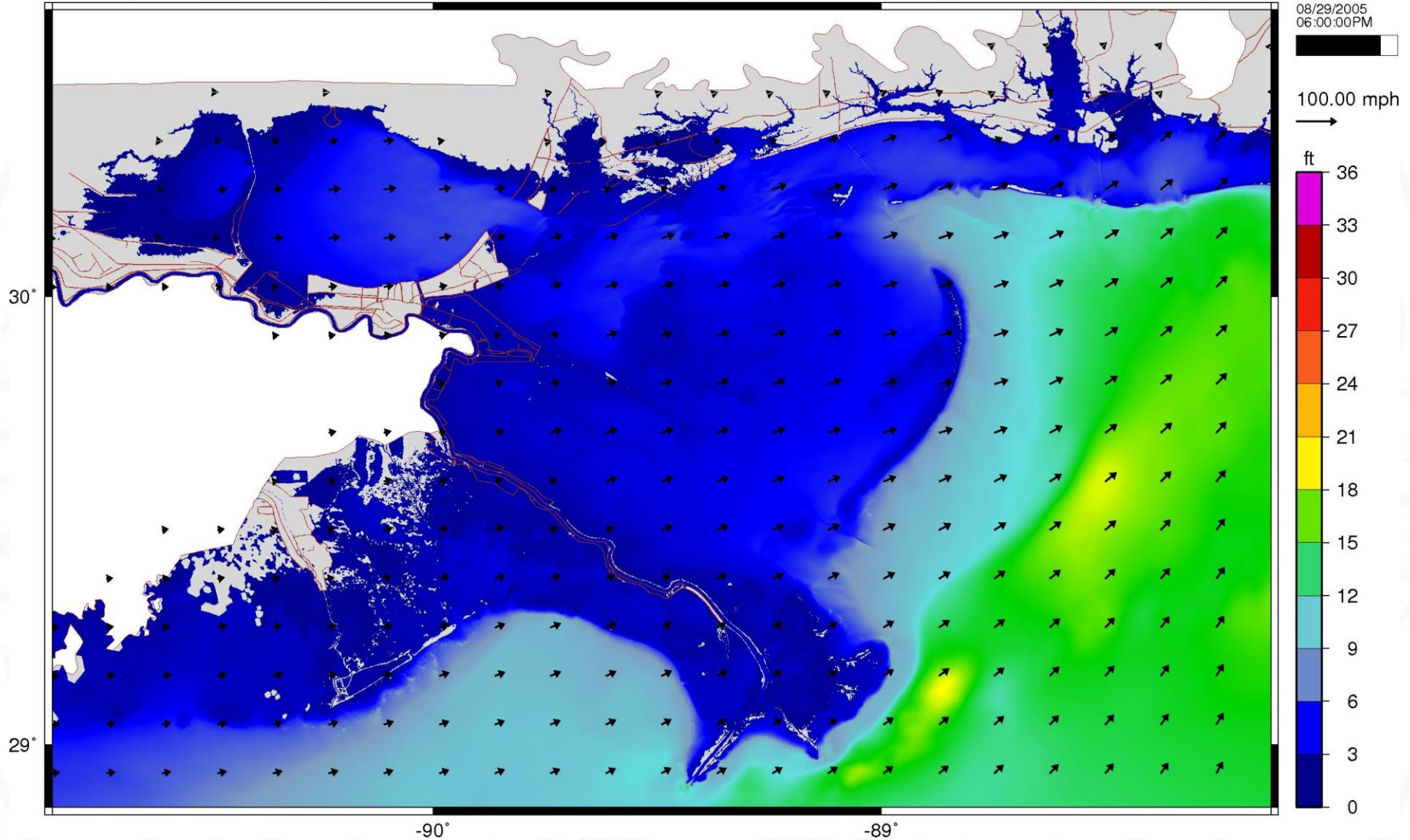


Figure 12n

8/29/2005 at 8 pm CDT

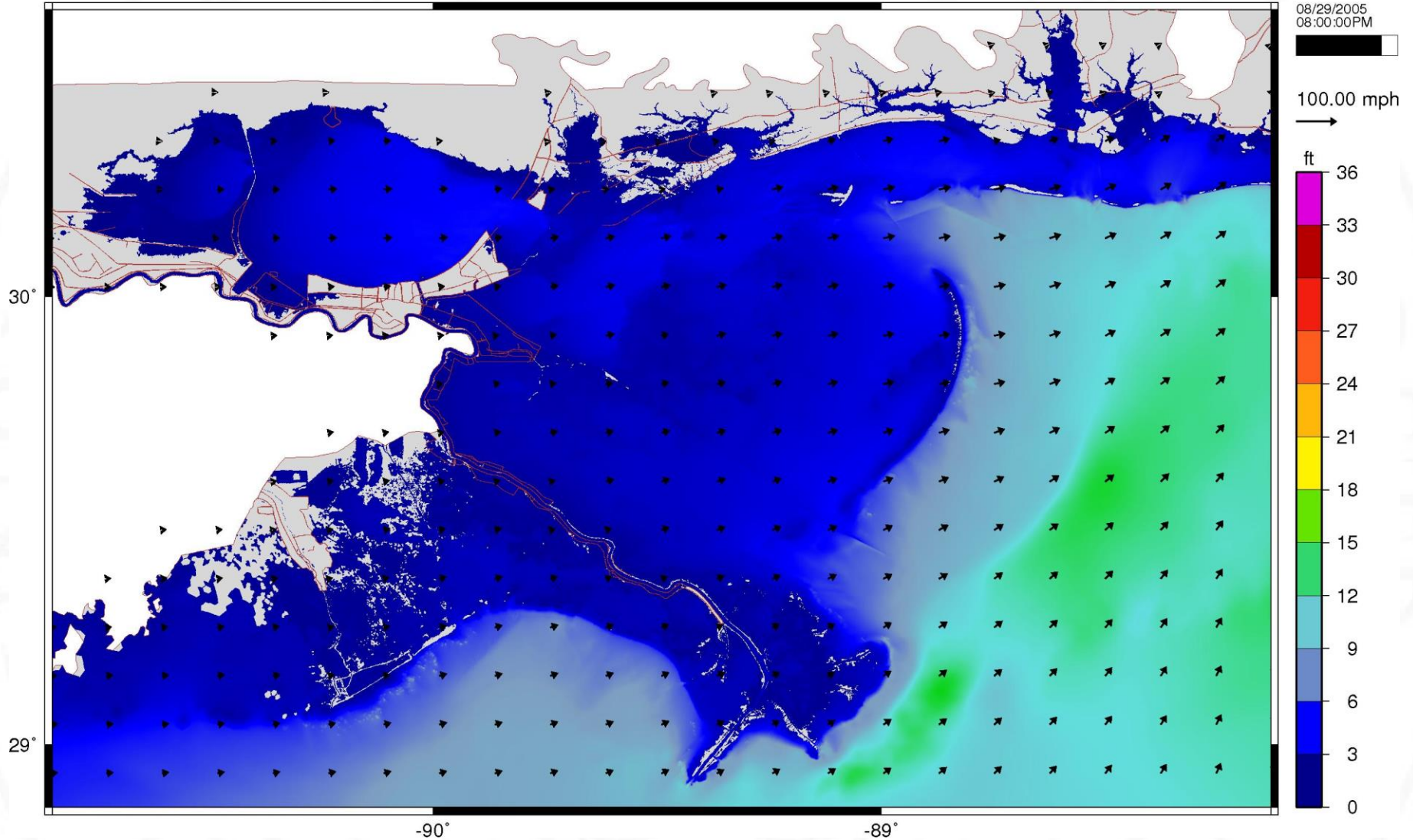


Figure 12o

8/29/2005 at 10 pm CDT

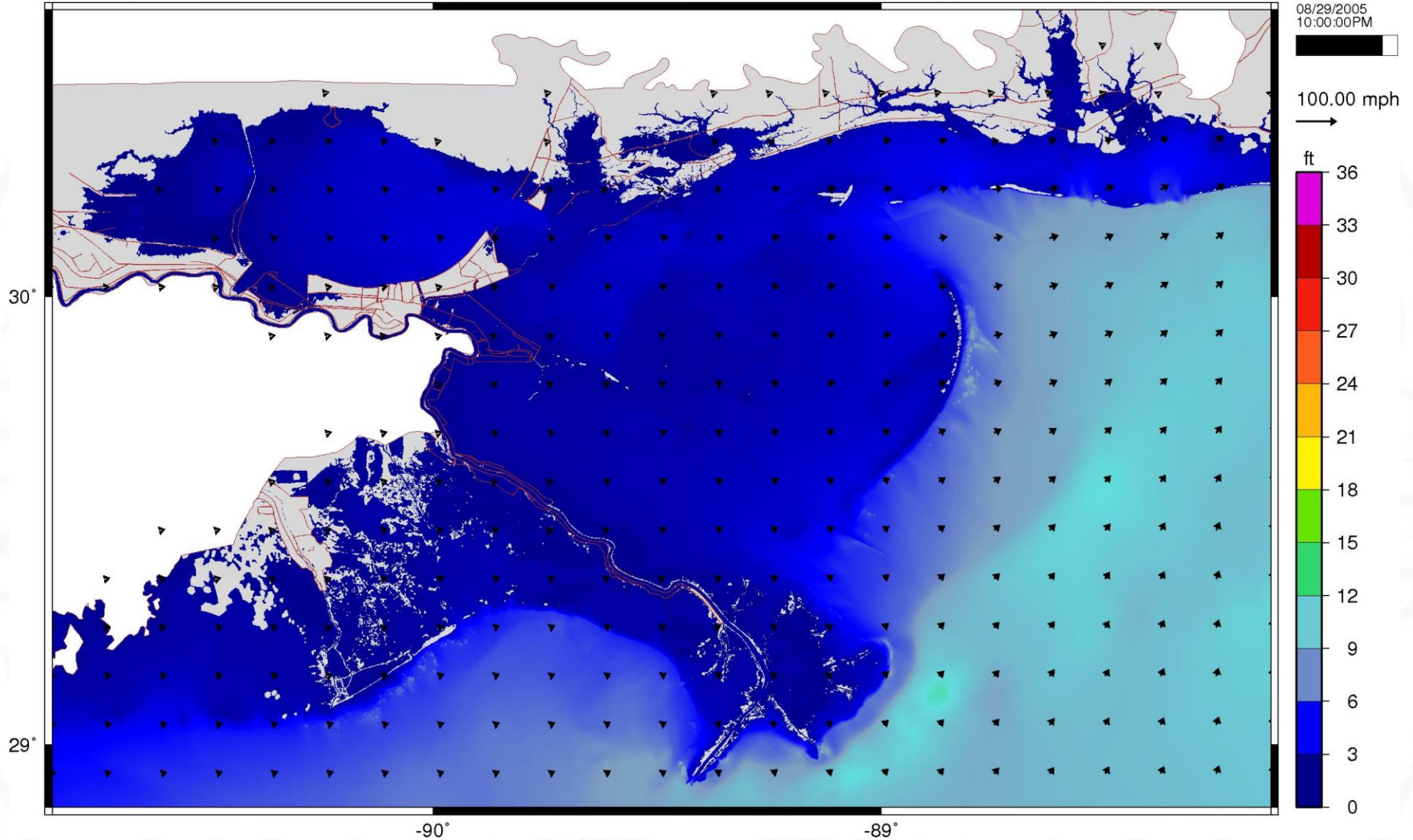


Figure 12p

8/30/2005 at 12 am CDT

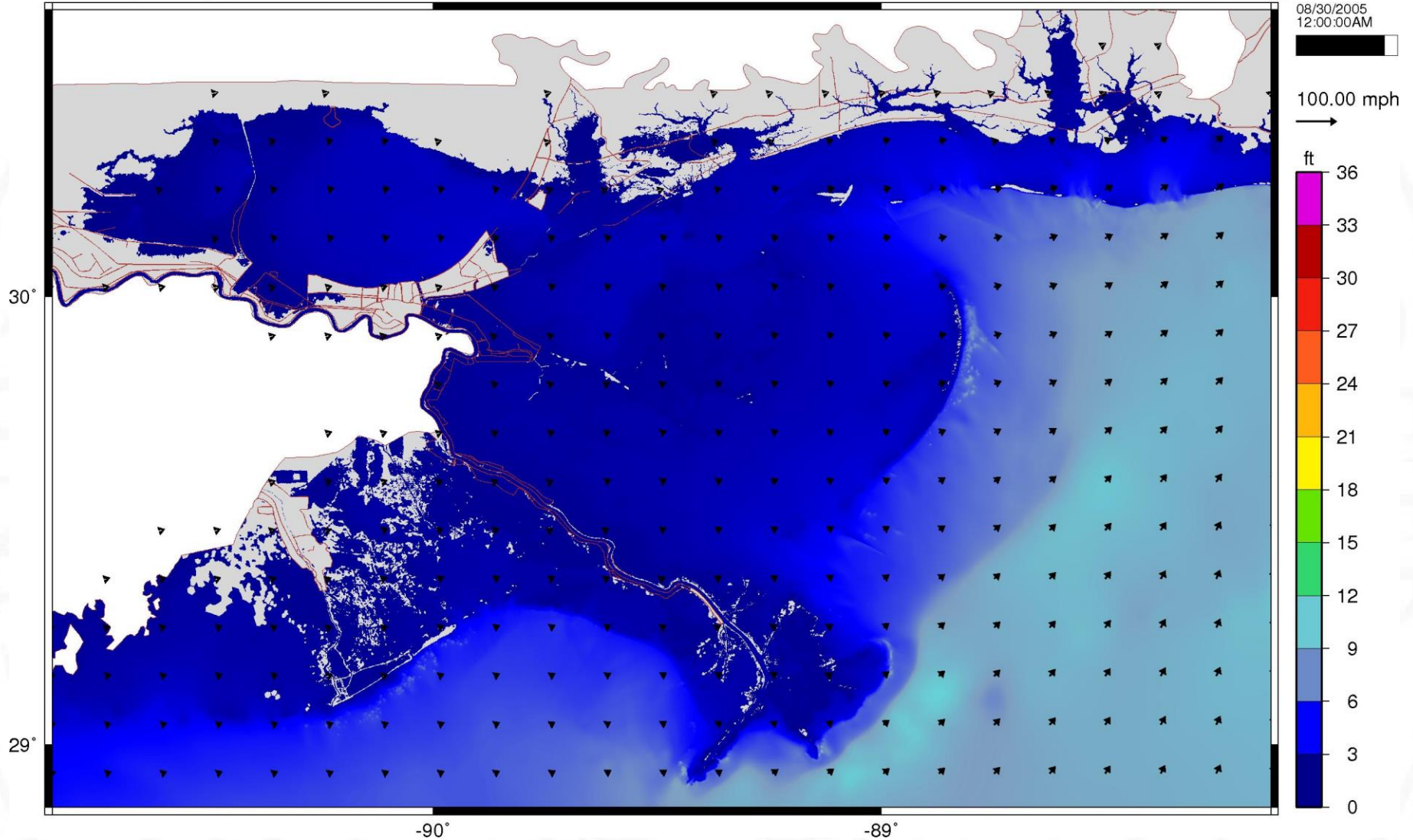


Figure 12q