

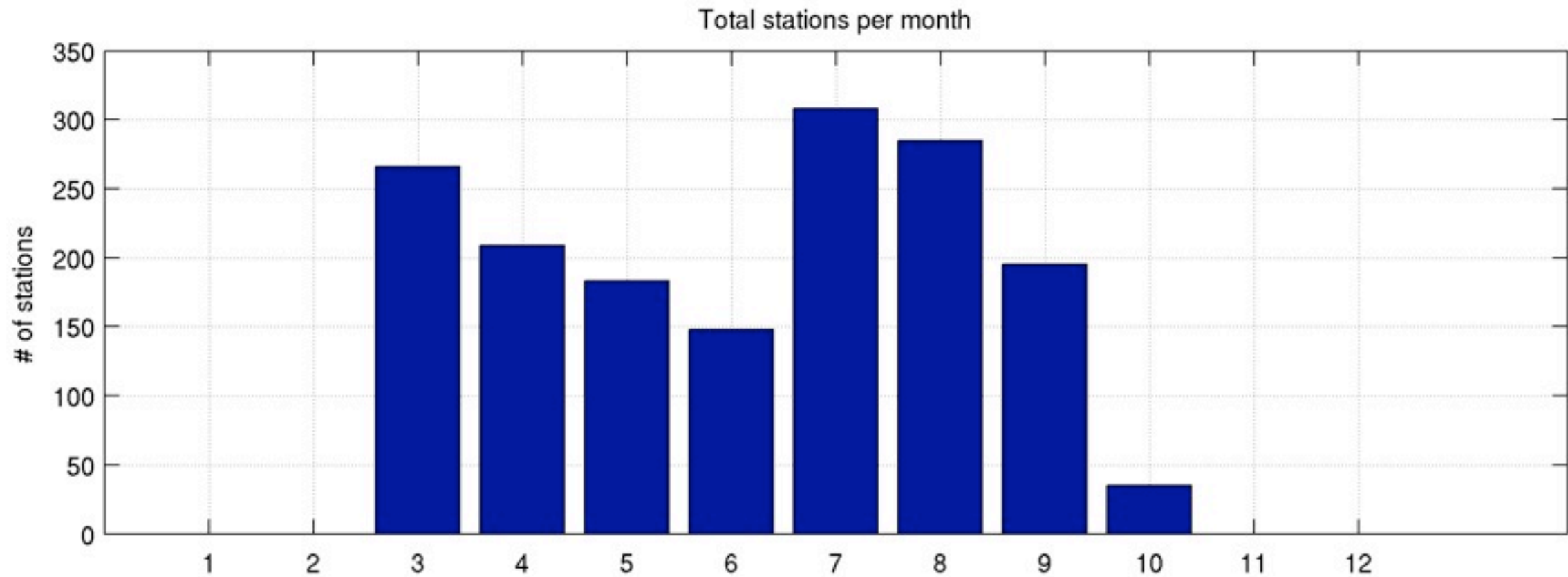
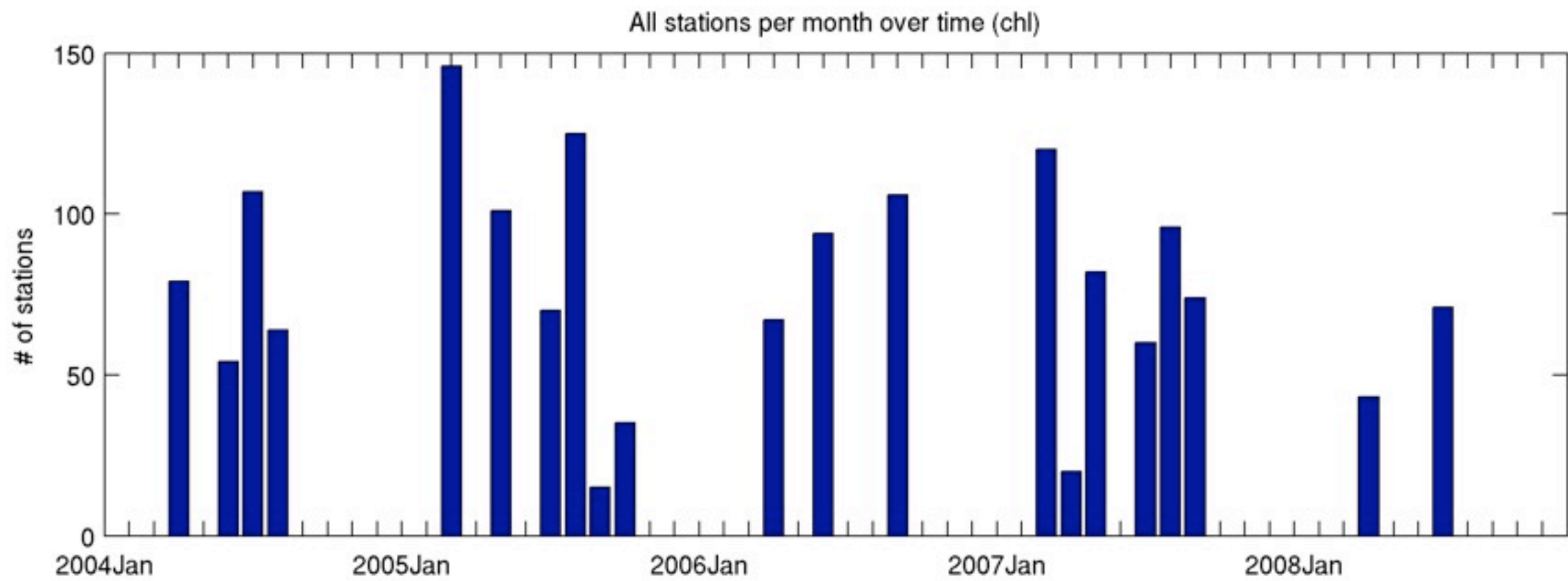
# Overview of data compiled for US IOOS/SURA testbed Shelf Hypoxia WG

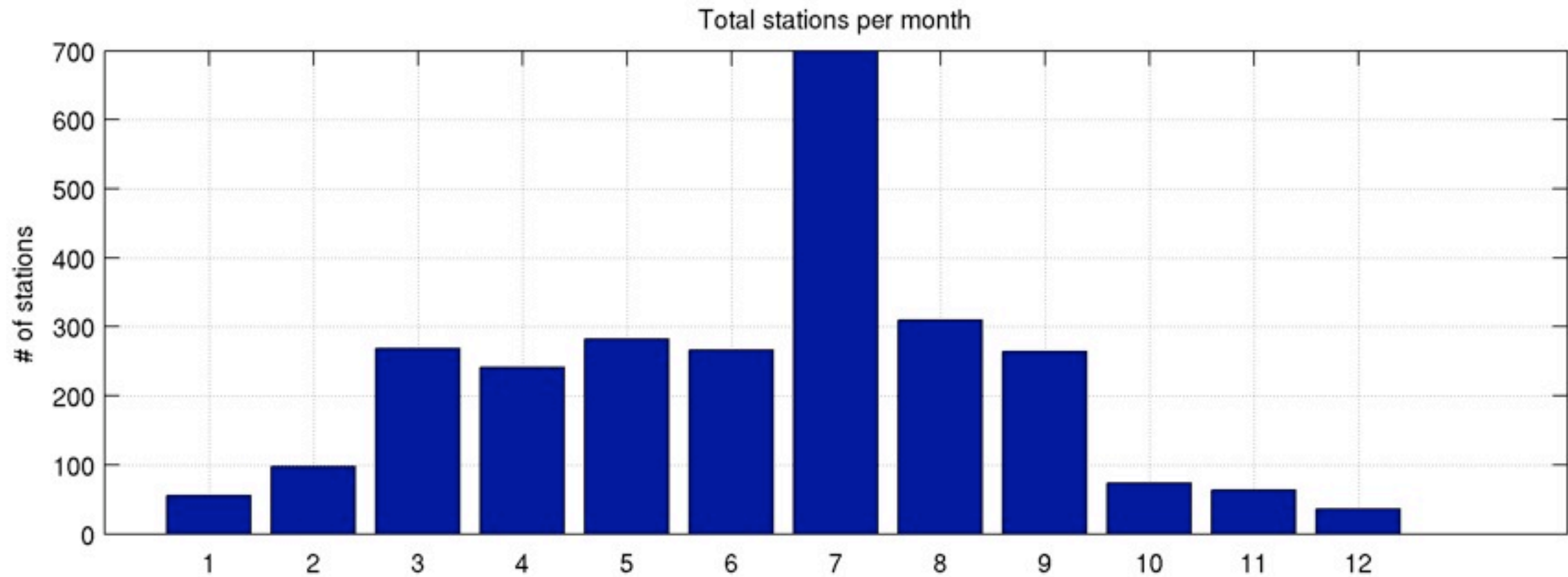
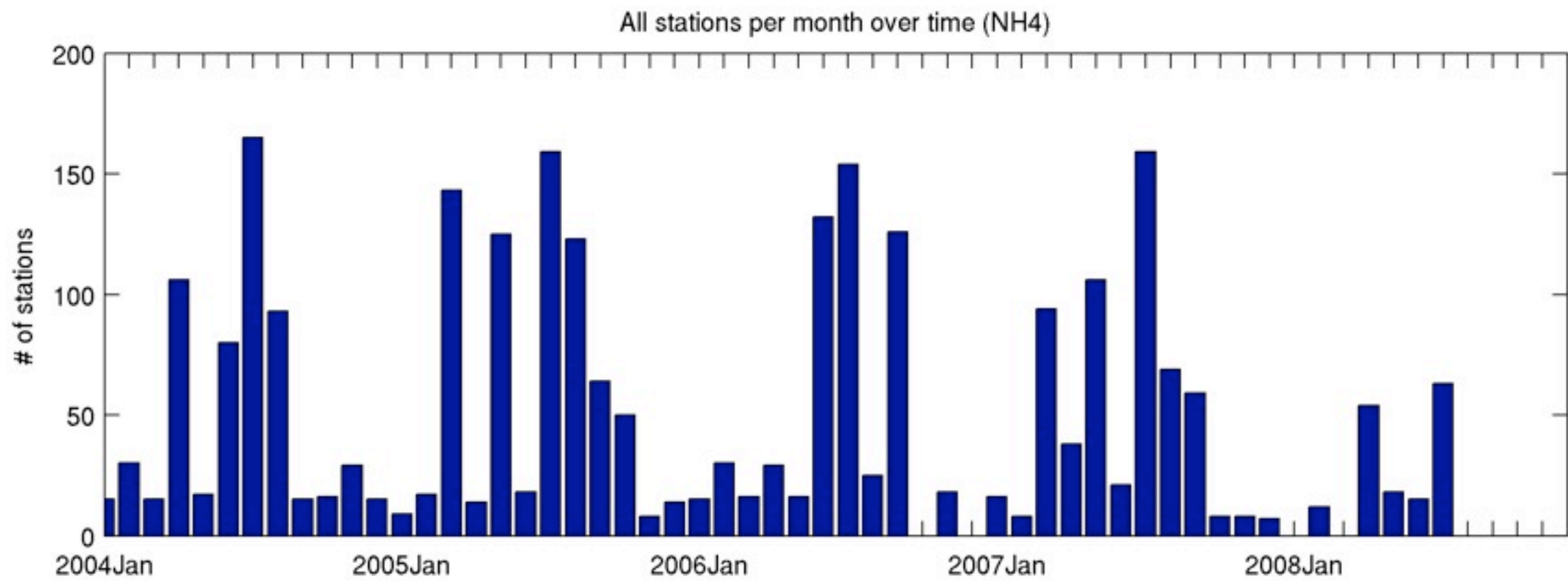
Prepared by Jiatang Hu and Katja Fennel

*April 14, 2011*

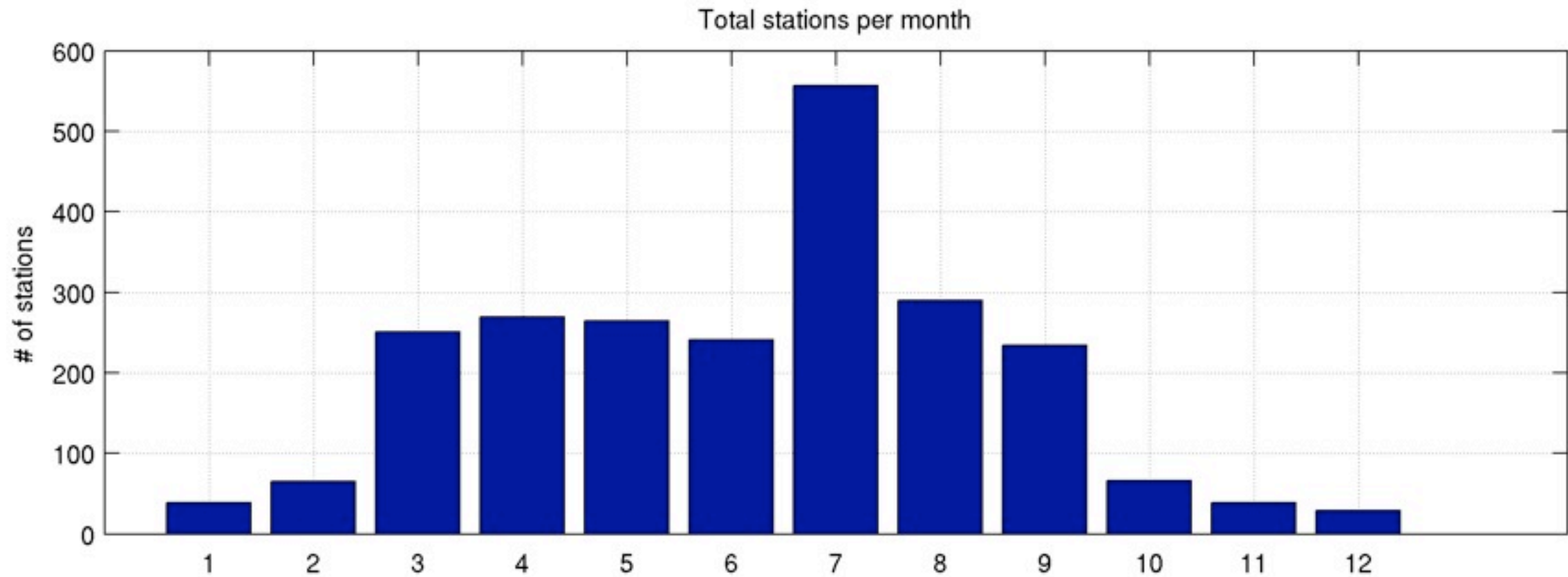
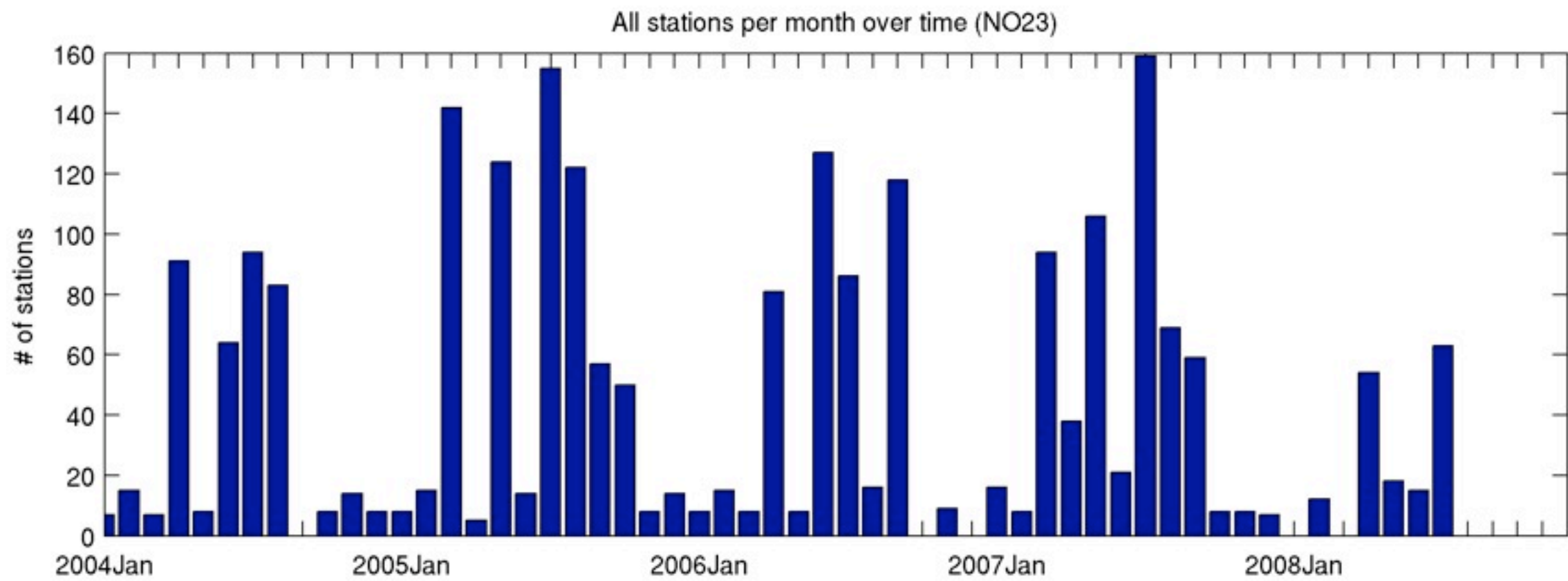
# Number of stations per month and year:

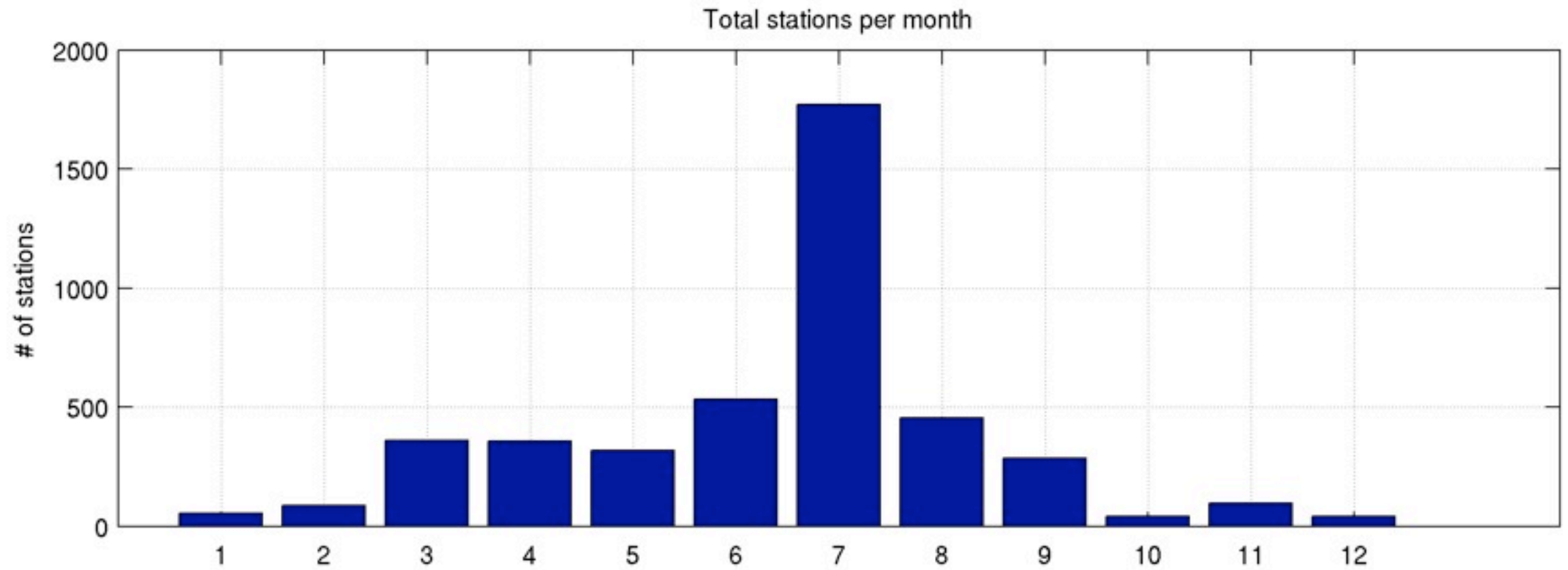
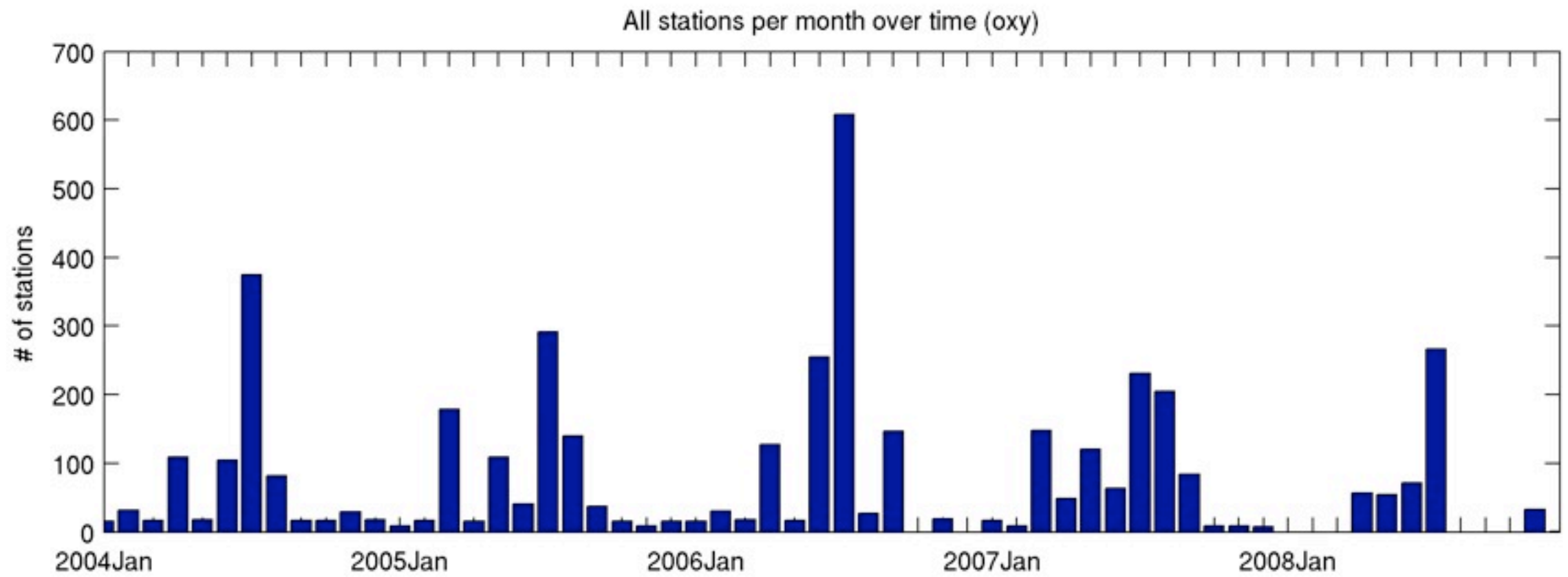
- by variable (all sources lumped)
- by variable and source

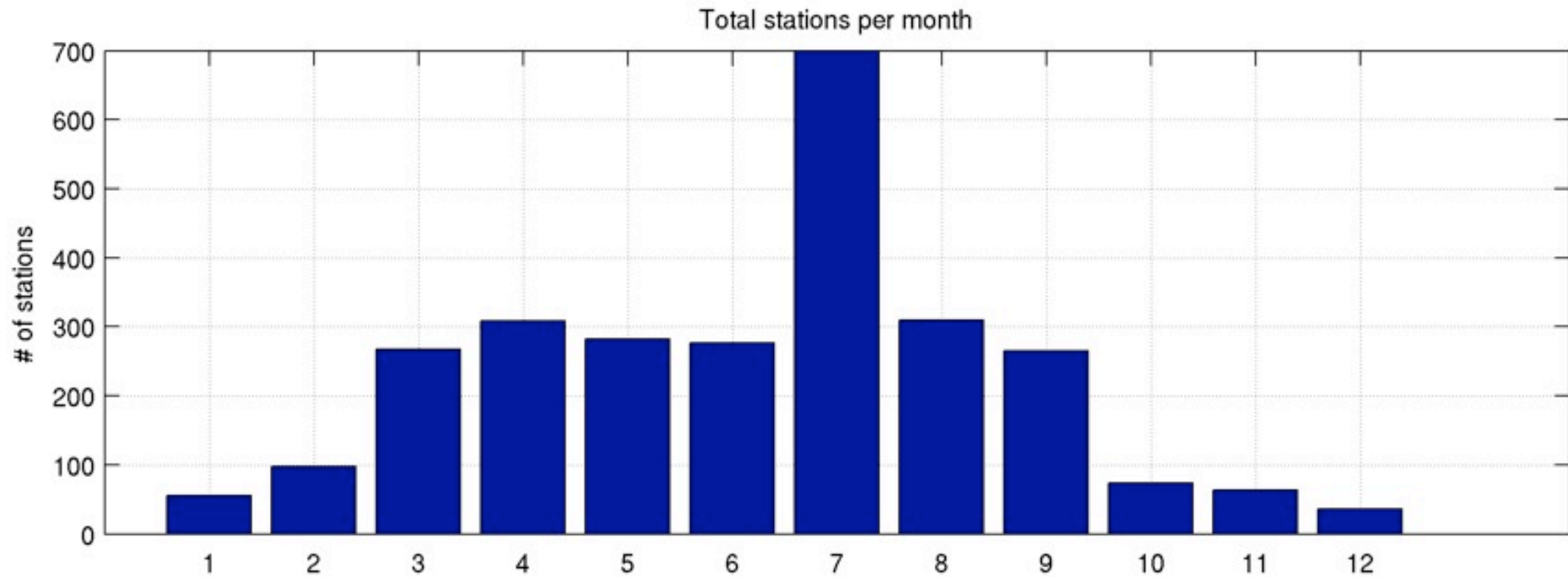
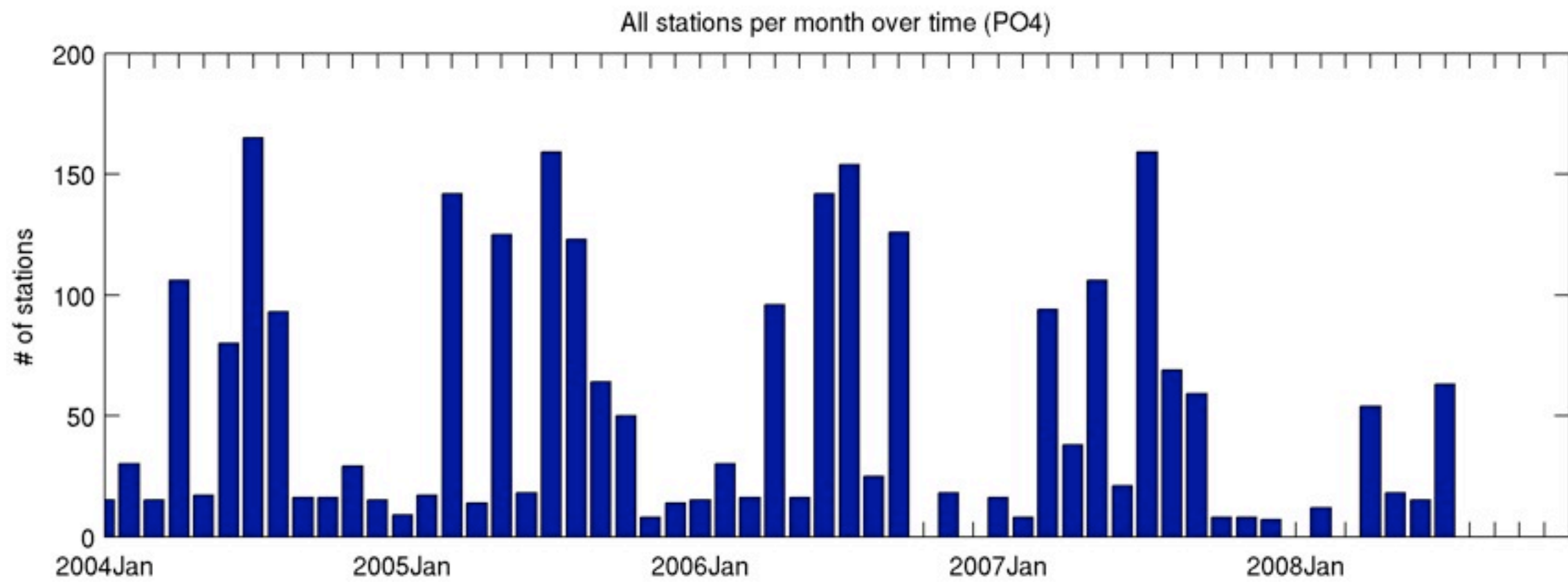


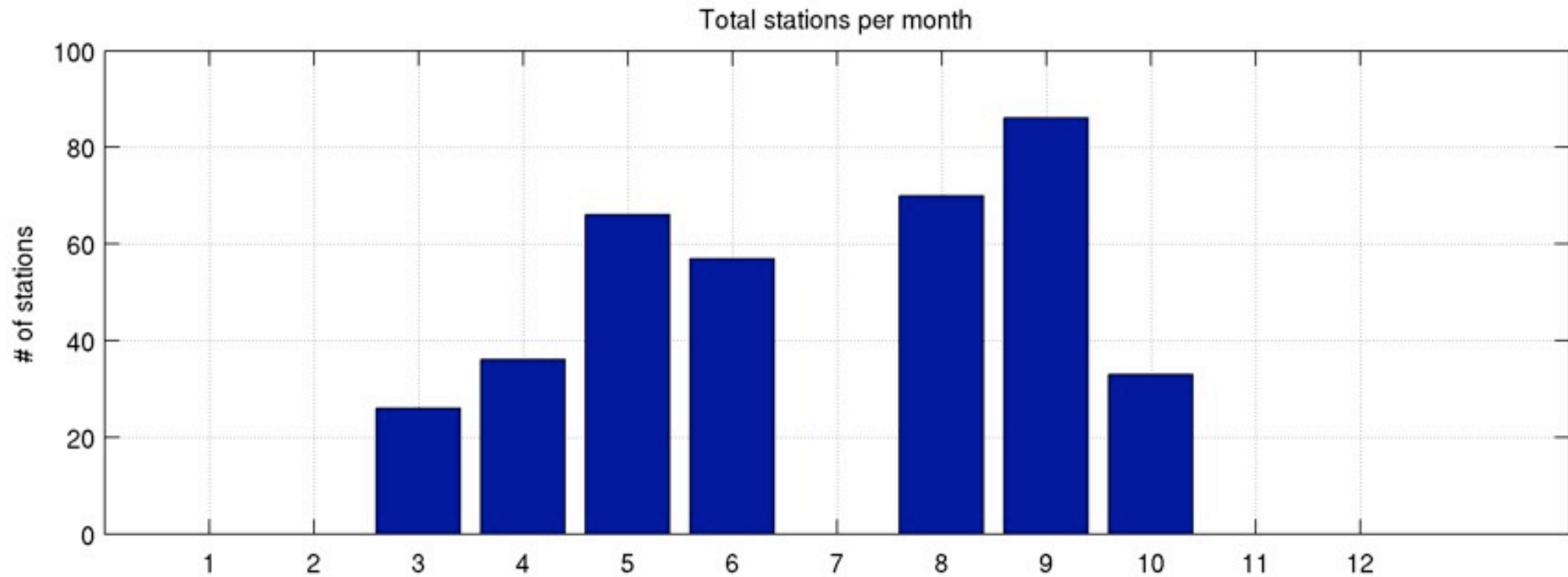
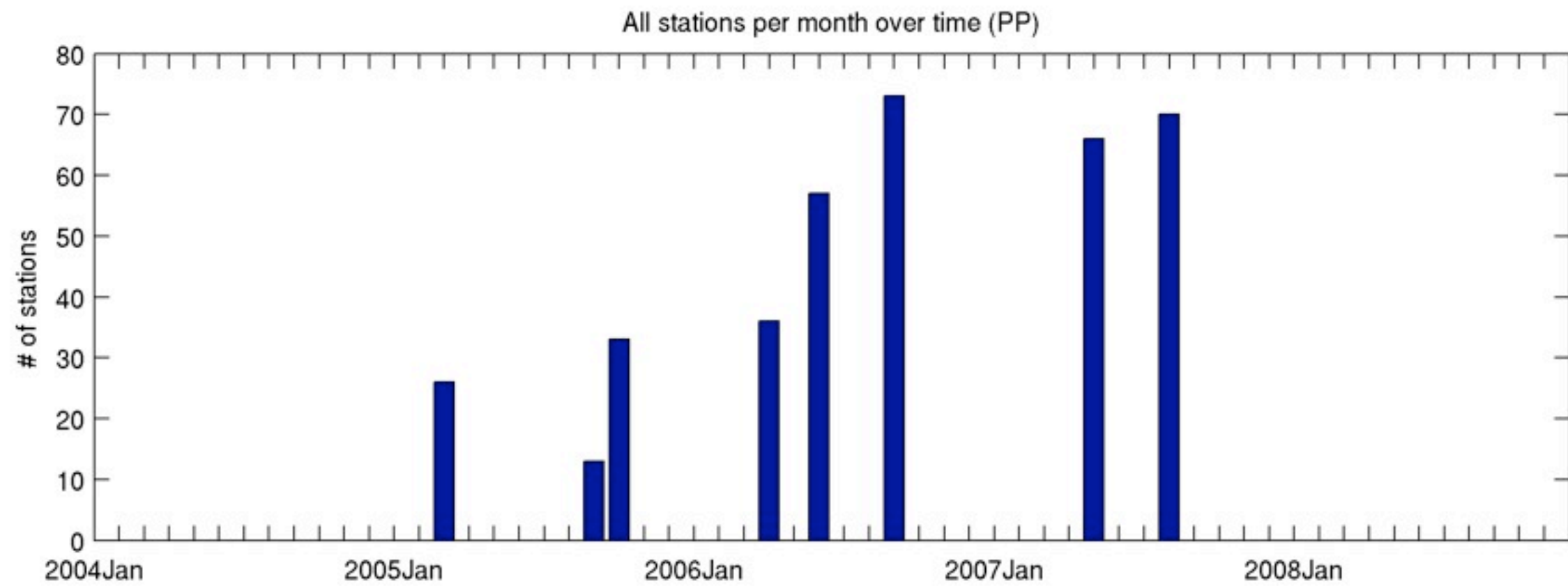


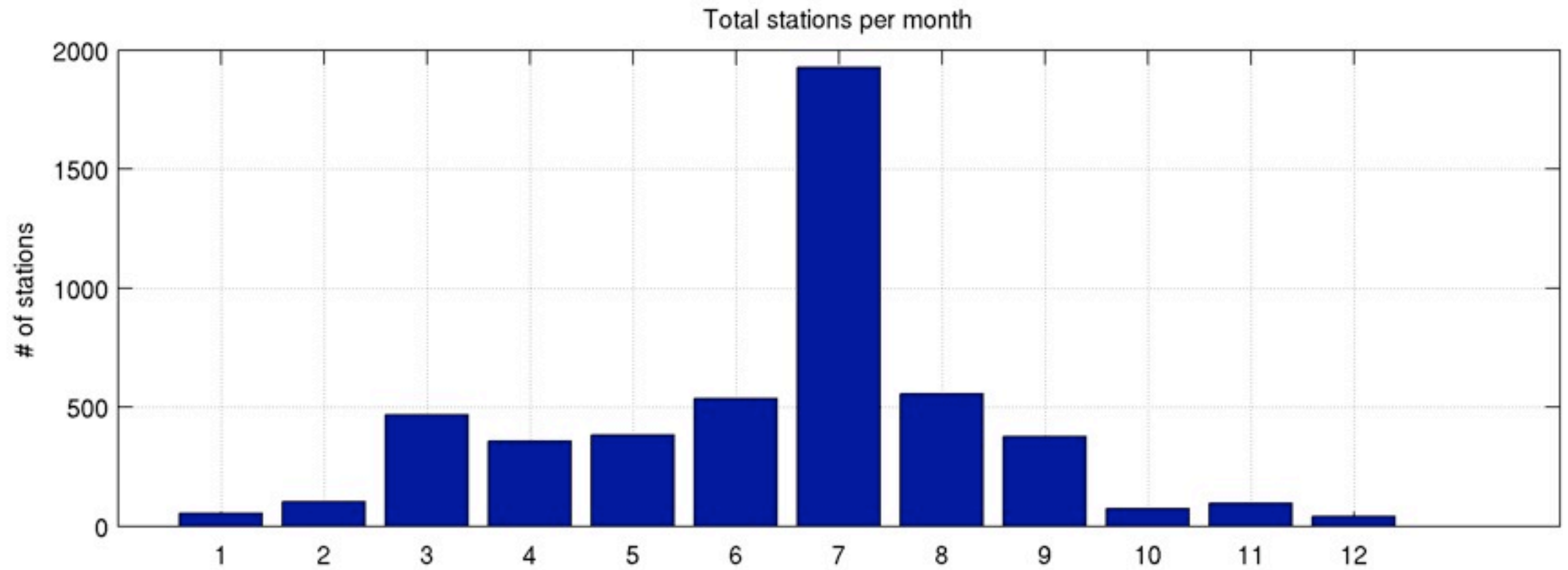
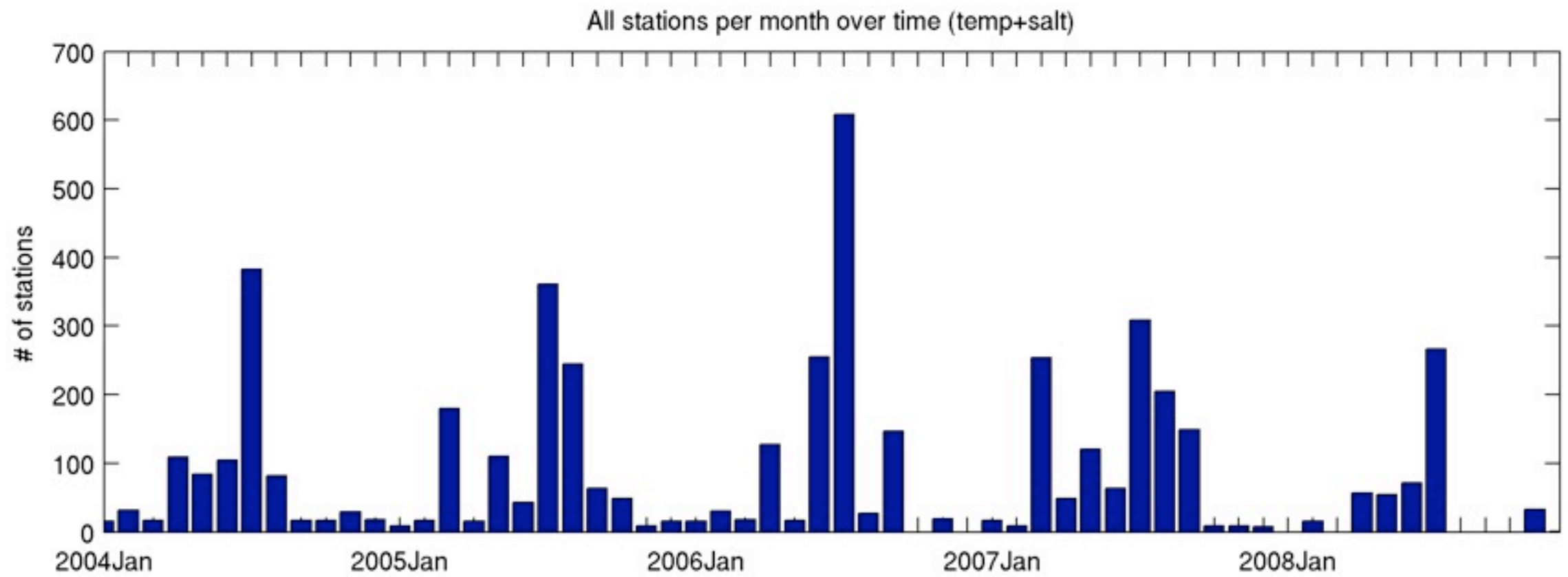




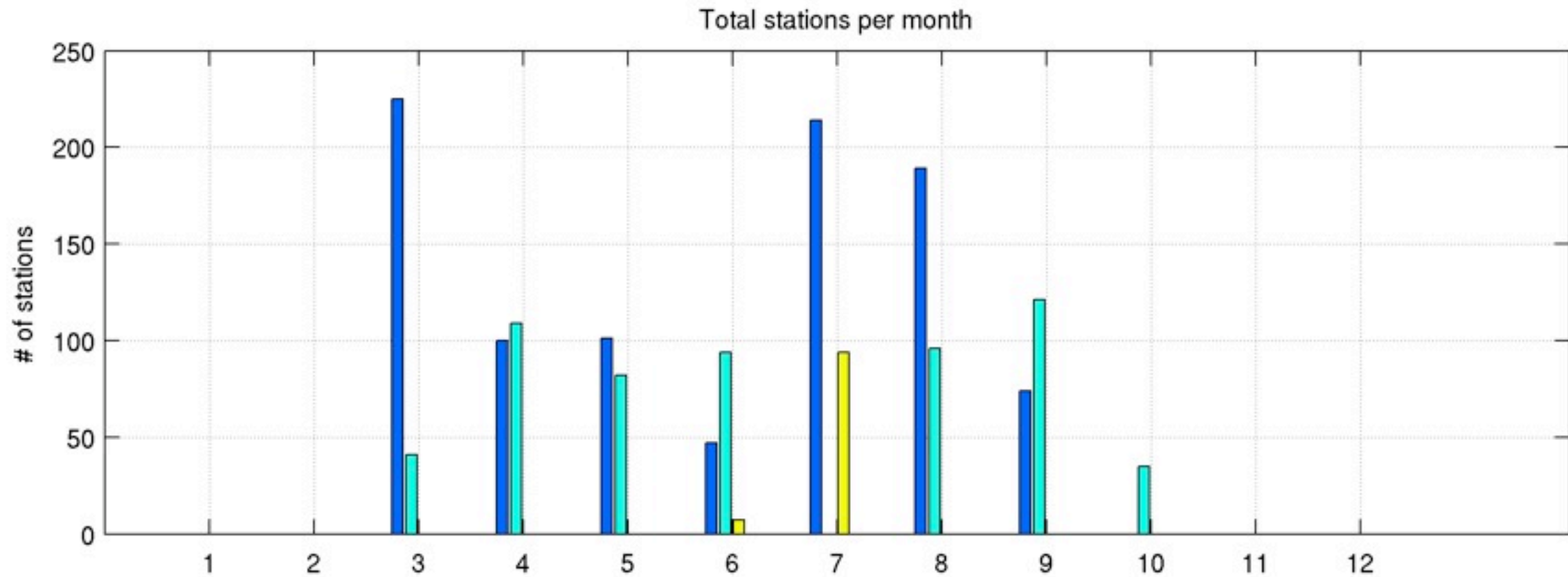
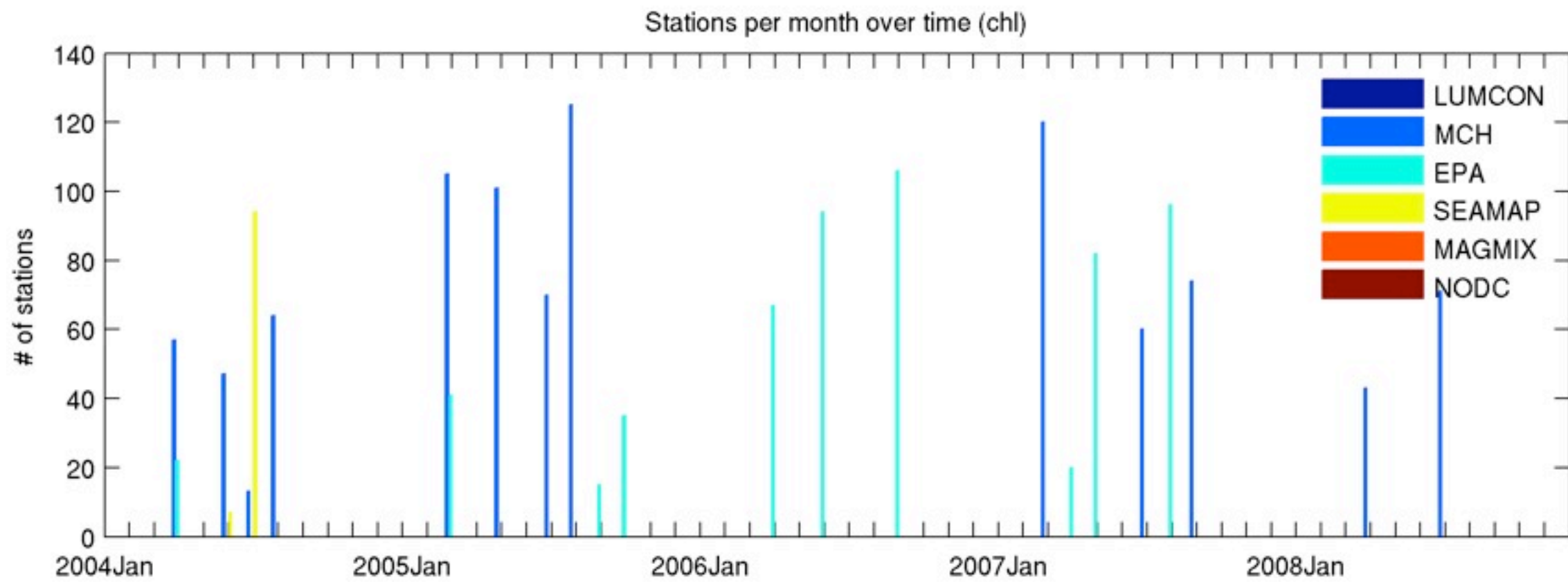


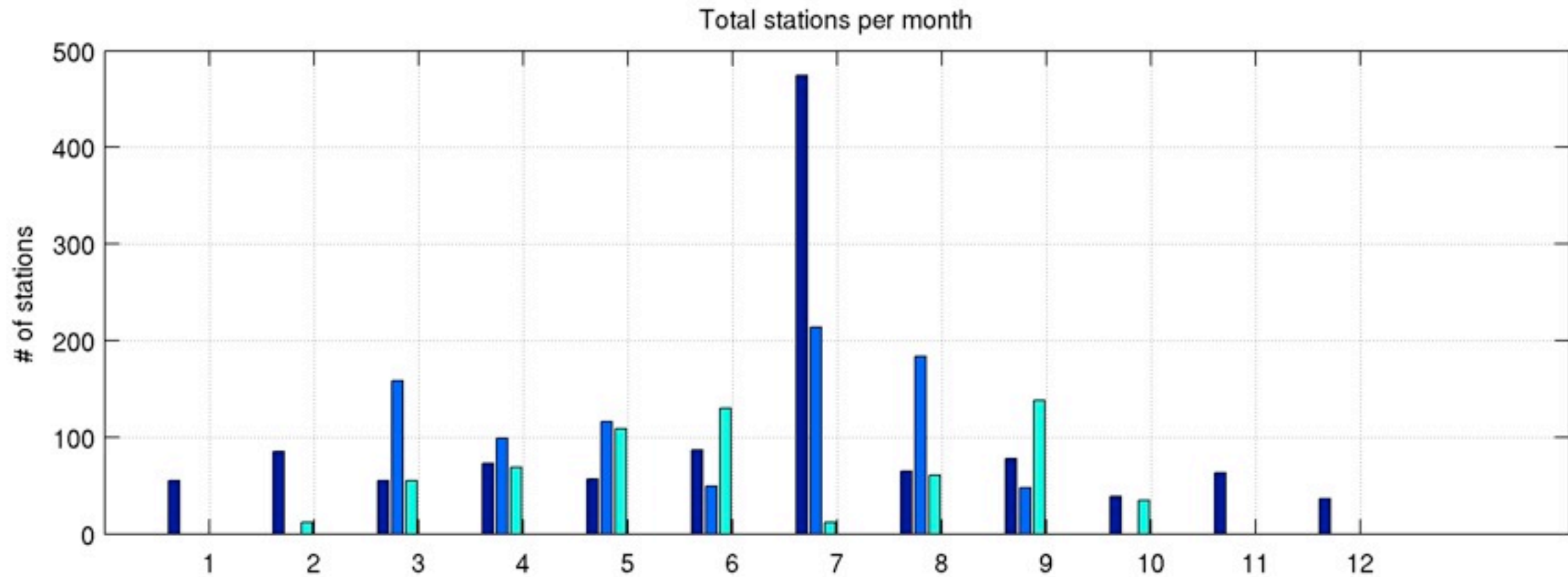
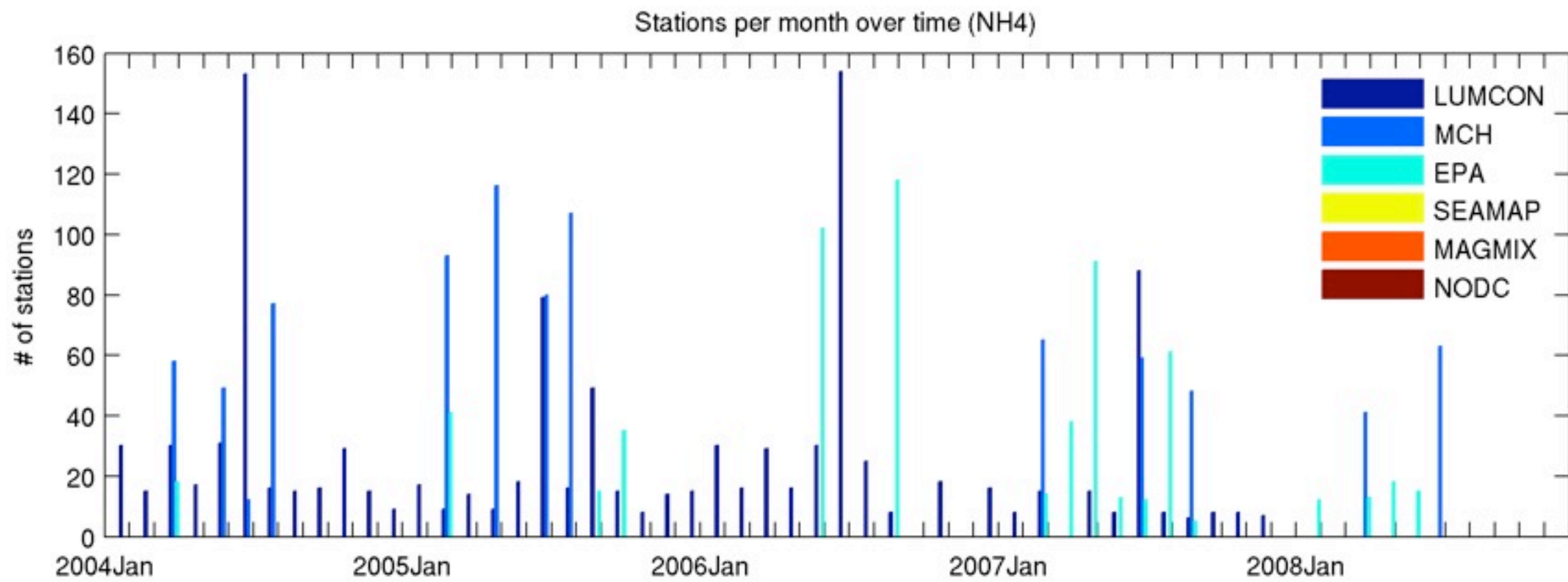


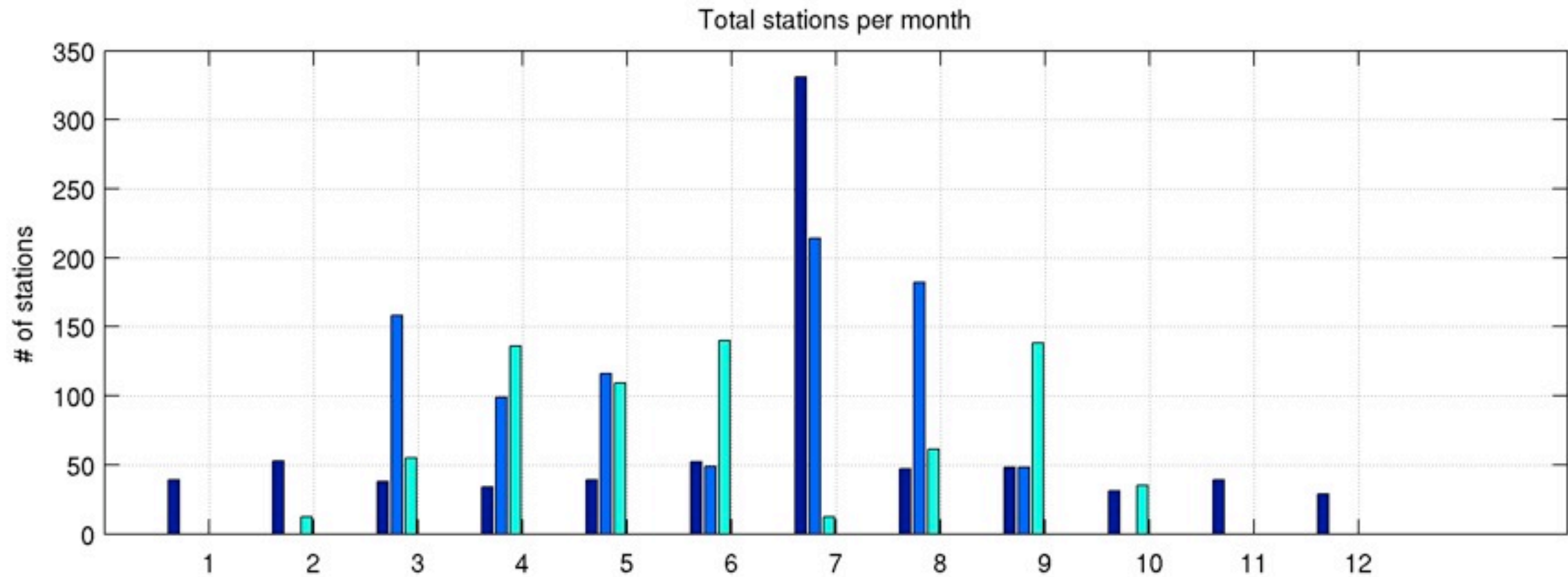
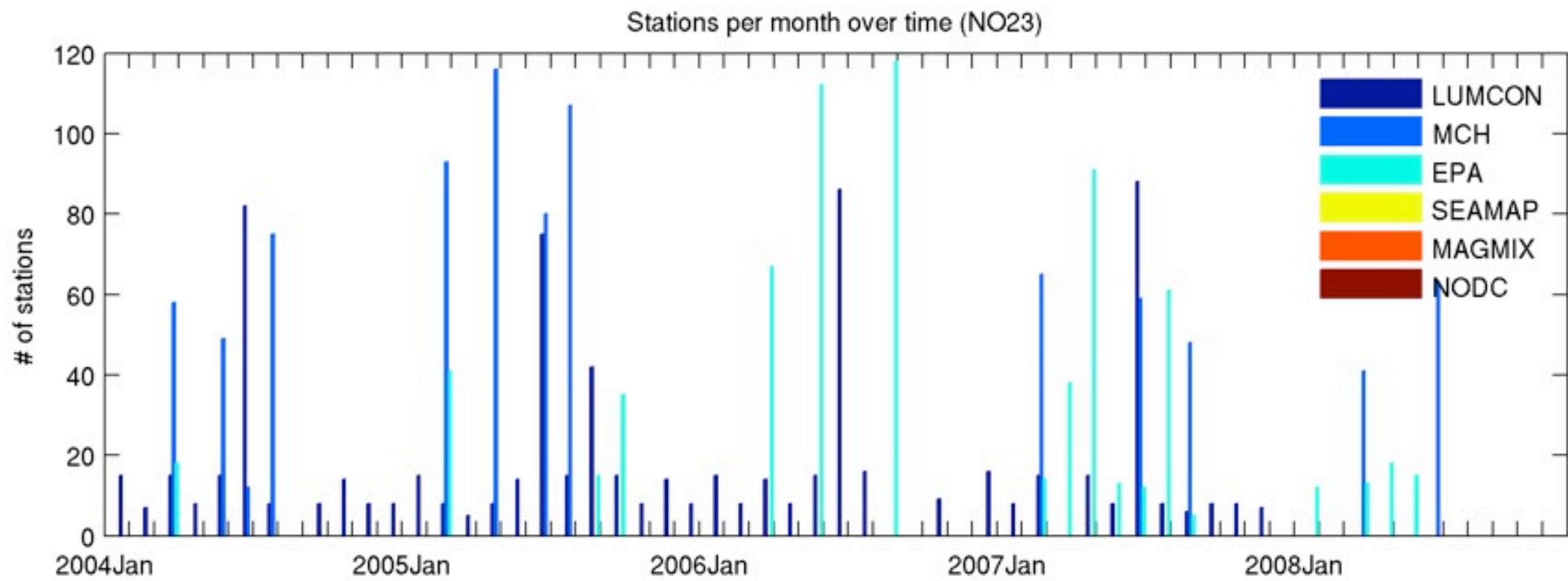




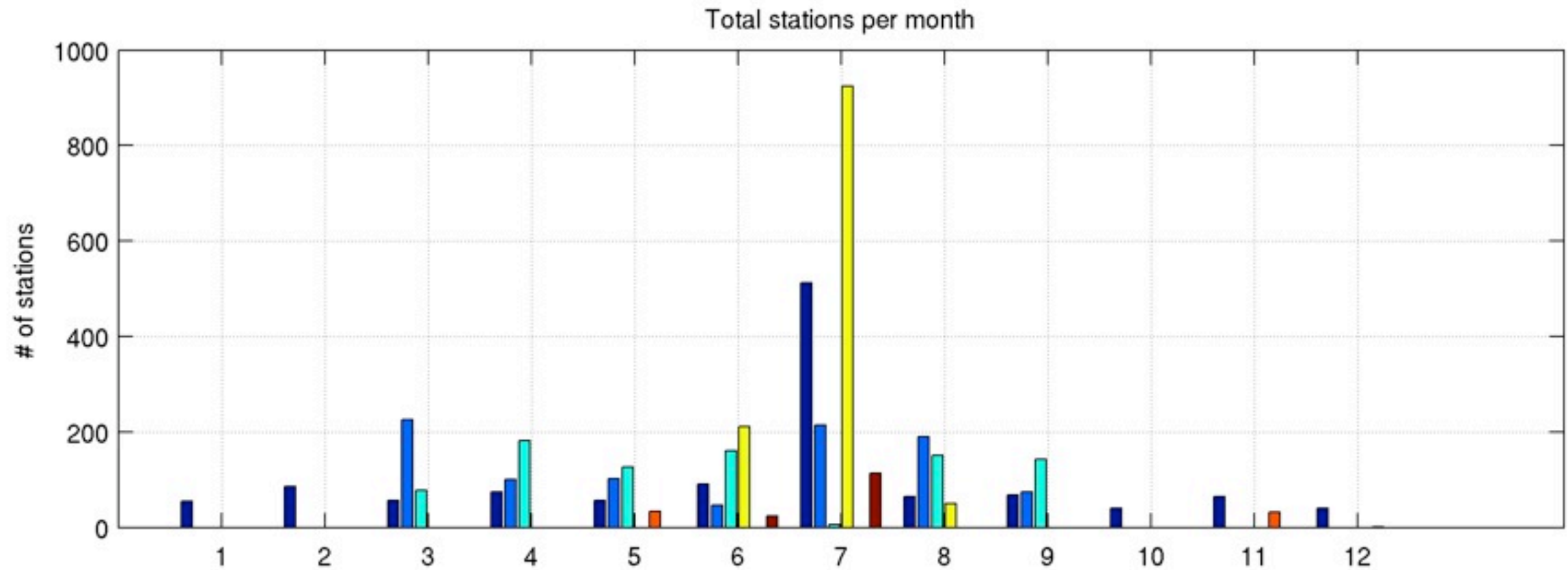
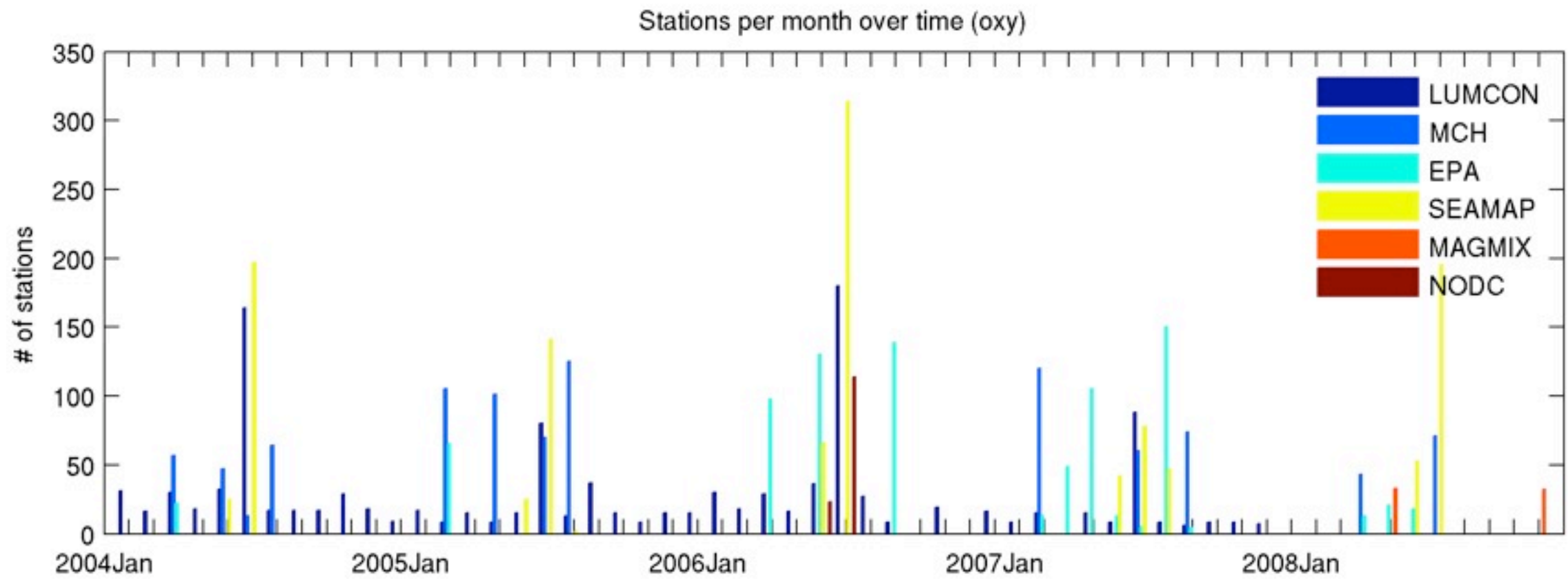


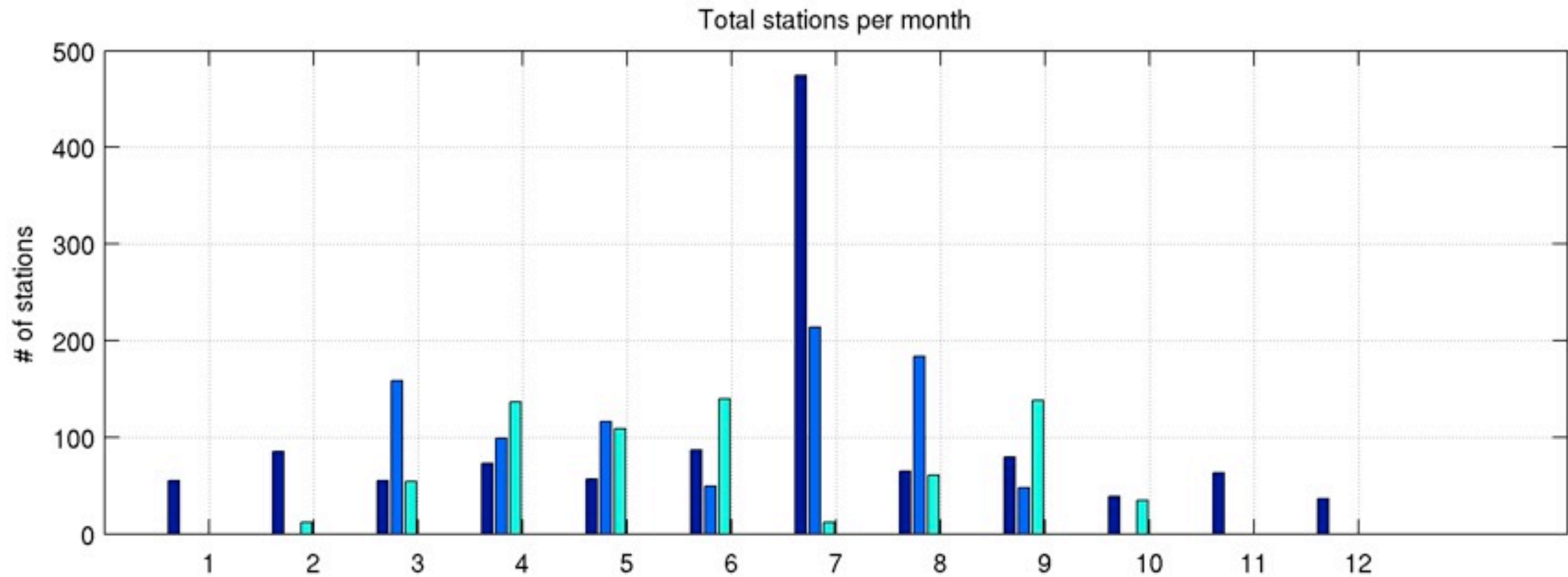
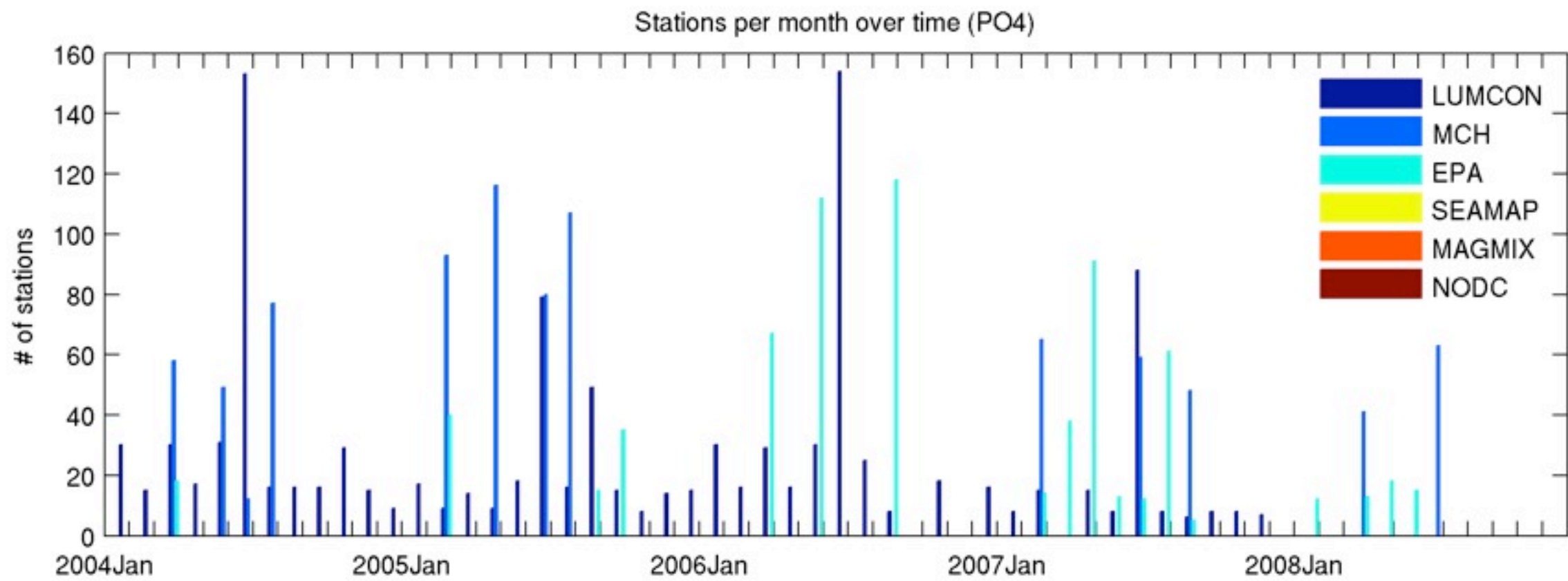


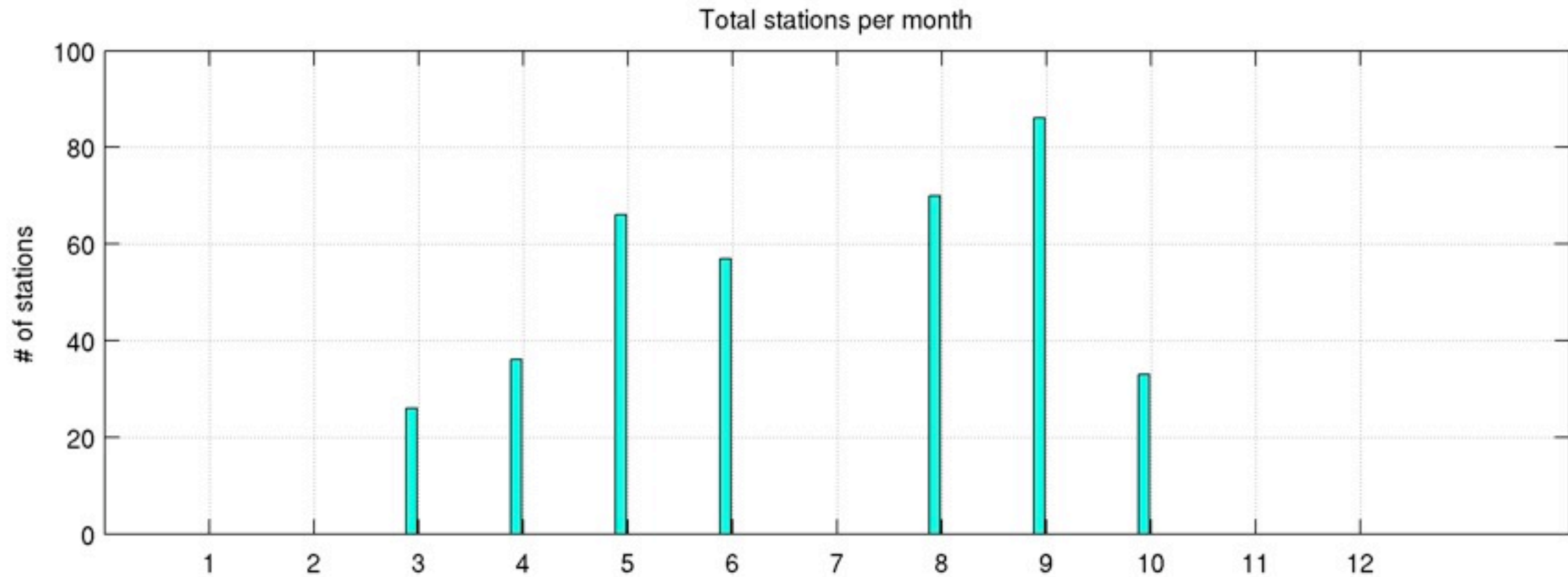
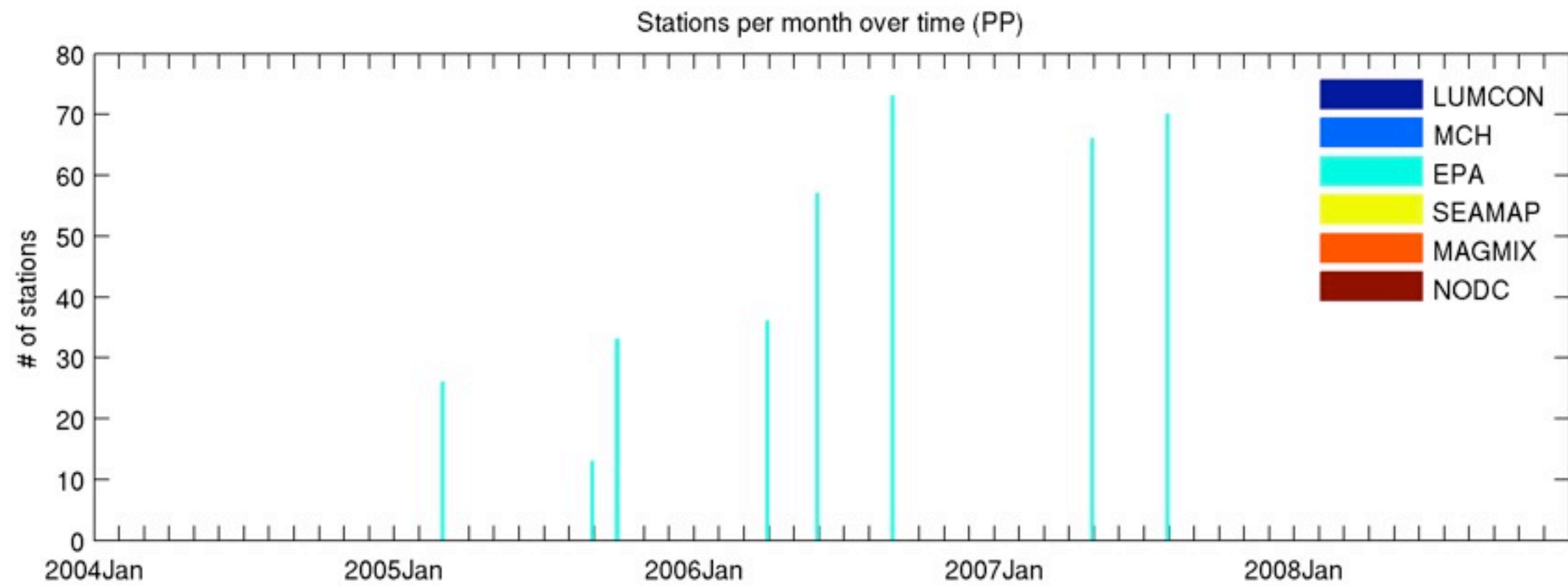


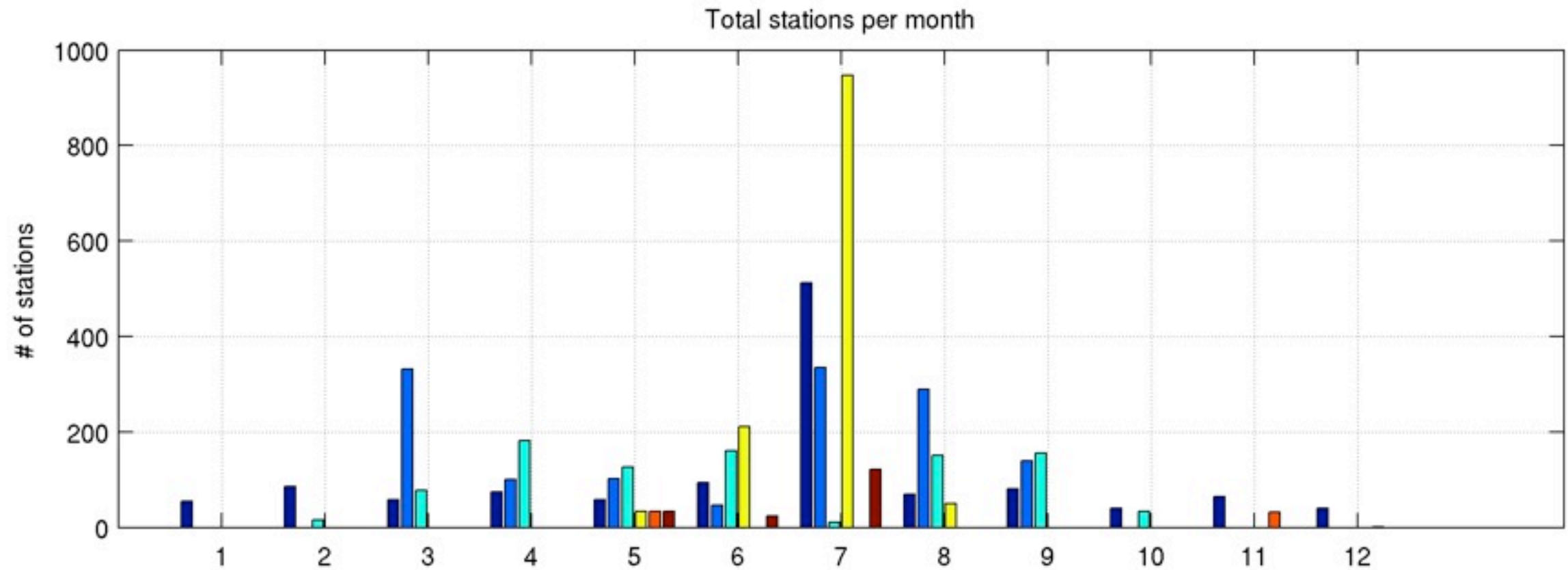
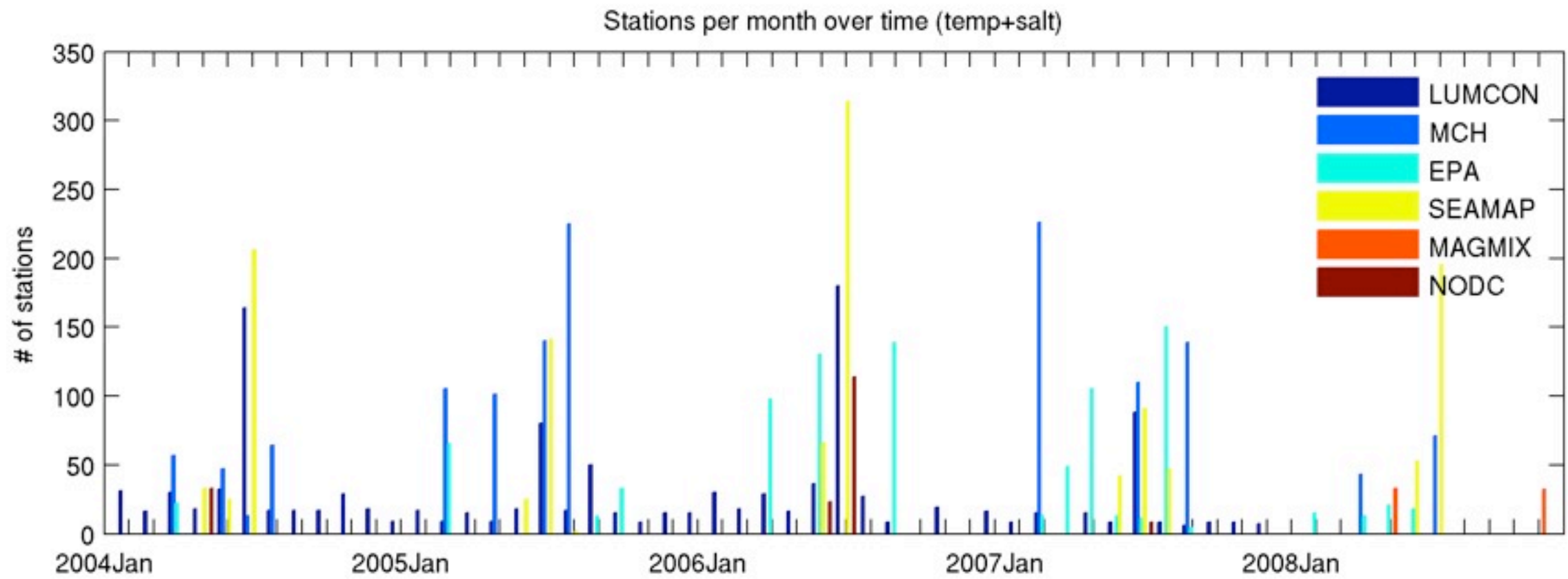






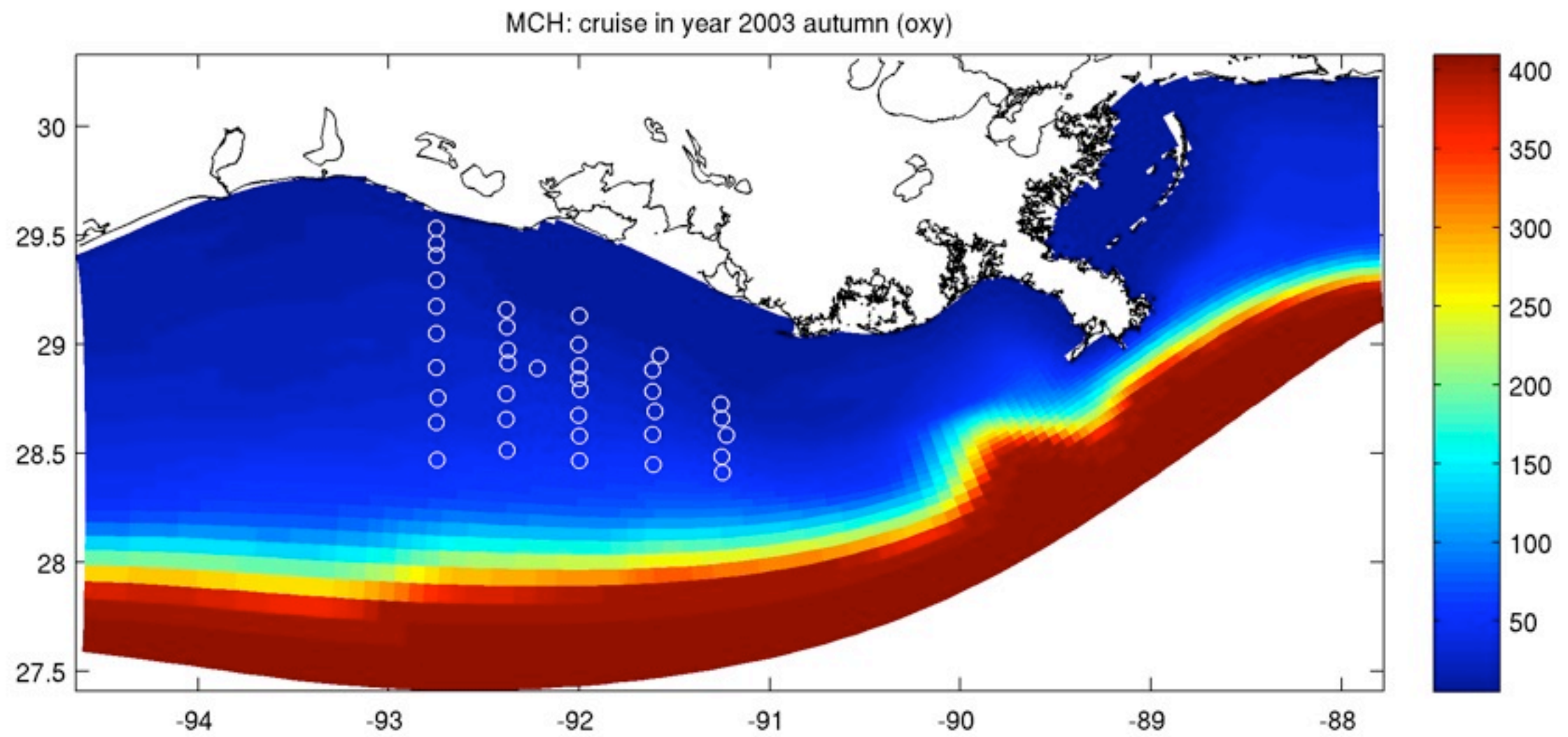




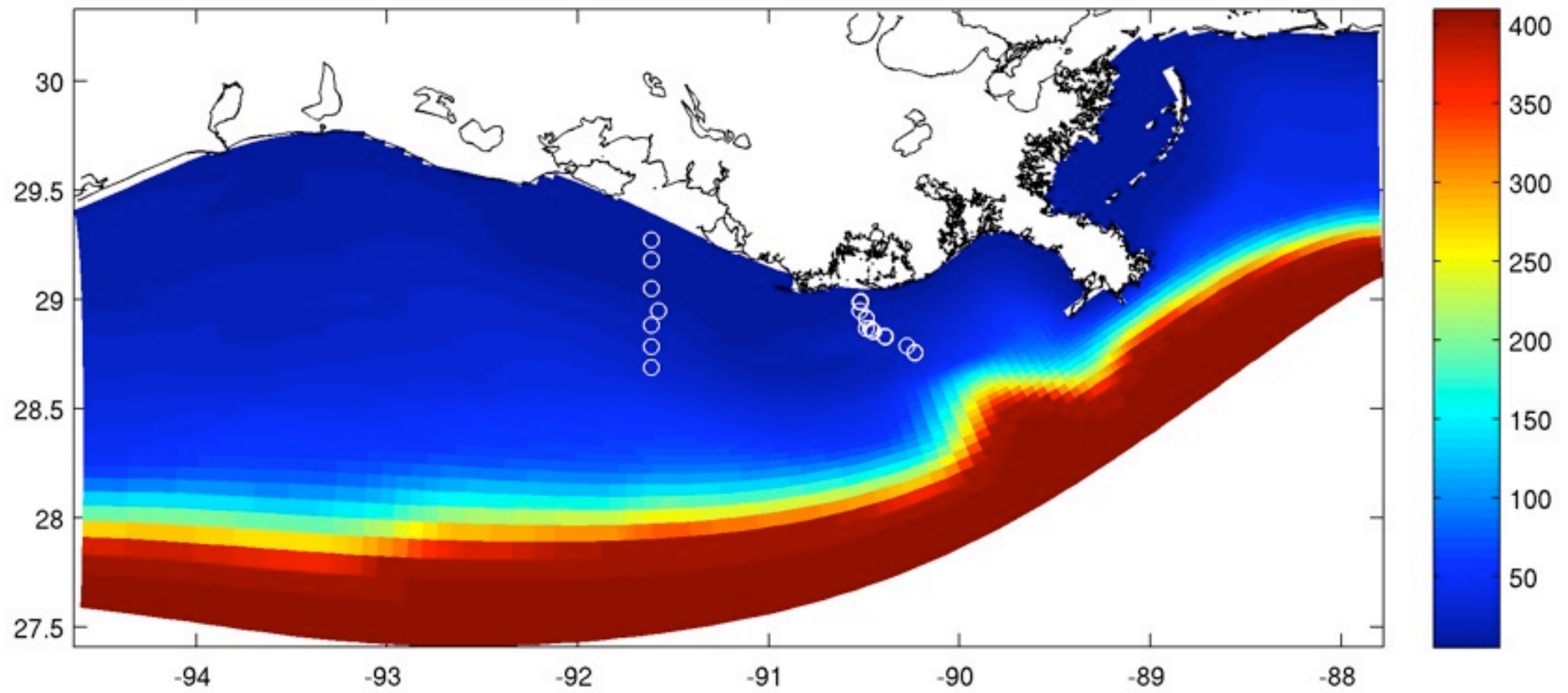


# Station locations by source/year/season

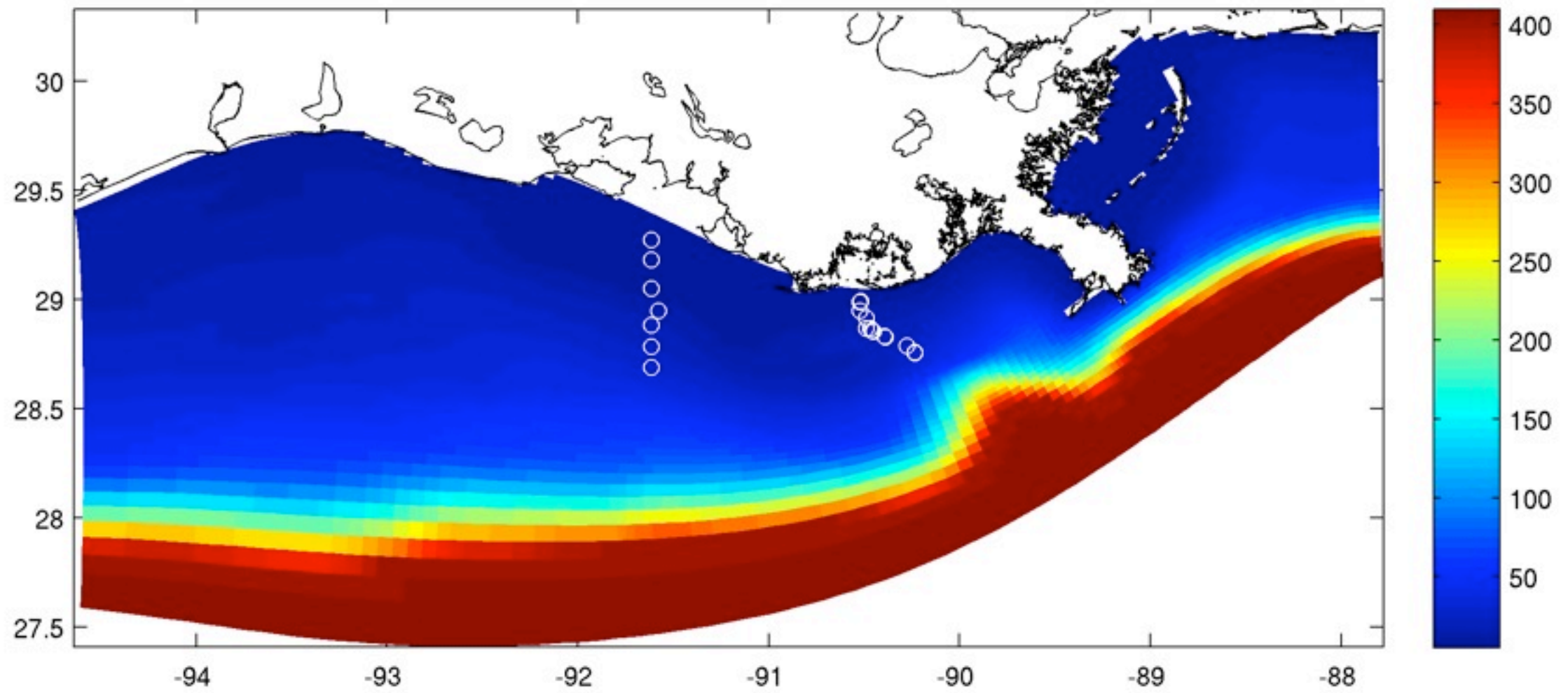




LUMCON: cruise in year 2004 winter (NH4)

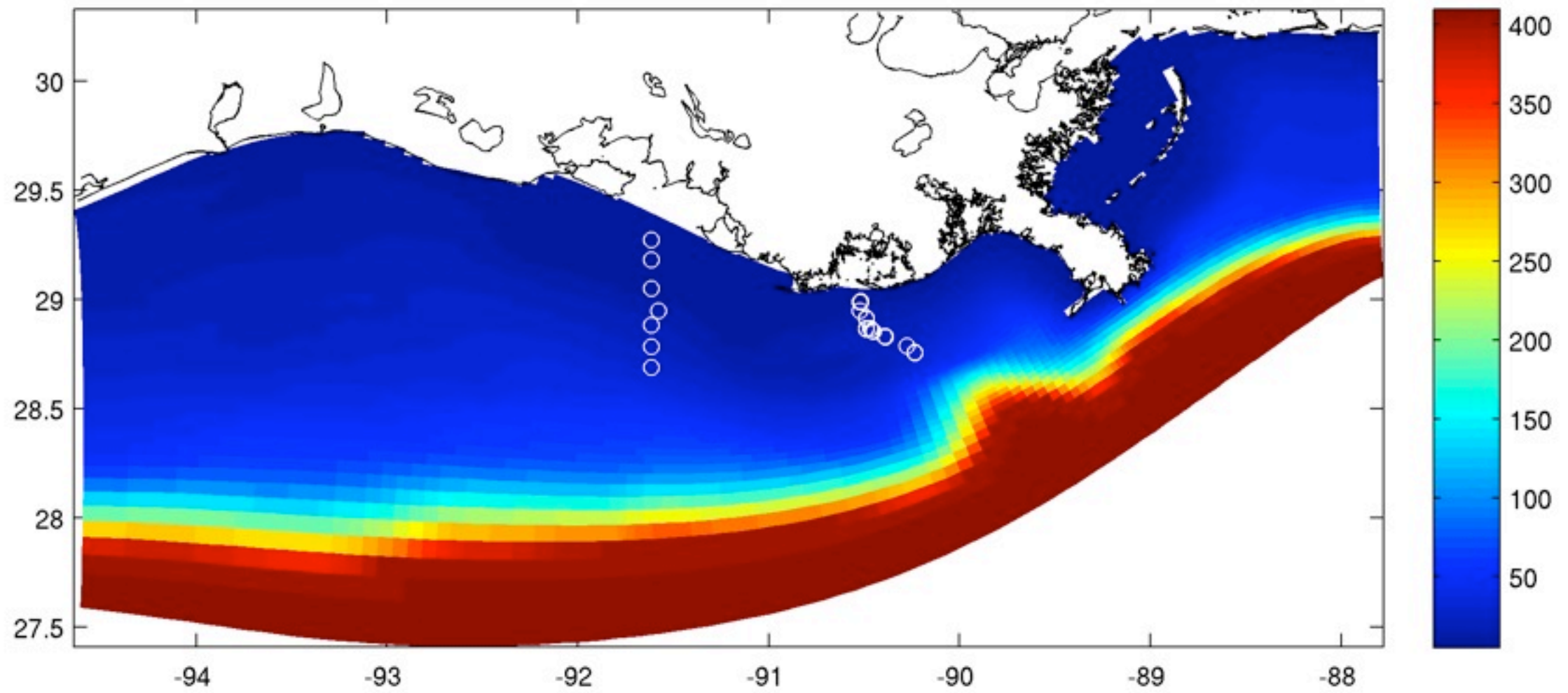


LUMCON: cruise in year 2004 winter (NO23)

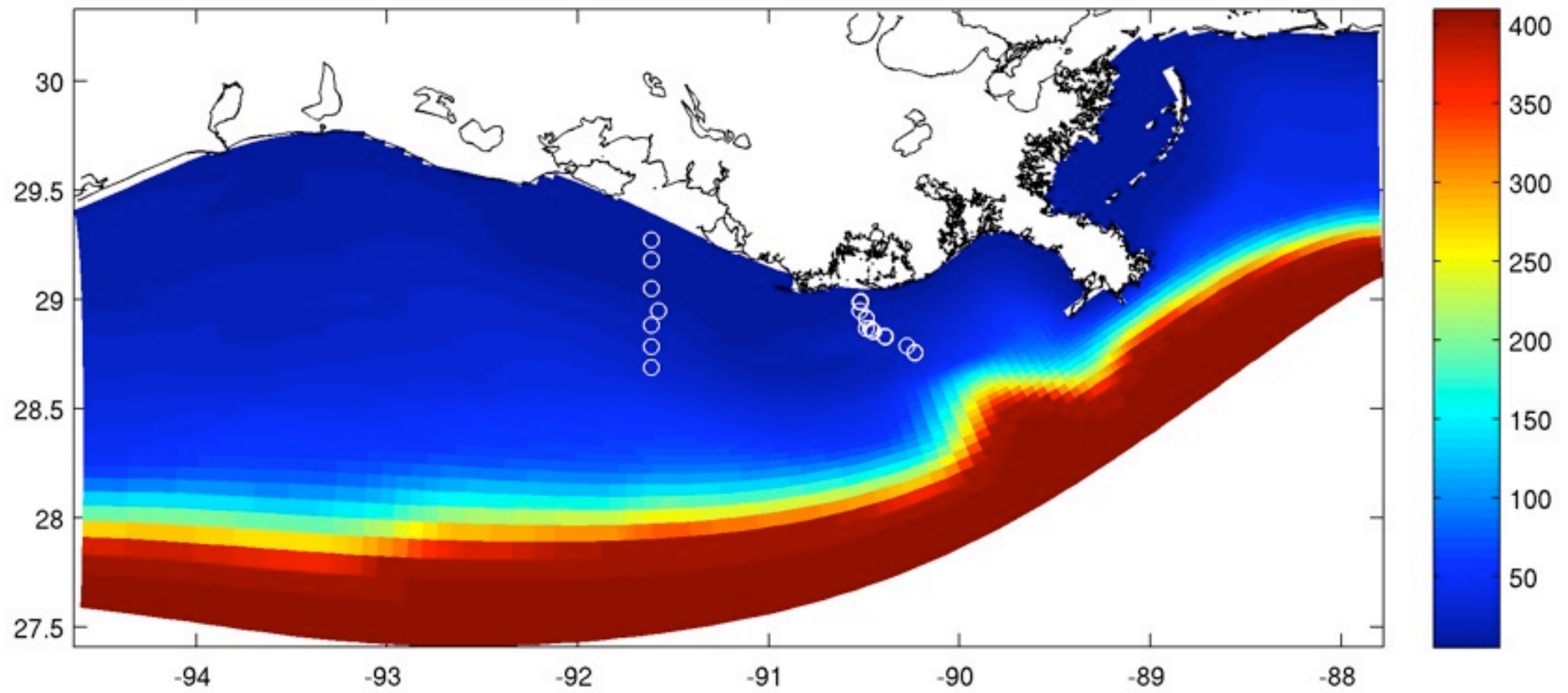




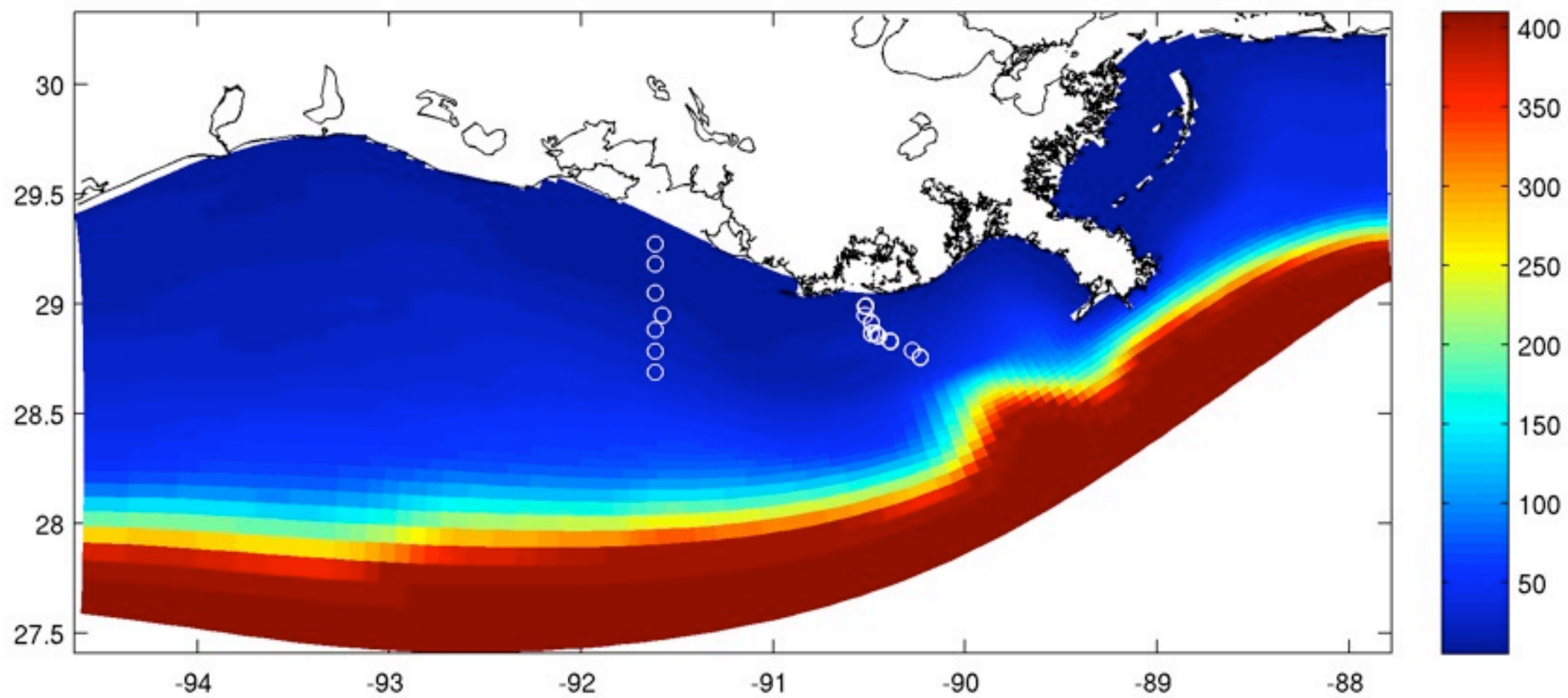
LUMCON: cruise in year 2004 winter (oxy)

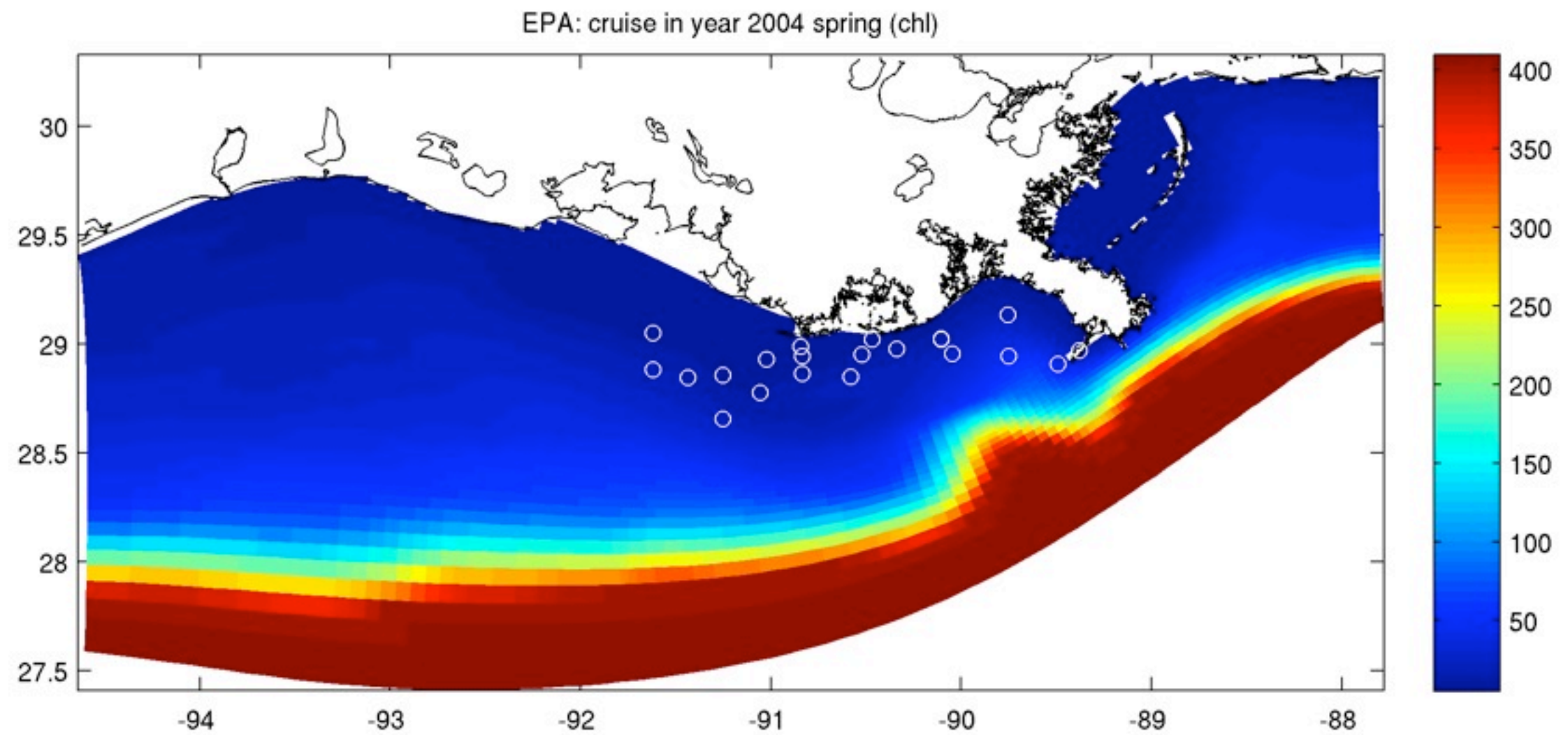


LUMCON: cruise in year 2004 winter (PO4)

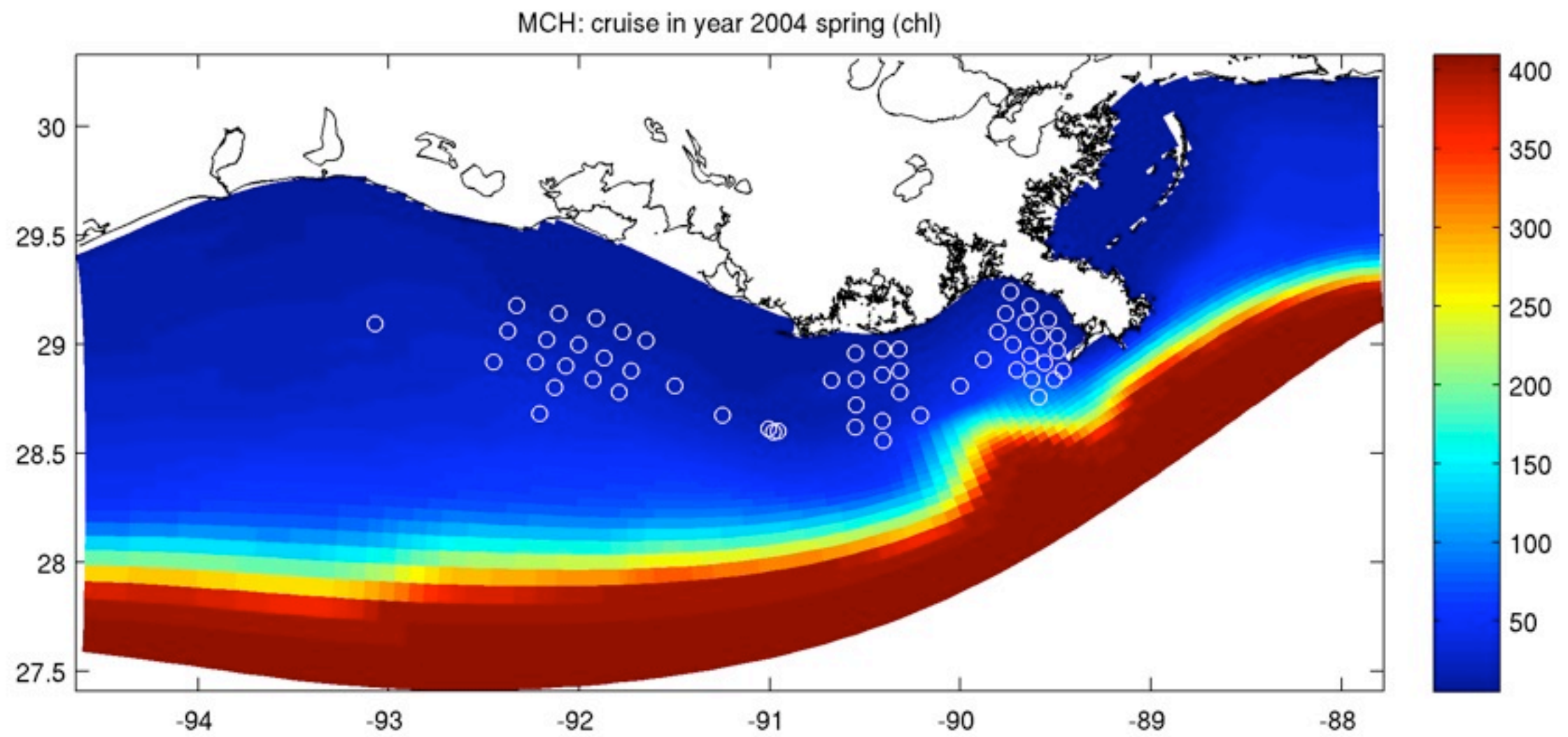


LUMCON: cruise in year 2004 winter (temp+salt)

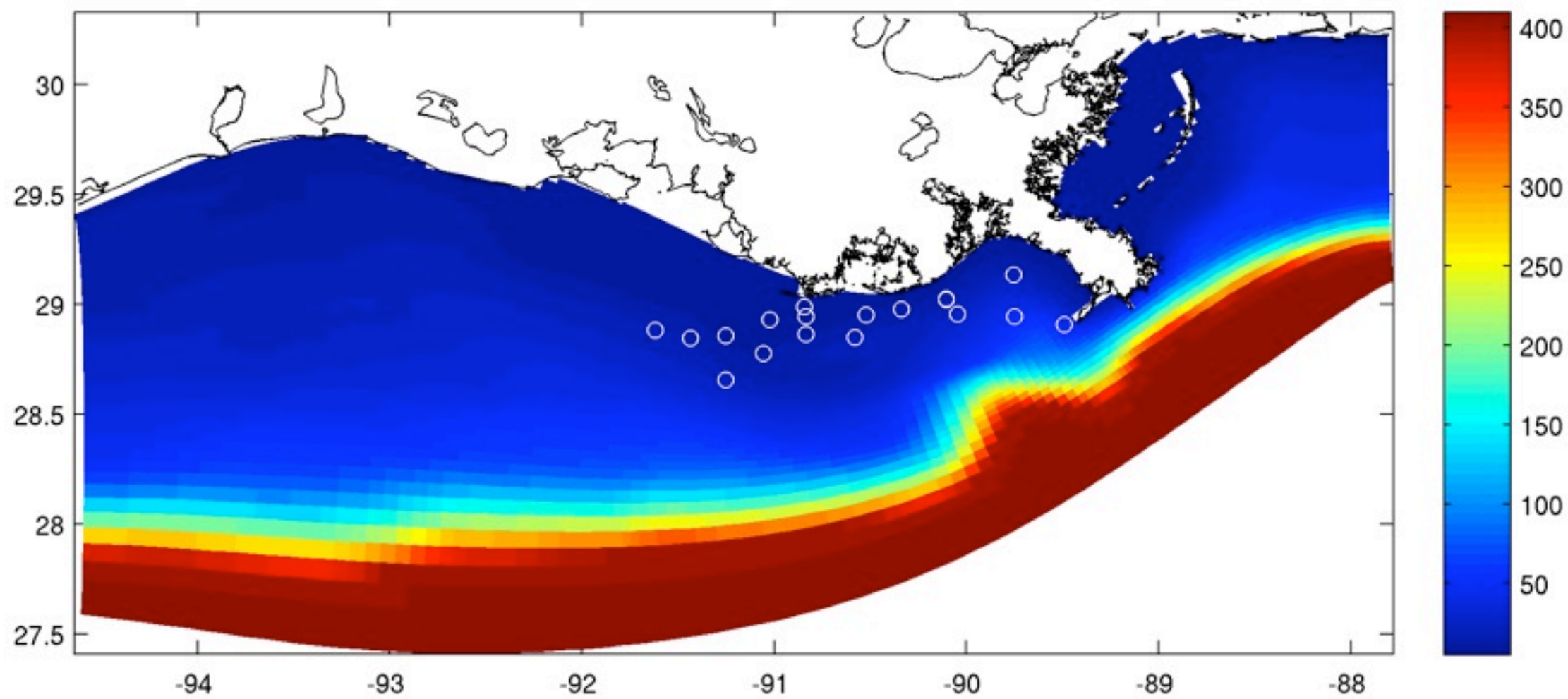




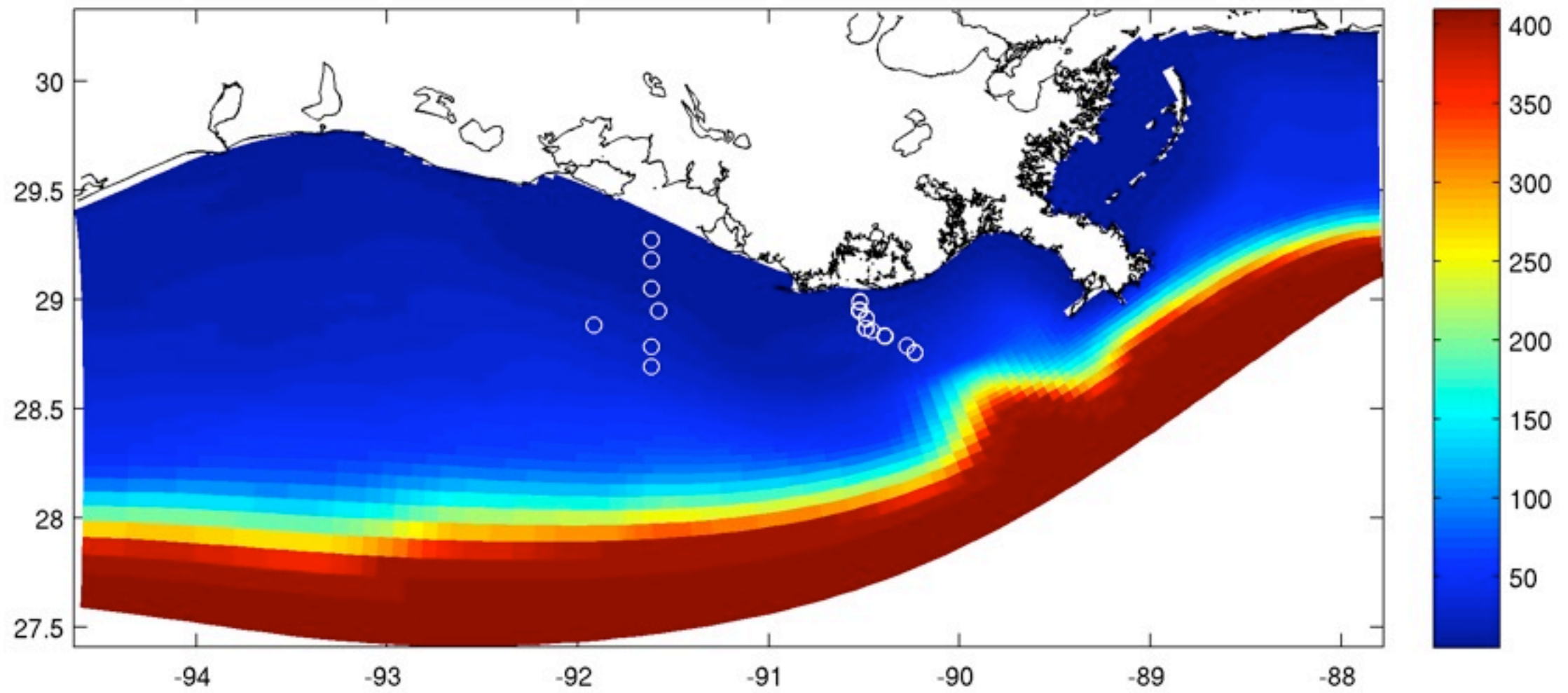




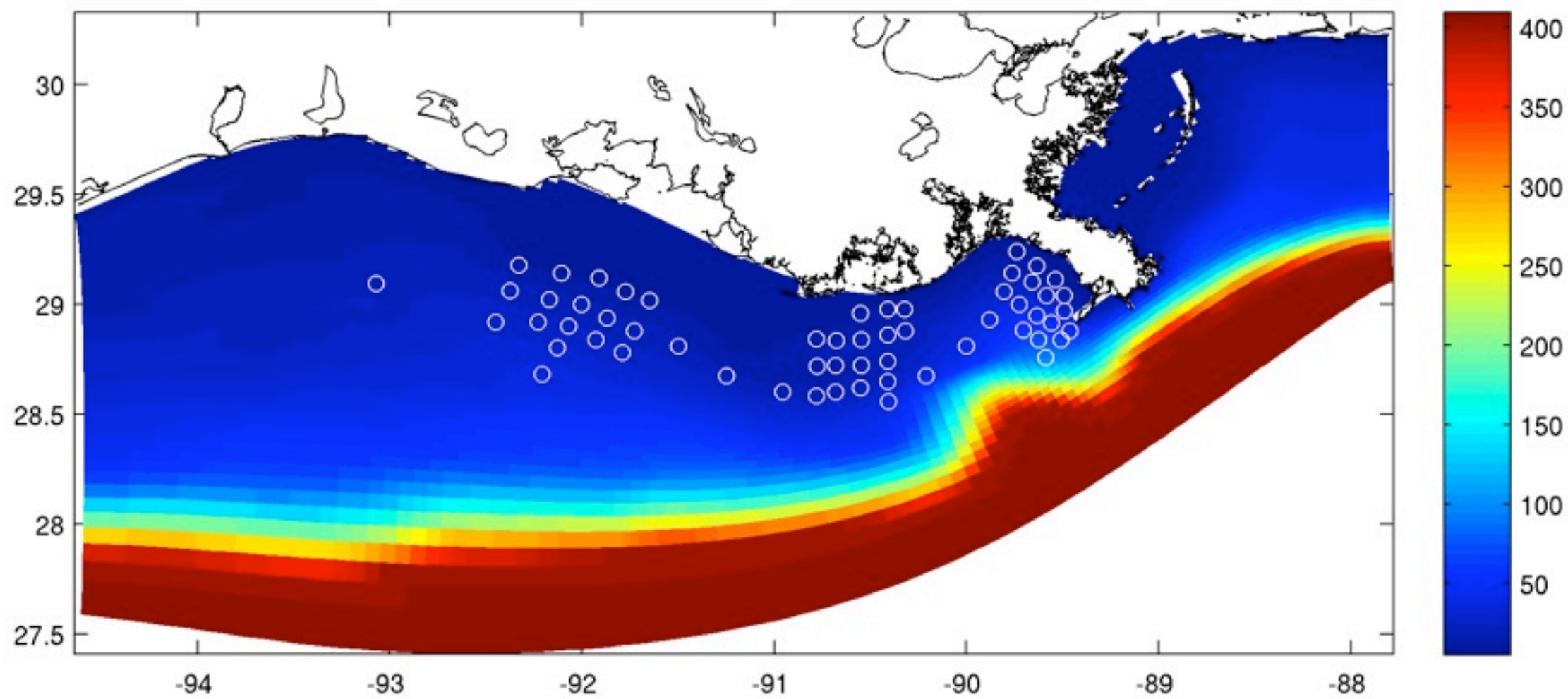
EPA: cruise in year 2004 spring (NH4)



LUMCON: cruise in year 2004 spring (NH4)

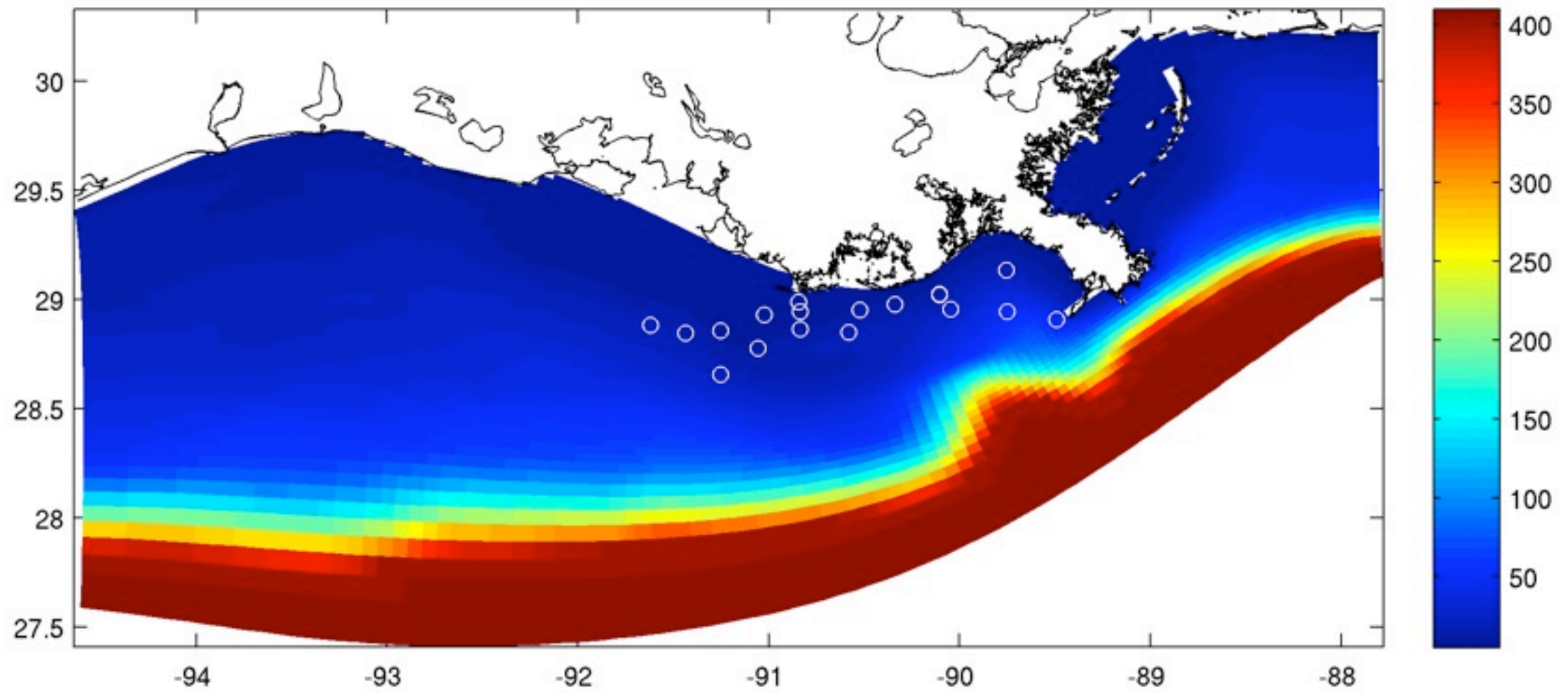


MCH: cruise in year 2004 spring (NH4)

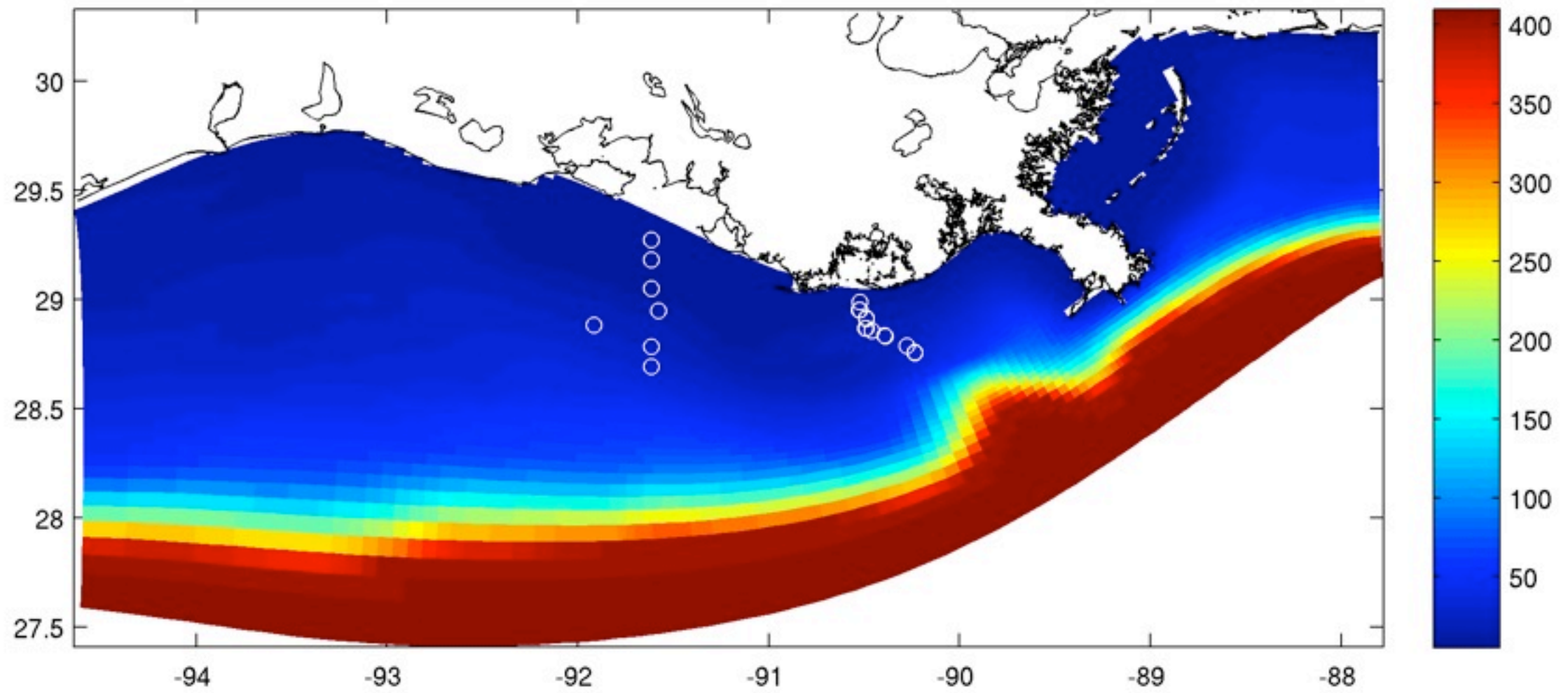




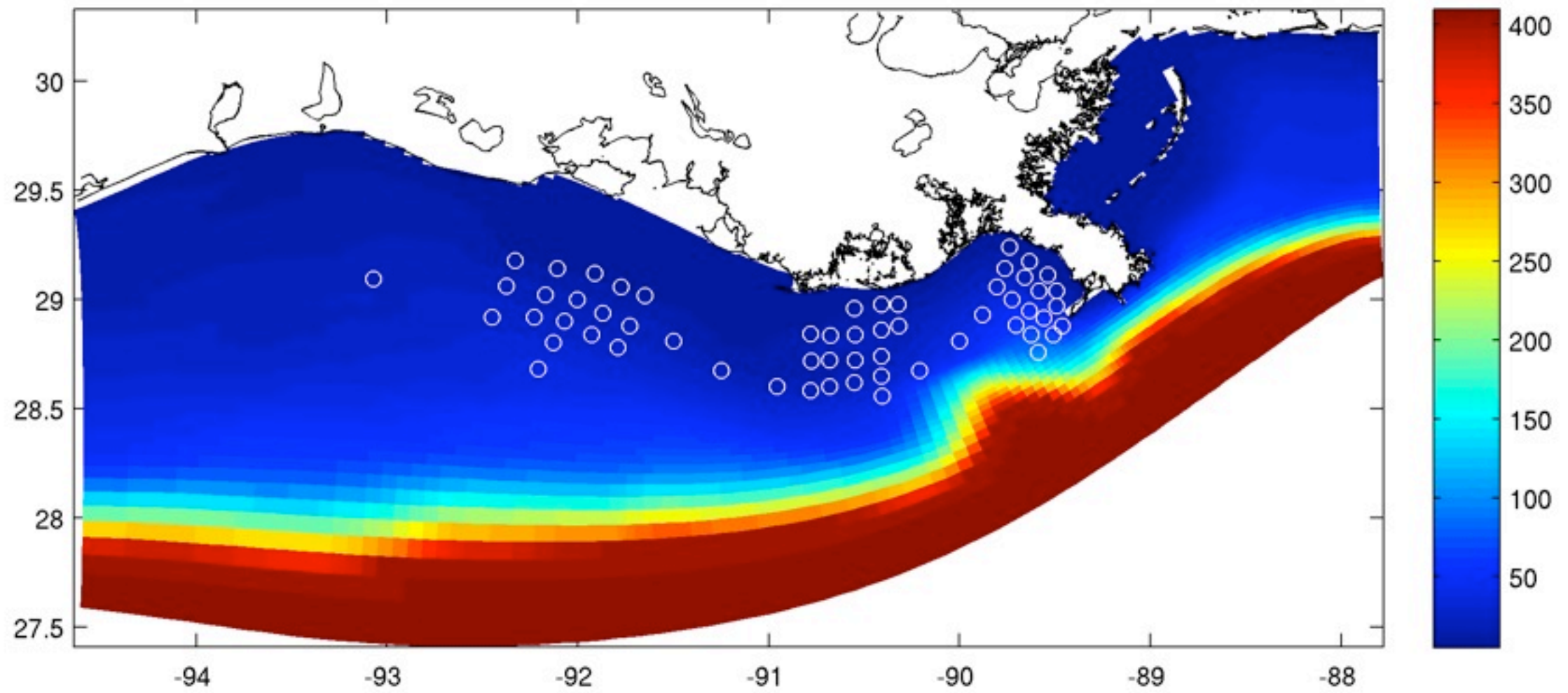
EPA: cruise in year 2004 spring (NO23)

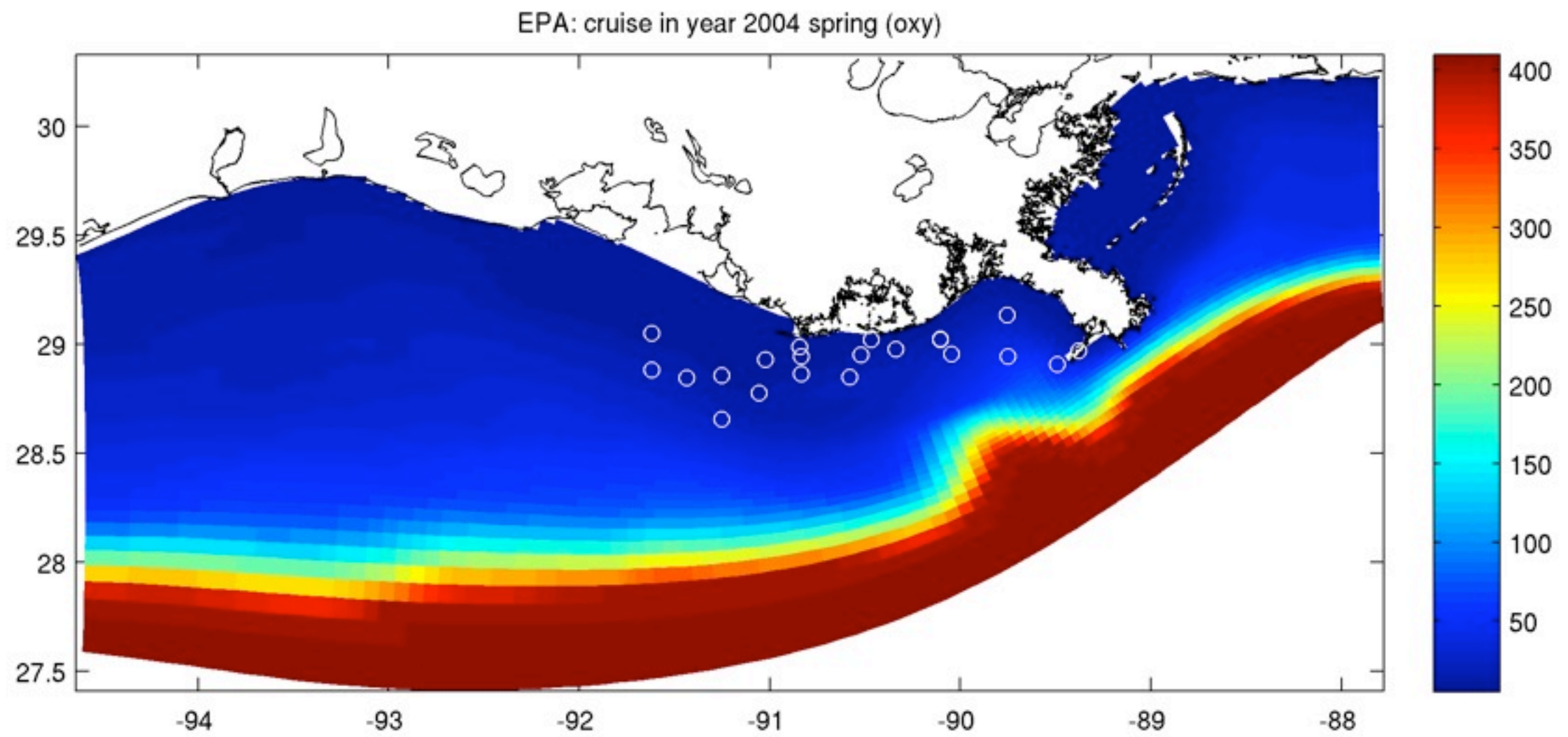


LUMCON: cruise in year 2004 spring (NO23)



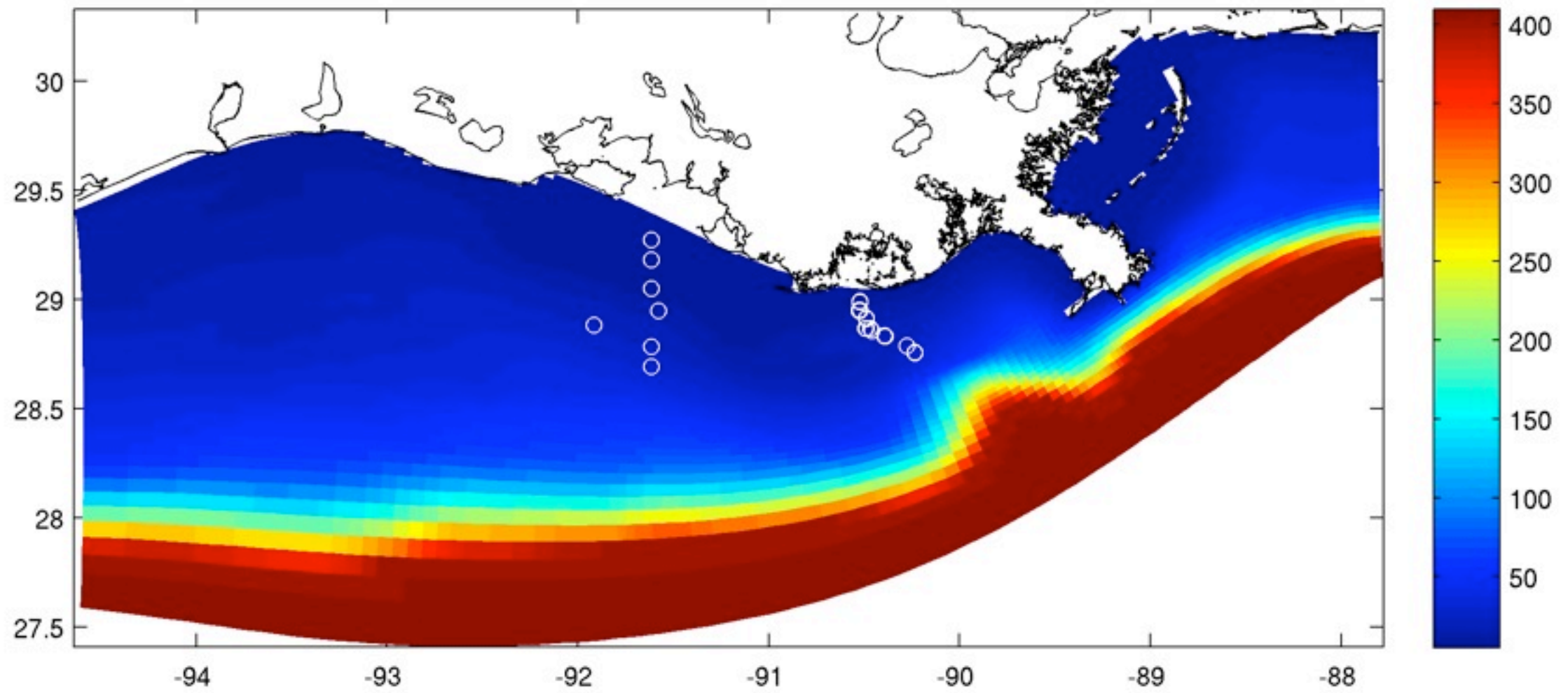
MCH: cruise in year 2004 spring (NO23)

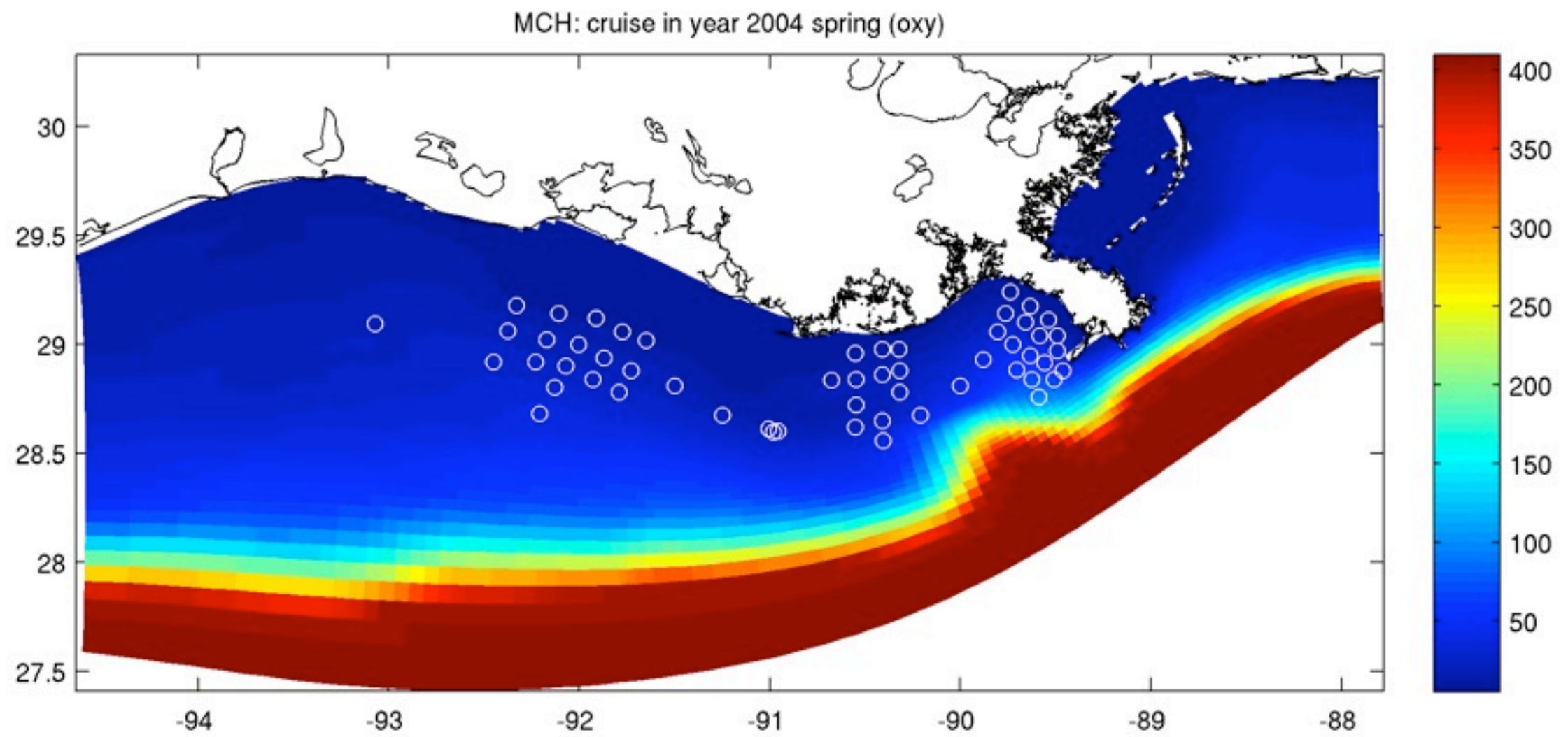






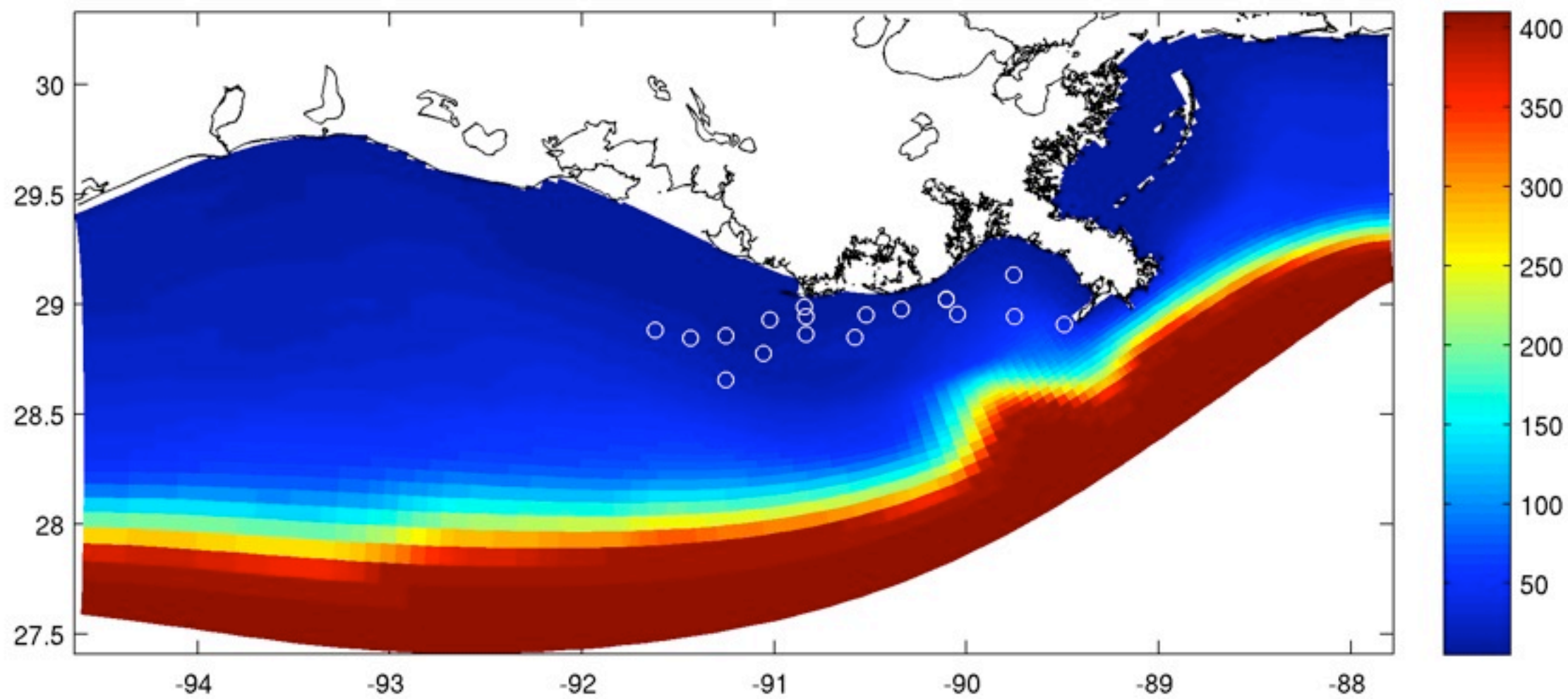
LUMCON: cruise in year 2004 spring (oxy)



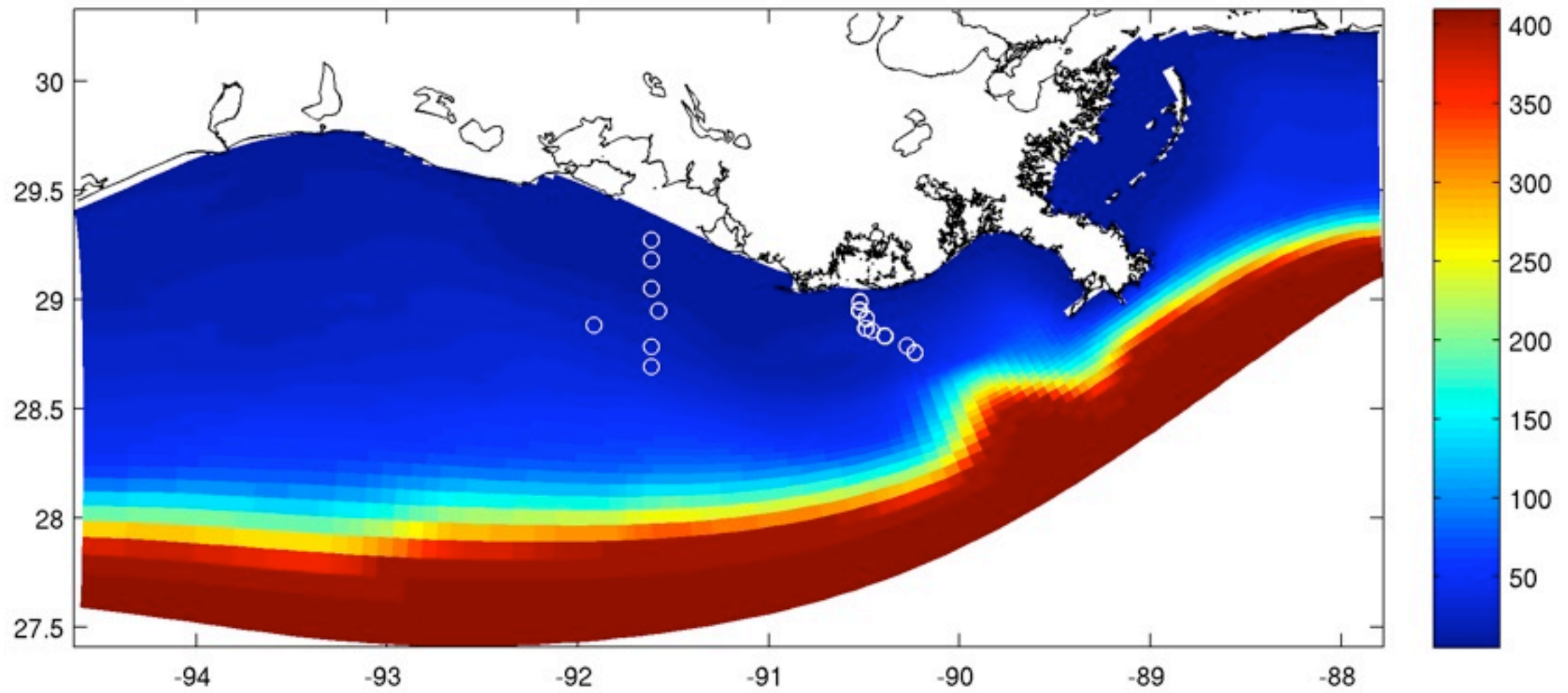




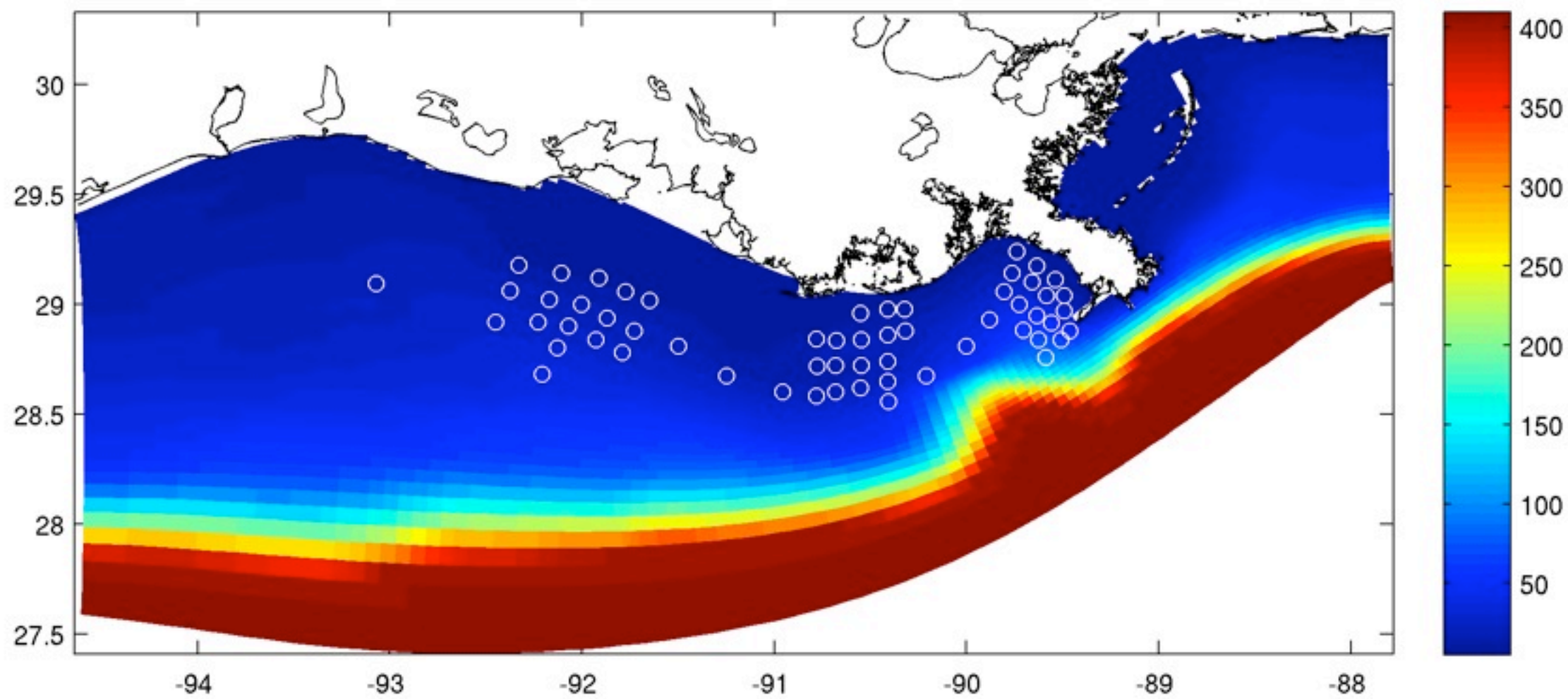
EPA: cruise in year 2004 spring (PO4)

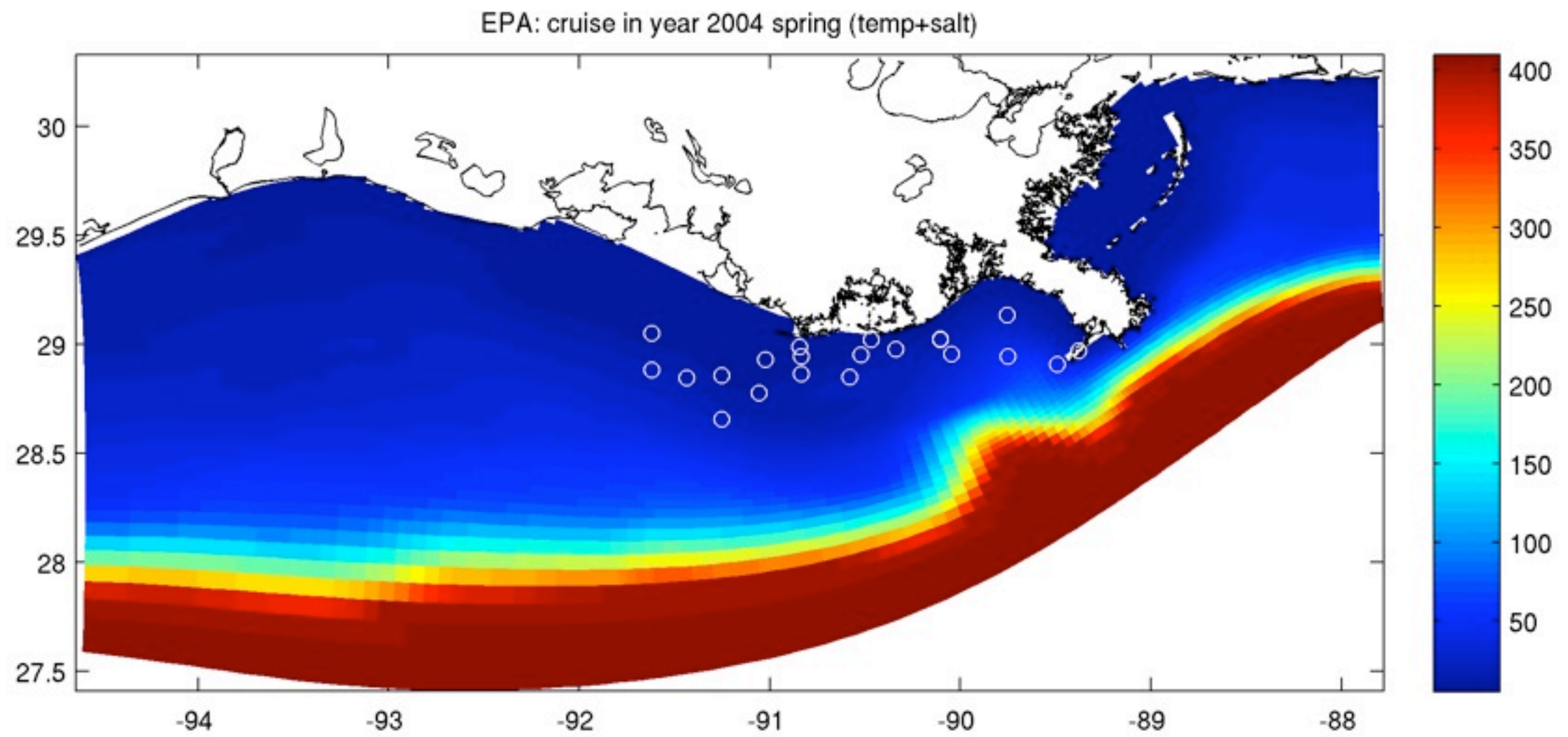


LUMCON: cruise in year 2004 spring (PO4)



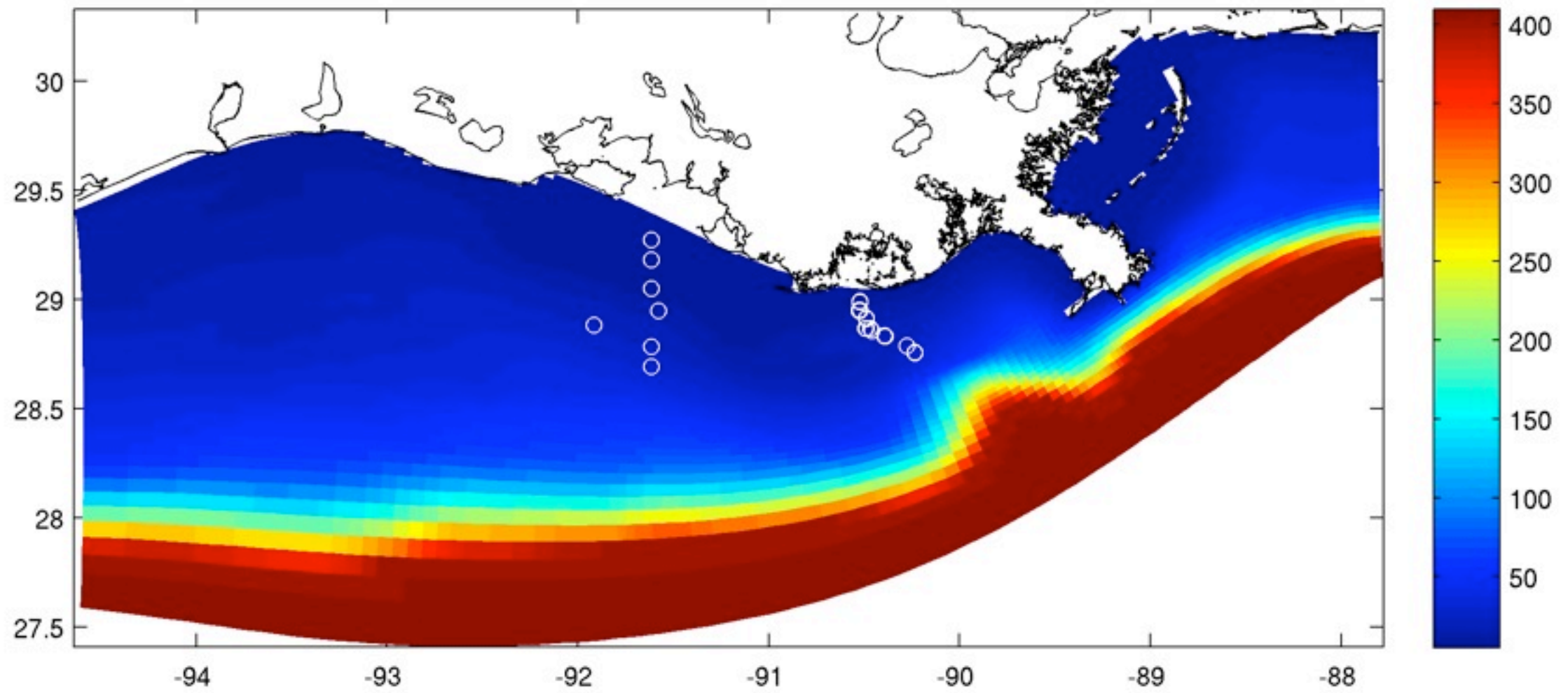
MCH: cruise in year 2004 spring (PO4)



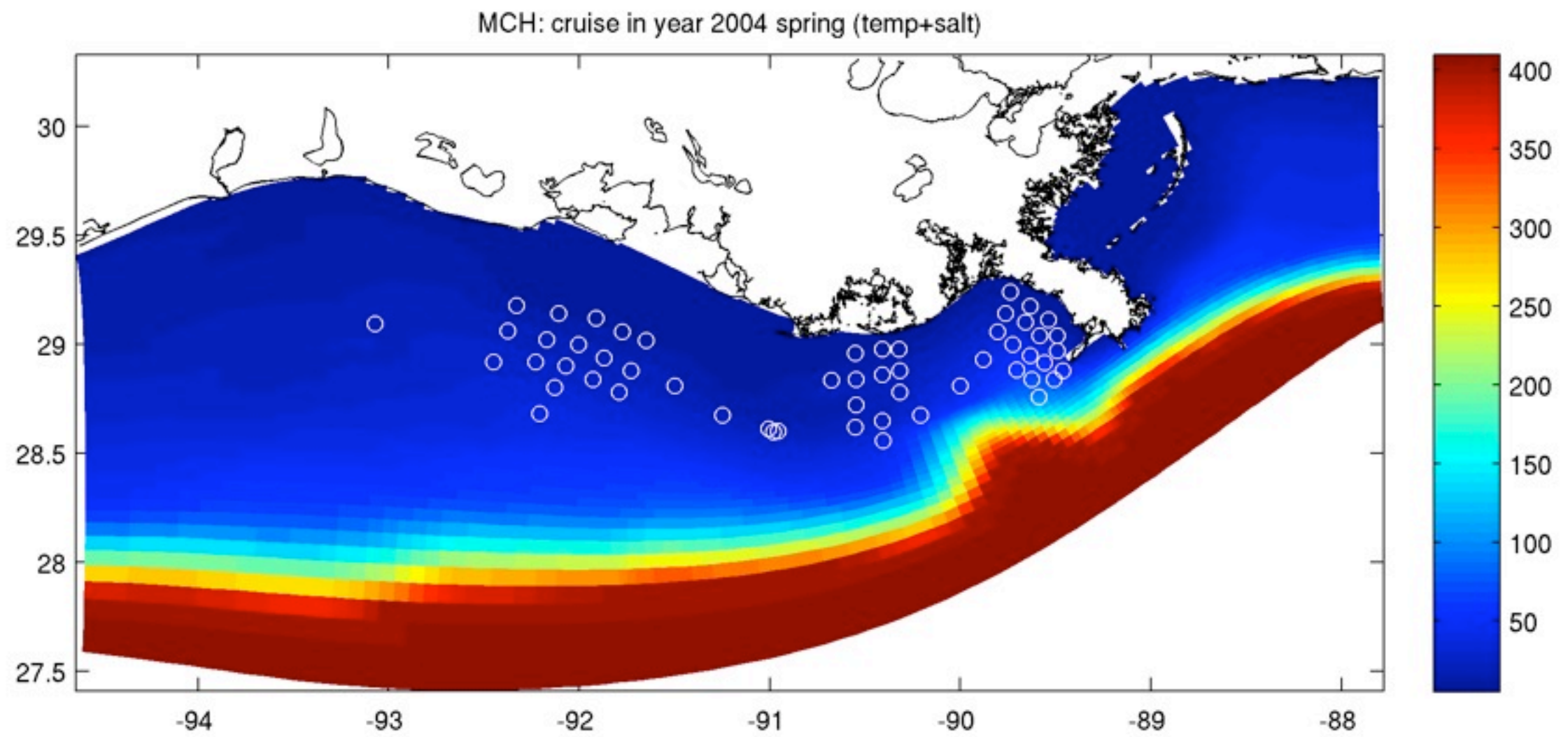


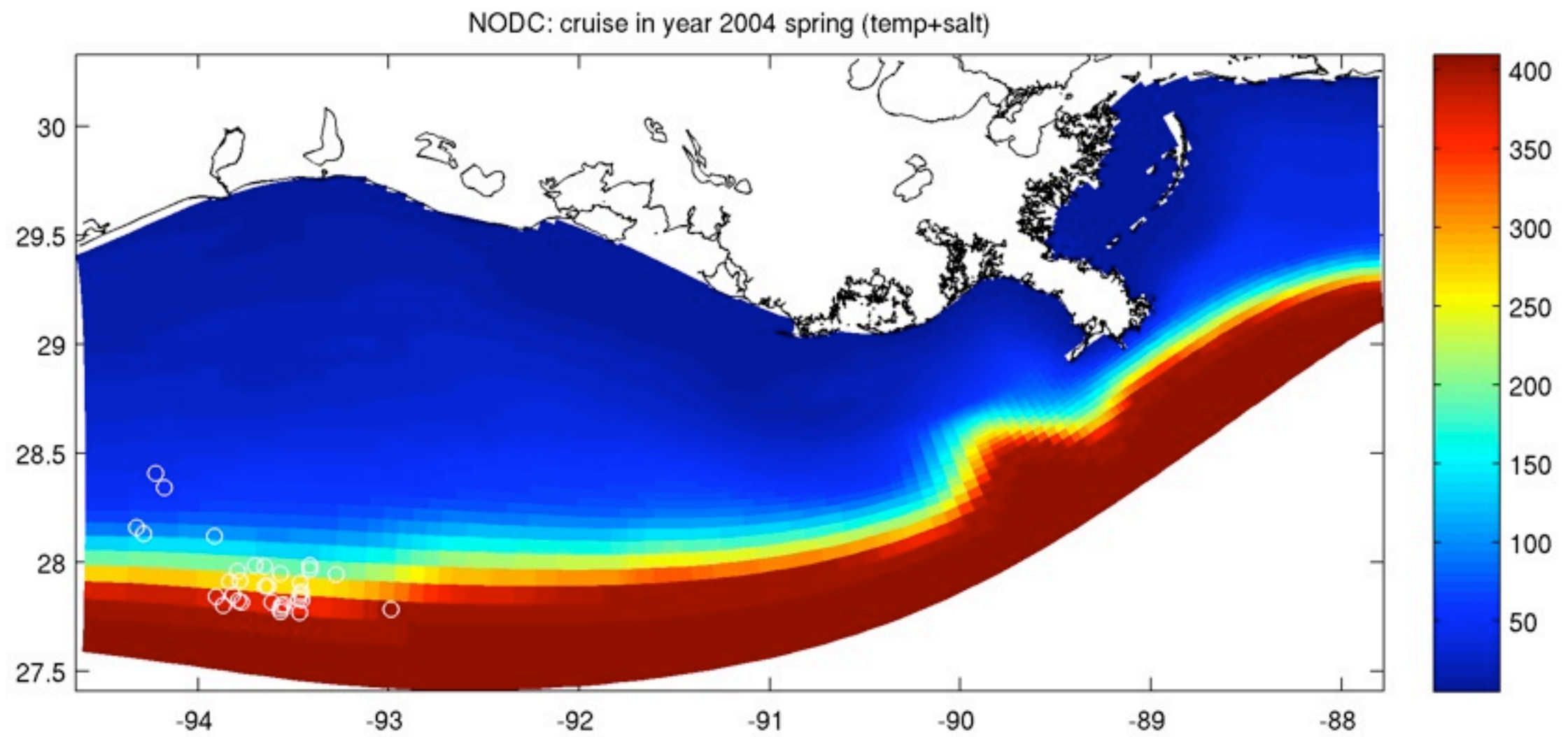


LUMCON: cruise in year 2004 spring (temp+salt)

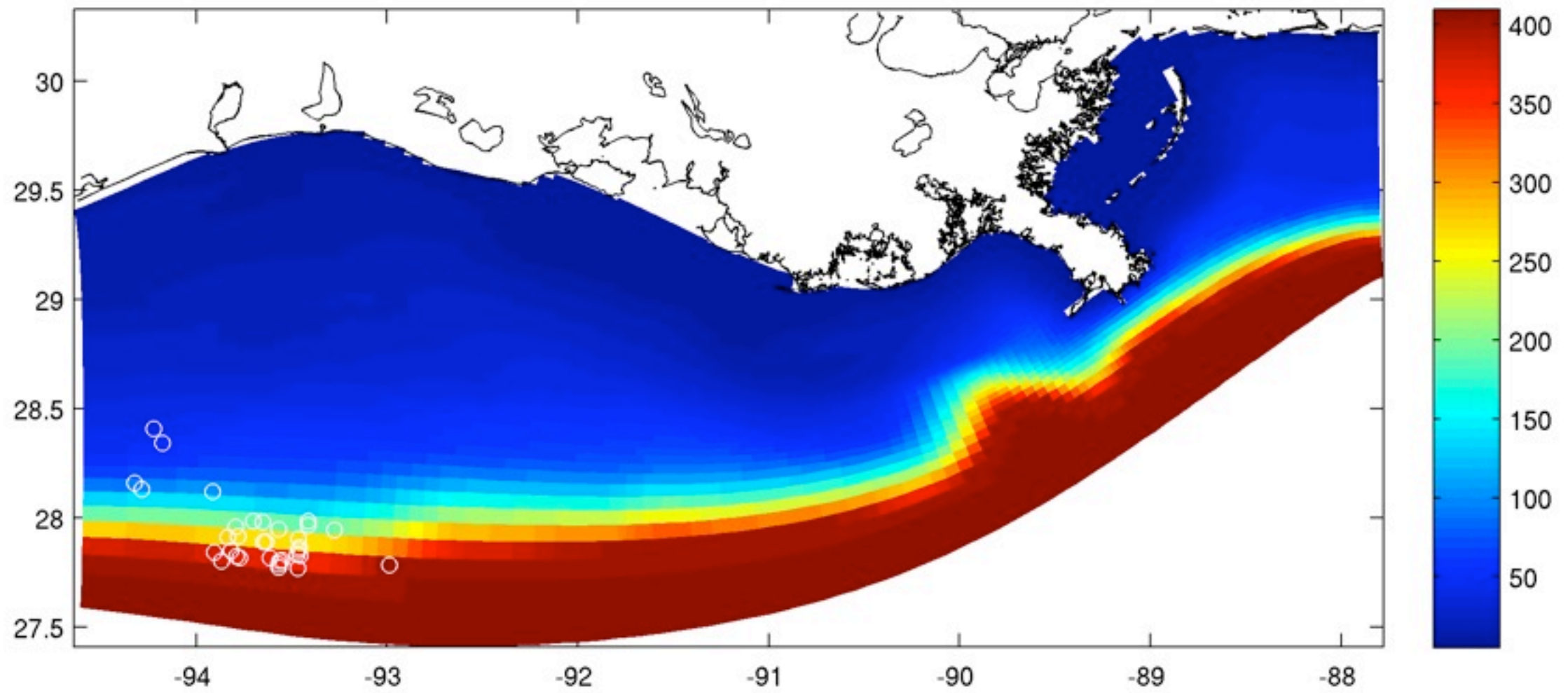




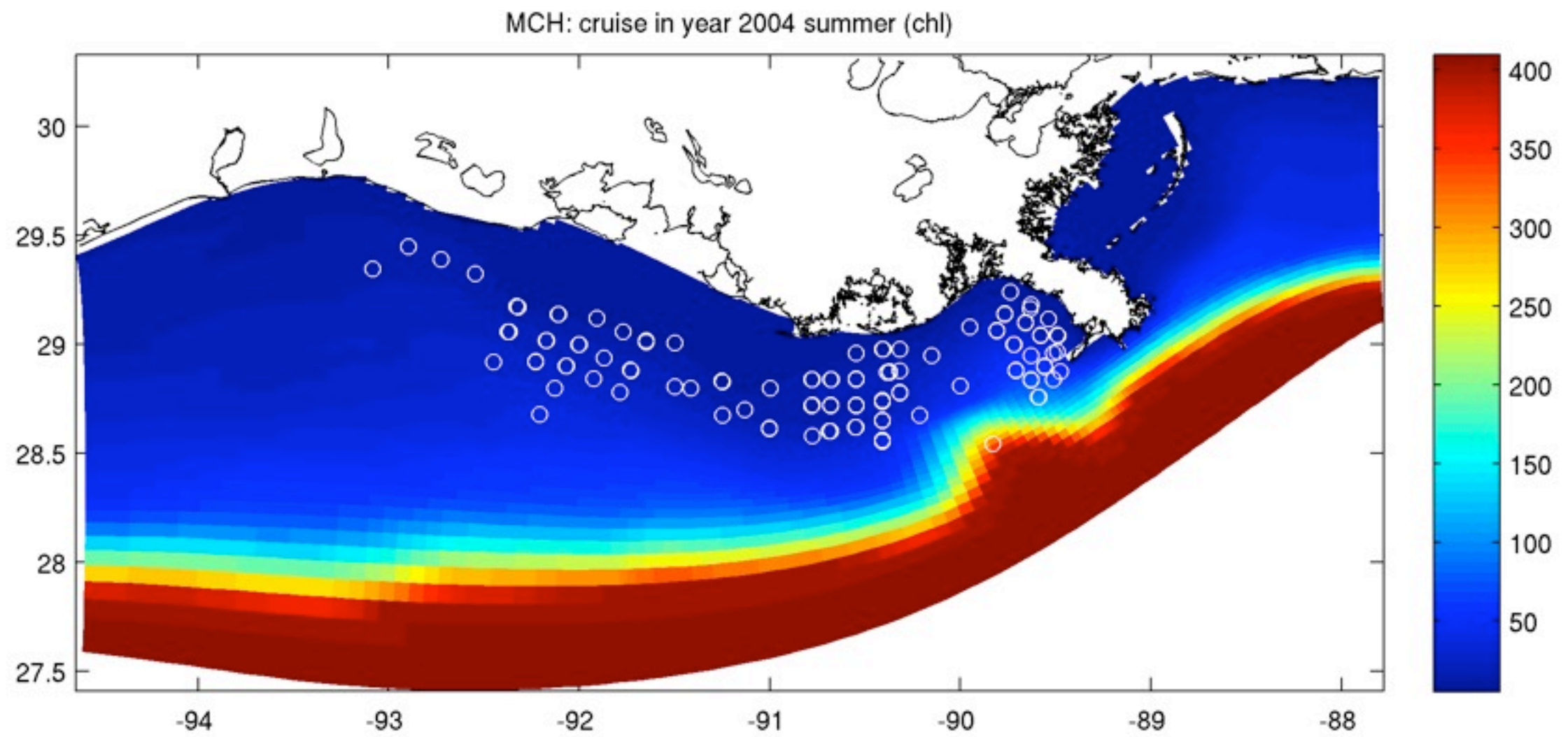




SEAMAP: cruise in year 2004 spring (temp+salt)

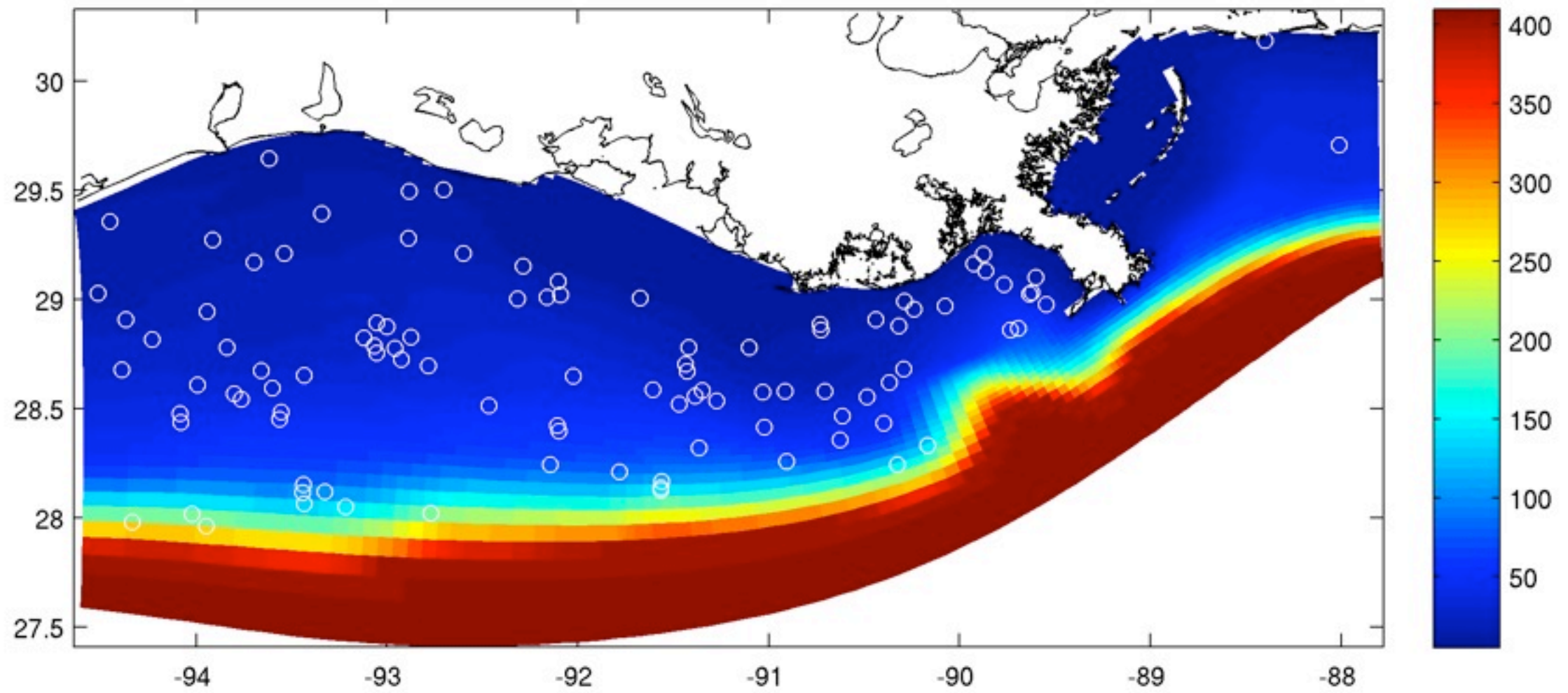




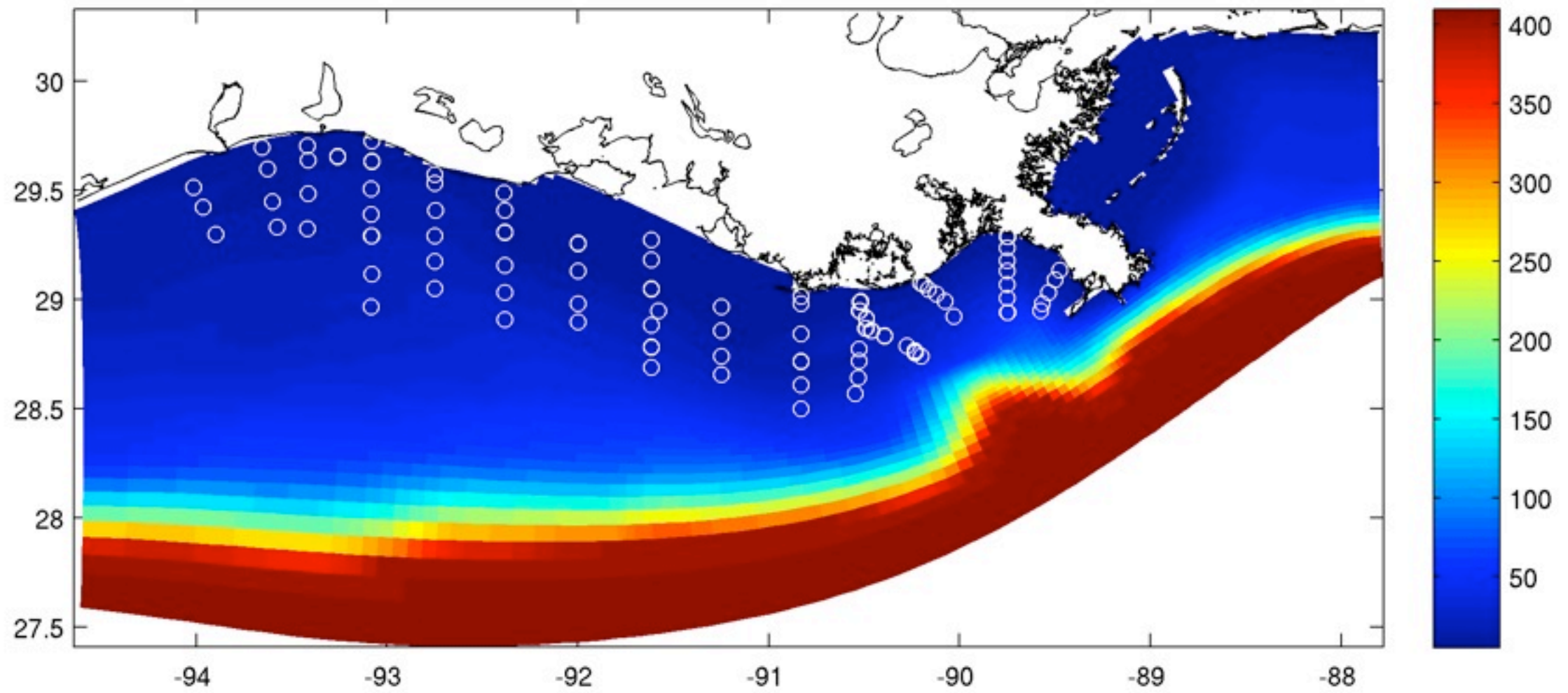




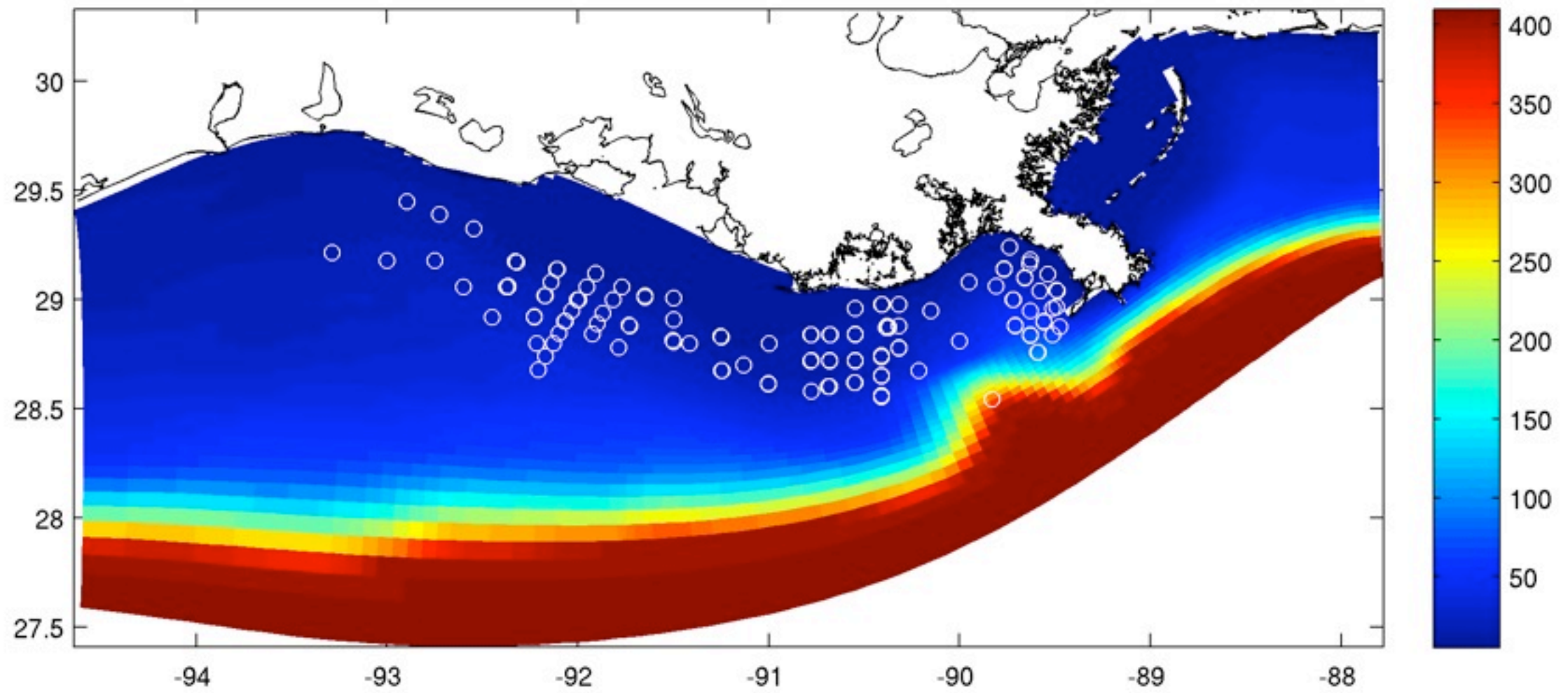
SEAMAP: cruise in year 2004 summer (chl)



LUMCON: cruise in year 2004 summer (NH4)

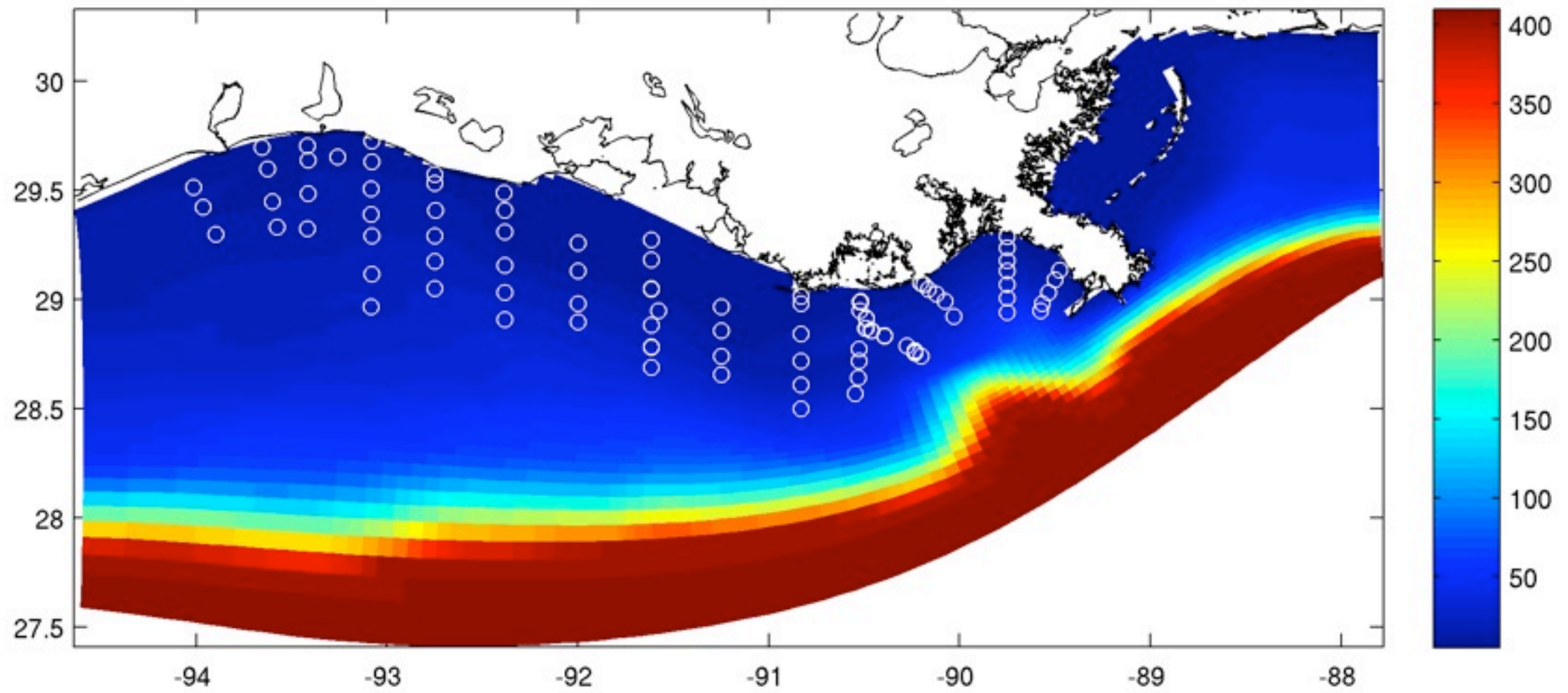


MCH: cruise in year 2004 summer (NH4)

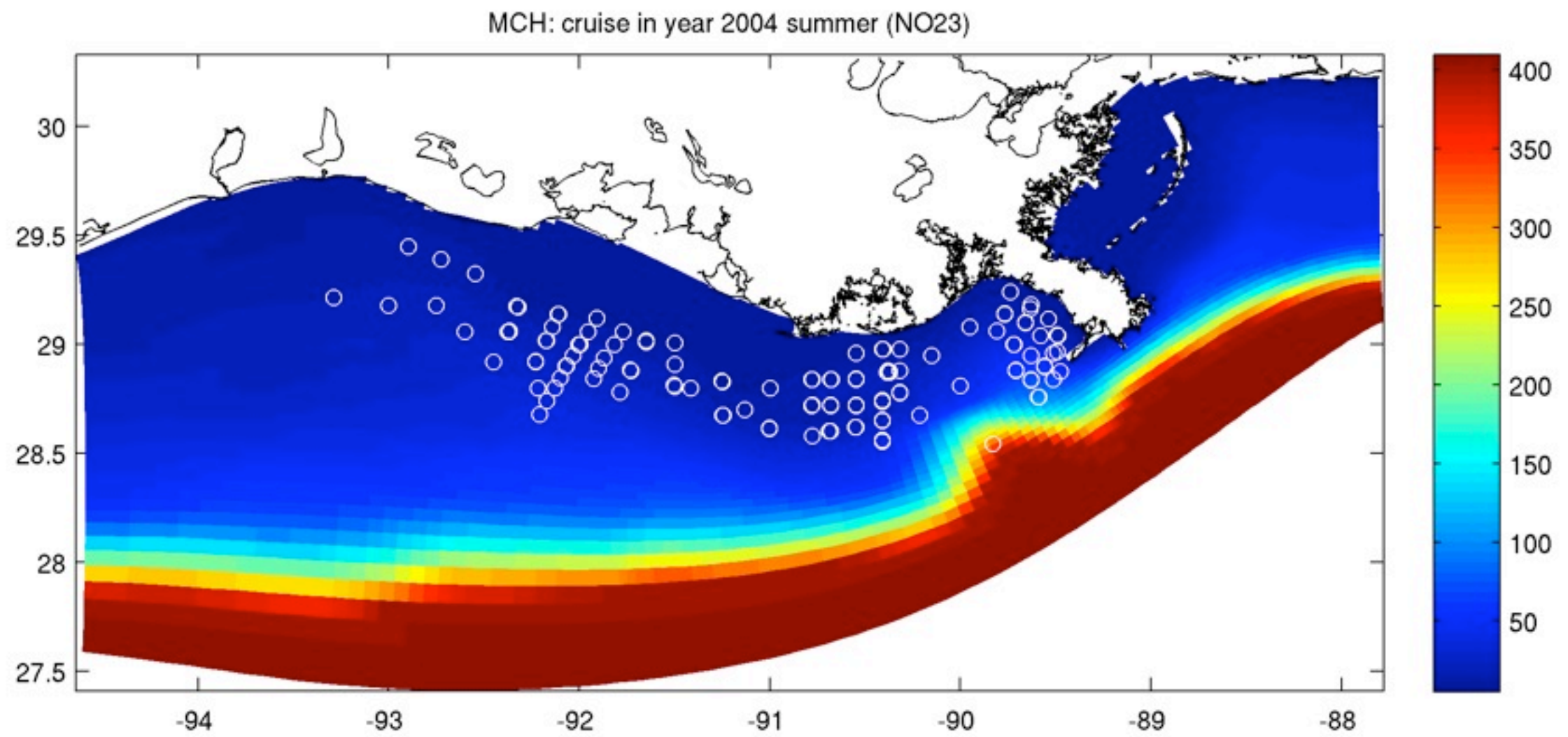




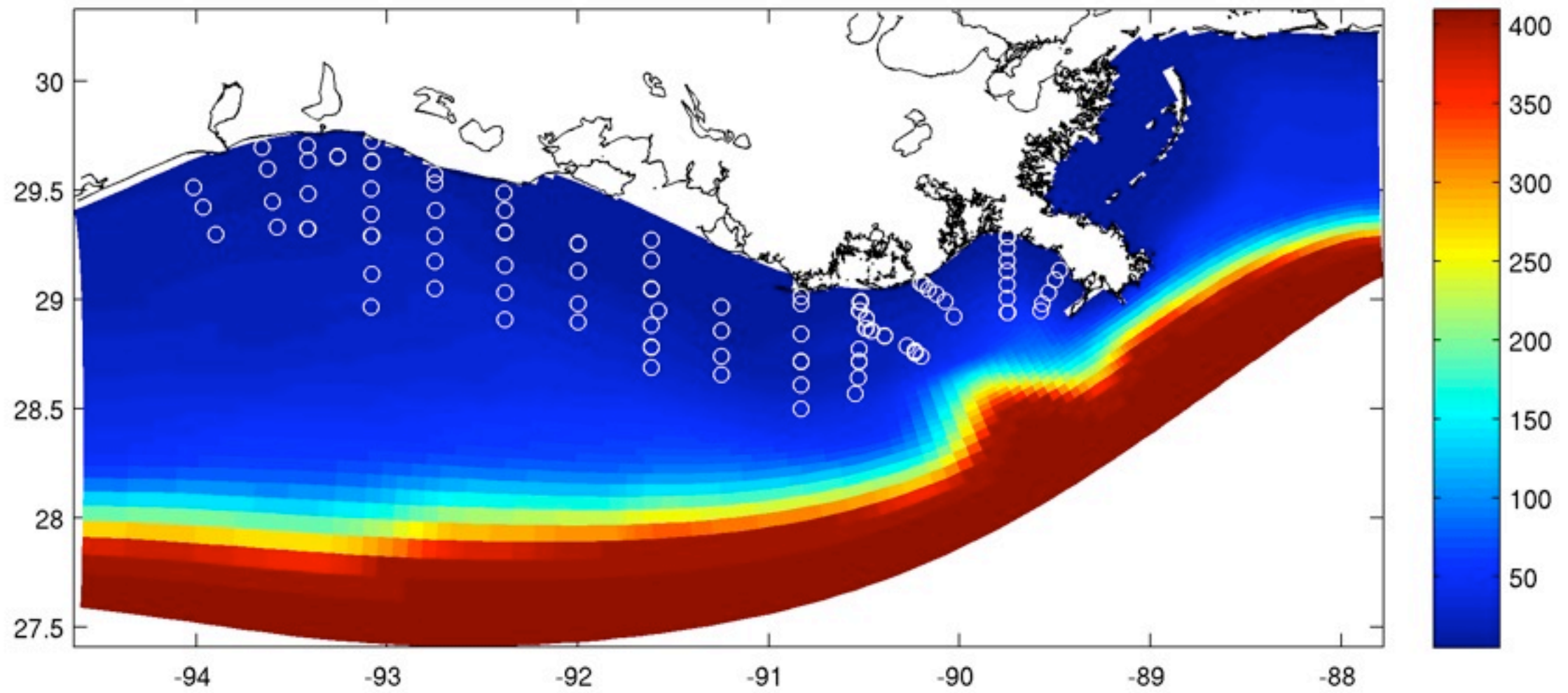
LUMCON: cruise in year 2004 summer (NO23)



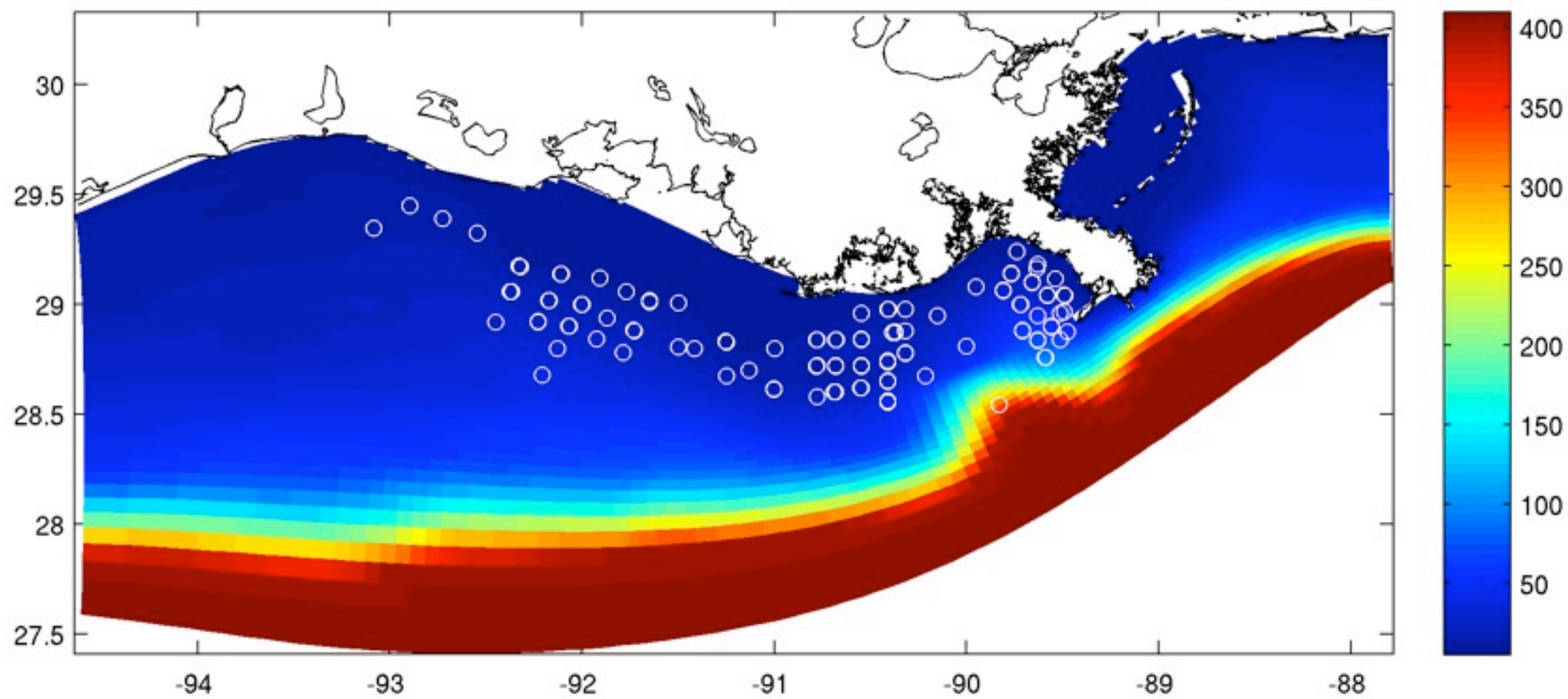




LUMCON: cruise in year 2004 summer (oxy)

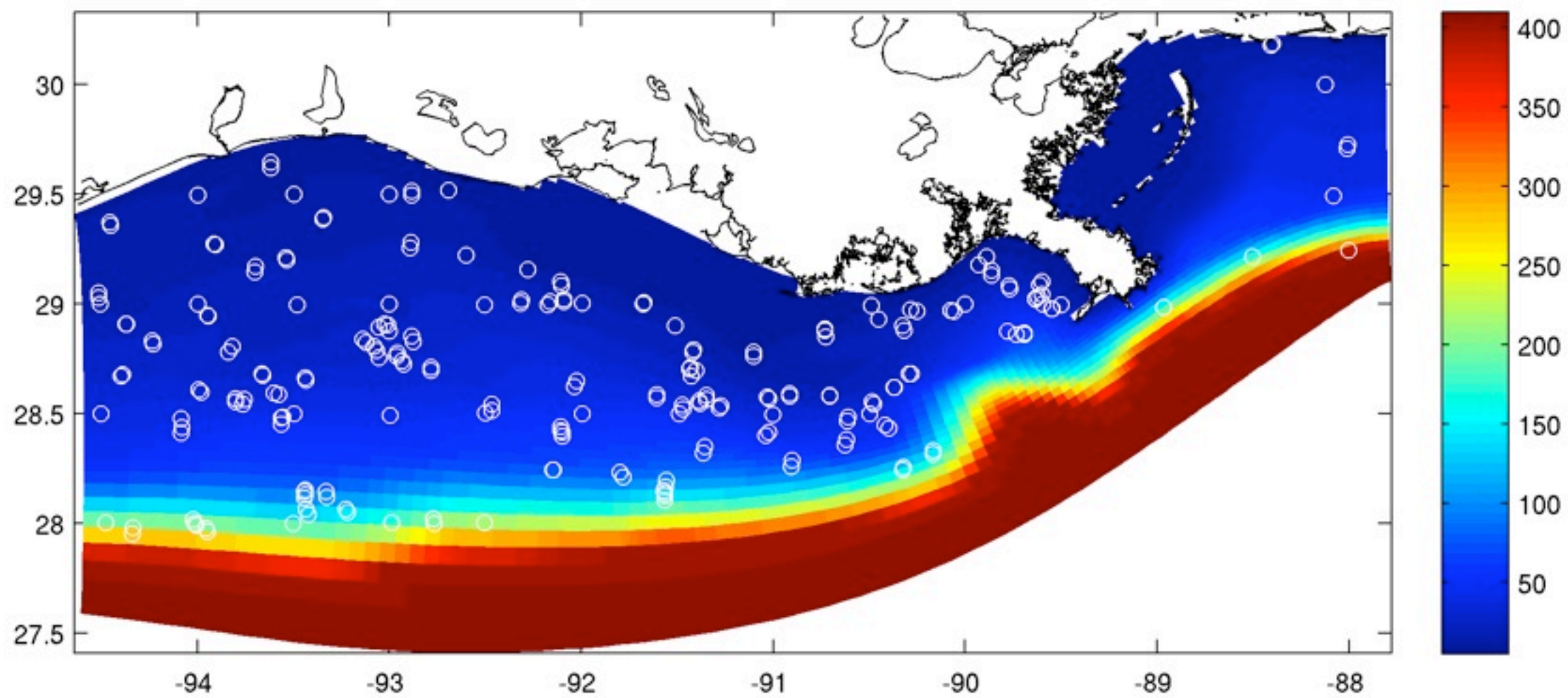


MCH: cruise in year 2004 summer (oxy)



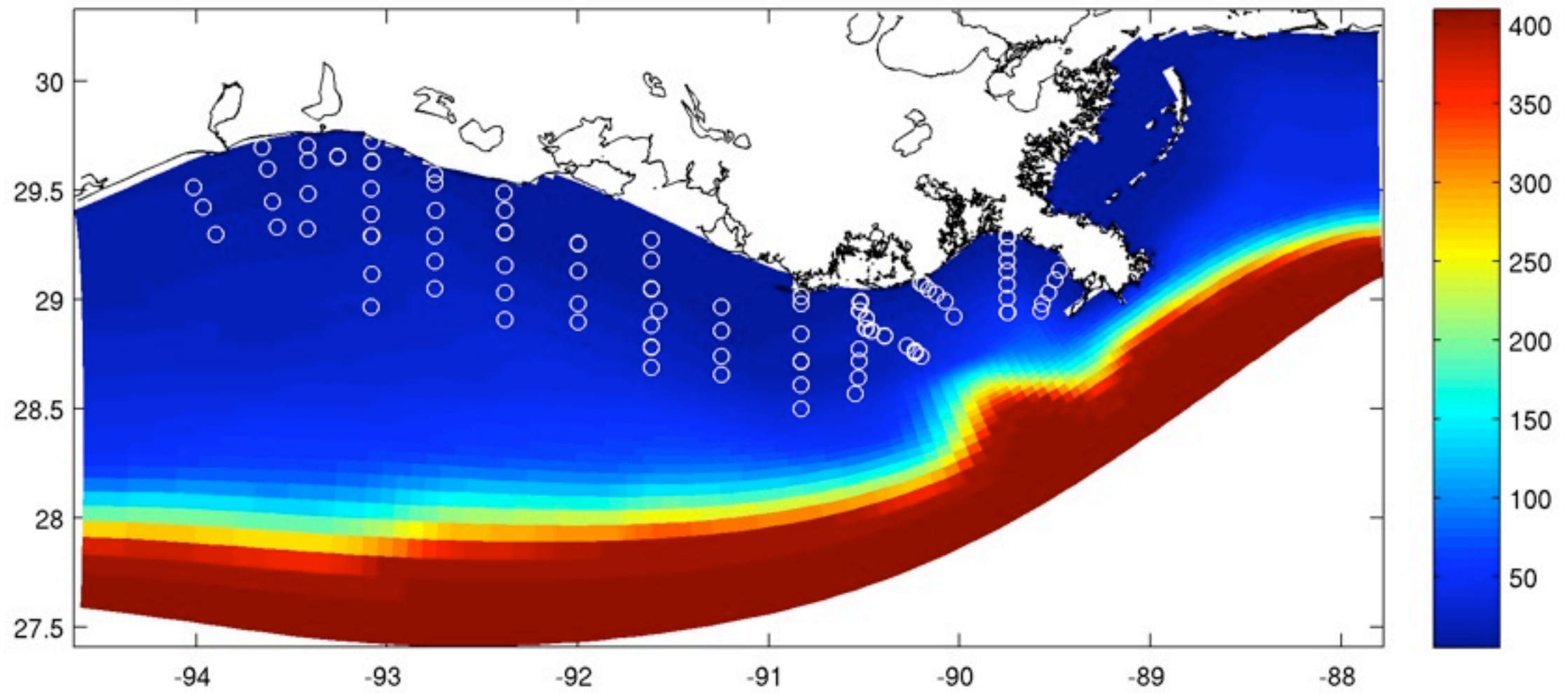


SEAMAP: cruise in year 2004 summer (oxy)

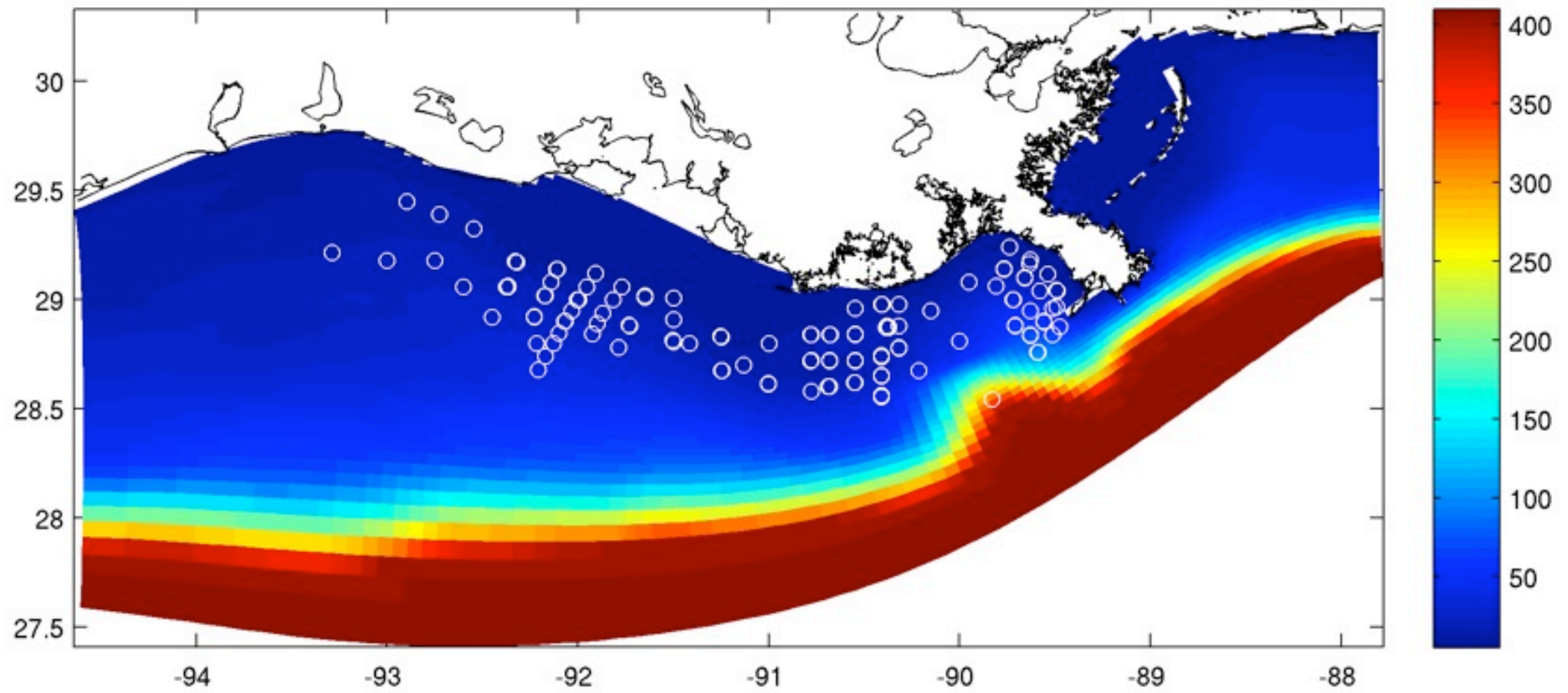




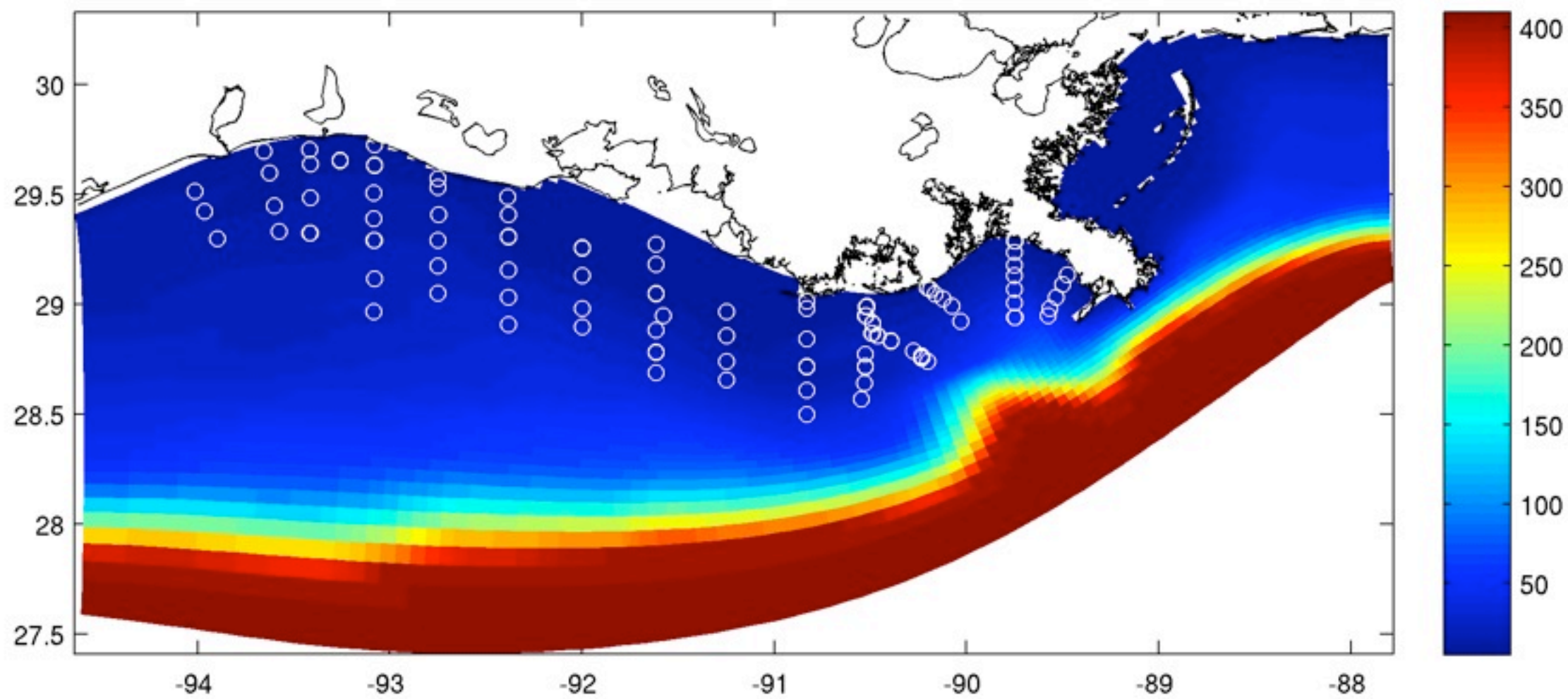
LUMCON: cruise in year 2004 summer (PO4)



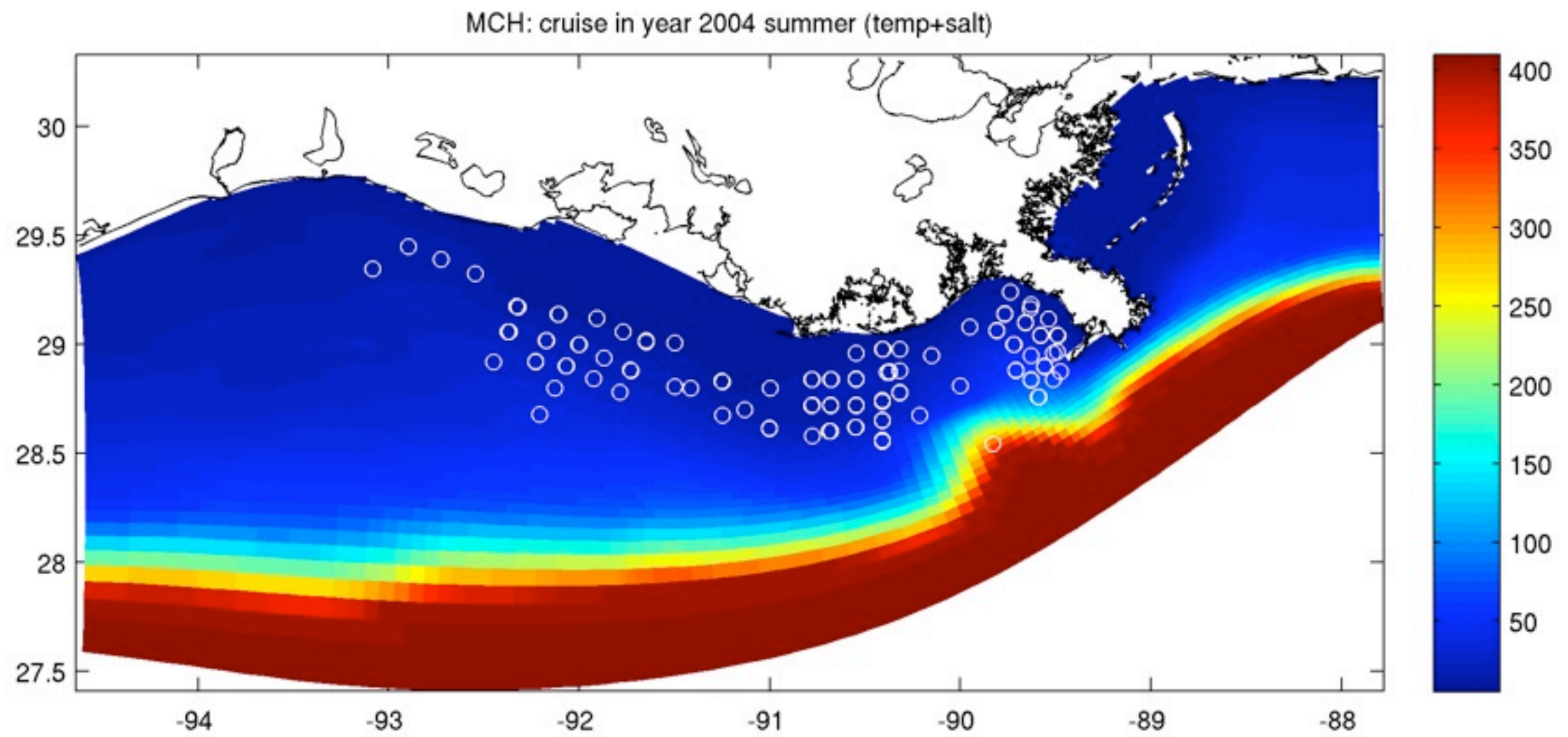
MCH: cruise in year 2004 summer (PO4)



LUMCON: cruise in year 2004 summer (temp+salt)

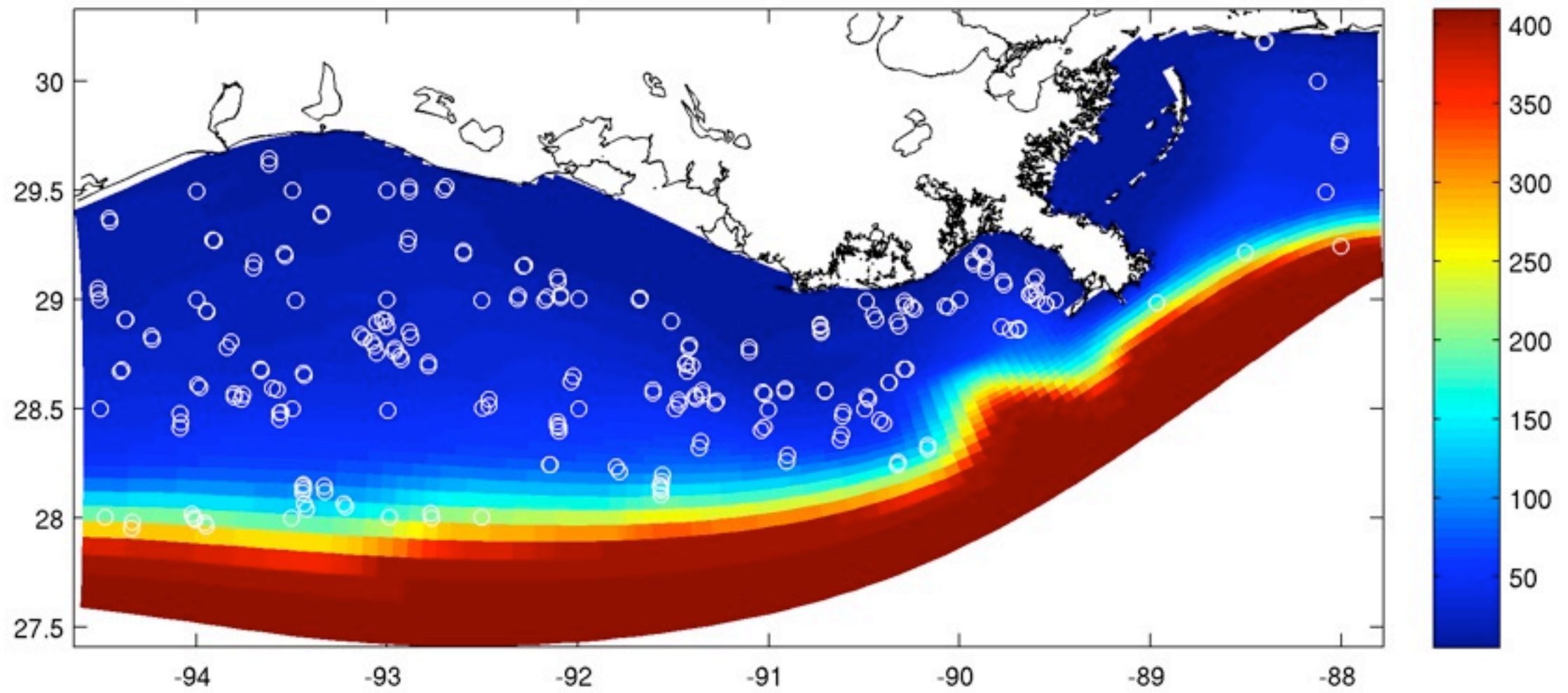




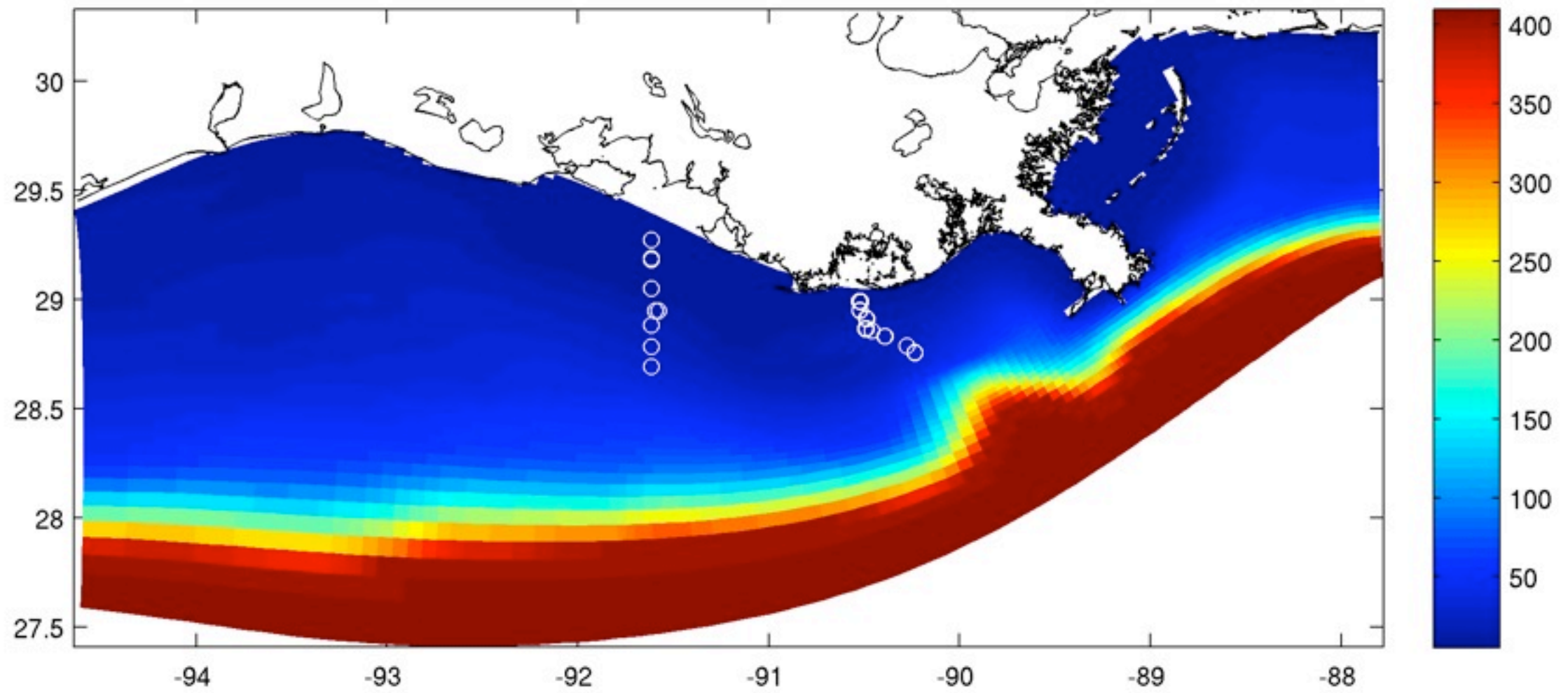




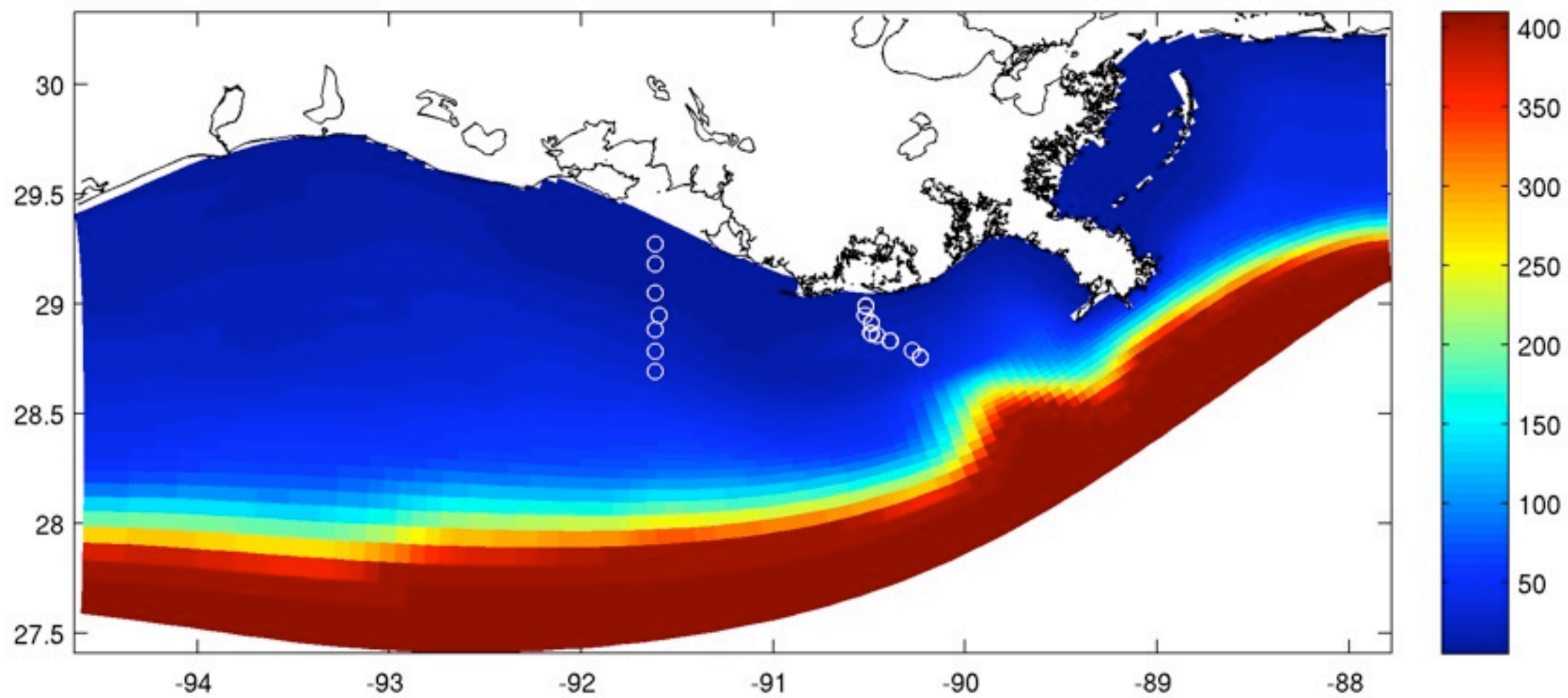
SEAMAP: cruise in year 2004 summer (temp+salt)



LUMCON: cruise in year 2004 autumn (NH4)

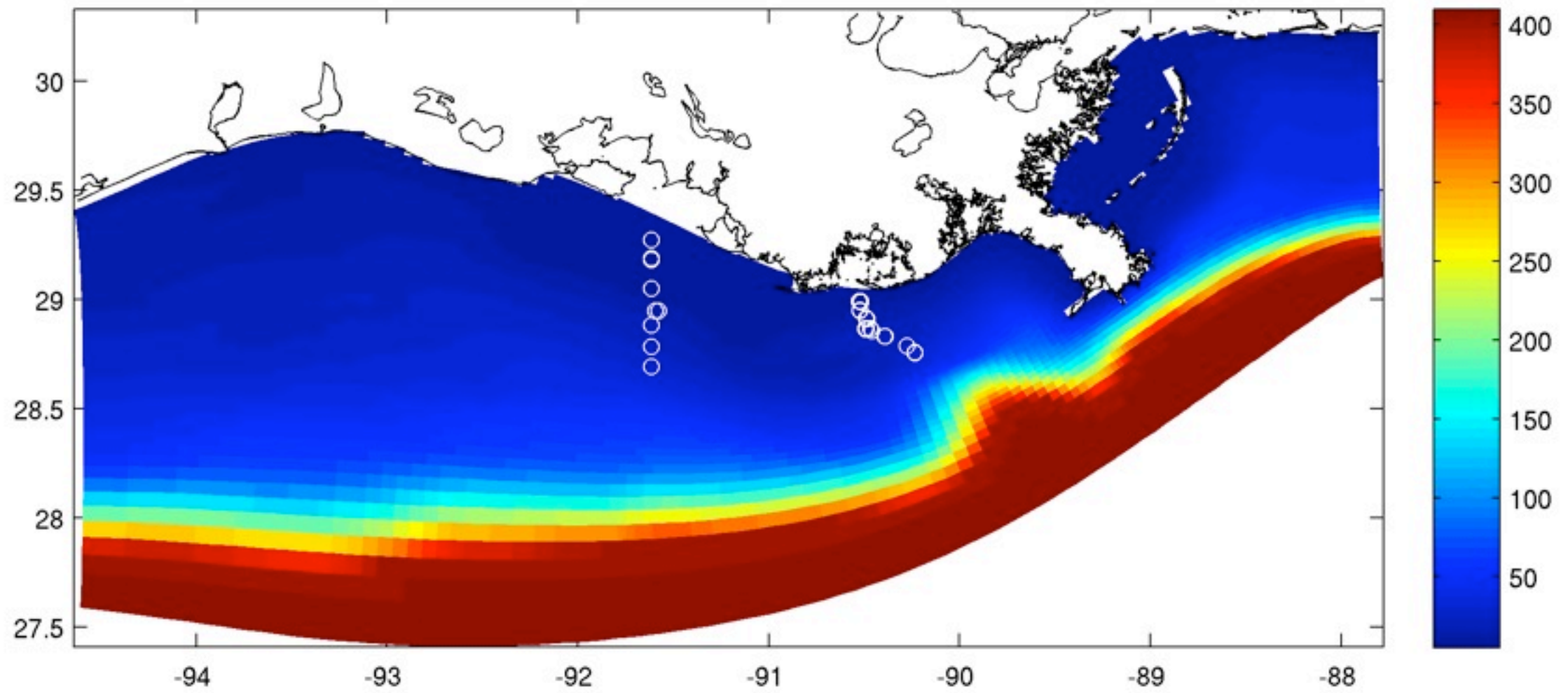


LUMCON: cruise in year 2004 autumn (NO23)



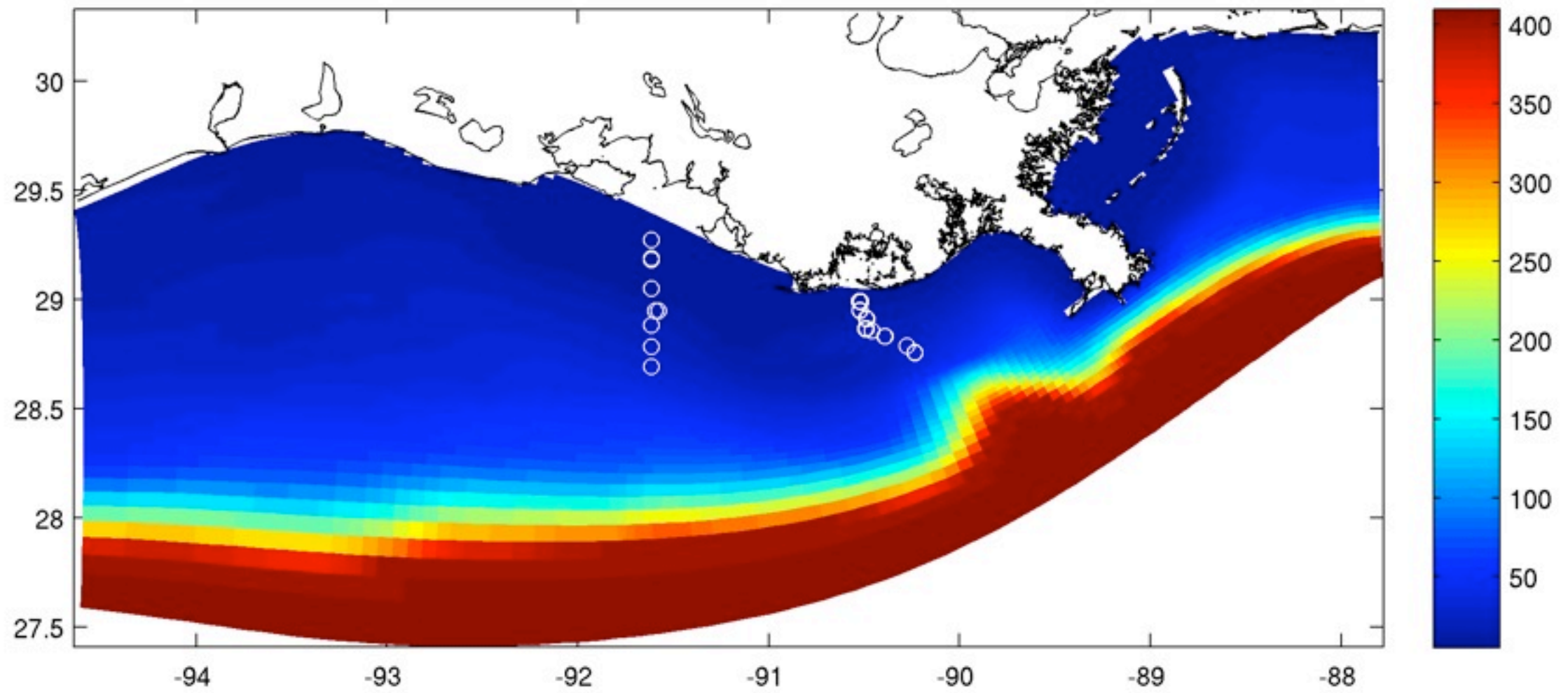


LUMCON: cruise in year 2004 autumn (oxy)

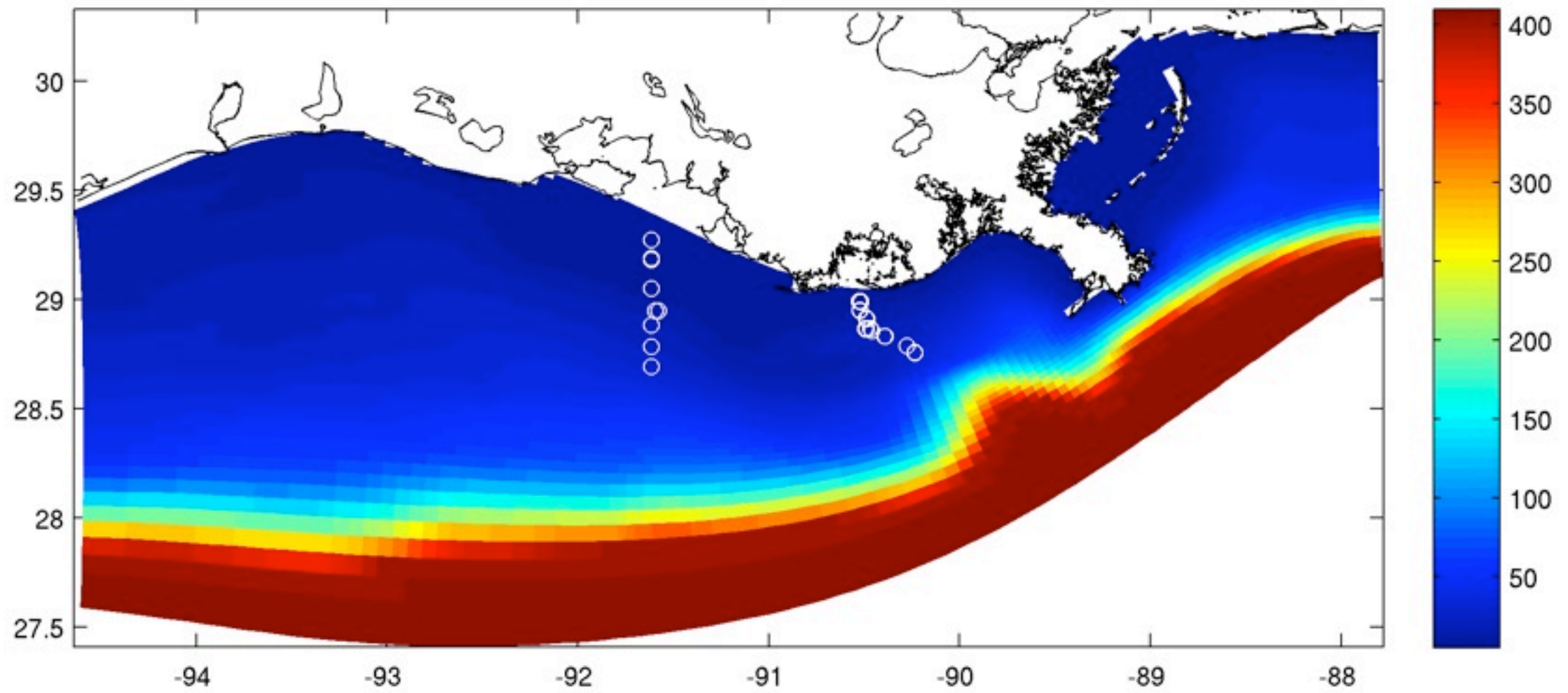




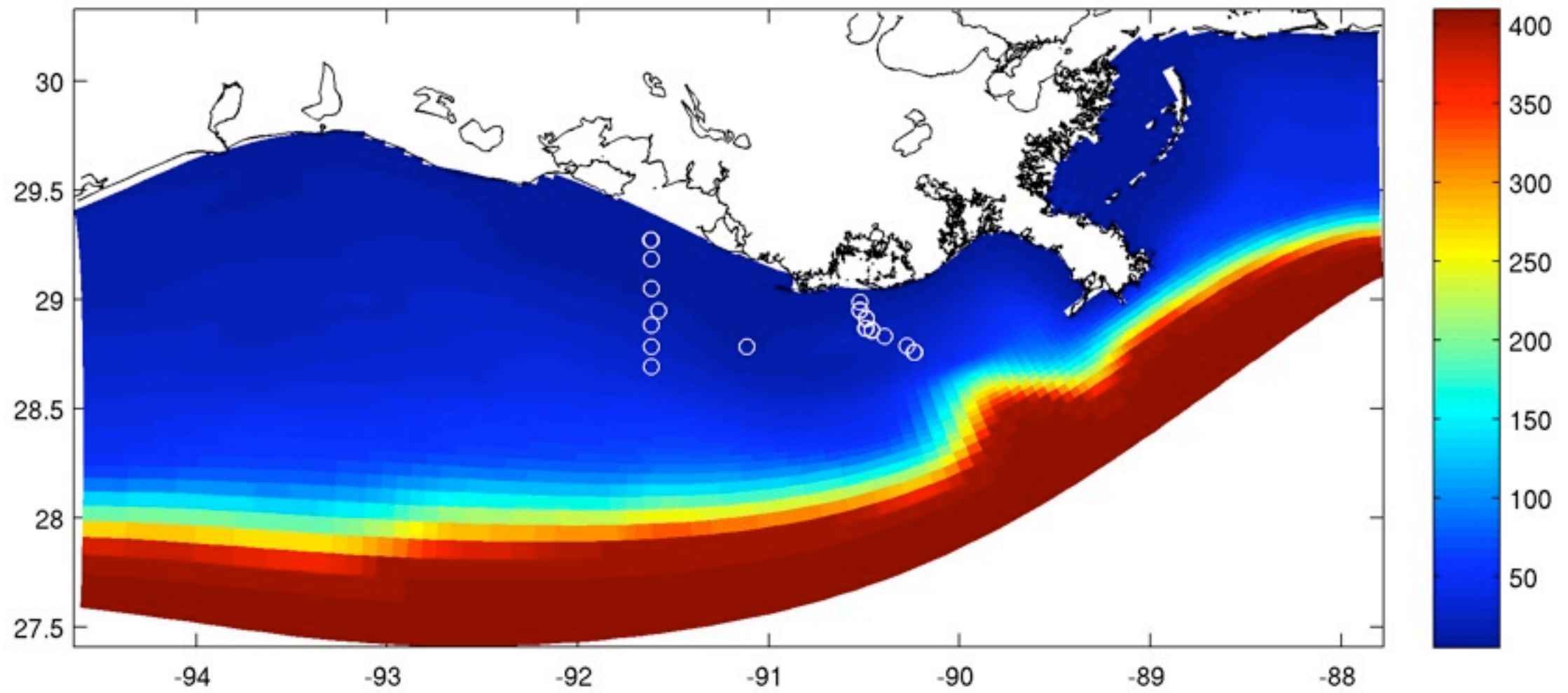
LUMCON: cruise in year 2004 autumn (PO4)



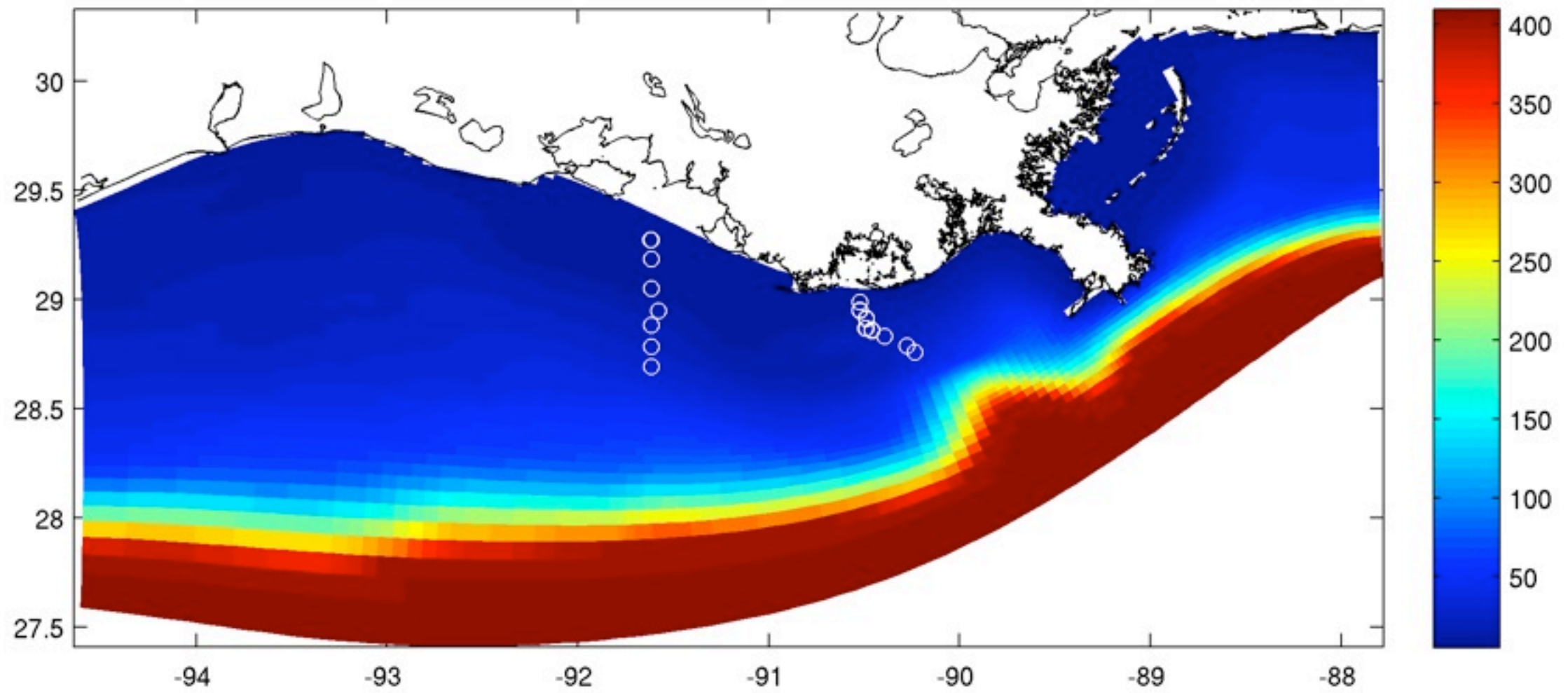
LUMCON: cruise in year 2004 autumn (temp+salt)



LUMCON: cruise in year 2005 winter (NH4)

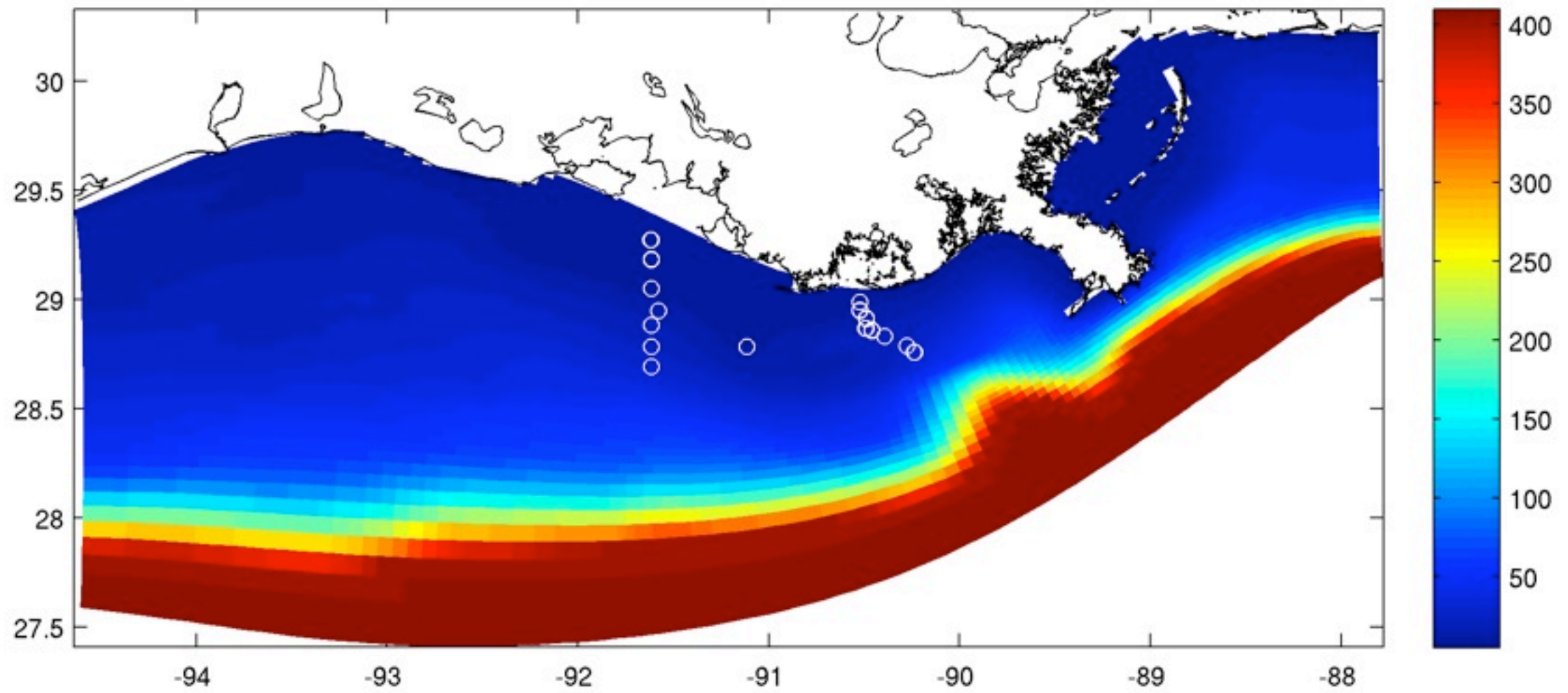


LUMCON: cruise in year 2005 winter (NO23)

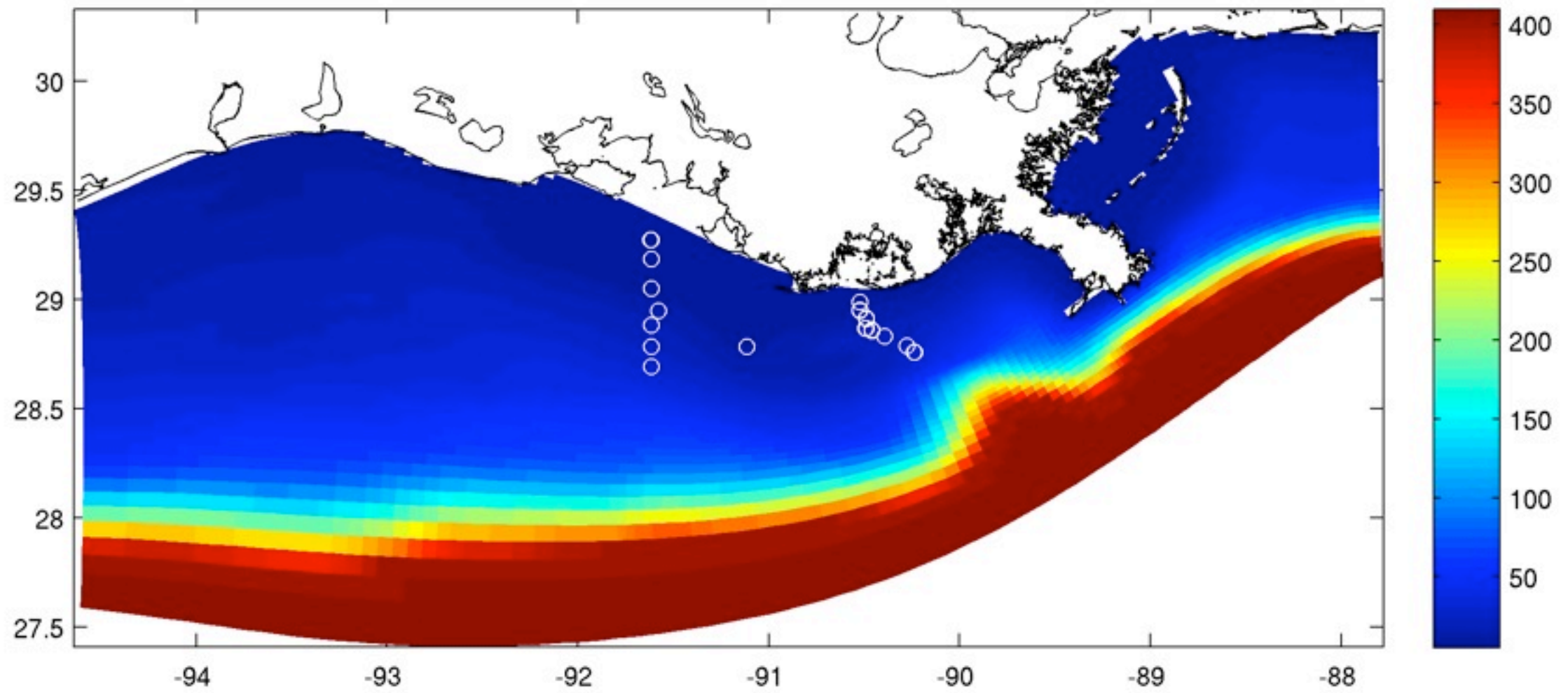


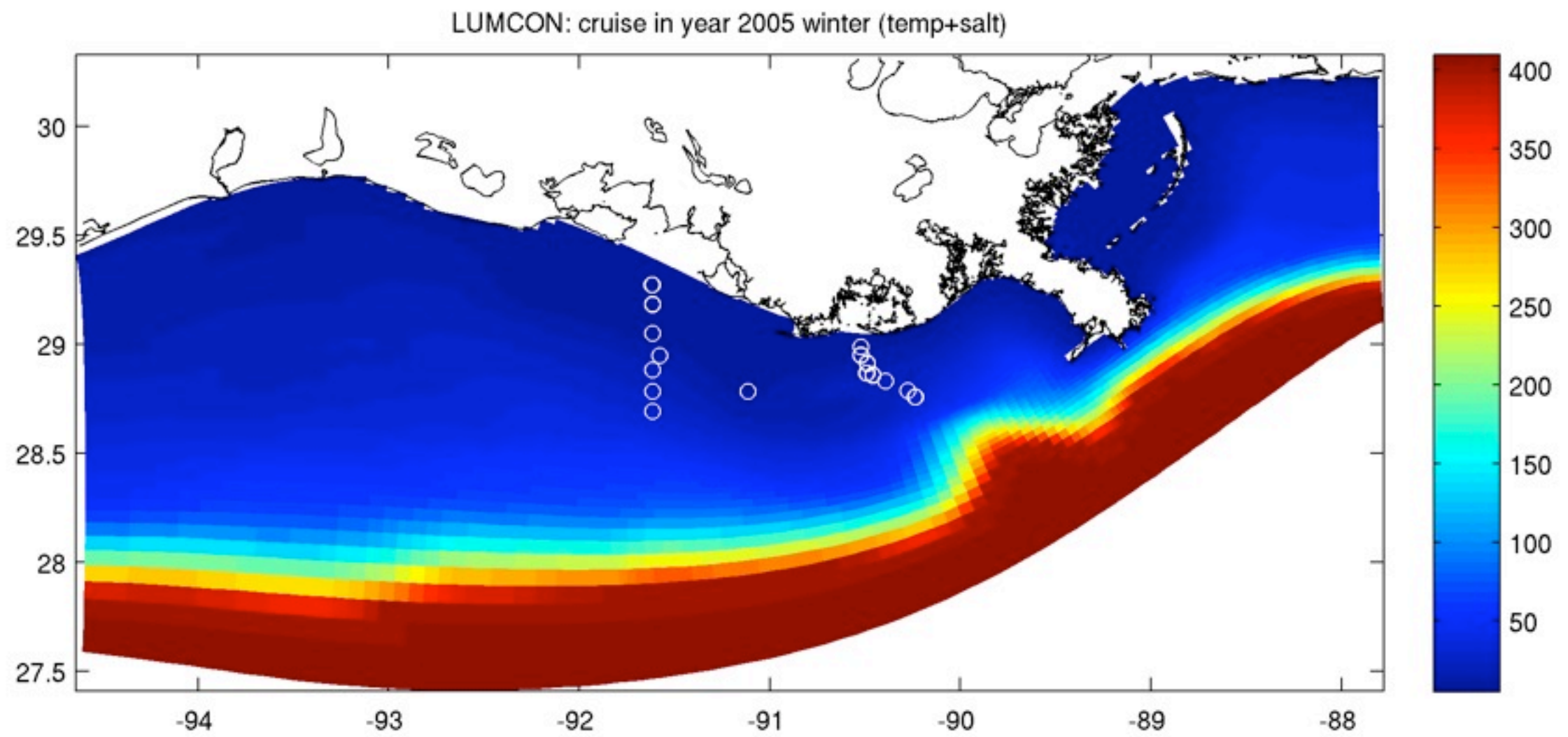


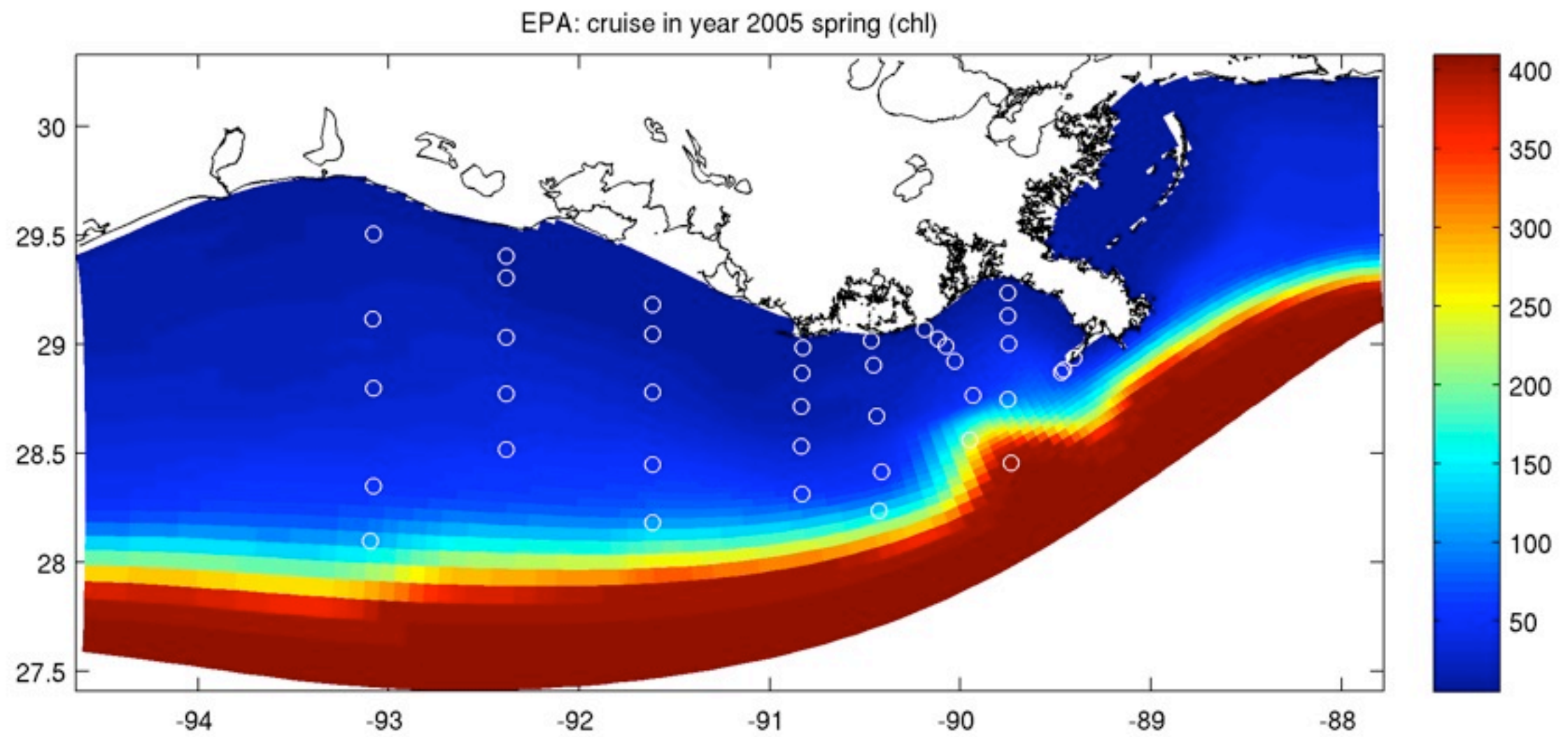
LUMCON: cruise in year 2005 winter (oxy)



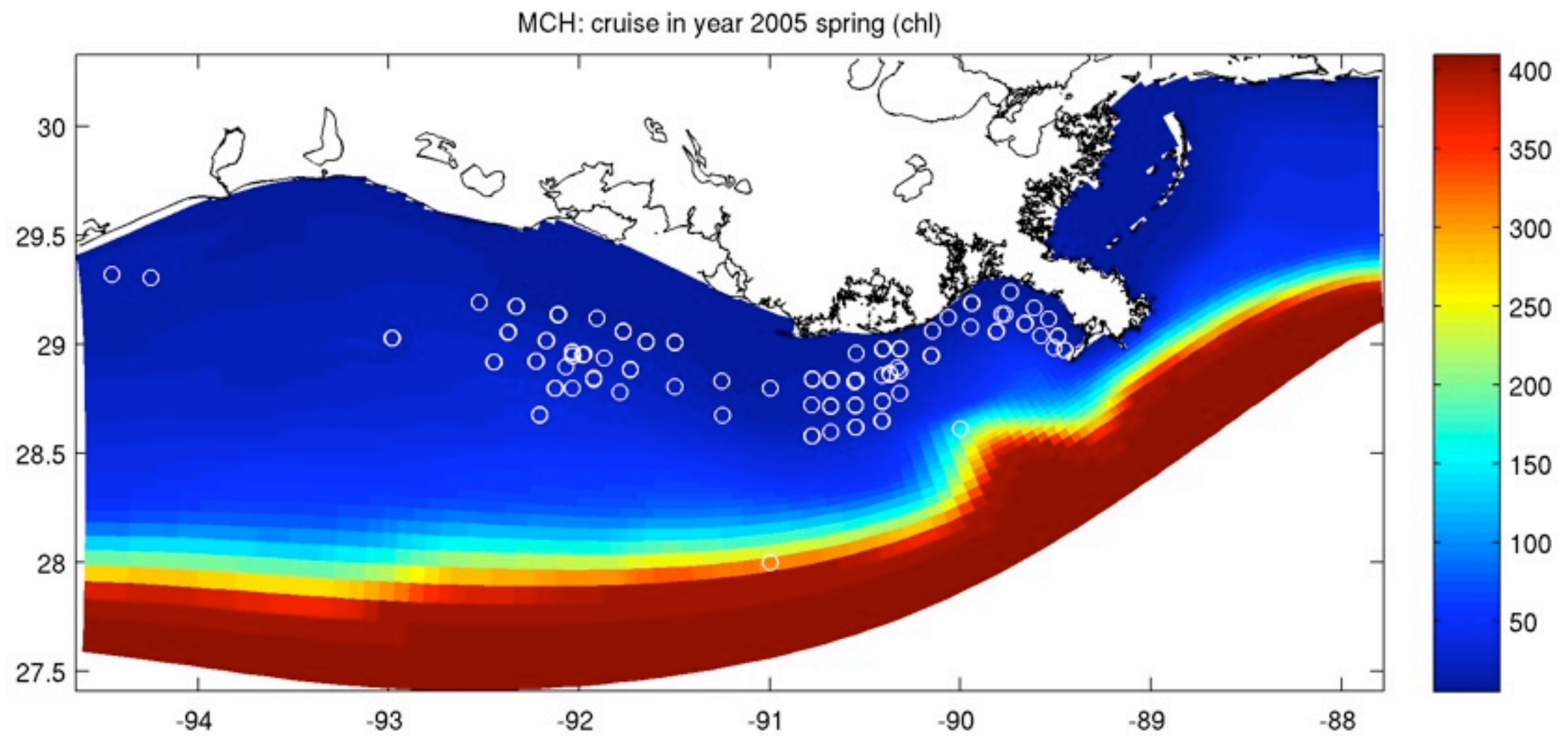
LUMCON: cruise in year 2005 winter (PO4)



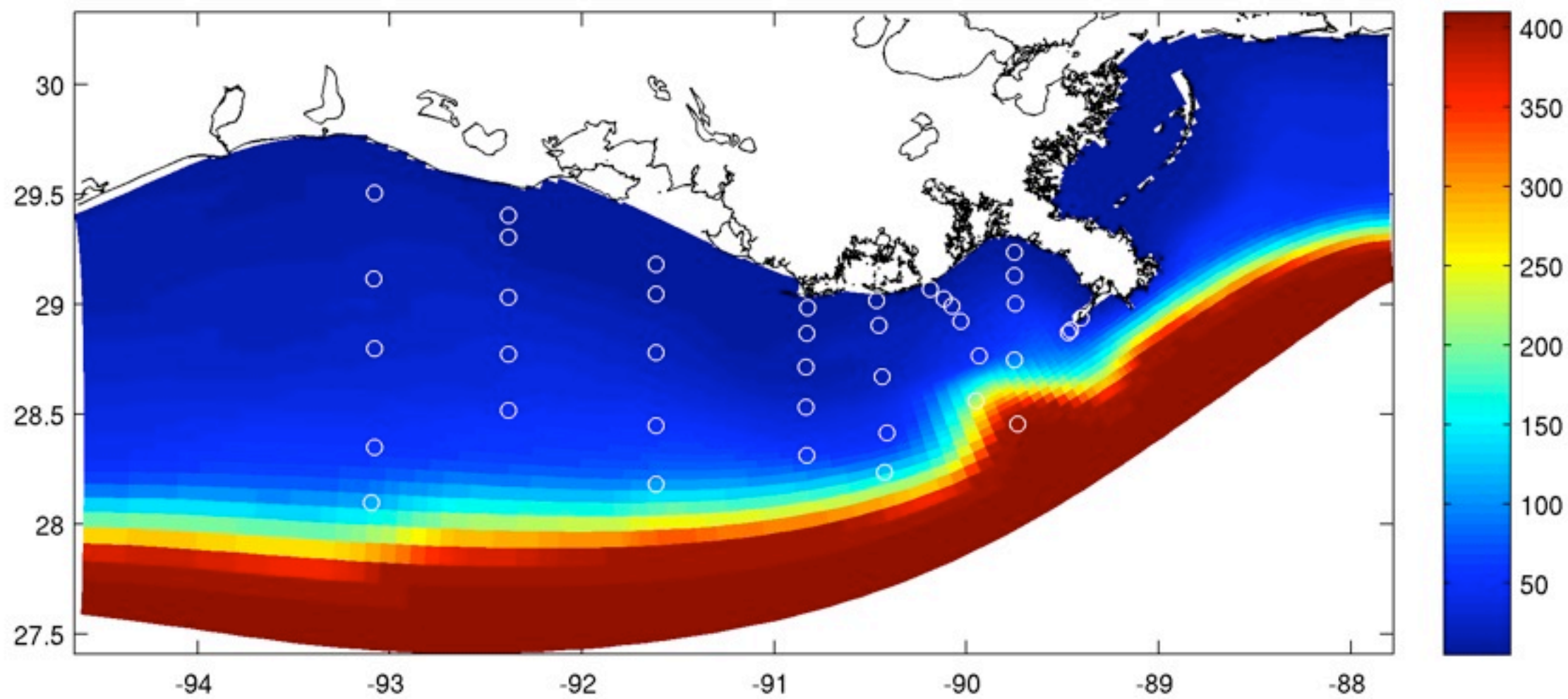




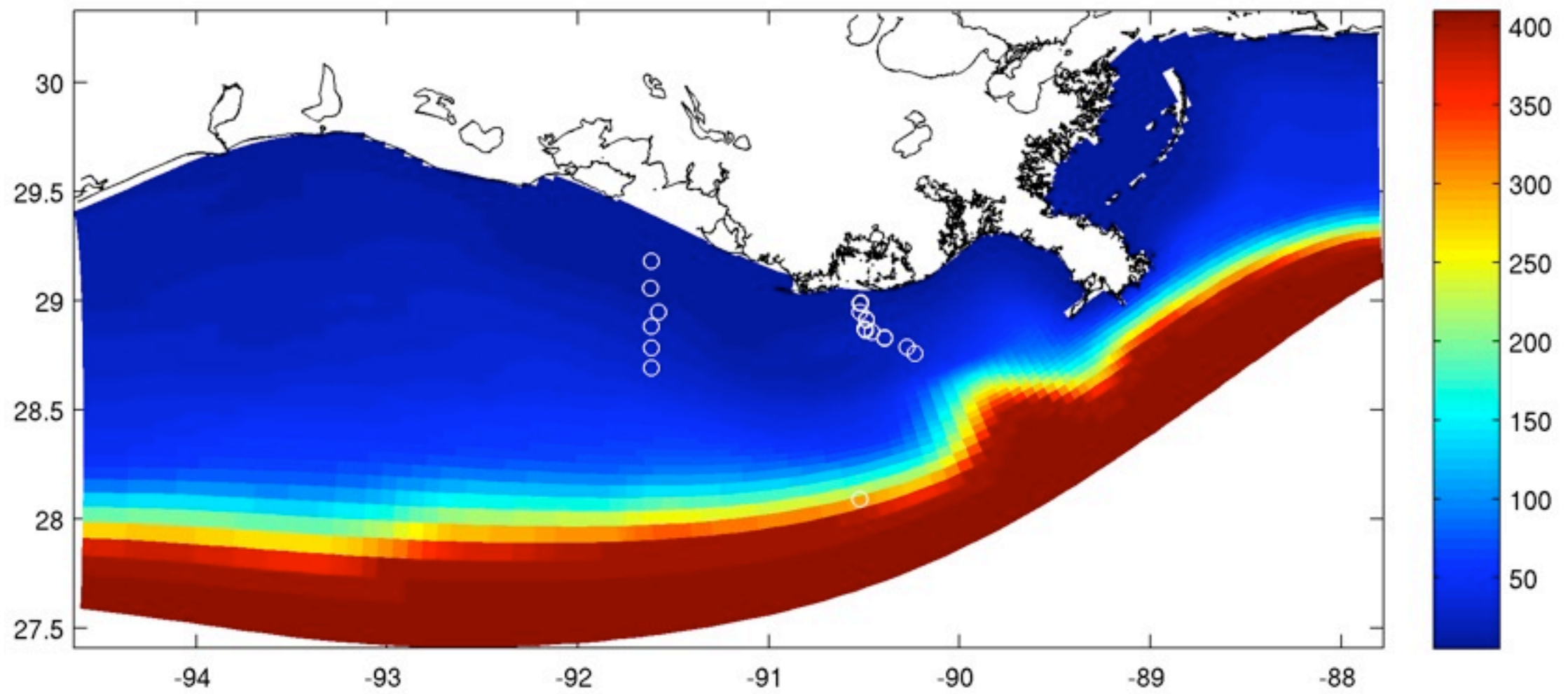




EPA: cruise in year 2005 spring (NH4)

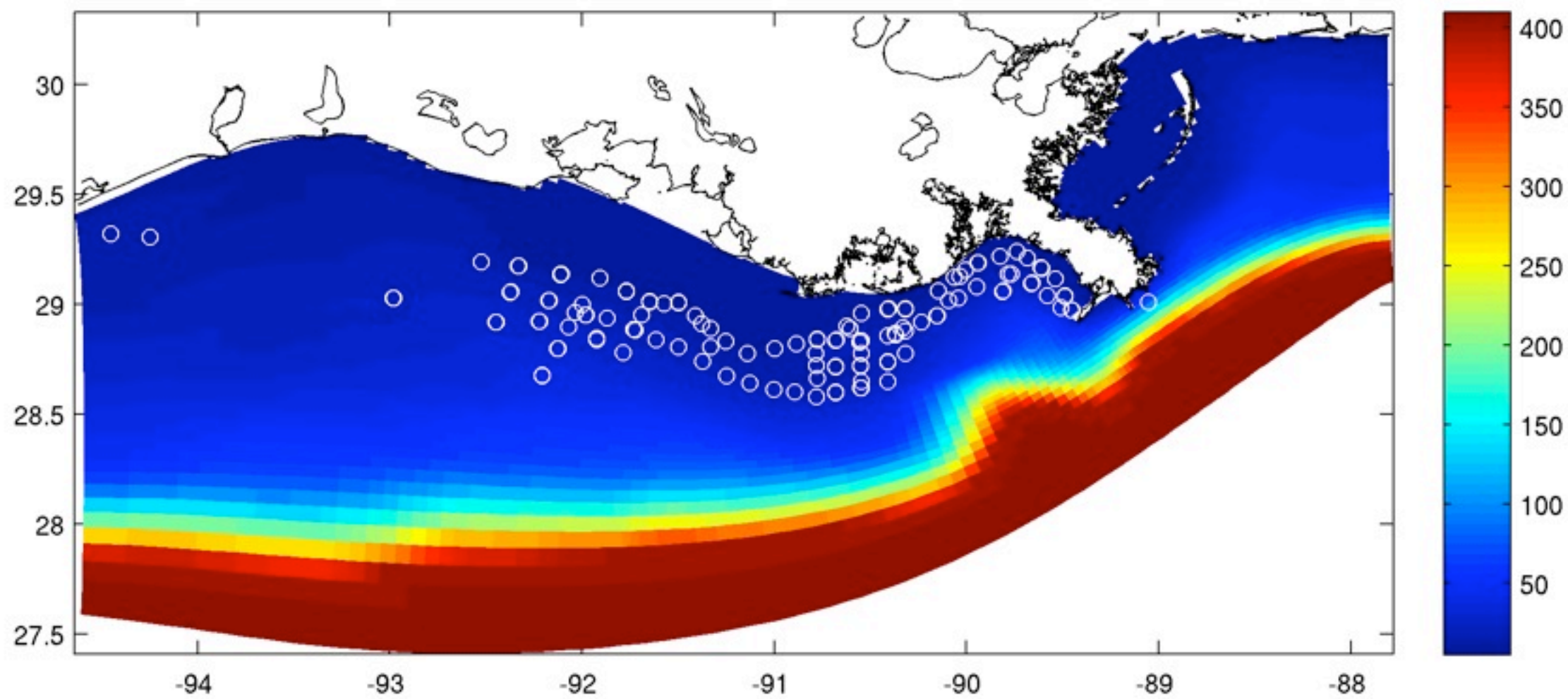


LUMCON: cruise in year 2005 spring (NH4)



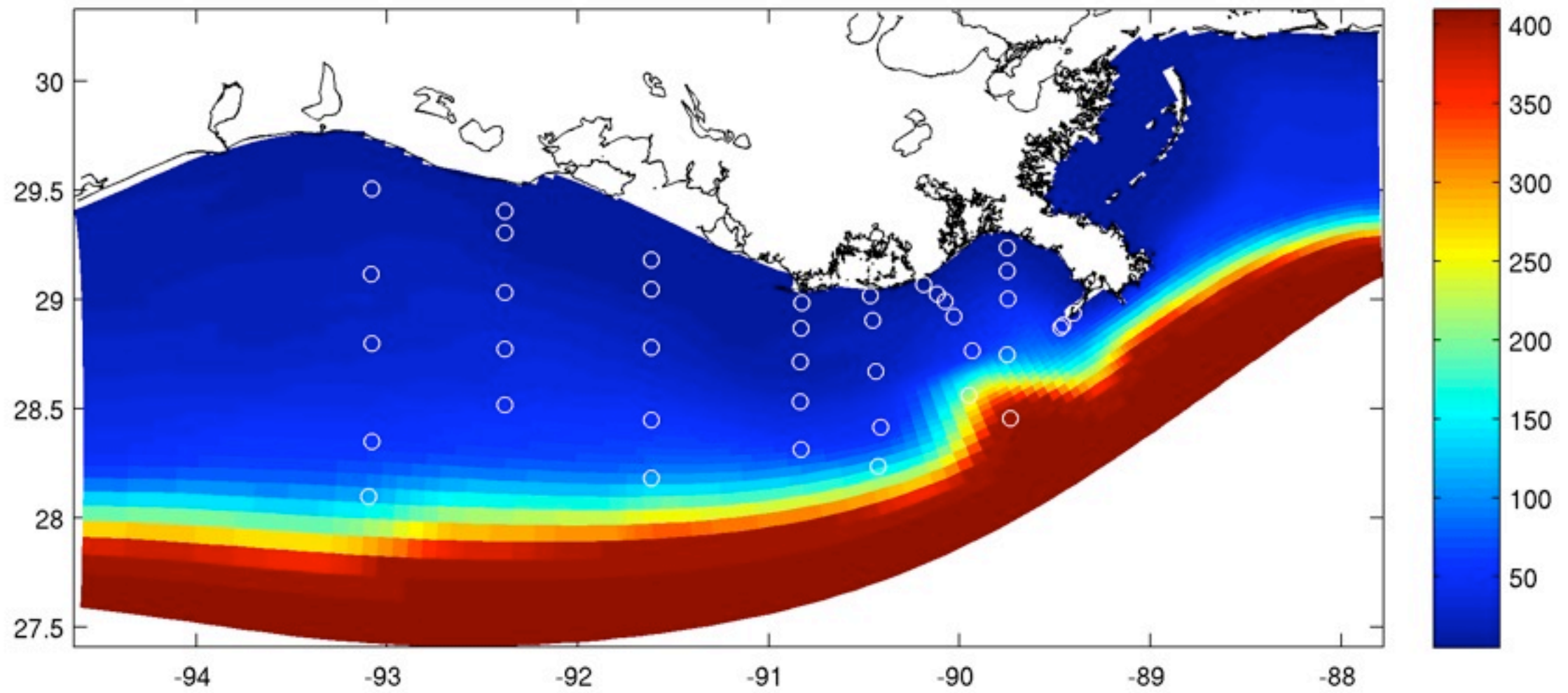


MCH: cruise in year 2005 spring (NH4)

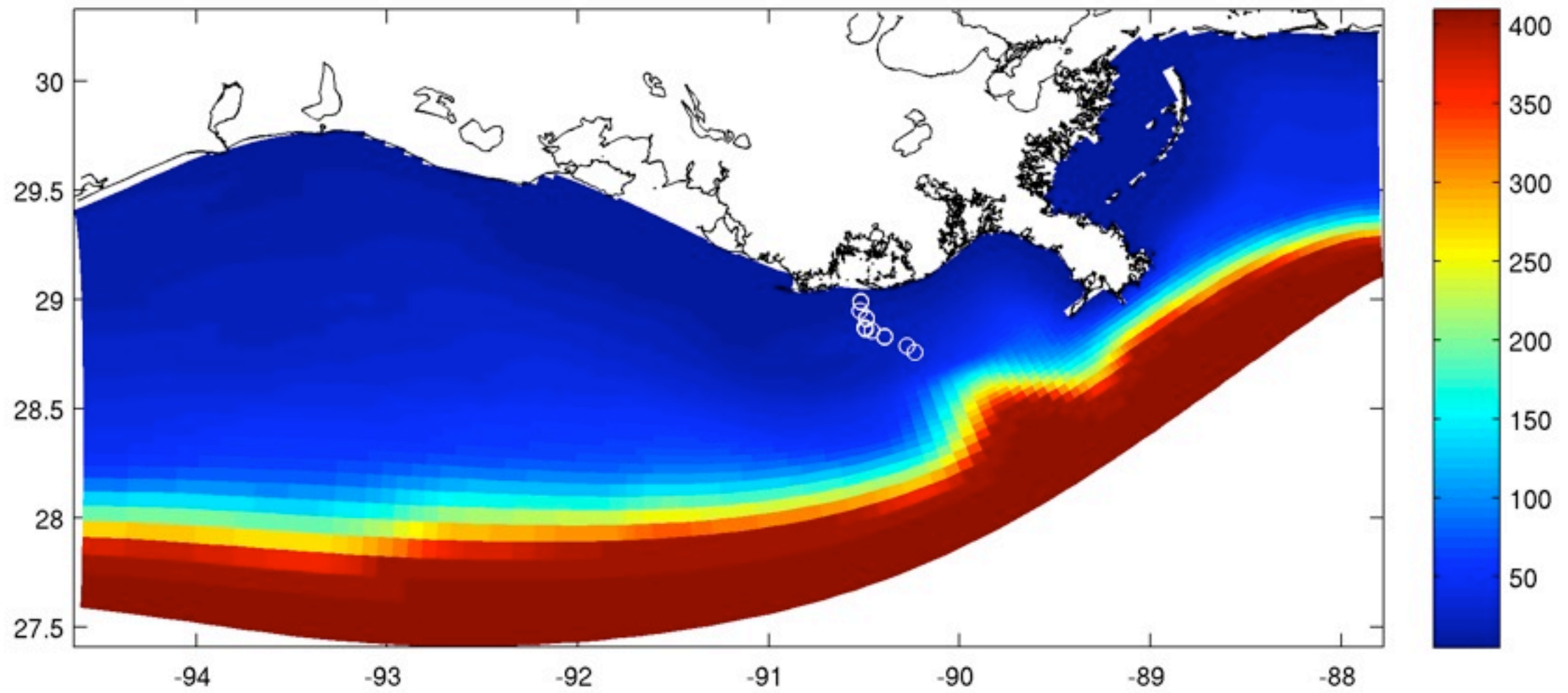




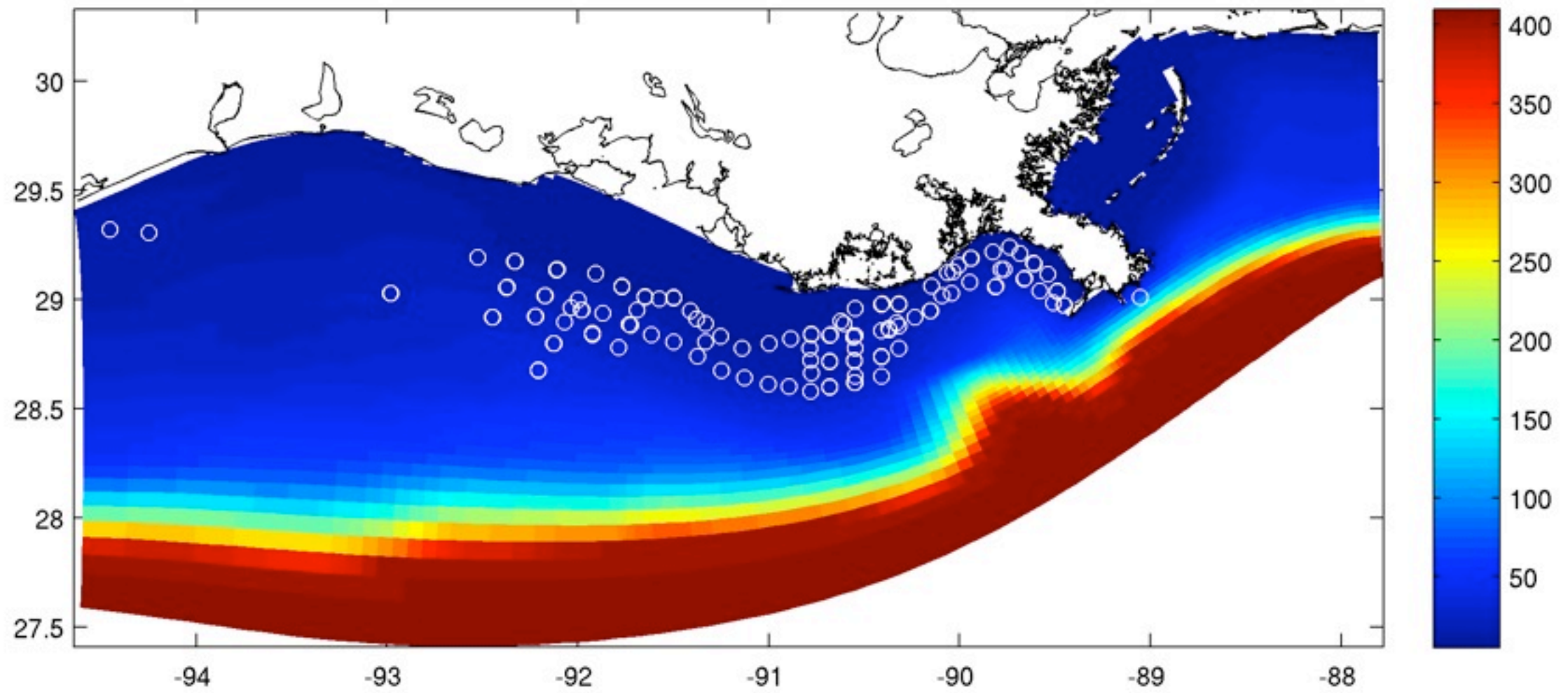
EPA: cruise in year 2005 spring (NO23)



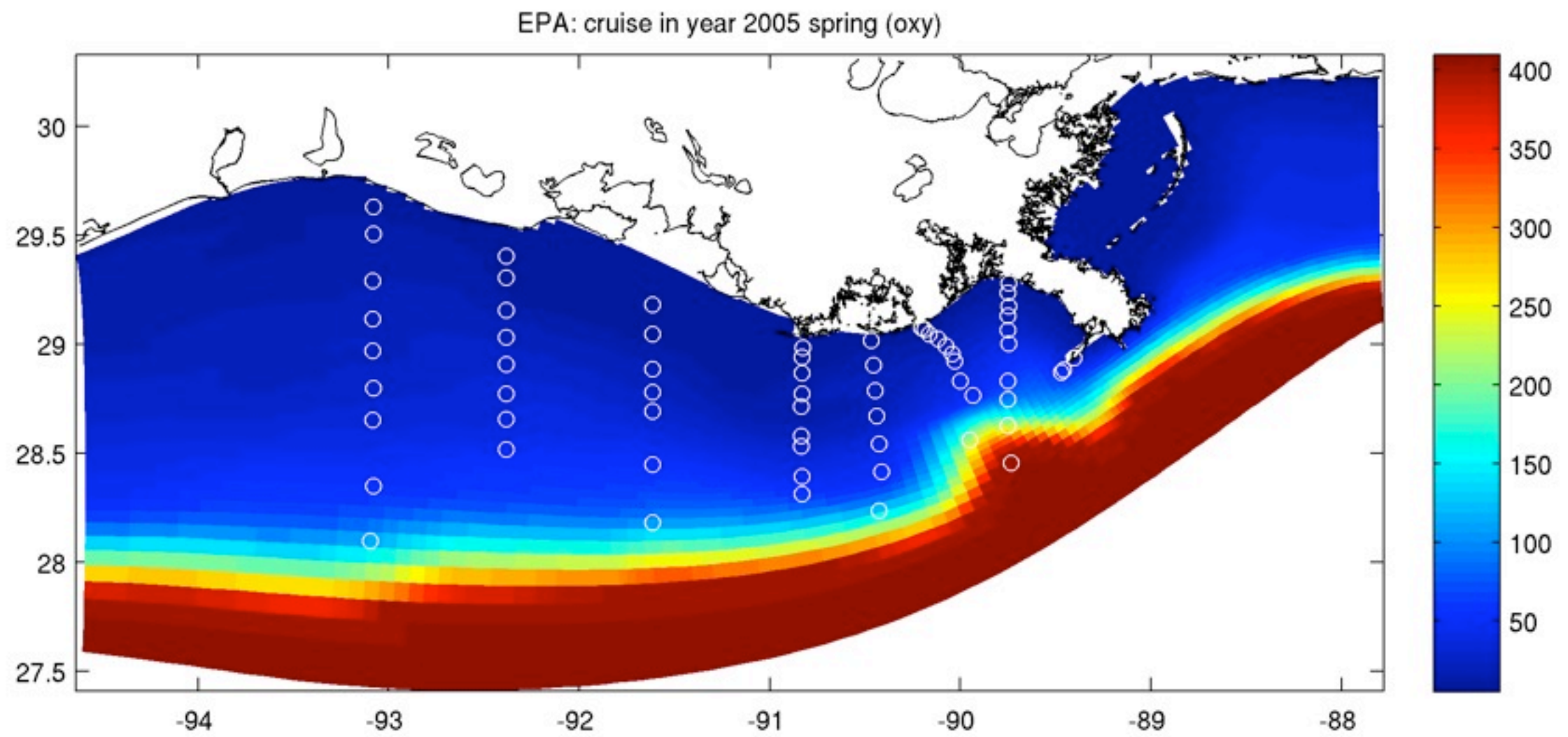
LUMCON: cruise in year 2005 spring (NO23)



MCH: cruise in year 2005 spring (NO23)

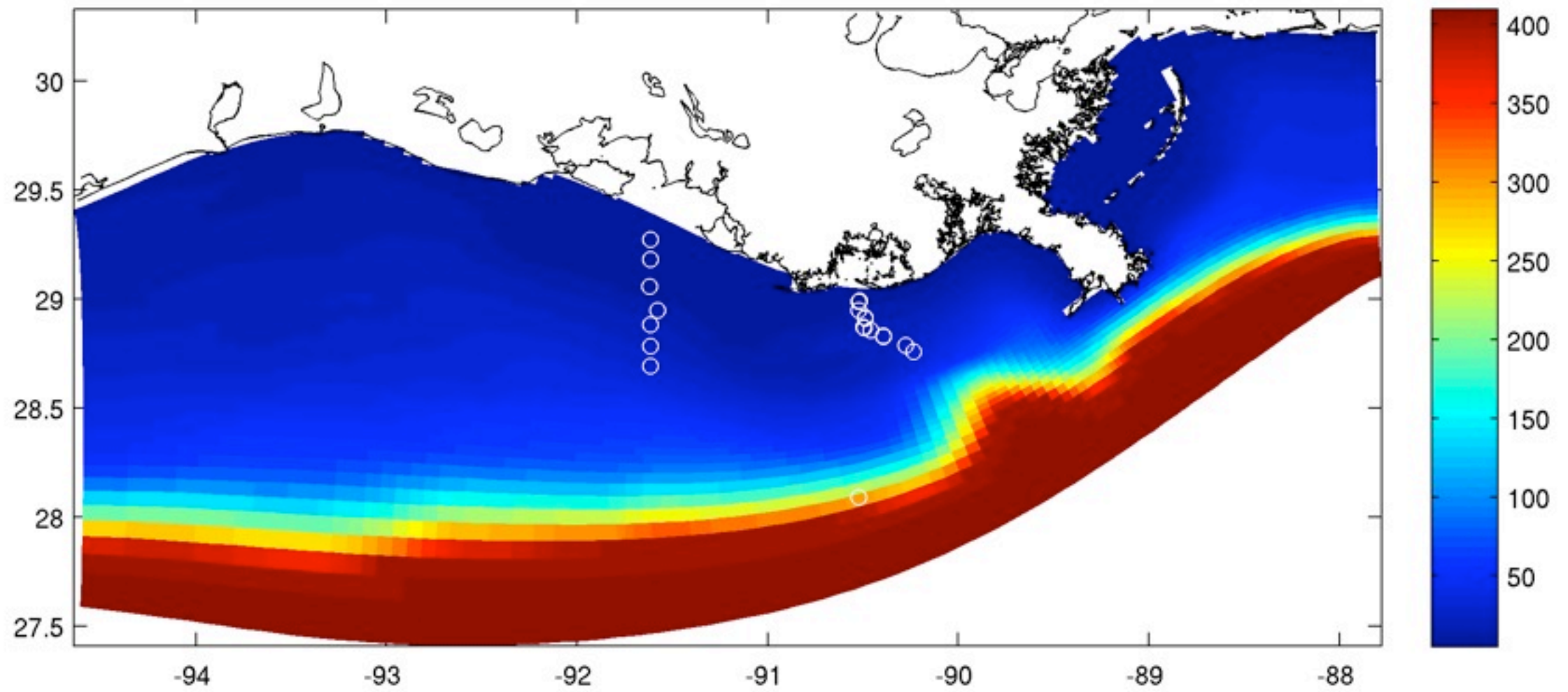


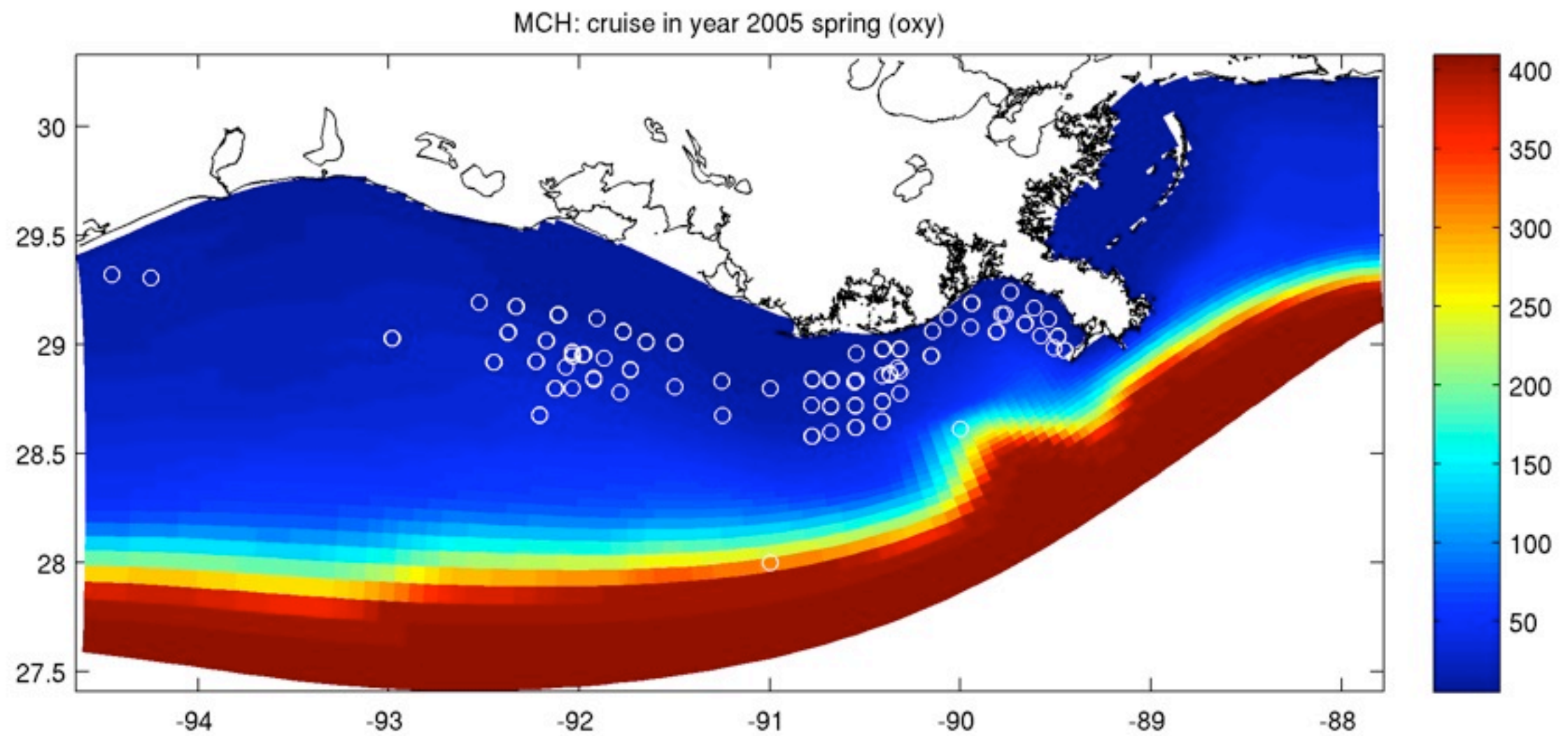




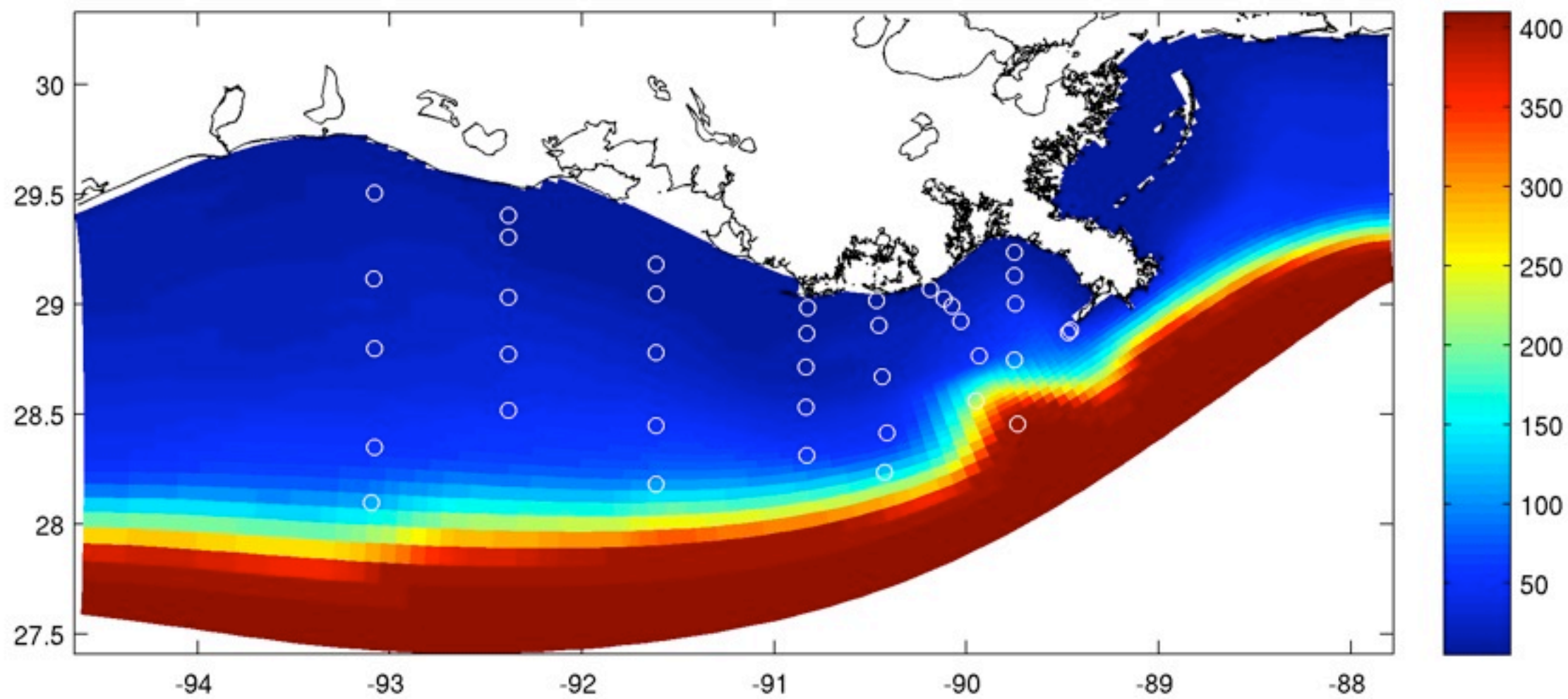


LUMCON: cruise in year 2005 spring (oxy)

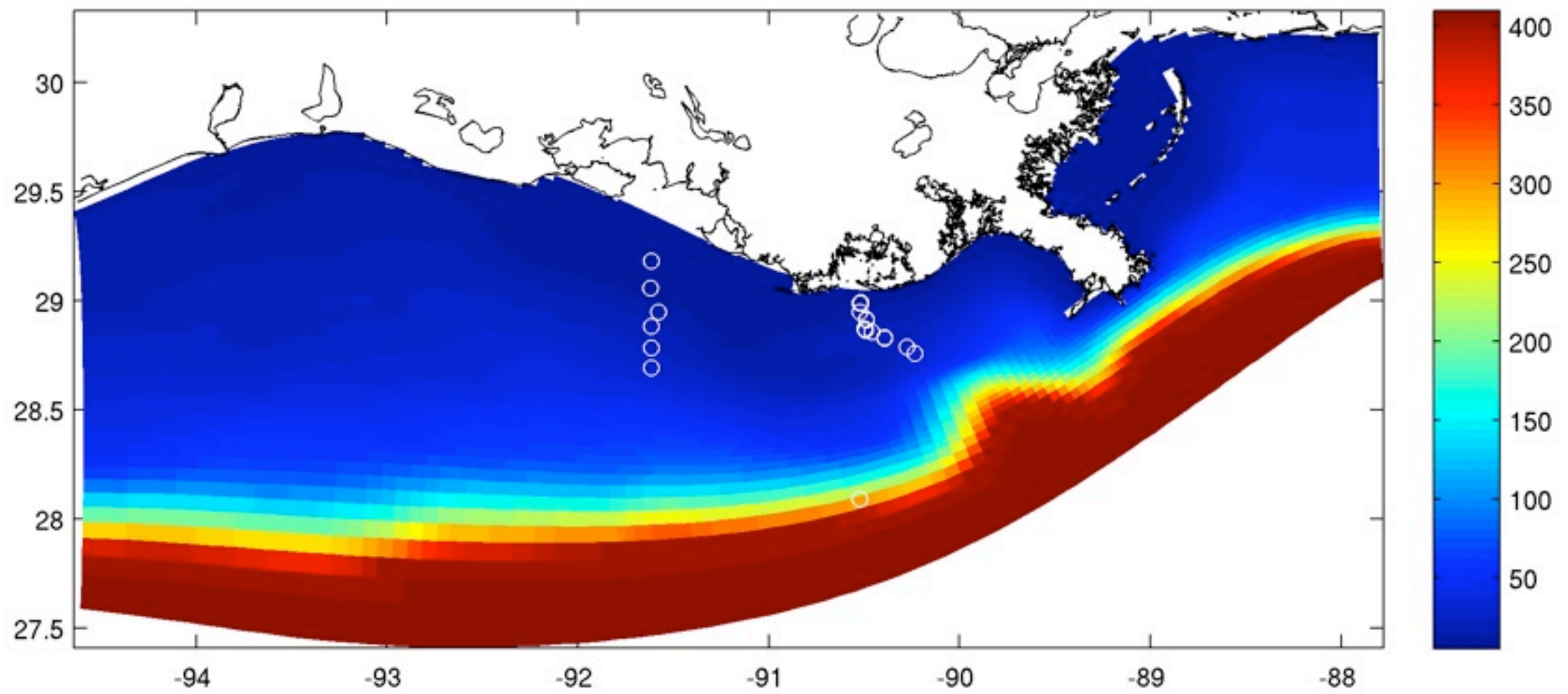




EPA: cruise in year 2005 spring (PO4)

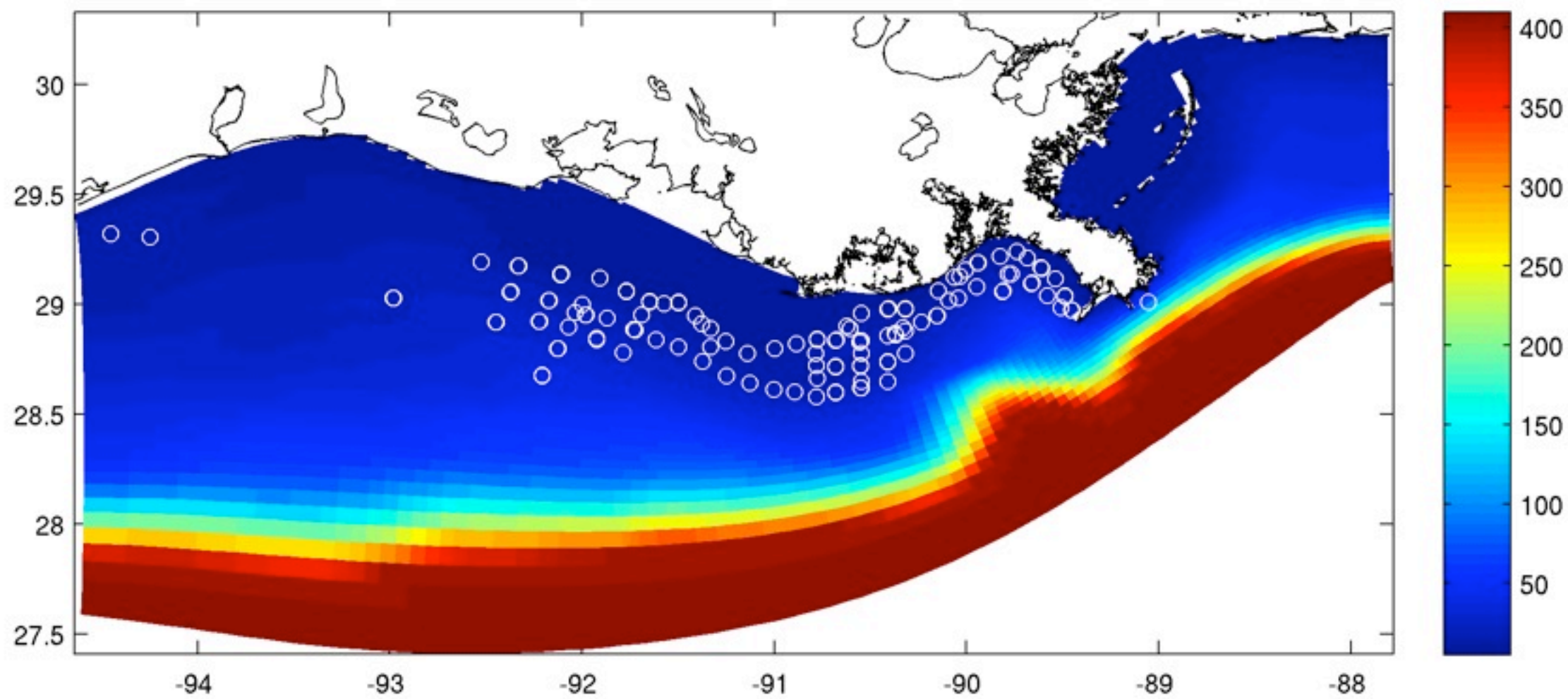


LUMCON: cruise in year 2005 spring (PO4)

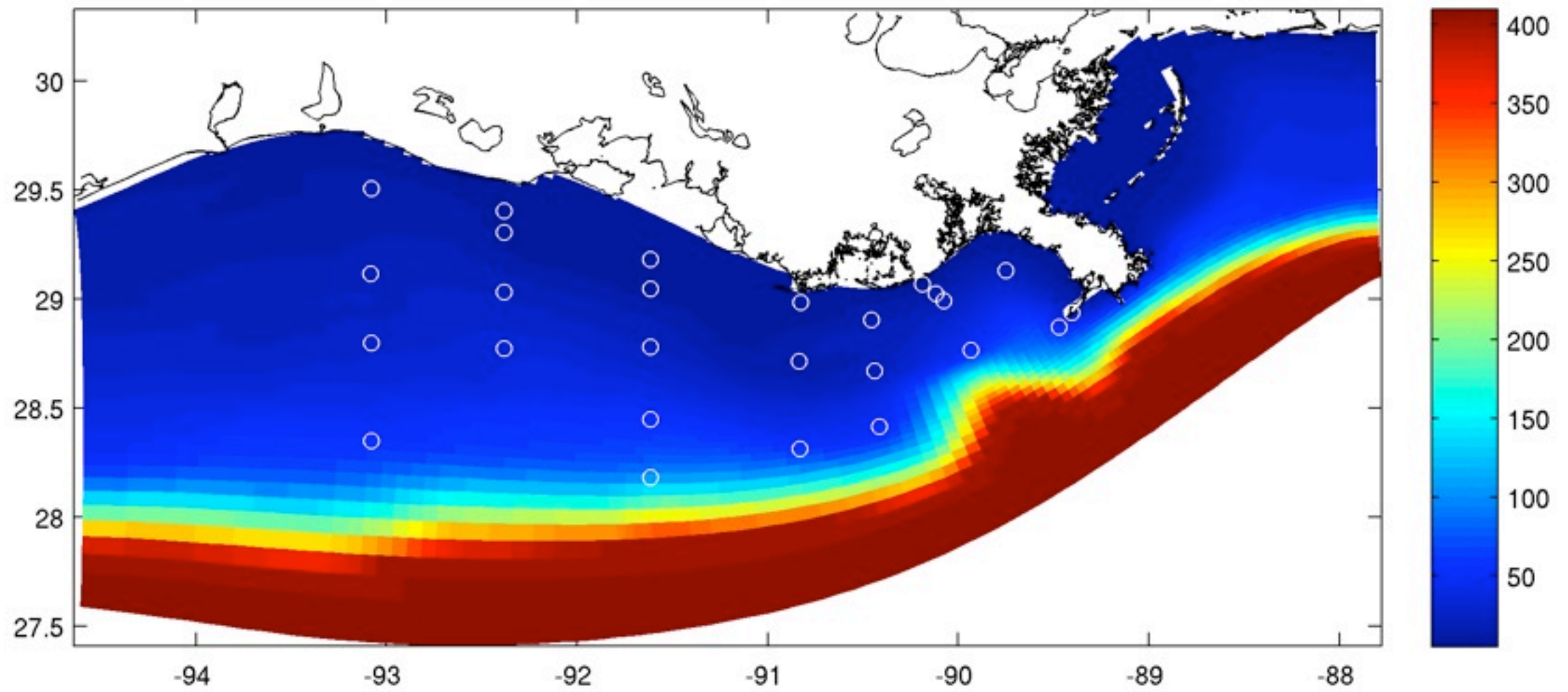


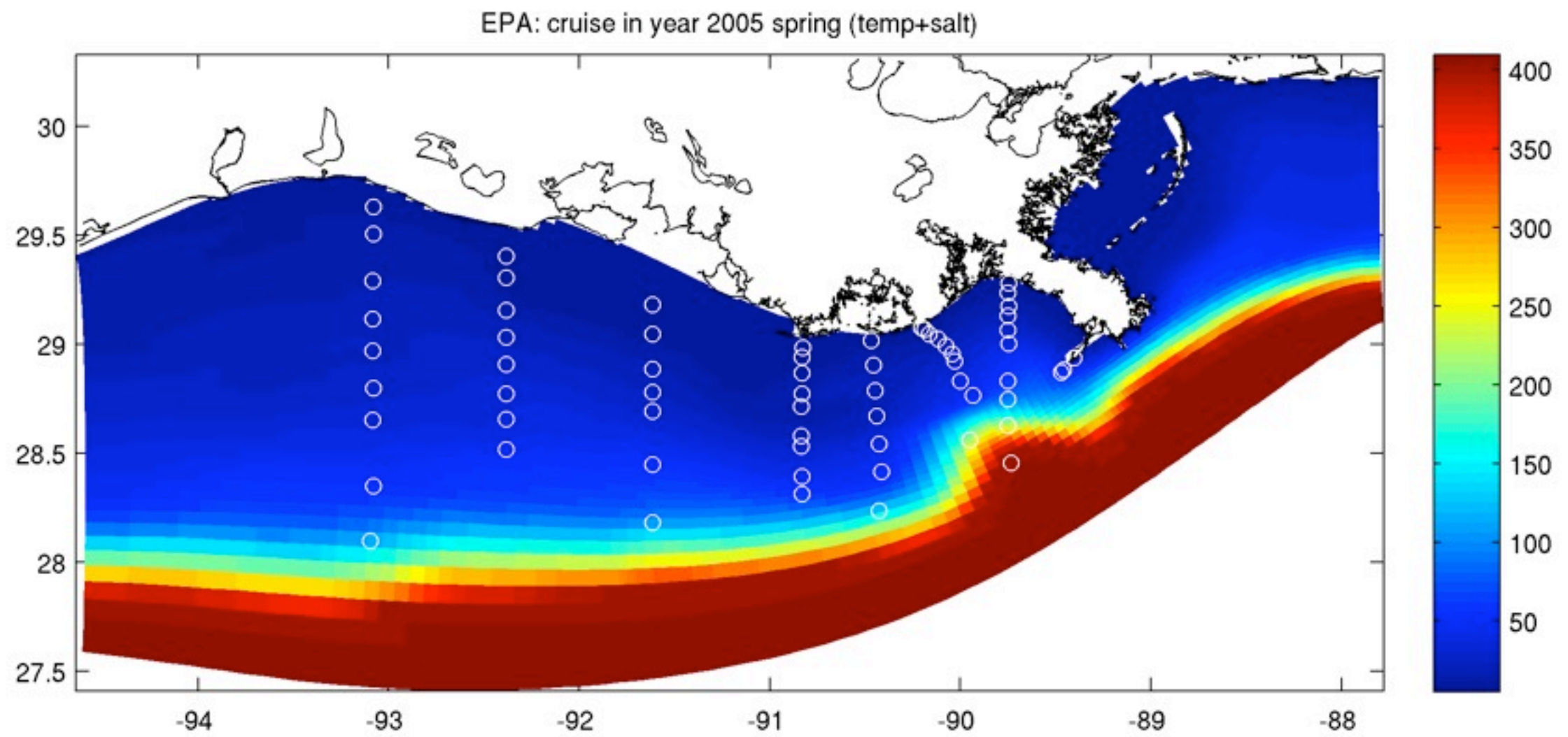


MCH: cruise in year 2005 spring (PO4)



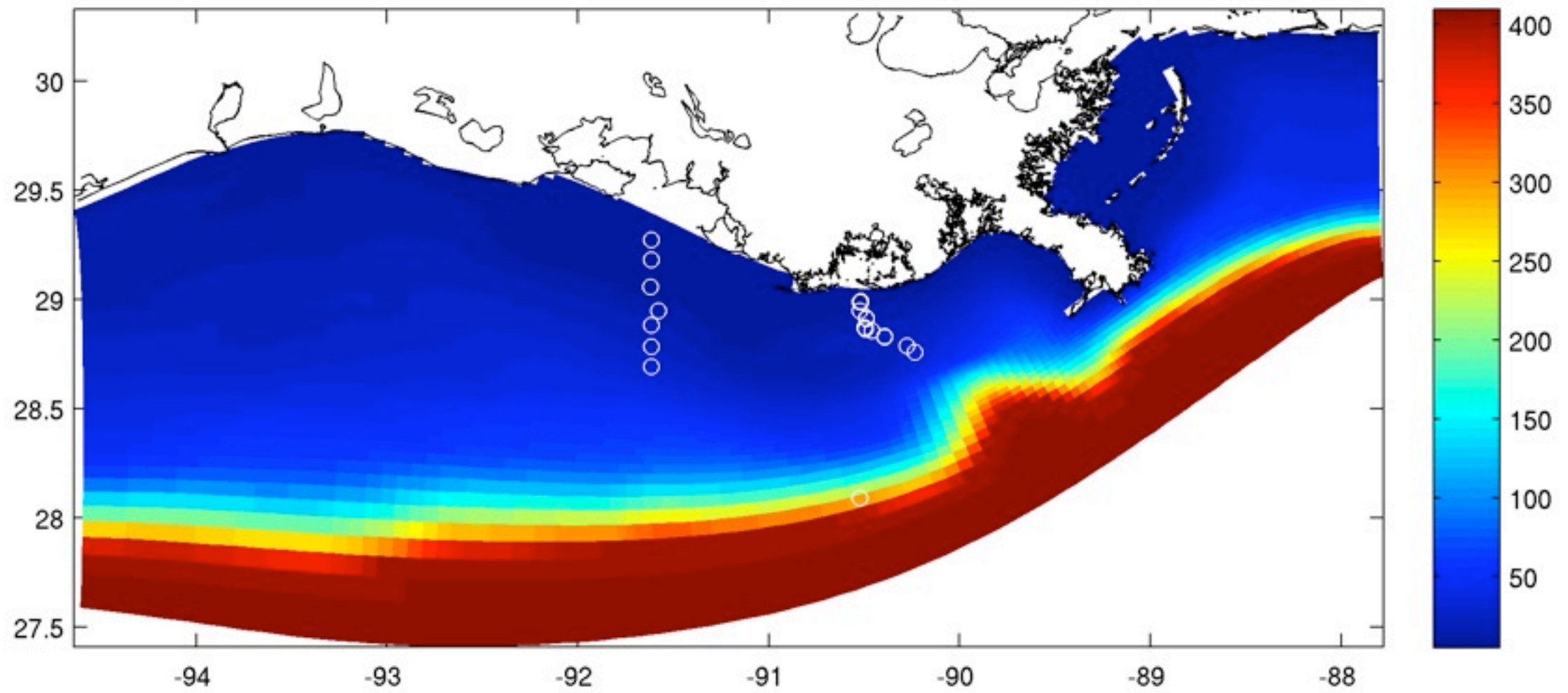
EPA: cruise in year 2005 spring (PP)



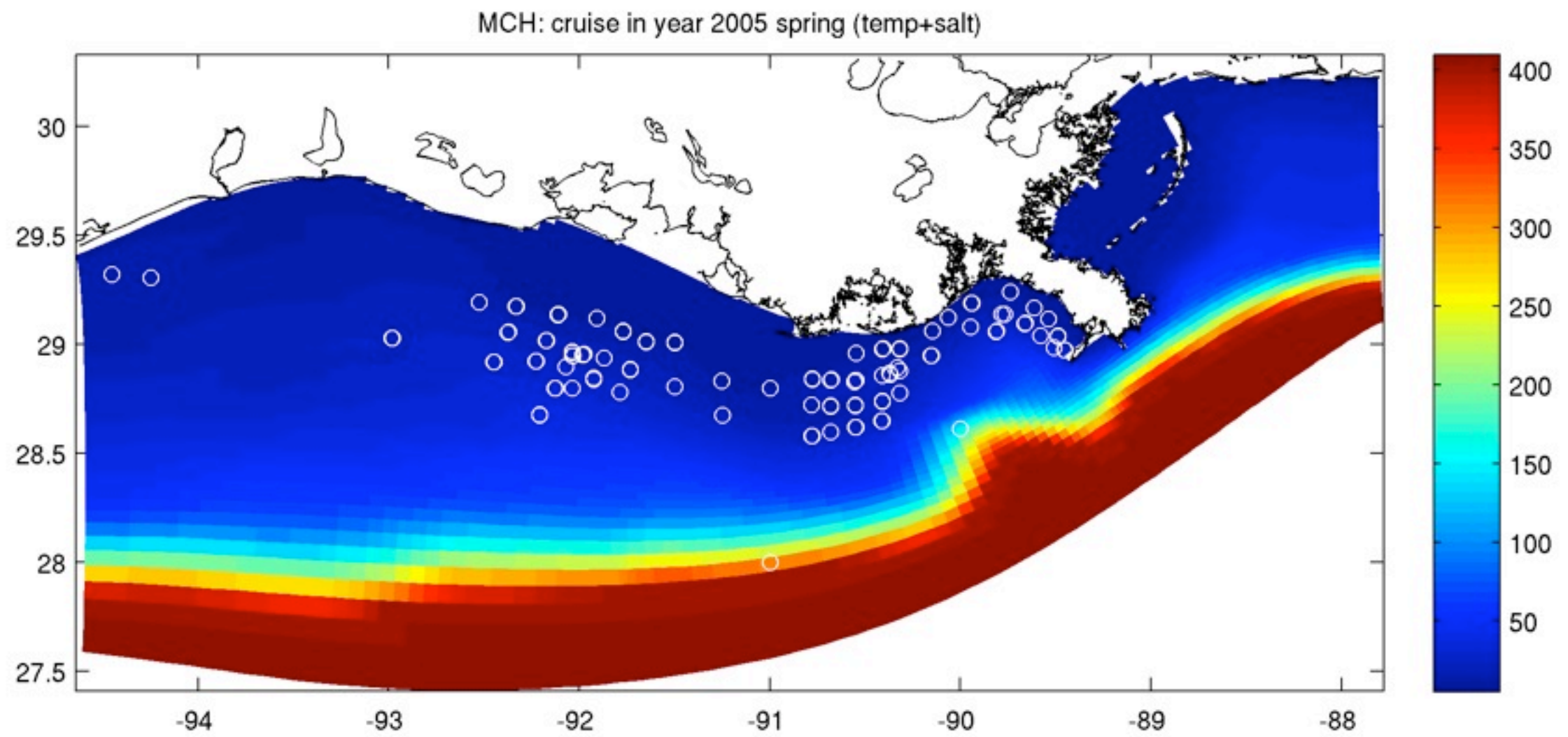


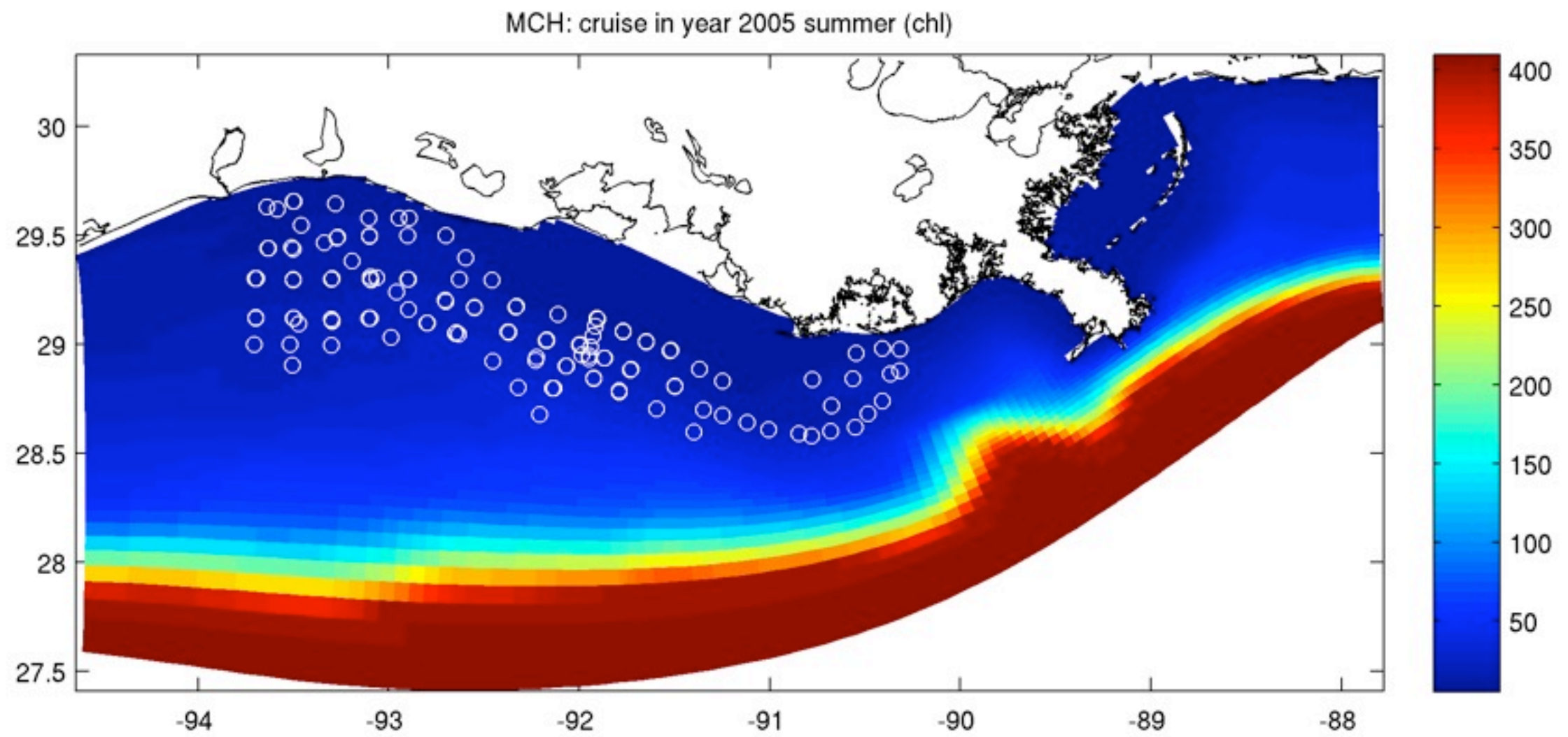


LUMCON: cruise in year 2005 spring (temp+salt)

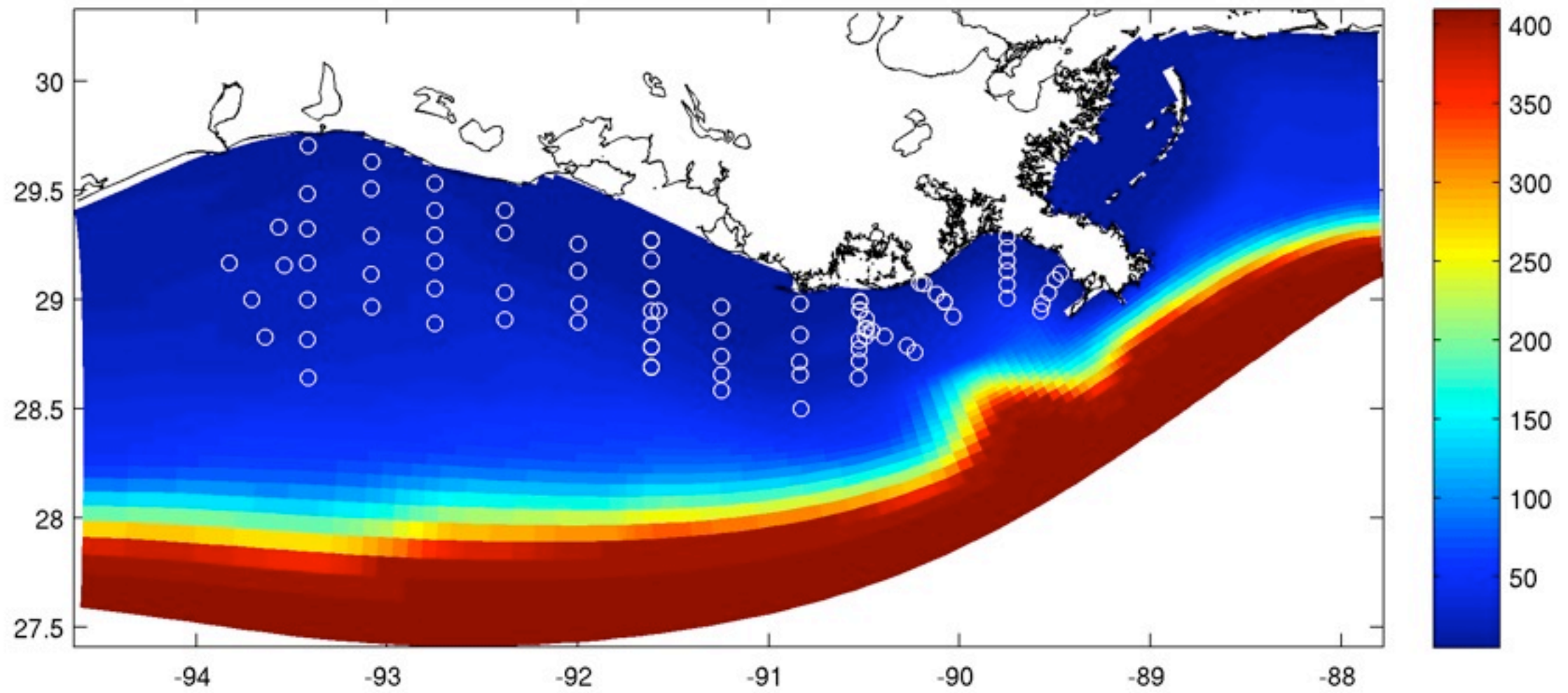






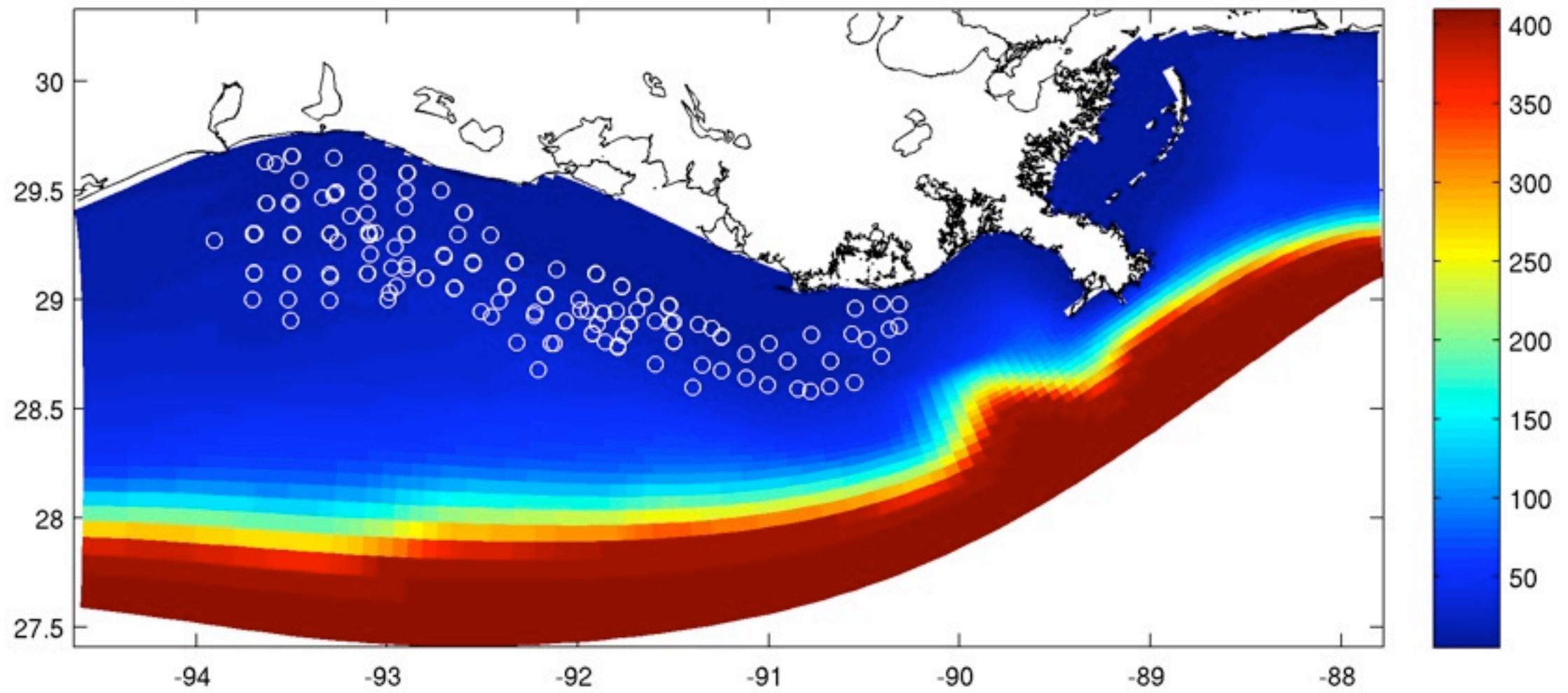


LUMCON: cruise in year 2005 summer (NH4)



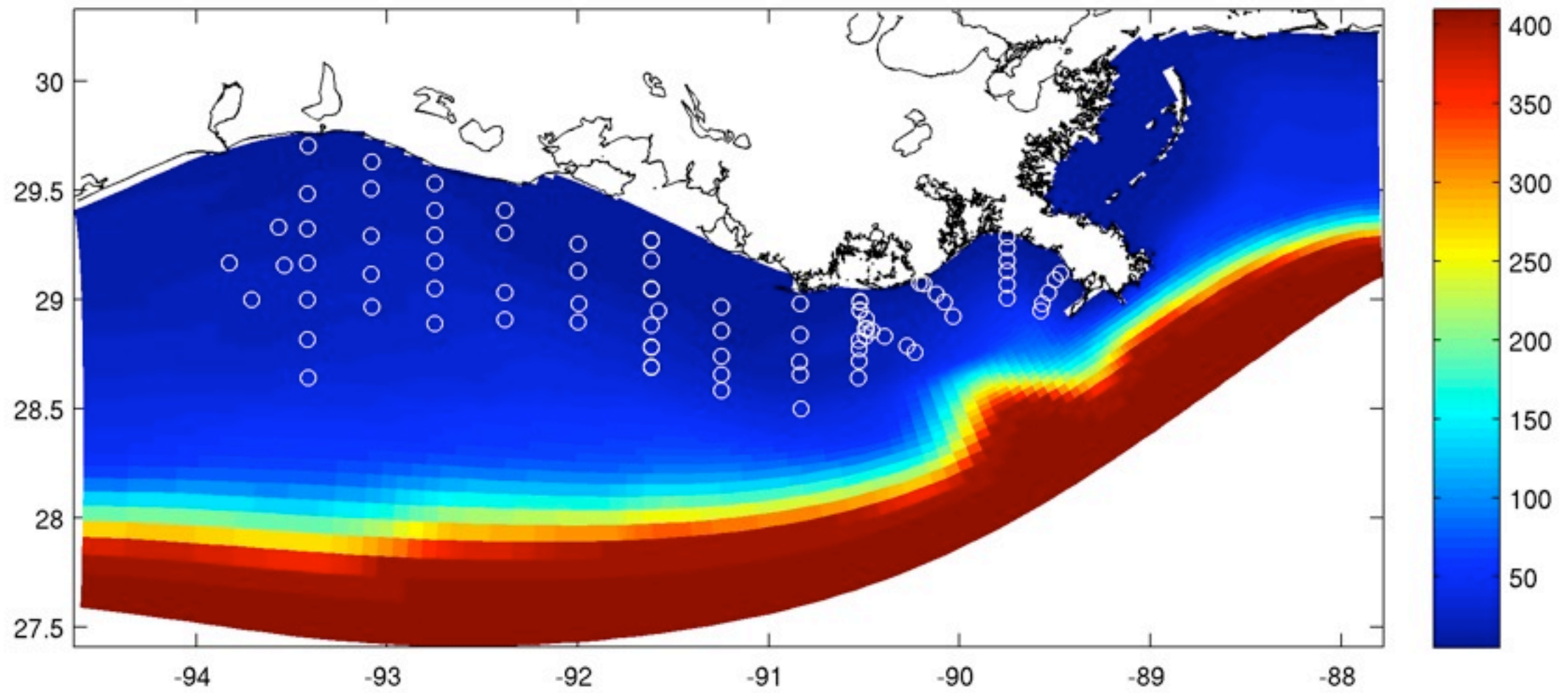


MCH: cruise in year 2005 summer (NH4)

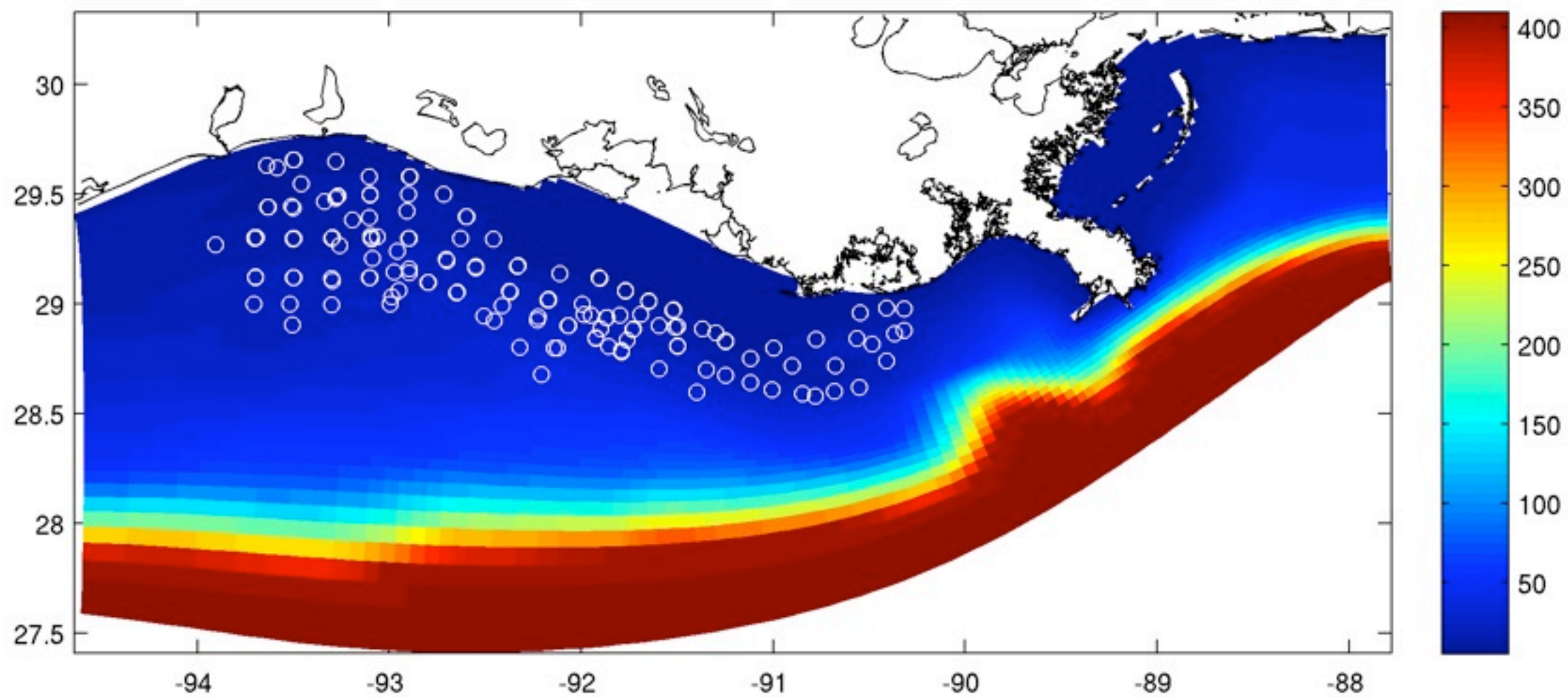




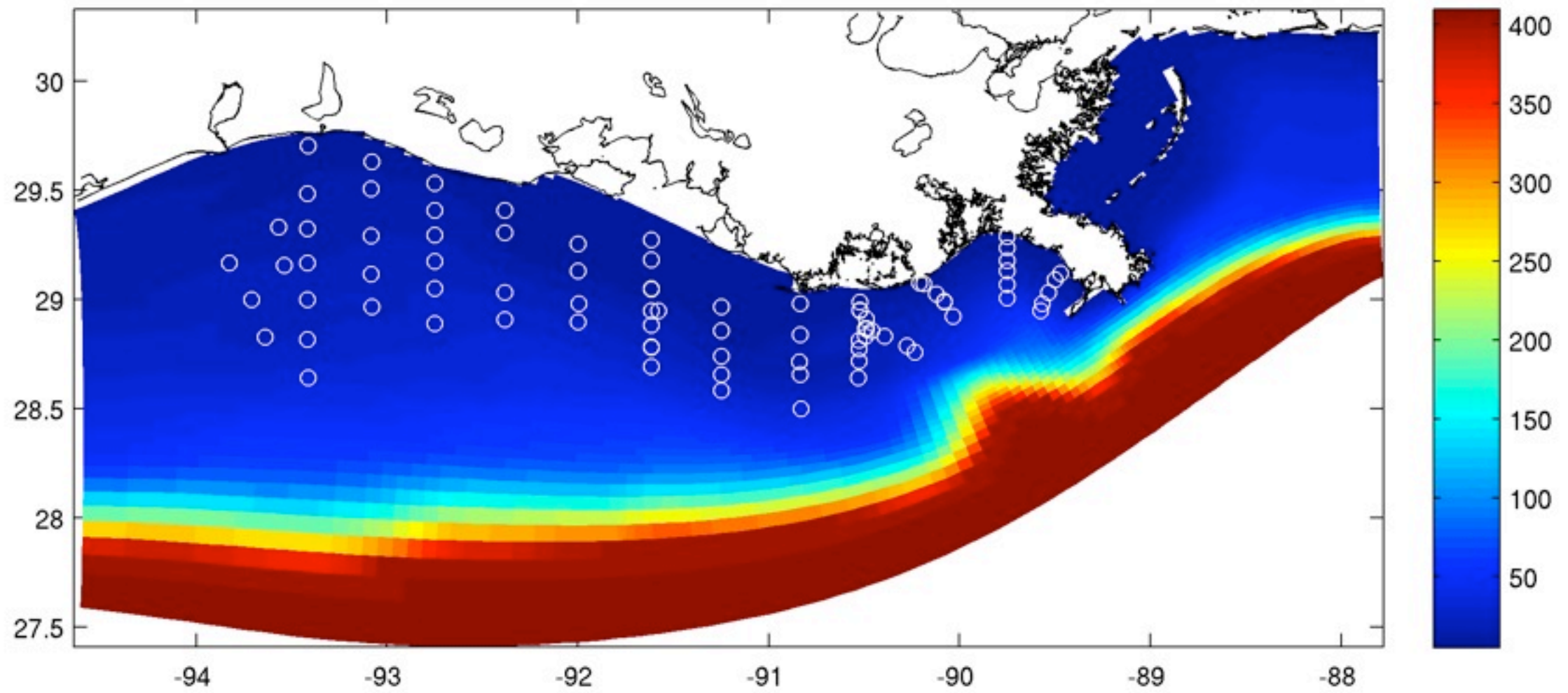
LUMCON: cruise in year 2005 summer (NO23)



MCH: cruise in year 2005 summer (NO23)

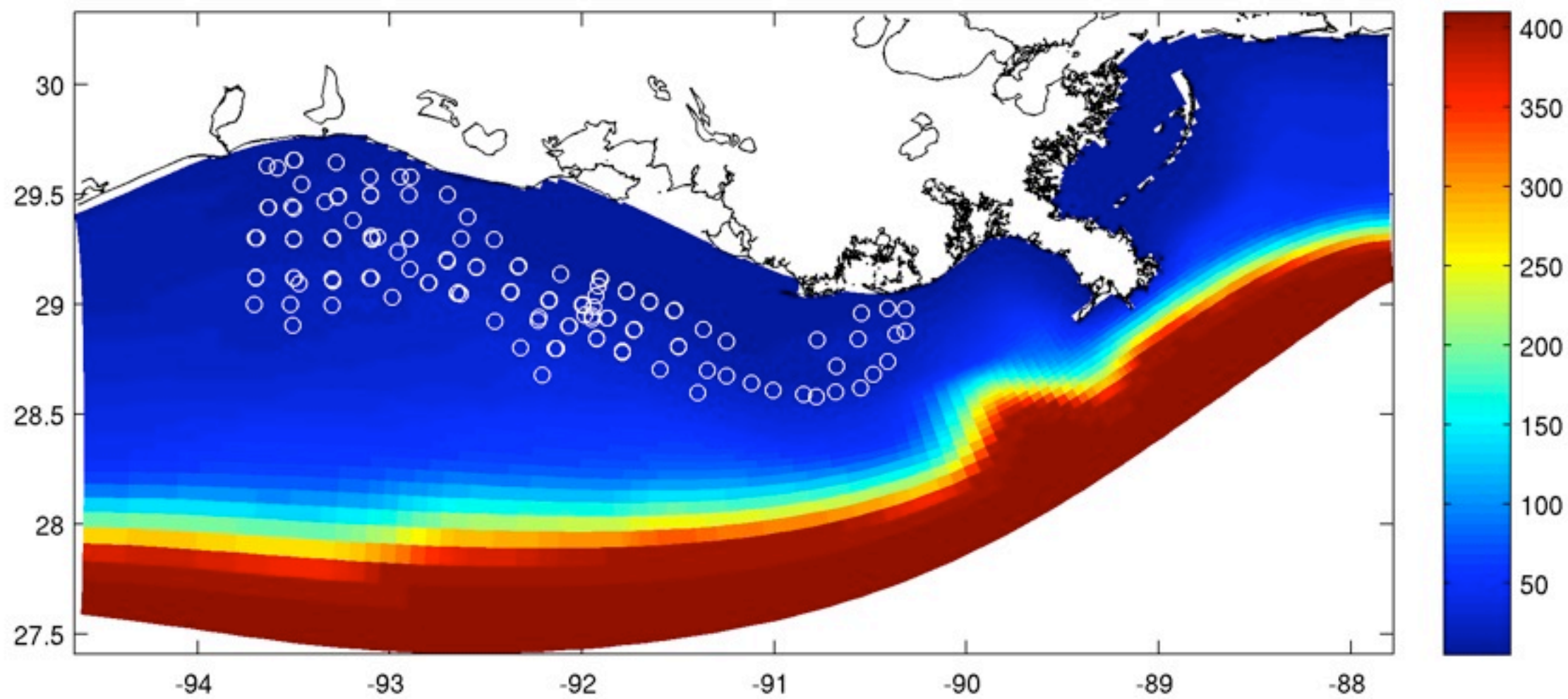


LUMCON: cruise in year 2005 summer (oxy)



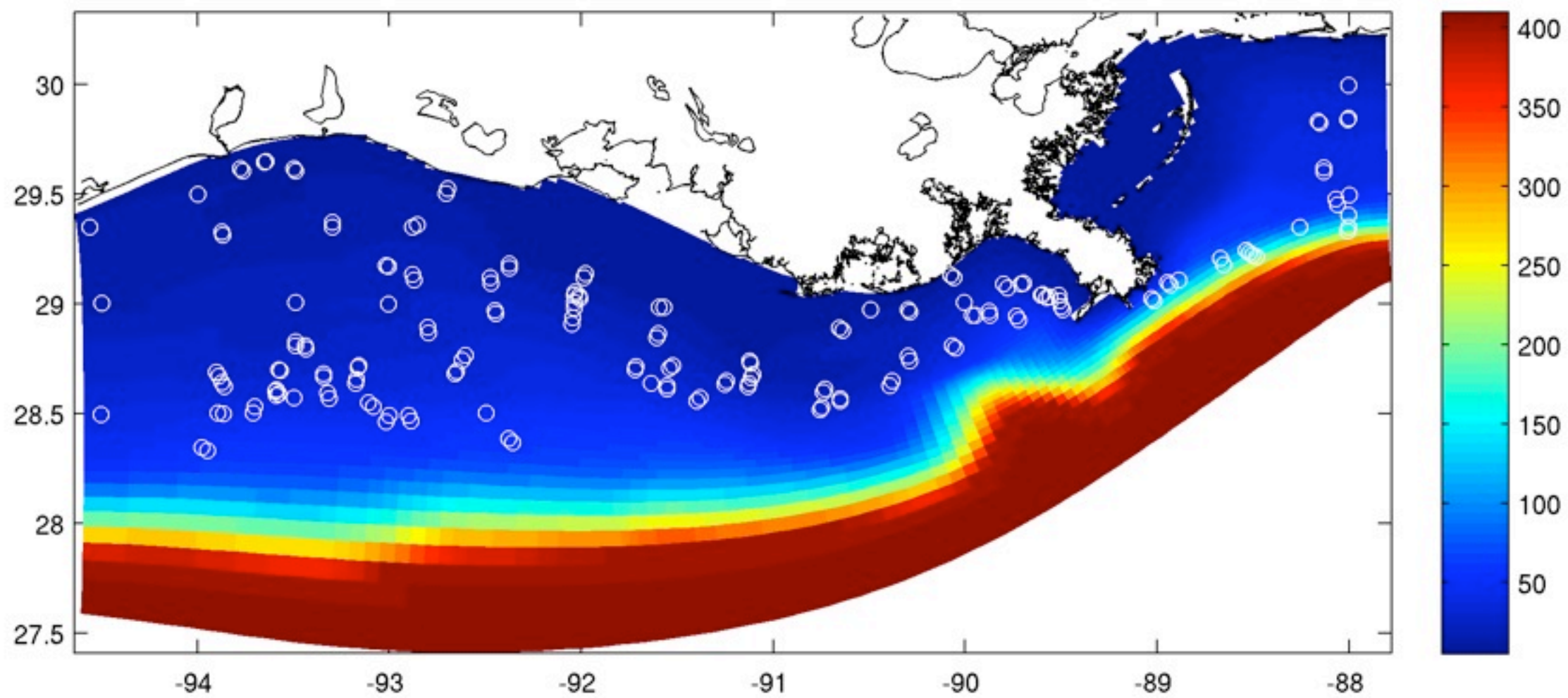


MCH: cruise in year 2005 summer (oxy)

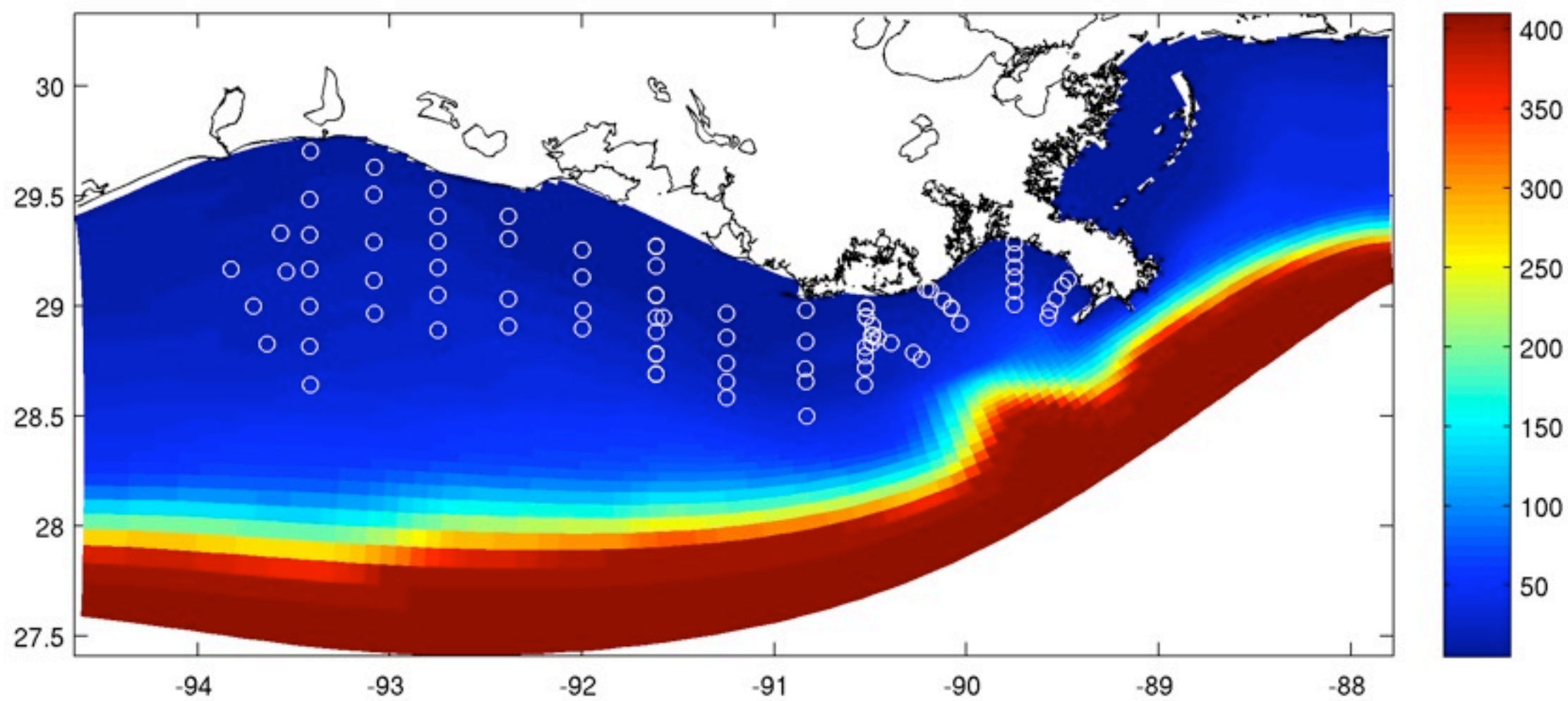




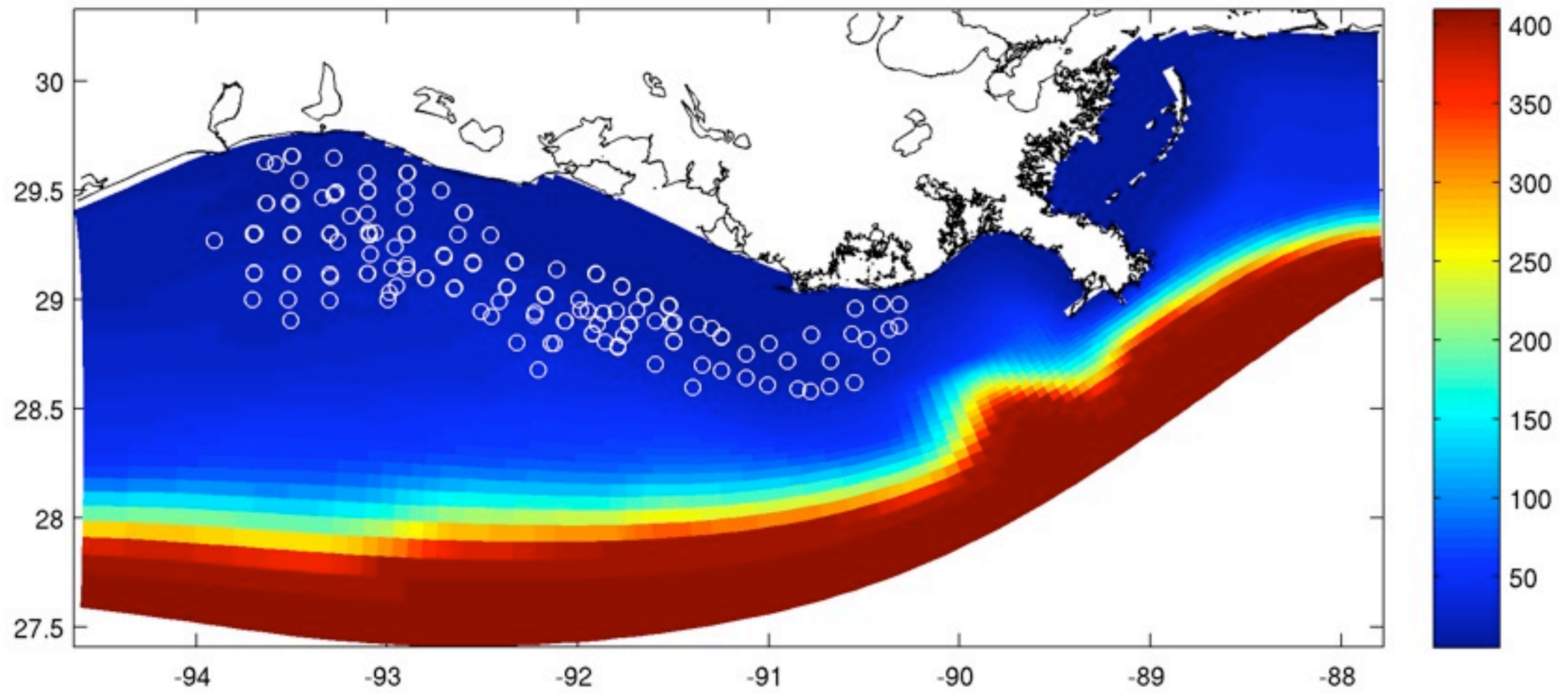
SEAMAP: cruise in year 2005 summer (oxy)



LUMCON: cruise in year 2005 summer (PO4)

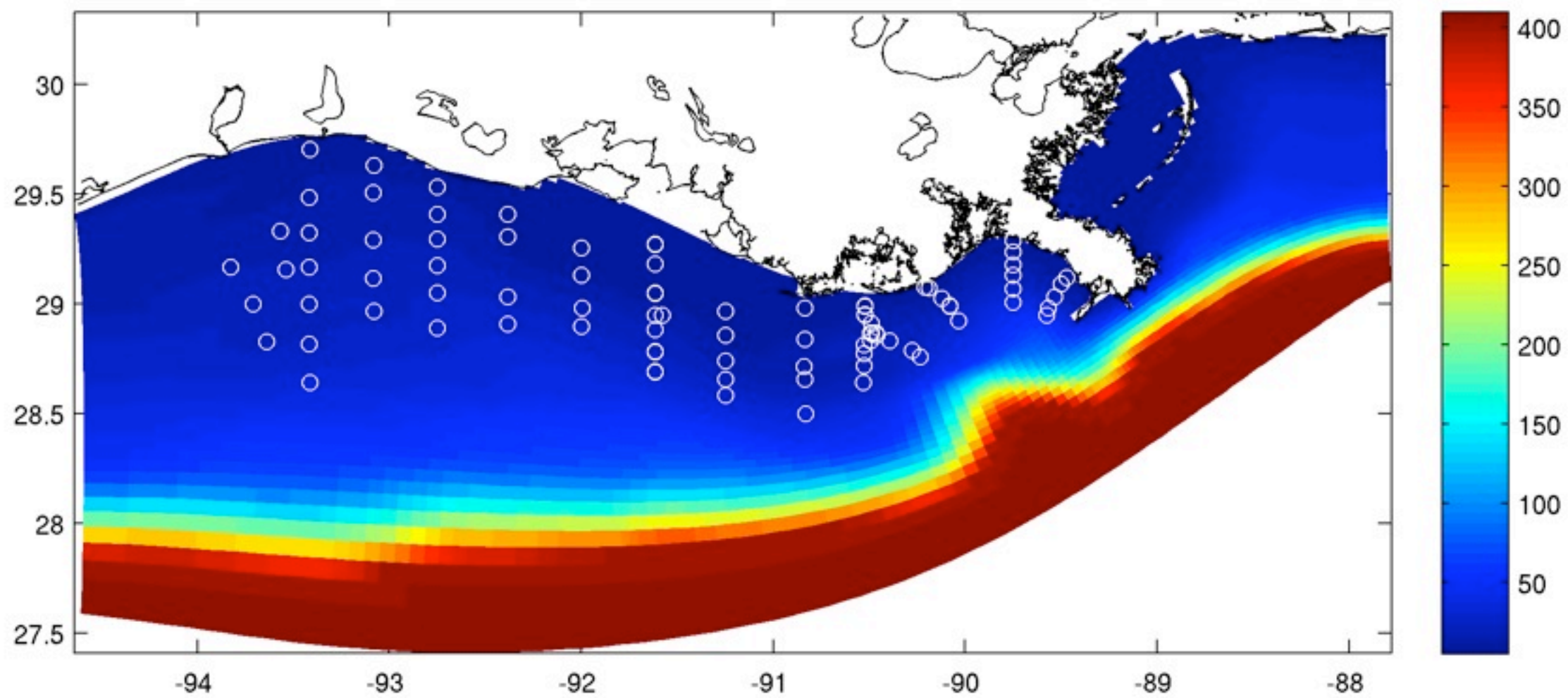


MCH: cruise in year 2005 summer (PO4)

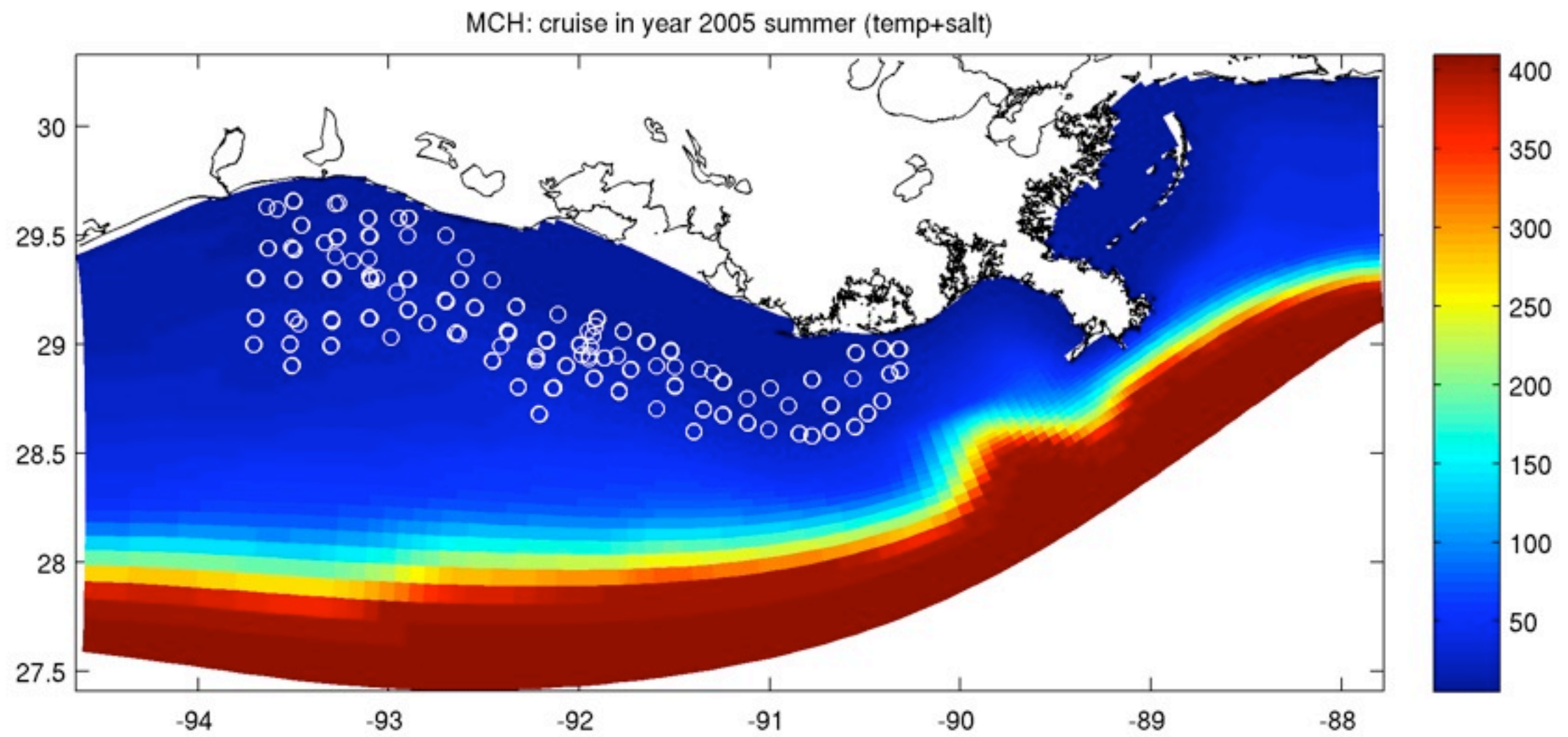




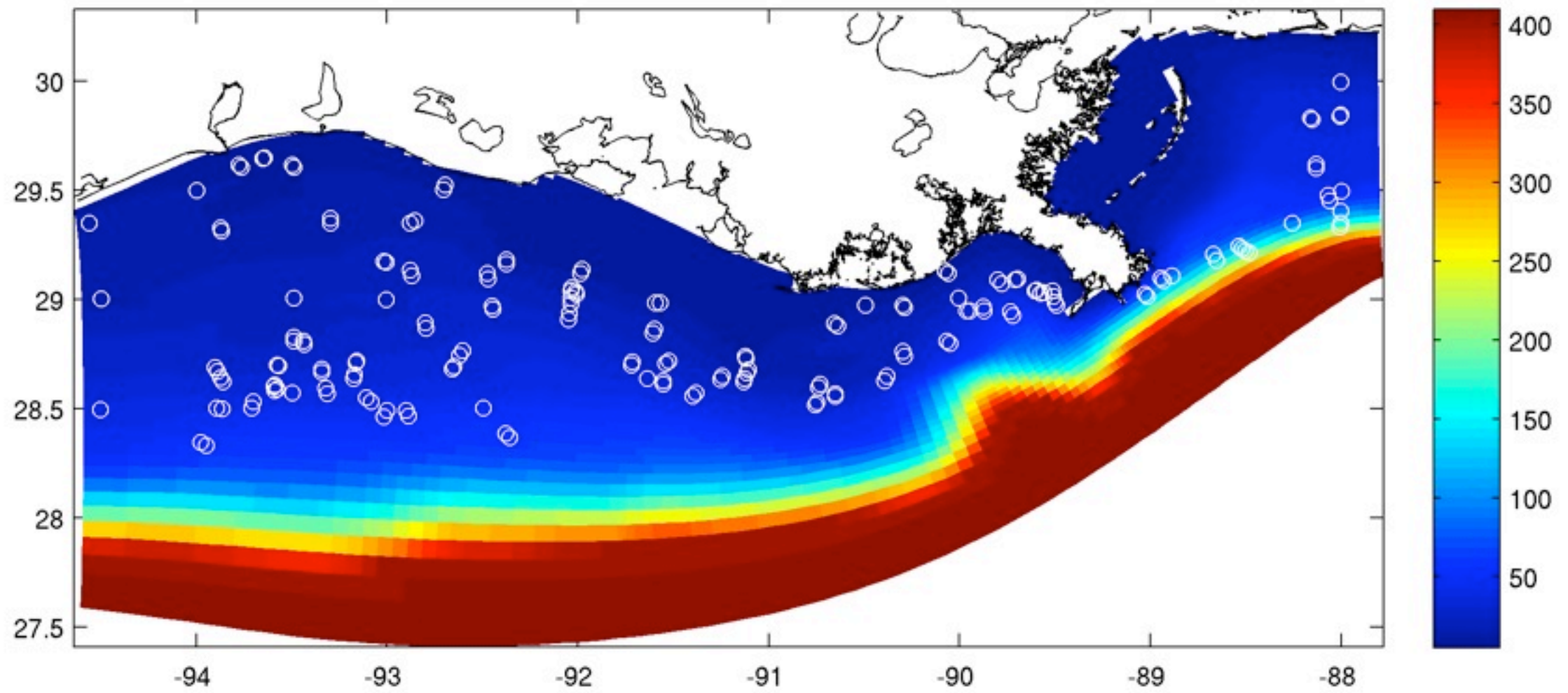
LUMCON: cruise in year 2005 summer (temp+salt)

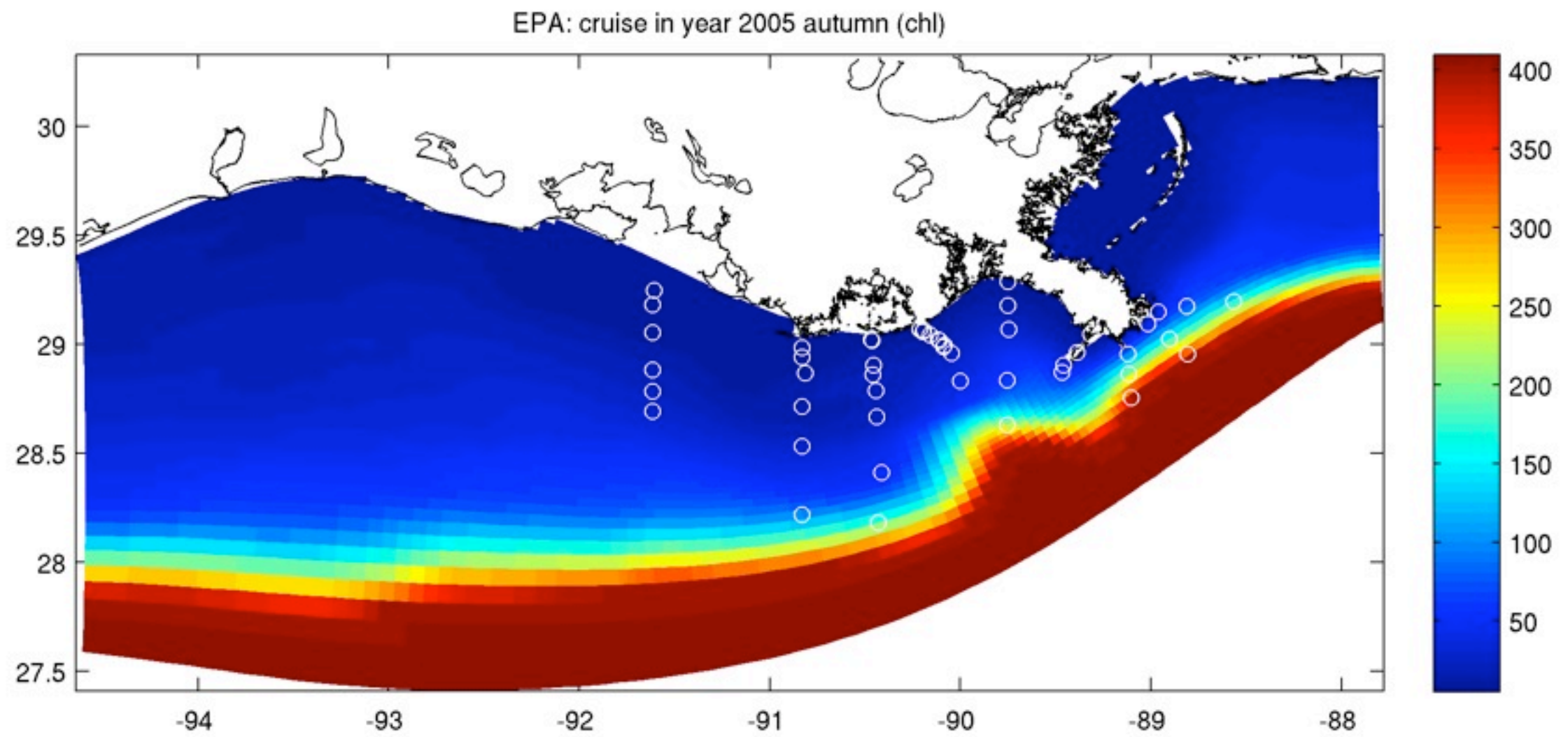






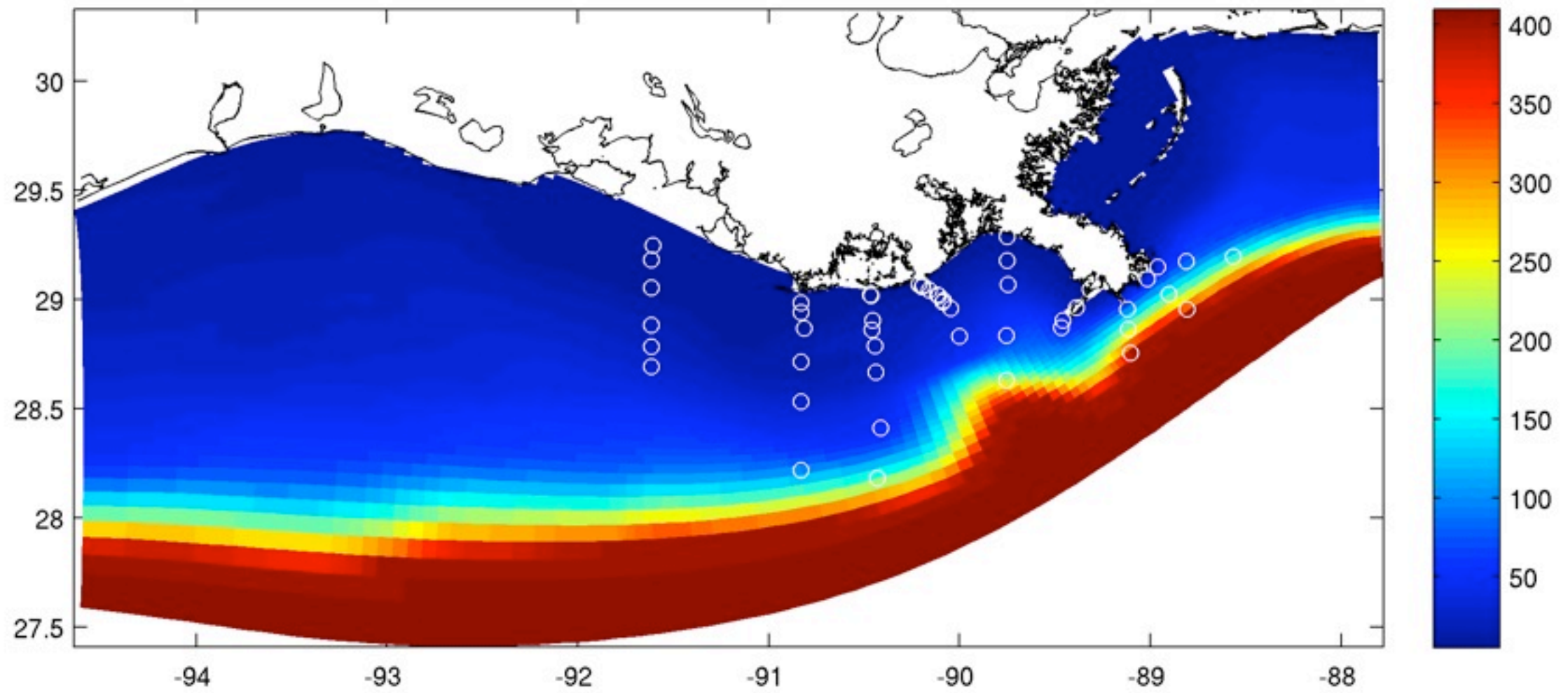
SEAMAP: cruise in year 2005 summer (temp+salt)





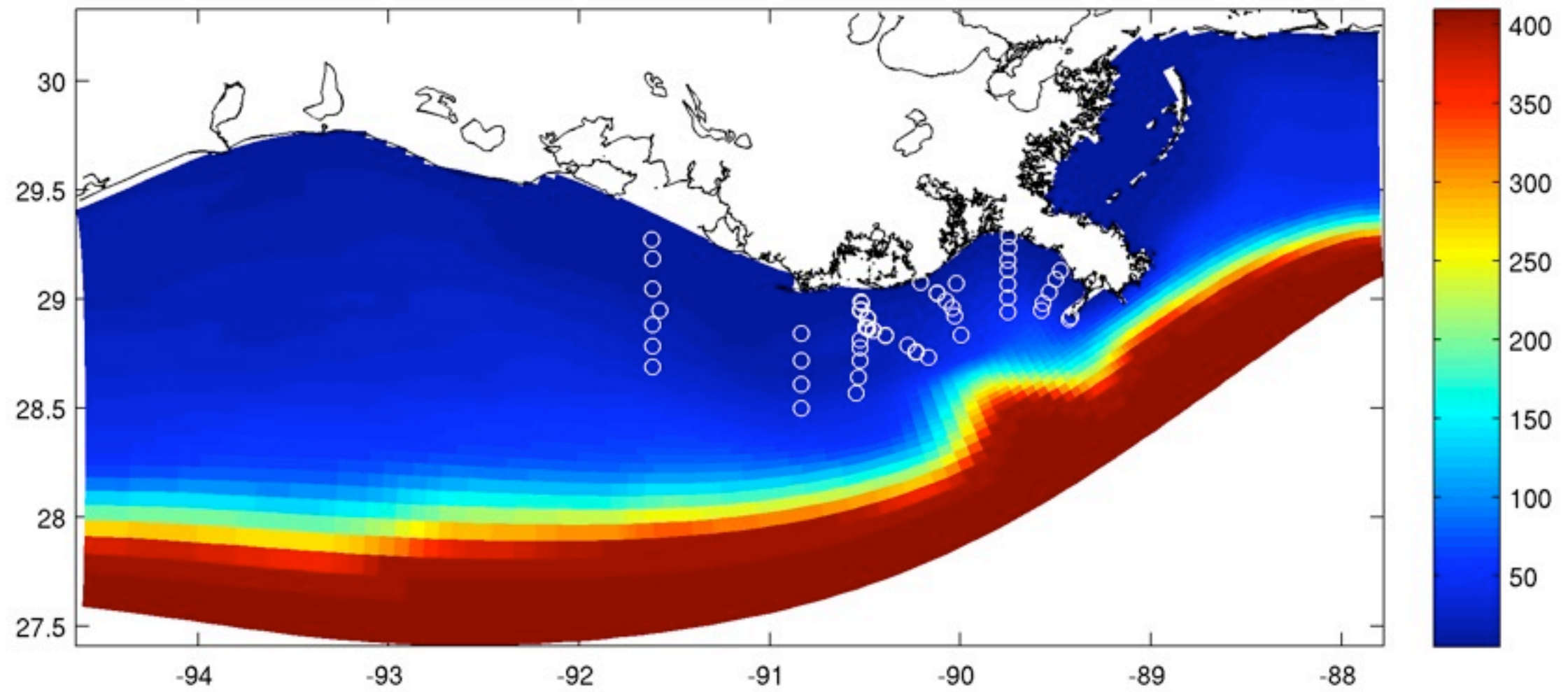


EPA: cruise in year 2005 autumn (NH4)

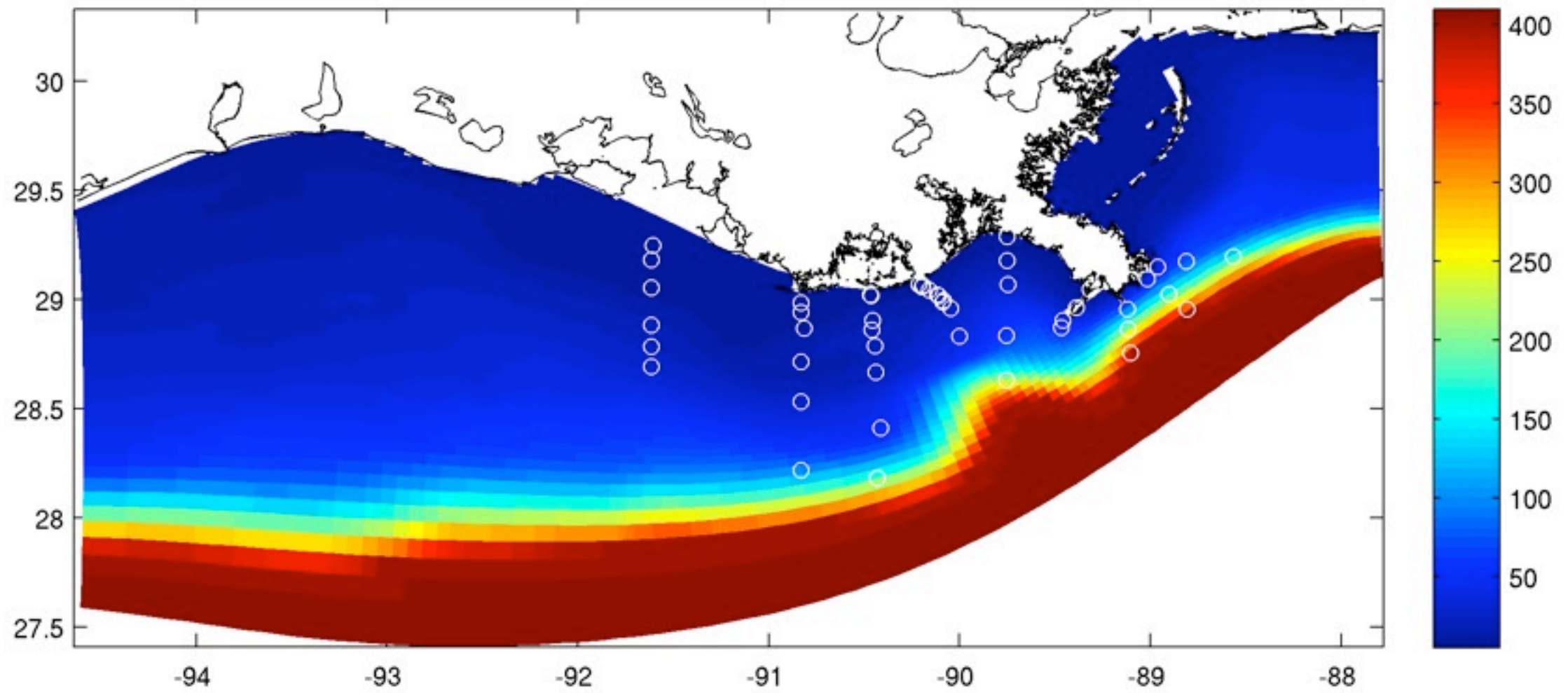




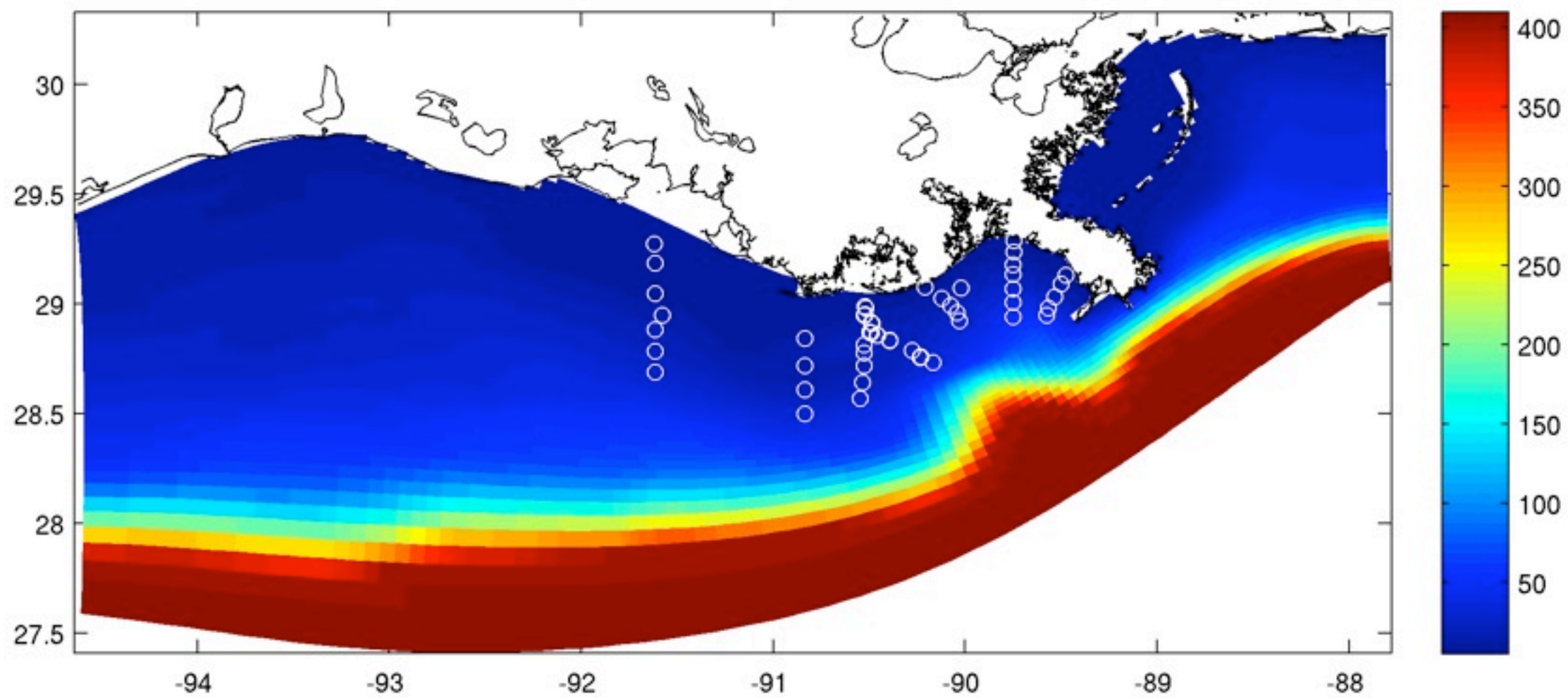
LUMCON: cruise in year 2005 autumn (NH4)



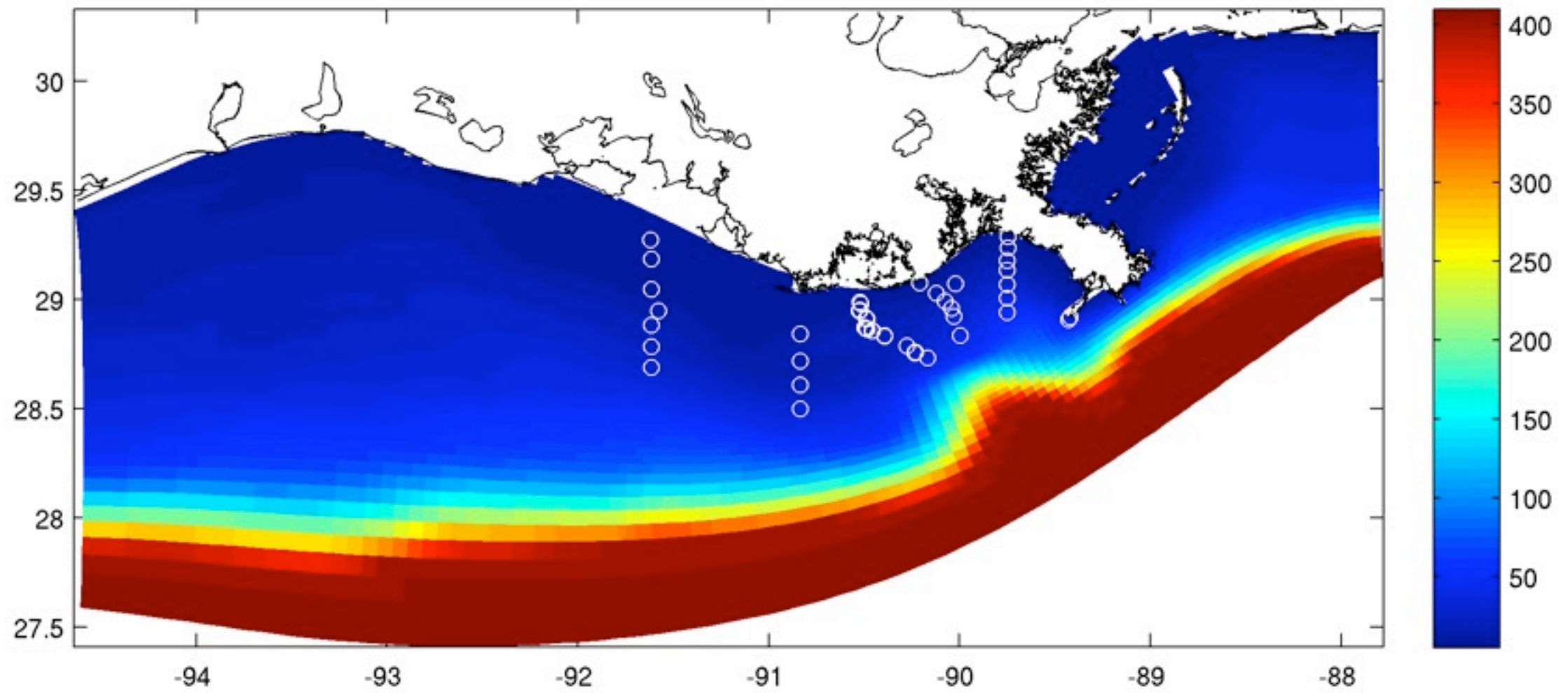
EPA: cruise in year 2005 autumn (NO23)



LUMCON: cruise in year 2005 autumn (NO23)

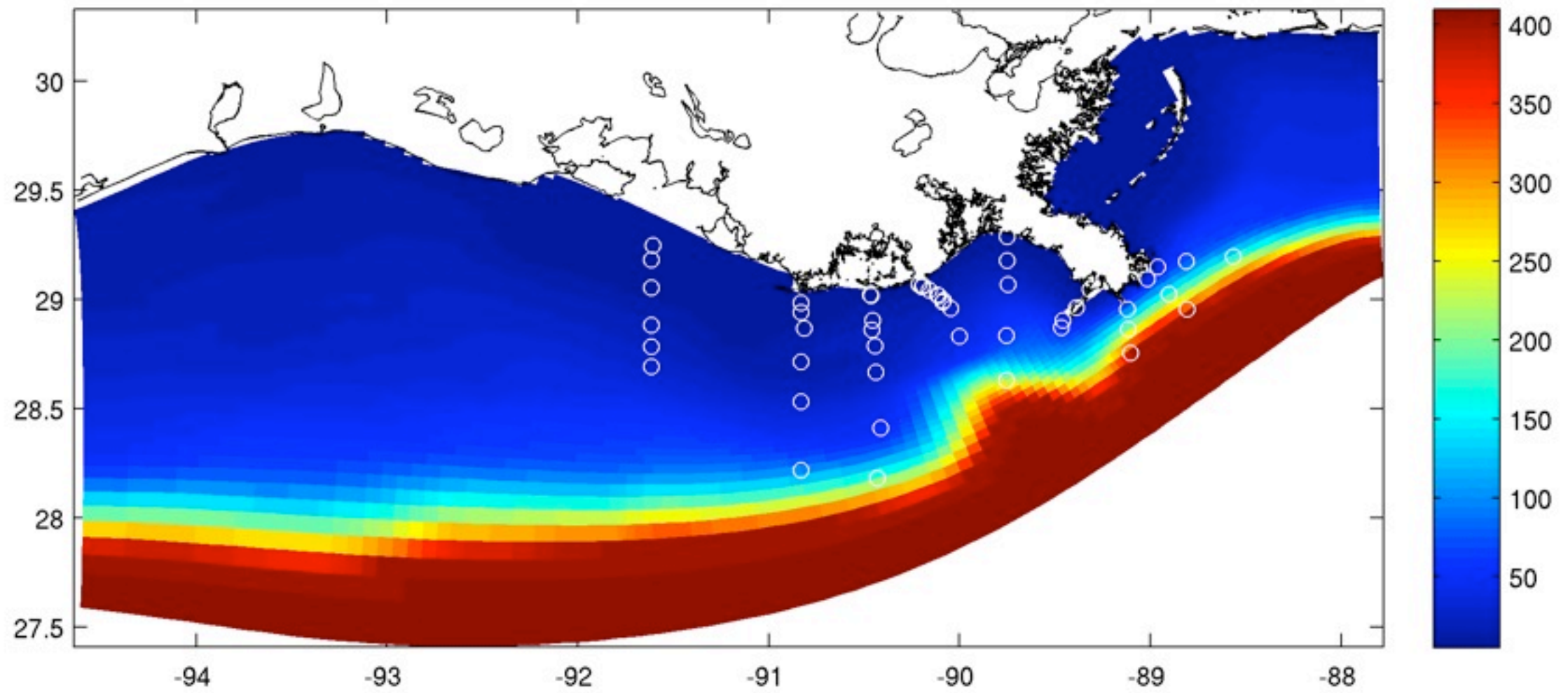


LUMCON: cruise in year 2005 autumn (oxy)

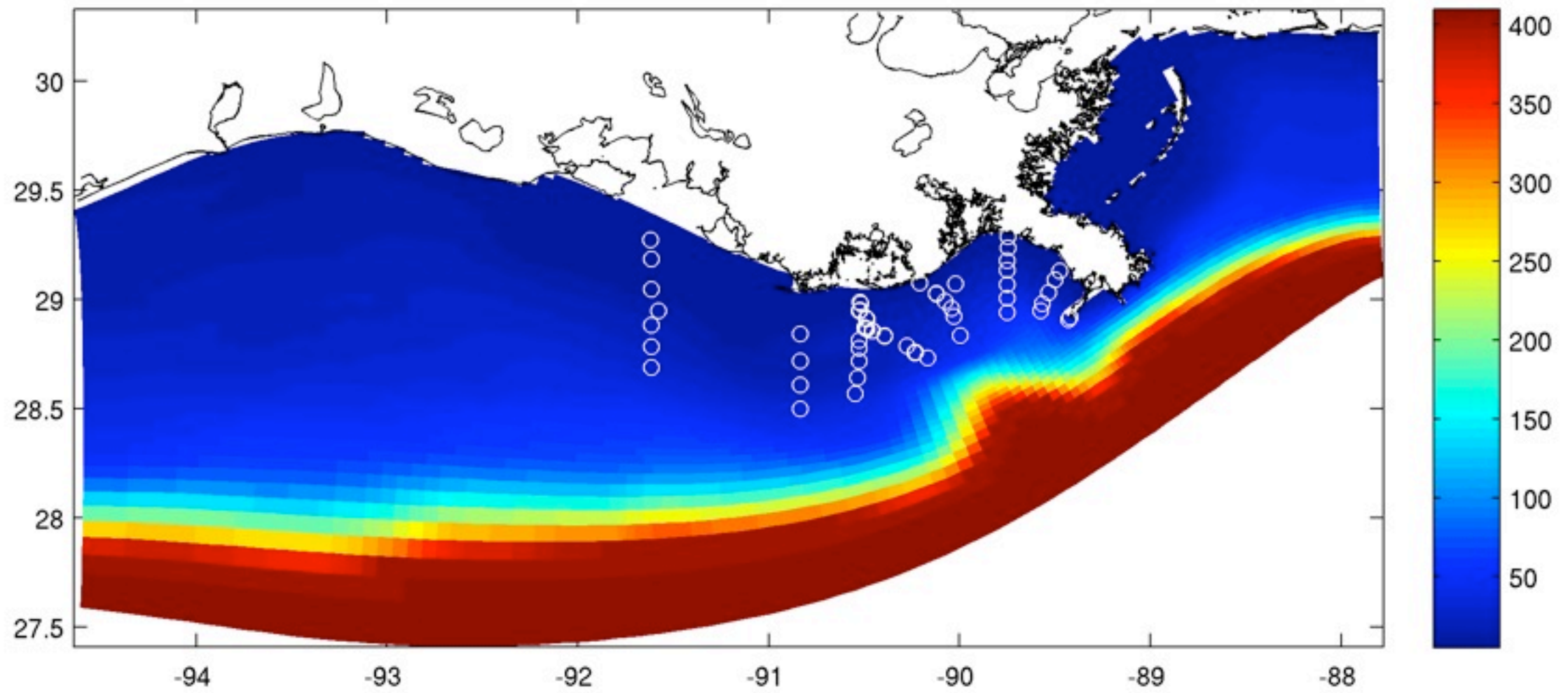




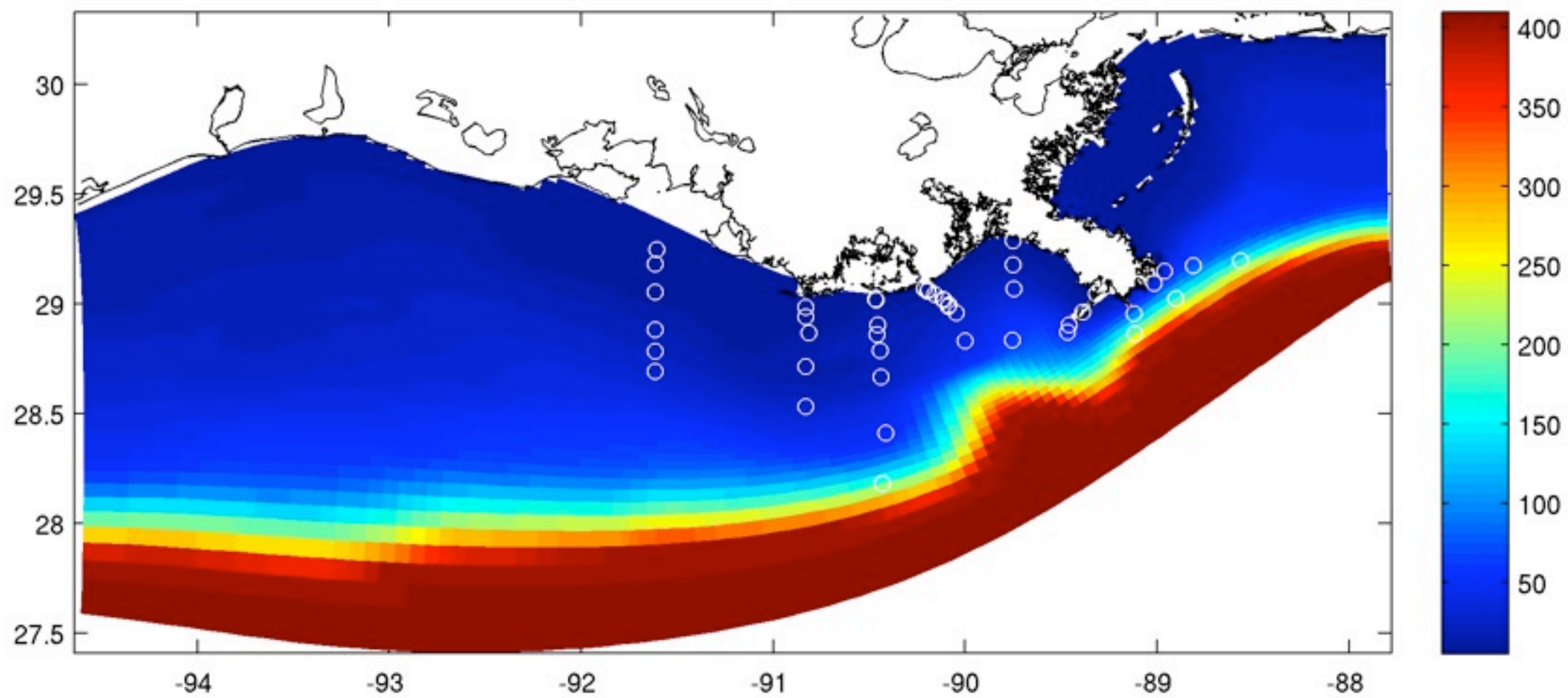
EPA: cruise in year 2005 autumn (PO4)

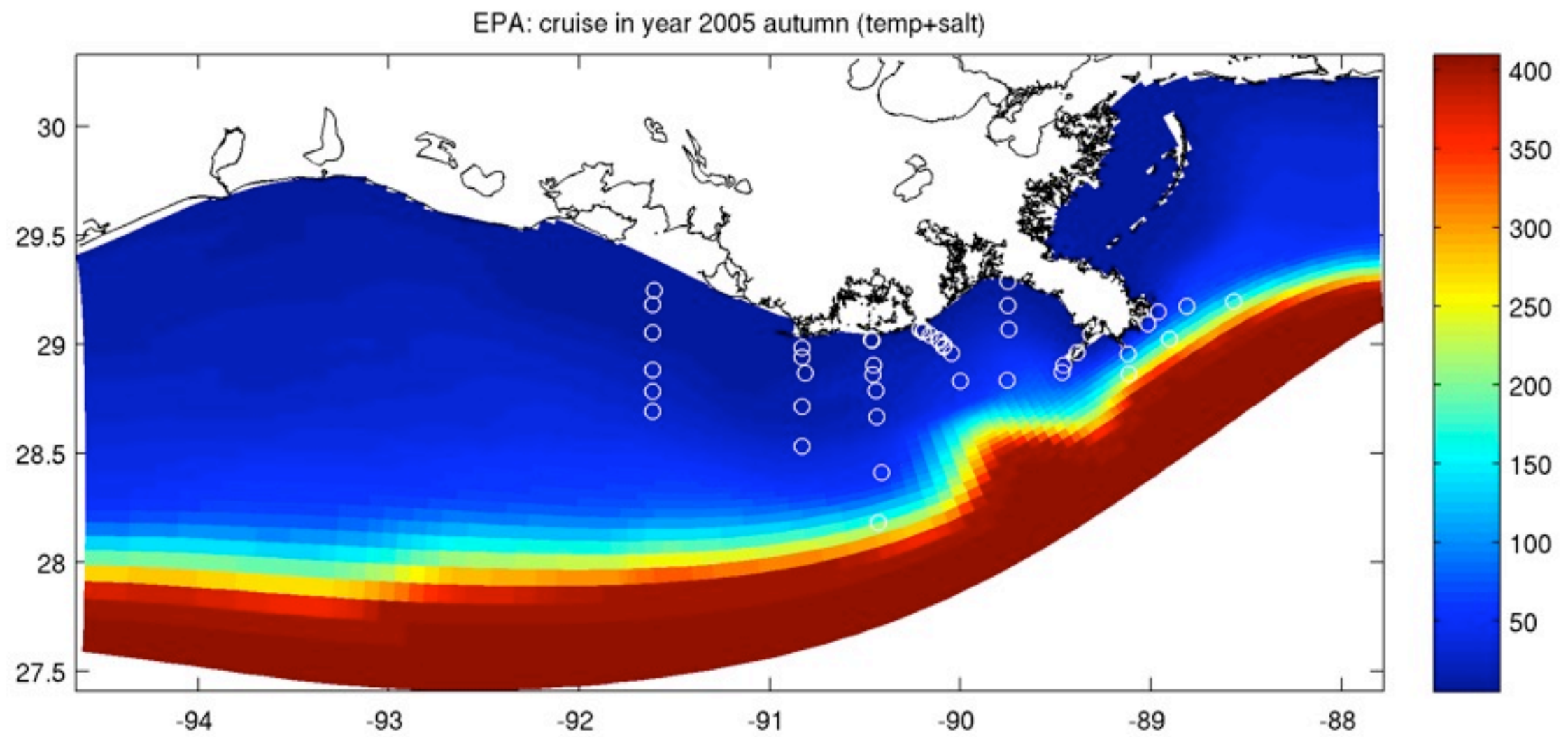


LUMCON: cruise in year 2005 autumn (PO4)



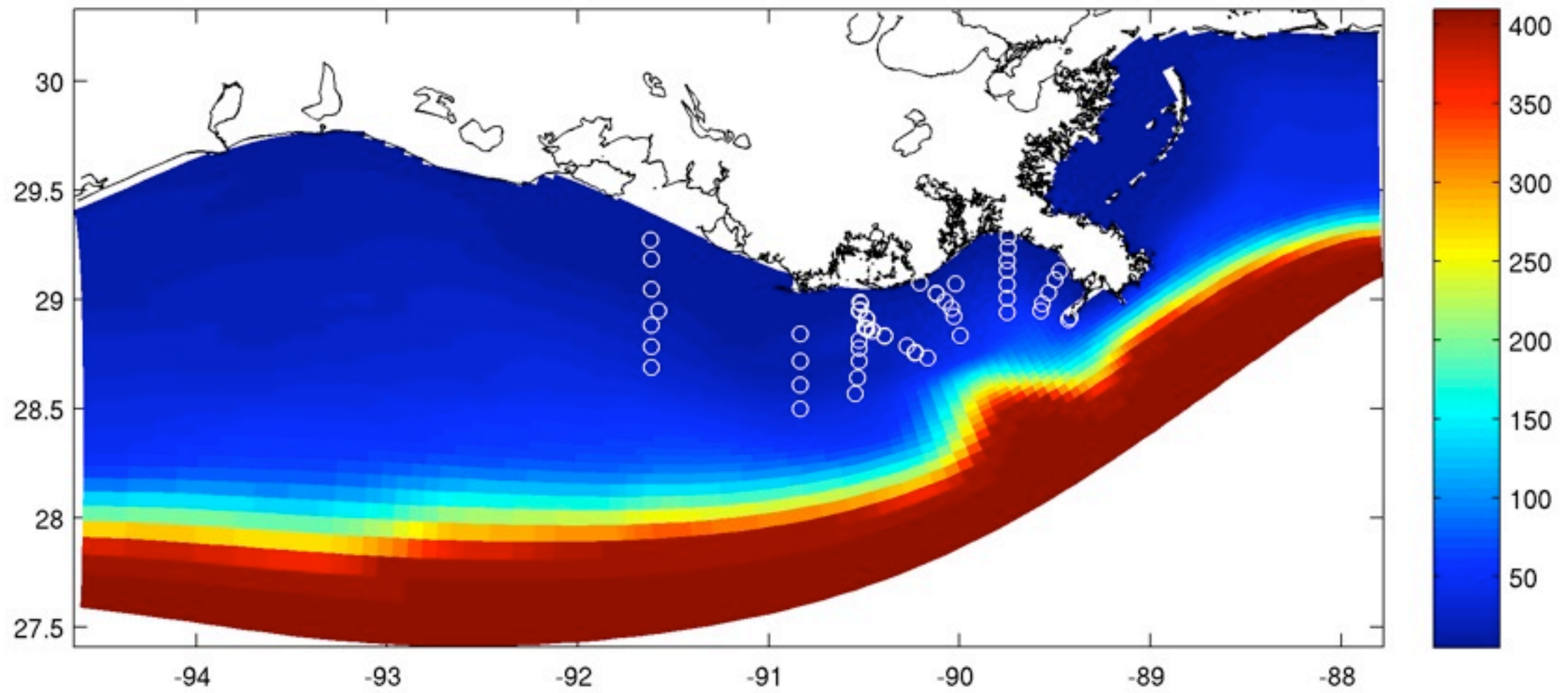
EPA: cruise in year 2005 autumn (PP)



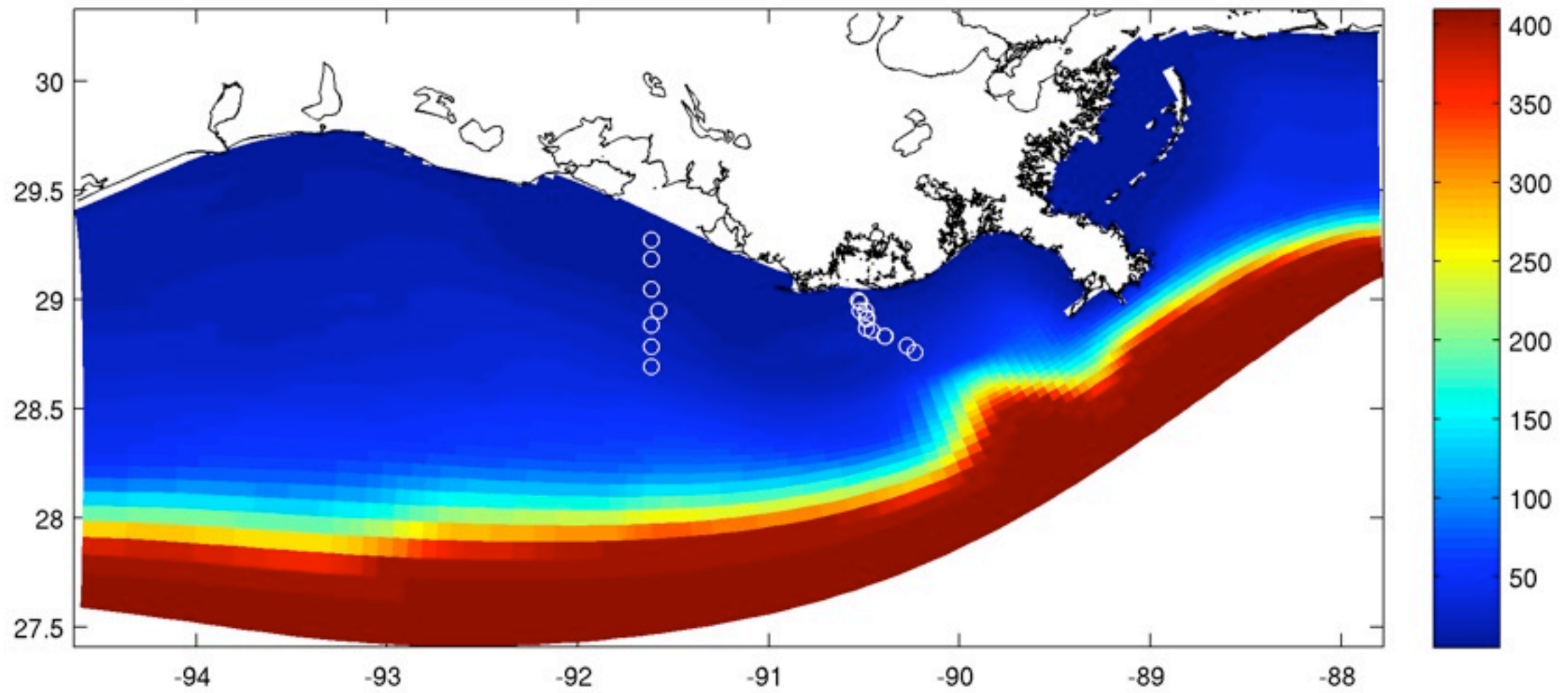




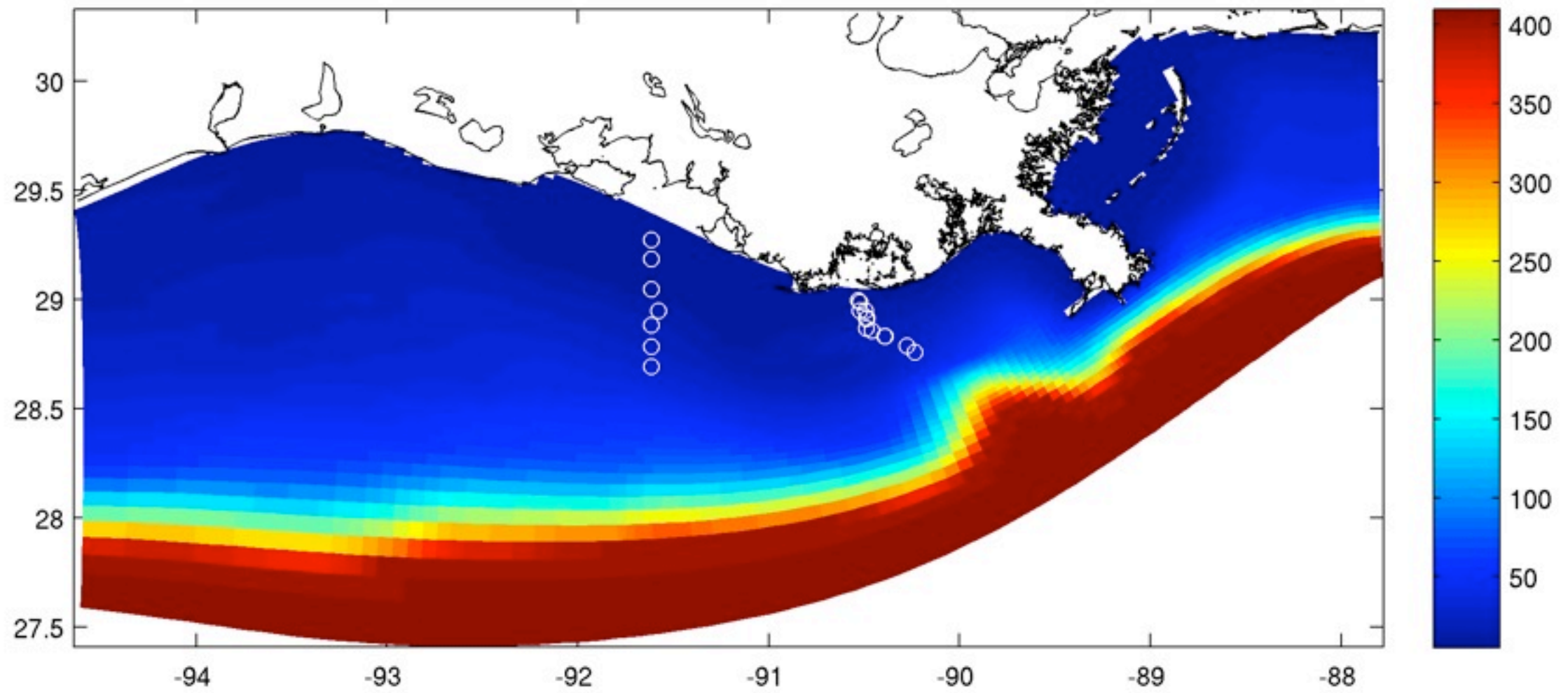
LUMCON: cruise in year 2005 autumn (temp+salt)



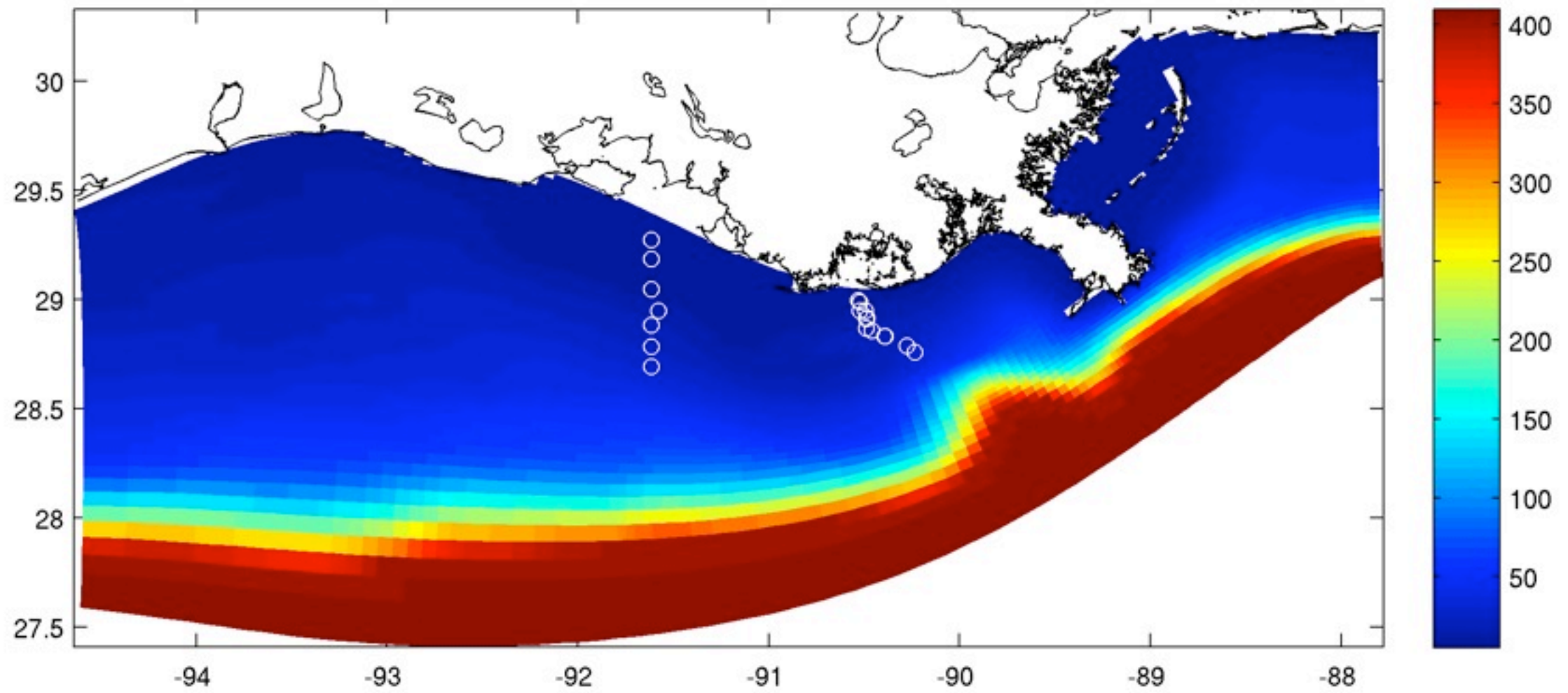
LUMCON: cruise in year 2006 winter (NH4)



LUMCON: cruise in year 2006 winter (NO23)

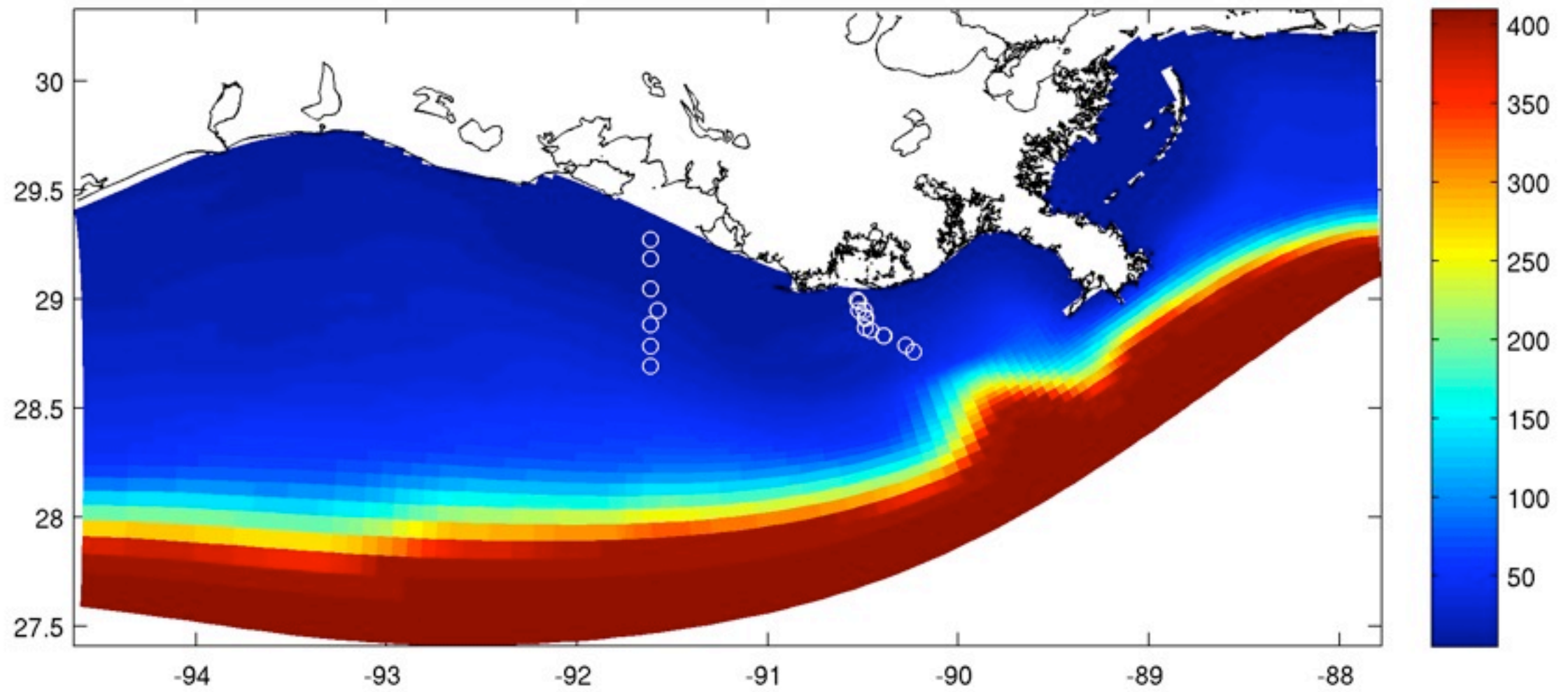


LUMCON: cruise in year 2006 winter (oxy)

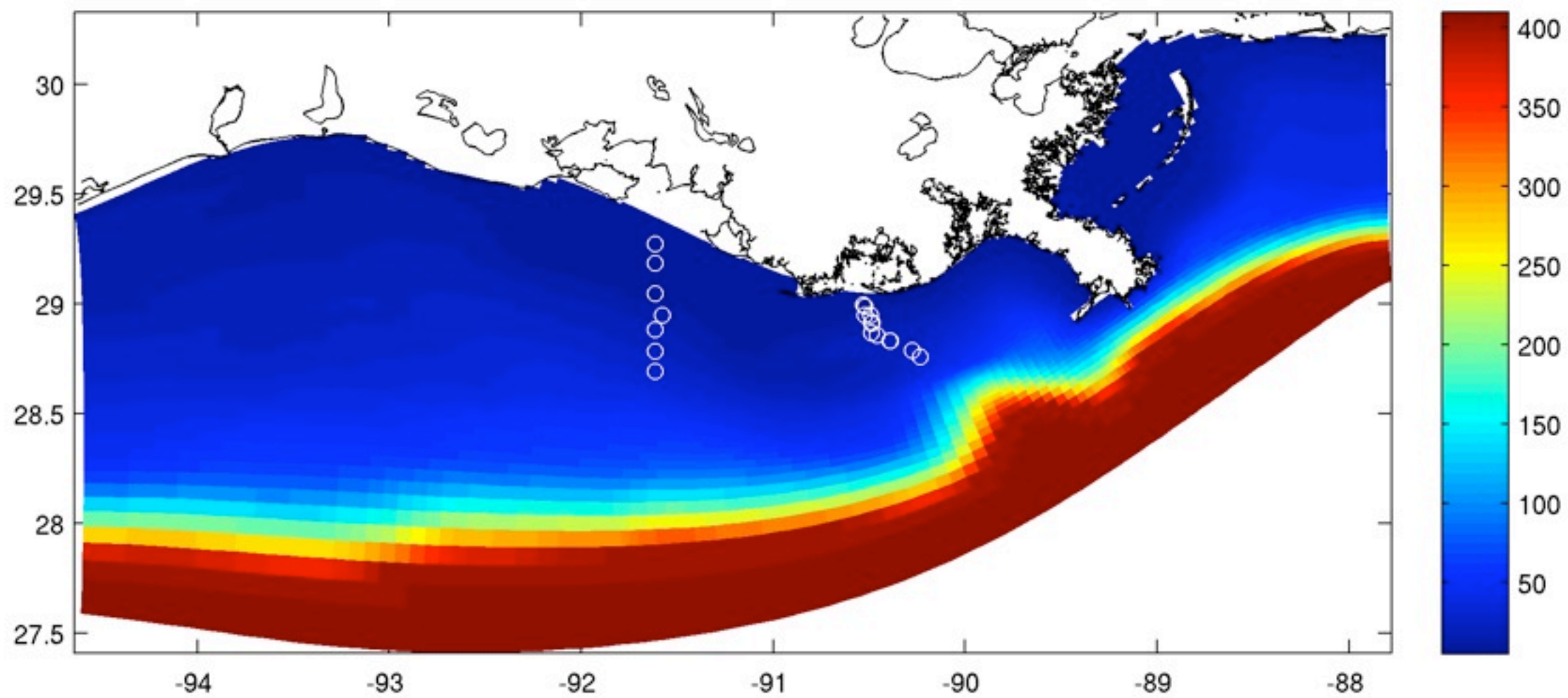




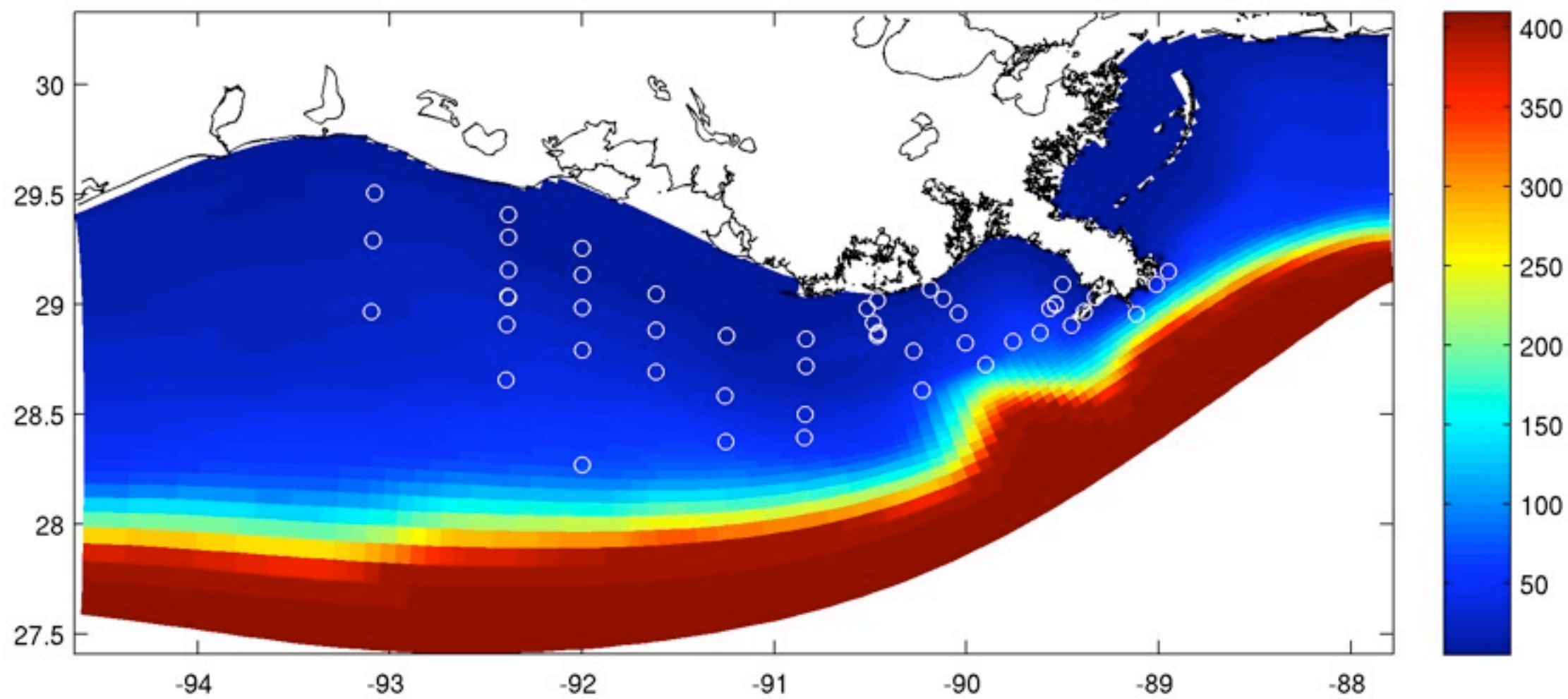
LUMCON: cruise in year 2006 winter (PO4)



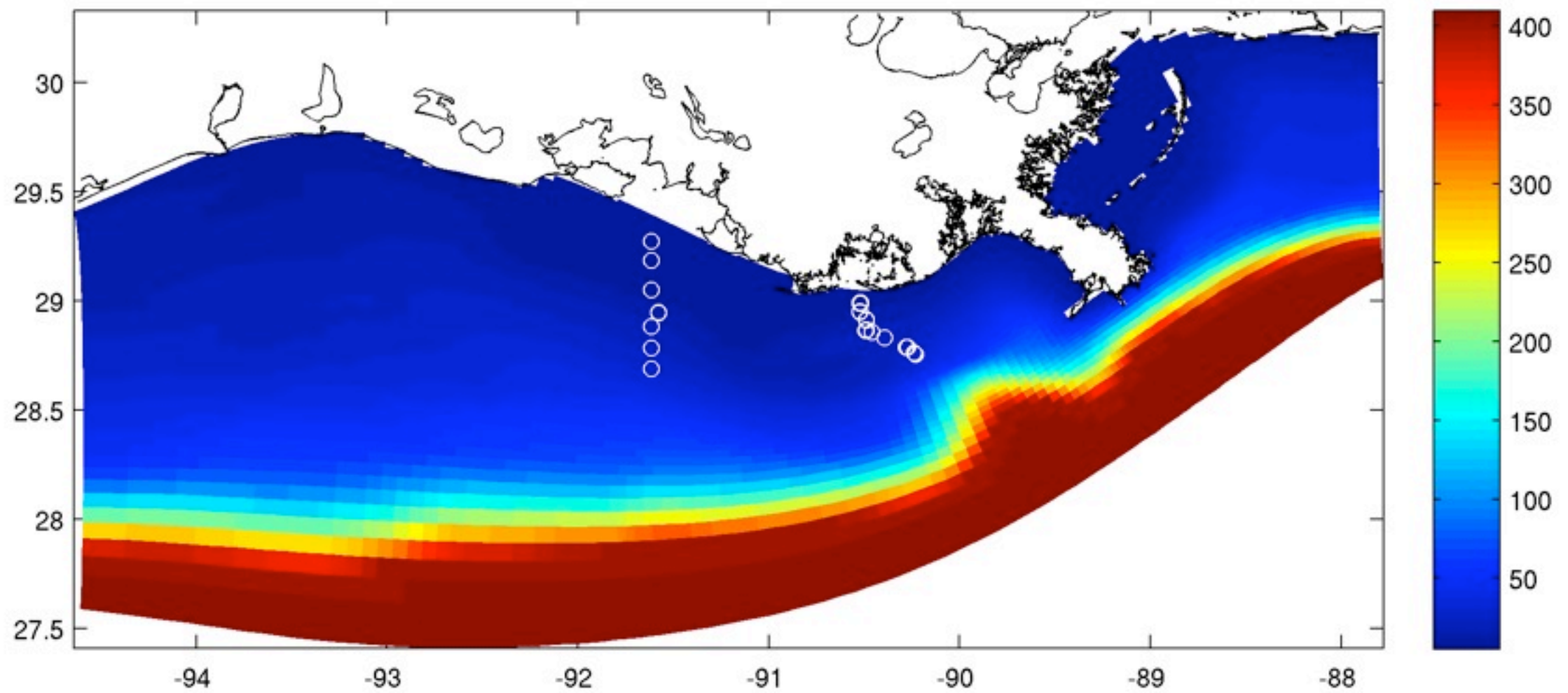
LUMCON: cruise in year 2006 winter (temp+salt)



EPA: cruise in year 2006 spring (chl)

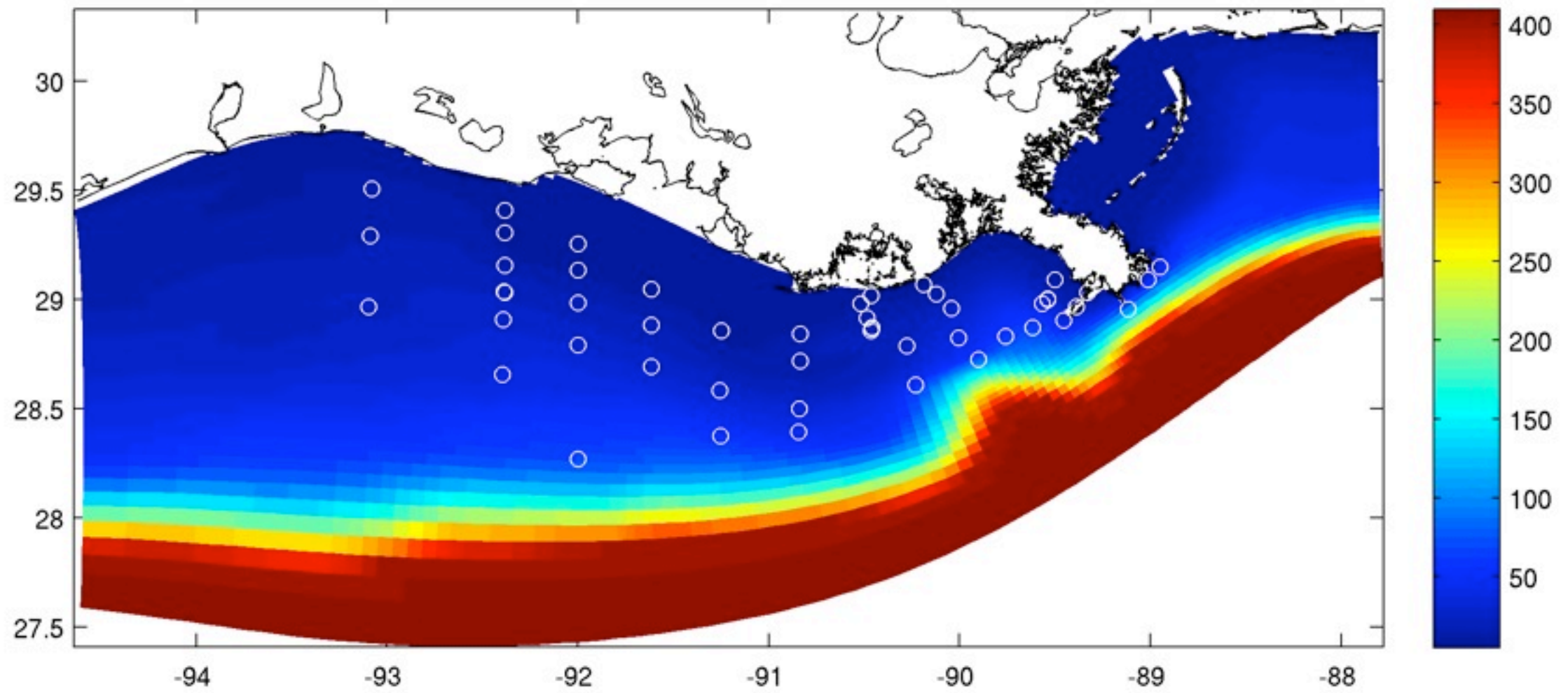


LUMCON: cruise in year 2006 spring (NH4)

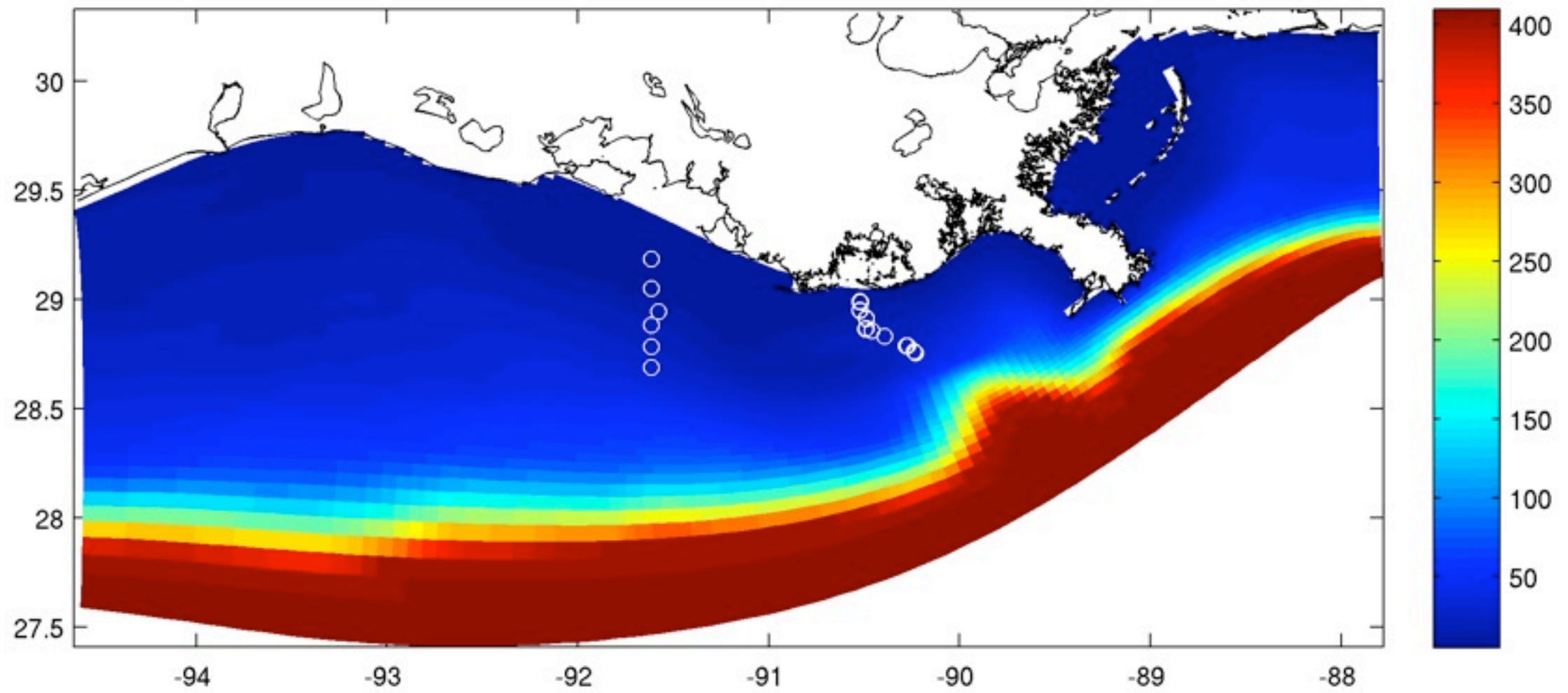




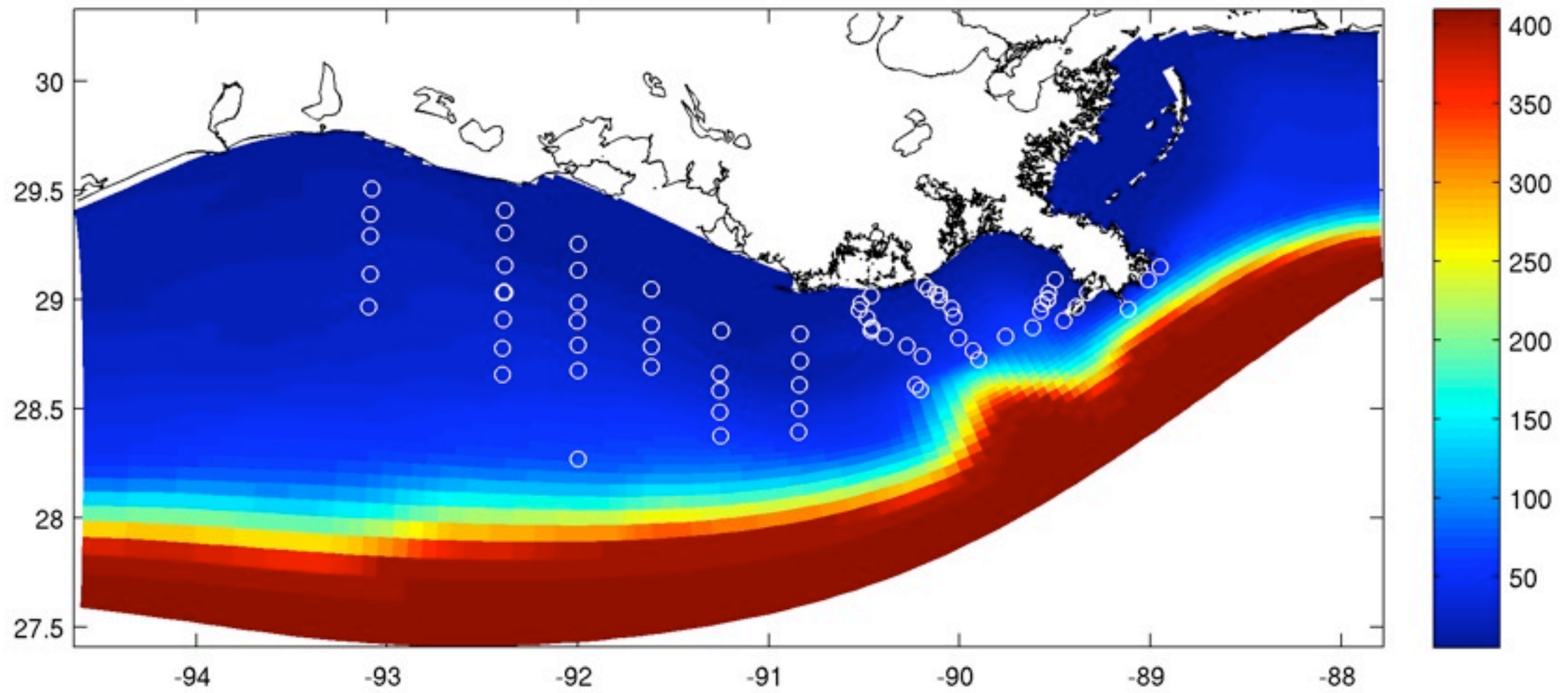
EPA: cruise in year 2006 spring (NO23)



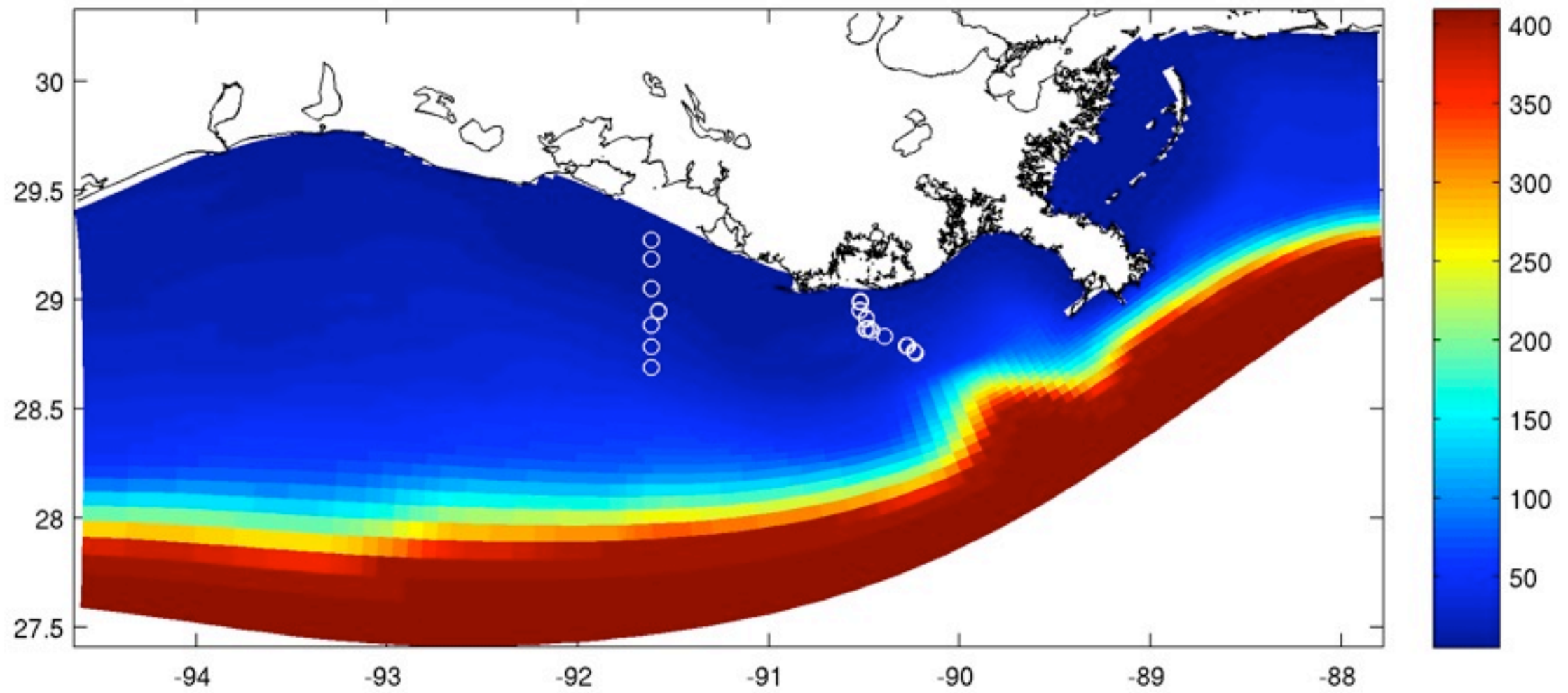
LUMCON: cruise in year 2006 spring (NO23)



EPA: cruise in year 2006 spring (oxy)

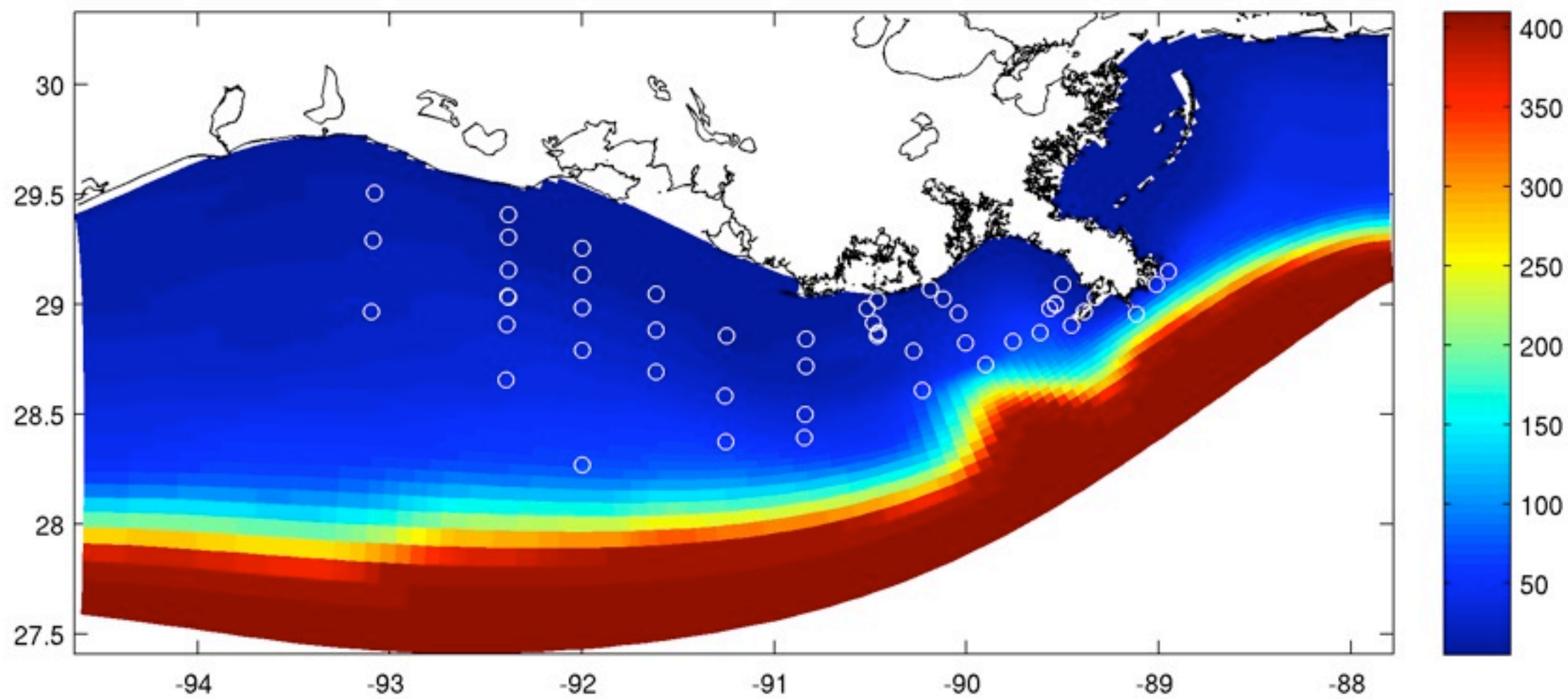


LUMCON: cruise in year 2006 spring (oxy)

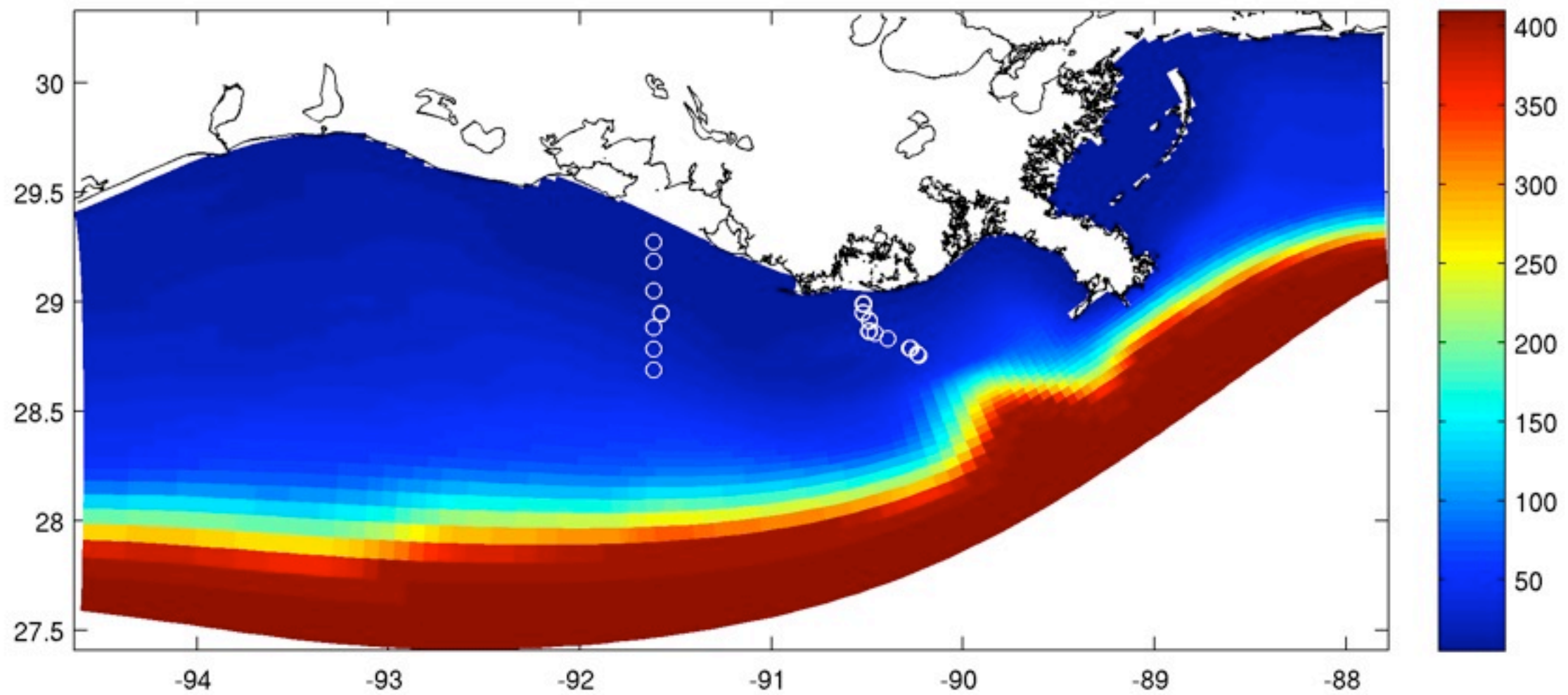




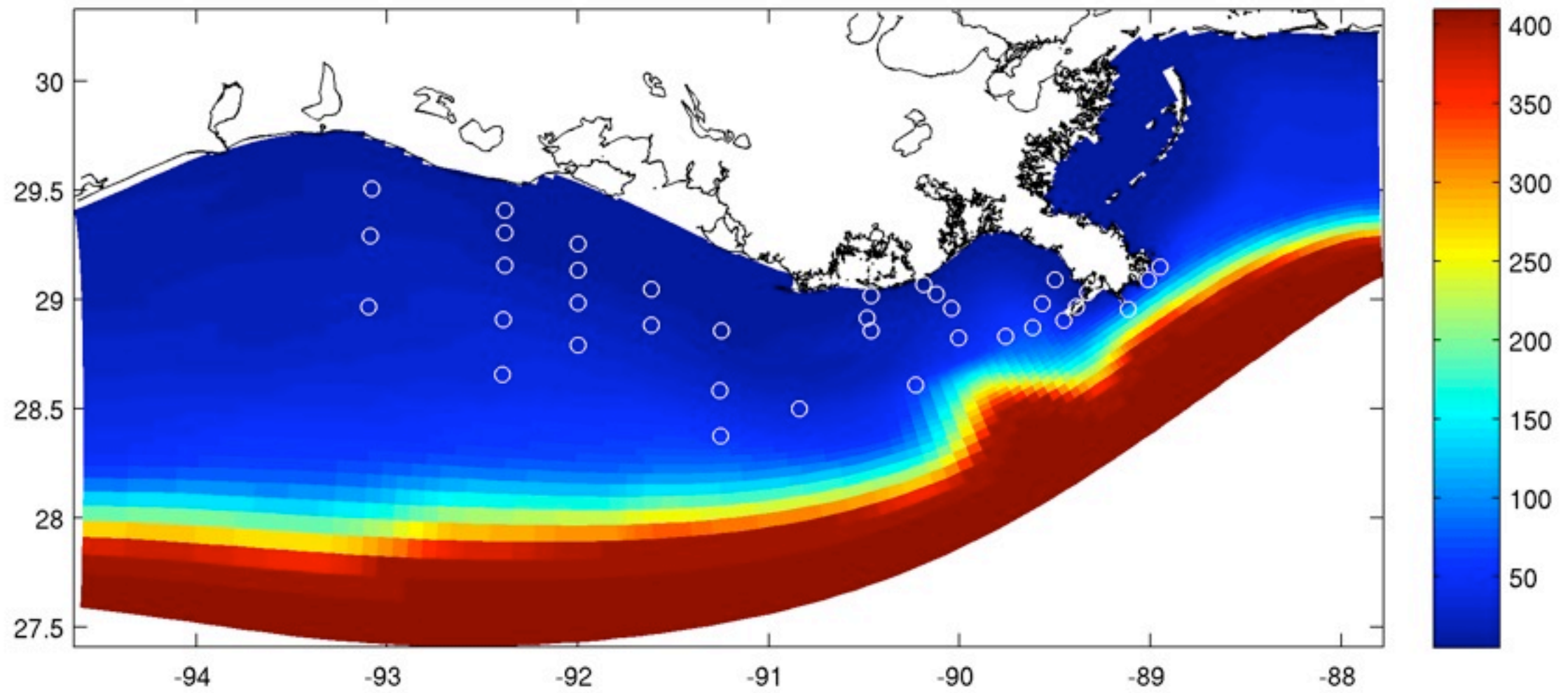
EPA: cruise in year 2006 spring (PO4)



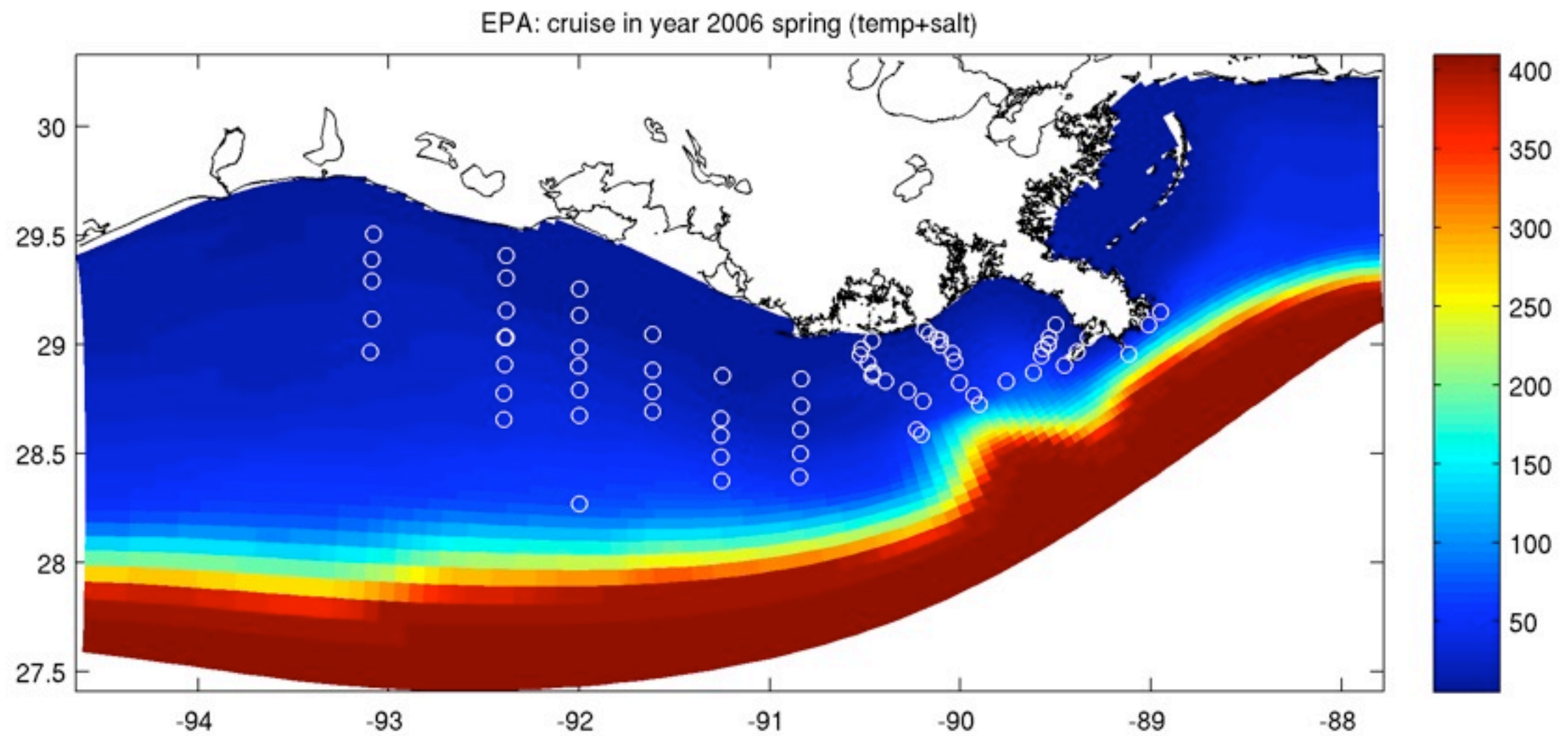
LUMCON: cruise in year 2006 spring (PO4)



EPA: cruise in year 2006 spring (PP)

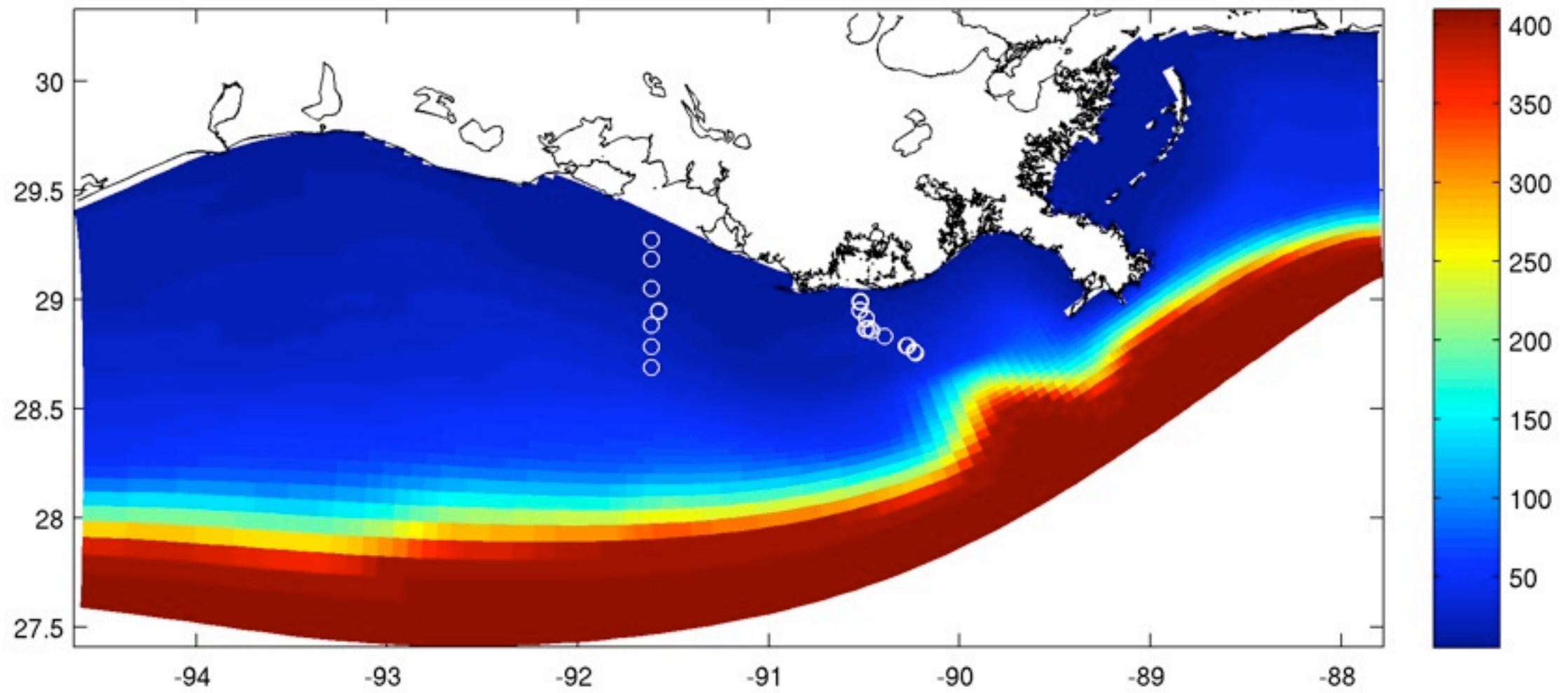


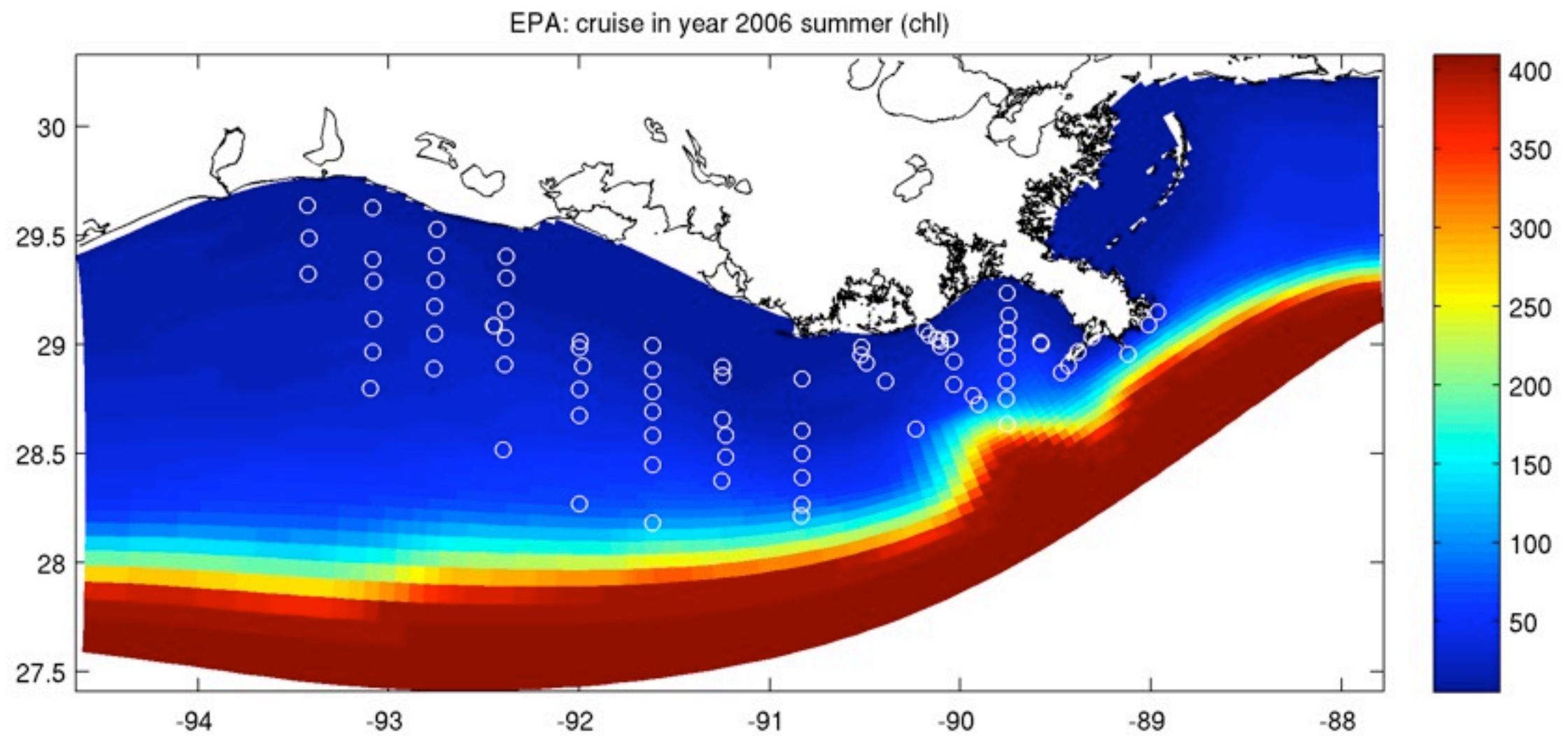




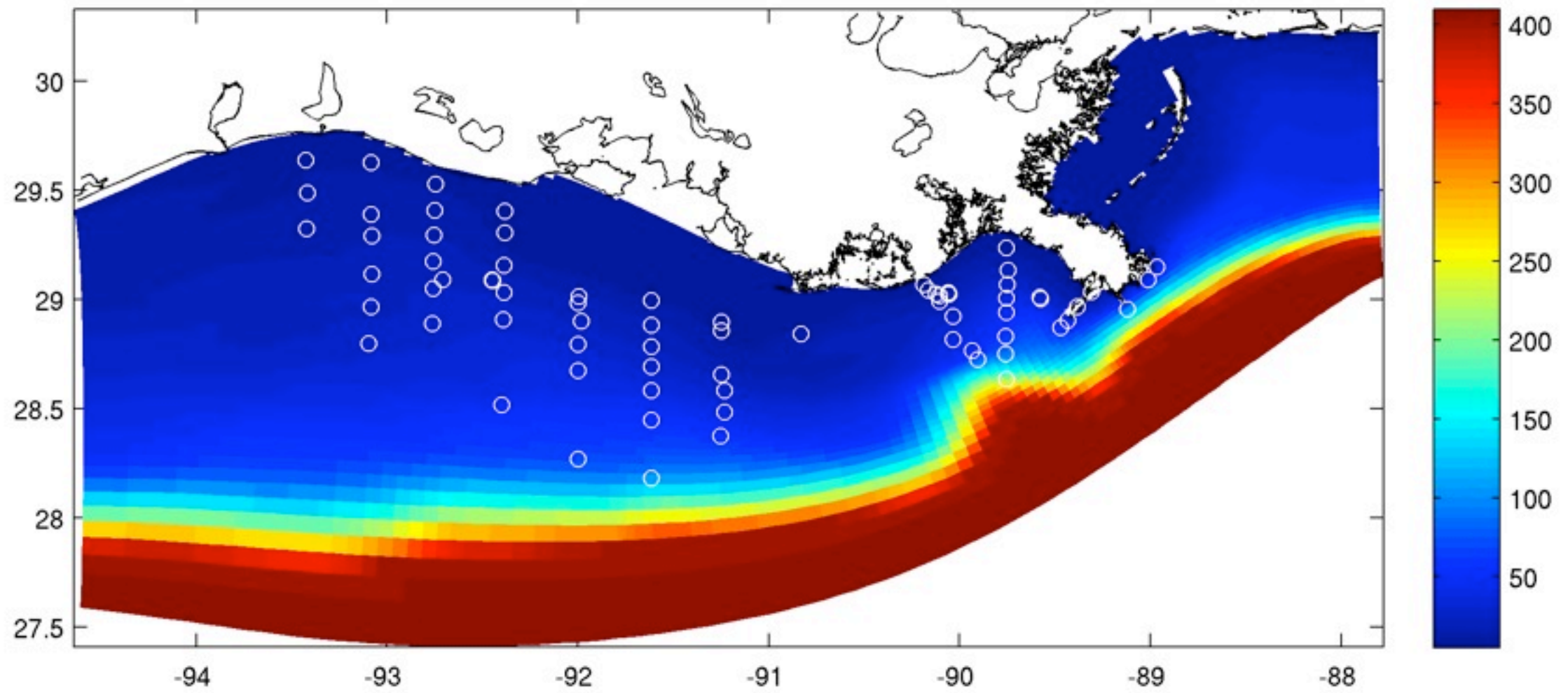


LUMCON: cruise in year 2006 spring (temp+salt)



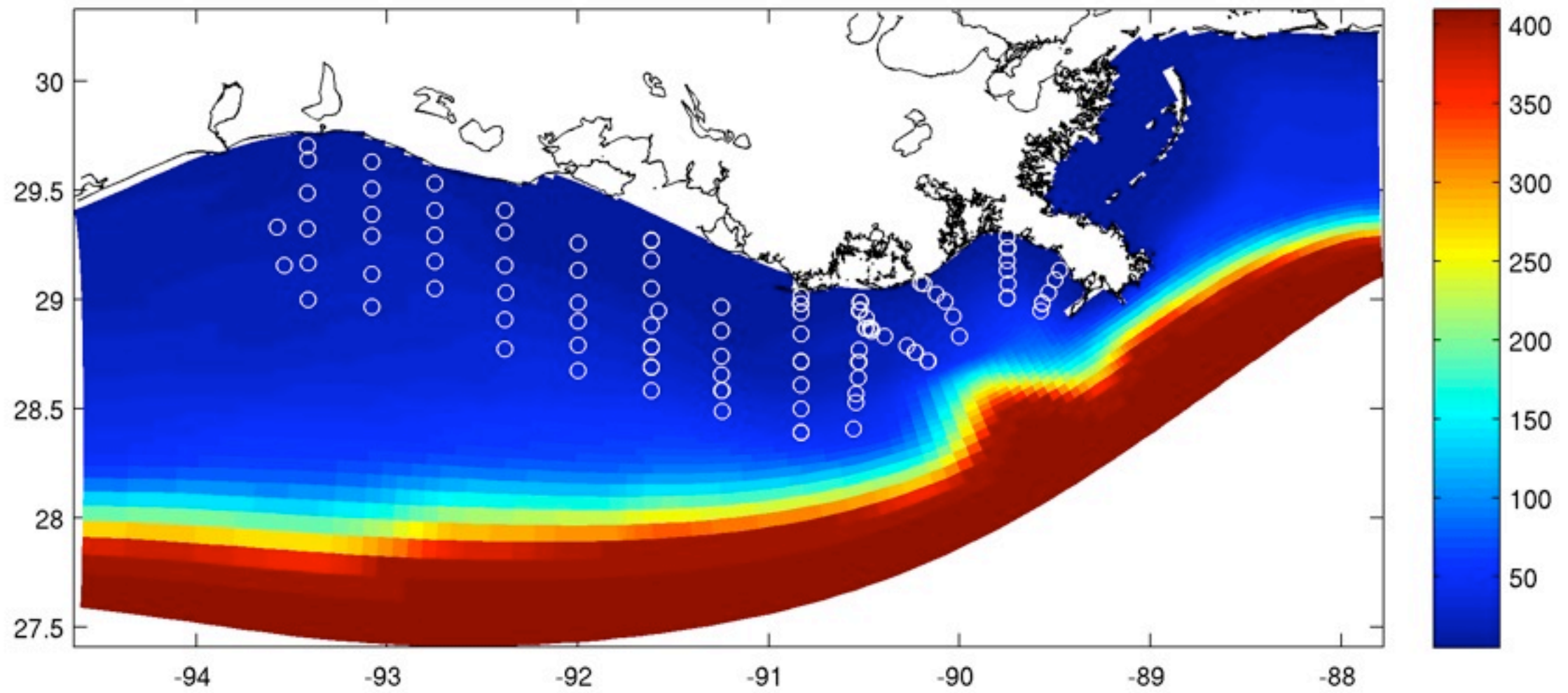


EPA: cruise in year 2006 summer (NH4)



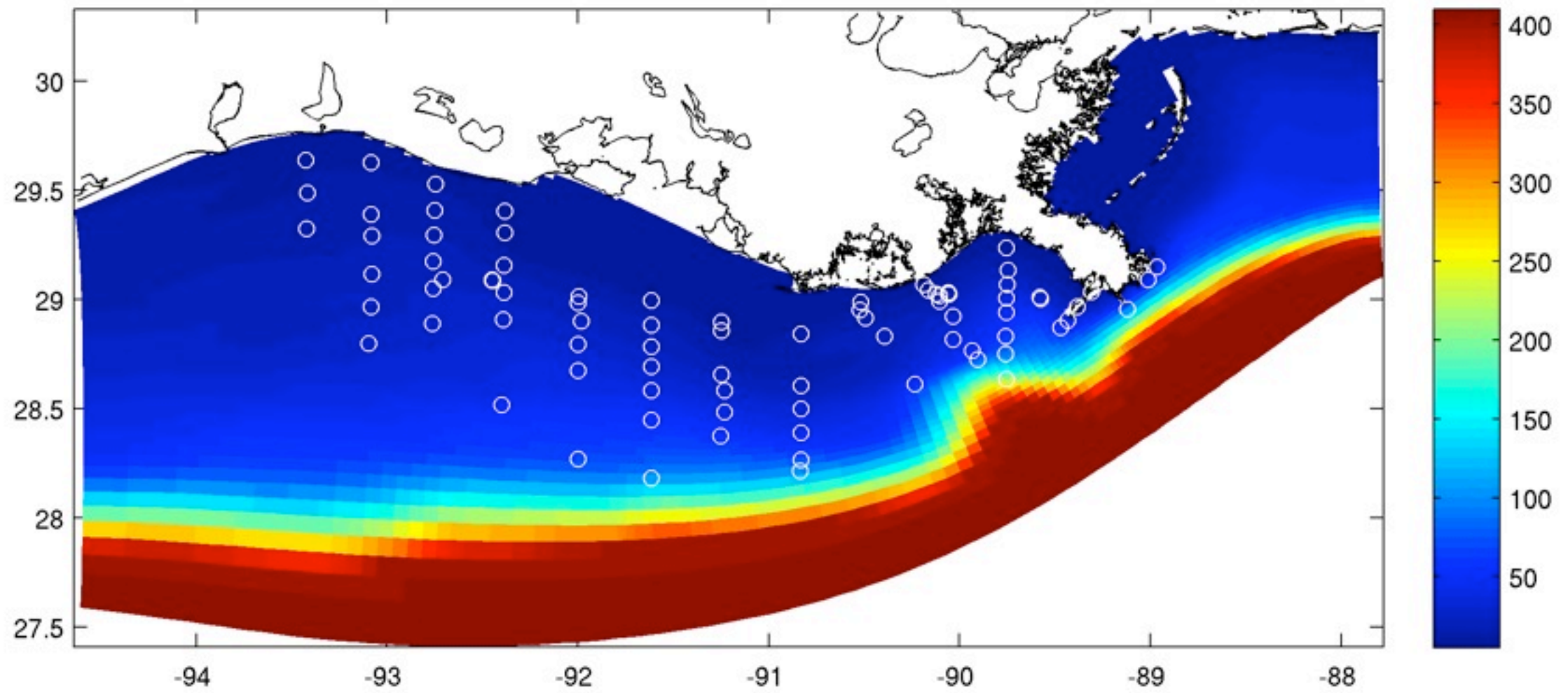


LUMCON: cruise in year 2006 summer (NH4)

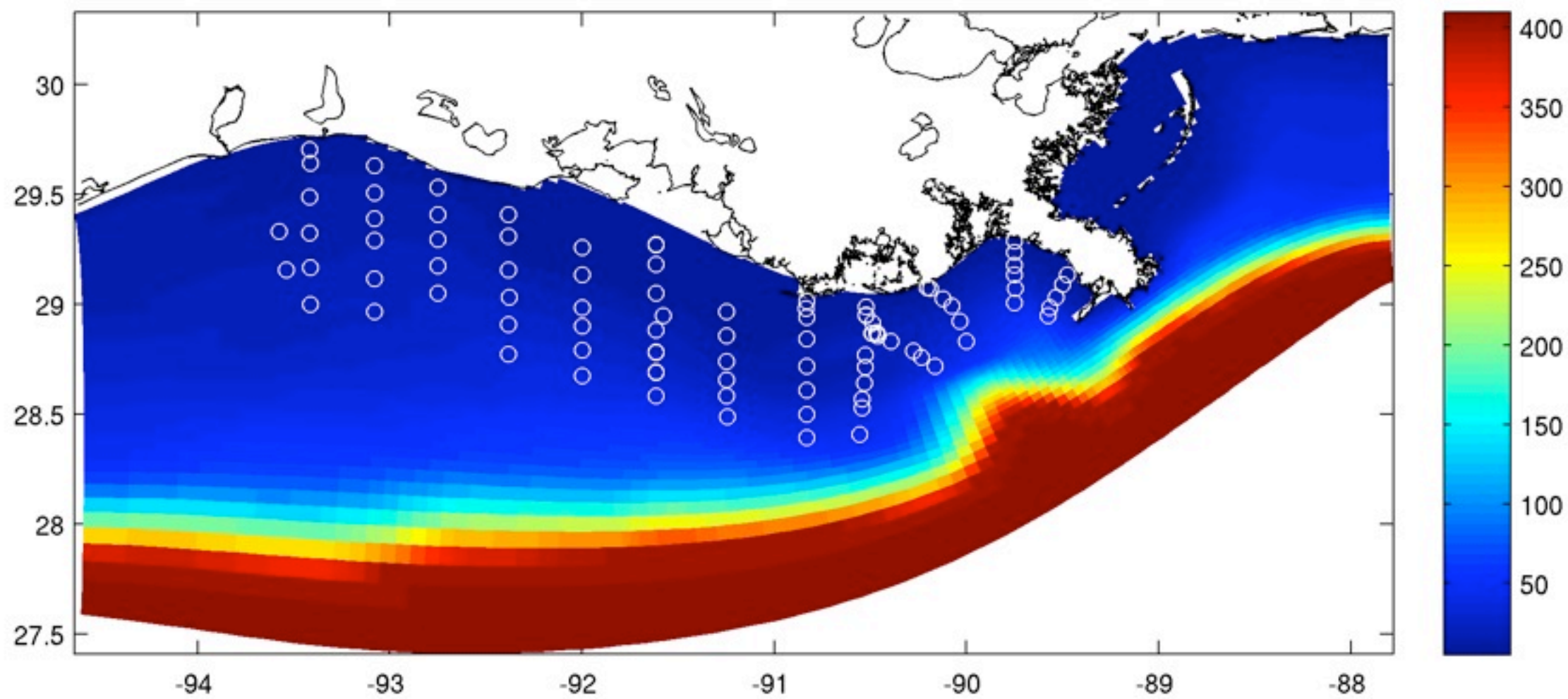




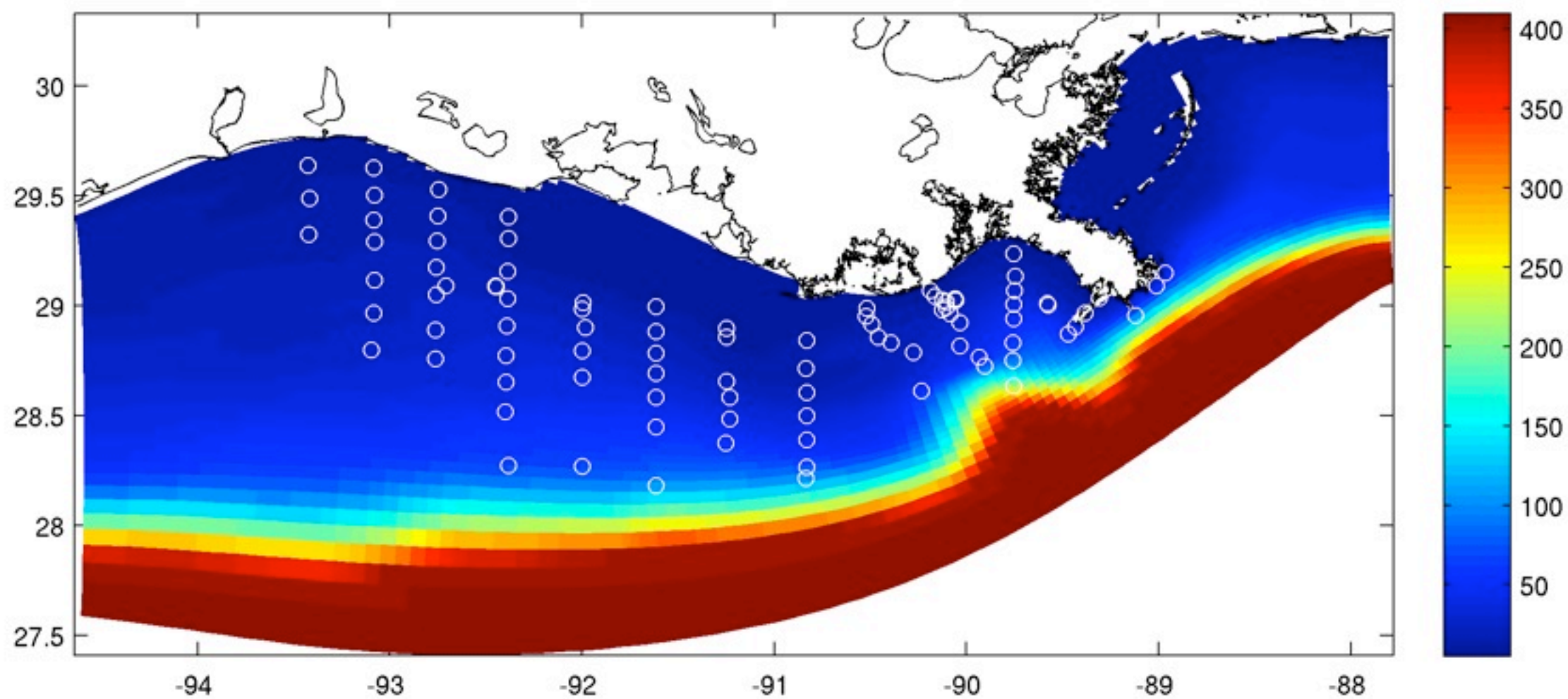
EPA: cruise in year 2006 summer (NO23)



LUMCON: cruise in year 2006 summer (NO23)

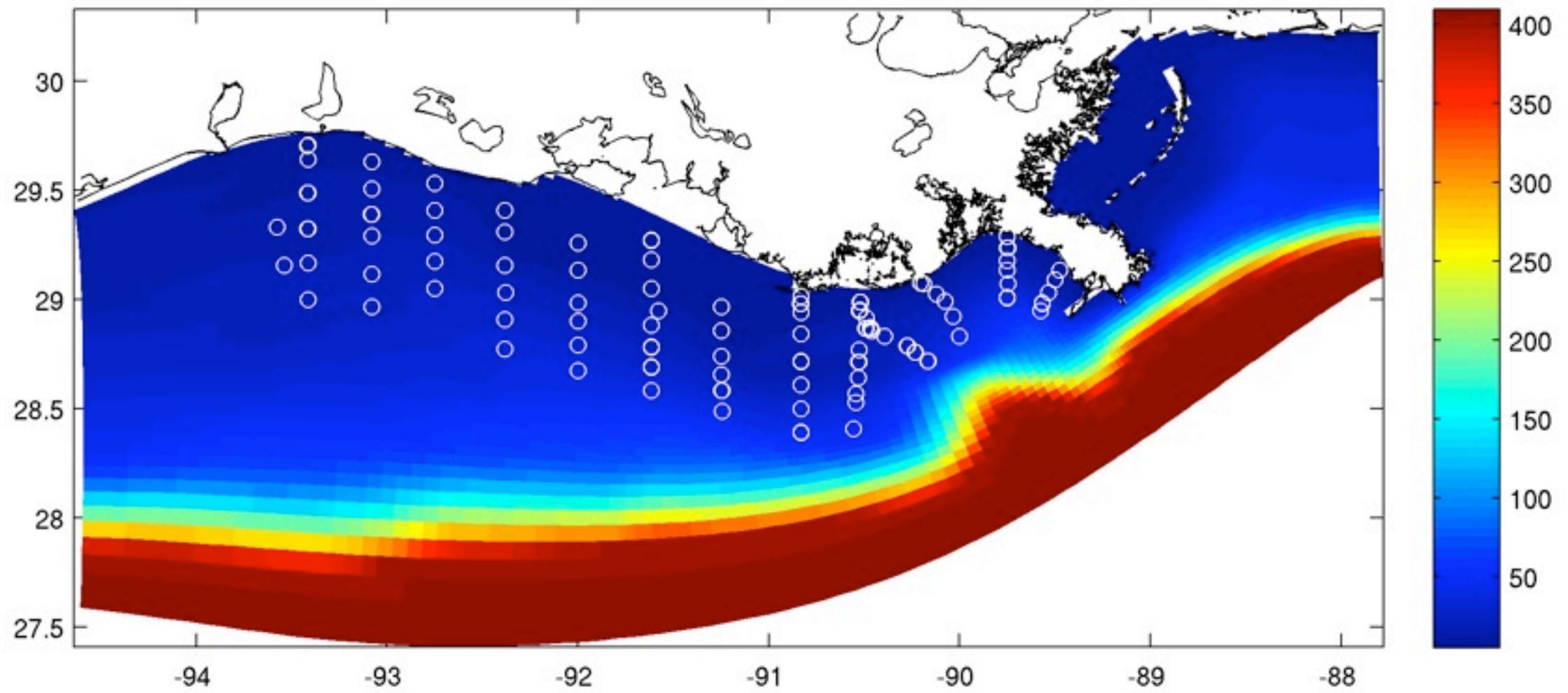


EPA: cruise in year 2006 summer (oxy)



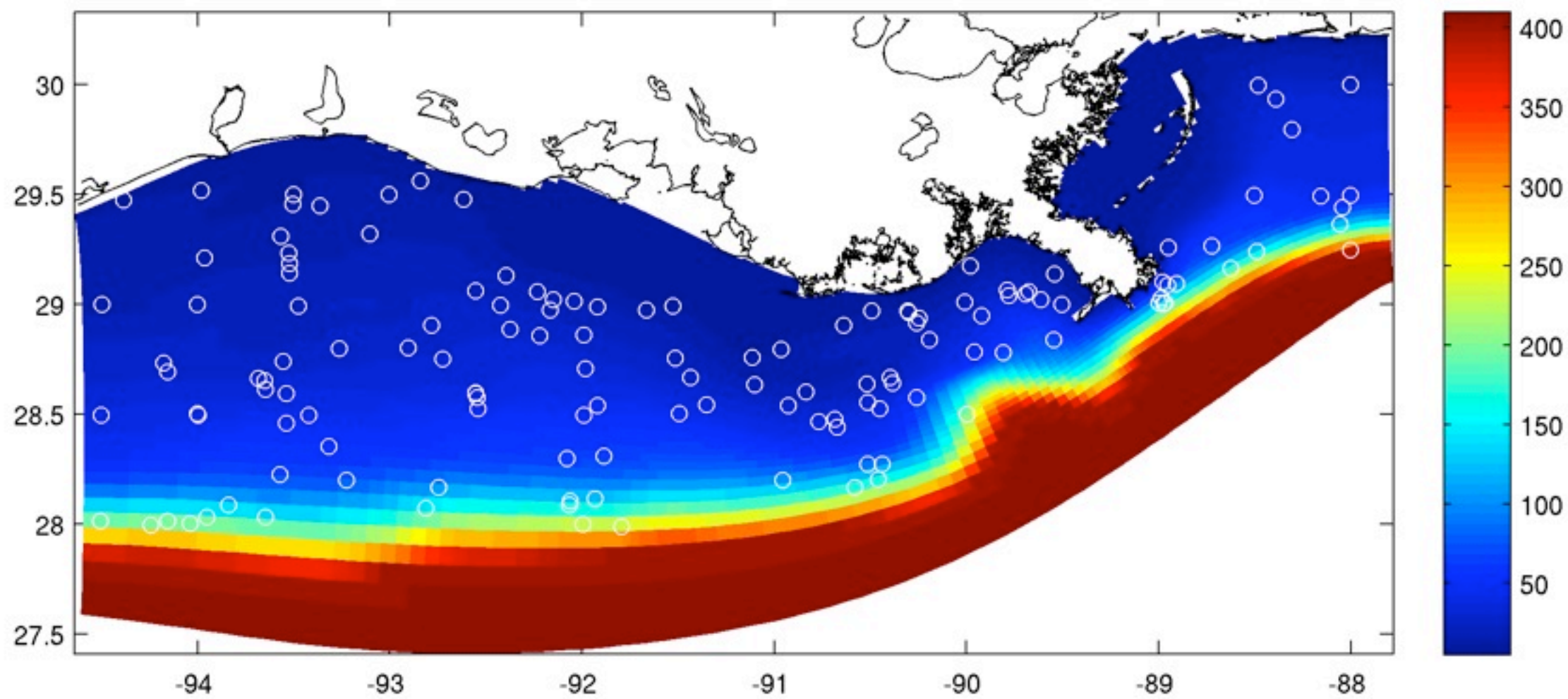


LUMCON: cruise in year 2006 summer (oxy)

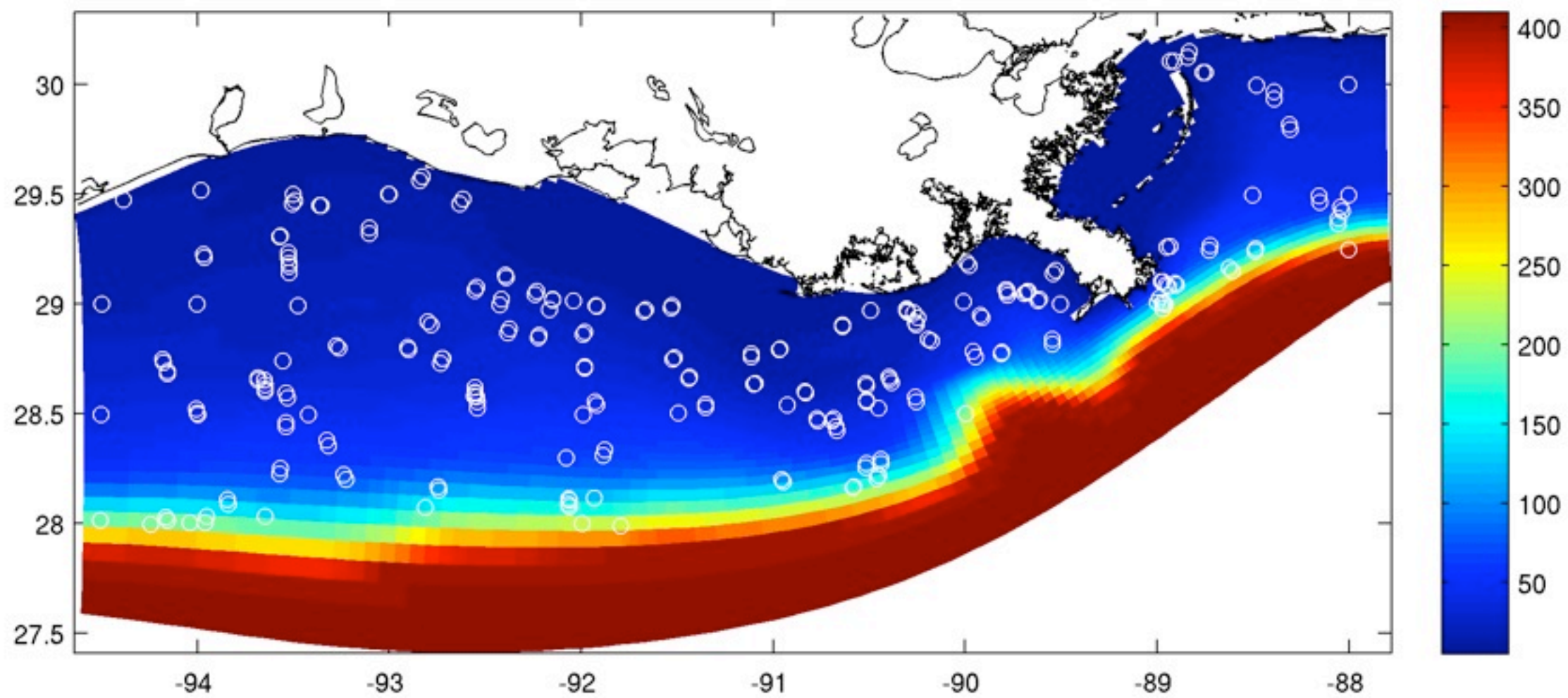




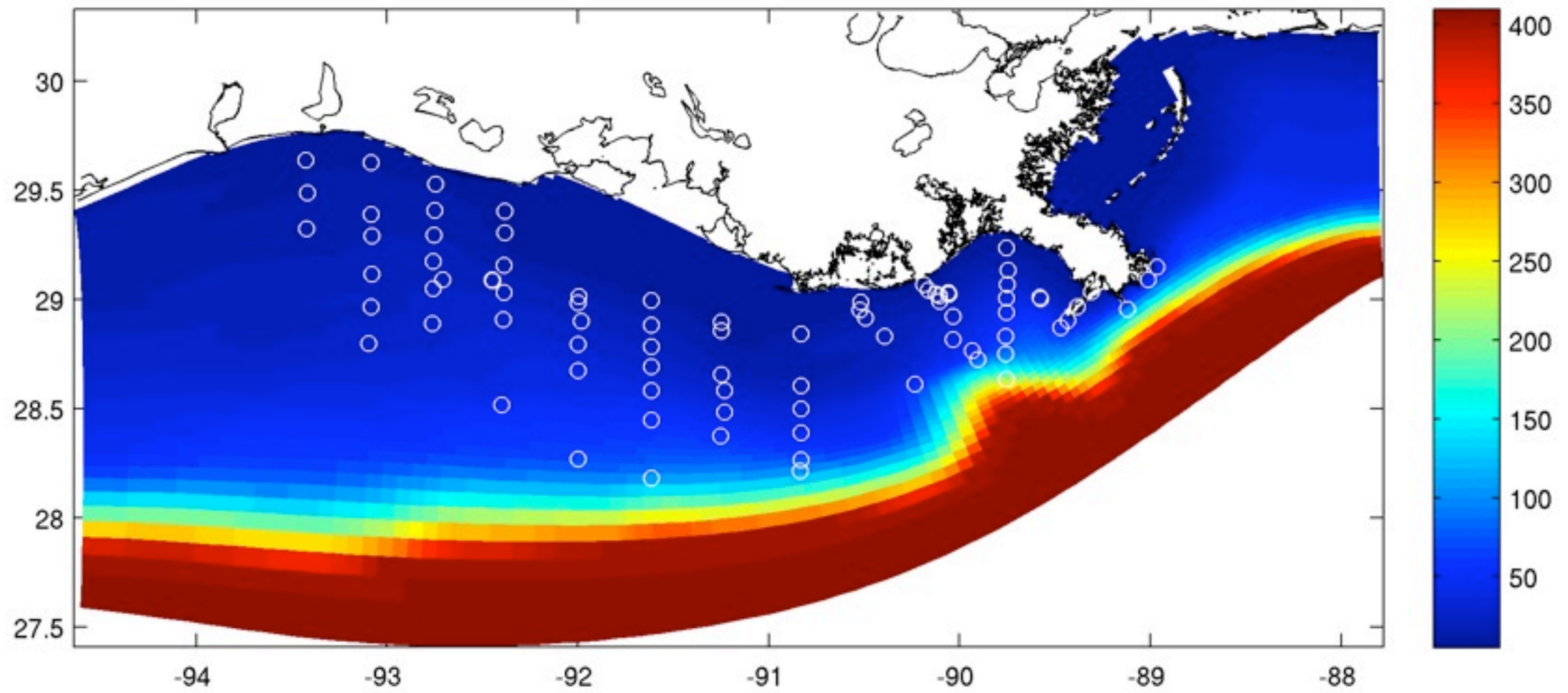
NODC: cruise in year 2006 summer (oxy)



SEAMAP: cruise in year 2006 summer (oxy)

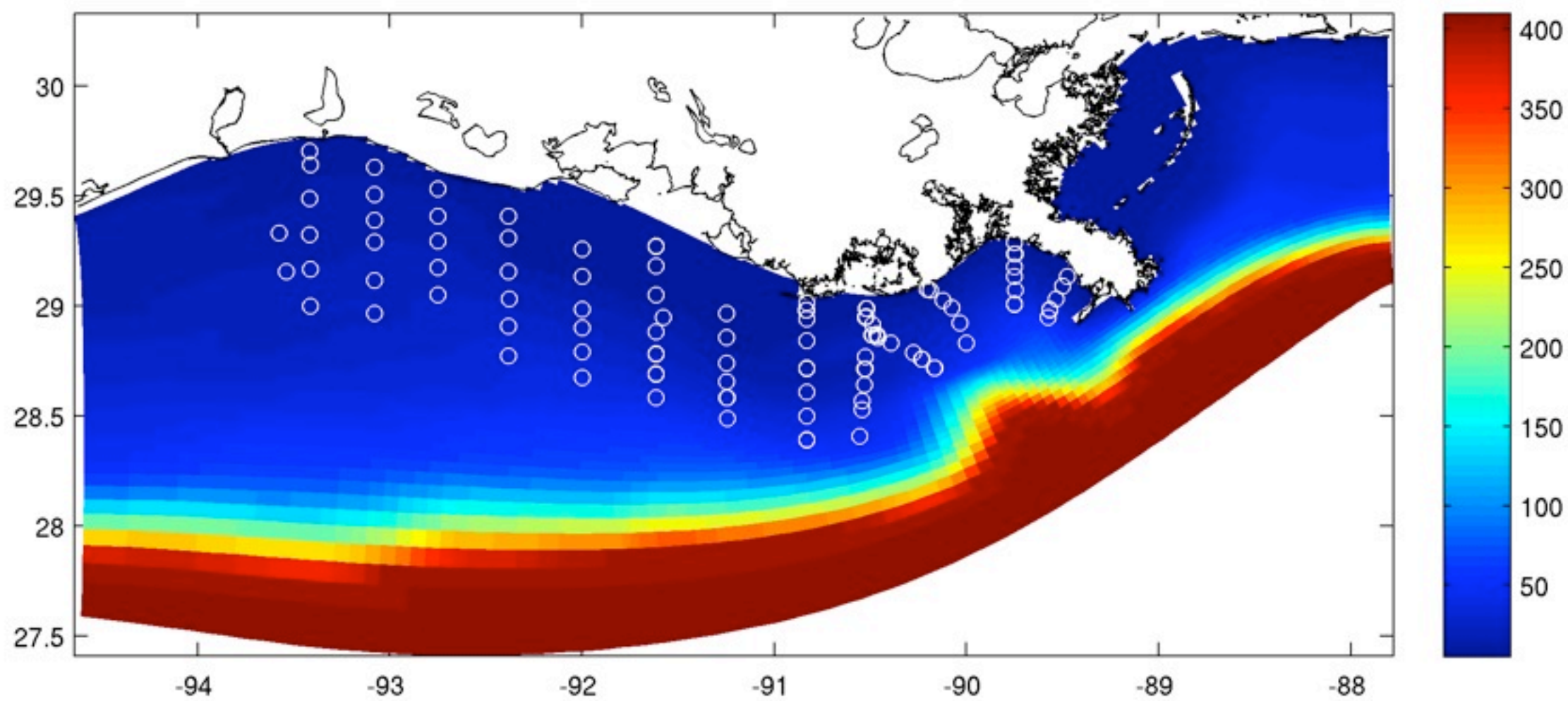


EPA: cruise in year 2006 summer (PO4)



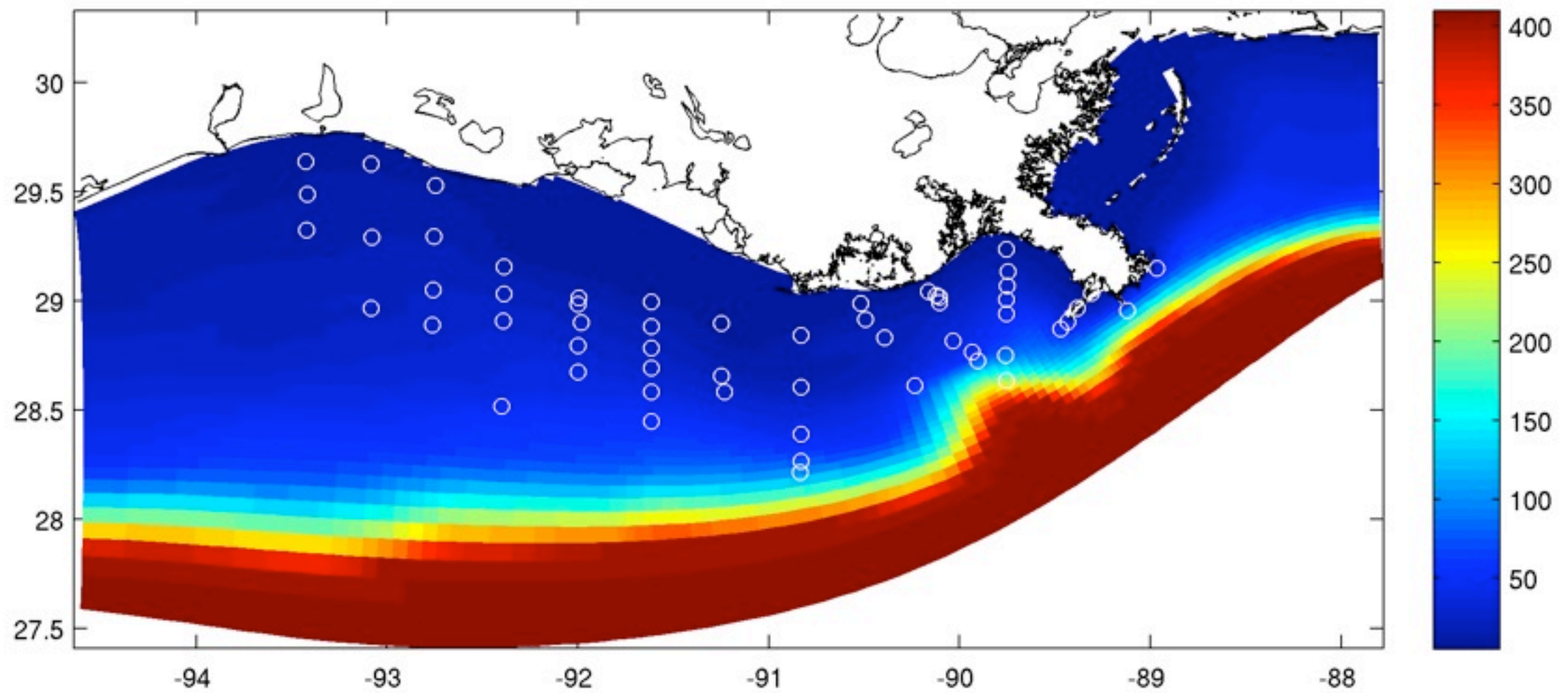


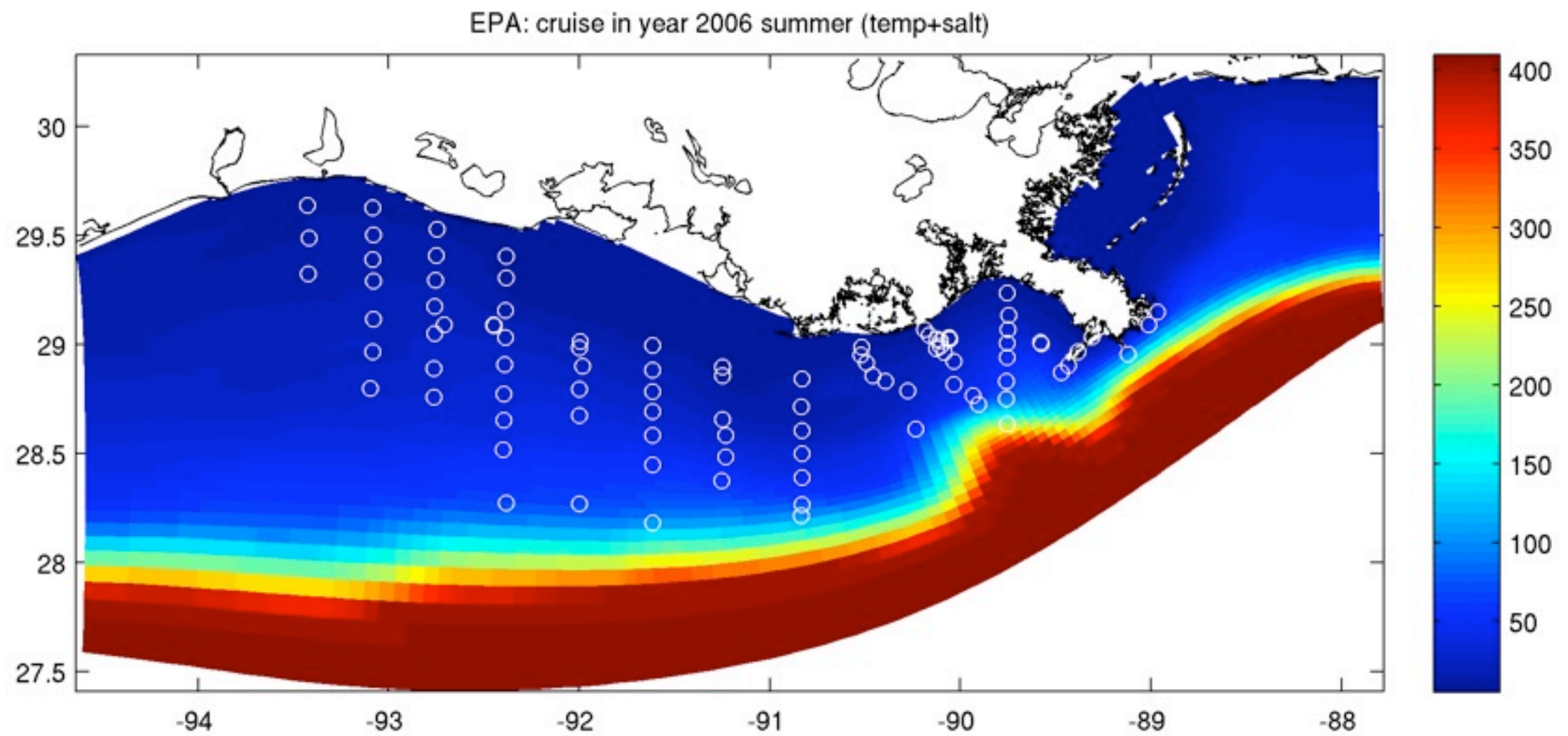
LUMCON: cruise in year 2006 summer (PO4)



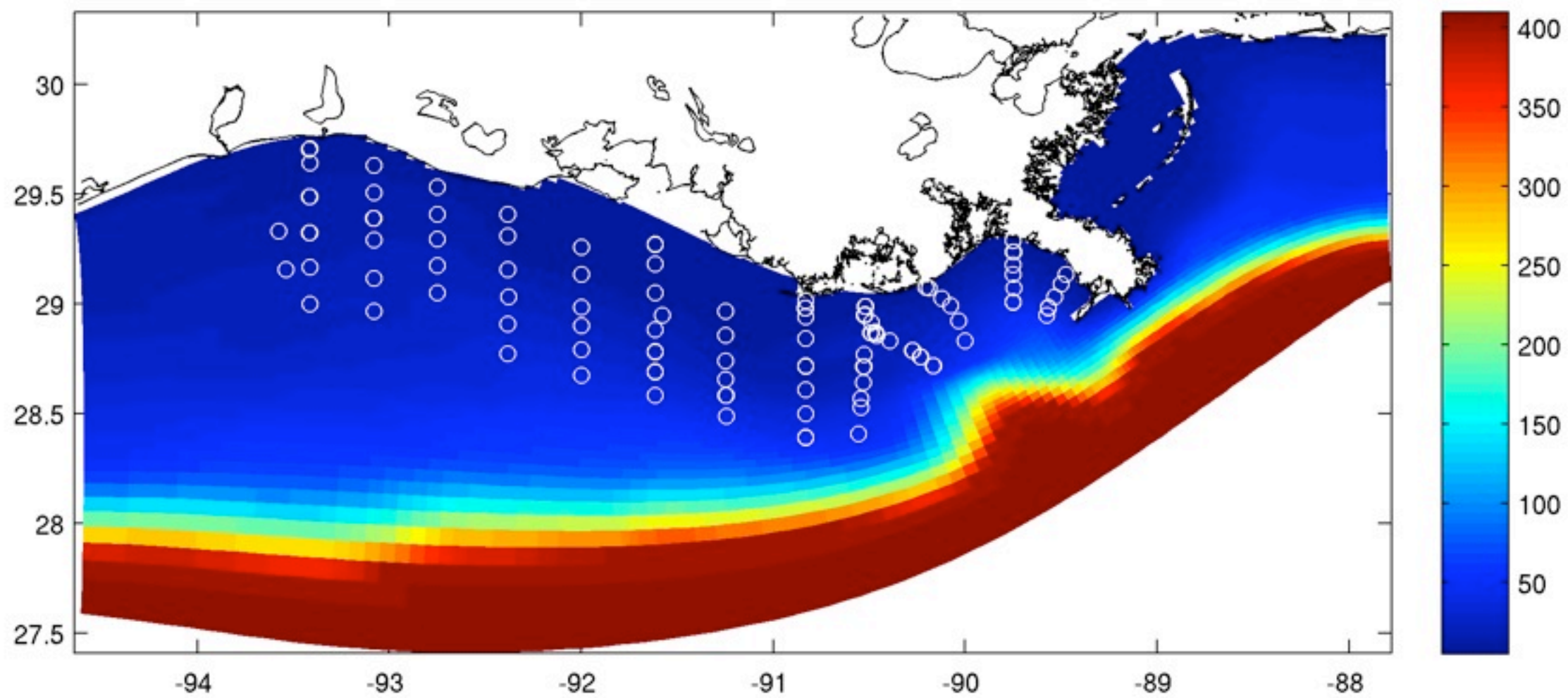


EPA: cruise in year 2006 summer (PP)



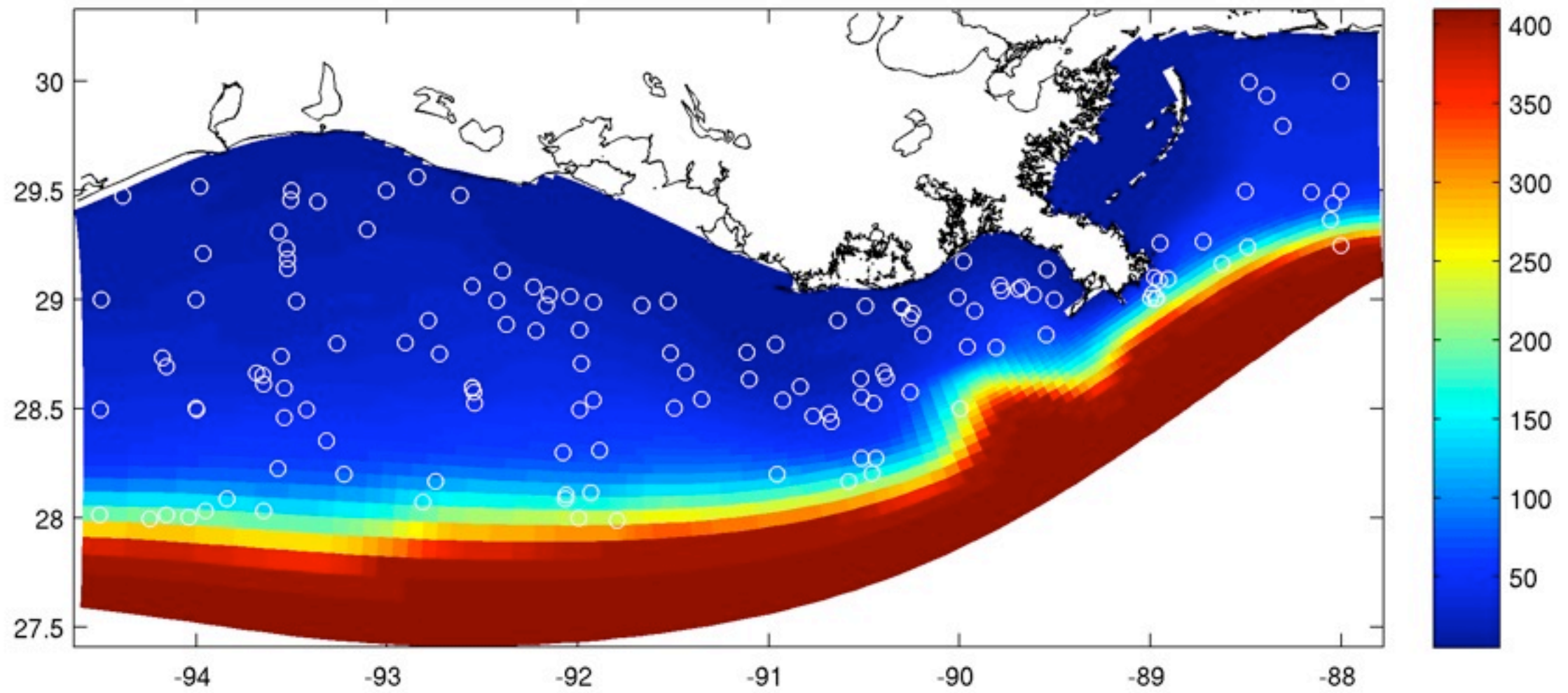


LUMCON: cruise in year 2006 summer (temp+salt)



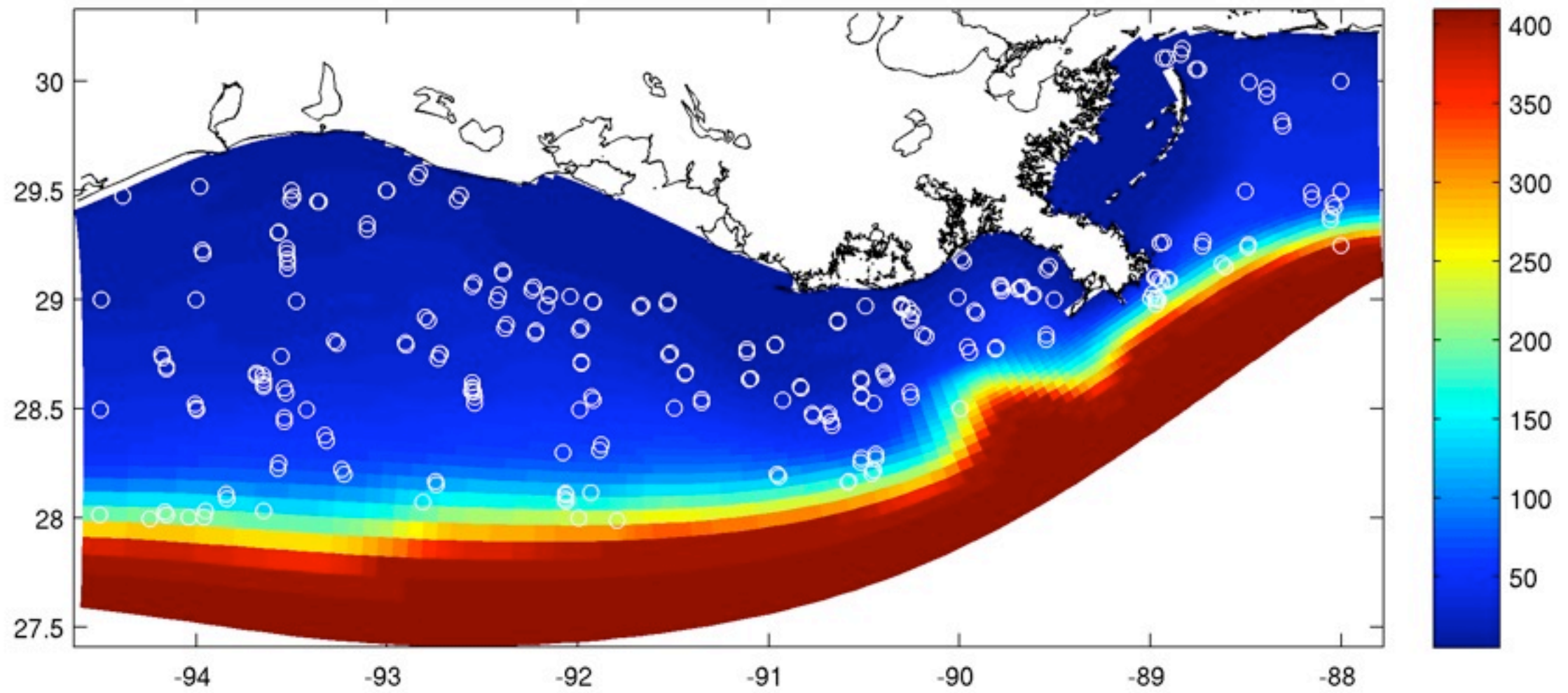


NODC: cruise in year 2006 summer (temp+salt)

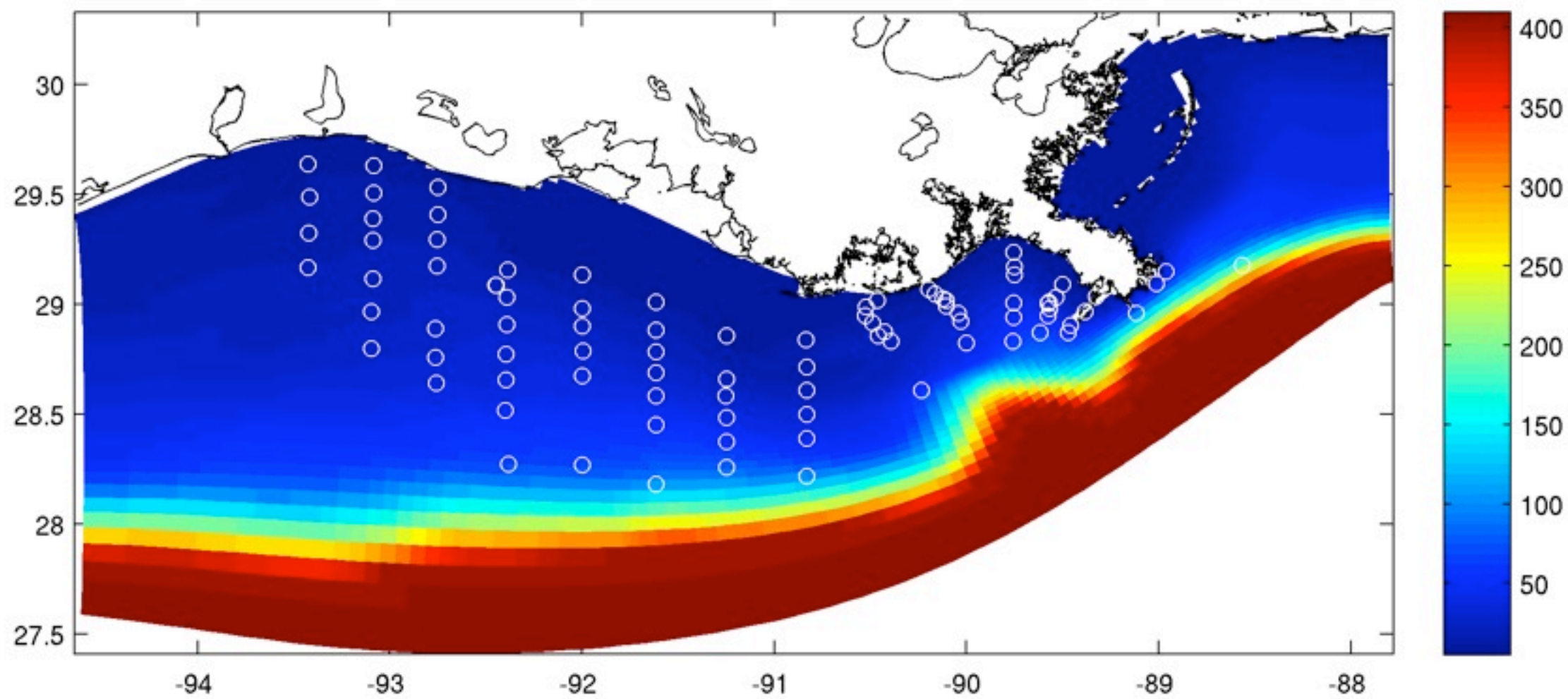




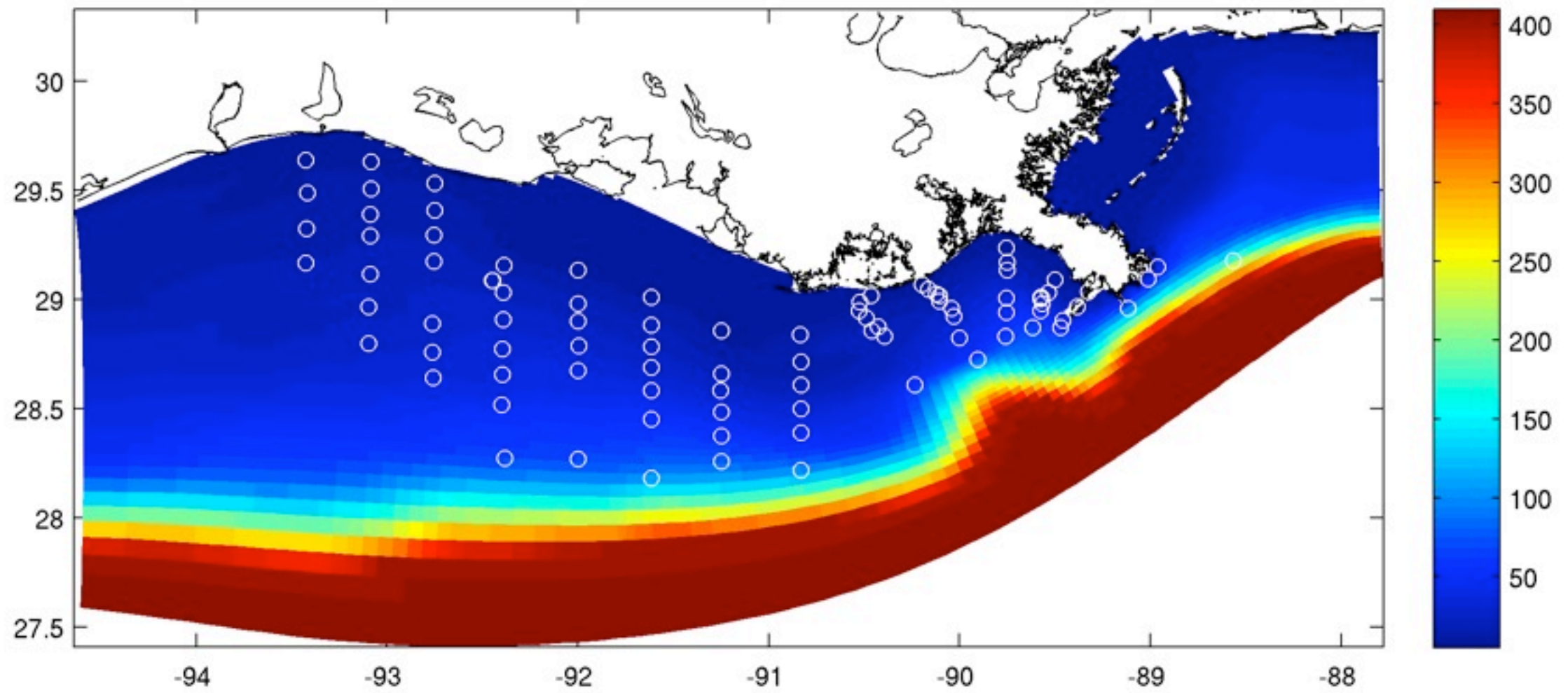
SEAMAP: cruise in year 2006 summer (temp+salt)



EPA: cruise in year 2006 autumn (chl)

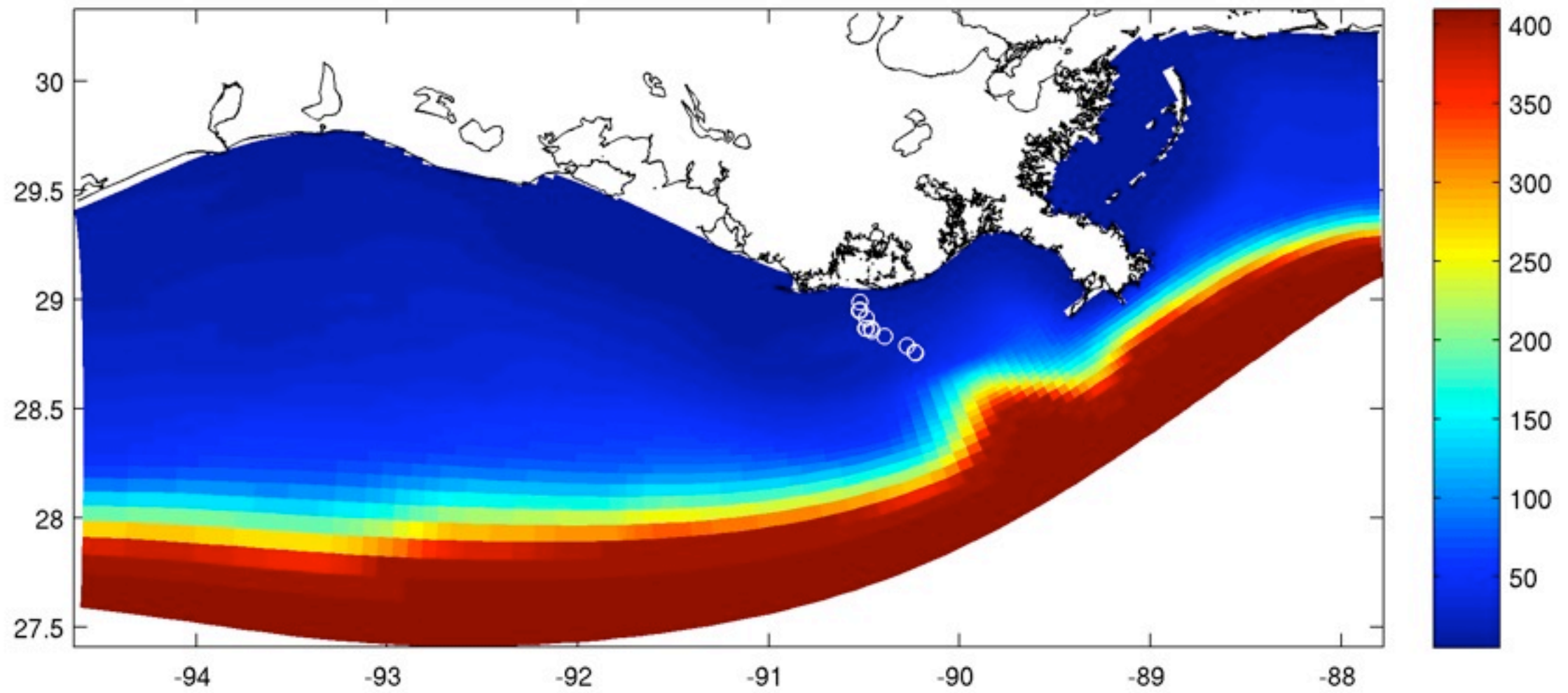


EPA: cruise in year 2006 autumn (NH4)



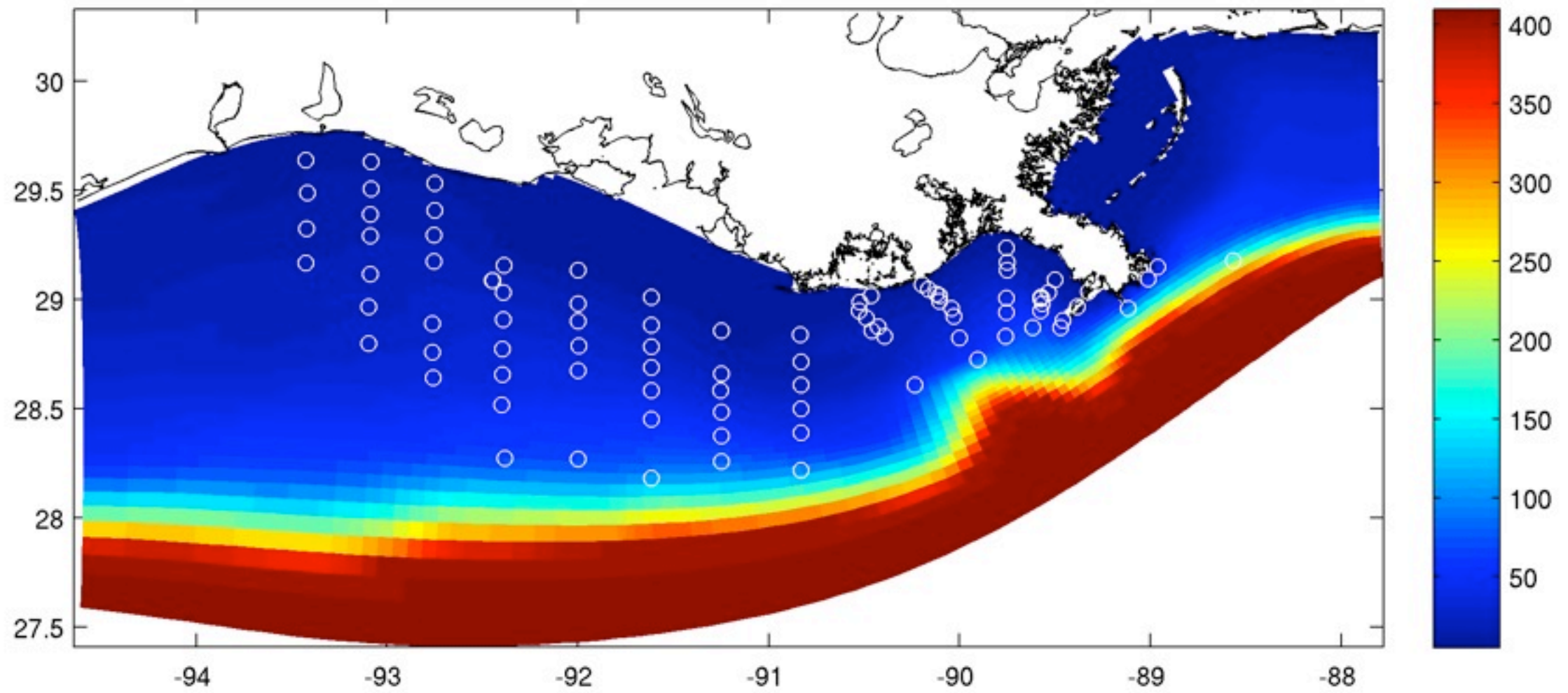


LUMCON: cruise in year 2006 autumn (NH4)

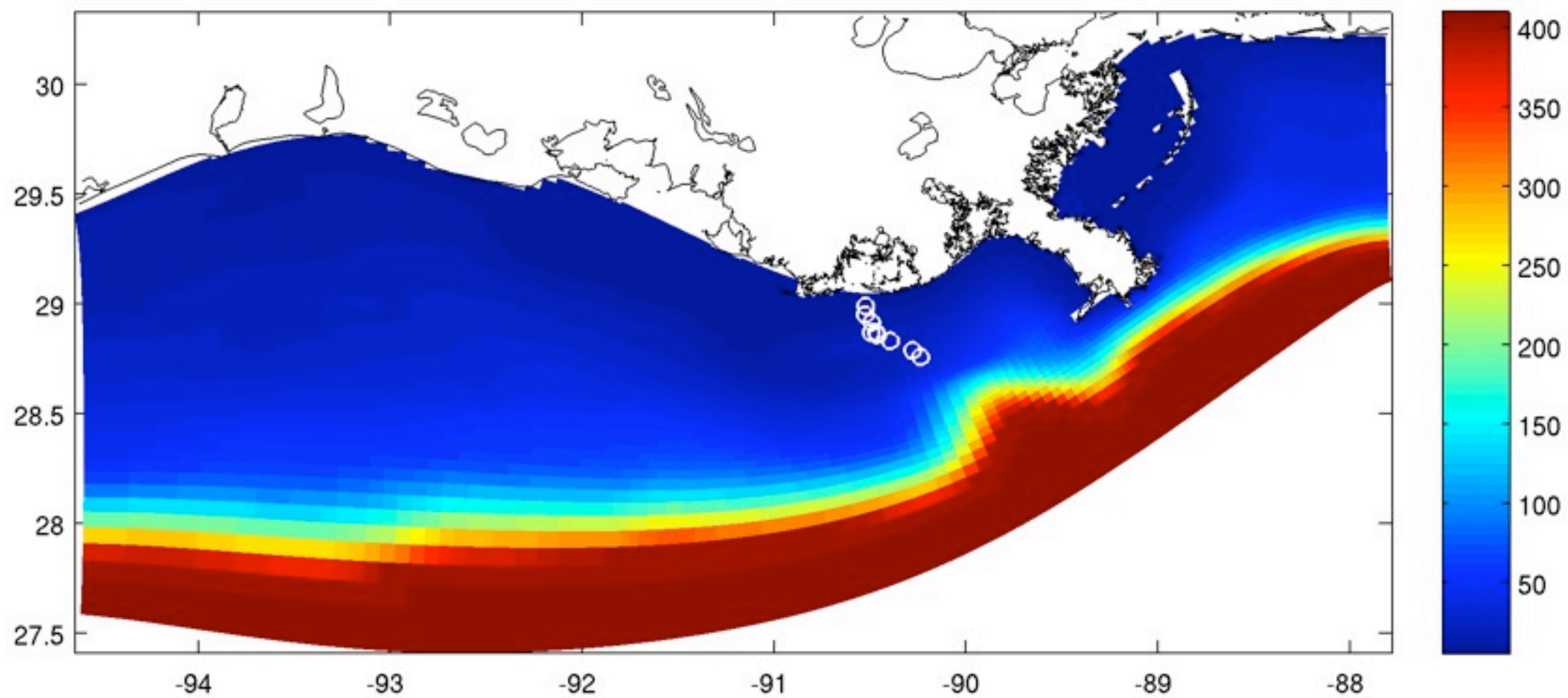




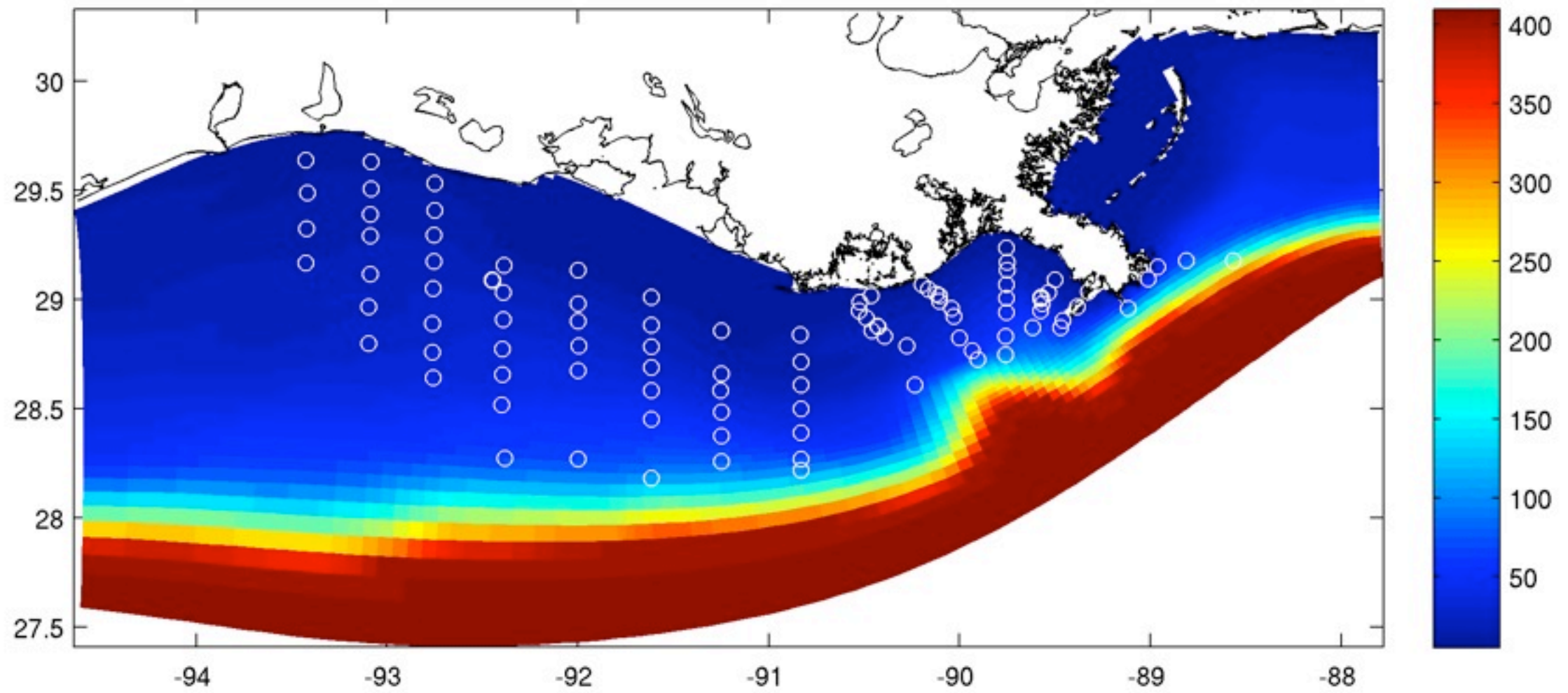
EPA: cruise in year 2006 autumn (NO23)



LUMCON: cruise in year 2006 autumn (NO23)

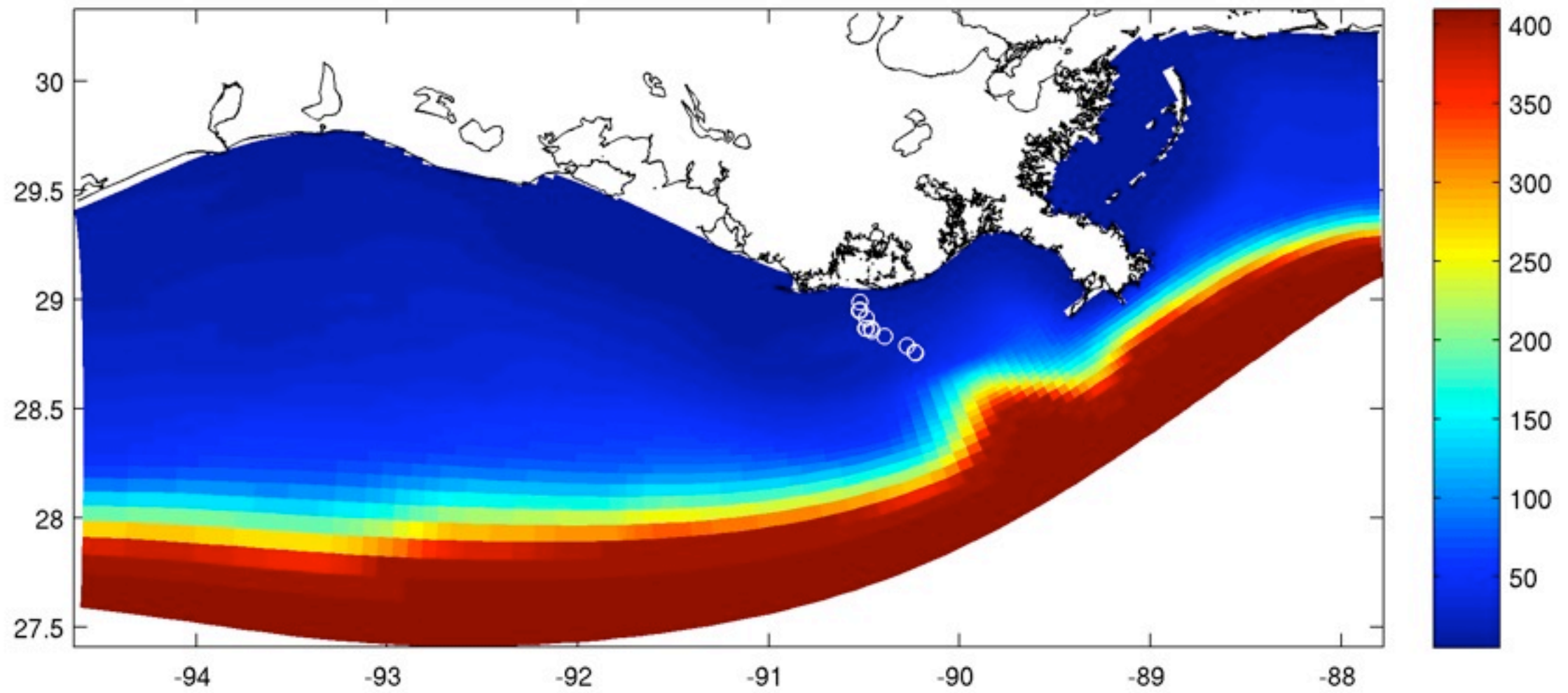


EPA: cruise in year 2006 autumn (oxy)



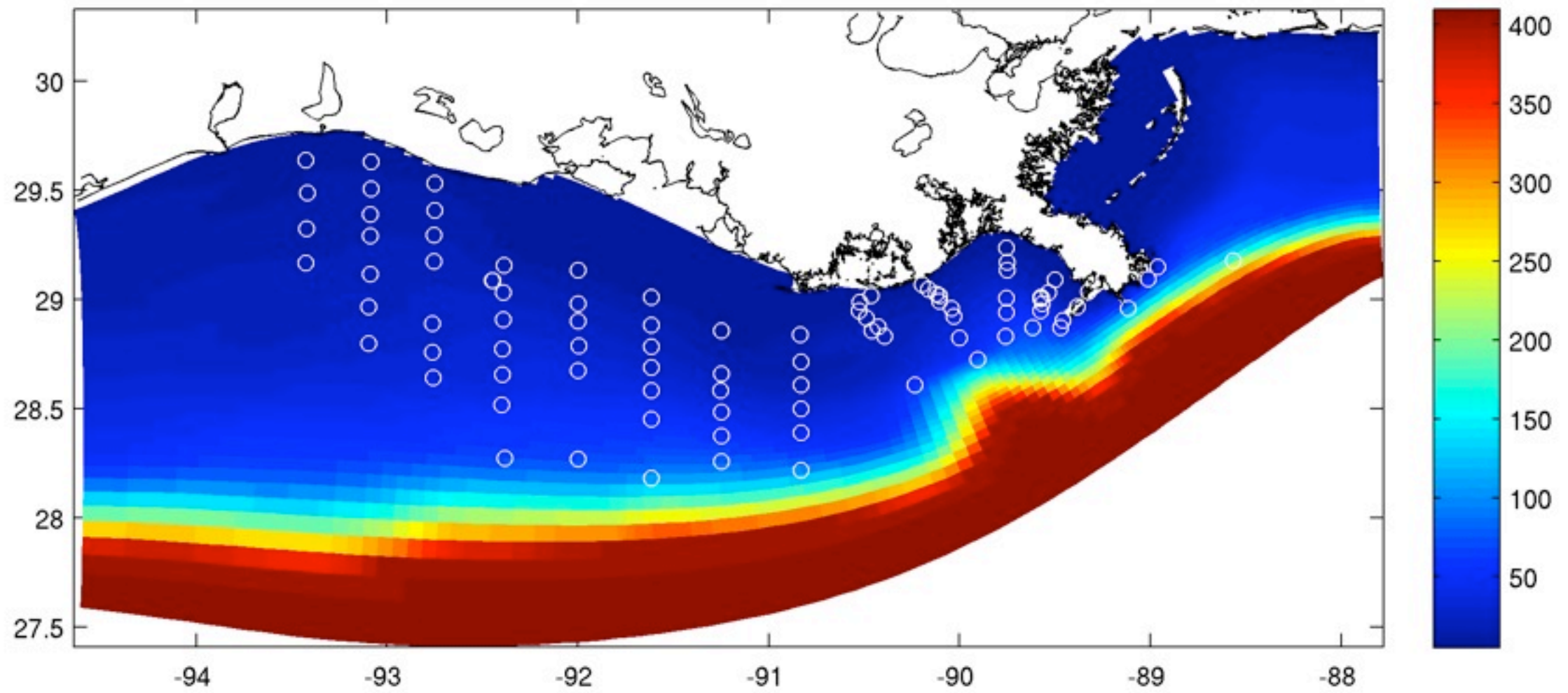


LUMCON: cruise in year 2006 autumn (oxy)

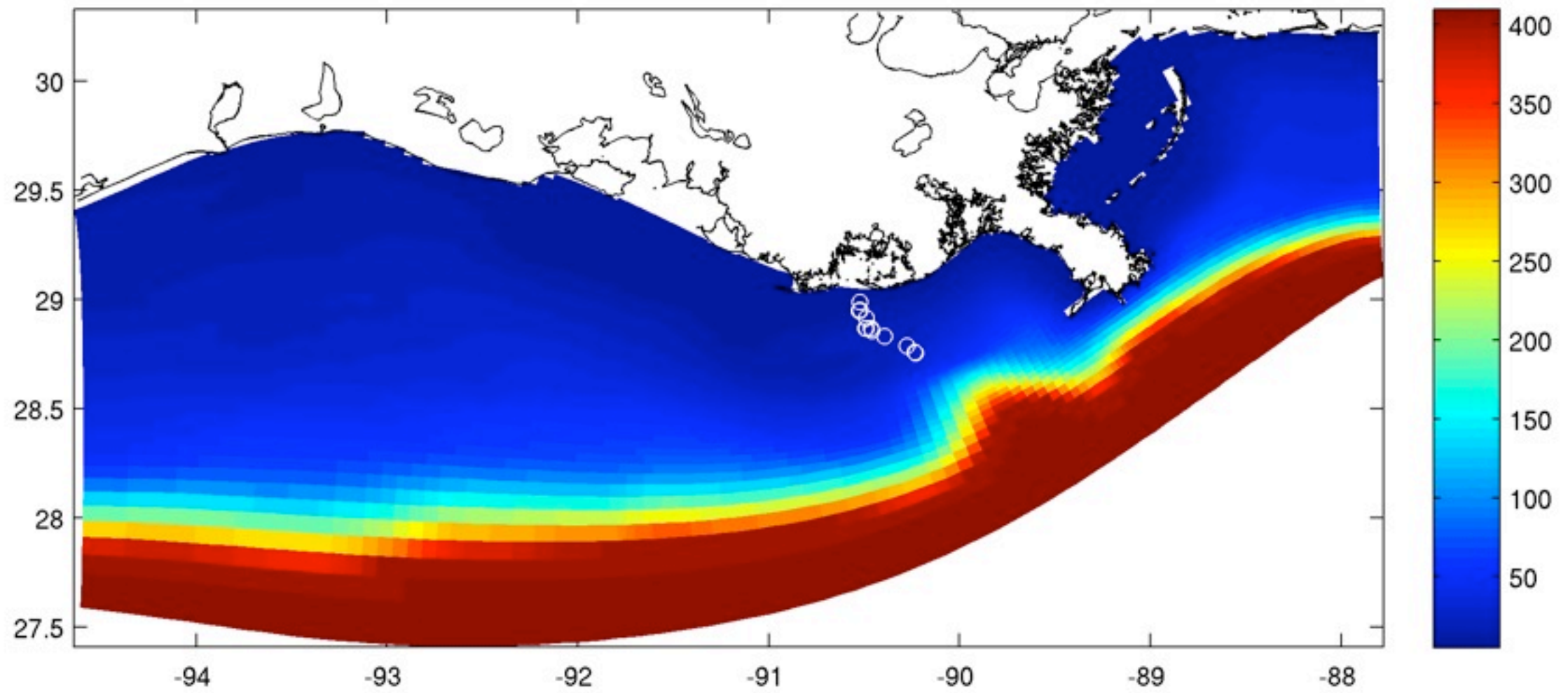




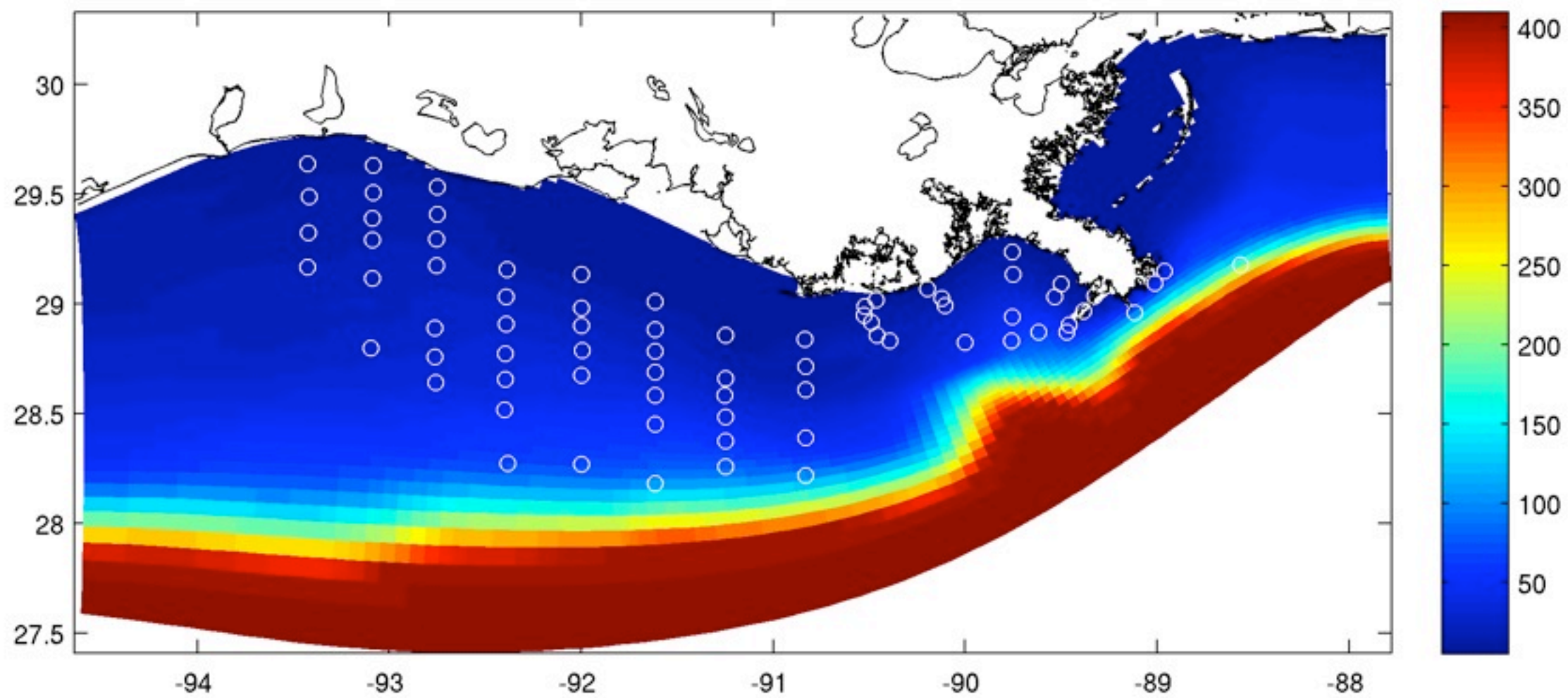
EPA: cruise in year 2006 autumn (PO4)



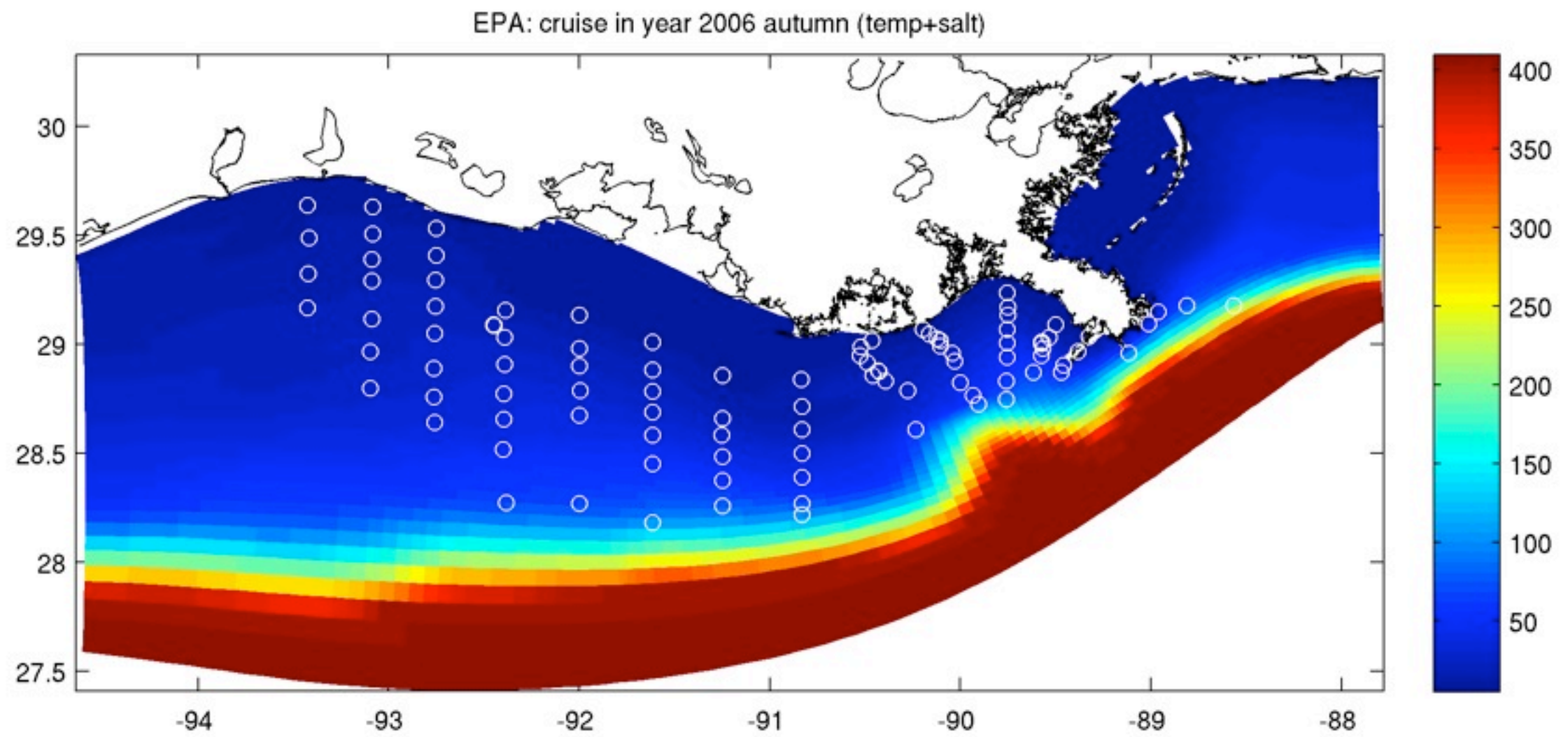
LUMCON: cruise in year 2006 autumn (PO4)



EPA: cruise in year 2006 autumn (PP)

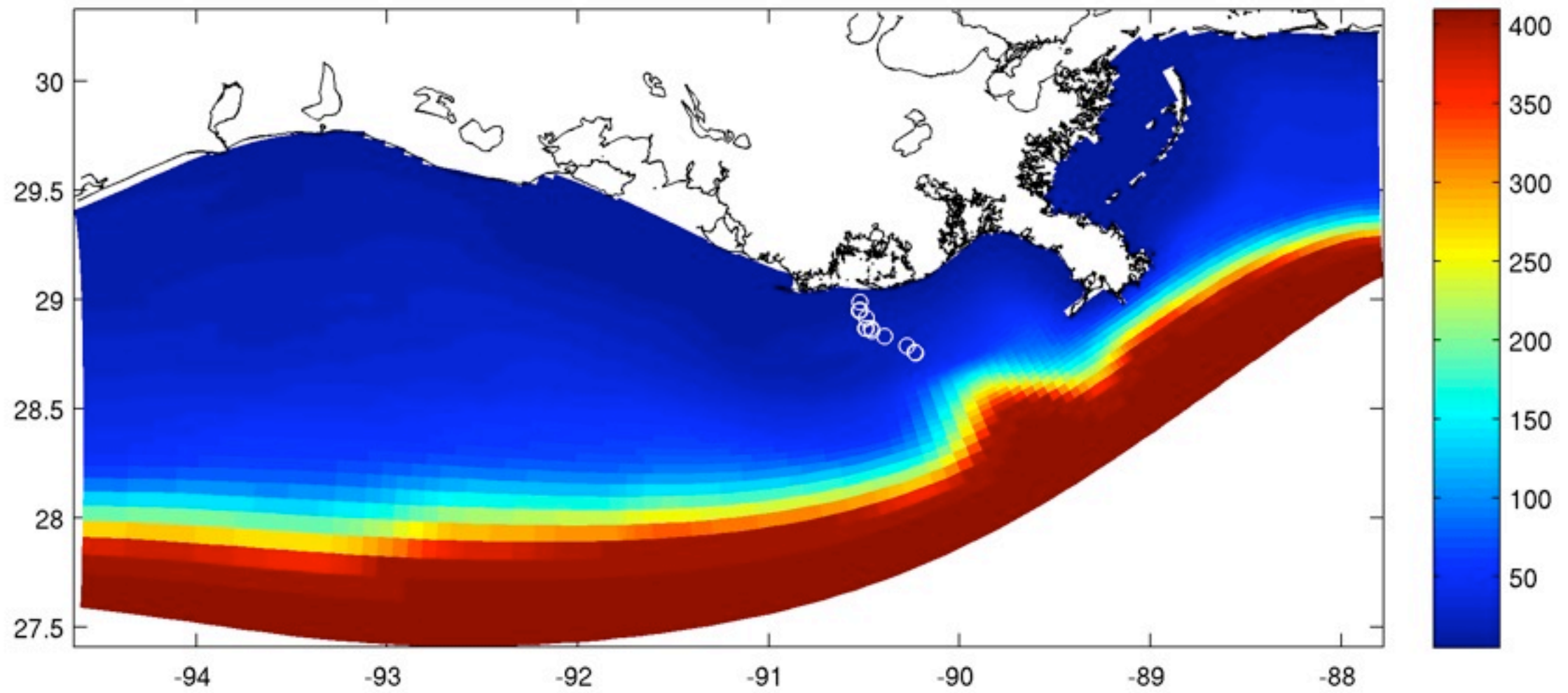




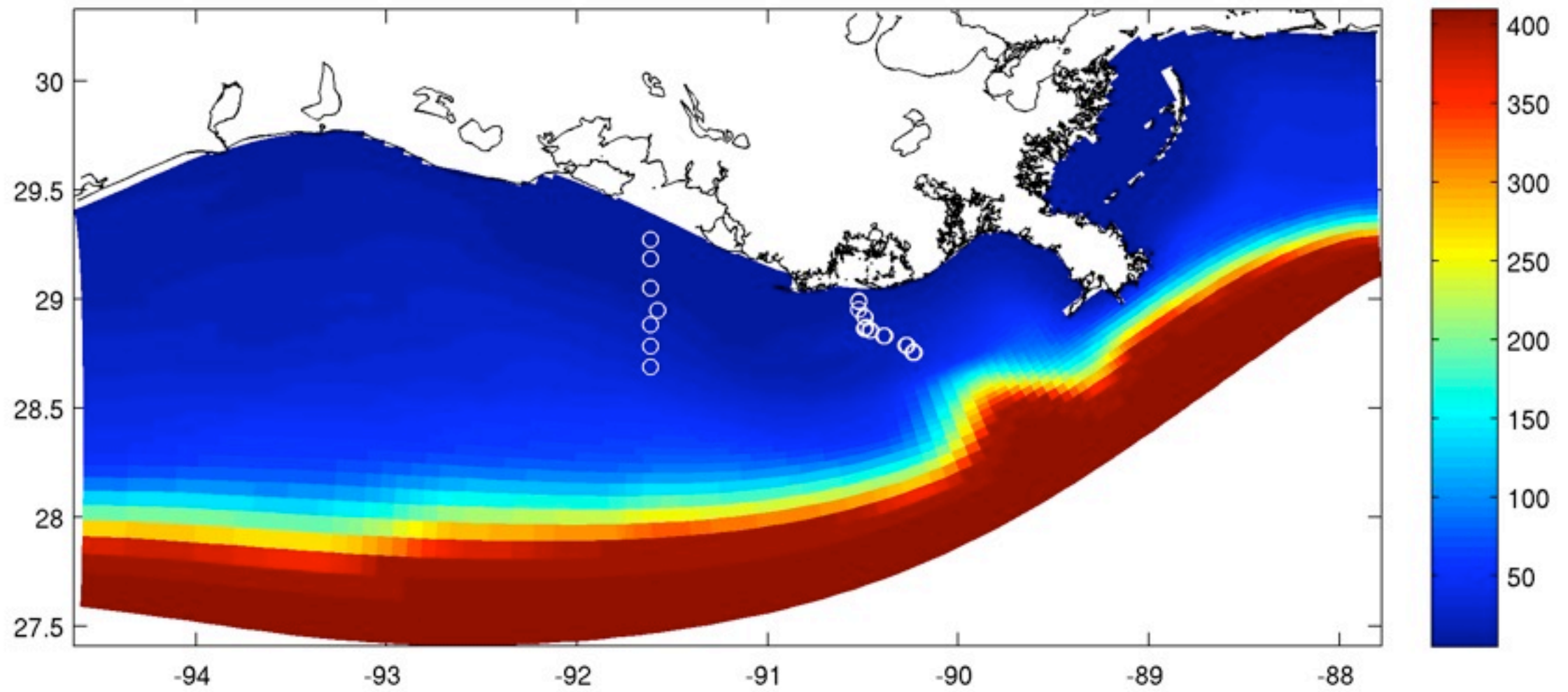




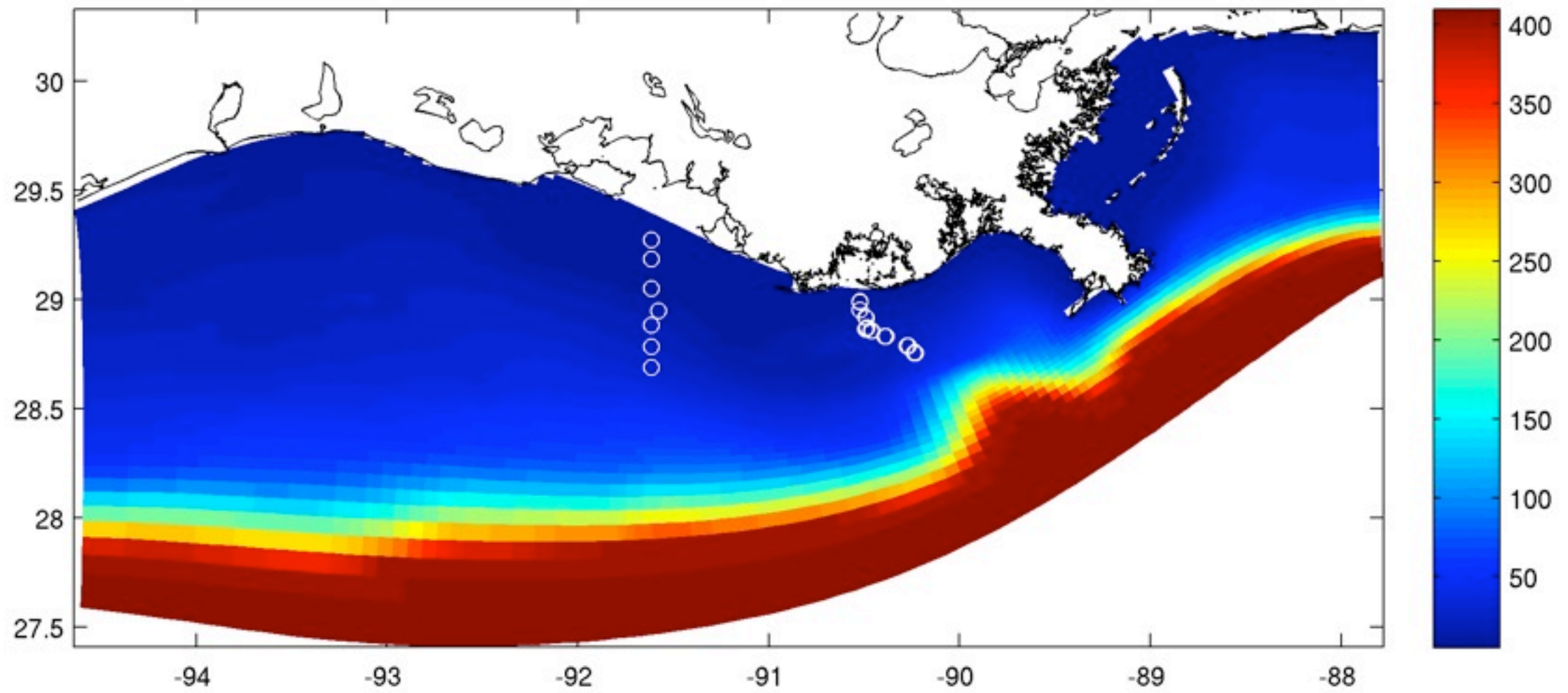
LUMCON: cruise in year 2006 autumn (temp+salt)



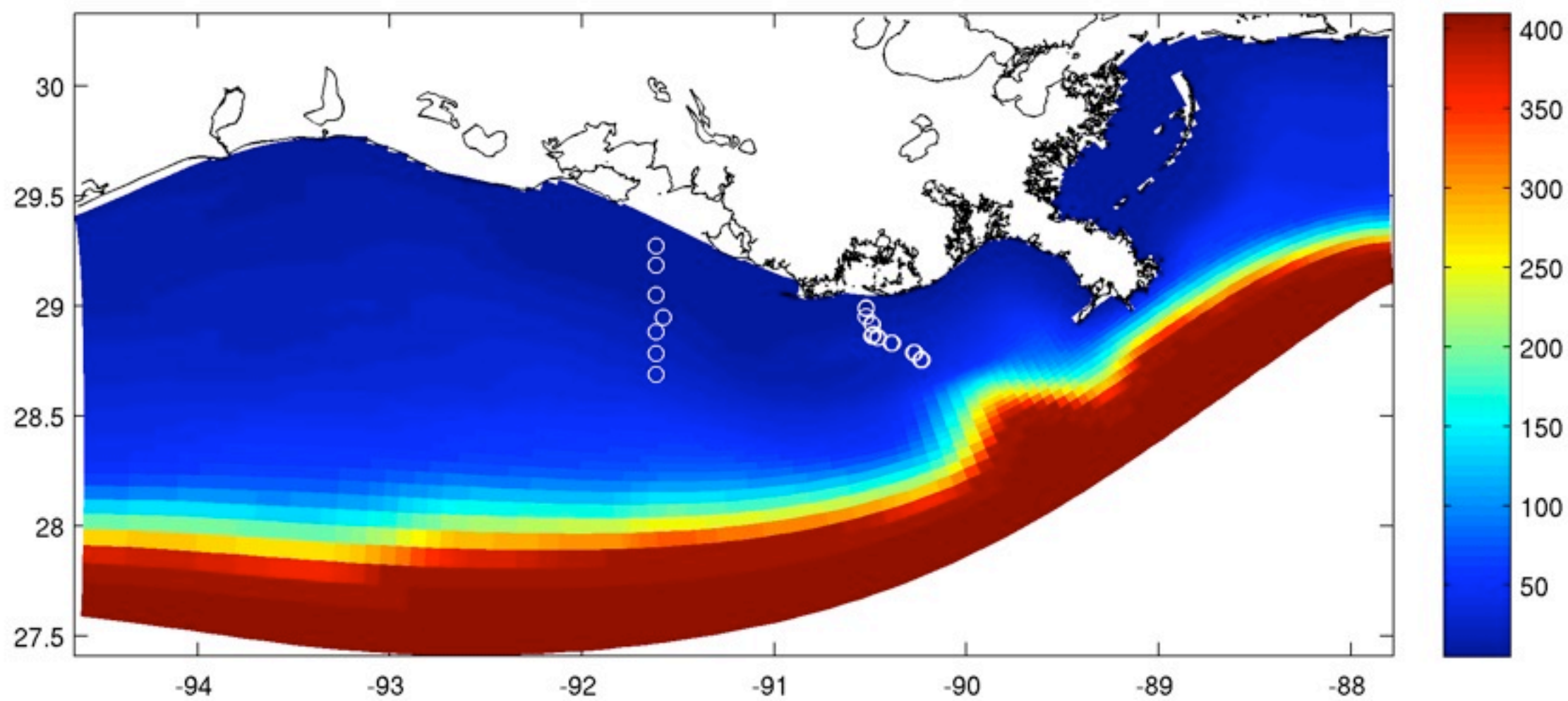
LUMCON: cruise in year 2007 winter (NH4)



LUMCON: cruise in year 2007 winter (NO23)

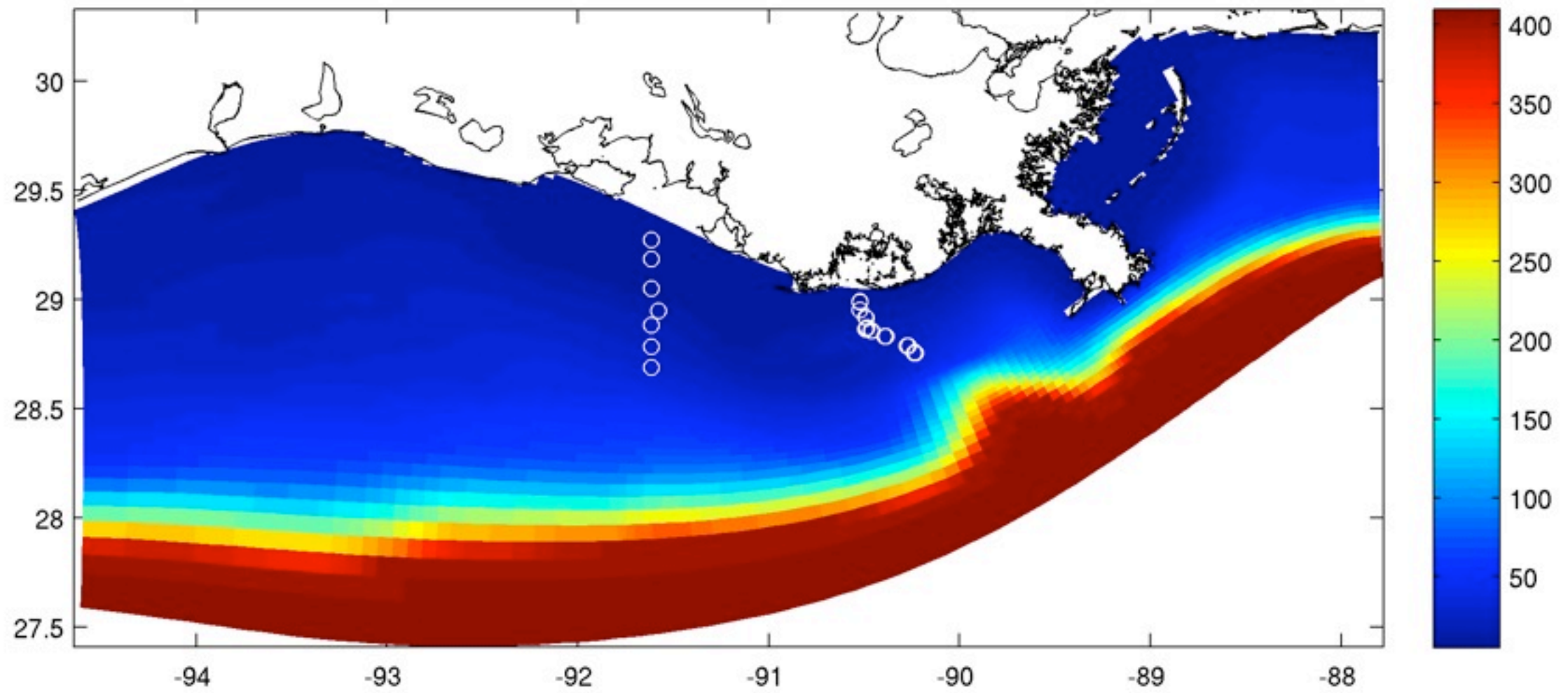


LUMCON: cruise in year 2007 winter (oxy)

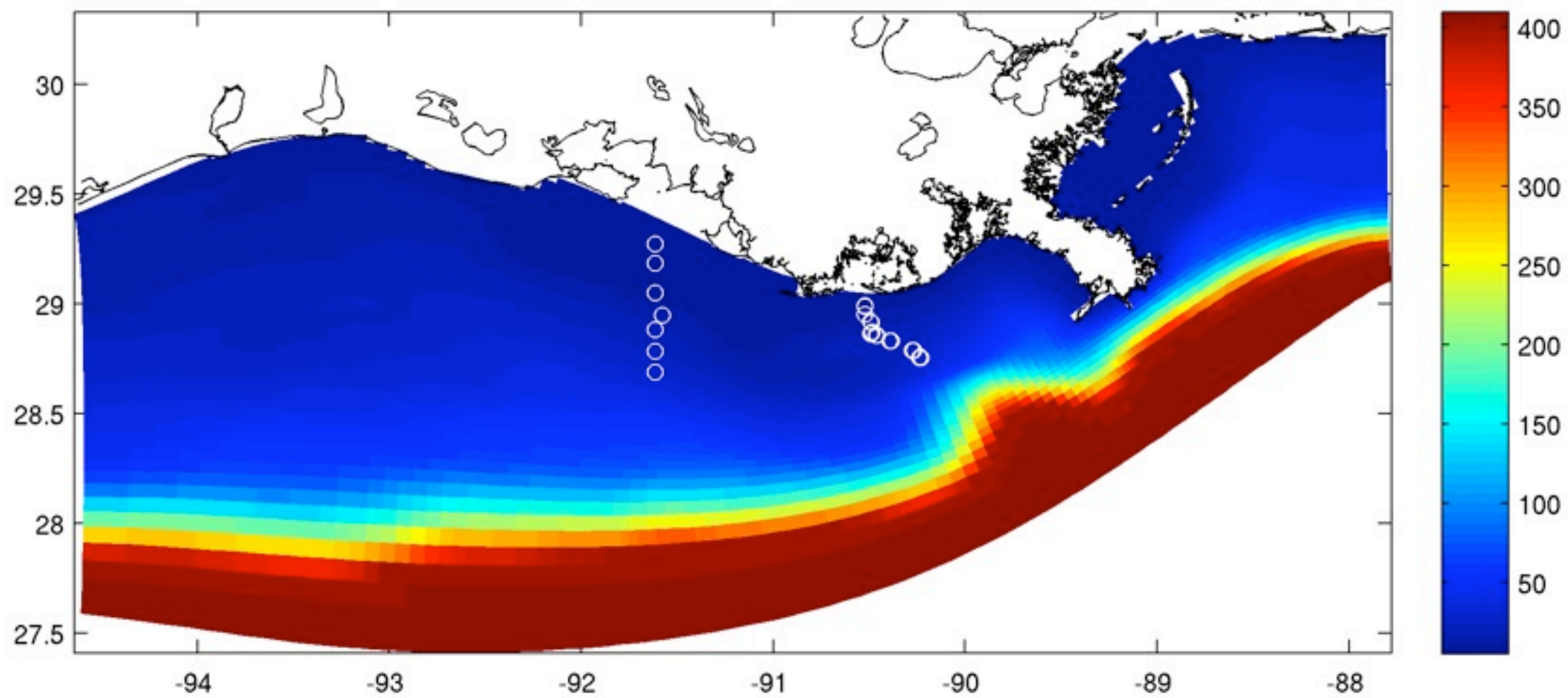


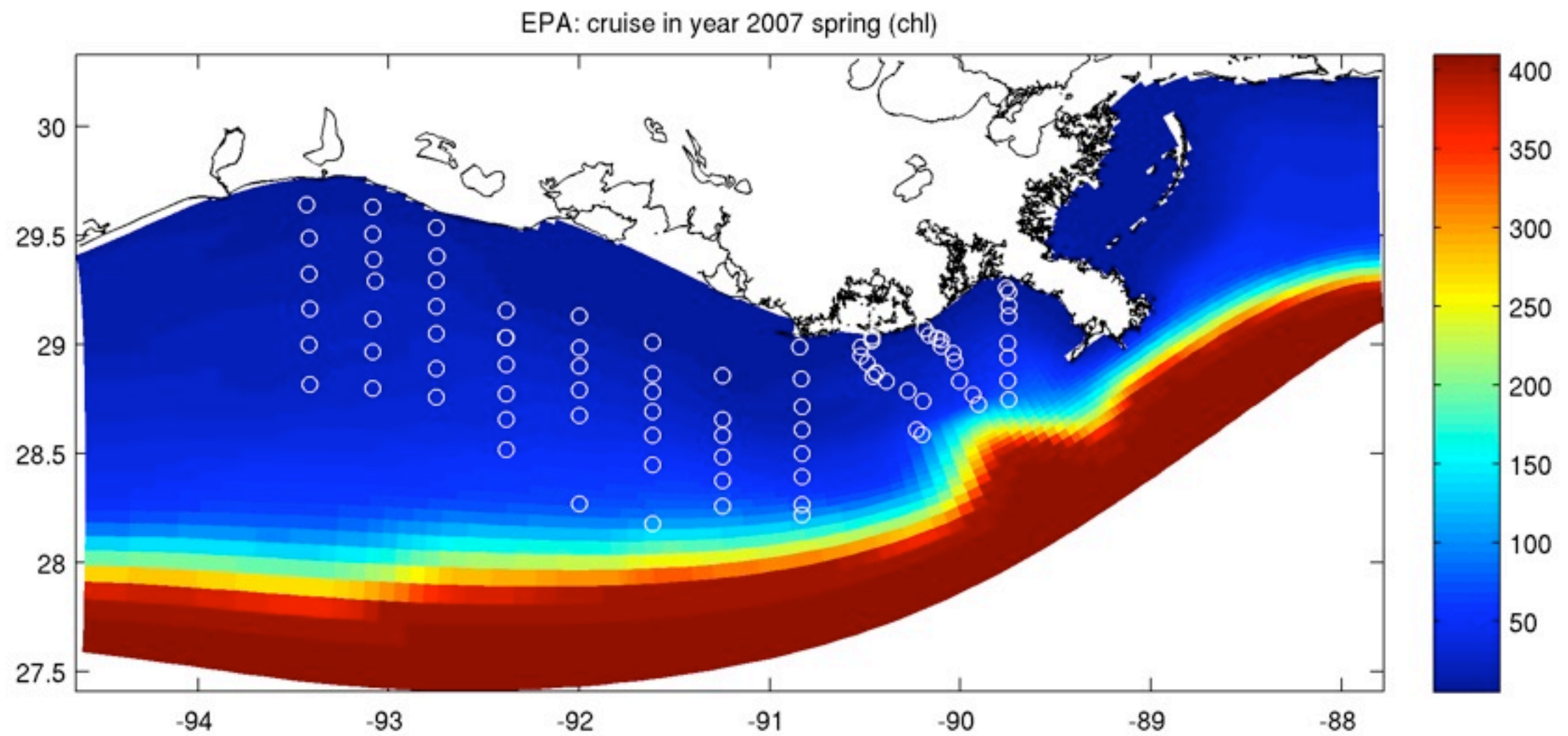


LUMCON: cruise in year 2007 winter (PO4)

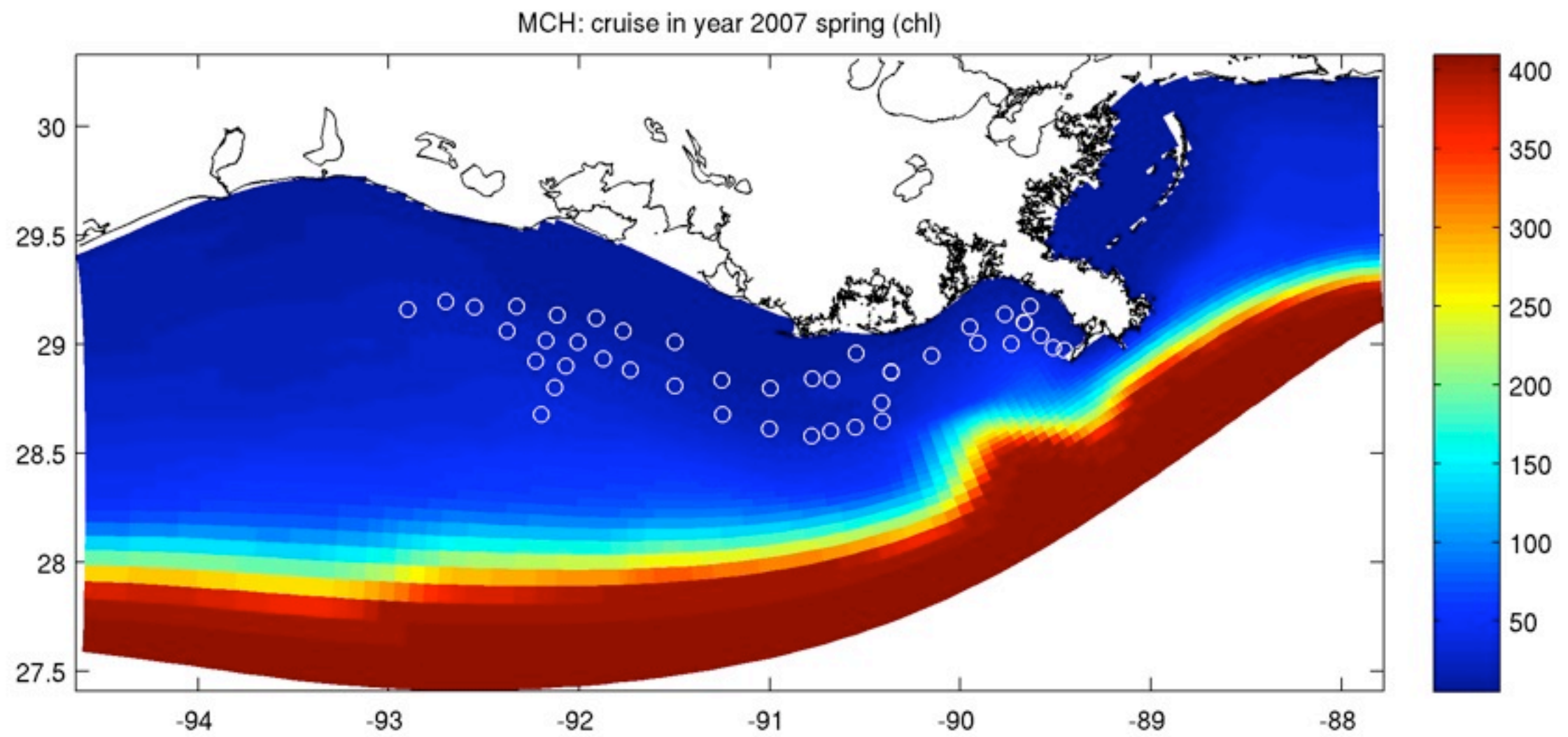


LUMCON: cruise in year 2007 winter (temp+salt)



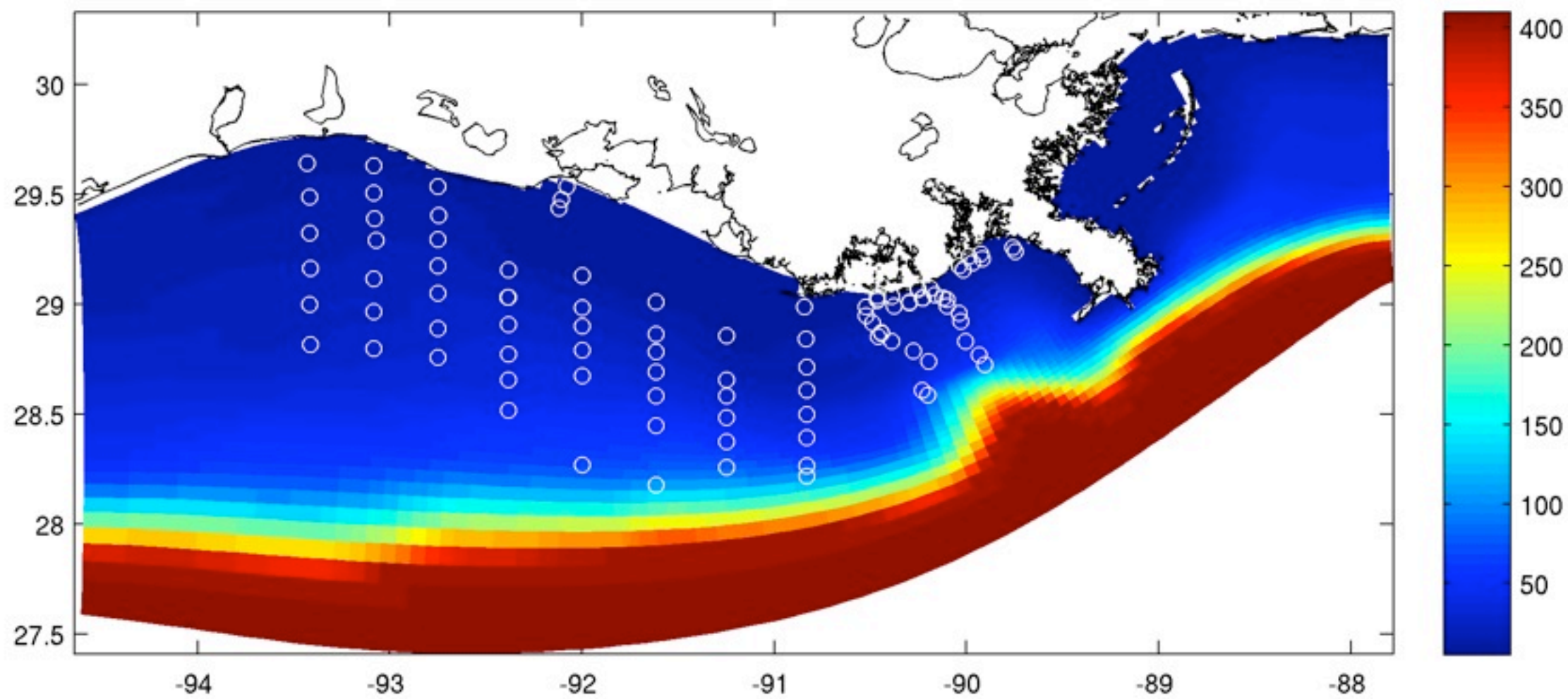




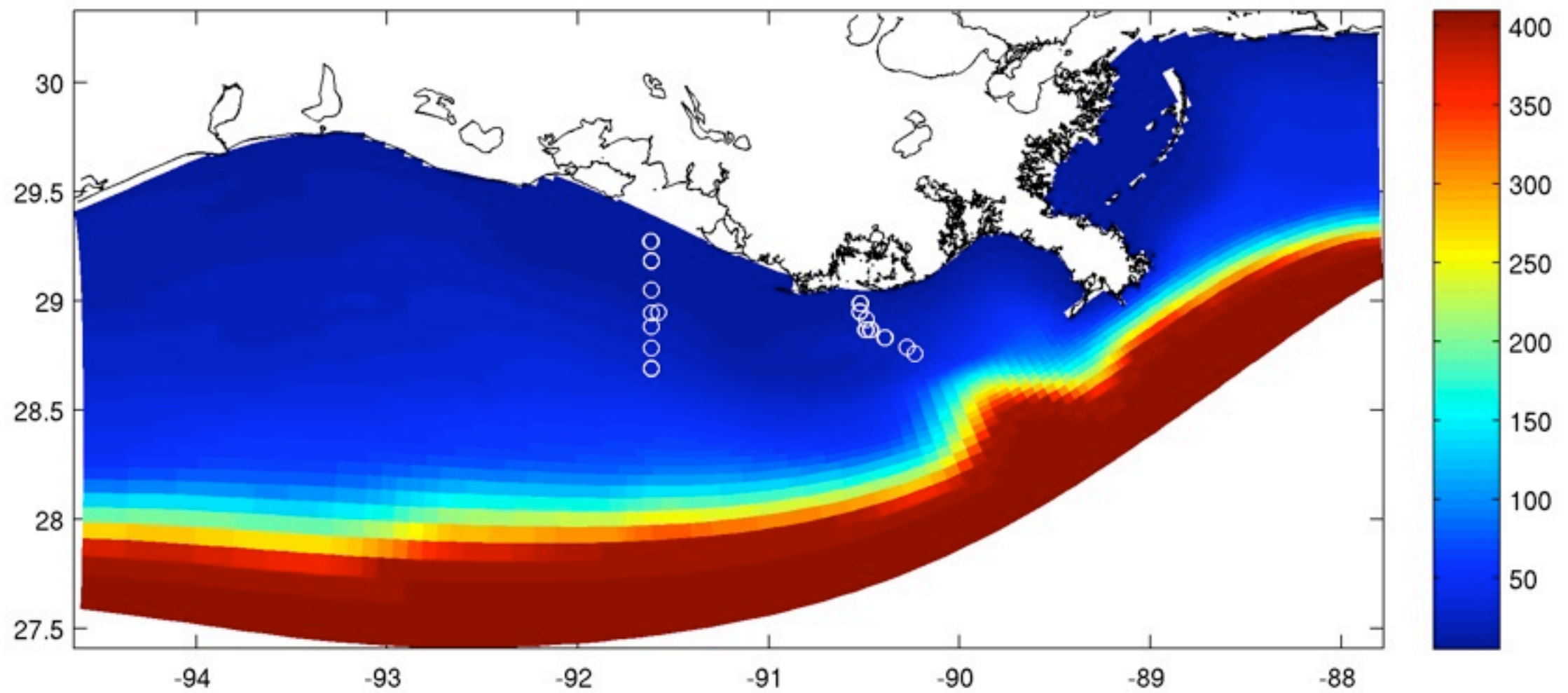




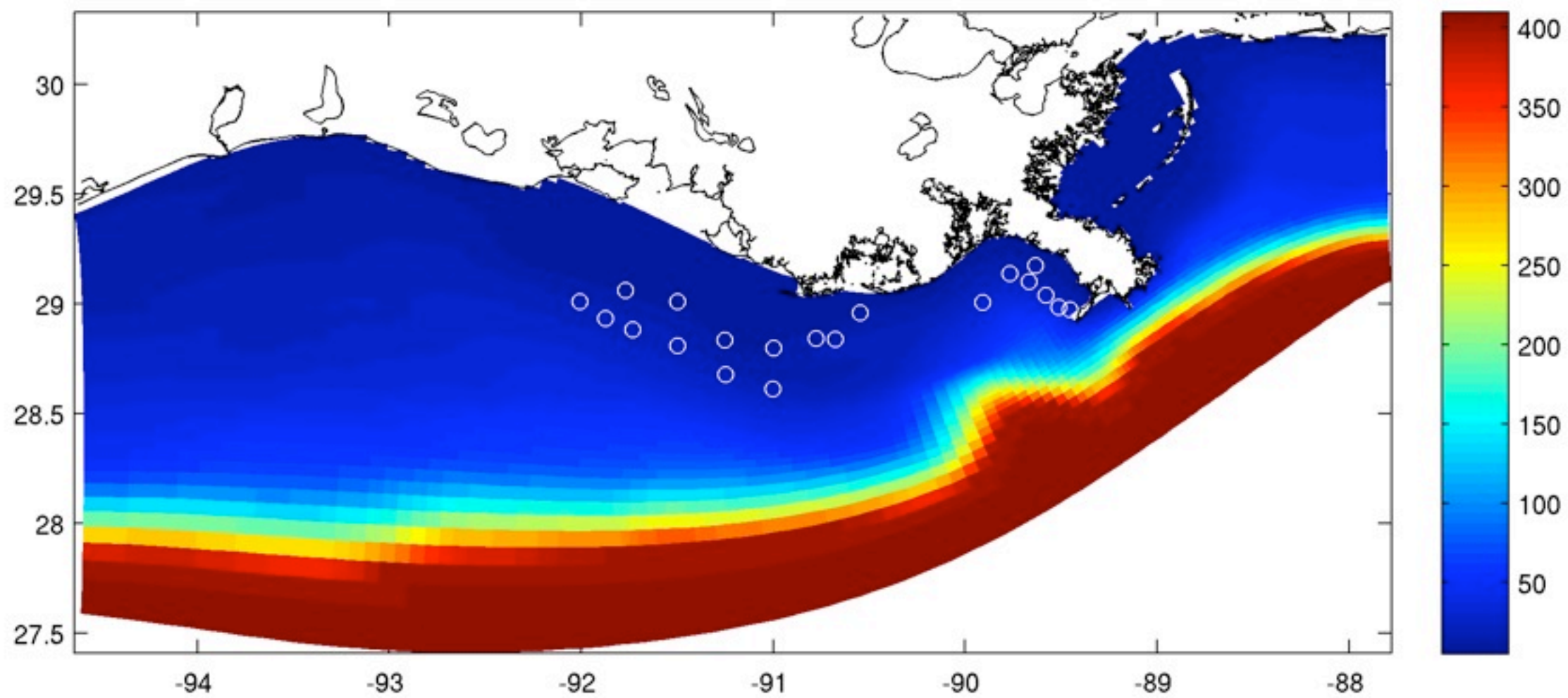
EPA: cruise in year 2007 spring (NH4)



LUMCON: cruise in year 2007 spring (NH4)

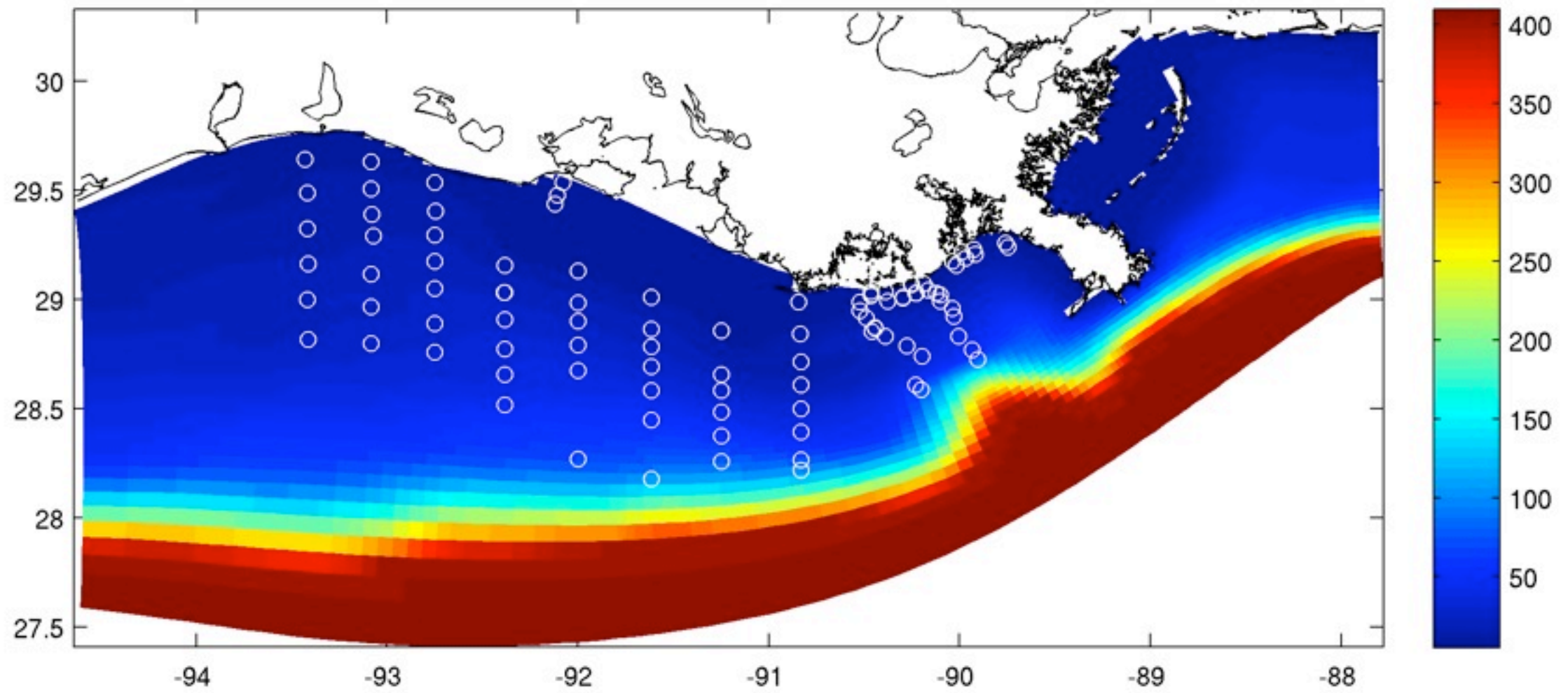


MCH: cruise in year 2007 spring (NH4)



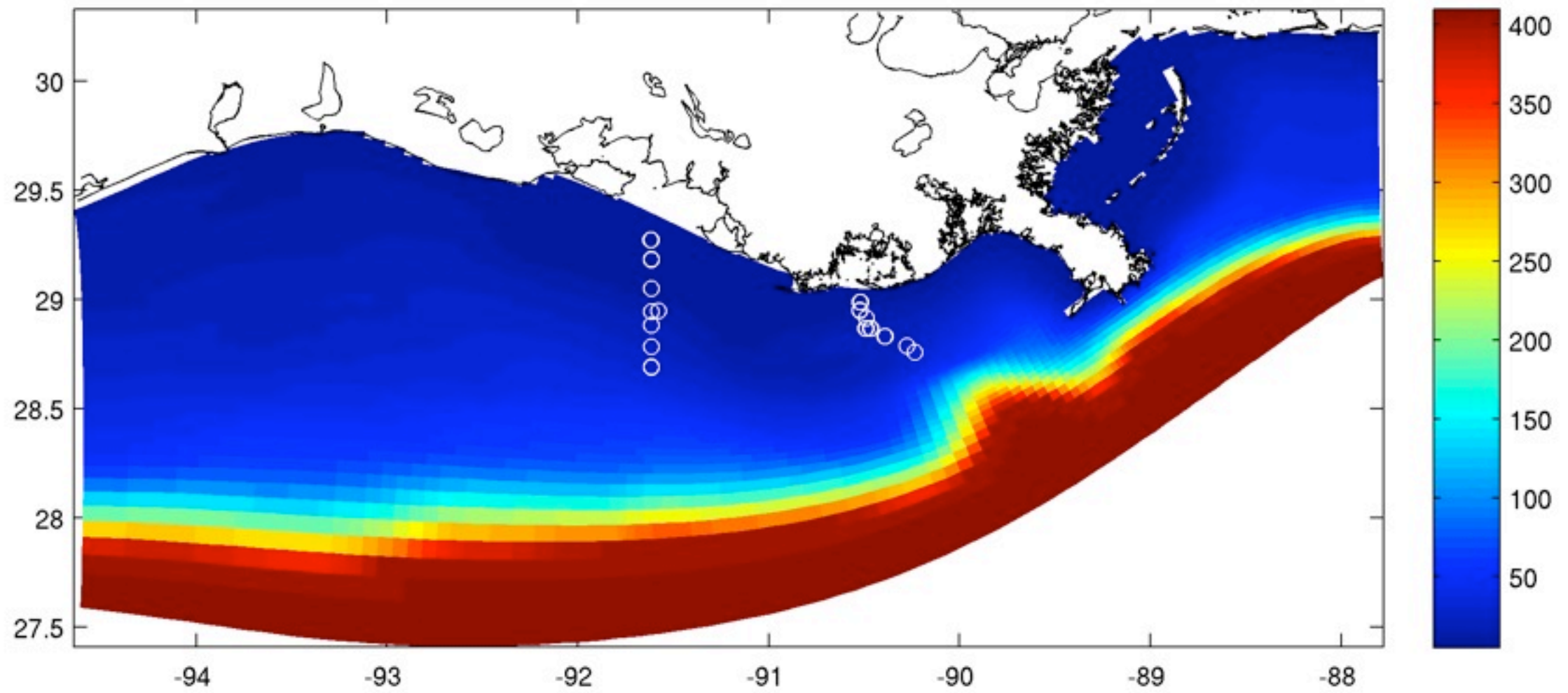


EPA: cruise in year 2007 spring (NO23)

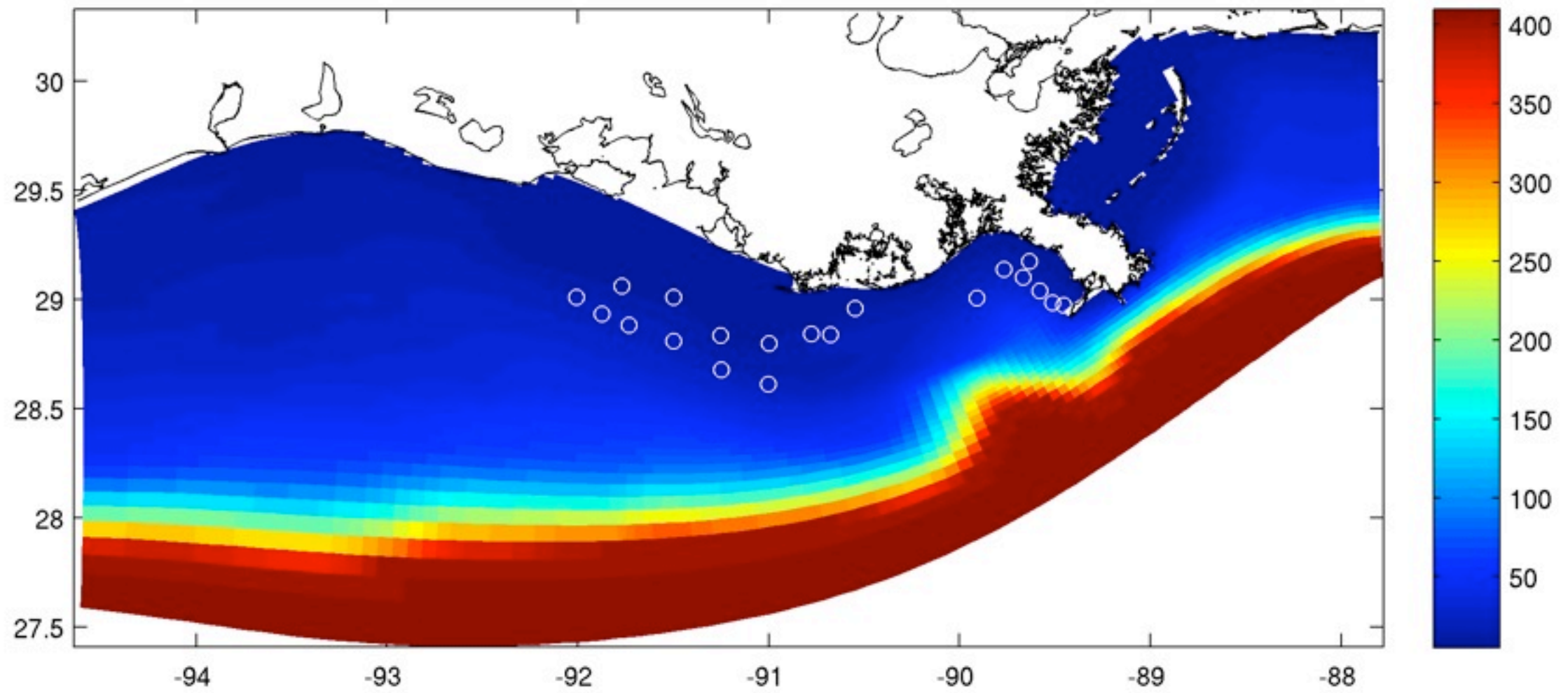


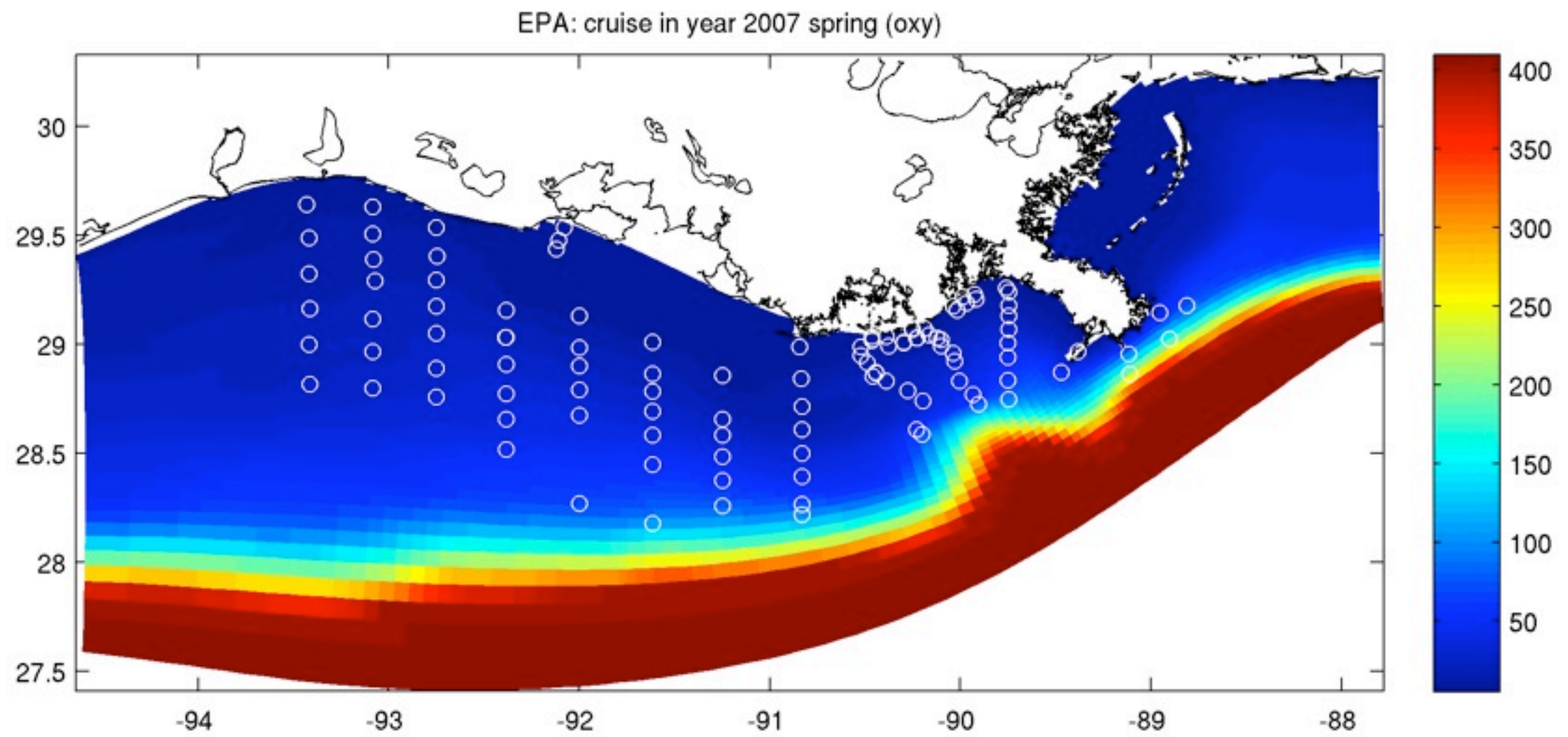


LUMCON: cruise in year 2007 spring (NO23)

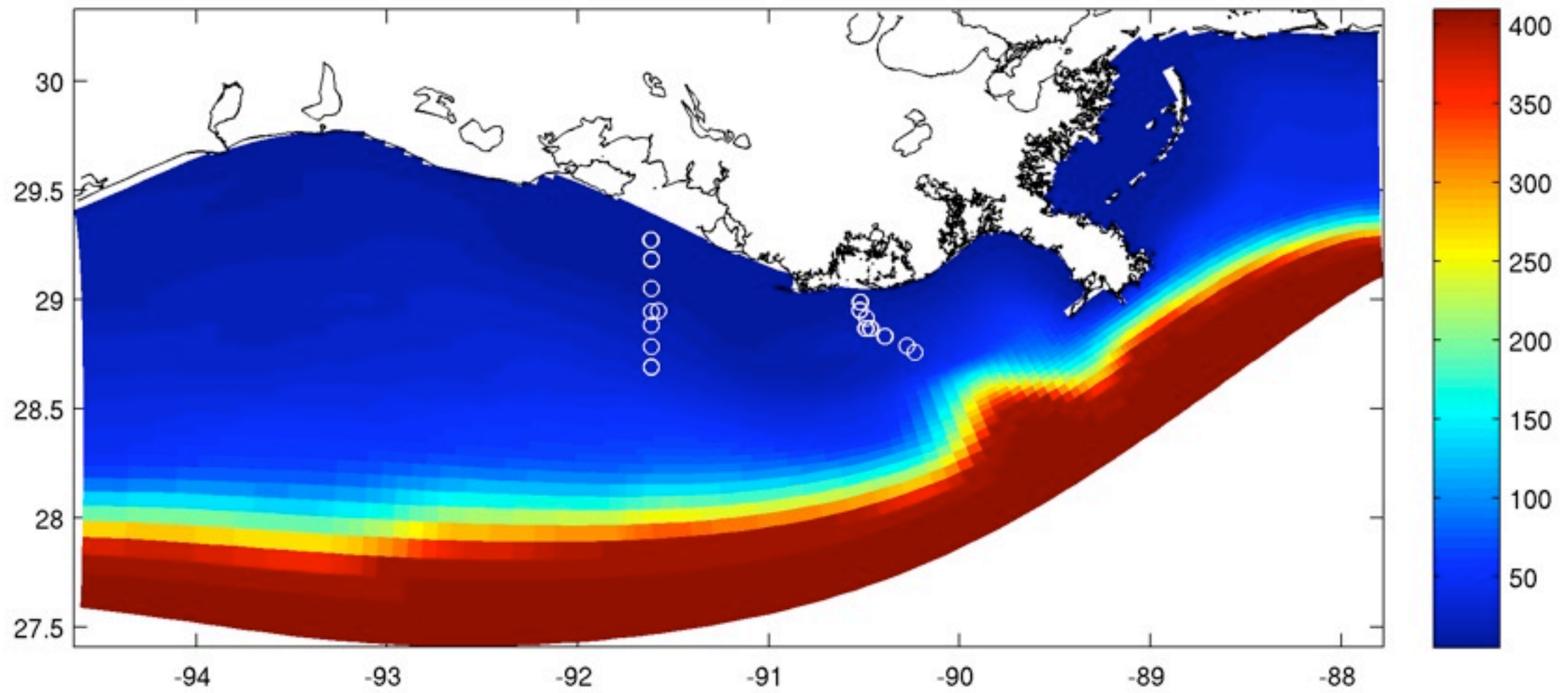


MCH: cruise in year 2007 spring (NO23)

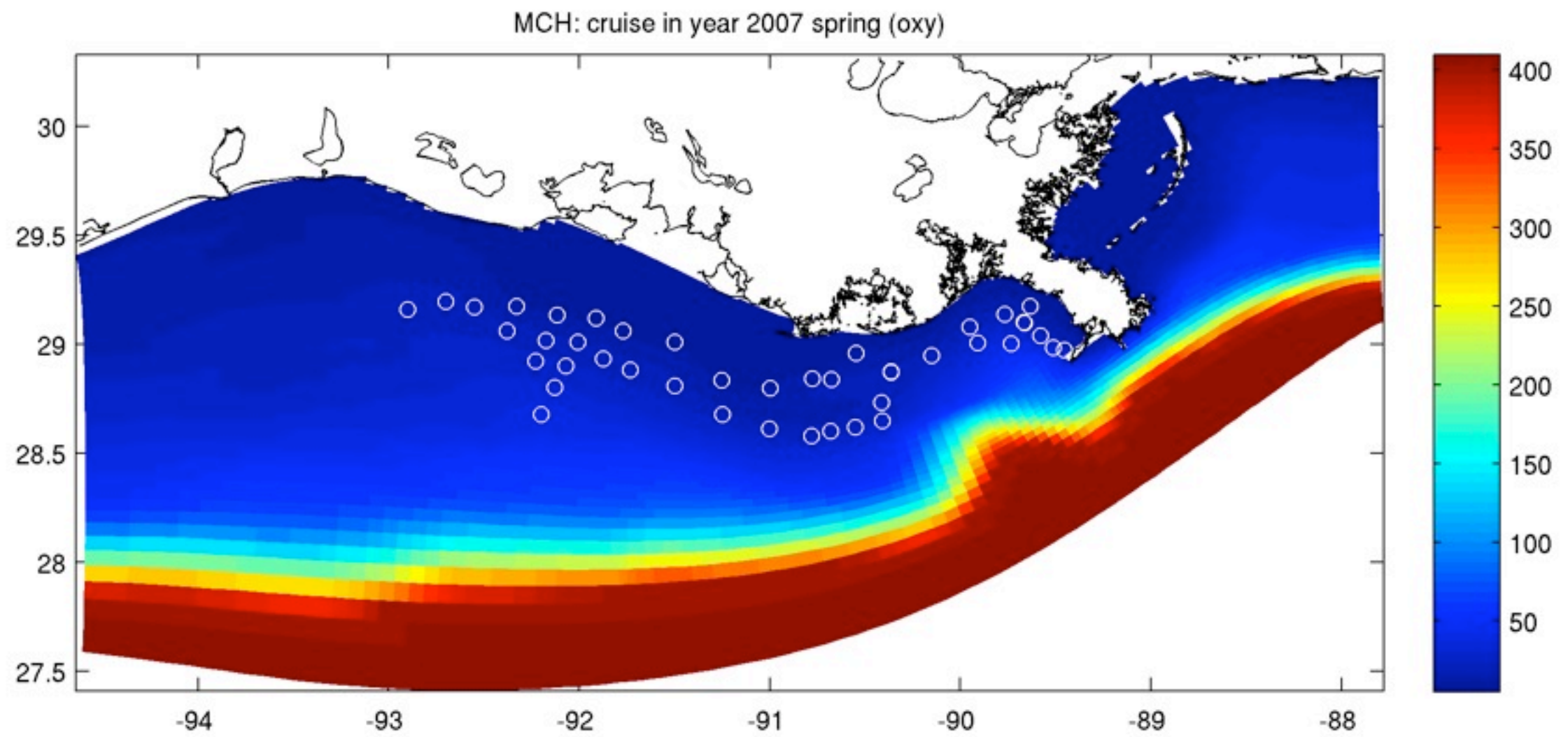




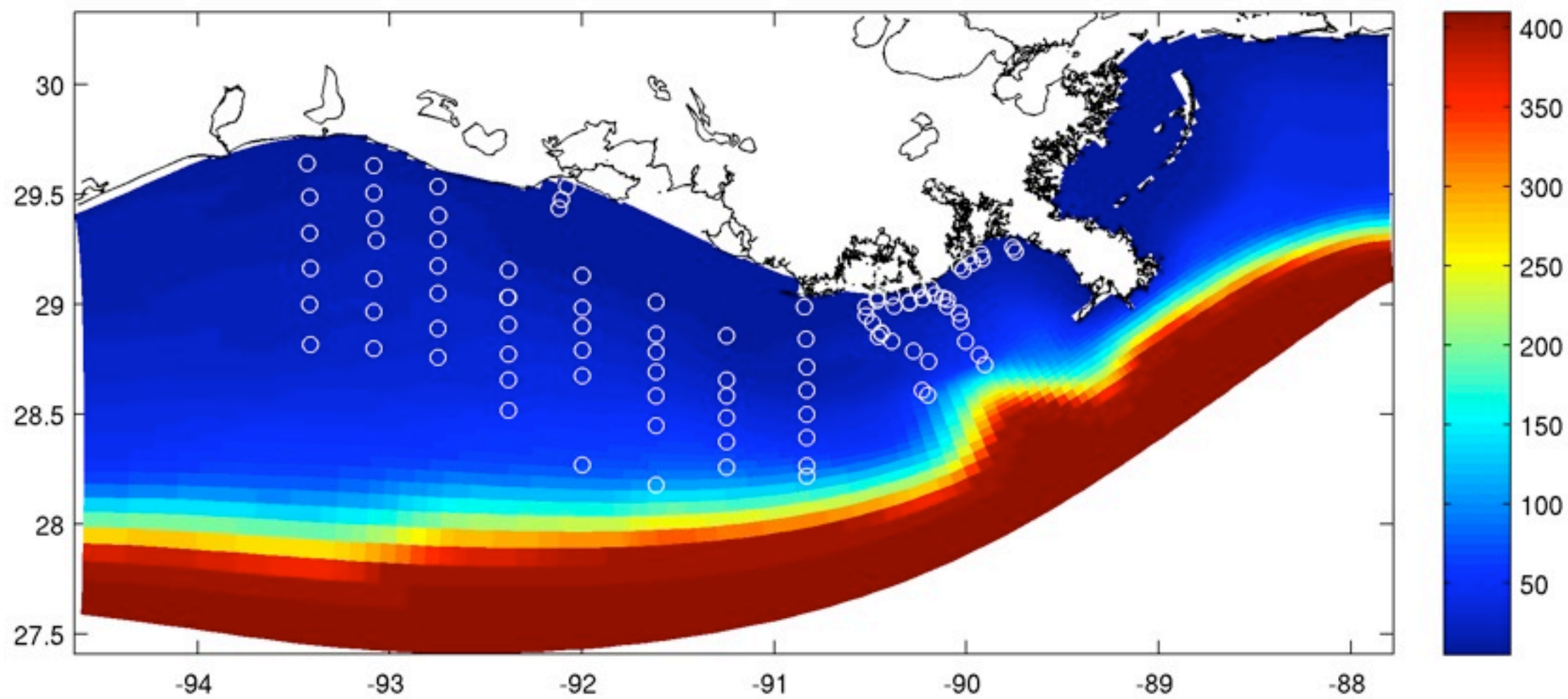
LUMCON: cruise in year 2007 spring (oxy)



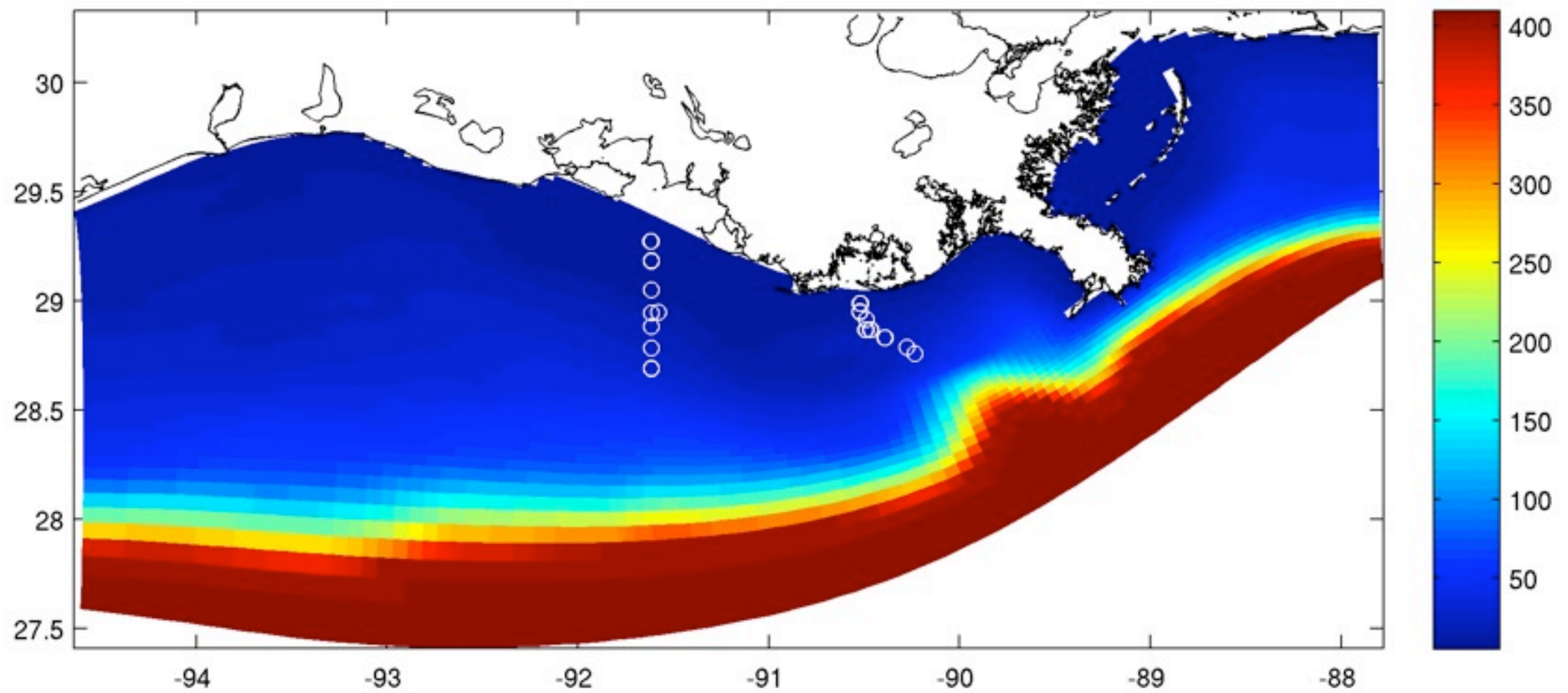




EPA: cruise in year 2007 spring (PO4)

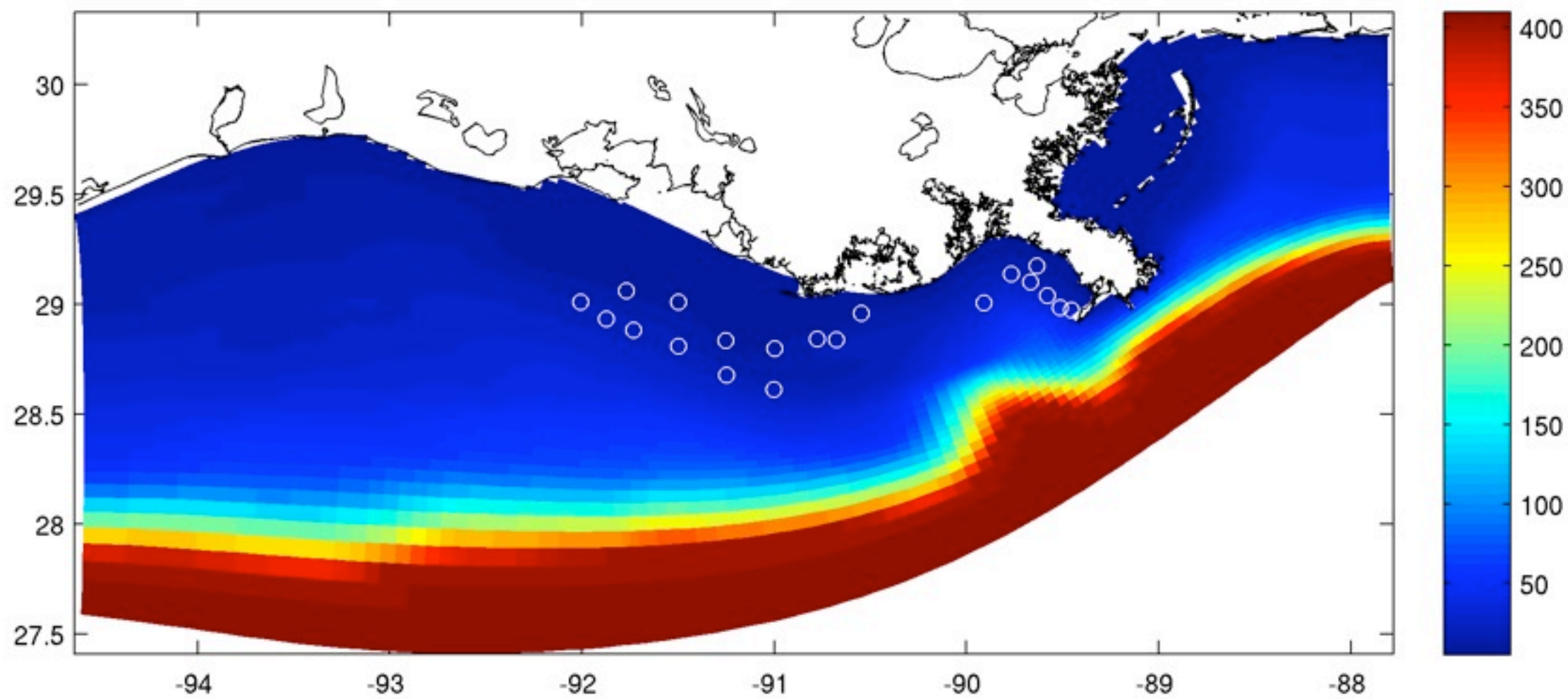


LUMCON: cruise in year 2007 spring (PO4)

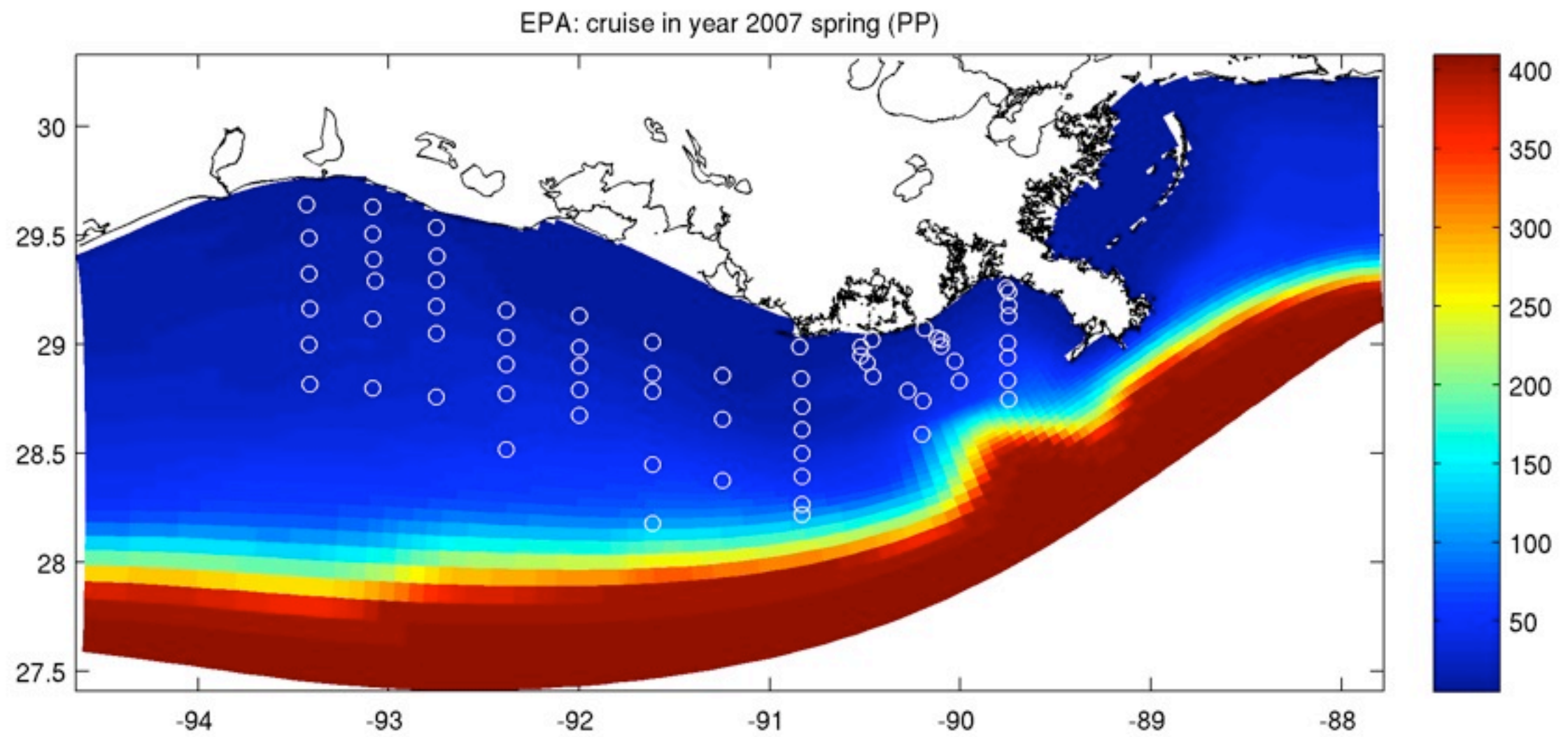




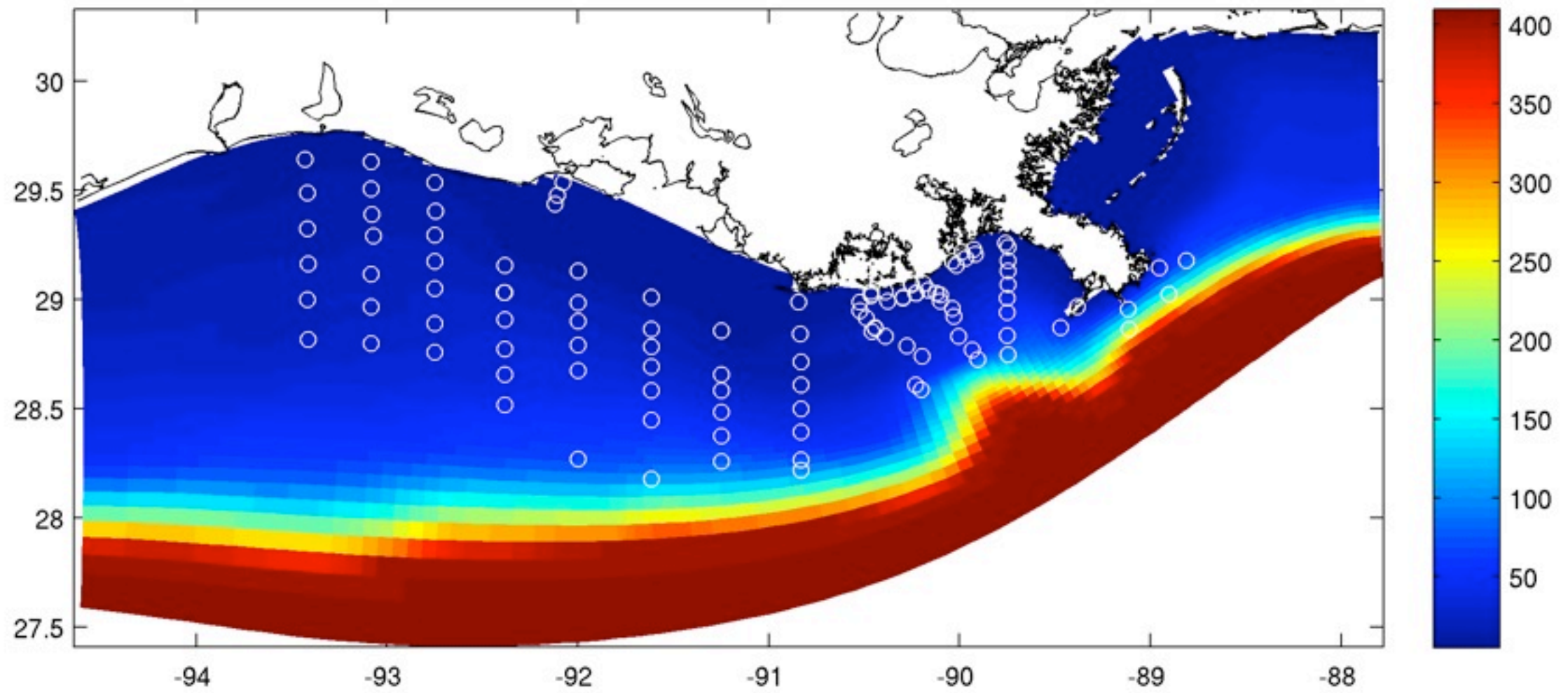
MCH: cruise in year 2007 spring (PO4)



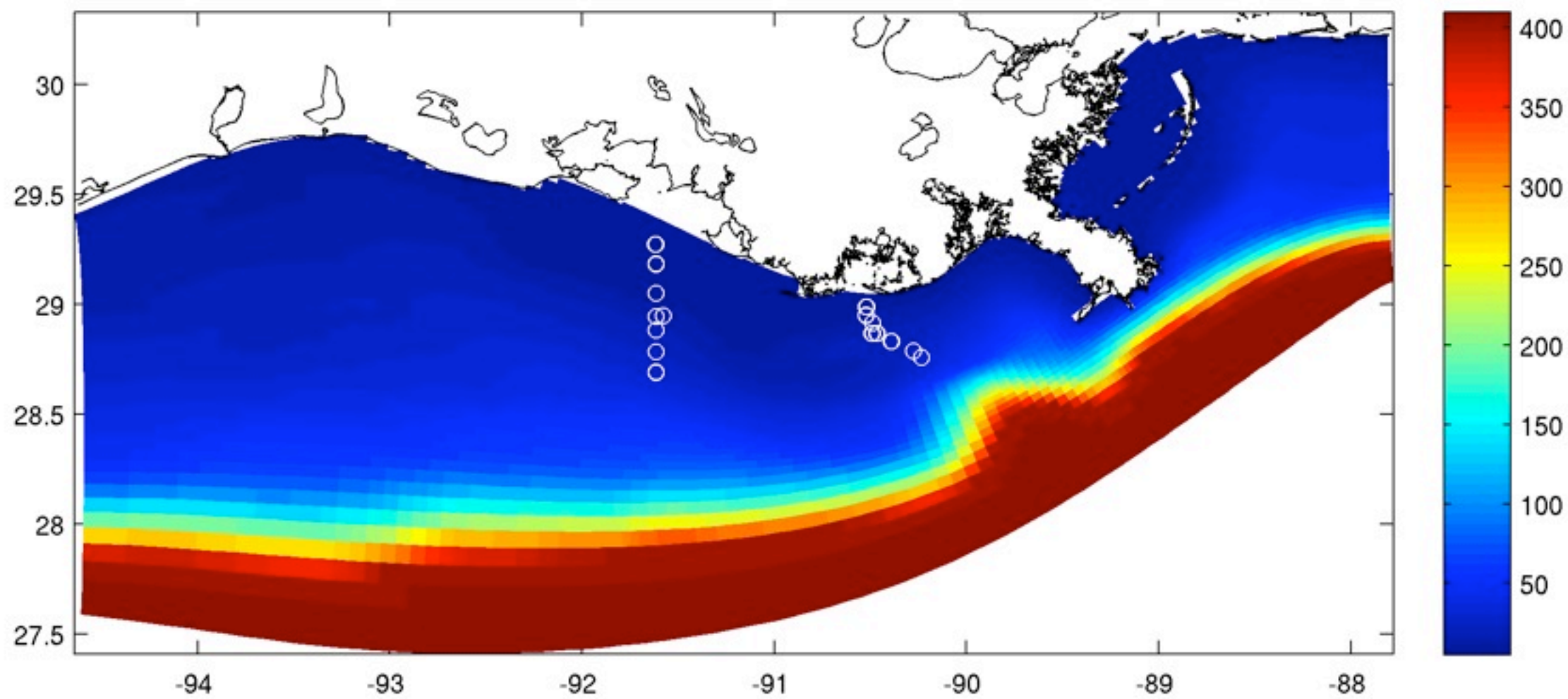




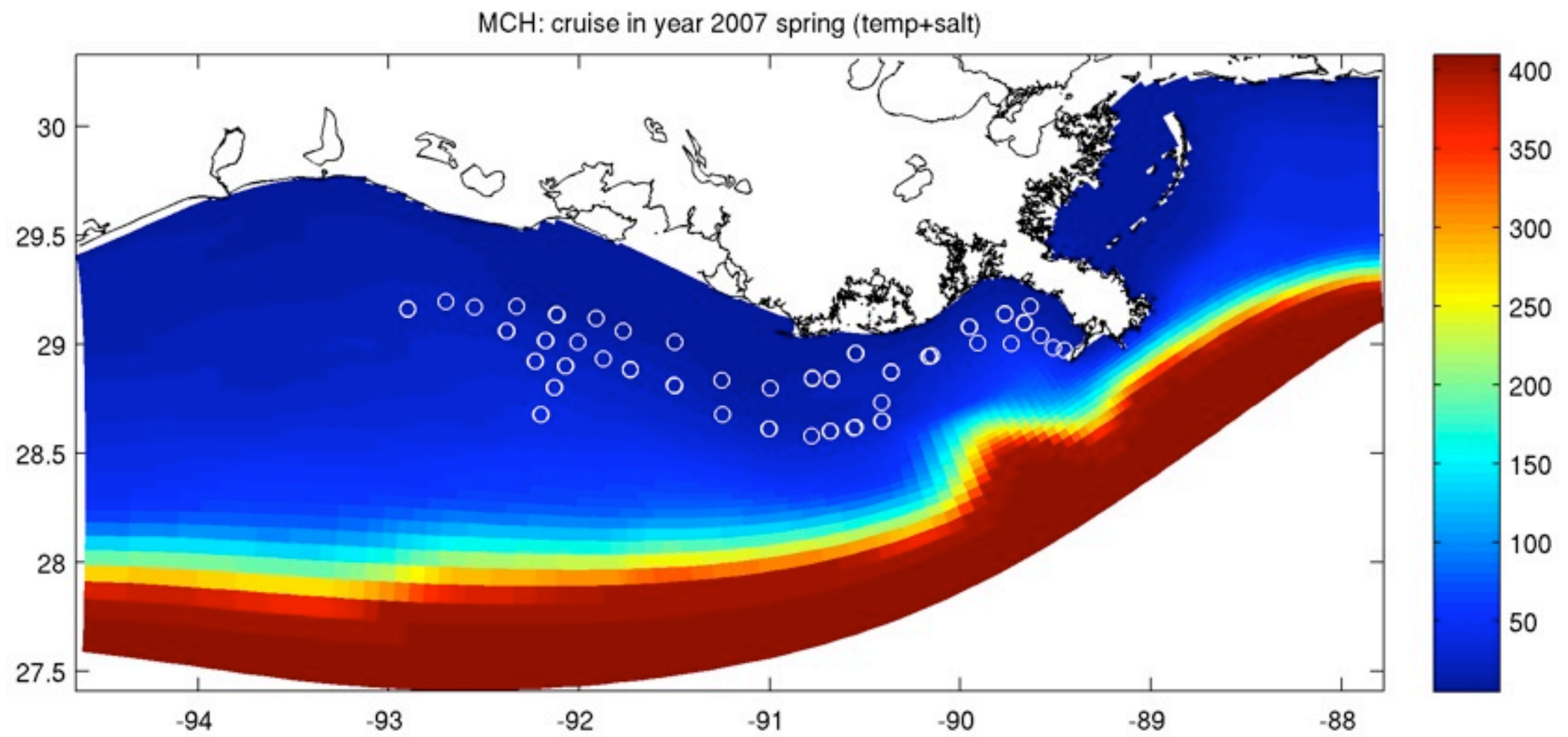
EPA: cruise in year 2007 spring (temp+salt)



LUMCON: cruise in year 2007 spring (temp+salt)

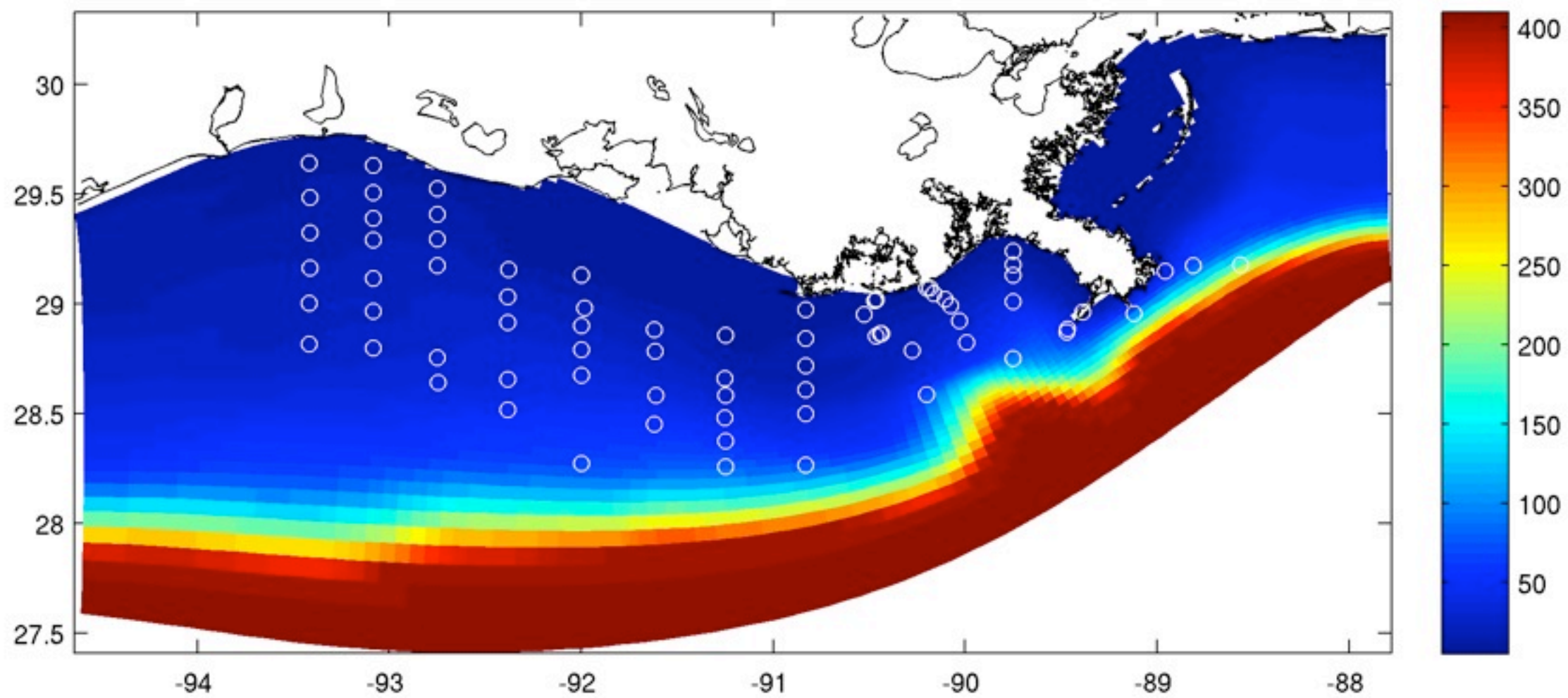


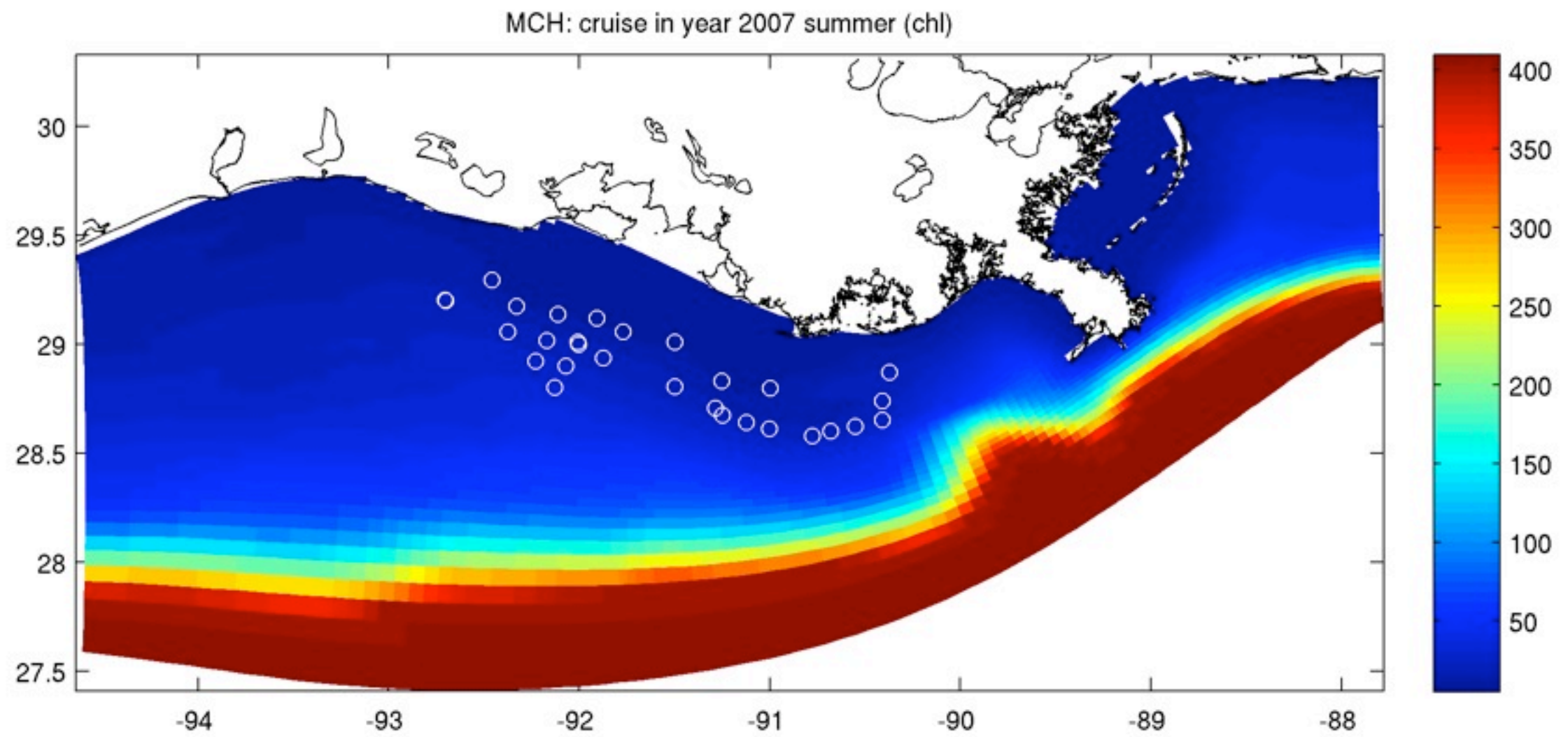




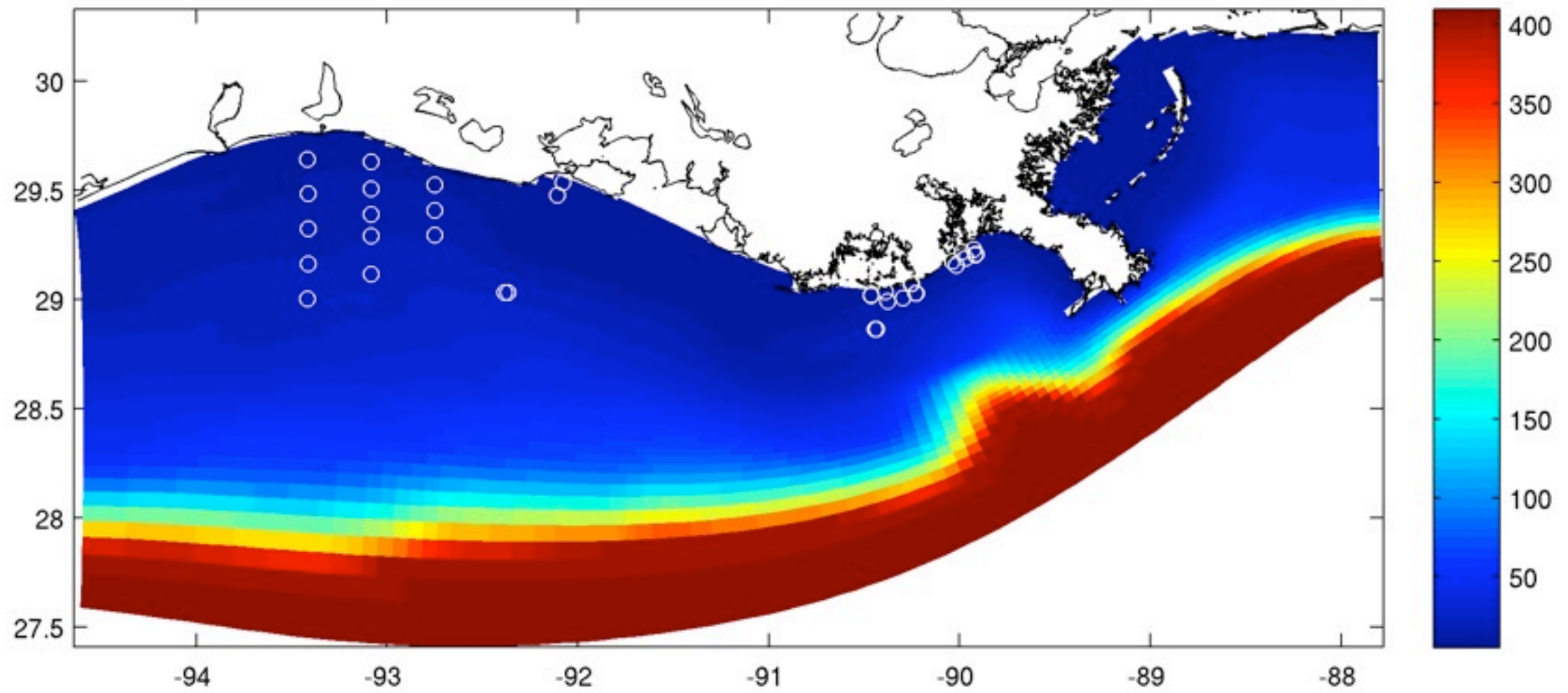


EPA: cruise in year 2007 summer (chl)



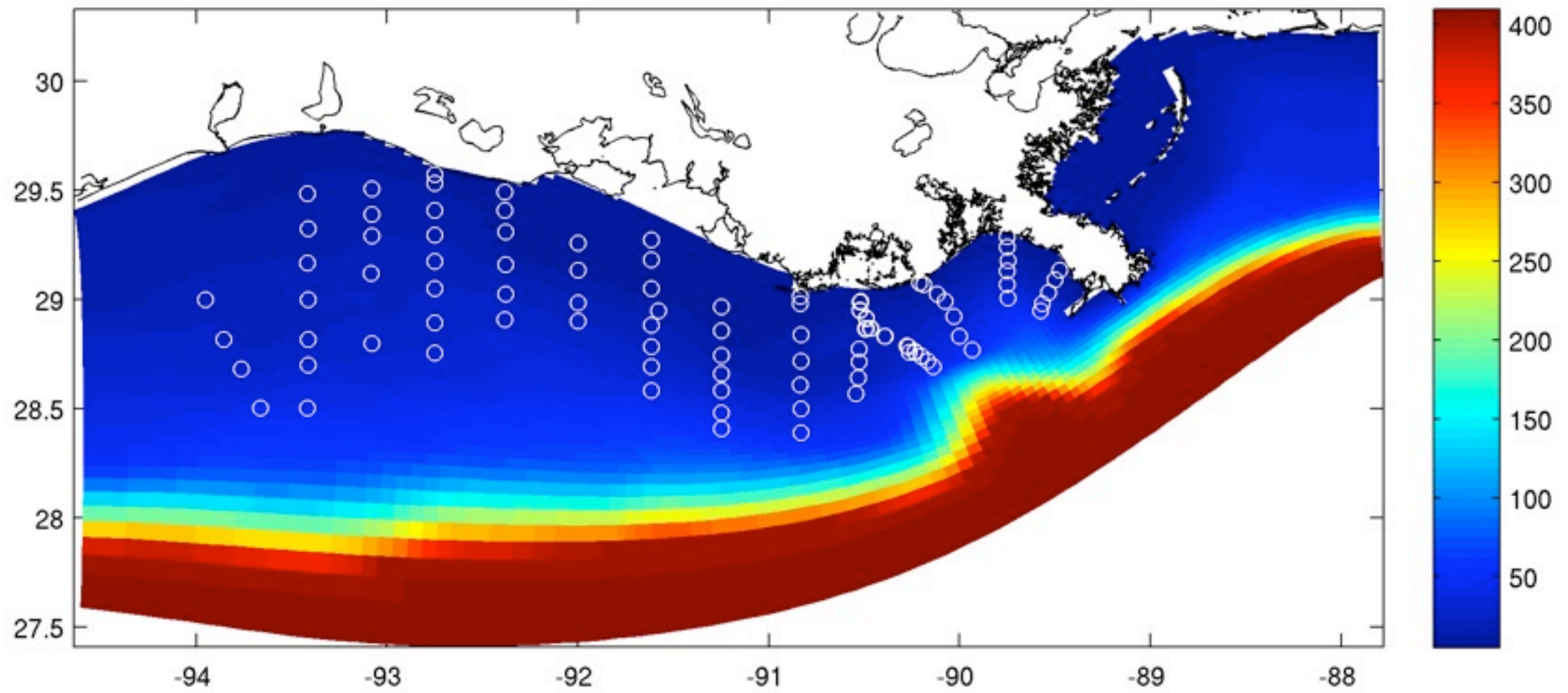


EPA: cruise in year 2007 summer (NH4)



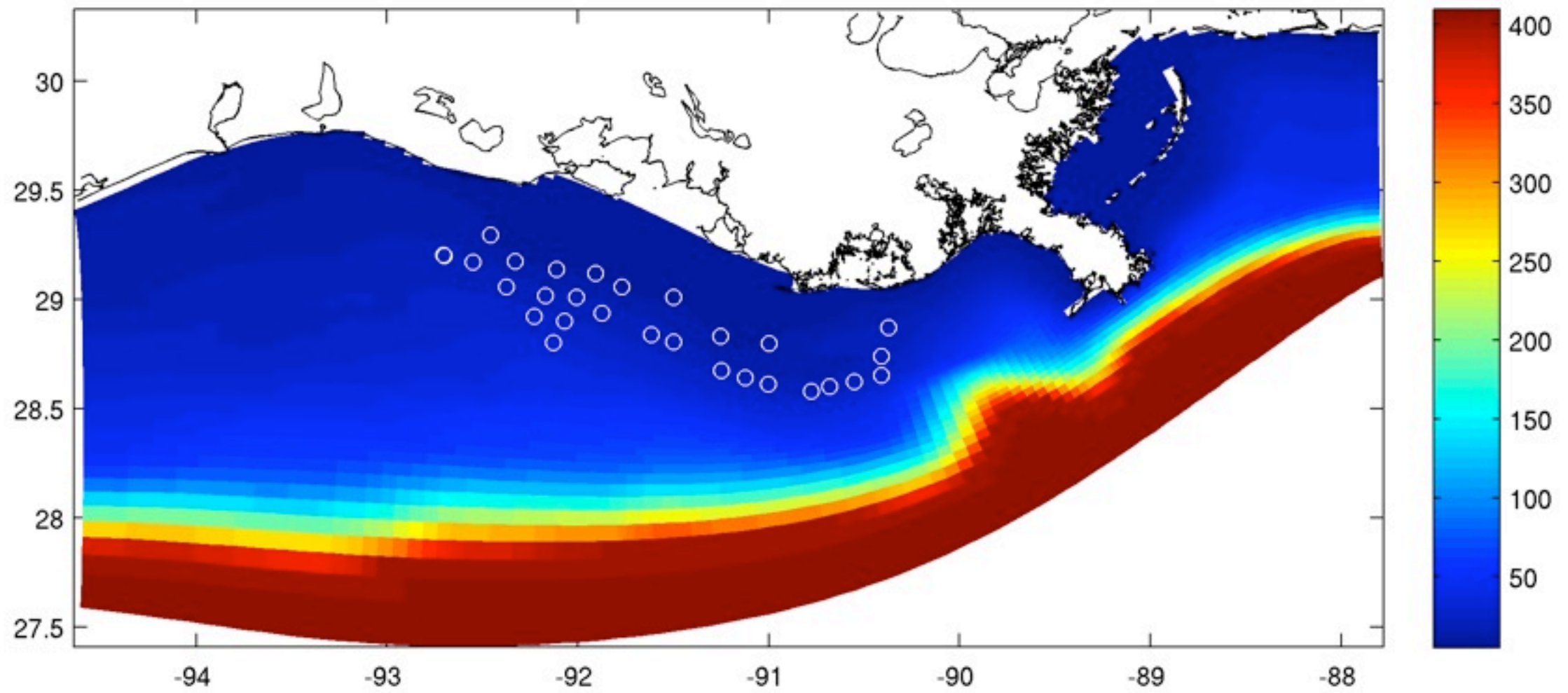


LUMCON: cruise in year 2007 summer (NH4)

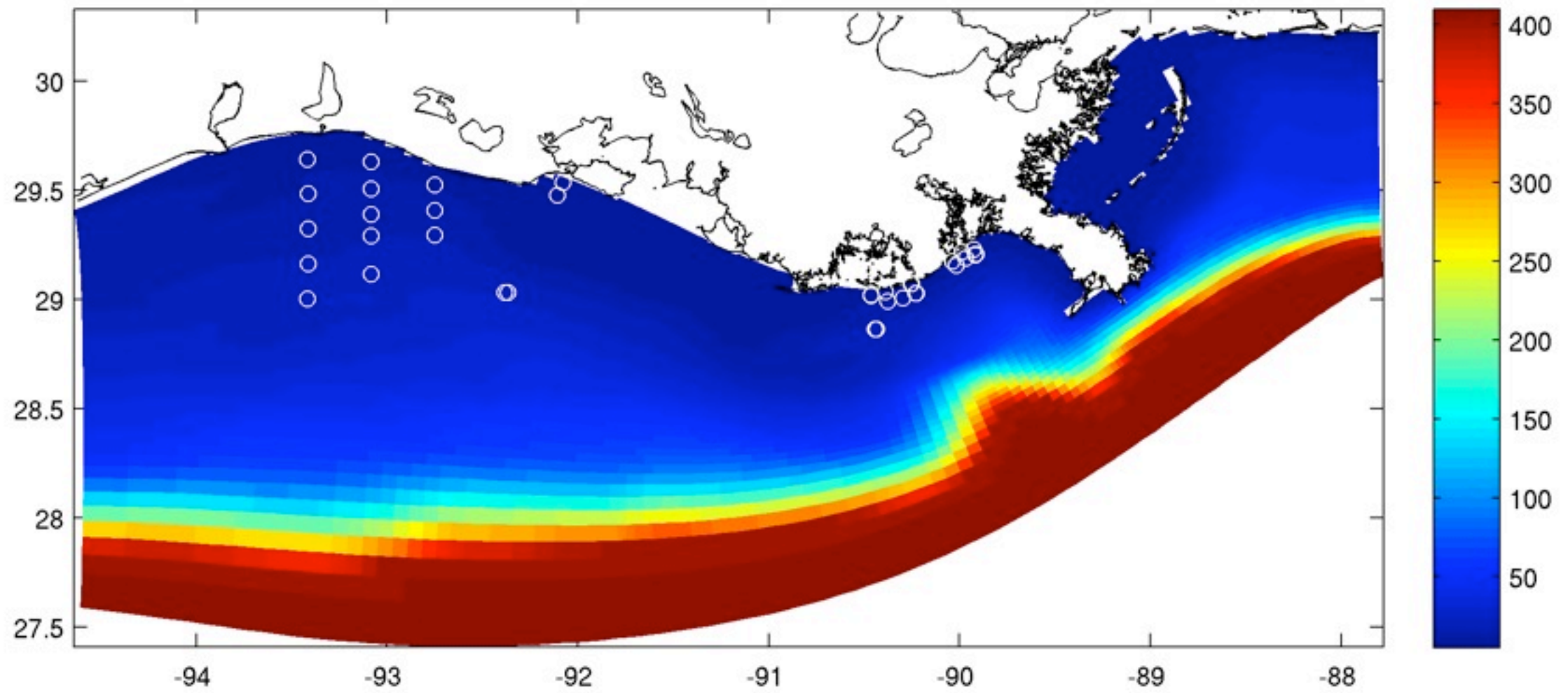




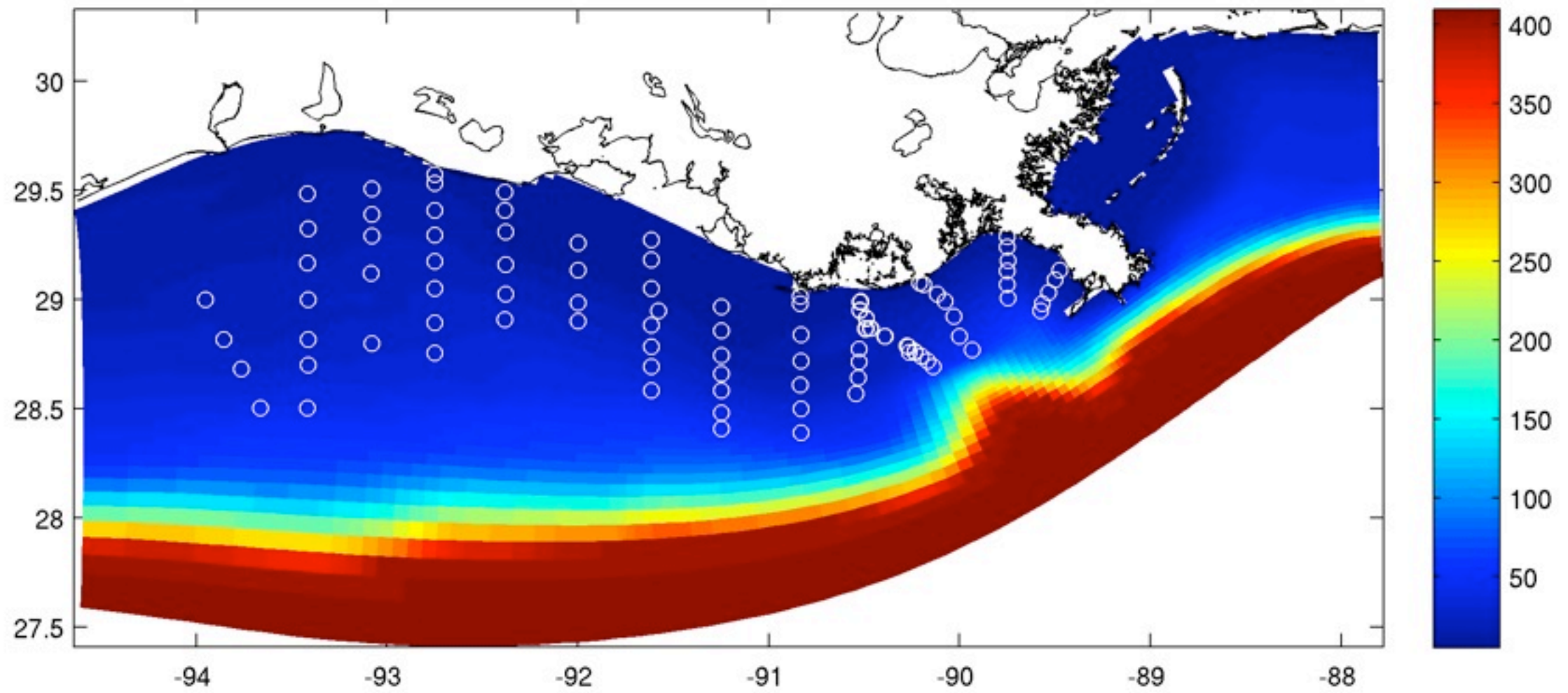
MCH: cruise in year 2007 summer (NH4)



EPA: cruise in year 2007 summer (NO23)

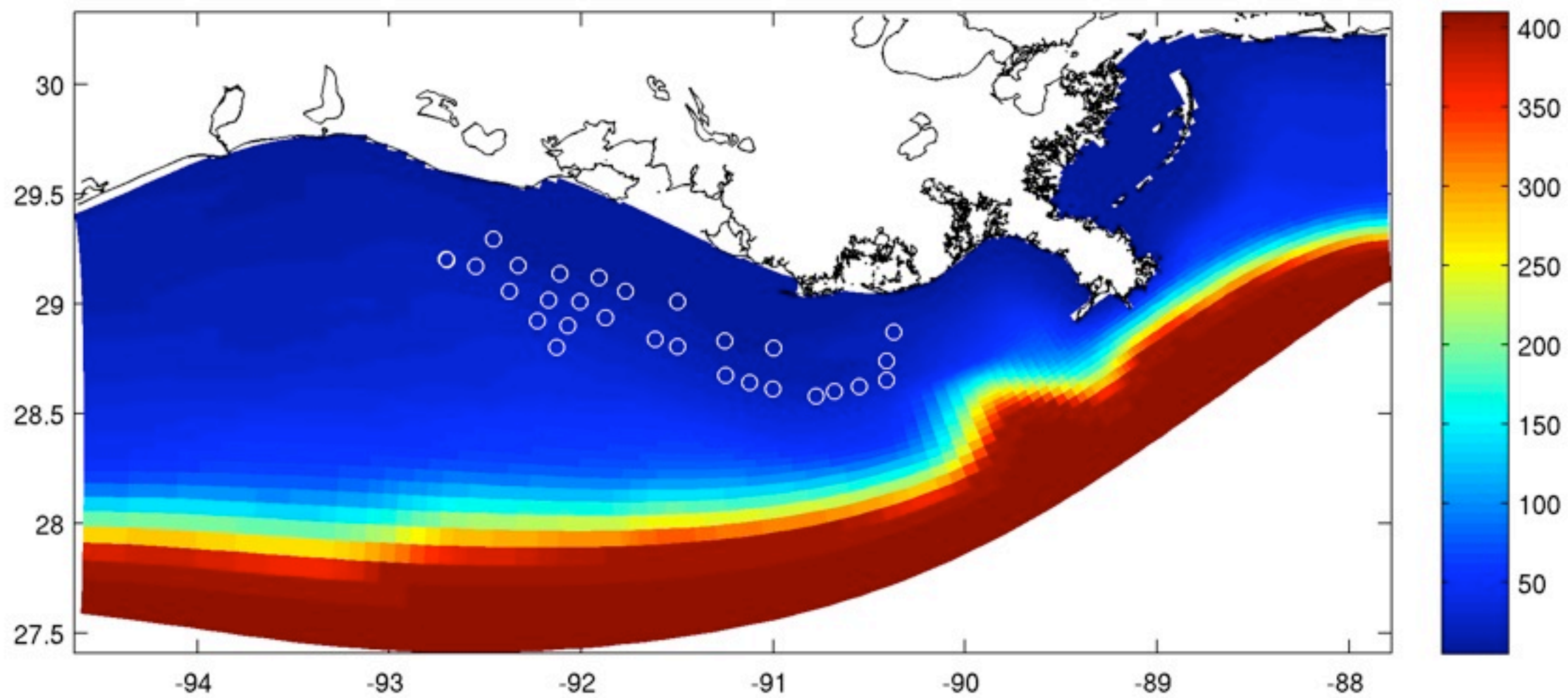


LUMCON: cruise in year 2007 summer (NO23)



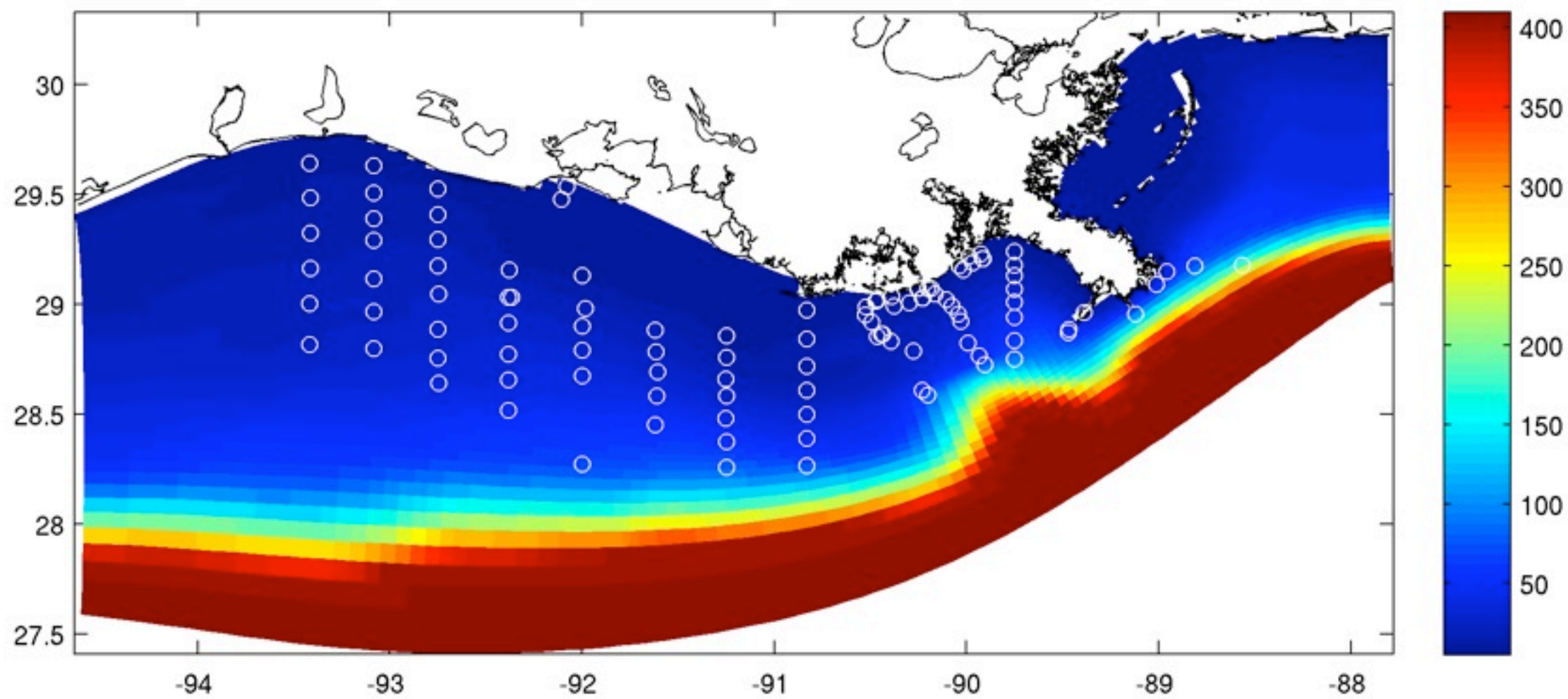


MCH: cruise in year 2007 summer (NO23)

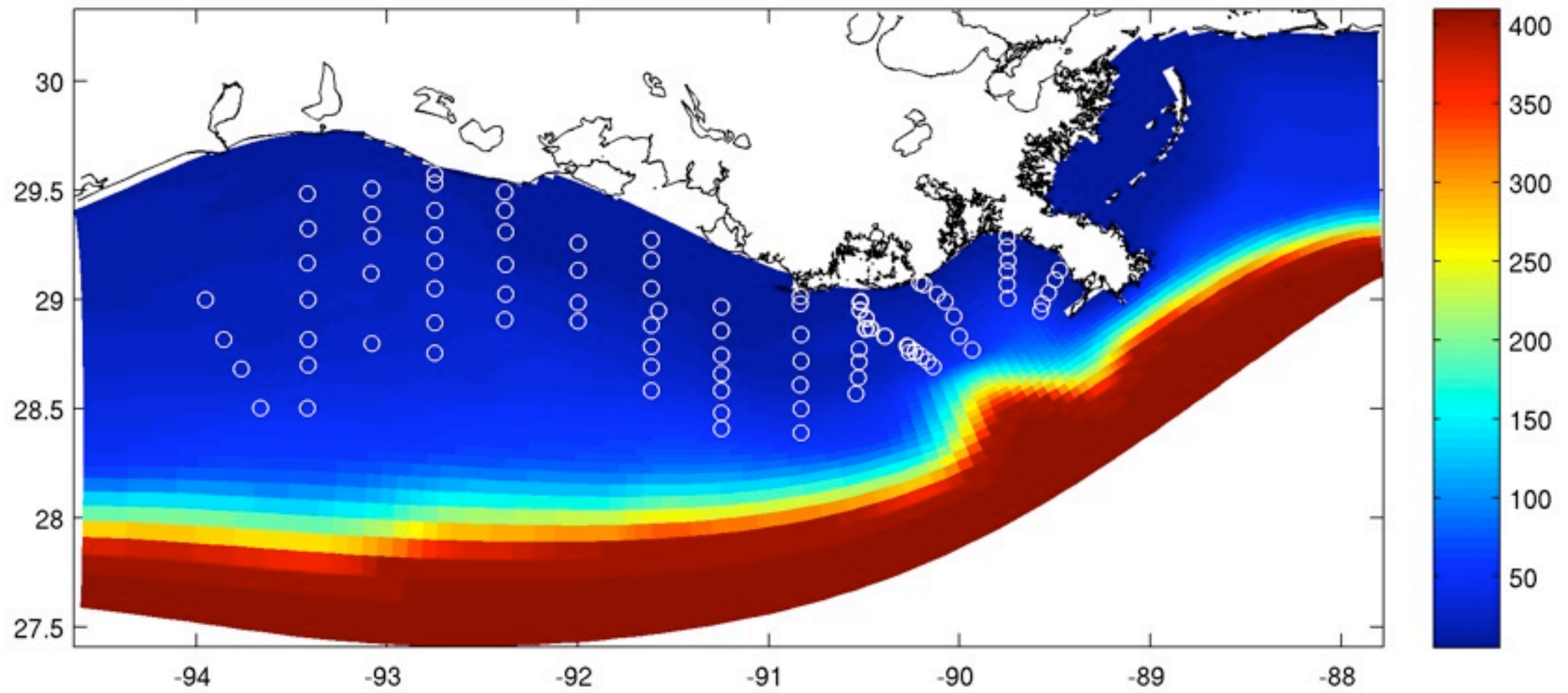




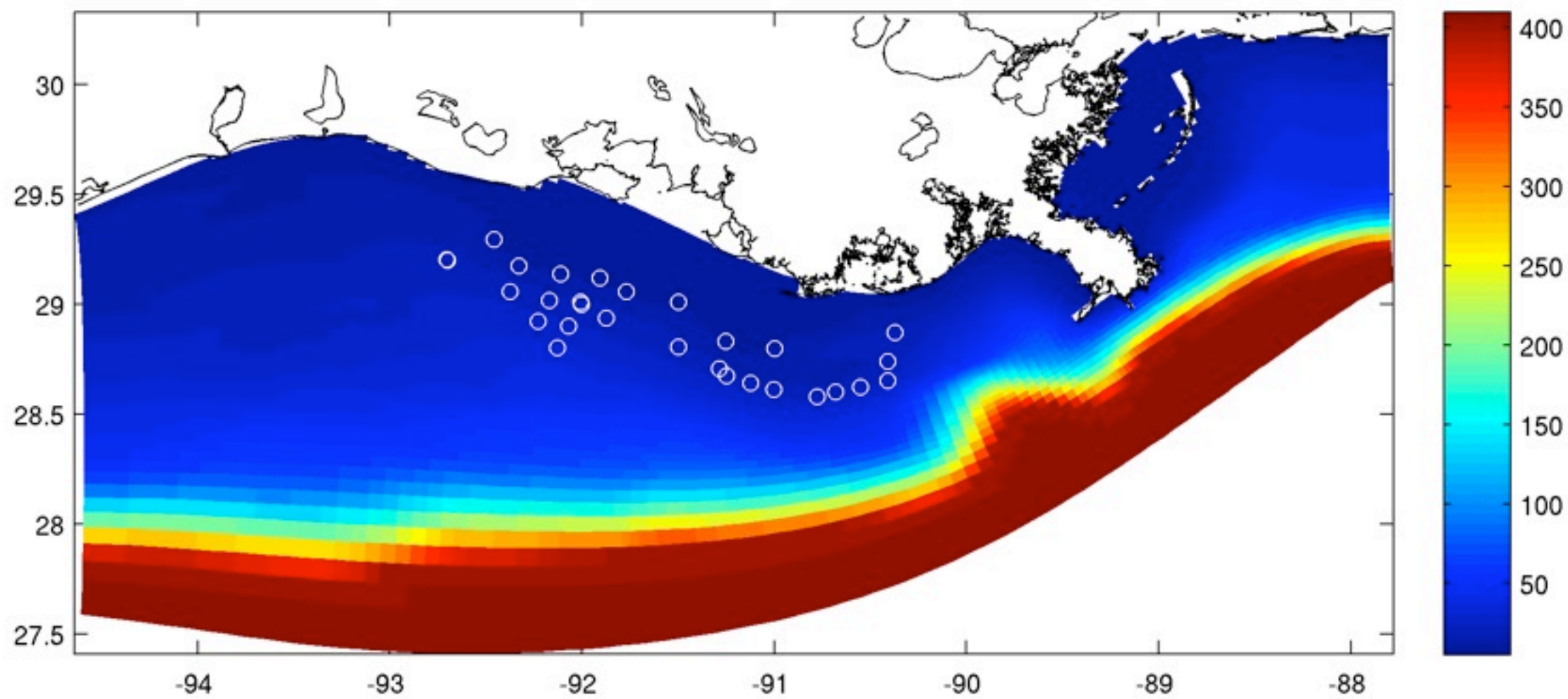
EPA: cruise in year 2007 summer (oxy)



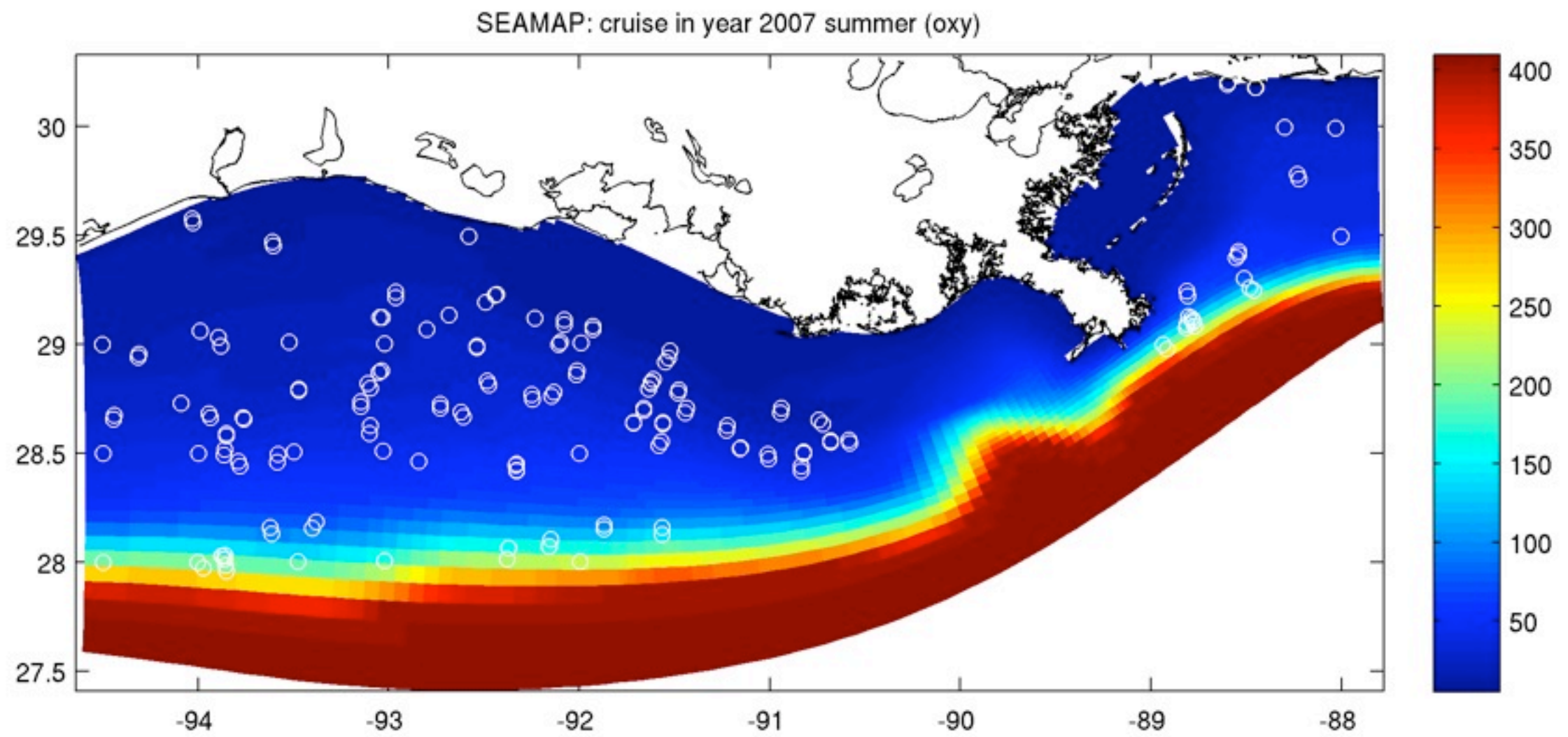
LUMCON: cruise in year 2007 summer (oxy)



MCH: cruise in year 2007 summer (oxy)

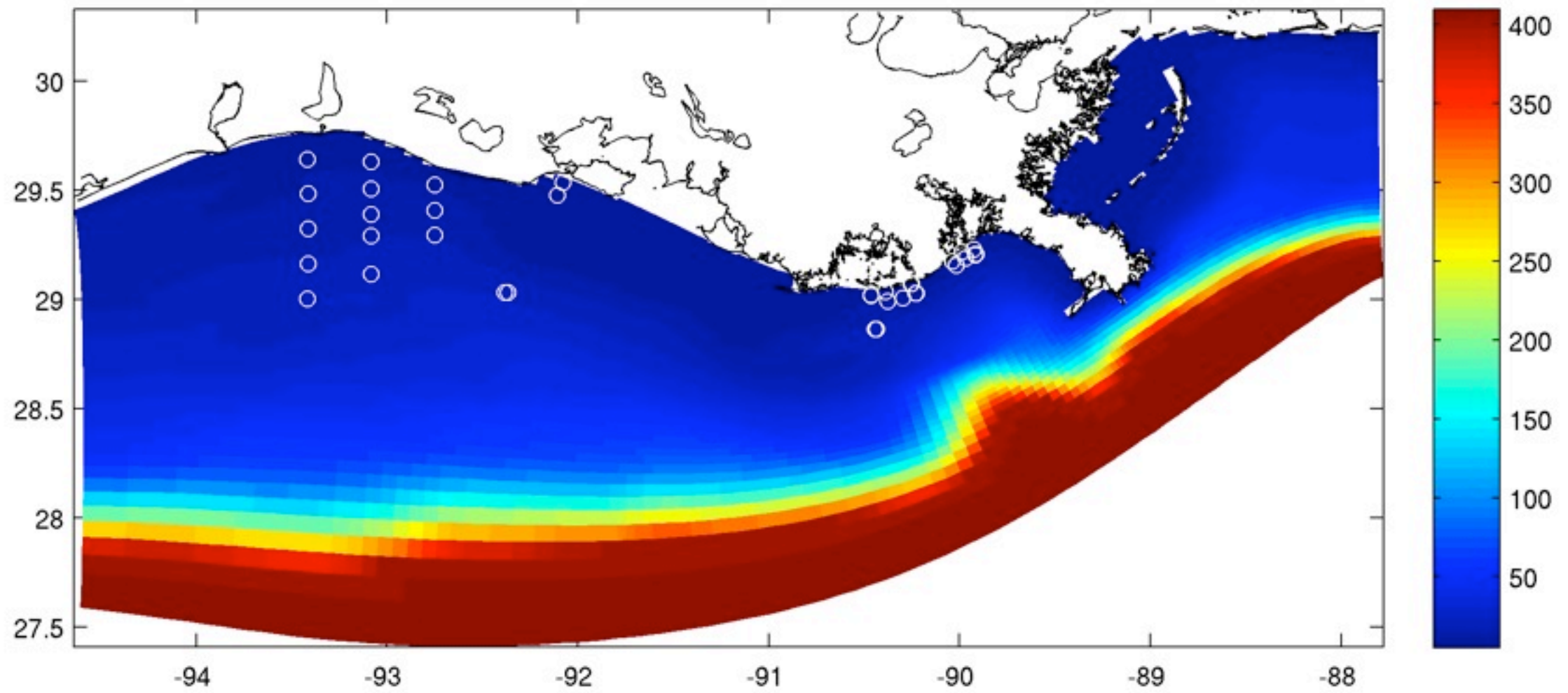




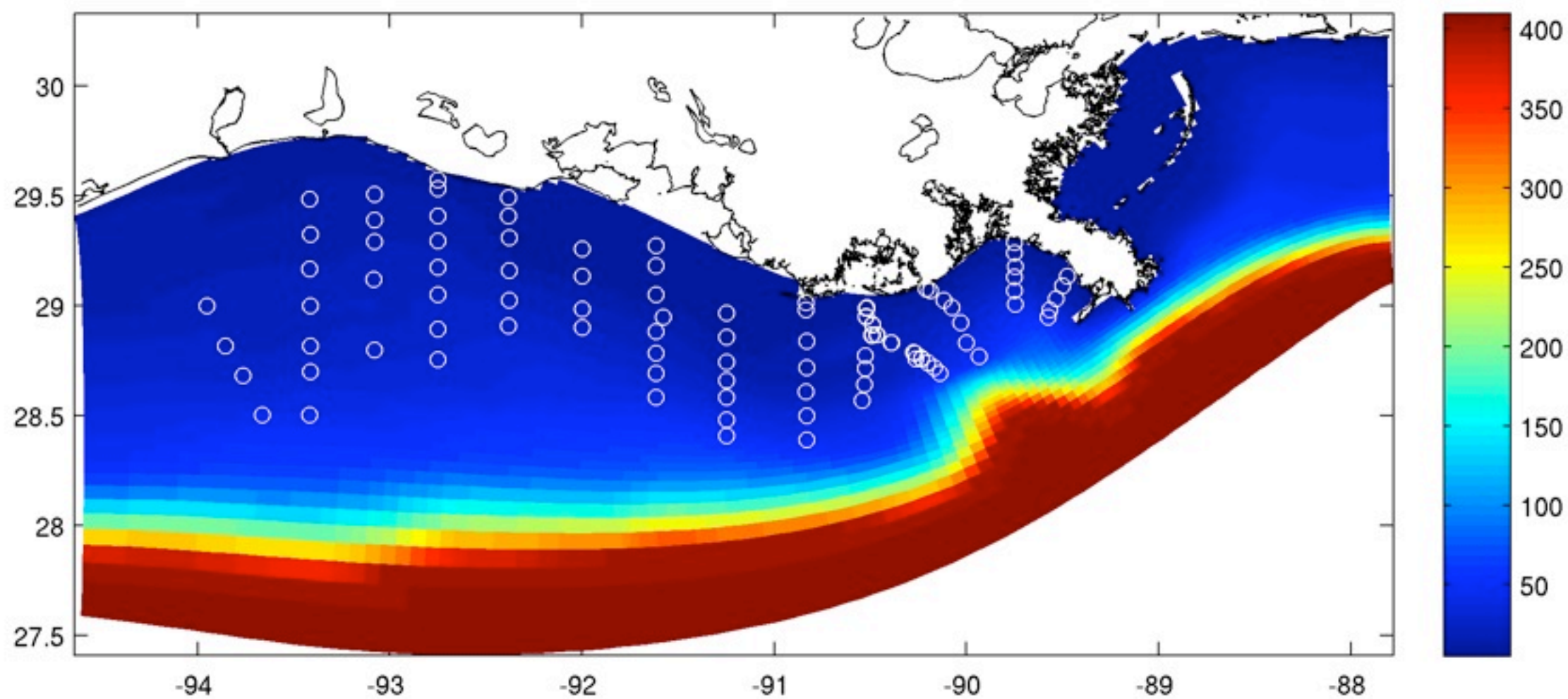




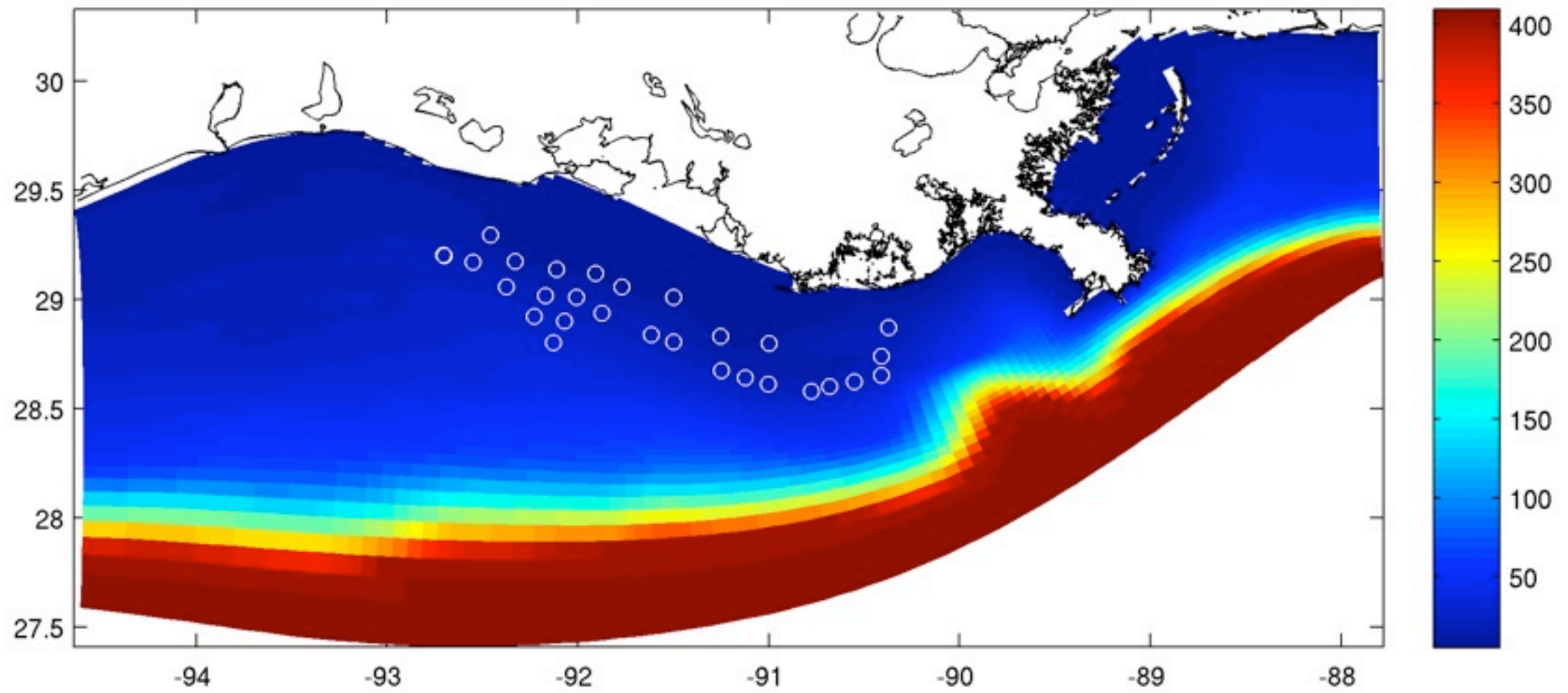
EPA: cruise in year 2007 summer (PO4)



LUMCON: cruise in year 2007 summer (PO4)

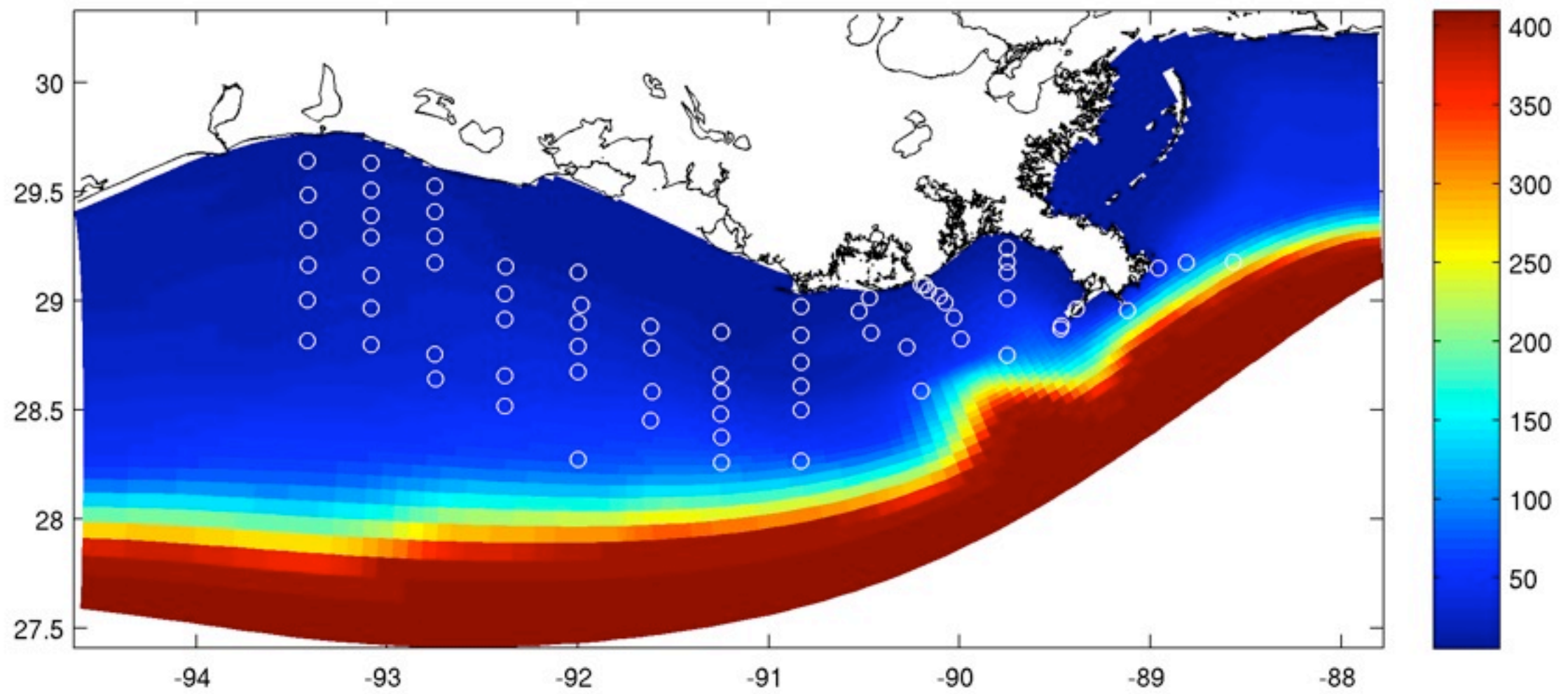


MCH: cruise in year 2007 summer (PO4)

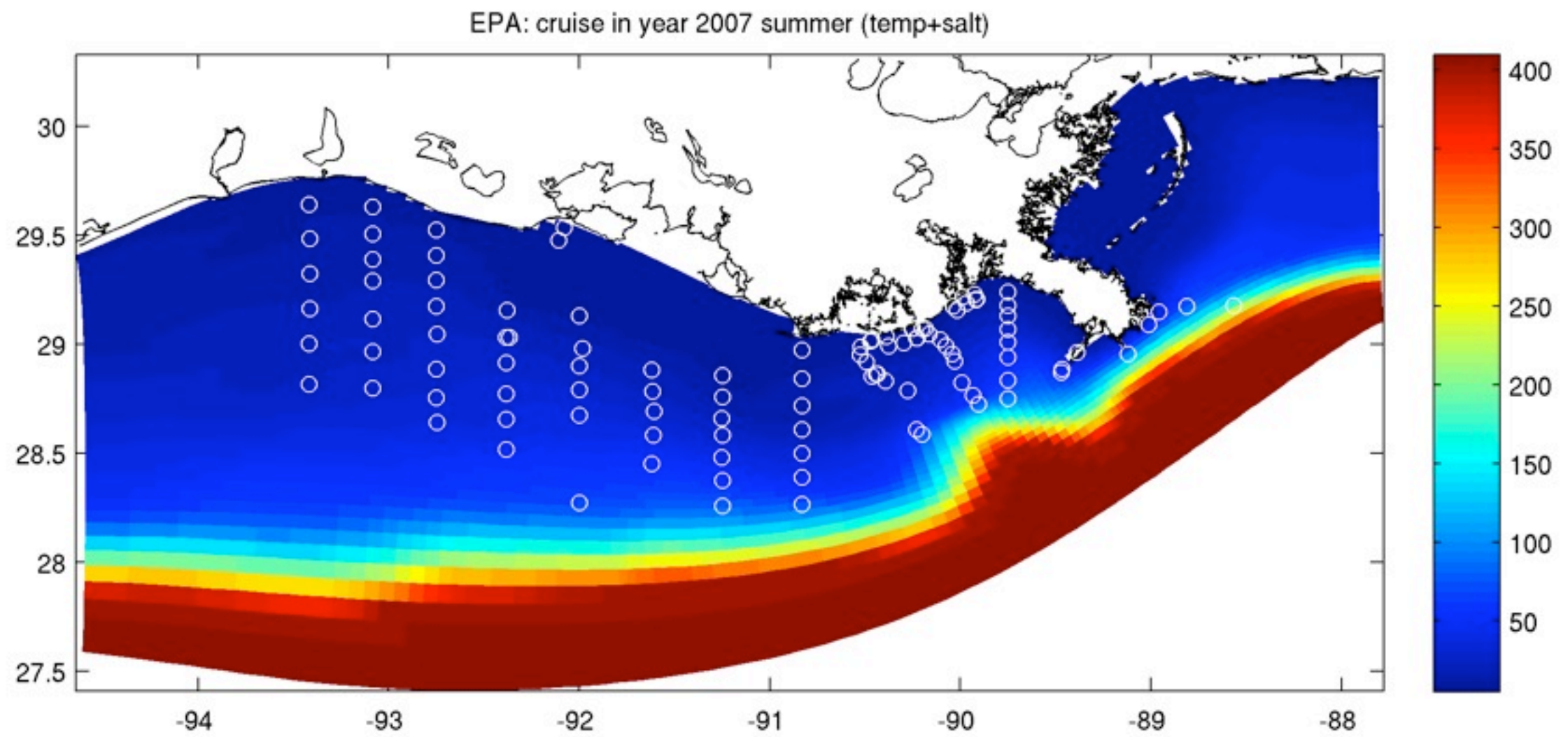




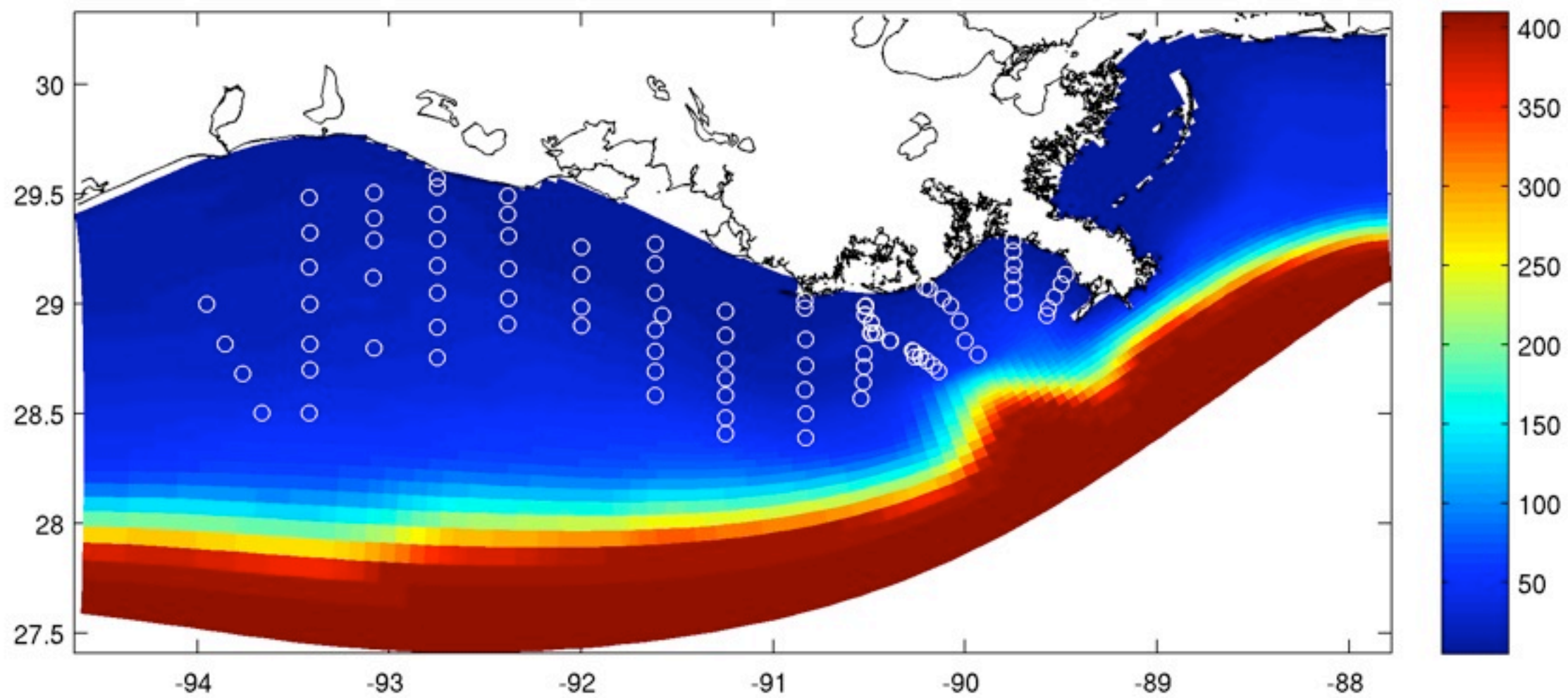
EPA: cruise in year 2007 summer (PP)

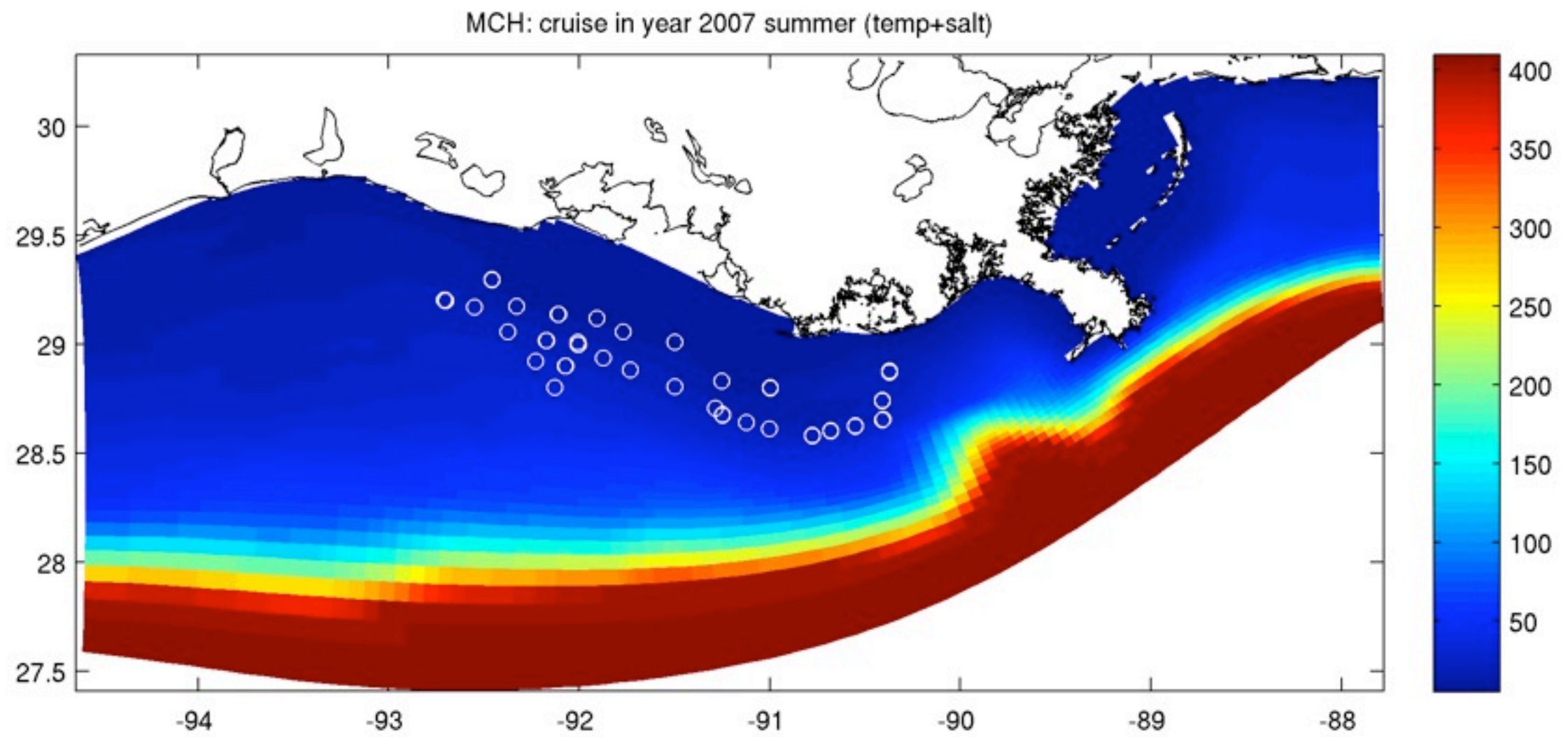






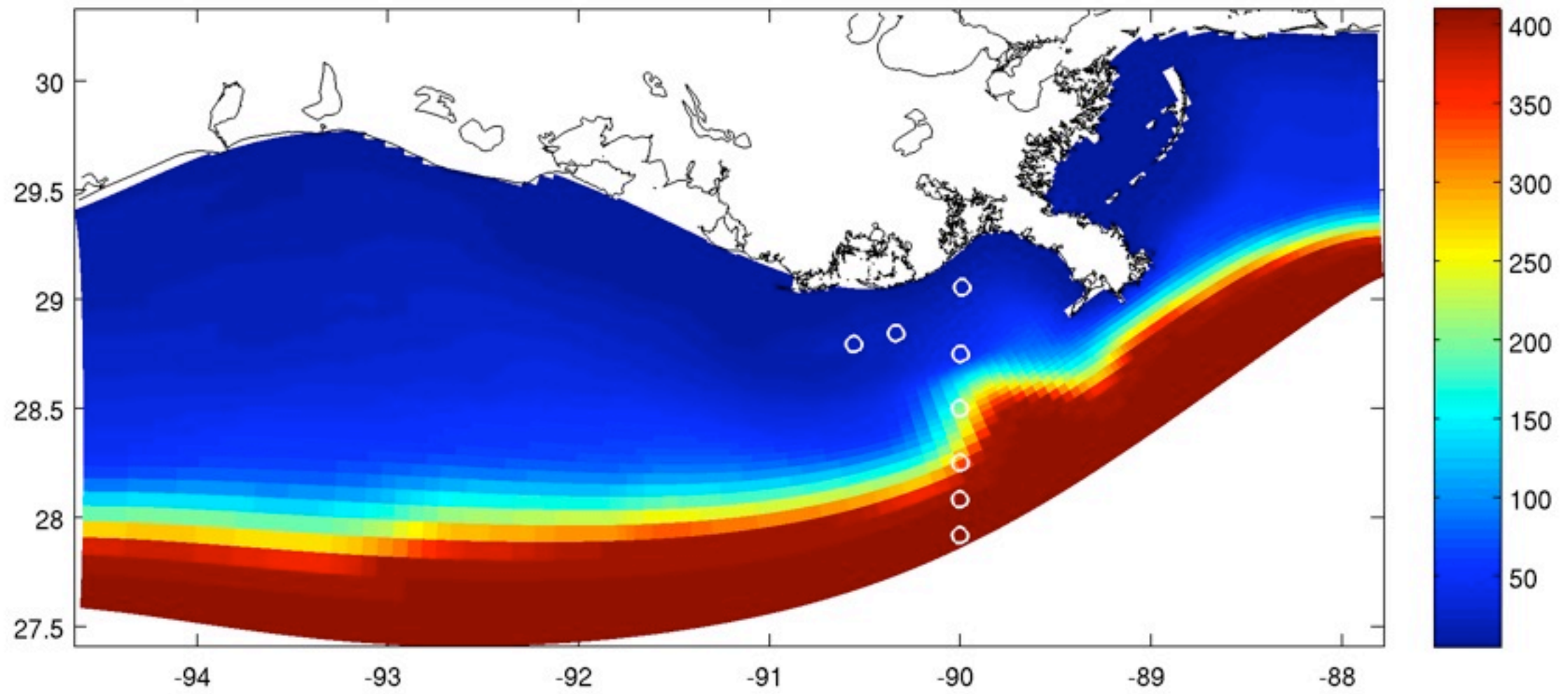
LUMCON: cruise in year 2007 summer (temp+salt)



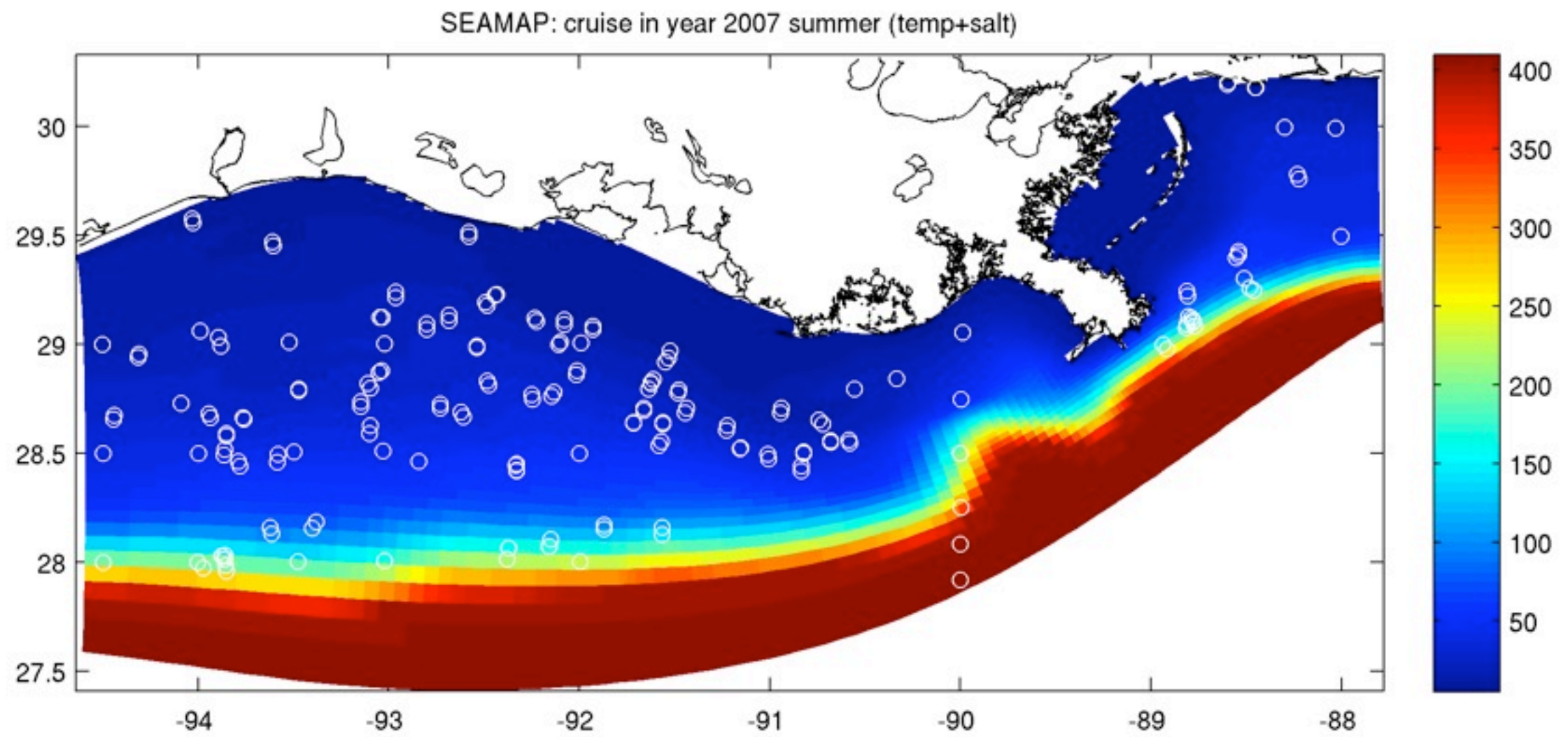


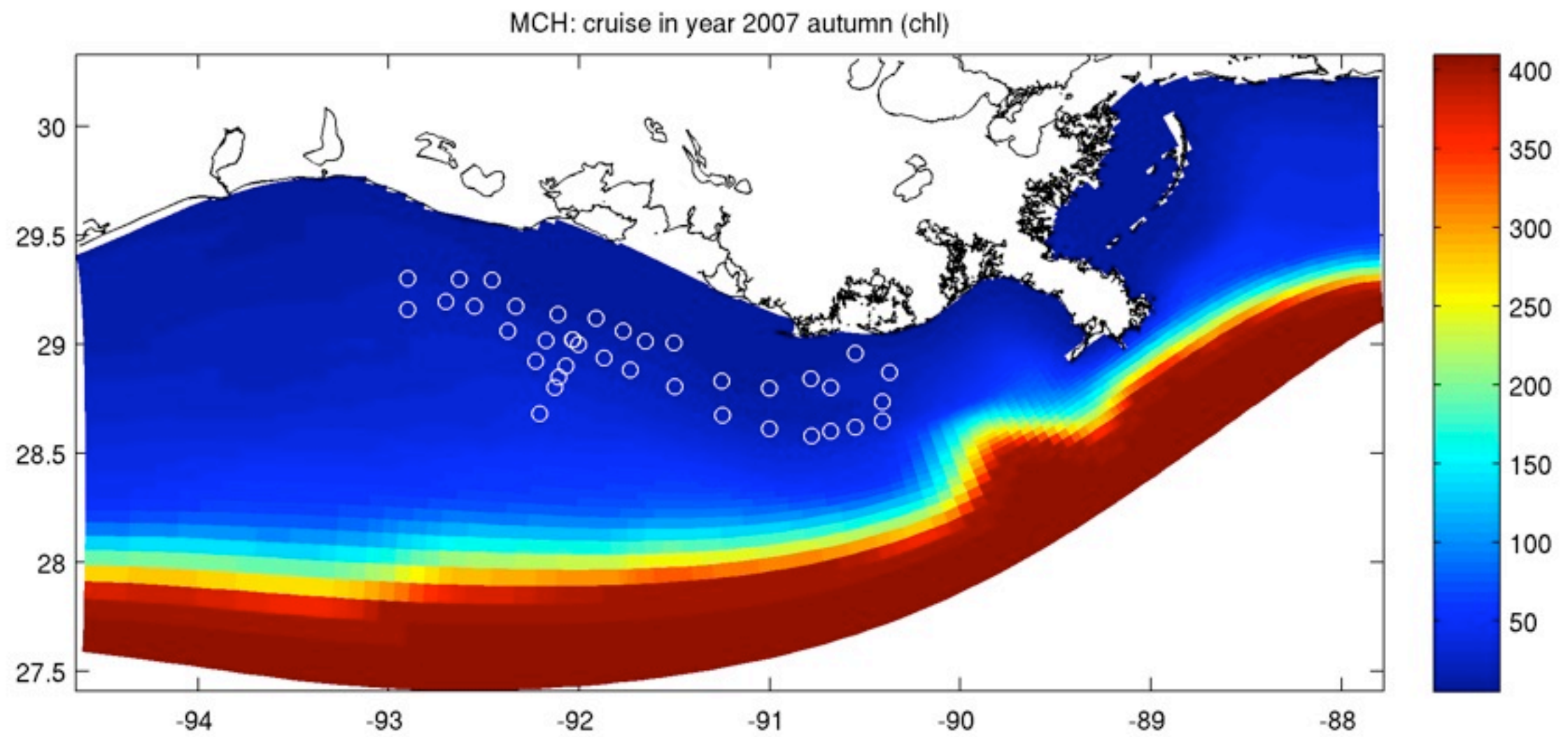


NODC: cruise in year 2007 summer (temp+salt)

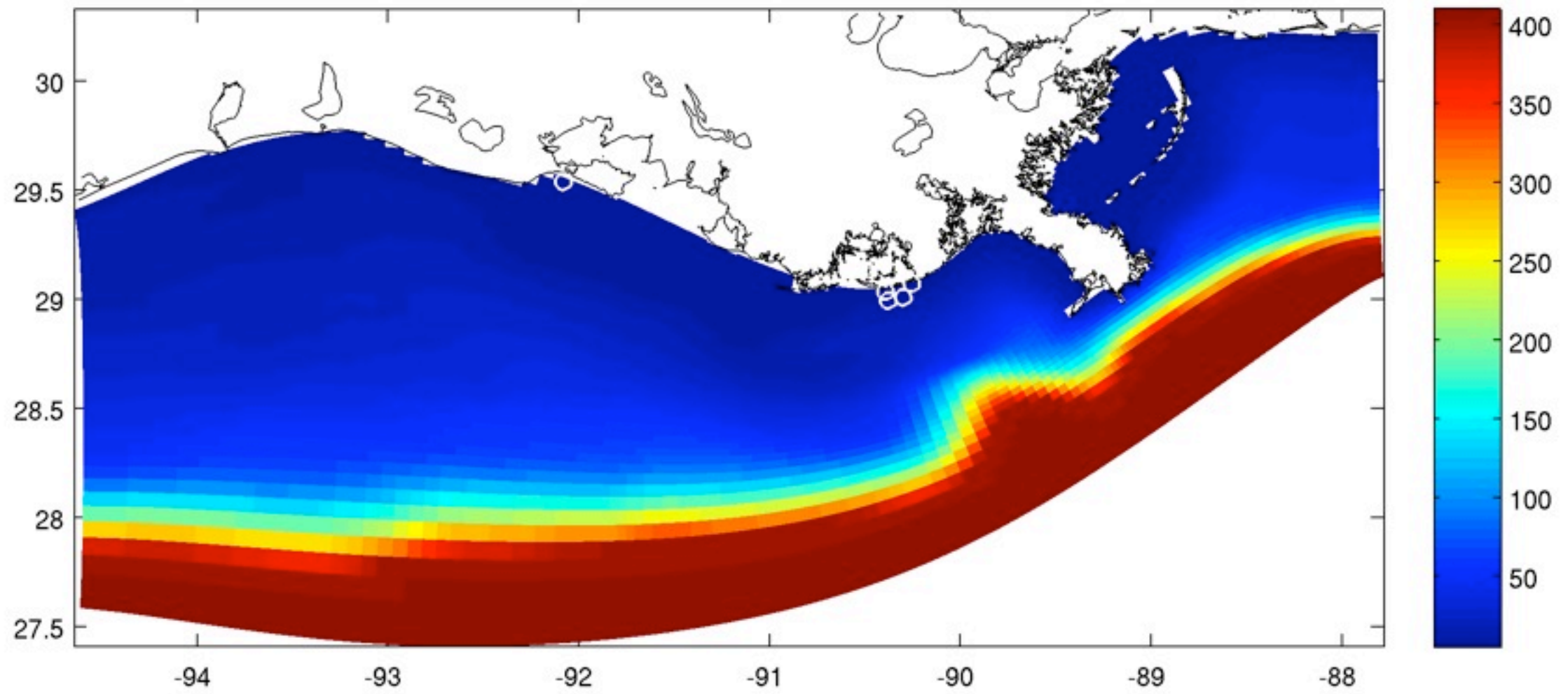






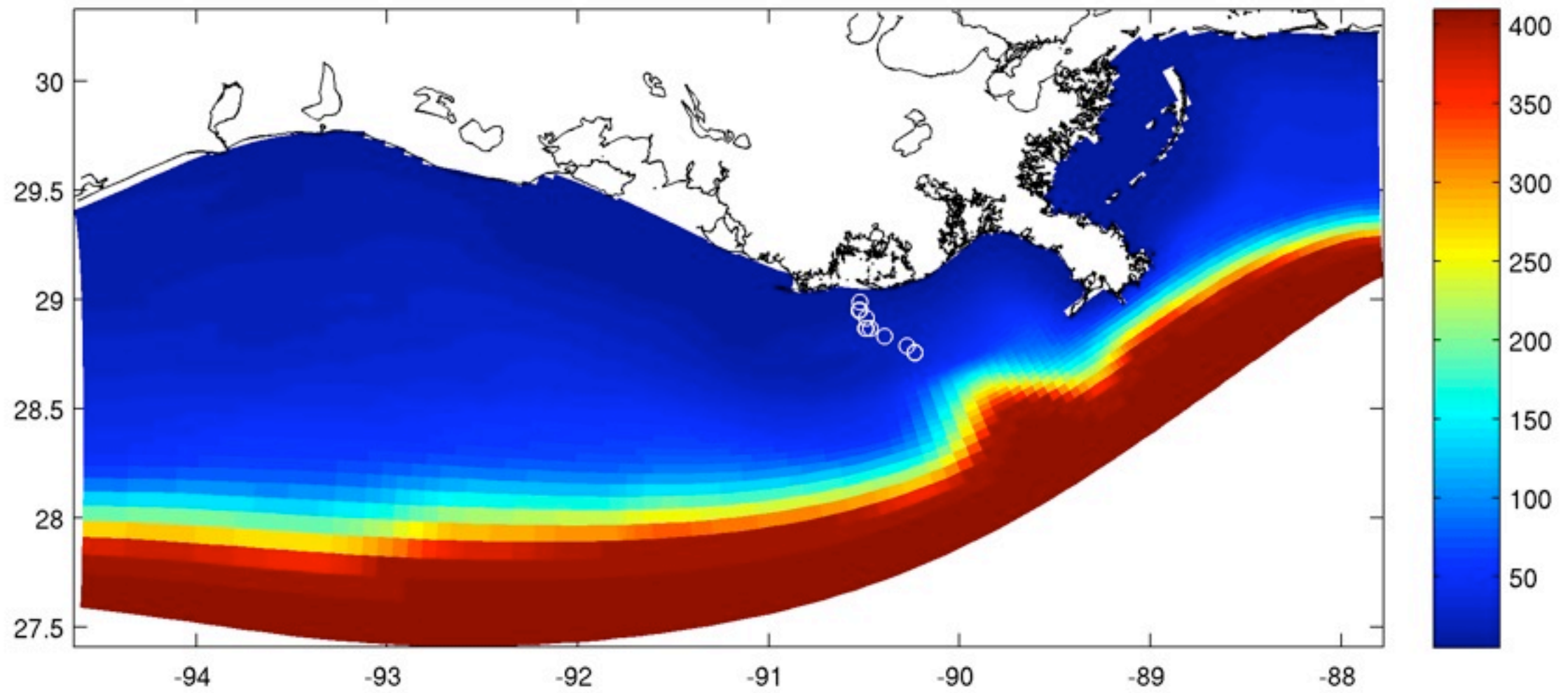


EPA: cruise in year 2007 autumn (NH4)



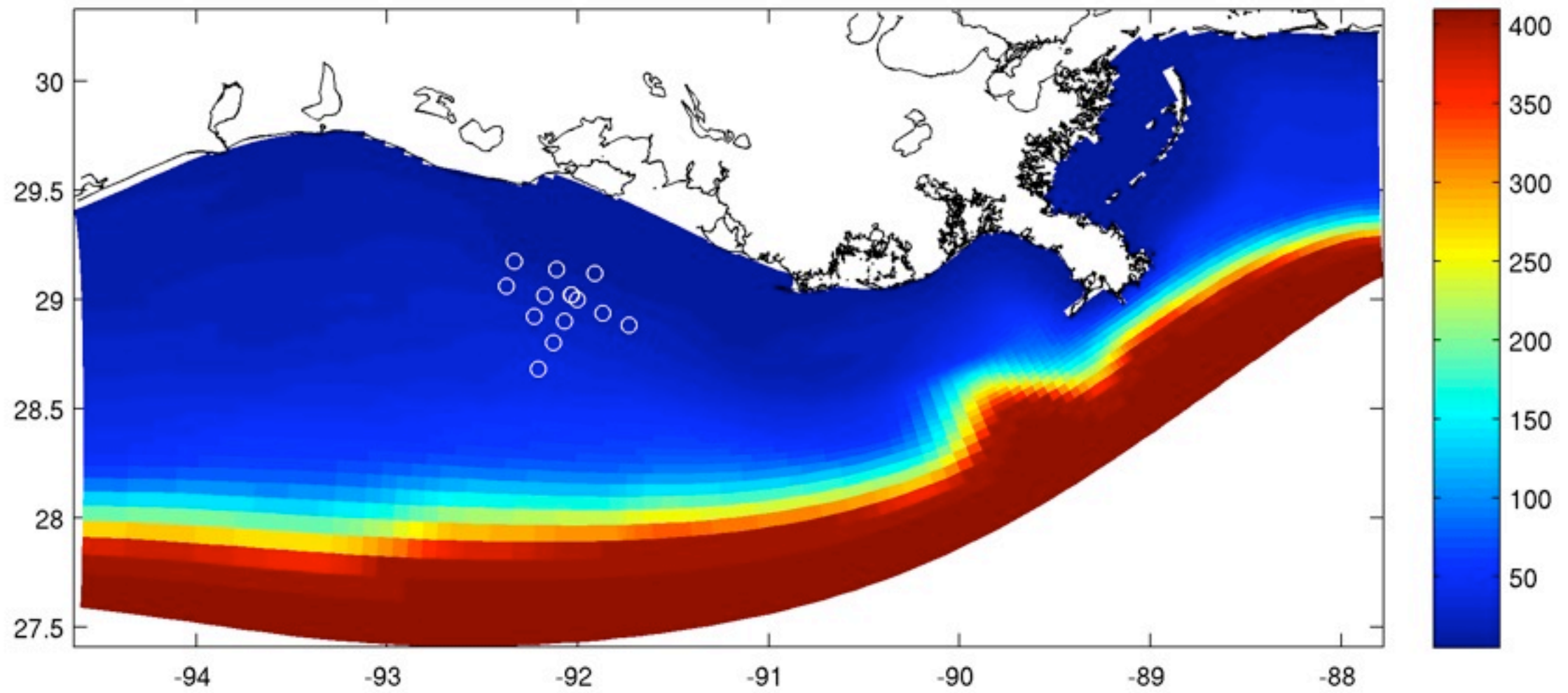


LUMCON: cruise in year 2007 autumn (NH4)

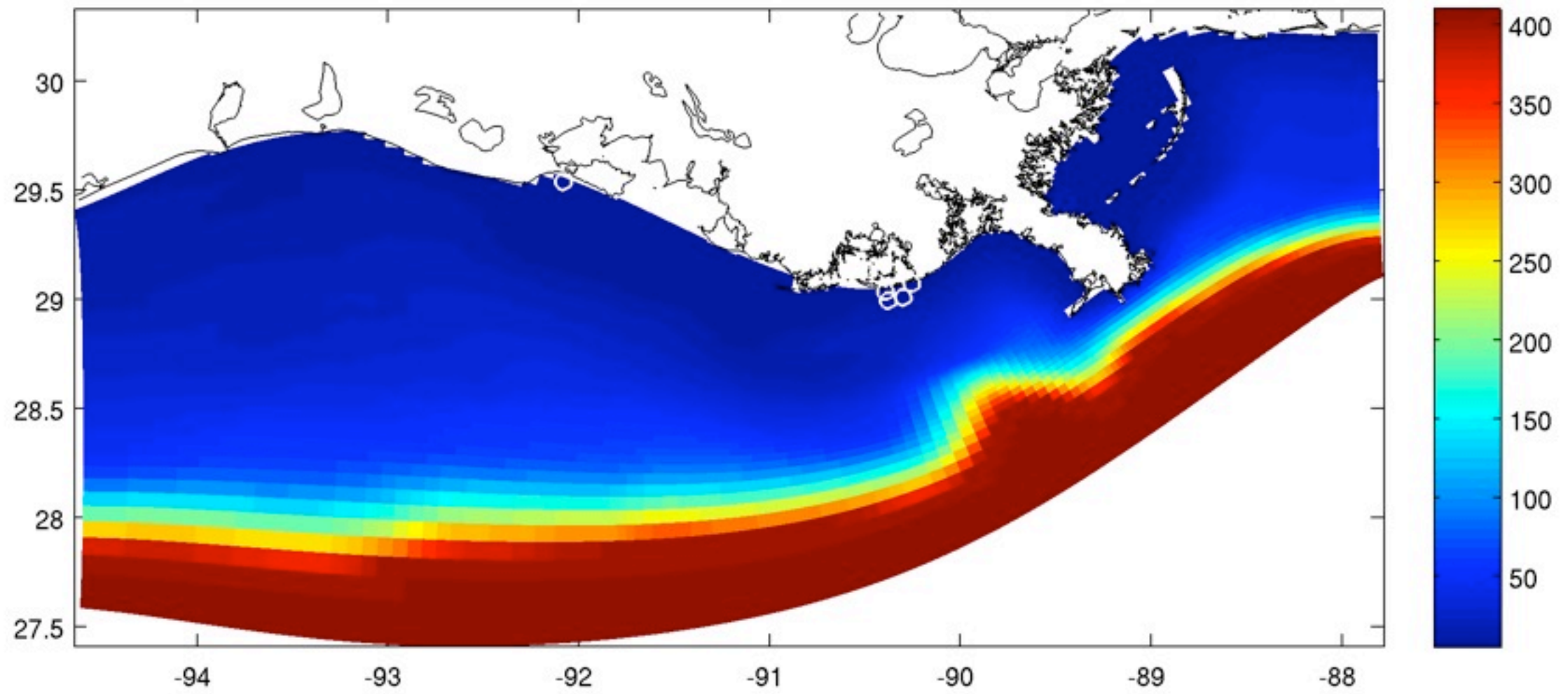




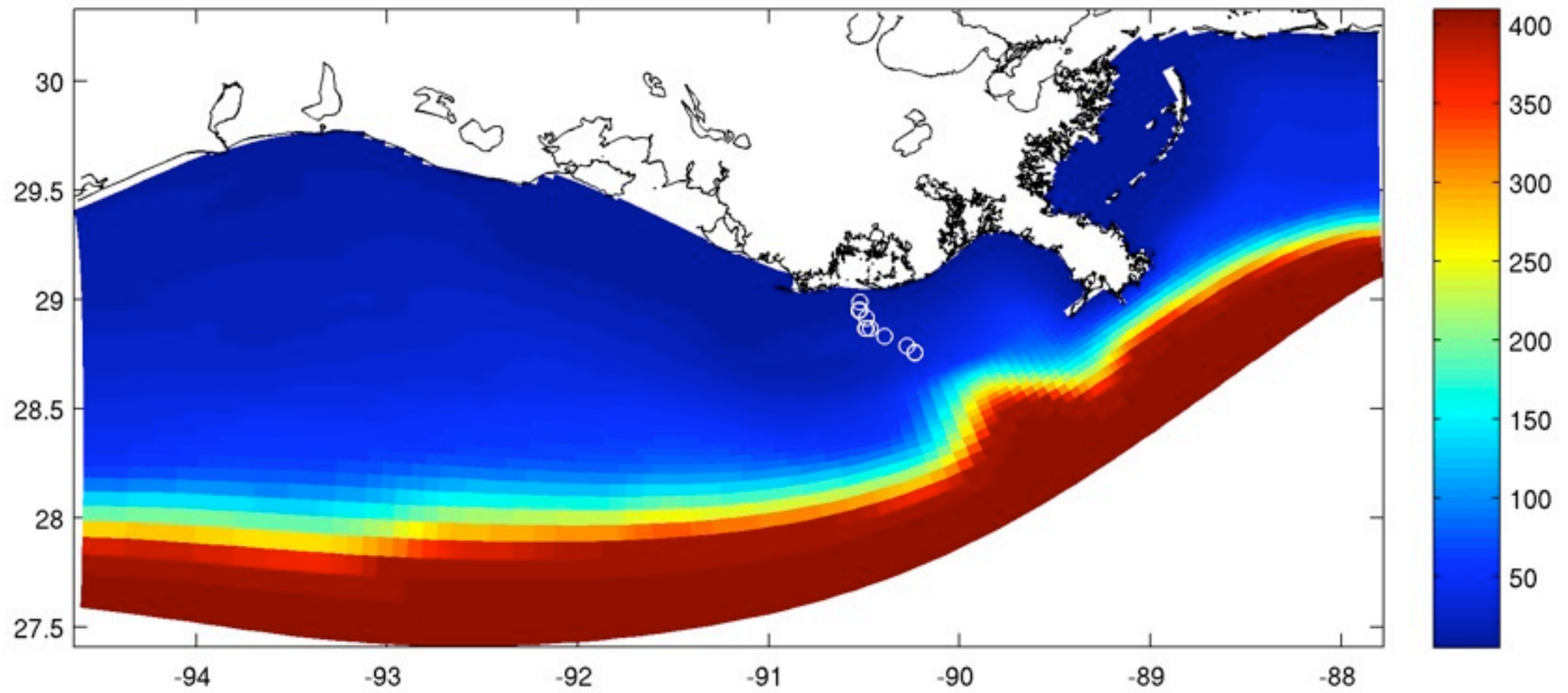
MCH: cruise in year 2007 autumn (NH4)



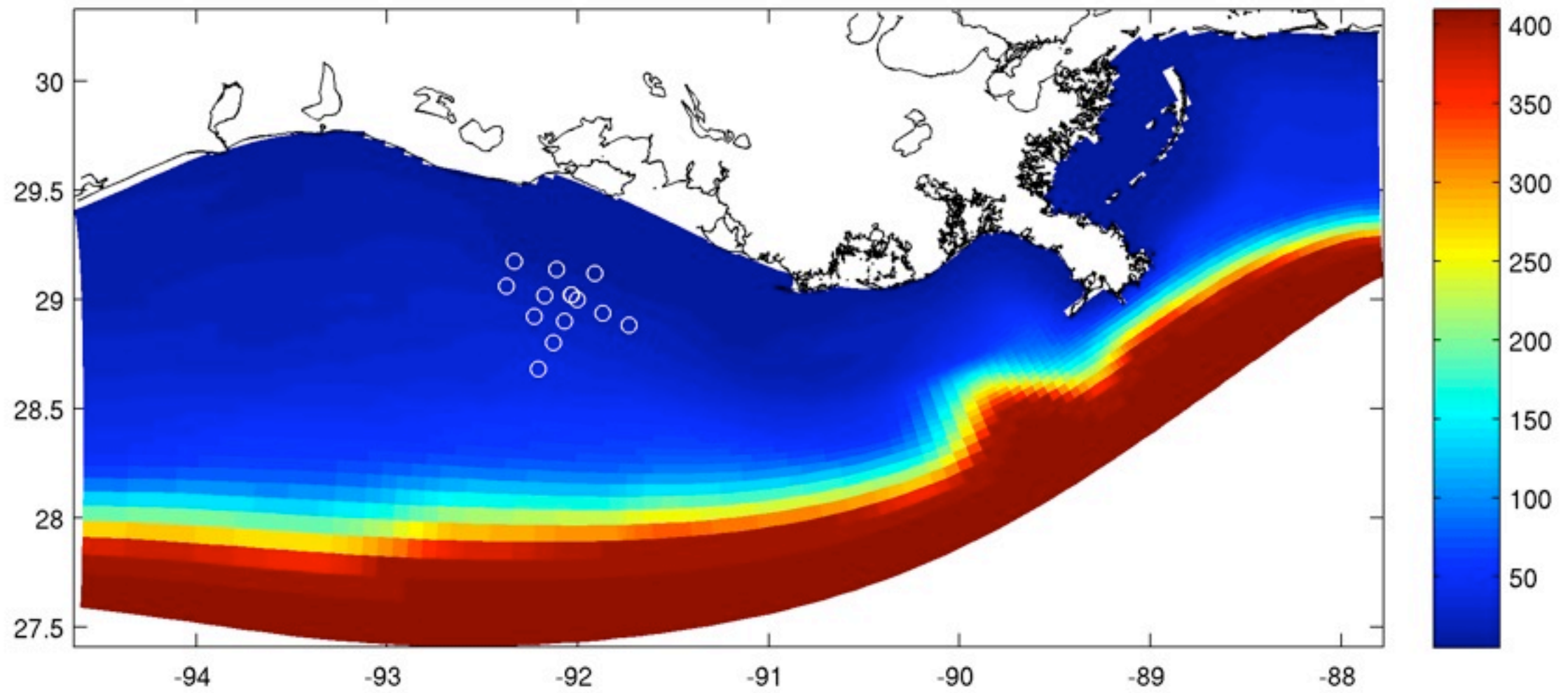
EPA: cruise in year 2007 autumn (NO23)



LUMCON: cruise in year 2007 autumn (NO23)

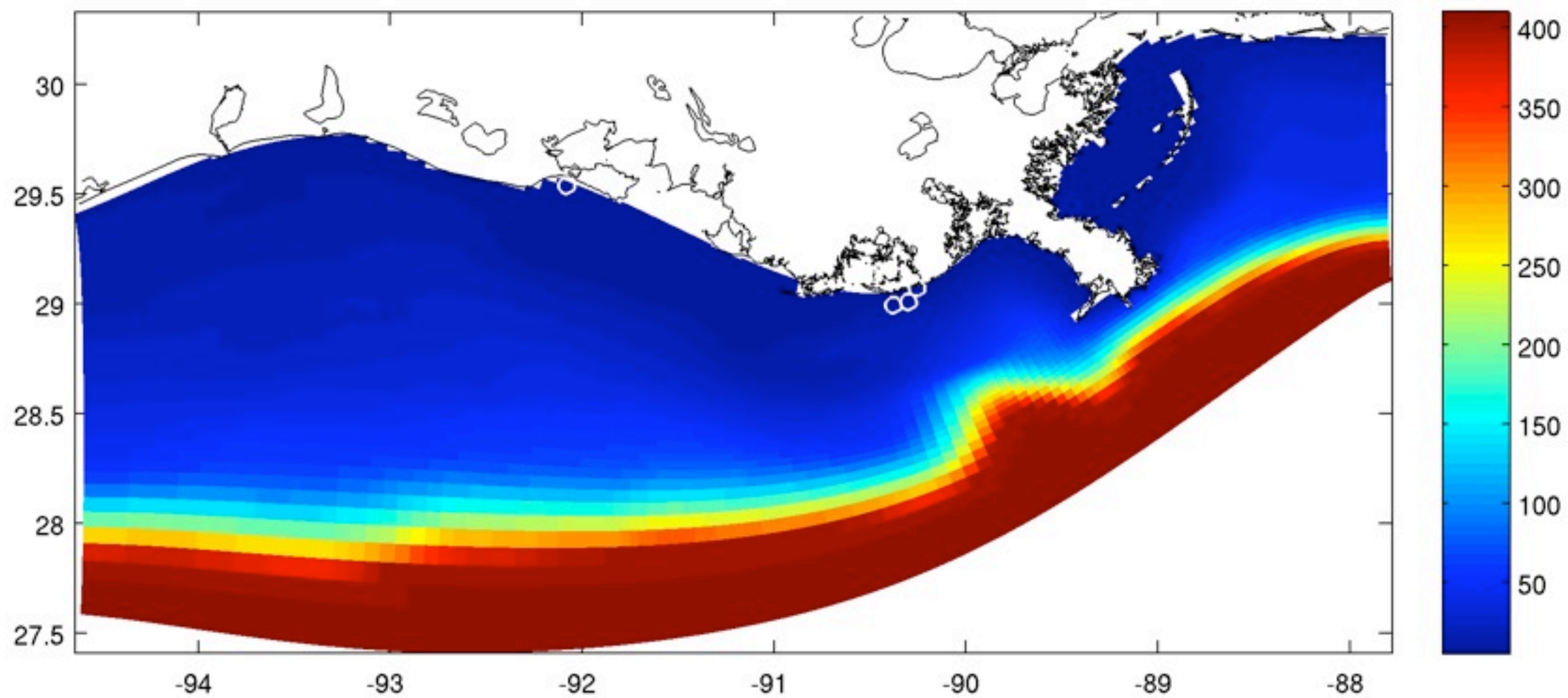


MCH: cruise in year 2007 autumn (NO23)

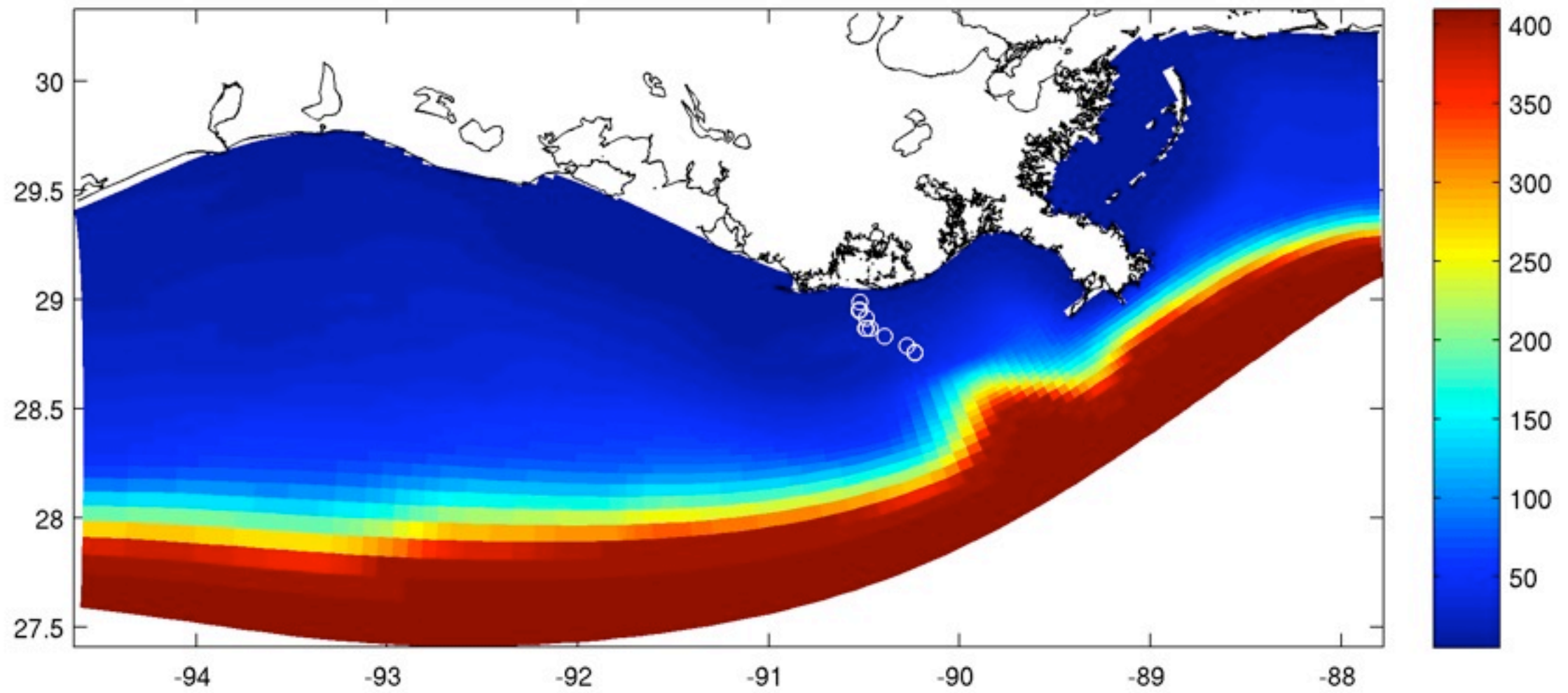


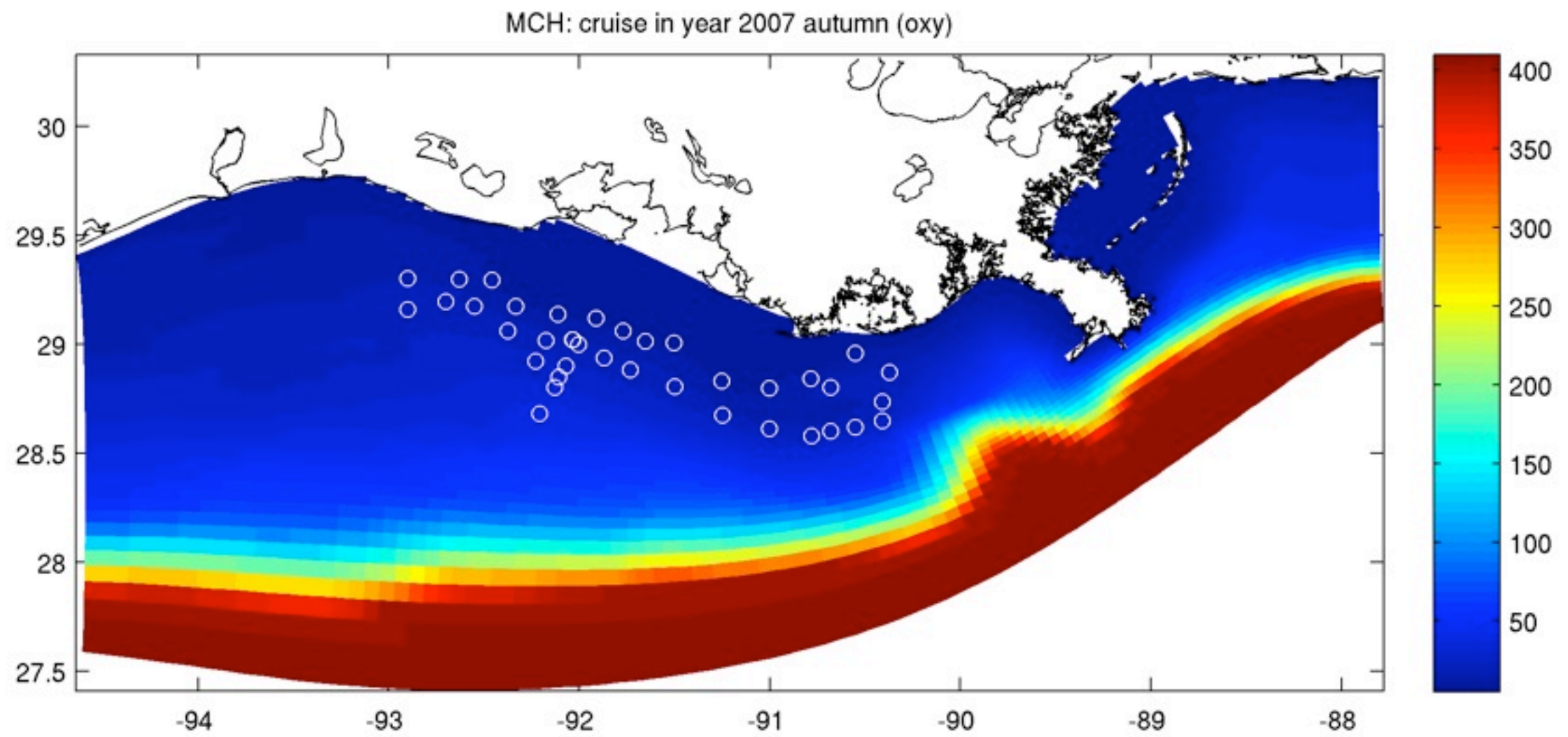


EPA: cruise in year 2007 autumn (oxy)

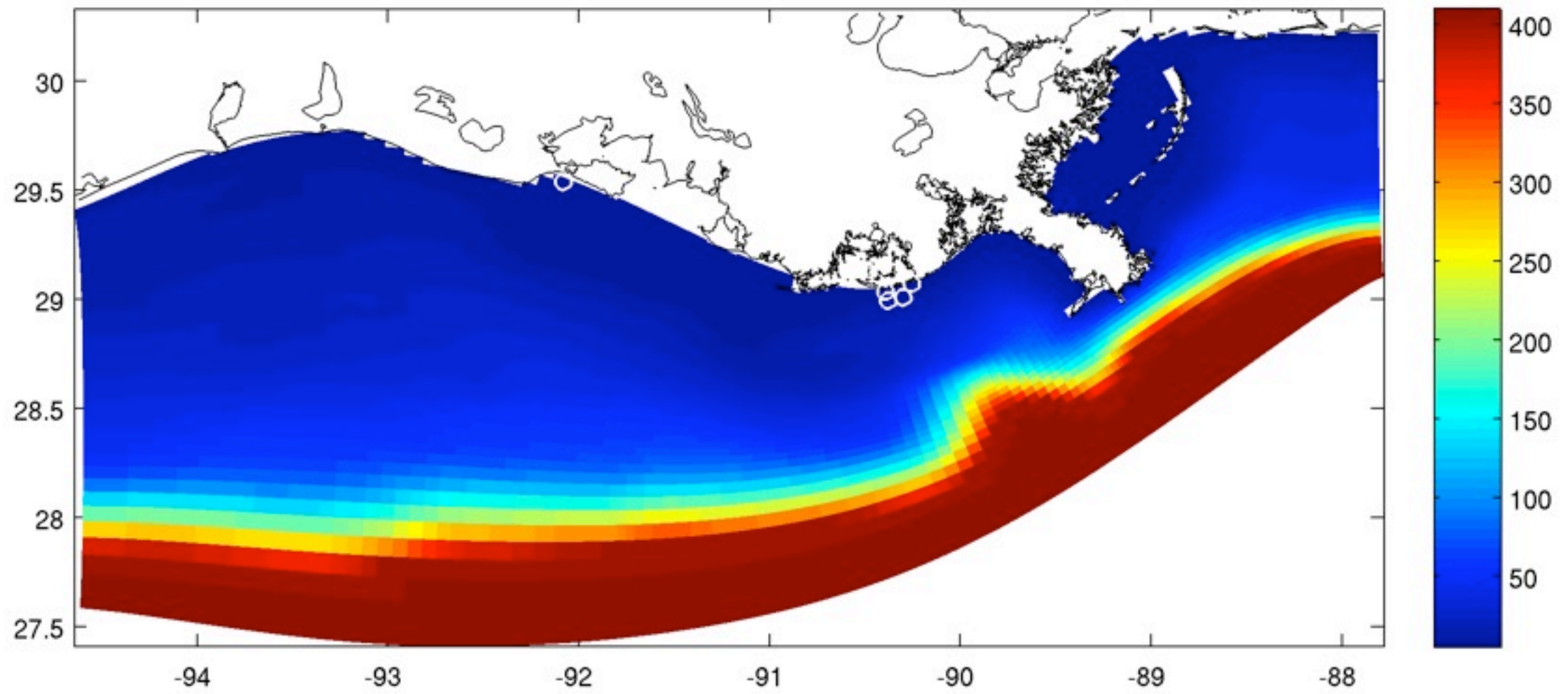


LUMCON: cruise in year 2007 autumn (oxy)



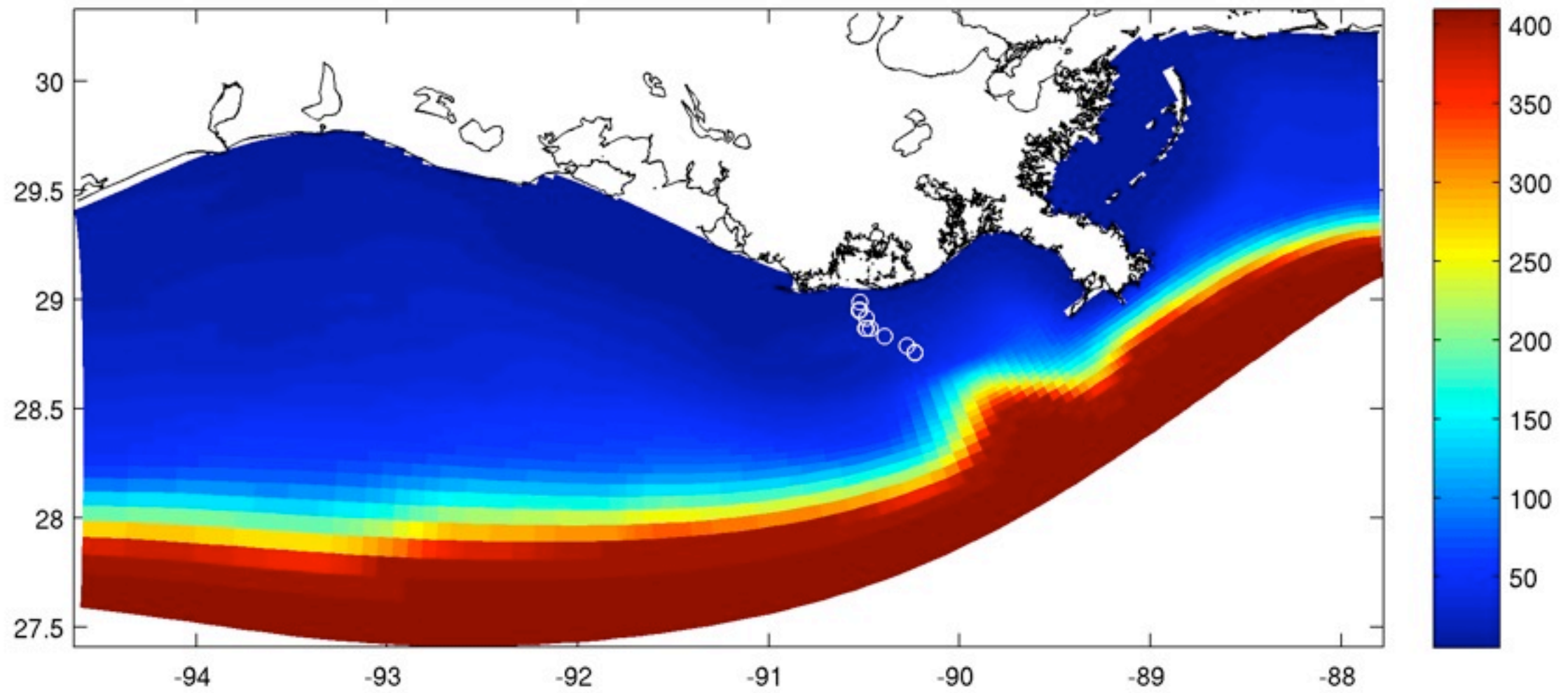


EPA: cruise in year 2007 autumn (PO4)

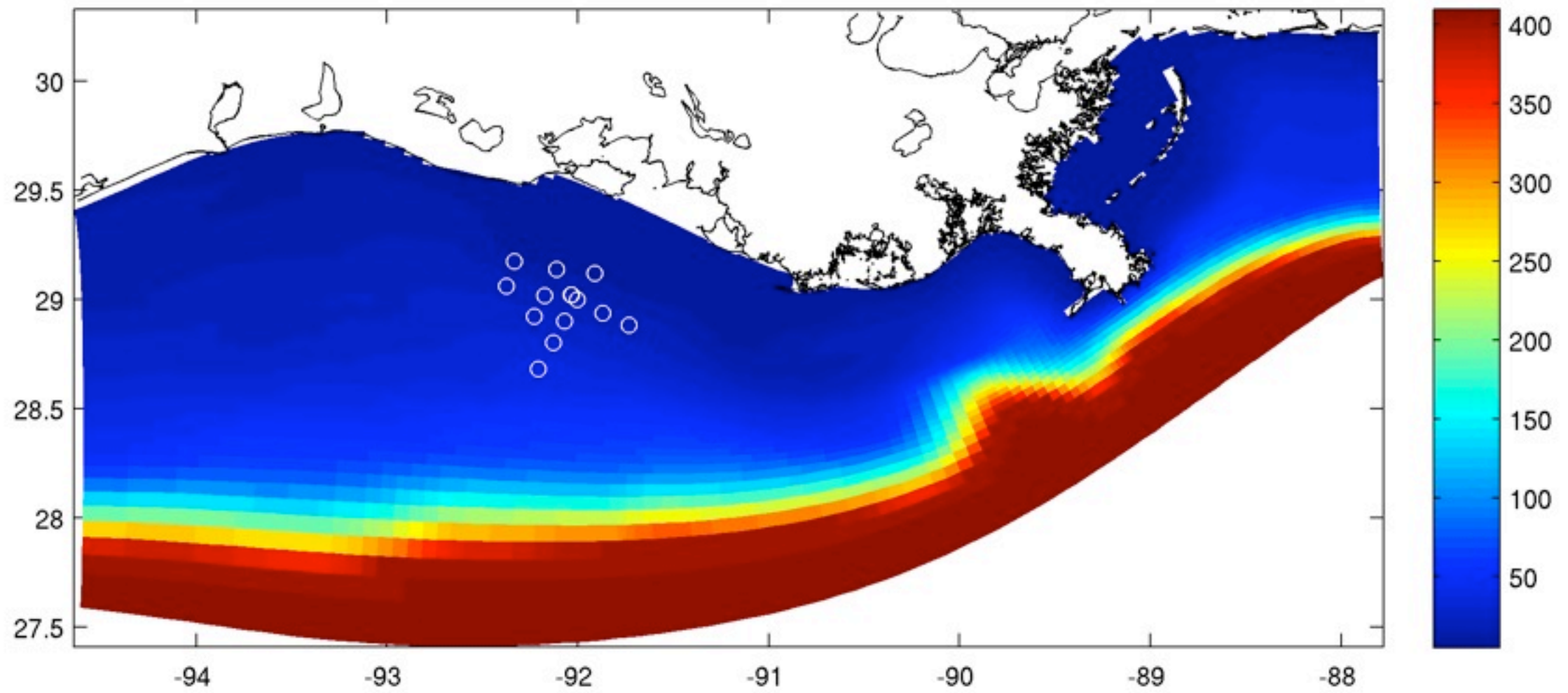




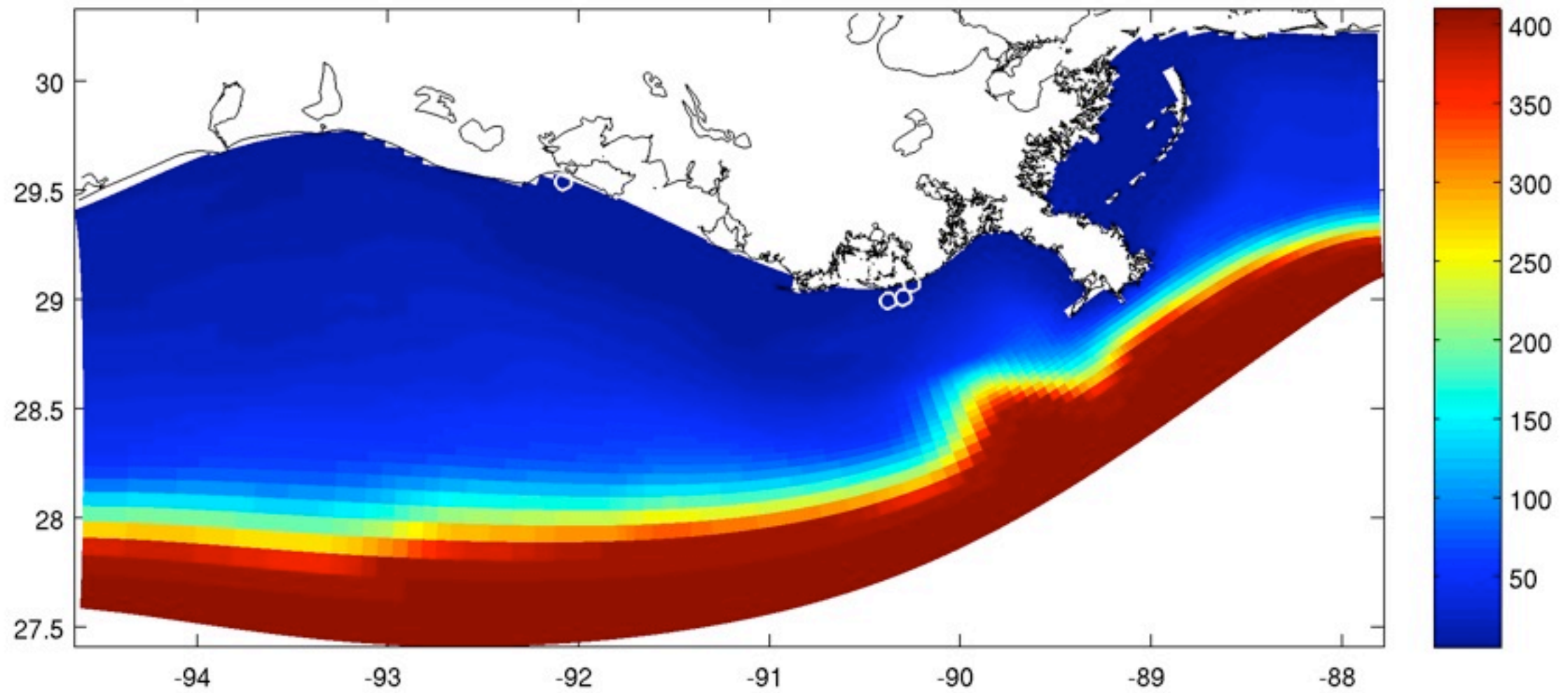
LUMCON: cruise in year 2007 autumn (PO4)



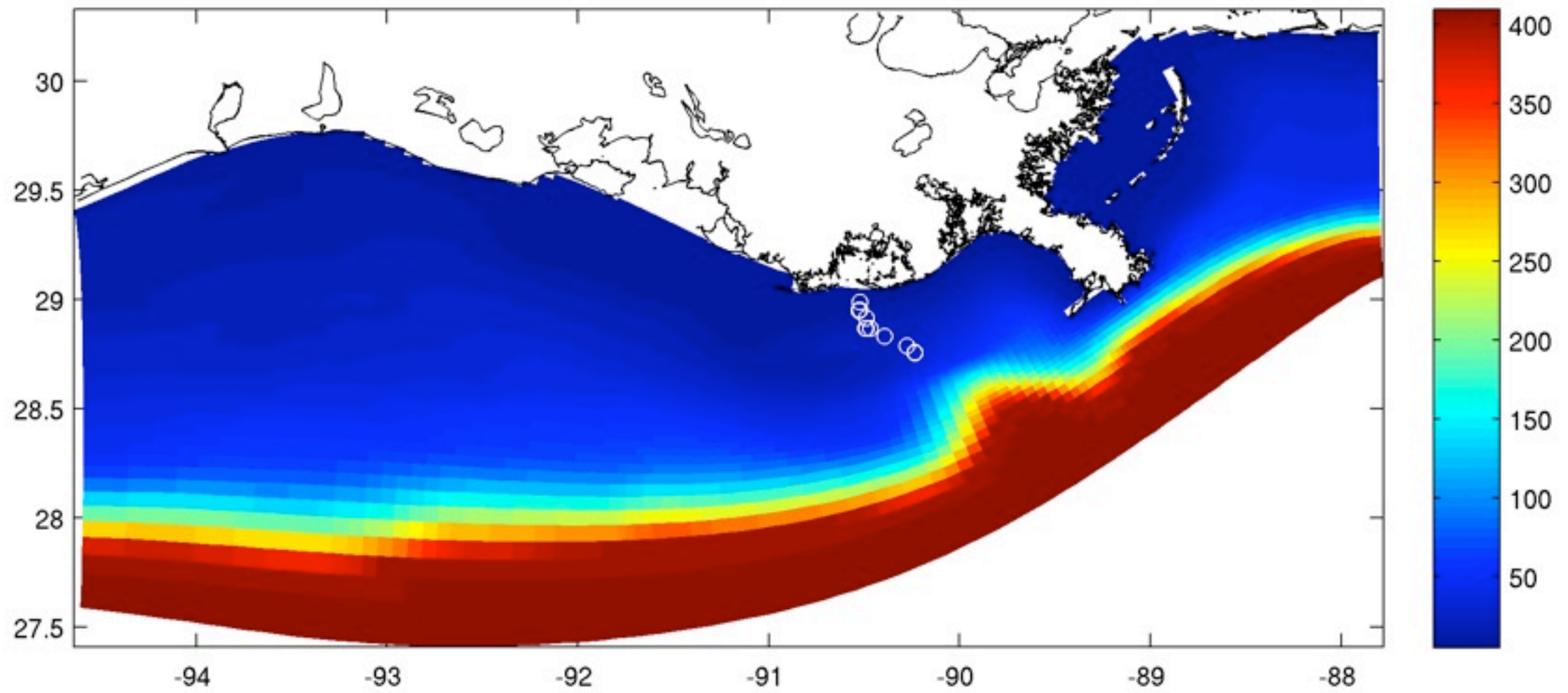
MCH: cruise in year 2007 autumn (PO4)



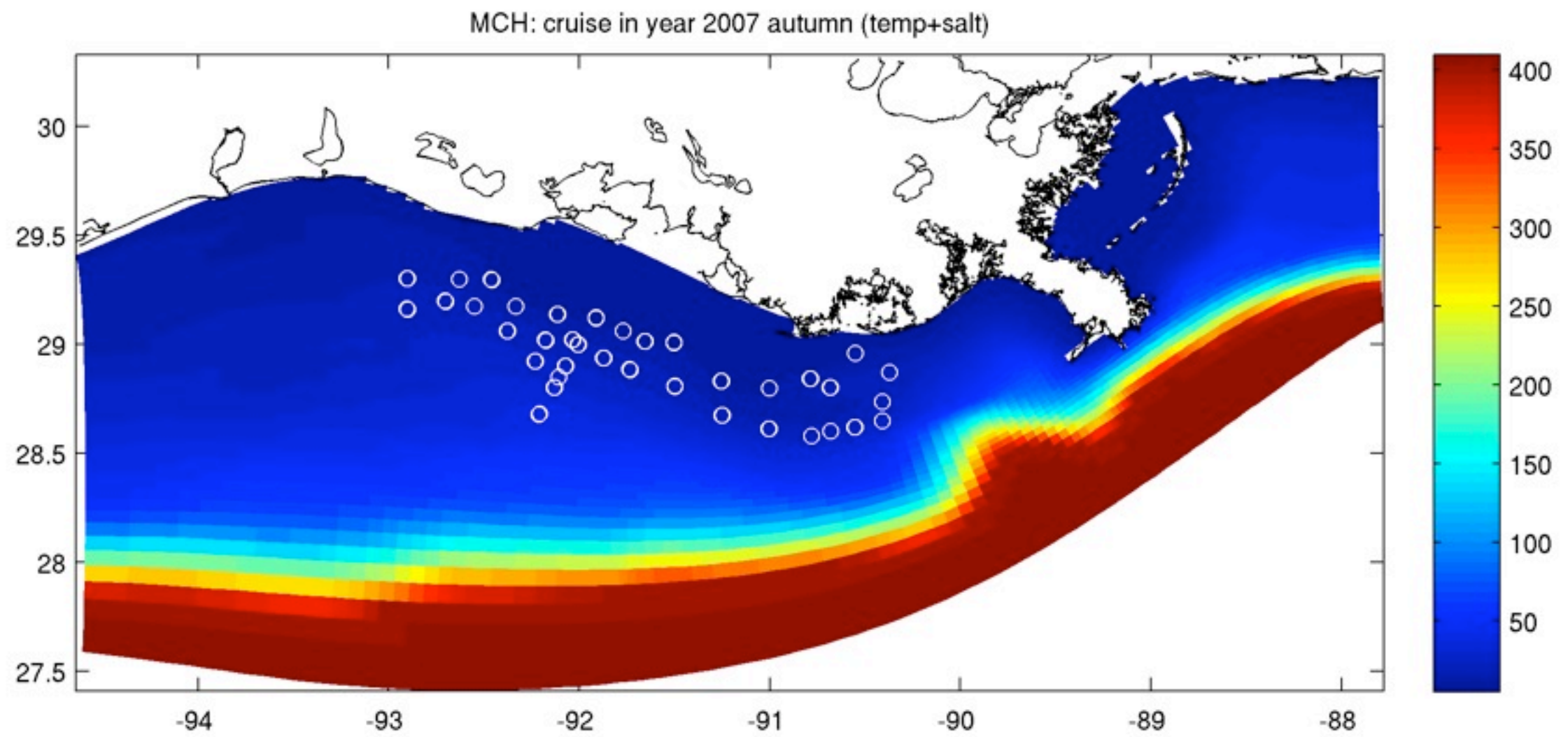
EPA: cruise in year 2007 autumn (temp+salt)

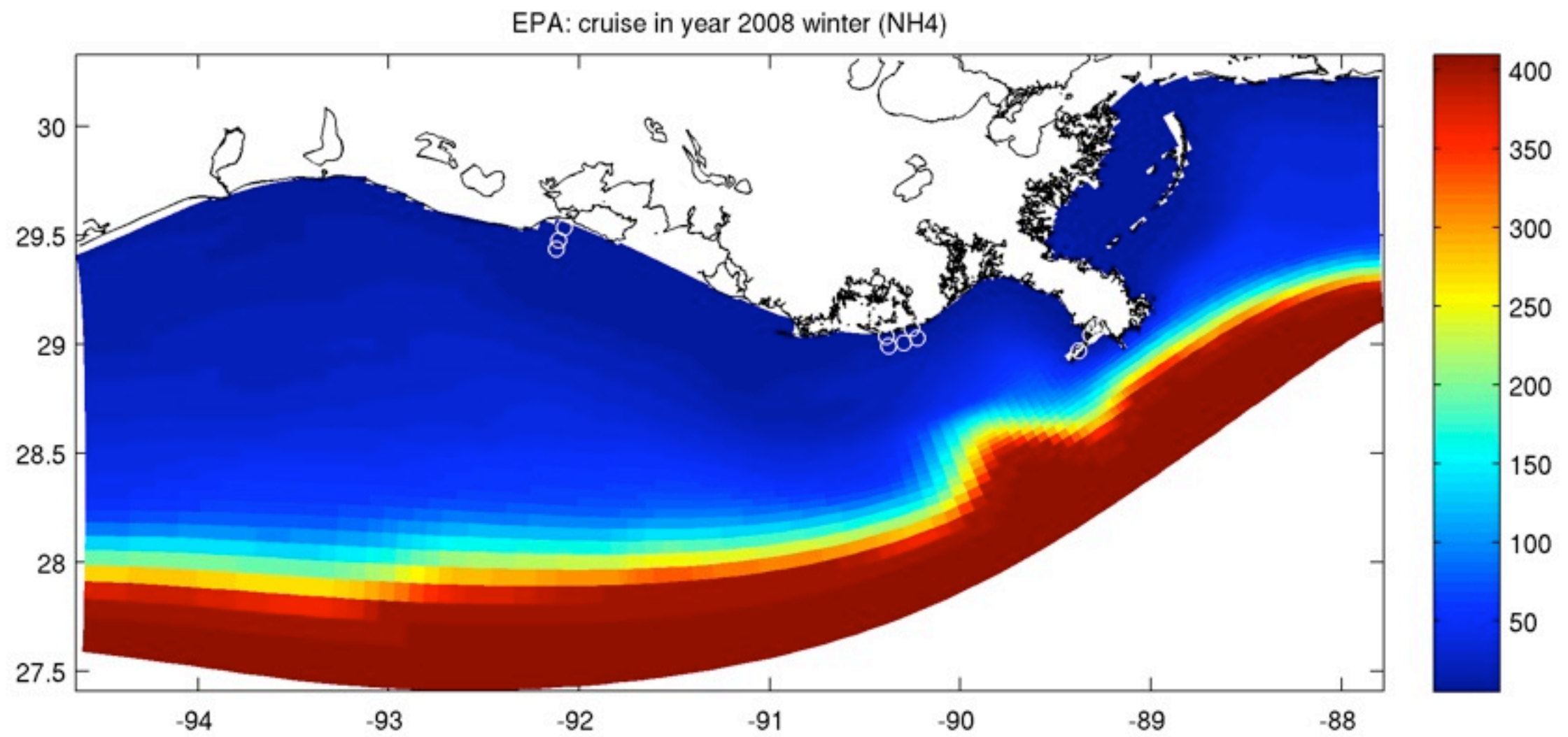


LUMCON: cruise in year 2007 autumn (temp+salt)

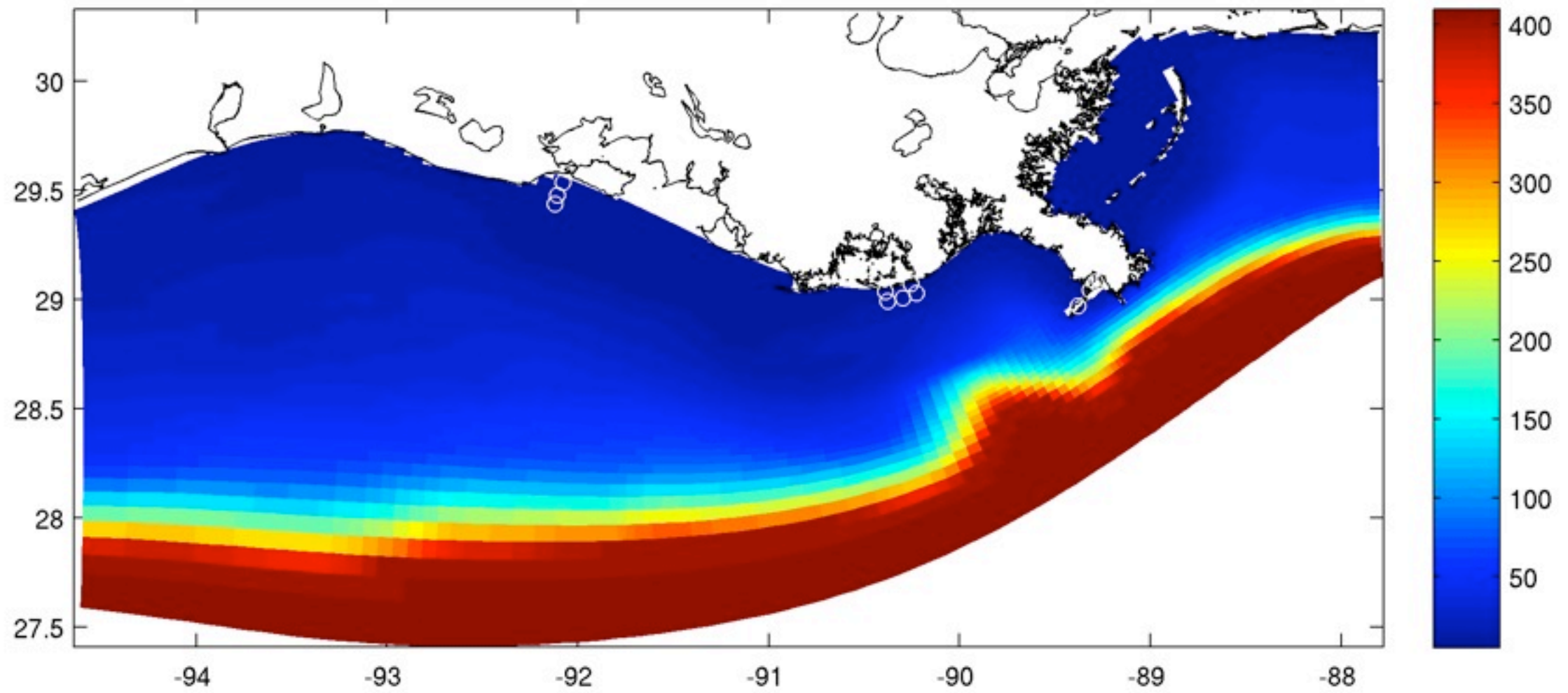




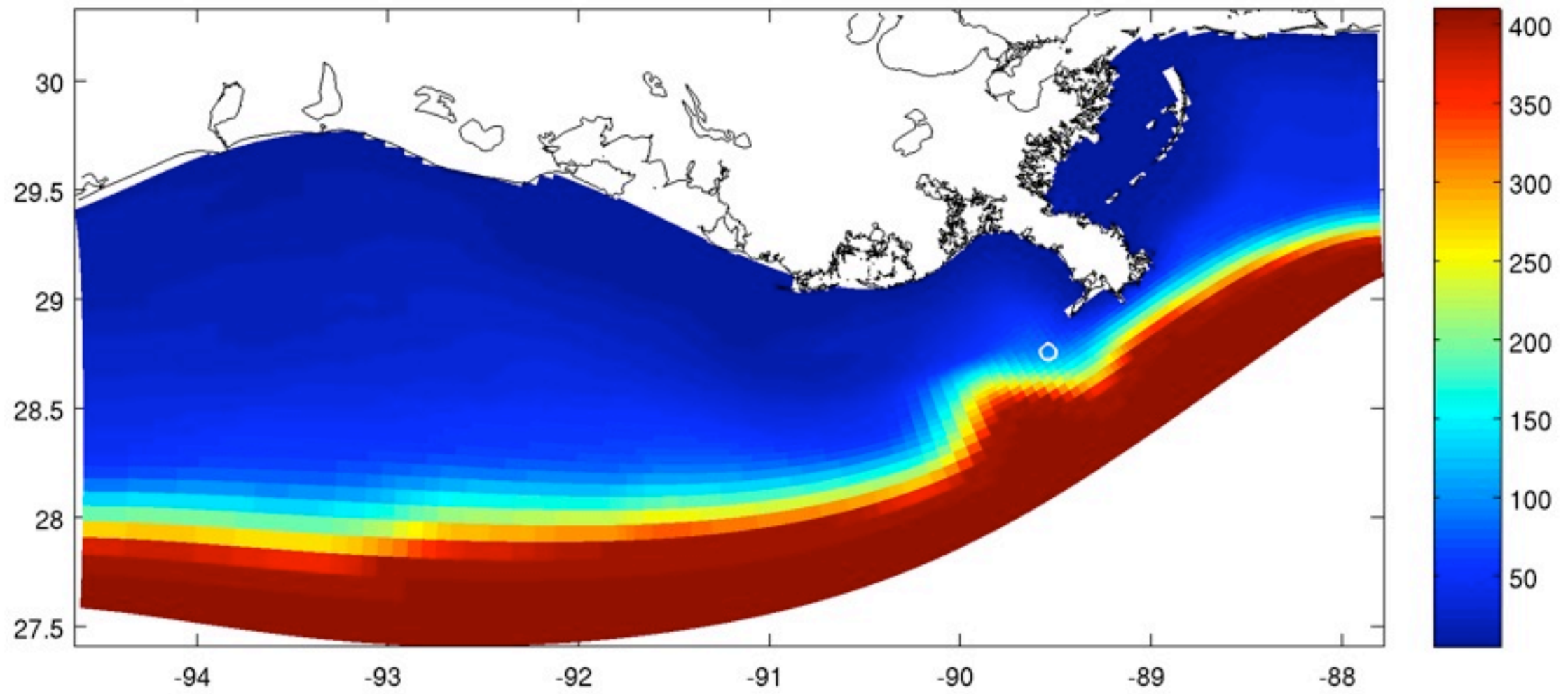




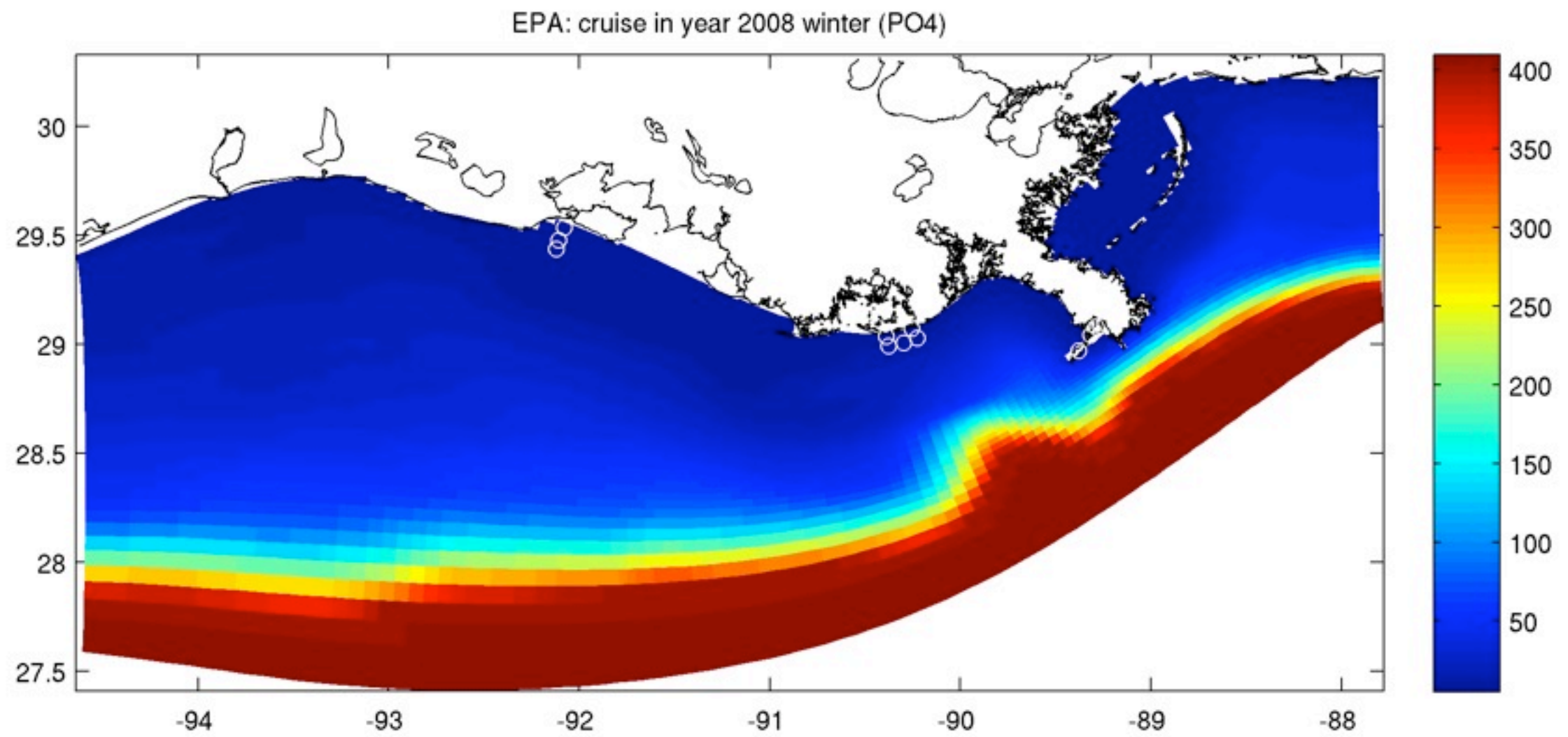
EPA: cruise in year 2008 winter (NO23)



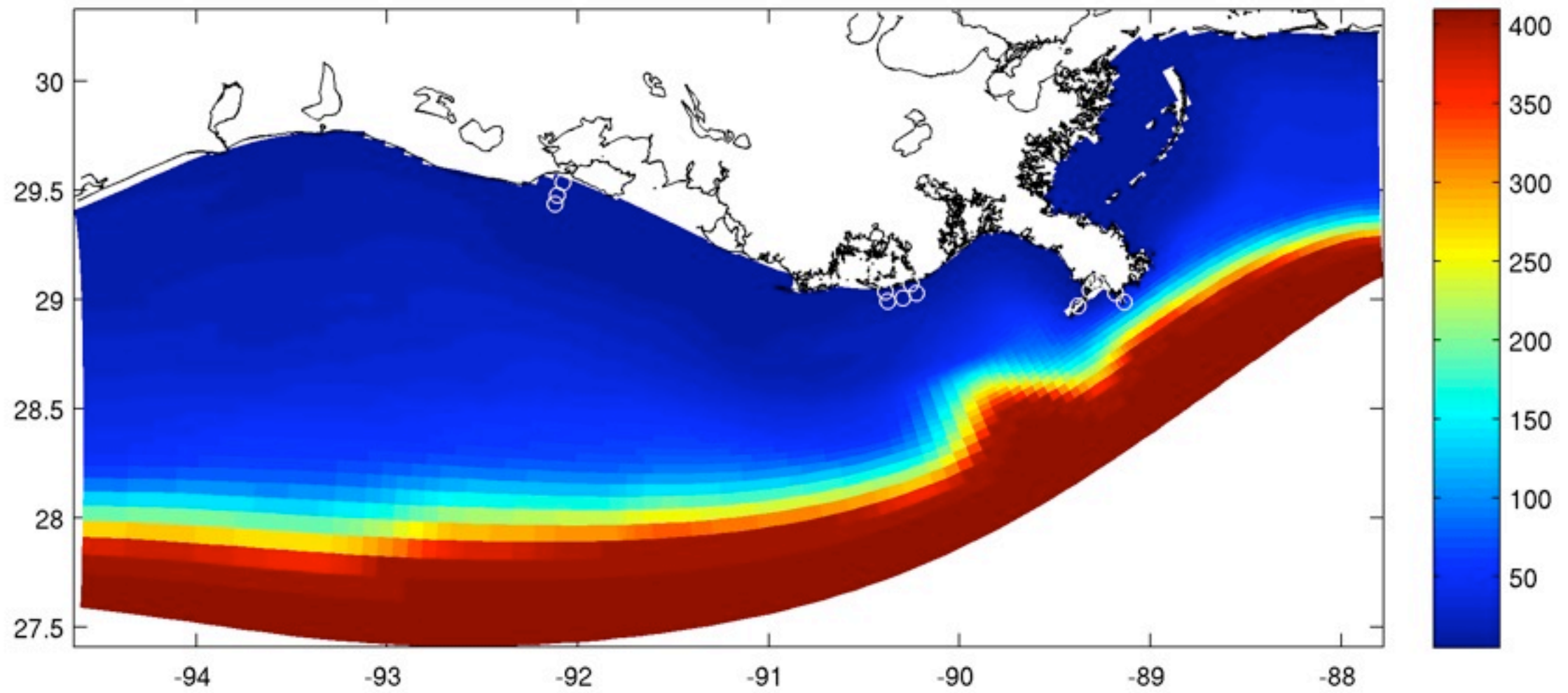
MAGMIX: cruise in year 2008 winter (oxy)



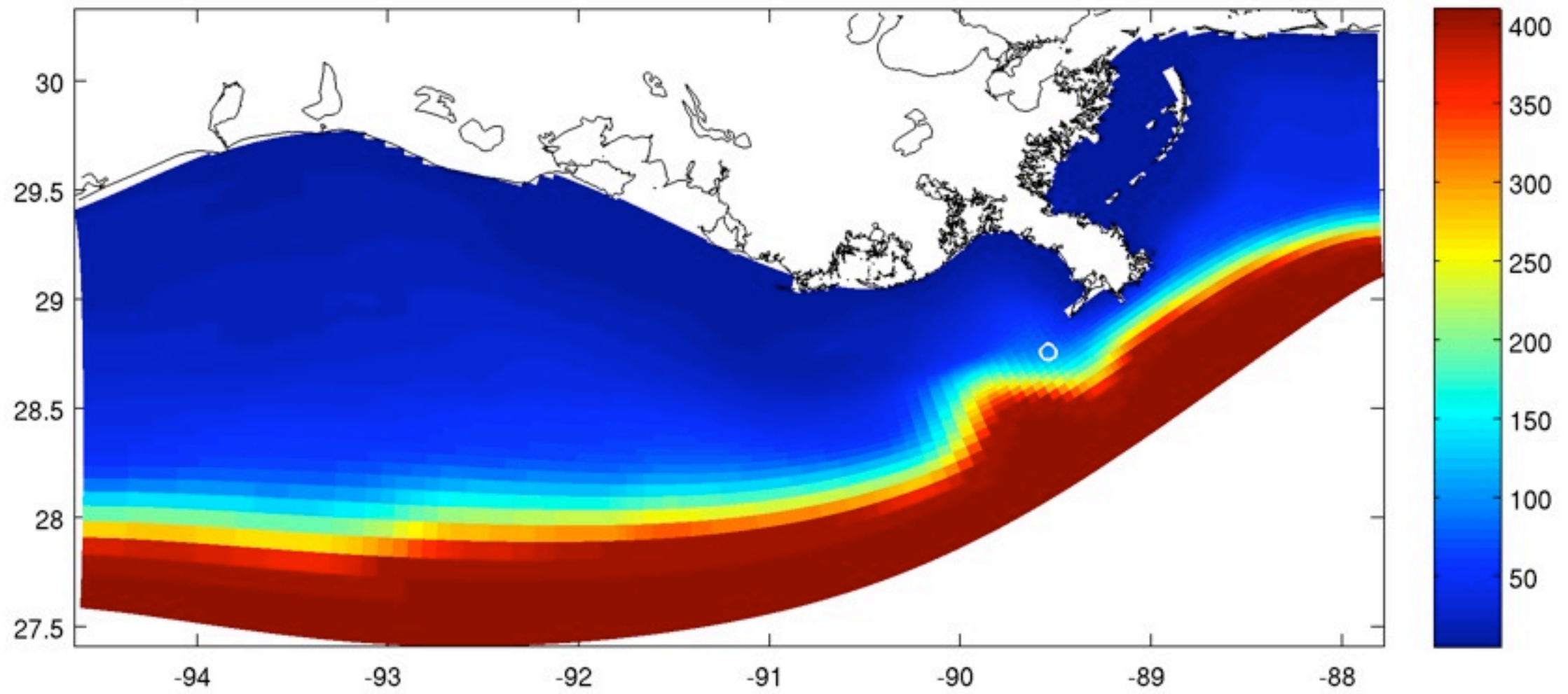


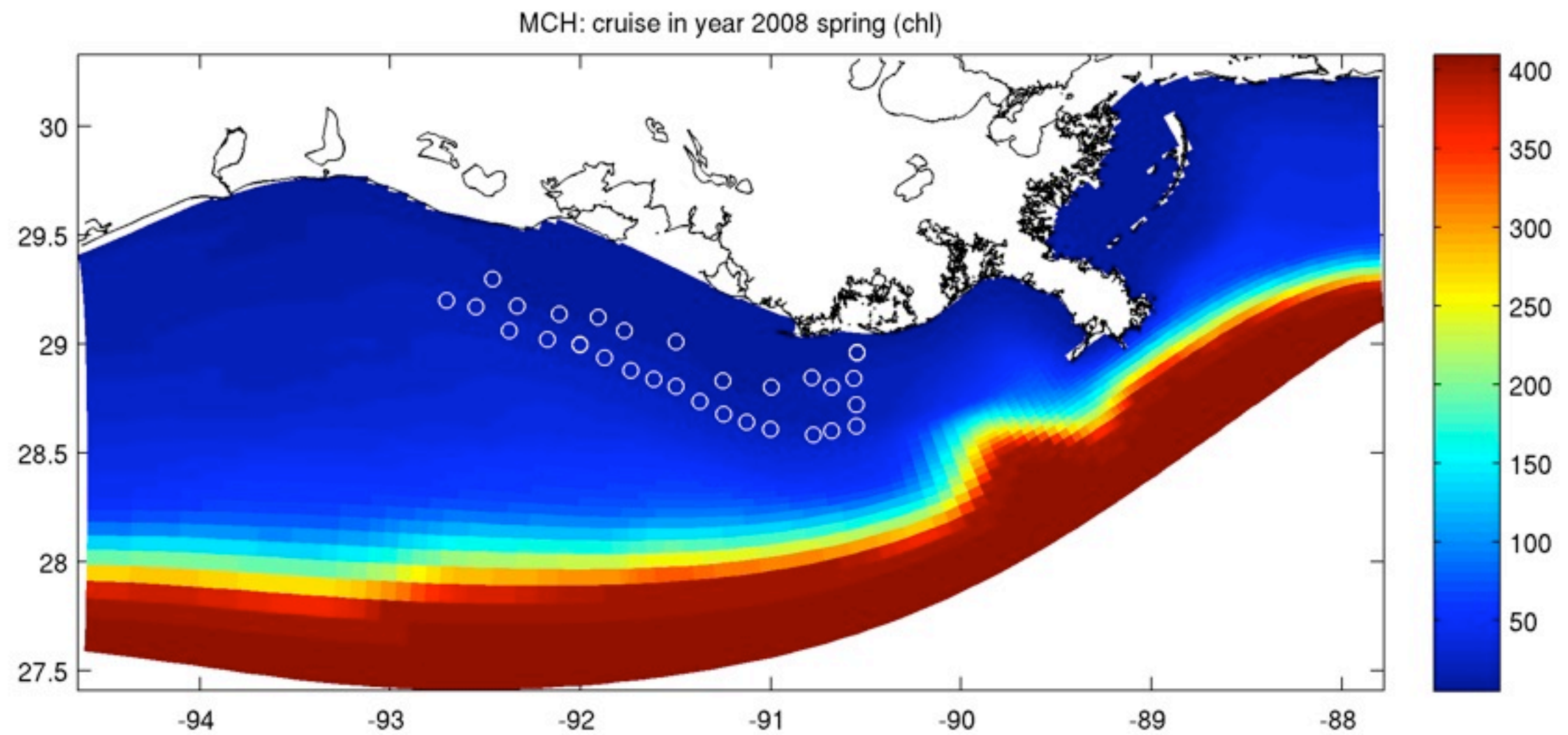


EPA: cruise in year 2008 winter (temp+salt)



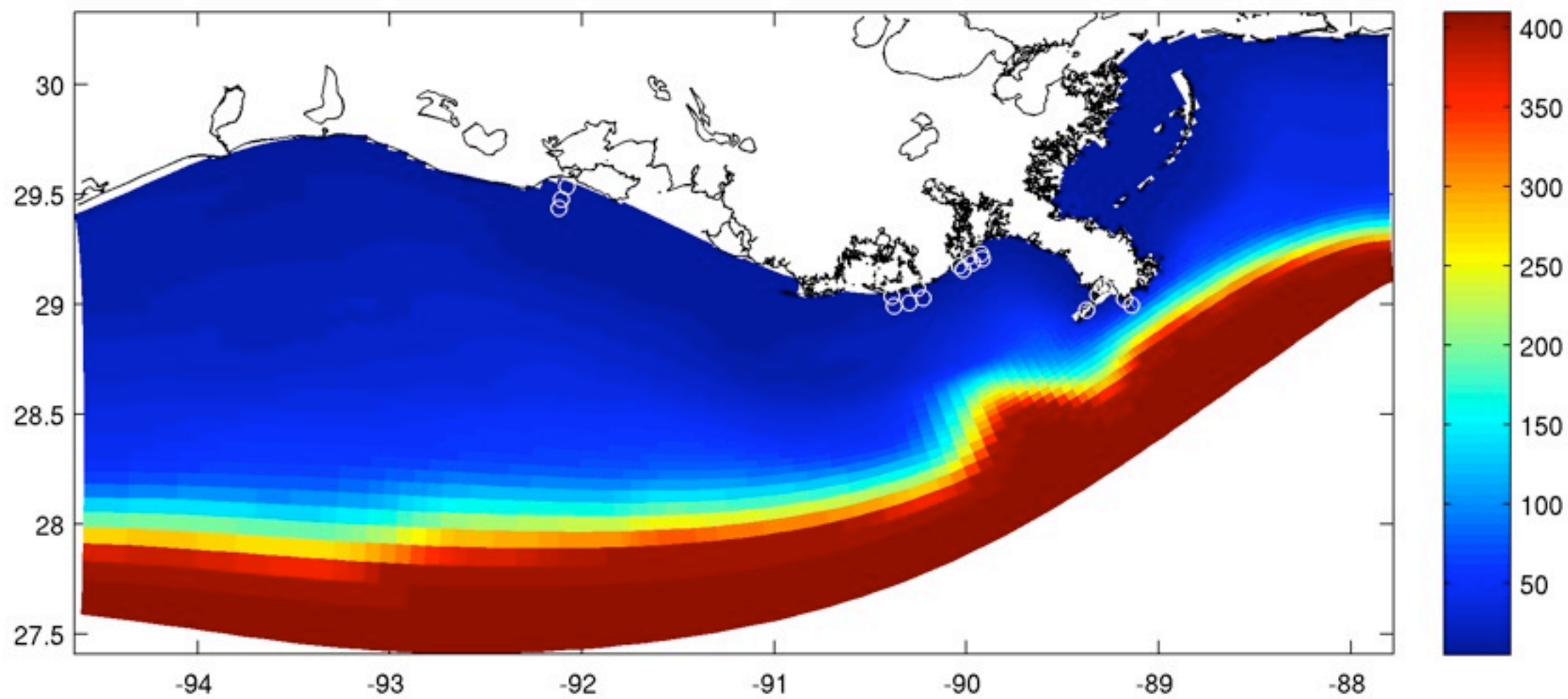
MAGMIX: cruise in year 2008 winter (temp+salt)



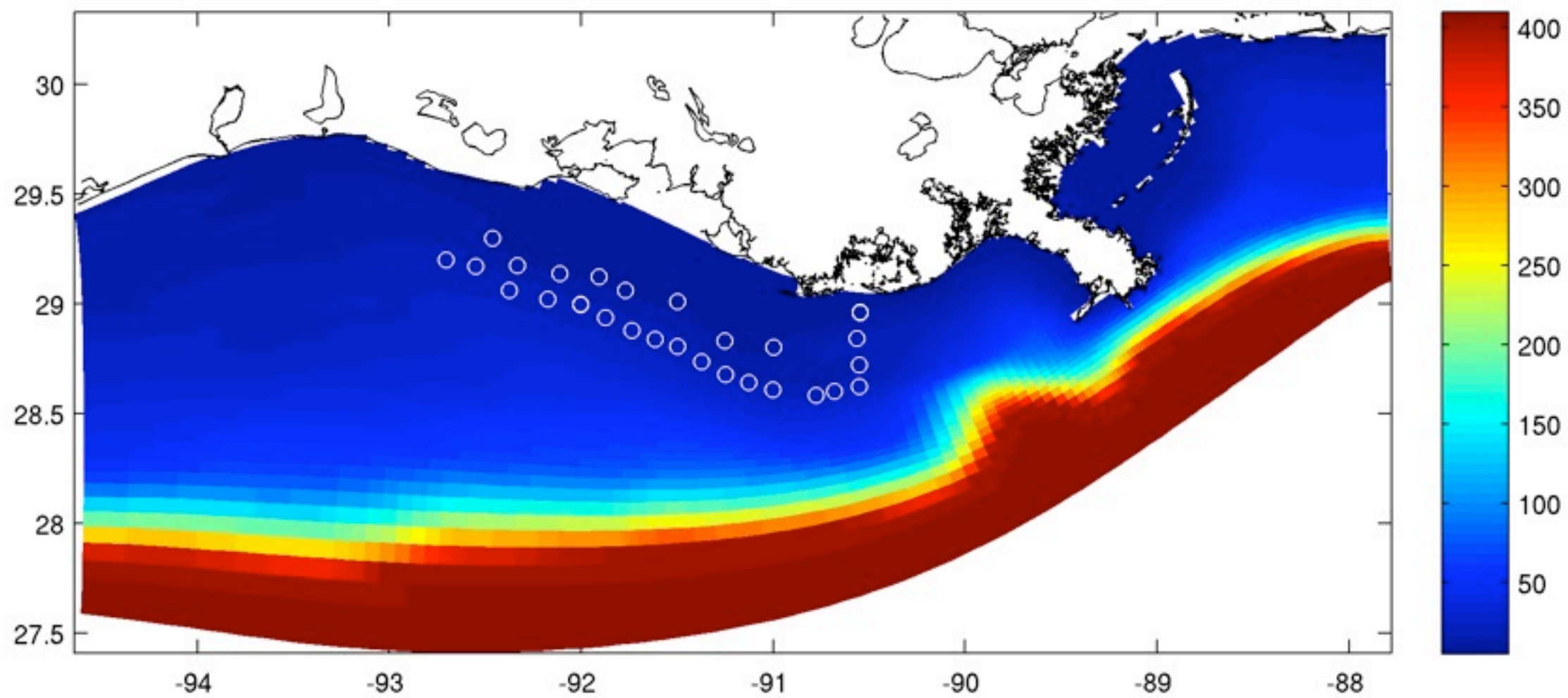




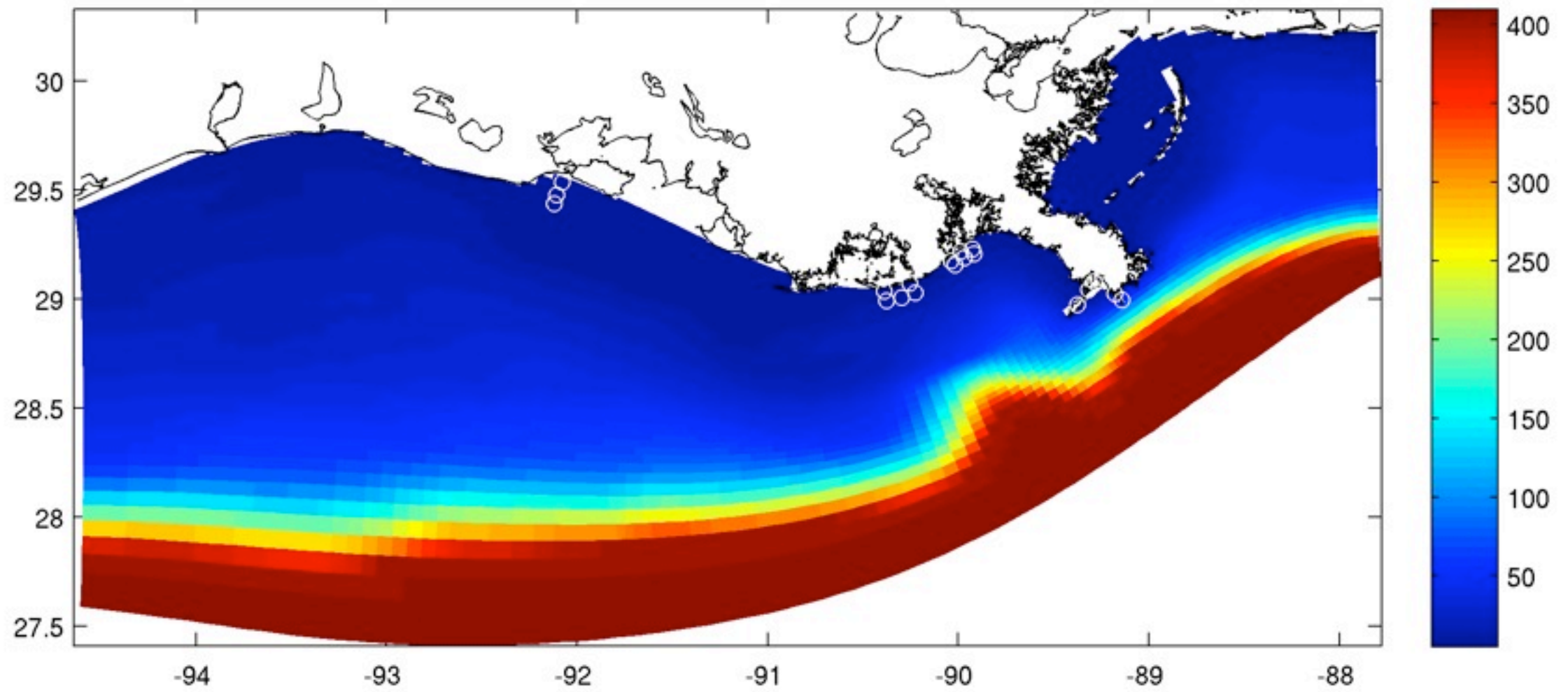
EPA: cruise in year 2008 spring (NH4)



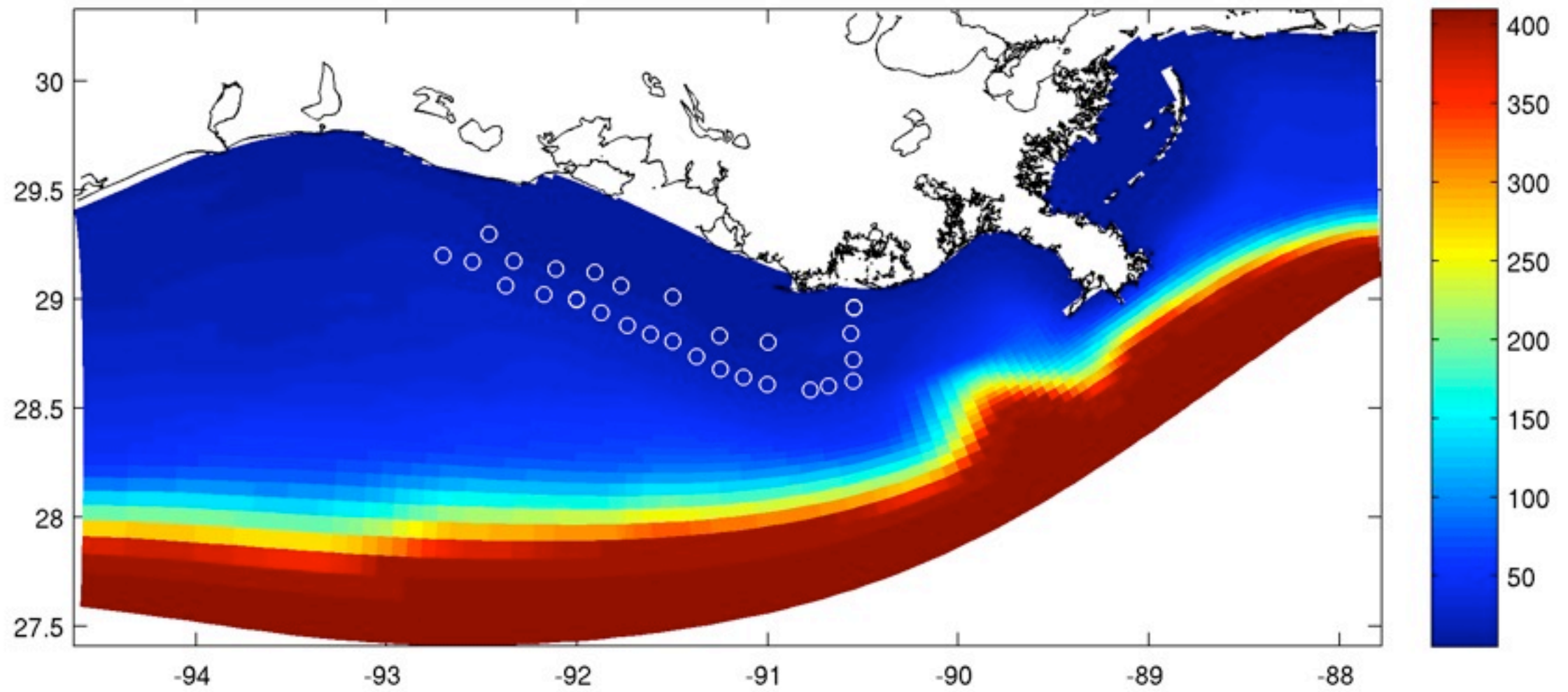
MCH: cruise in year 2008 spring (NH4)



EPA: cruise in year 2008 spring (NO23)

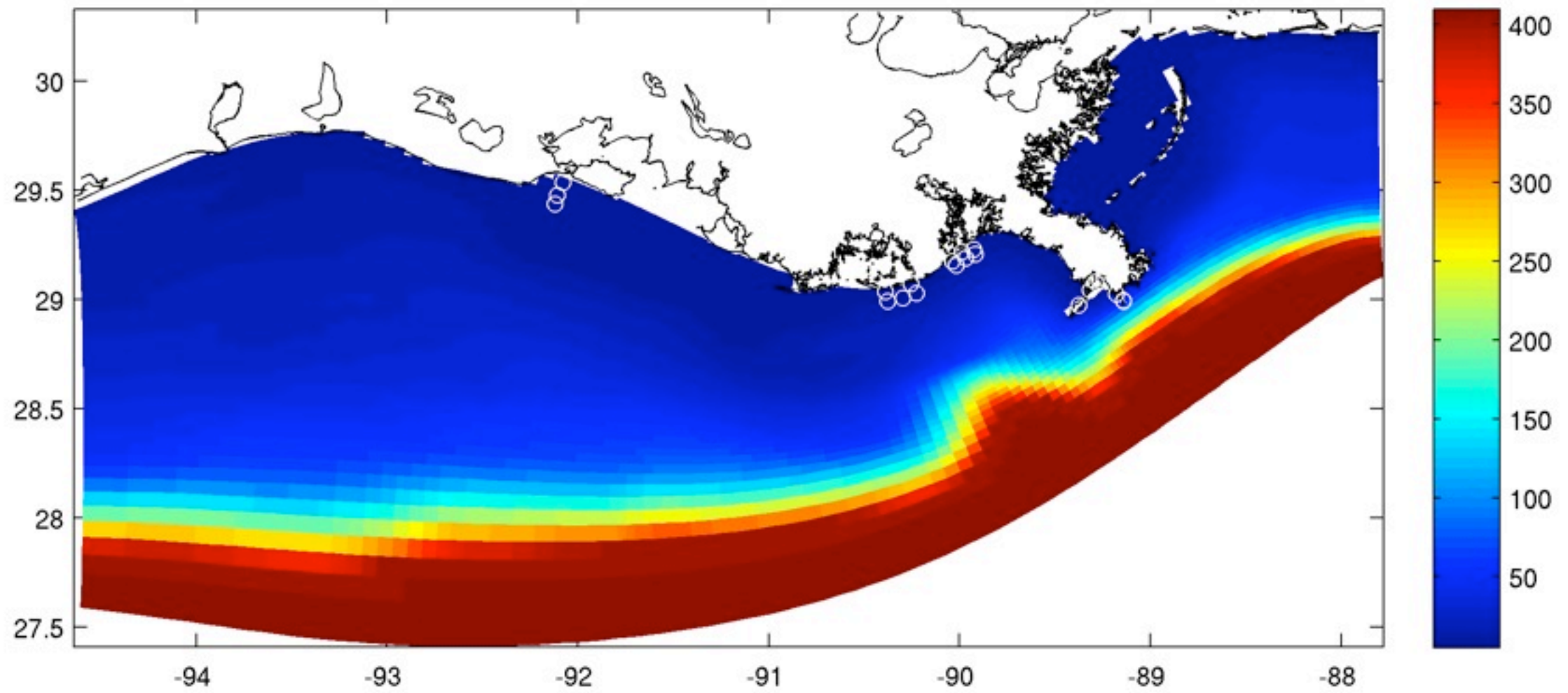


MCH: cruise in year 2008 spring (NO23)

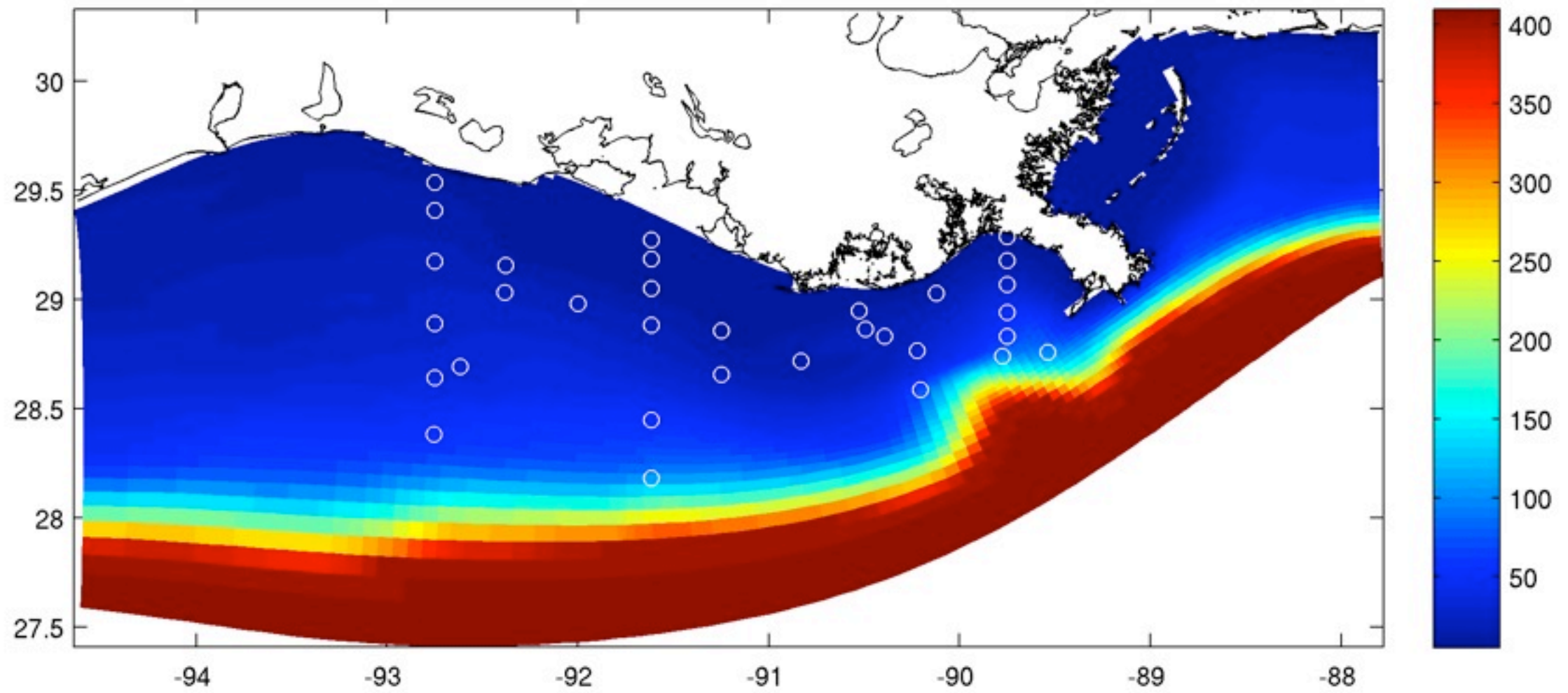


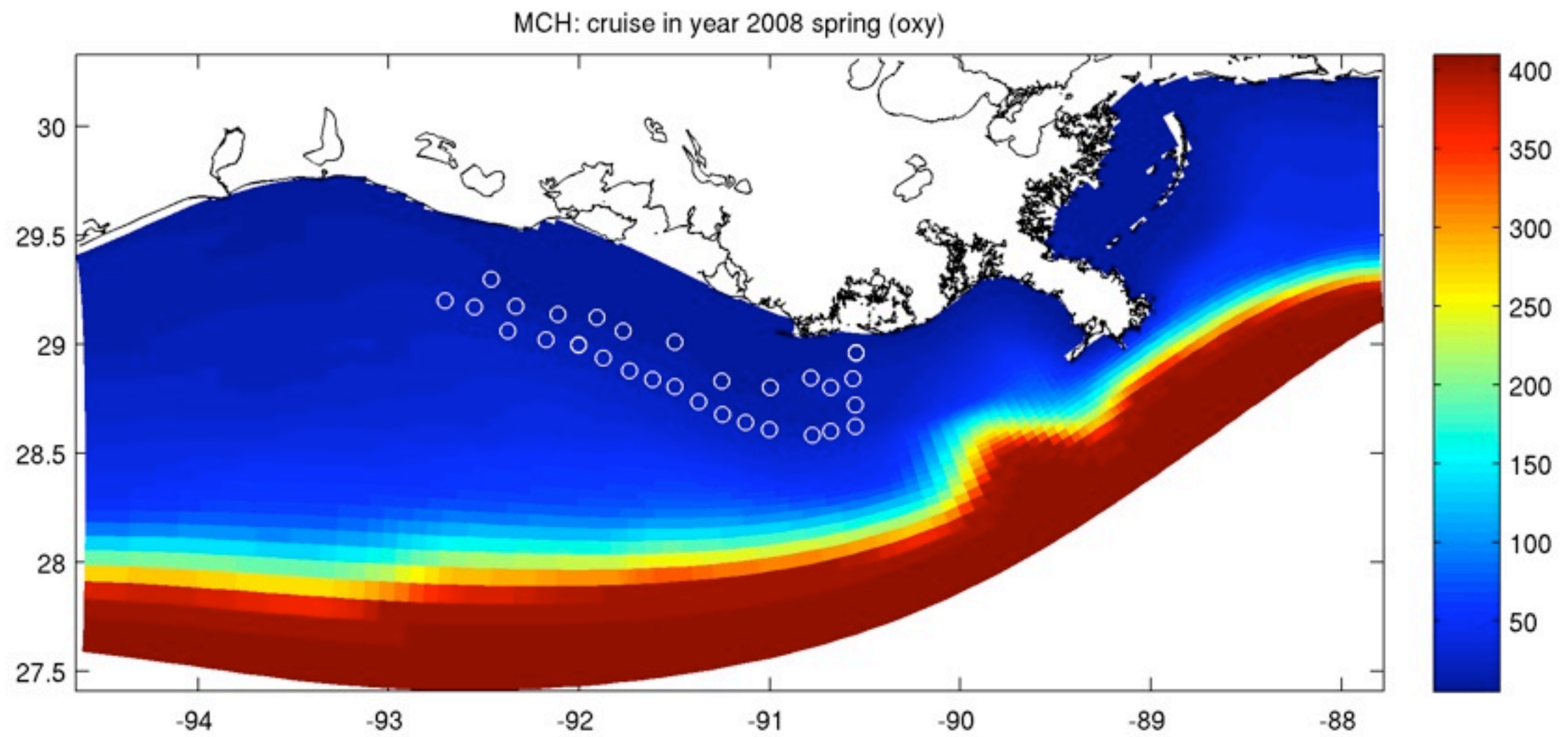


EPA: cruise in year 2008 spring (oxy)

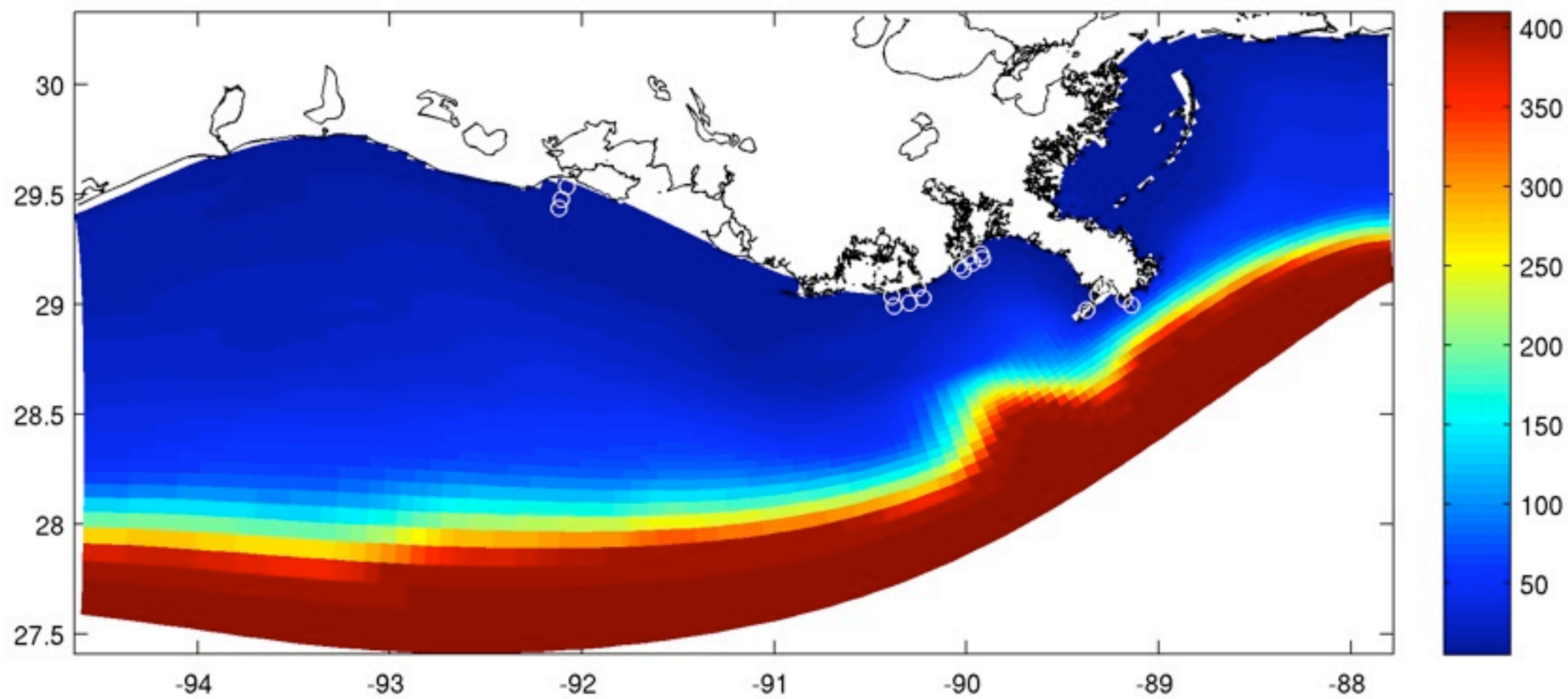


MAGMIX: cruise in year 2008 spring (oxy)



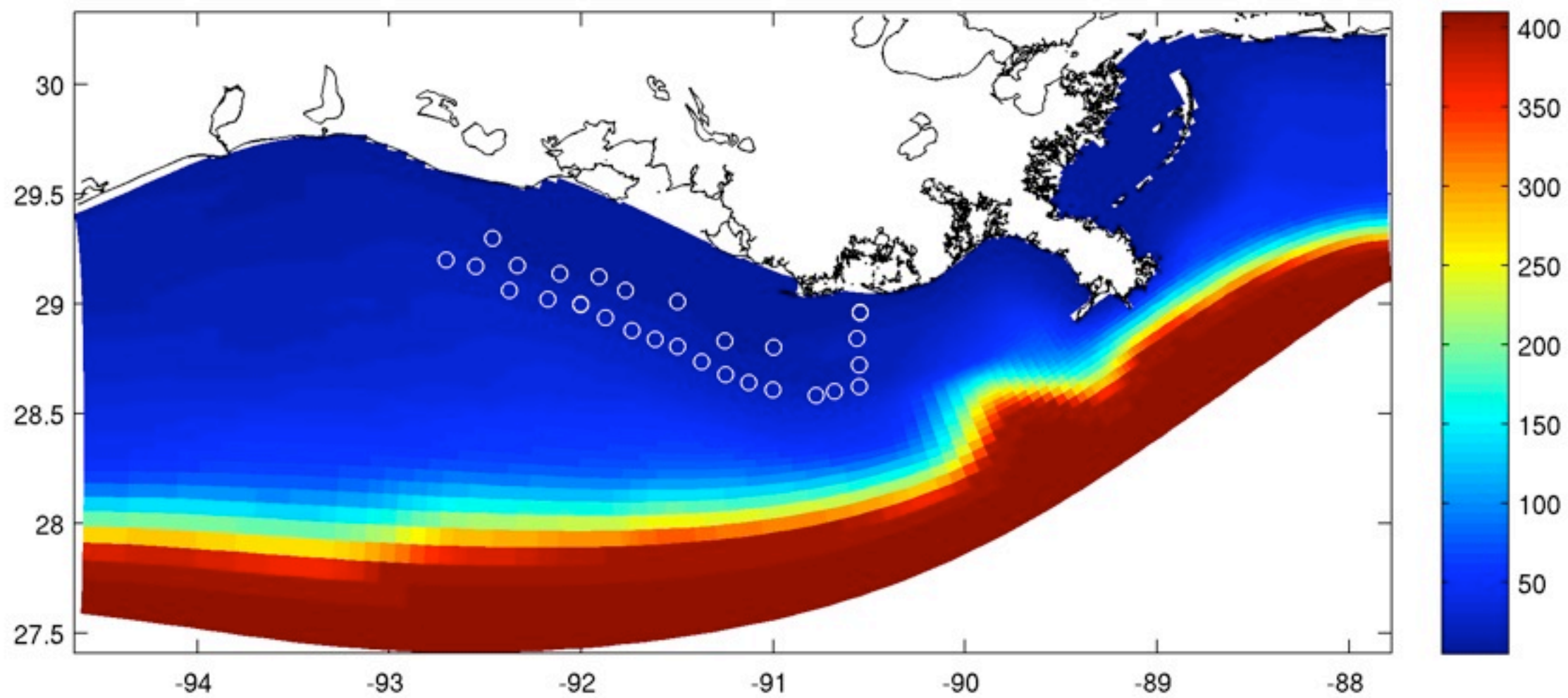


EPA: cruise in year 2008 spring (PO4)

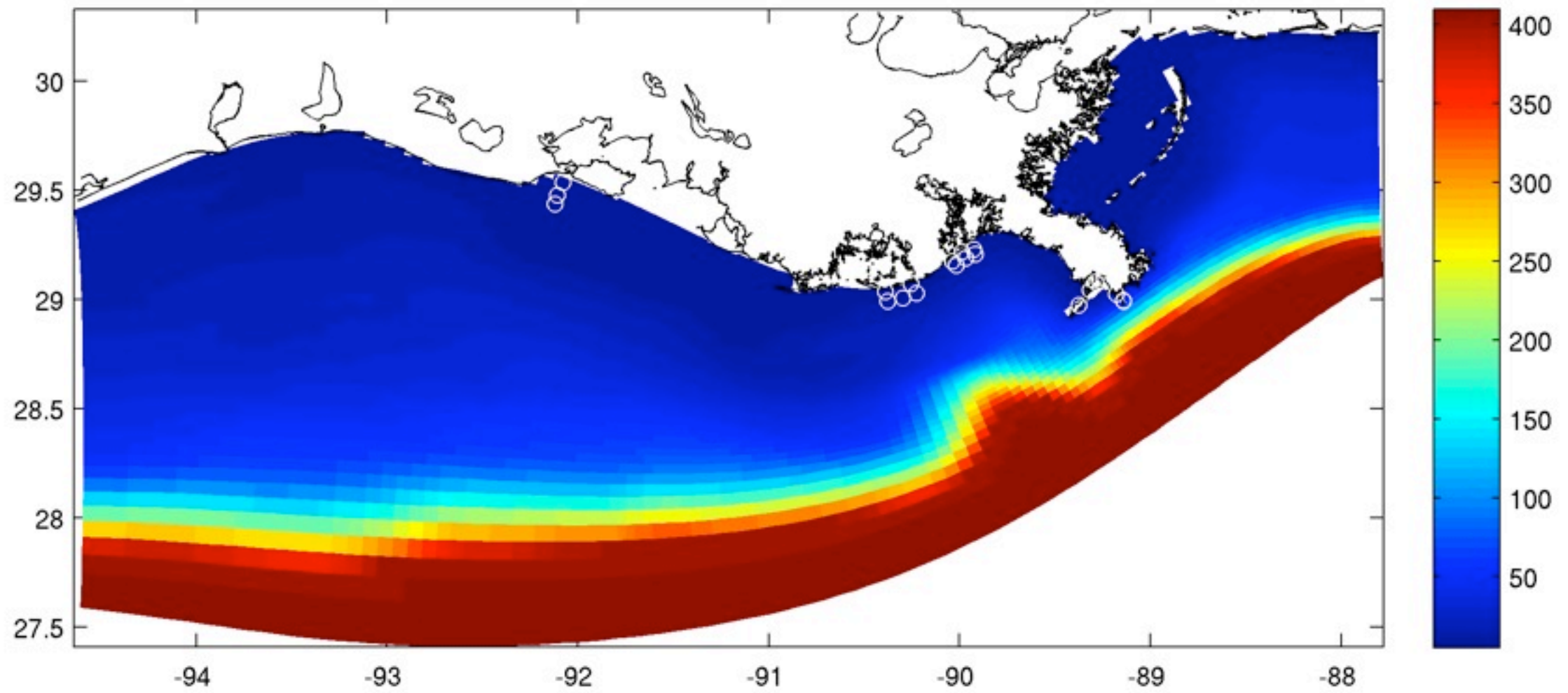




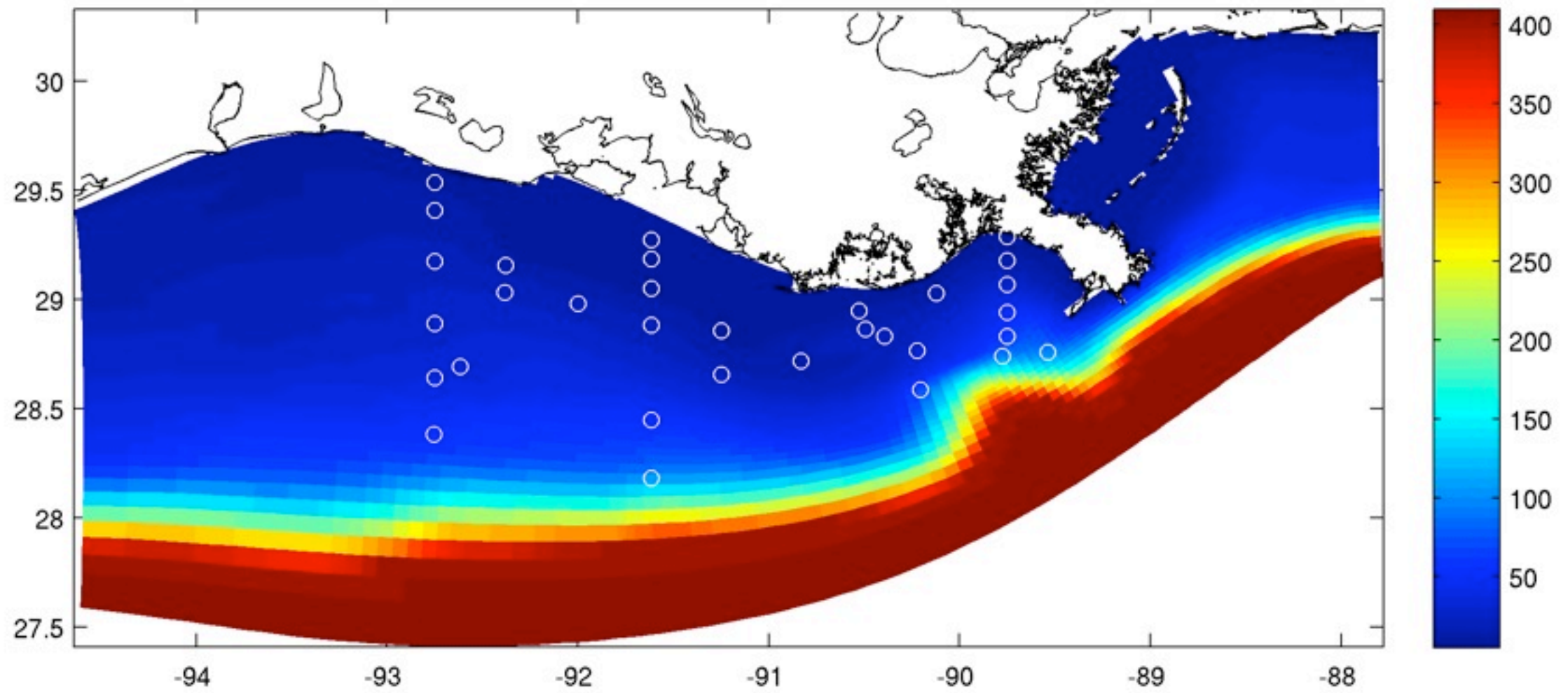
MCH: cruise in year 2008 spring (PO4)

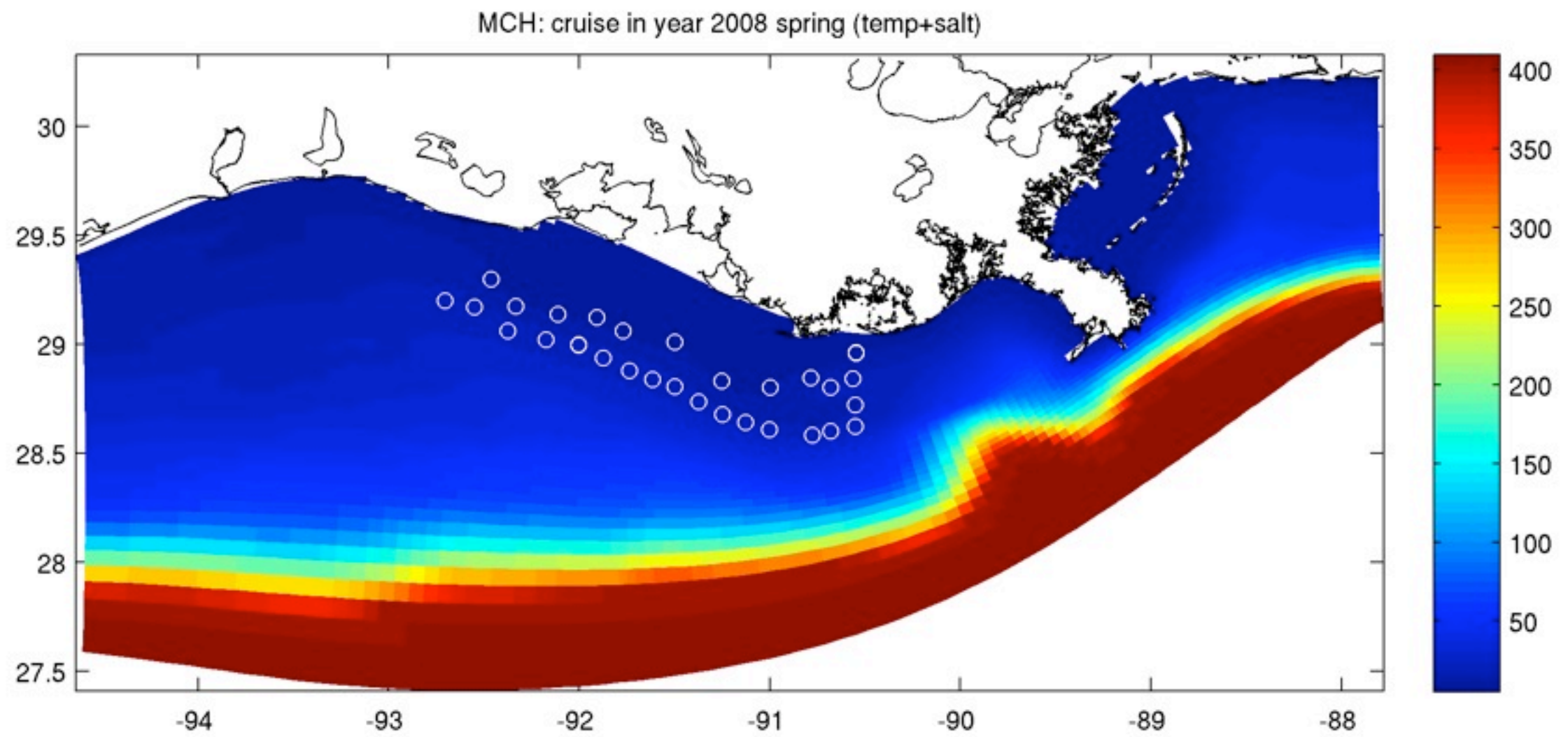


EPA: cruise in year 2008 spring (temp+salt)



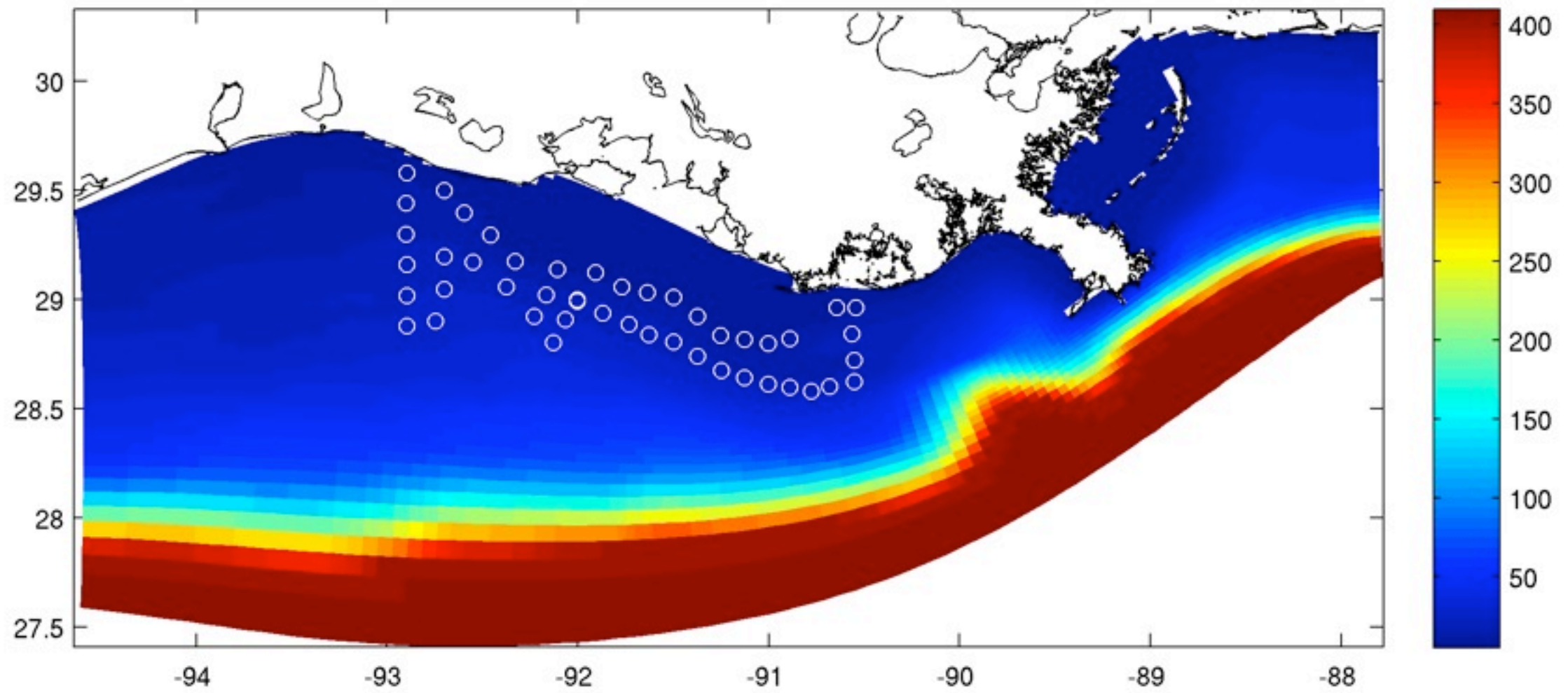
MAGMIX: cruise in year 2008 spring (temp+salt)



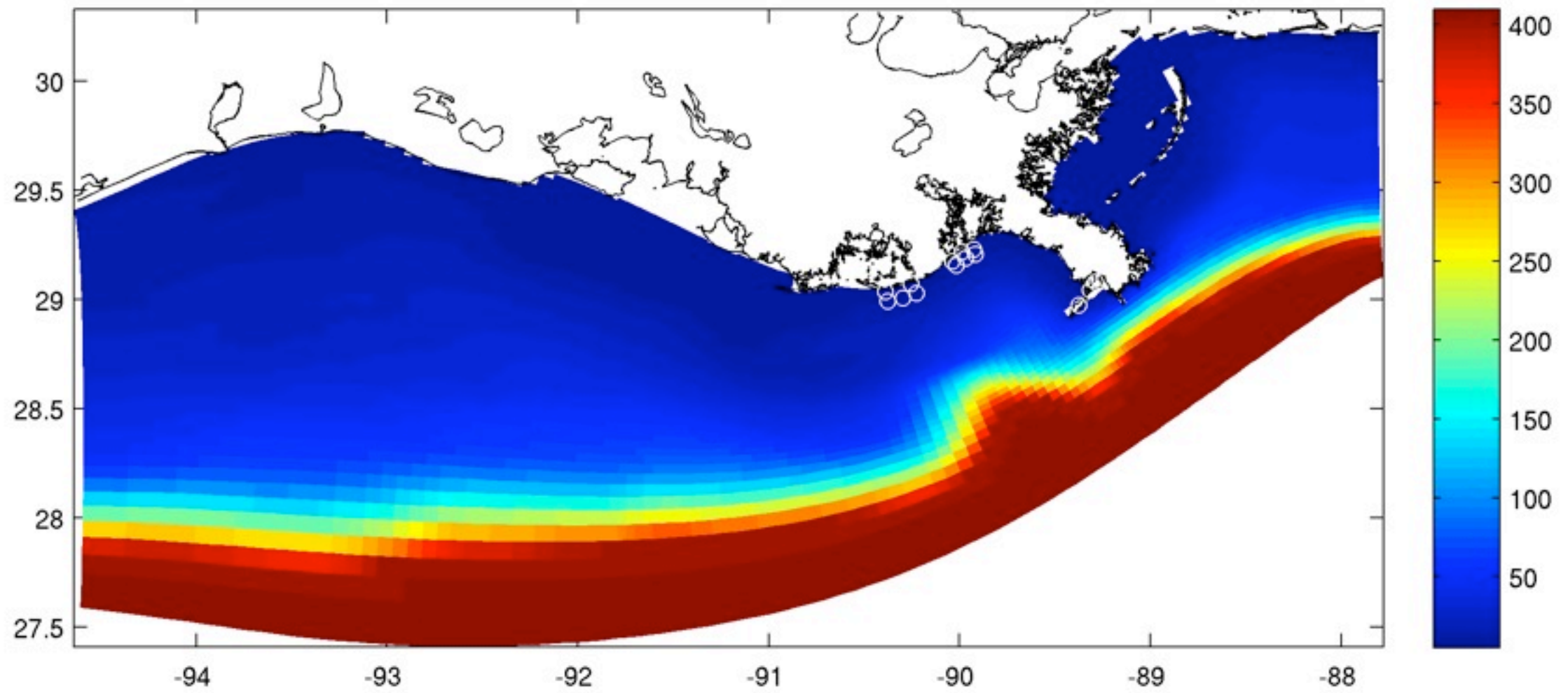




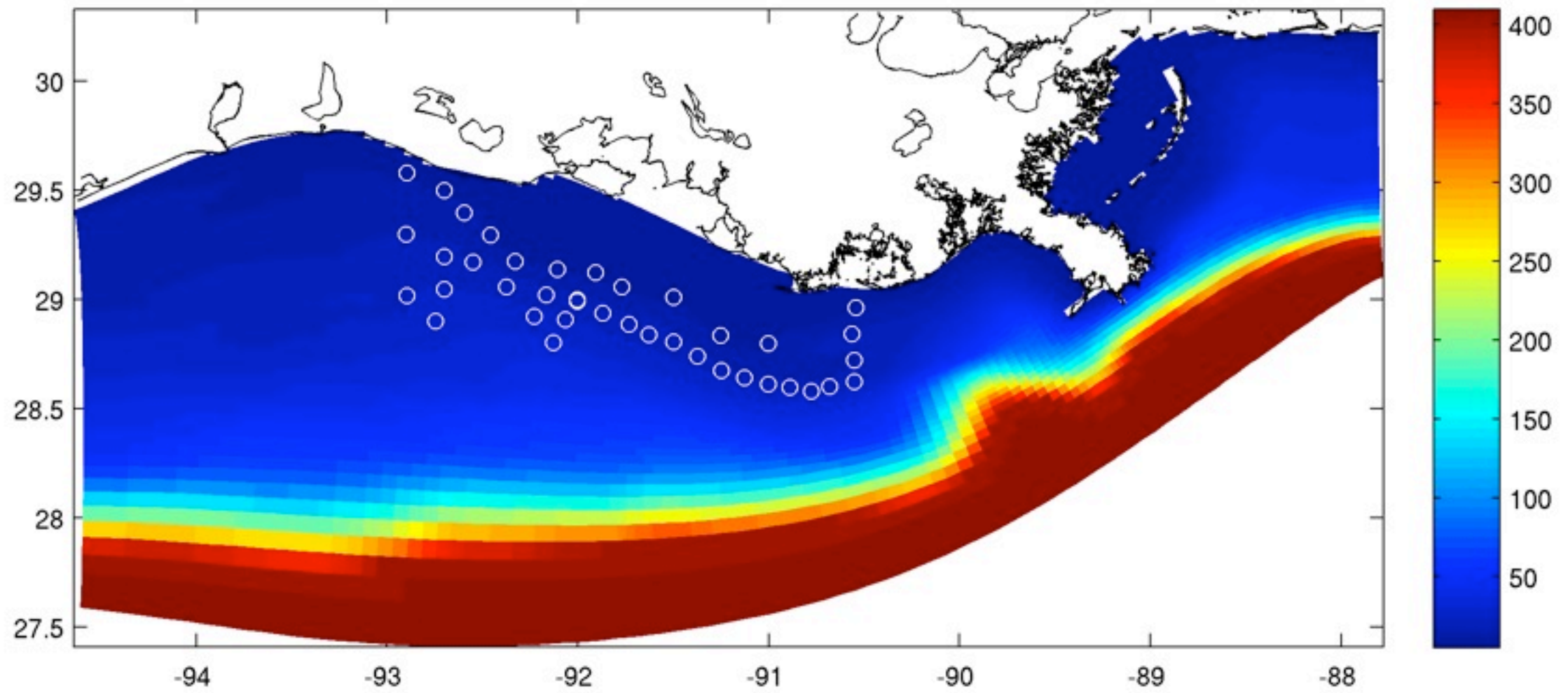
MCH: cruise in year 2008 summer (chl)



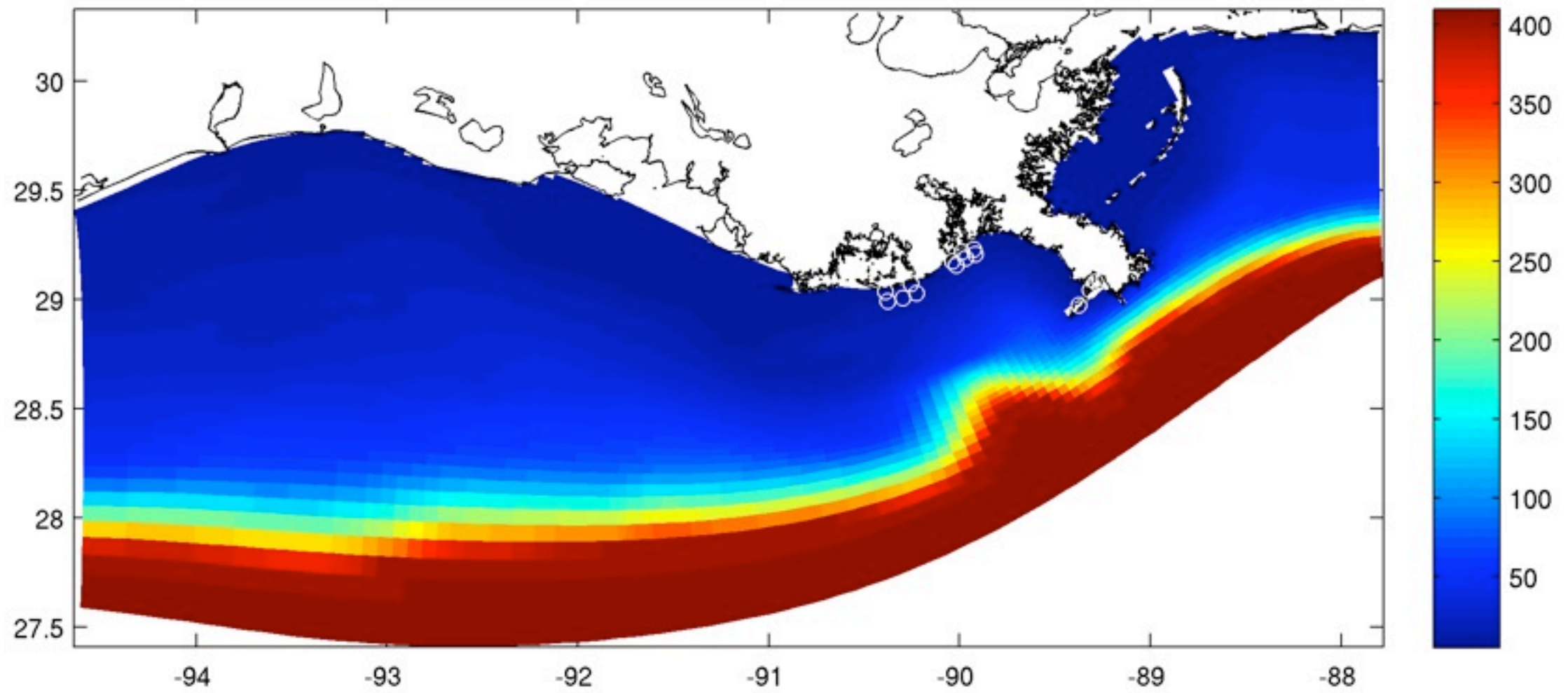
EPA: cruise in year 2008 summer (NH4)



MCH: cruise in year 2008 summer (NH4)

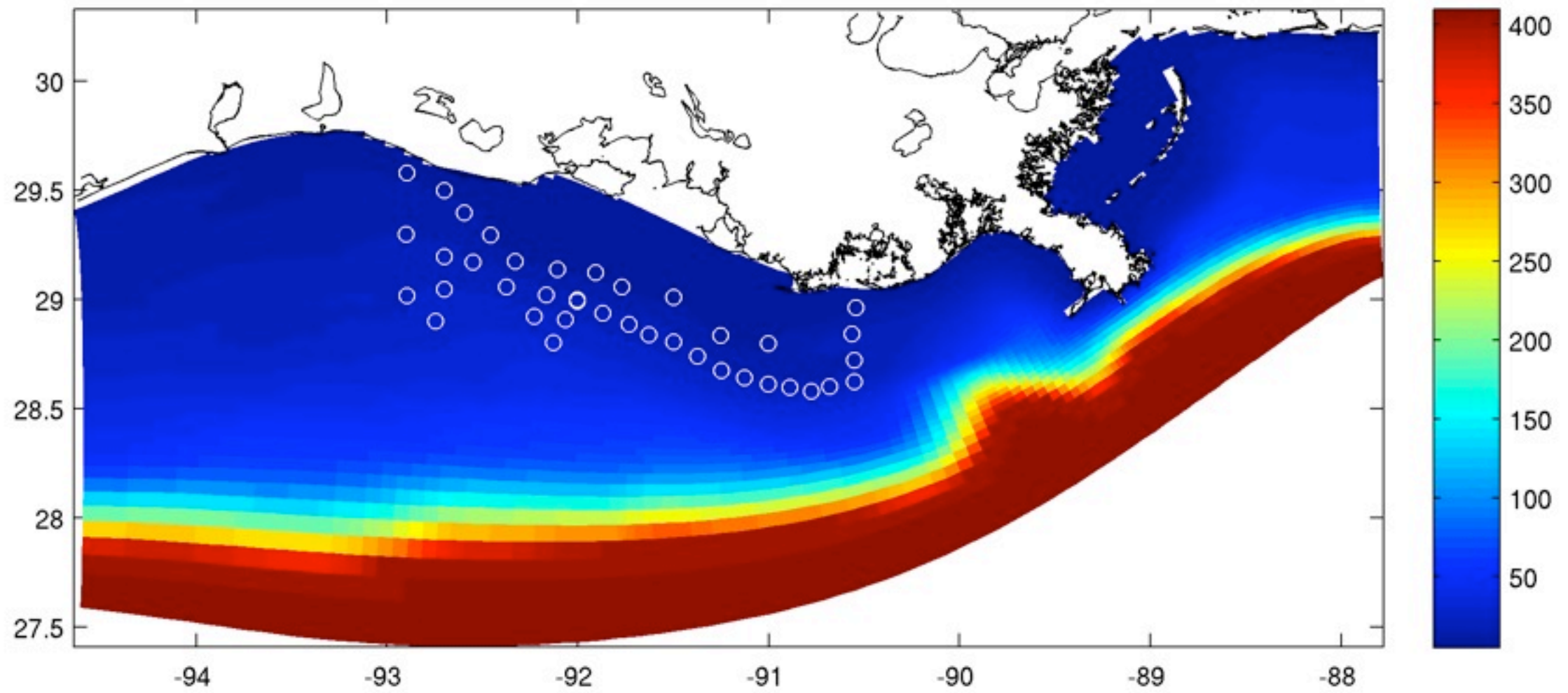


EPA: cruise in year 2008 summer (NO23)

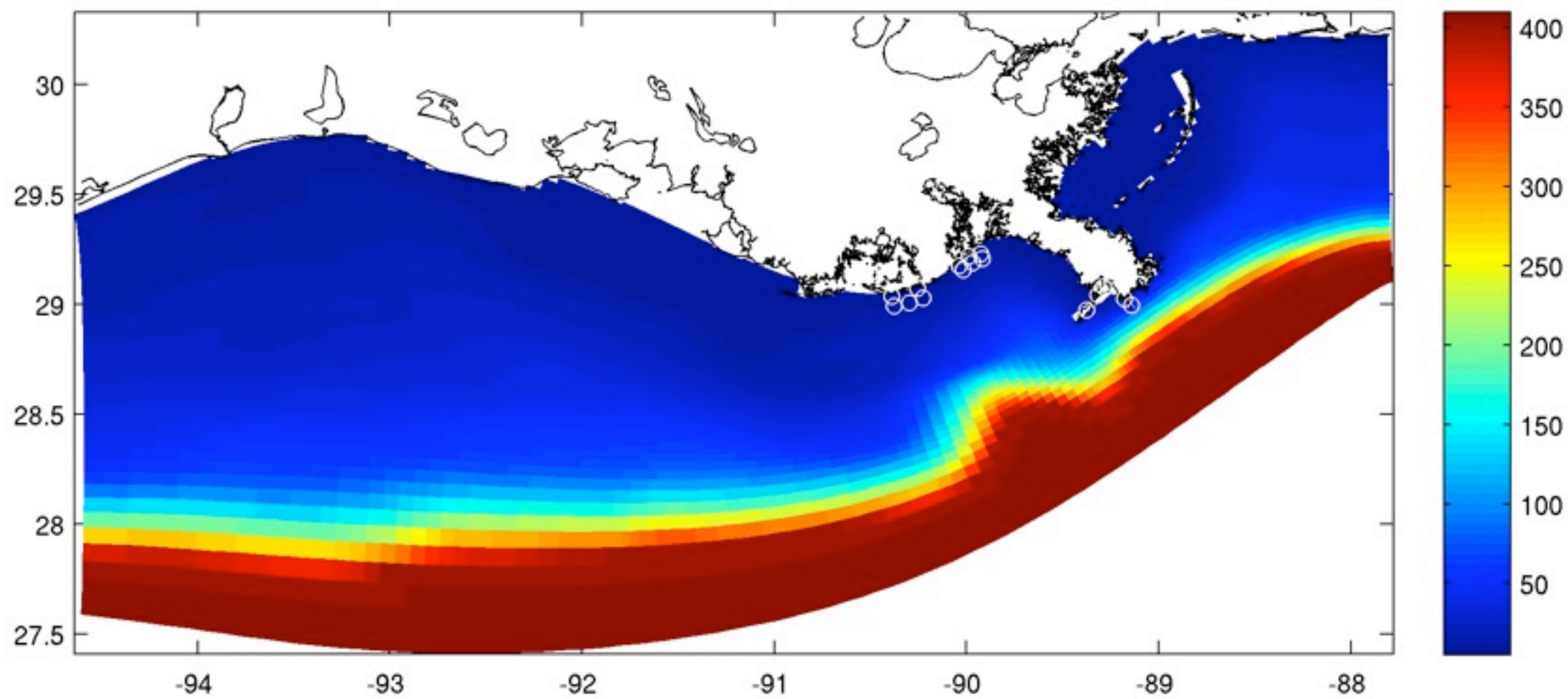




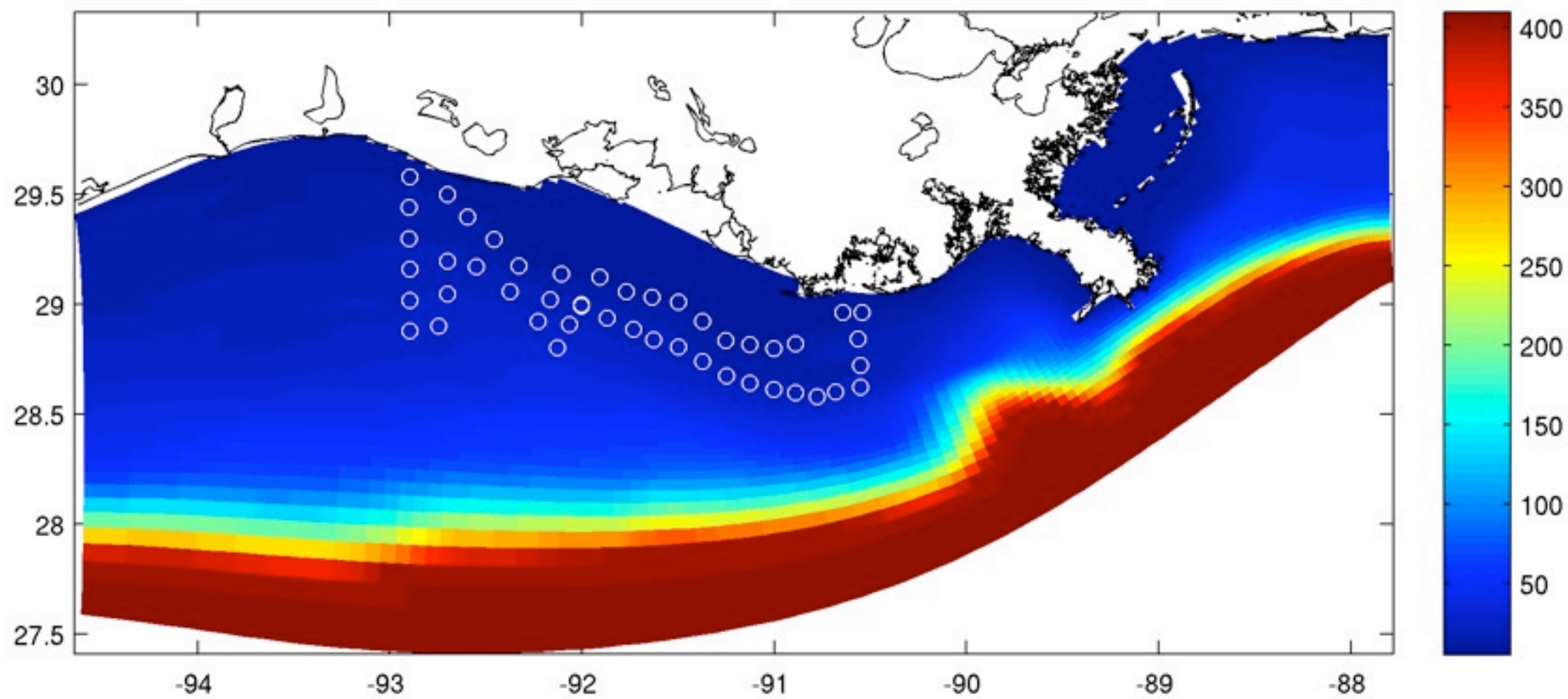
MCH: cruise in year 2008 summer (NO23)



EPA: cruise in year 2008 summer (oxy)

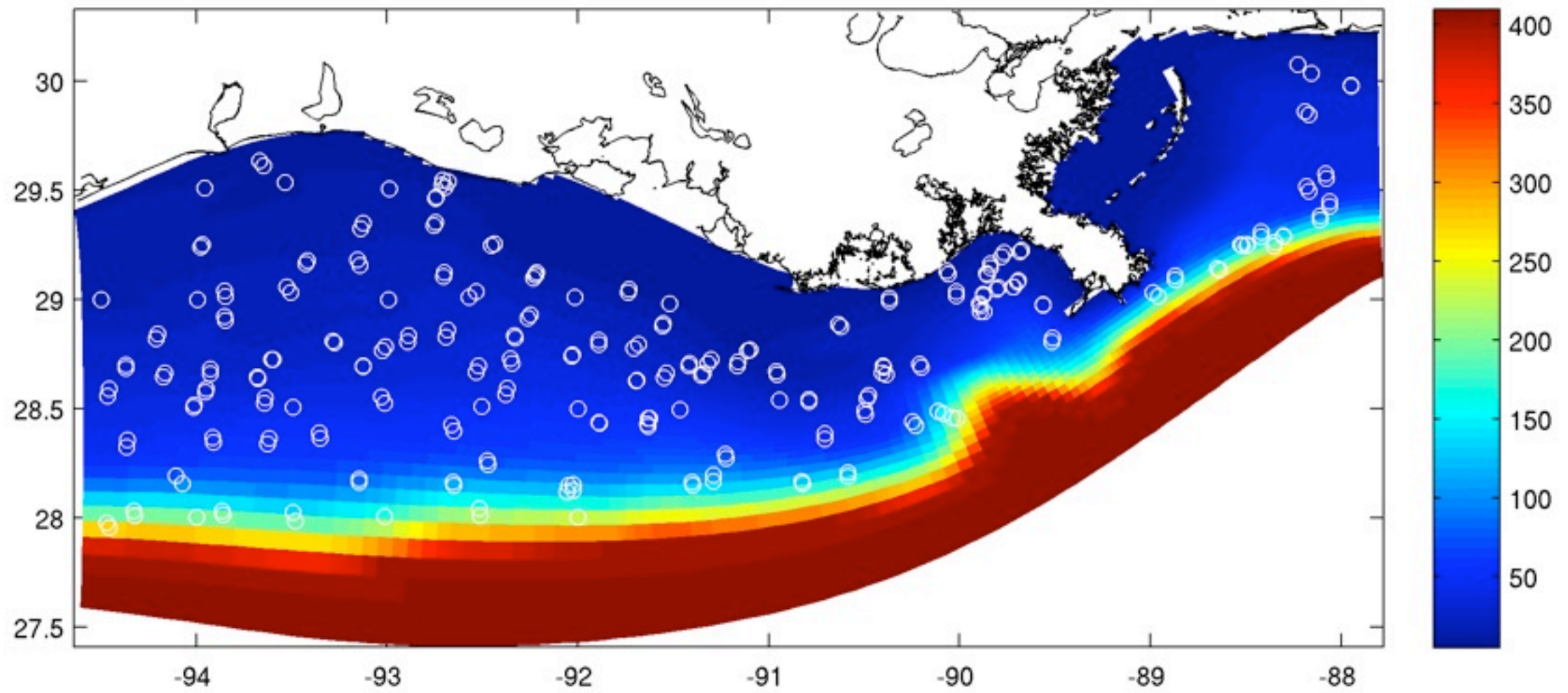


MCH: cruise in year 2008 summer (oxy)



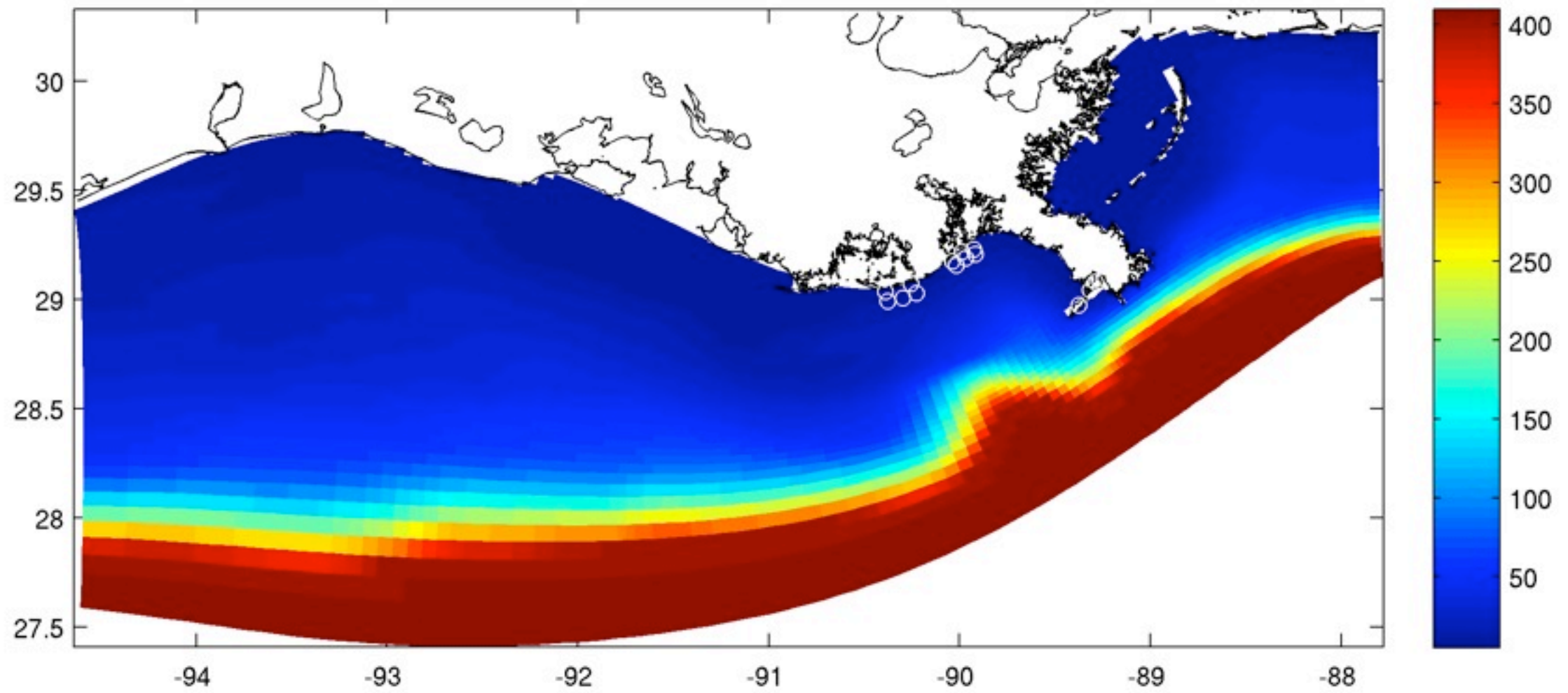


SEAMAP: cruise in year 2008 summer (oxy)

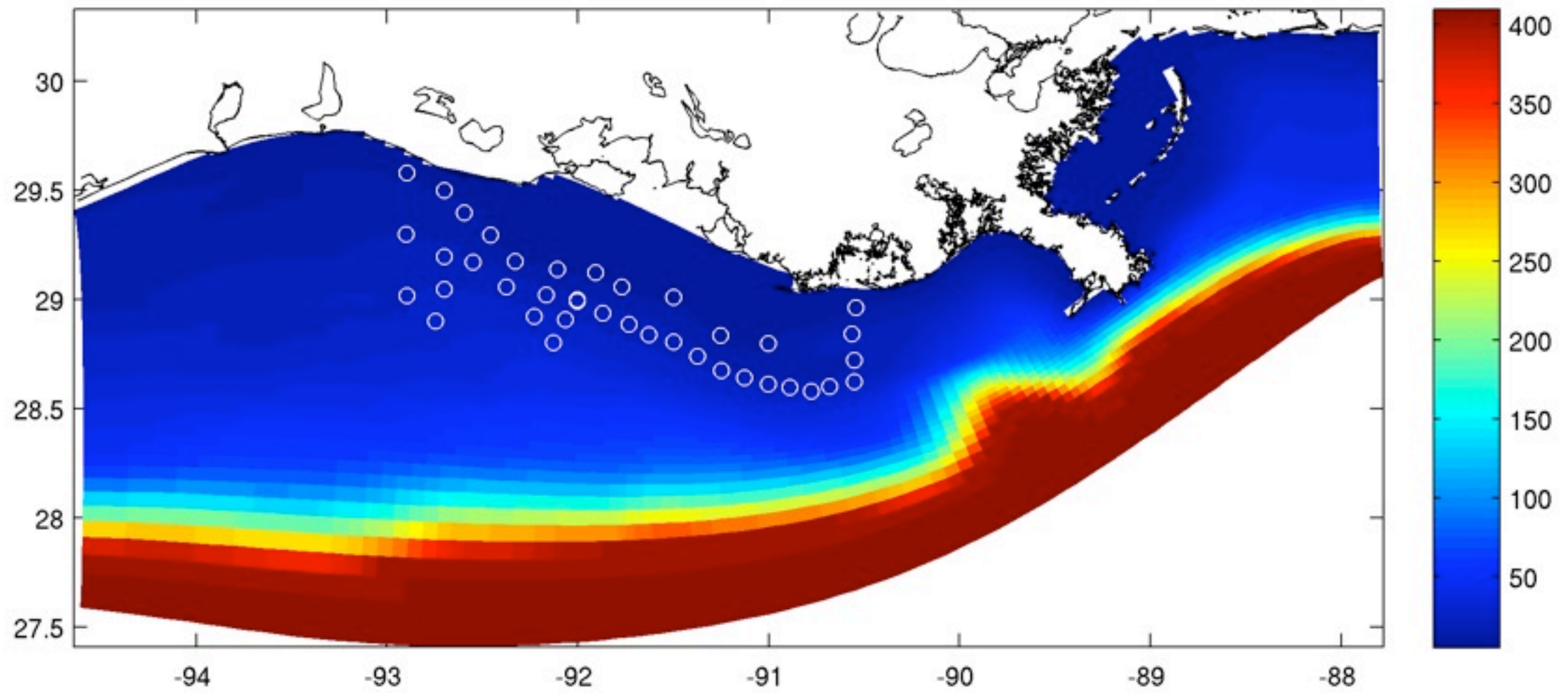




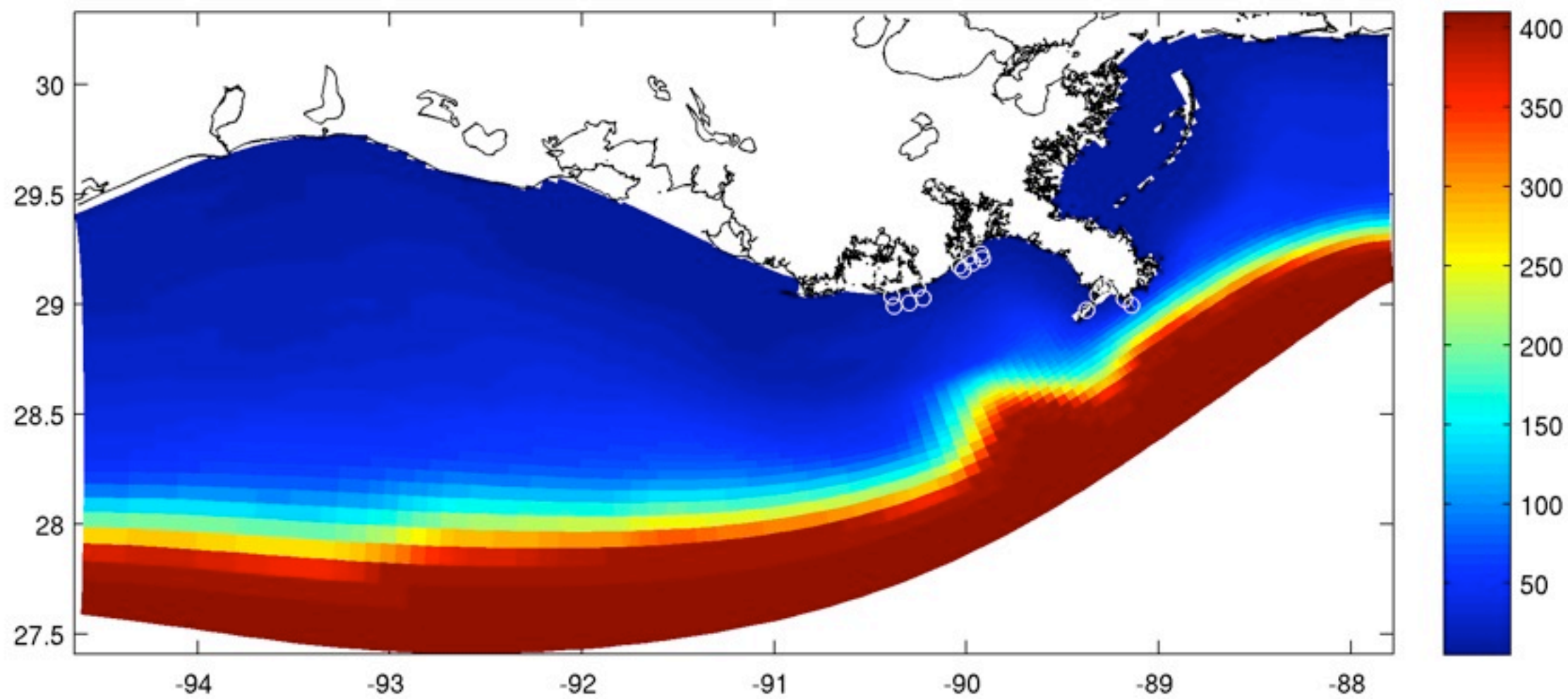
EPA: cruise in year 2008 summer (PO4)

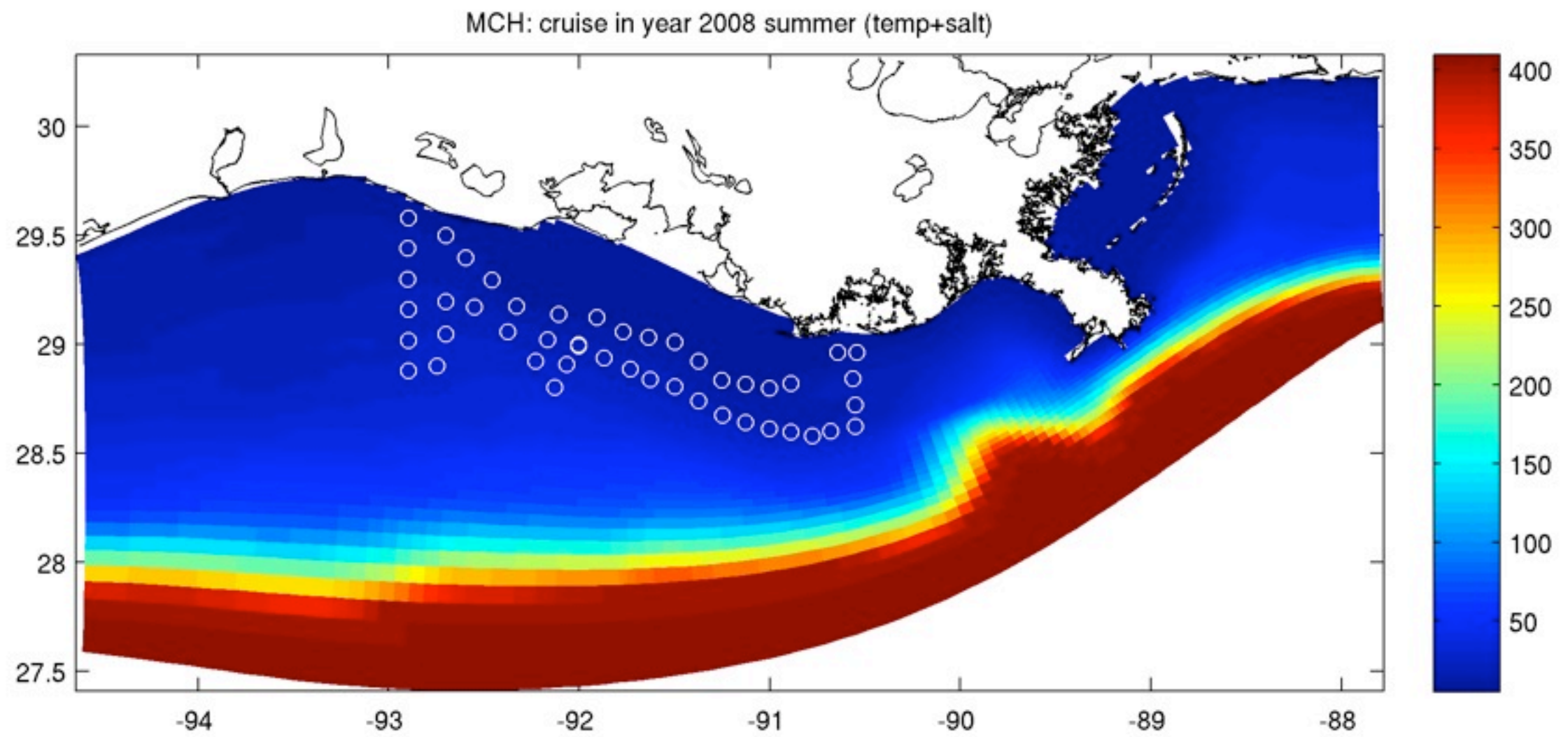


MCH: cruise in year 2008 summer (PO4)



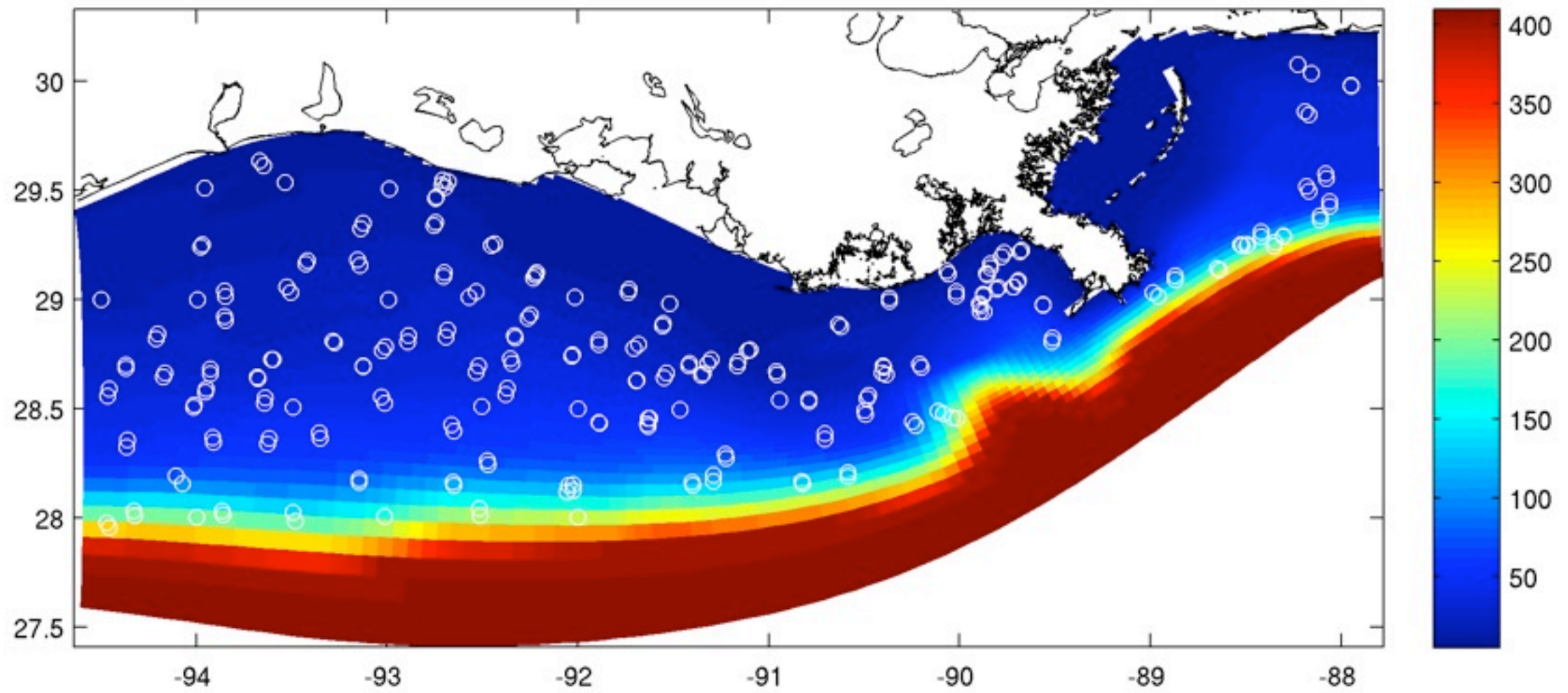
EPA: cruise in year 2008 summer (temp+salt)



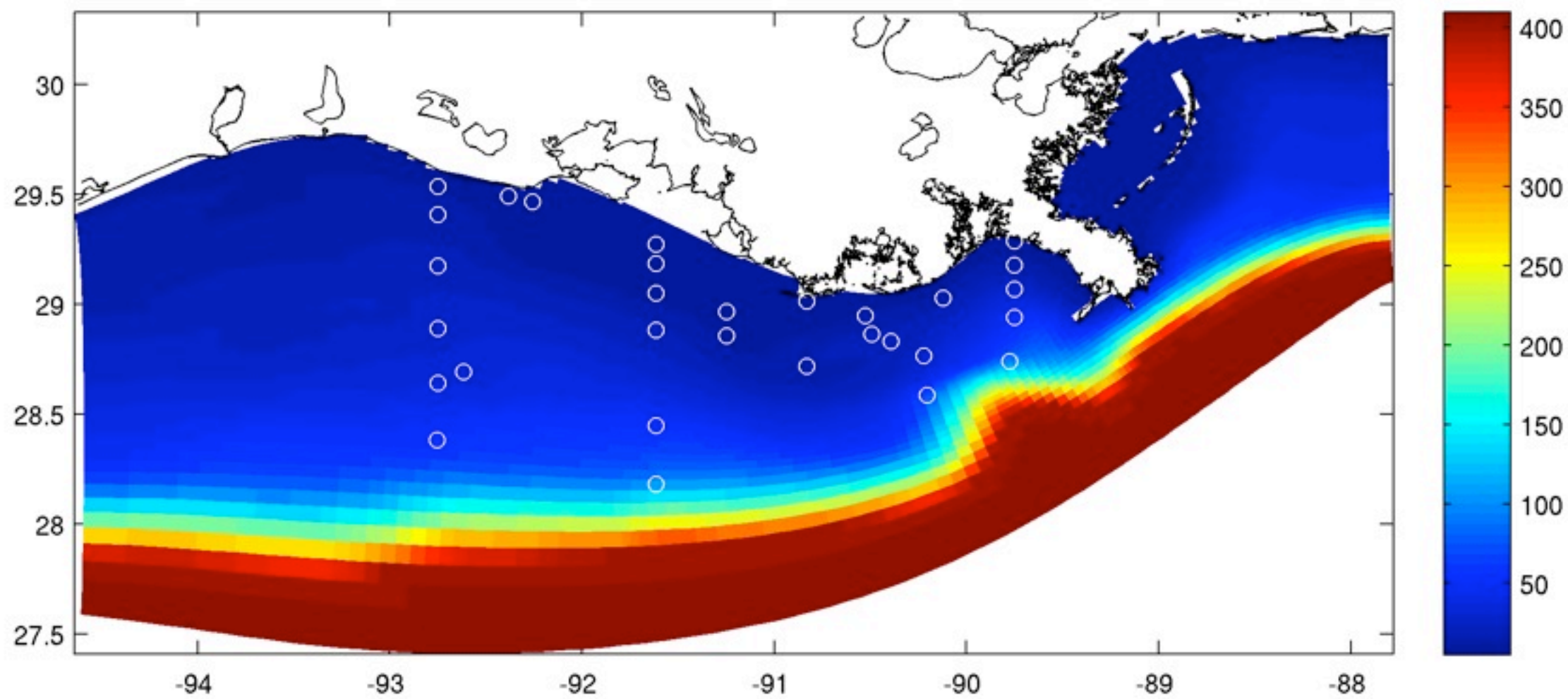




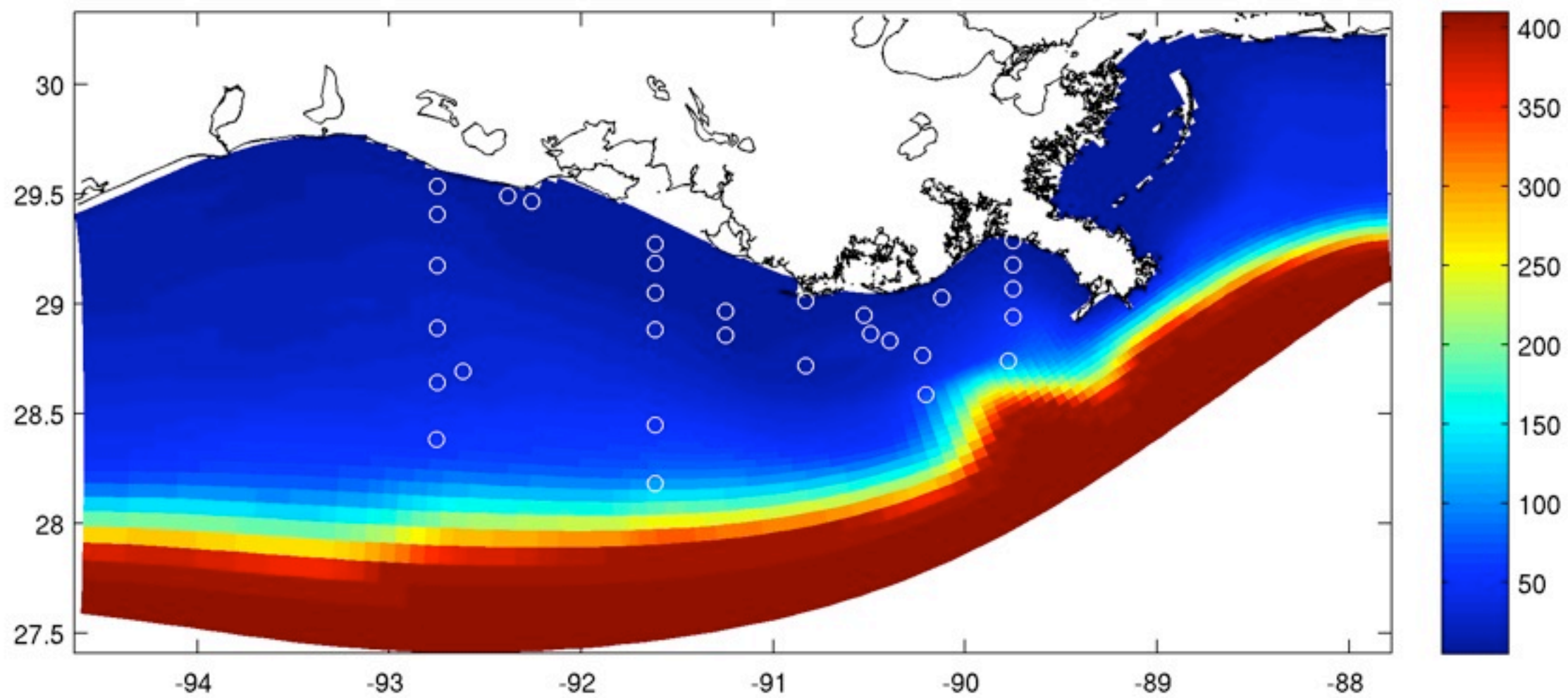
SEAMAP: cruise in year 2008 summer (temp+salt)



MAGMIX: cruise in year 2008 autumn (oxy)

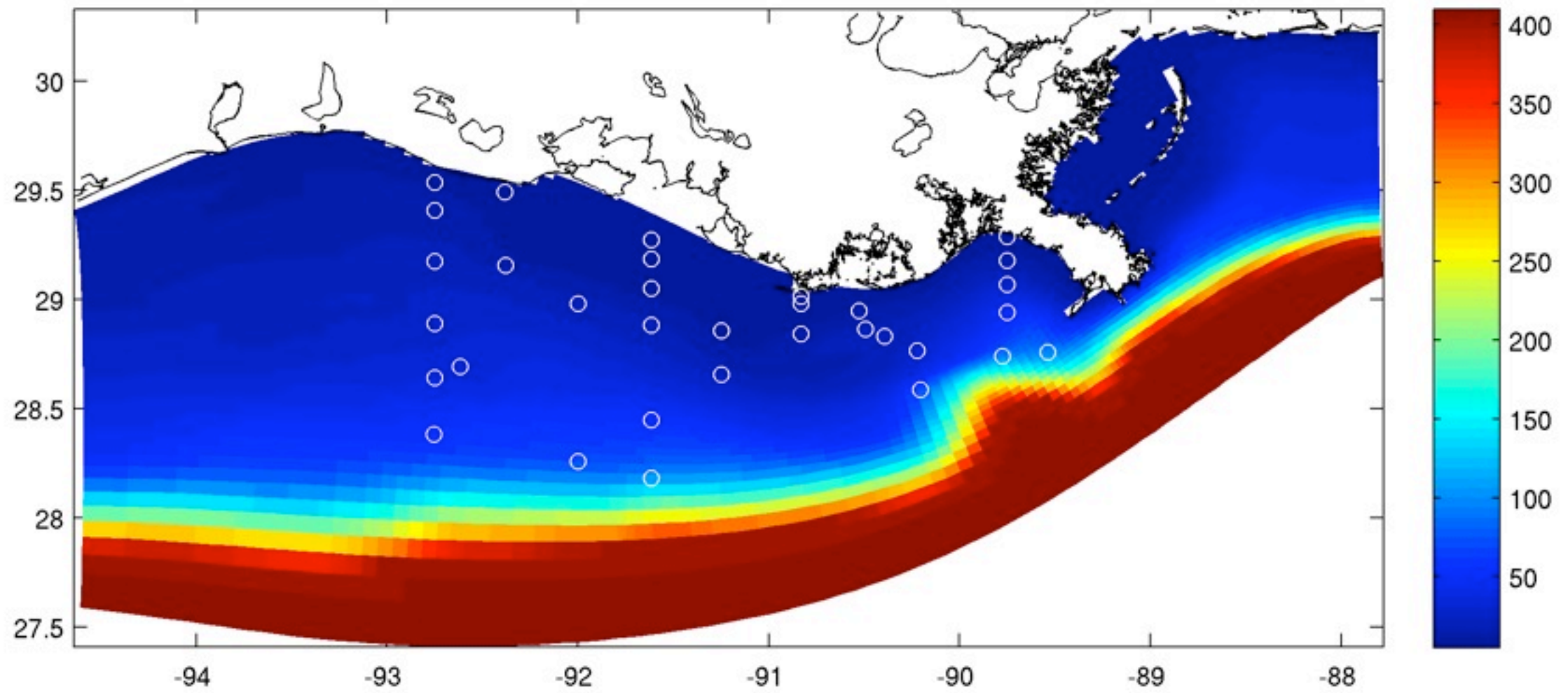


MAGMIX: cruise in year 2008 autumn (temp+salt)





MAGMIX: cruise in year 2009 summer (oxy)





MAGMIX: cruise in year 2009 summer (temp+salt)

