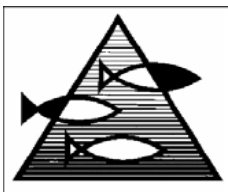


Comparisons of ROMS, HYCOM and POM on the Norwegian shelf:

analysis of the CONMAN hindcast simulations



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LOM meeting, 20-22nd Aug. 2007, Bergen

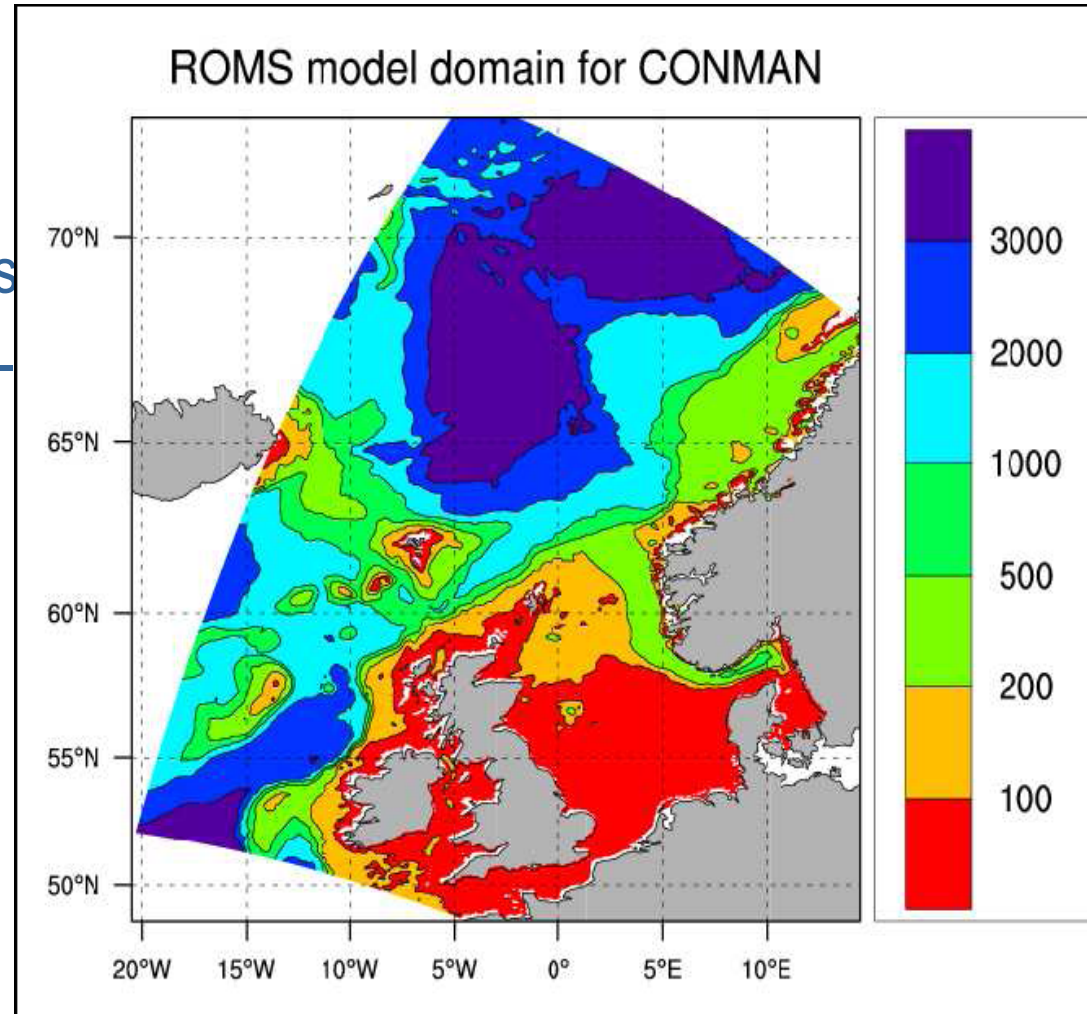


Objectives

- Compare 3 models of the Norwegian Sea
 - In “similar” settings
 - Of the same horizontal resolution
 - For operational use by the oil & gas industry
 - Currents velocity statistics
- CONMAN project led by met.no and funded by the Norwegian Drilling Programme (NDP).

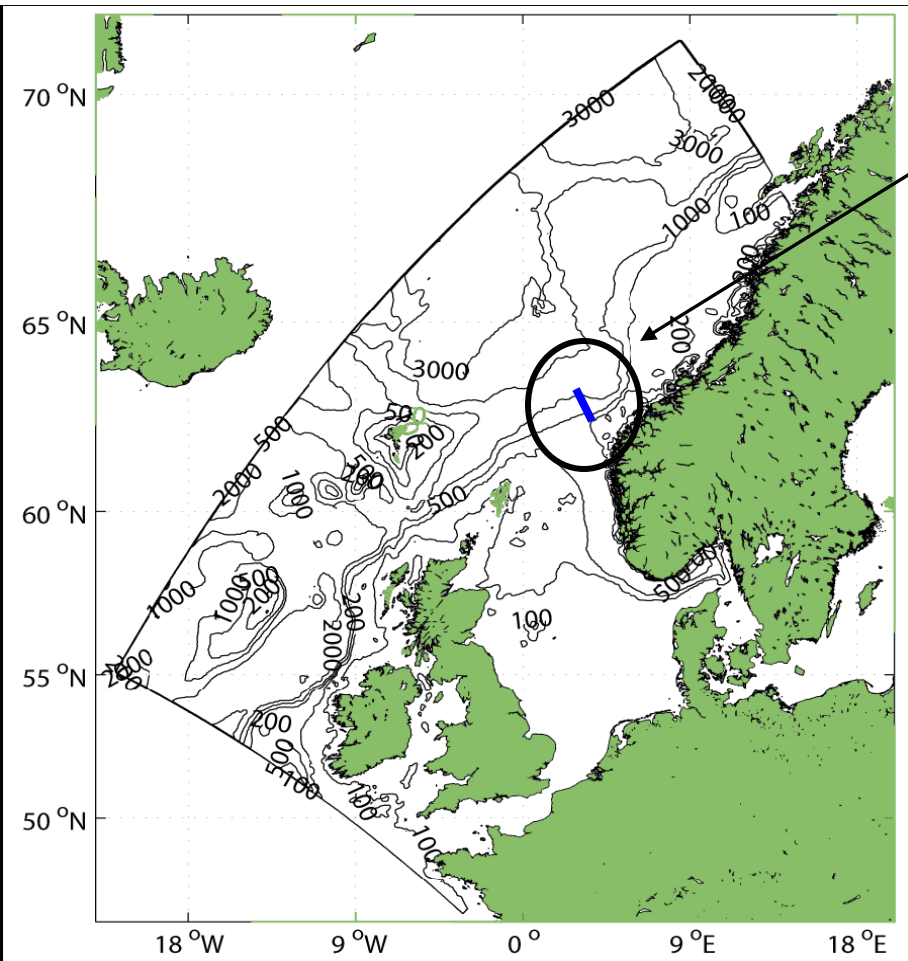
Common model features

- Bathymetry (ETOPO5 + met.no)
- Forcing fields: ECMWF, tides
- Initialized from TOPAZ large-scale fields
- 4 km horizontal resolution (Rossby rad. = 10 km)
- No assimilation
- Running from Jan 2004 until Dec. 2006

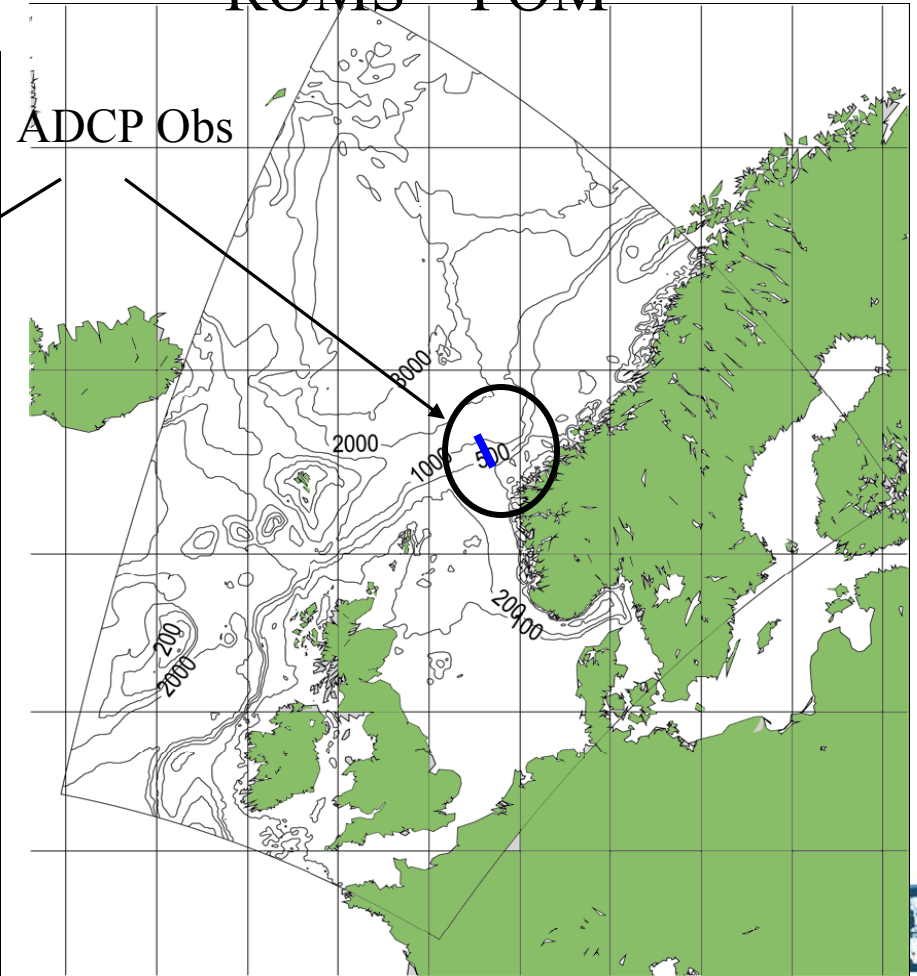


Differences (I) model domains

HYCOM



ROMS – POM



ADCP Obs



Differences (II)

	HYCOM	ROMS	MI-POM / TOPAZ	MI- POM / EKASC
Coord	Z- Isopycnal	Sigma	Sigma	Sigma
Nb layers / levels	22	36	26	26
Lateral BC	TOPAZ	Clim (EKASC)	TOPAZ	Clim (EKASC)

ADCP observations

- S1: near shelf break, 500 m isobath
- S2: mid-slope, 700 m isobath
- Se1: 900 m isobath
- Se2: 1000 m isobath