

METODOLOGÍA DE PRONÓSTICOS – MODELO MOST E INTERFAZ COMMIT

PREDICCIÓN OPERACIONAL DEL IMPACTO DE TSUNAMIS

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NOAA/PMEL

University of Washington

ITIC



Ilustración del comportamiento lineal en agua profunda

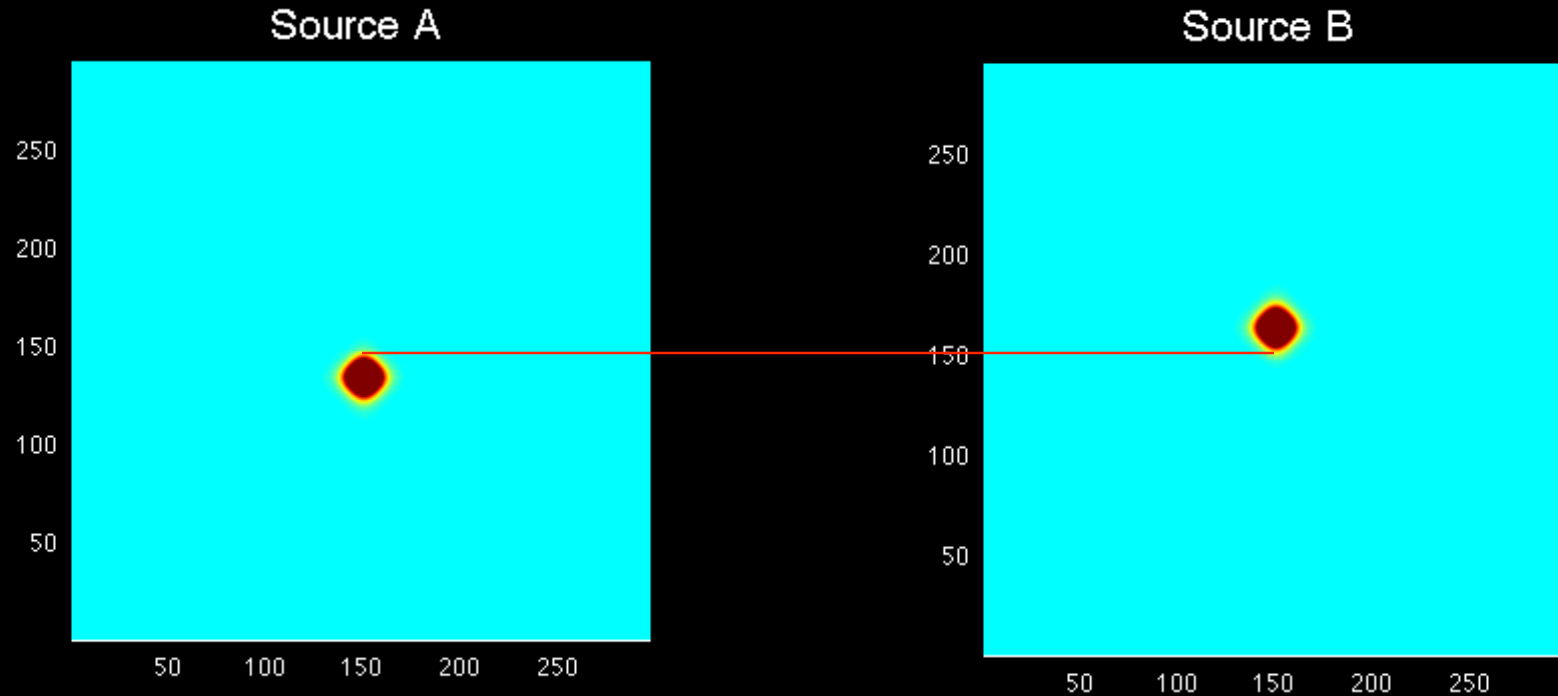
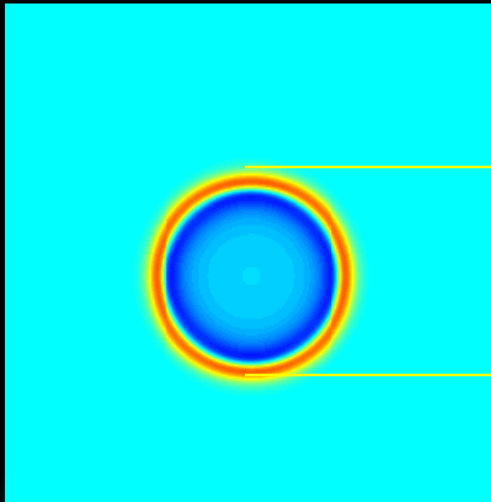
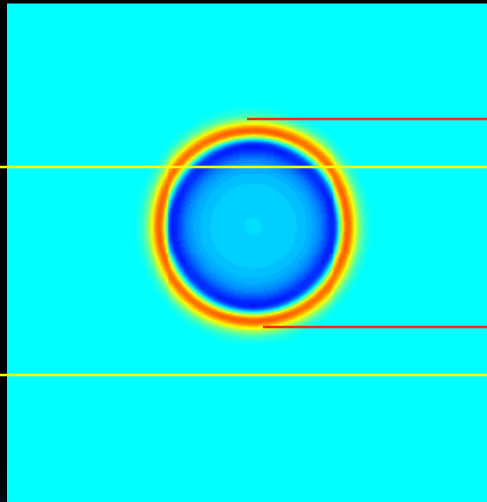


Ilustración del comportamiento lineal en agua profunda

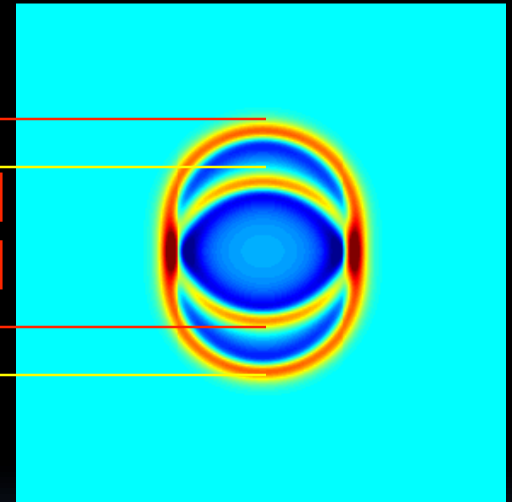
Source A



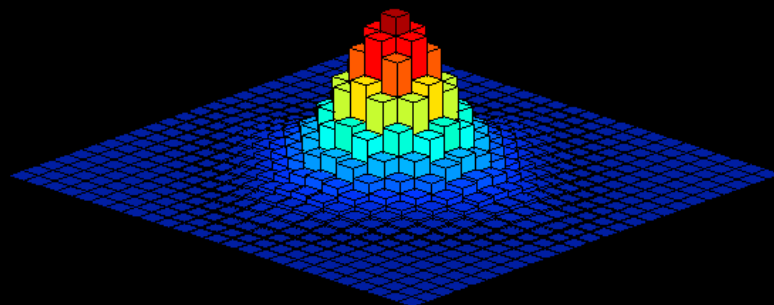
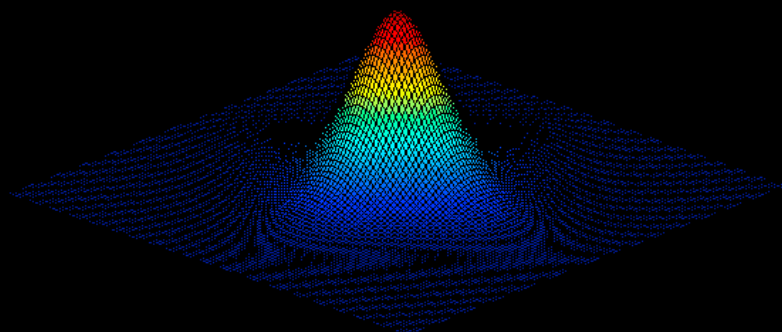
Source B



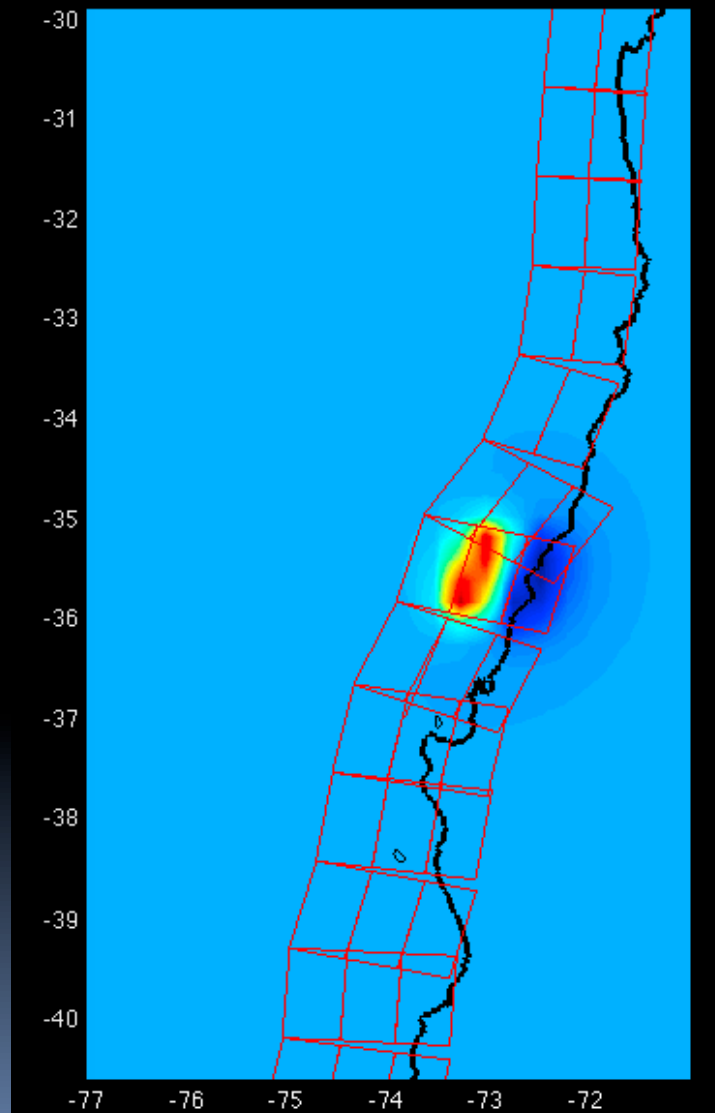
Source A+B



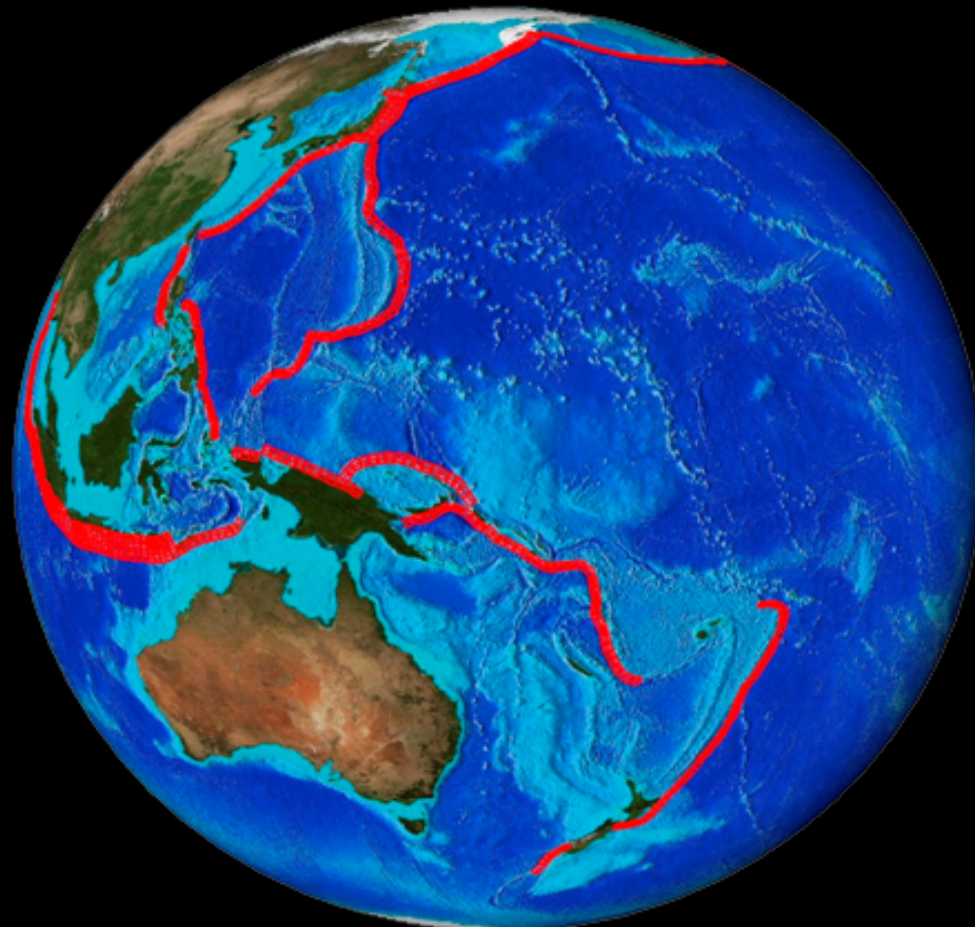
La linealidad permite la reconstrucción de fuentes mas complejas a partir de otras mas sencillas a través de superposición



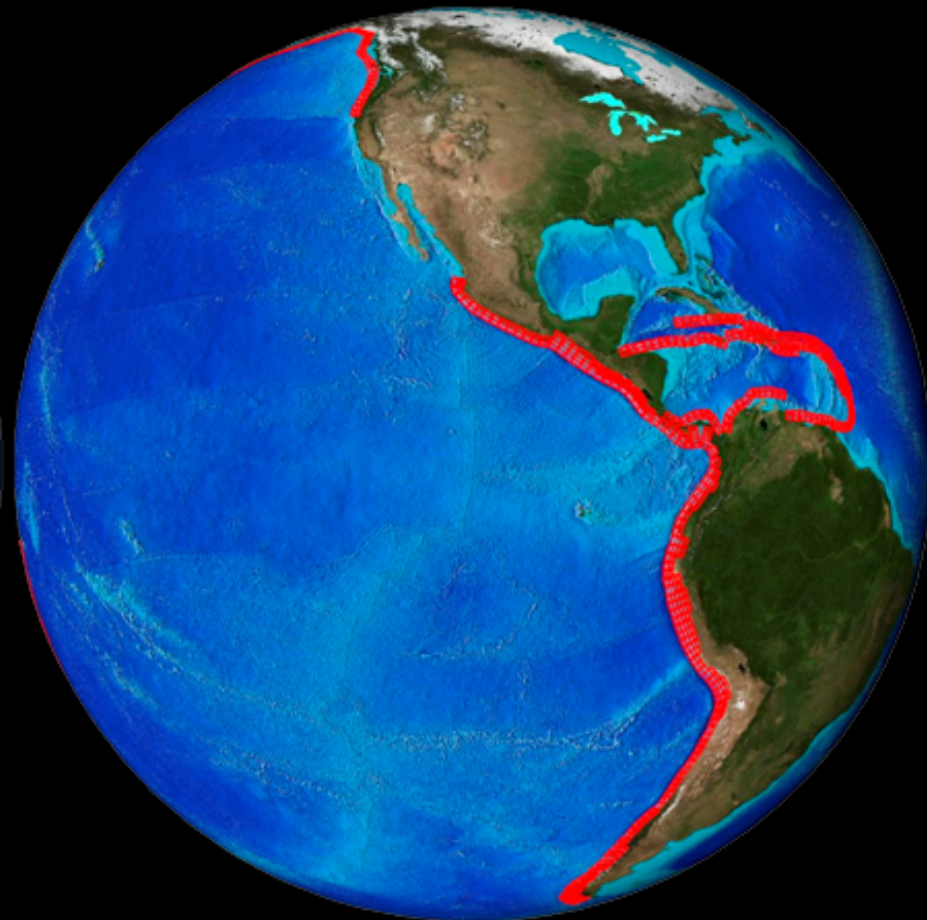
Deformación de una fuente unidad



Ubicación de las fuentes unidad precomputadas

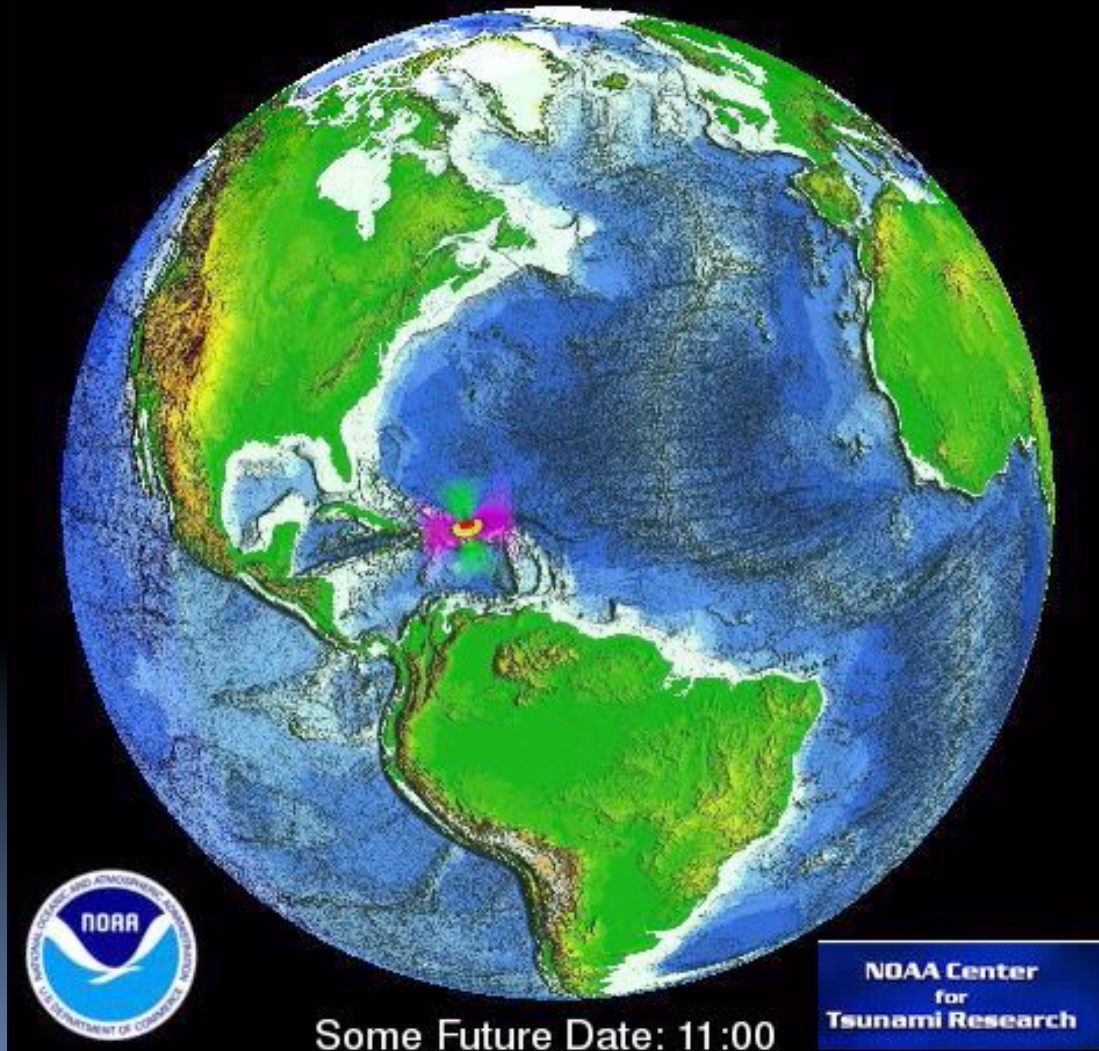


West Pacific

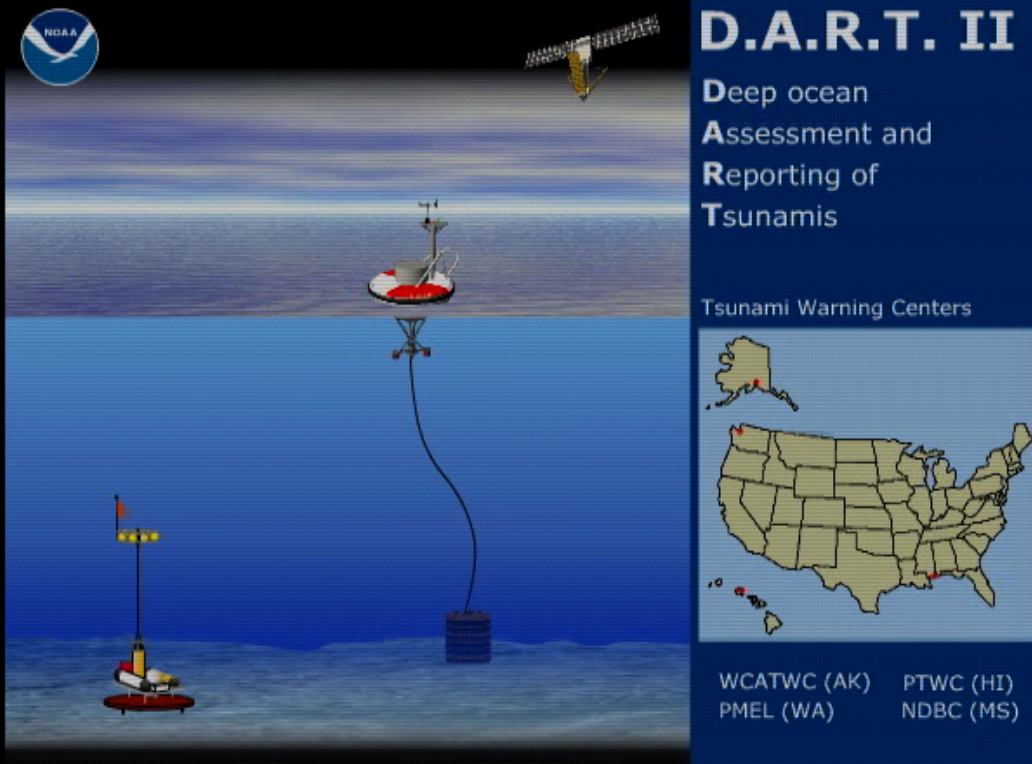


East Pacific

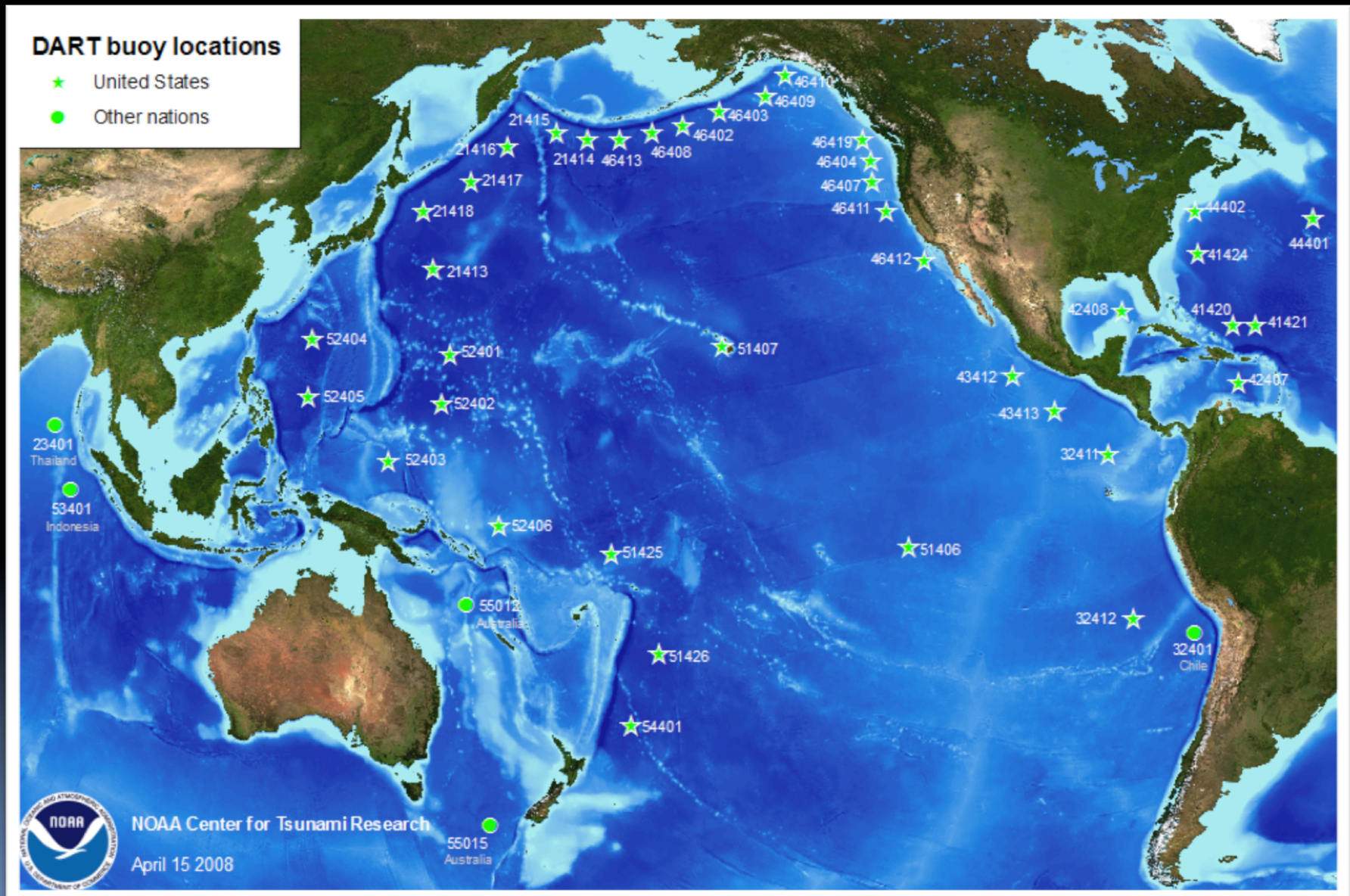
Propagación de una fuente unidad arbitraria en el Caribe



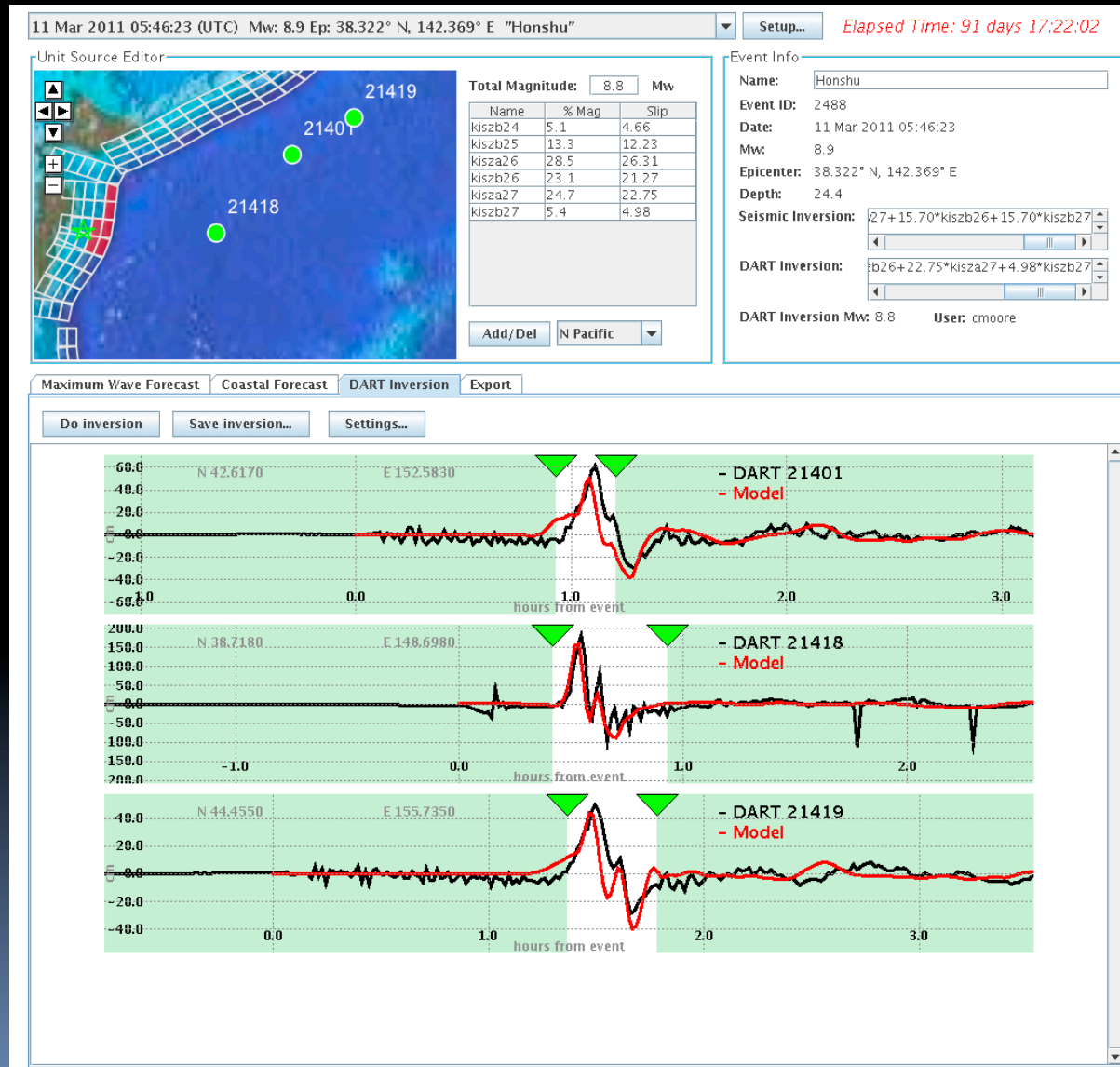
Sistemas de detección de tsunamis: DART



Ubicación de las boyas DART

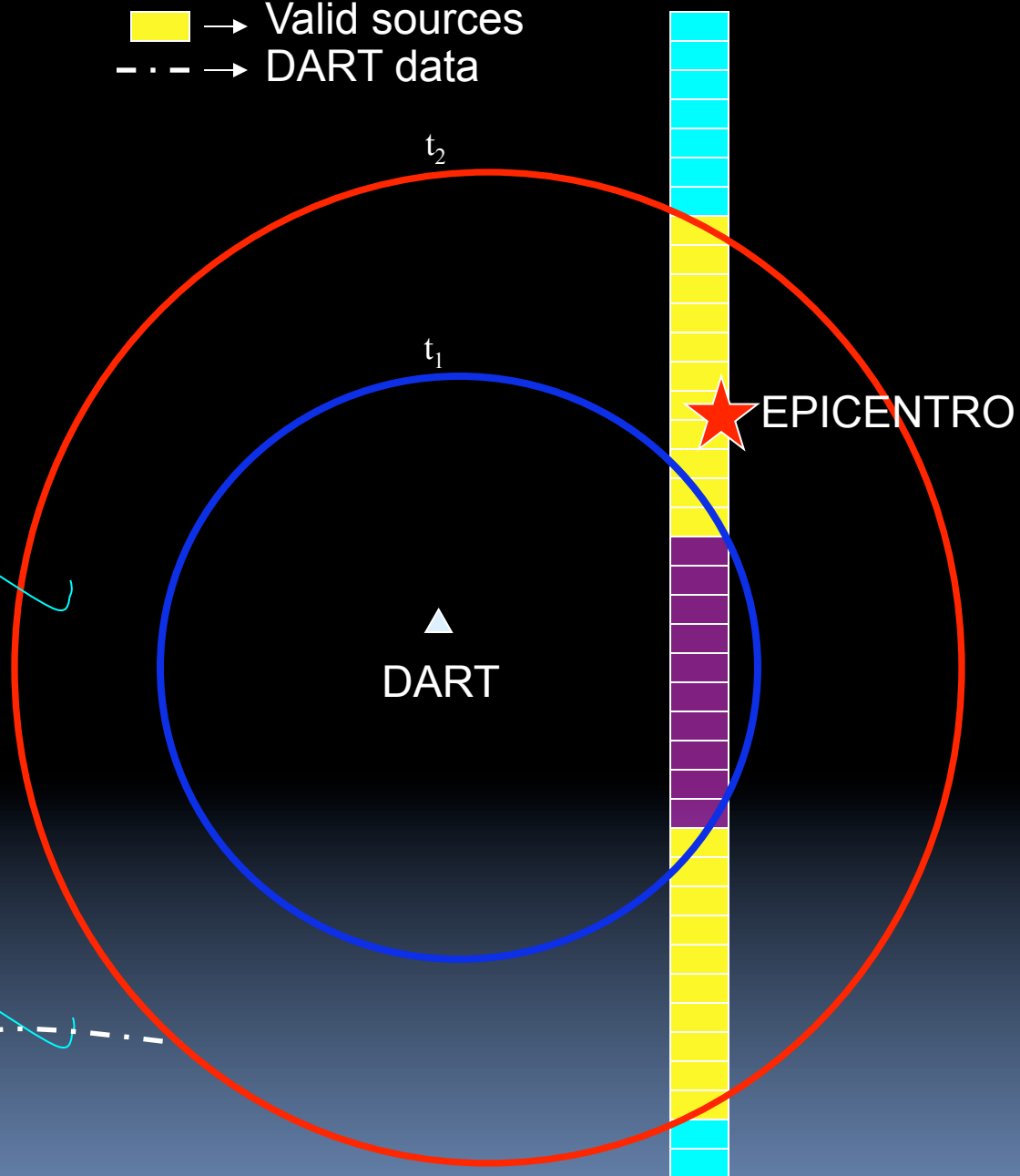
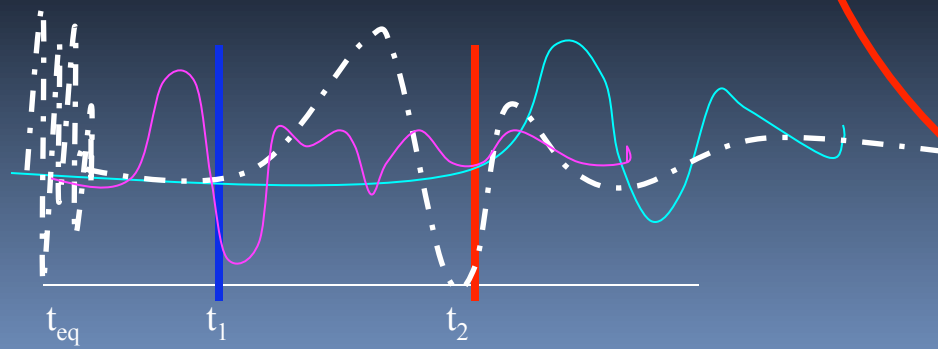
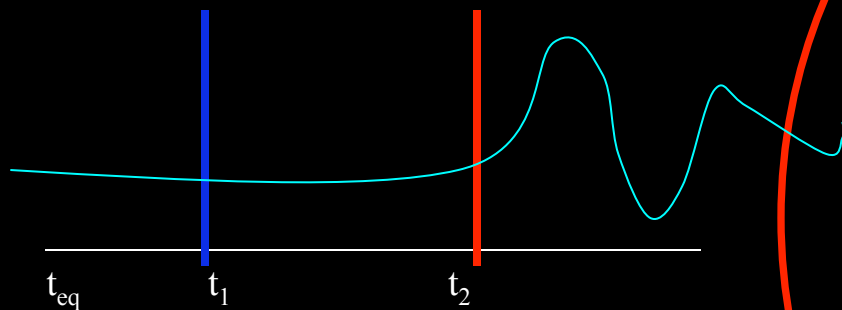
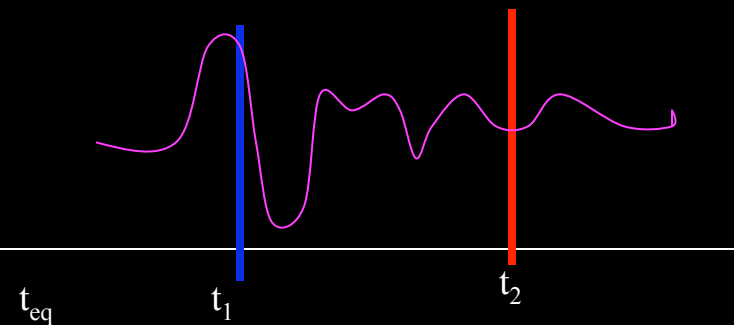


Inversión a partir de boyas DART

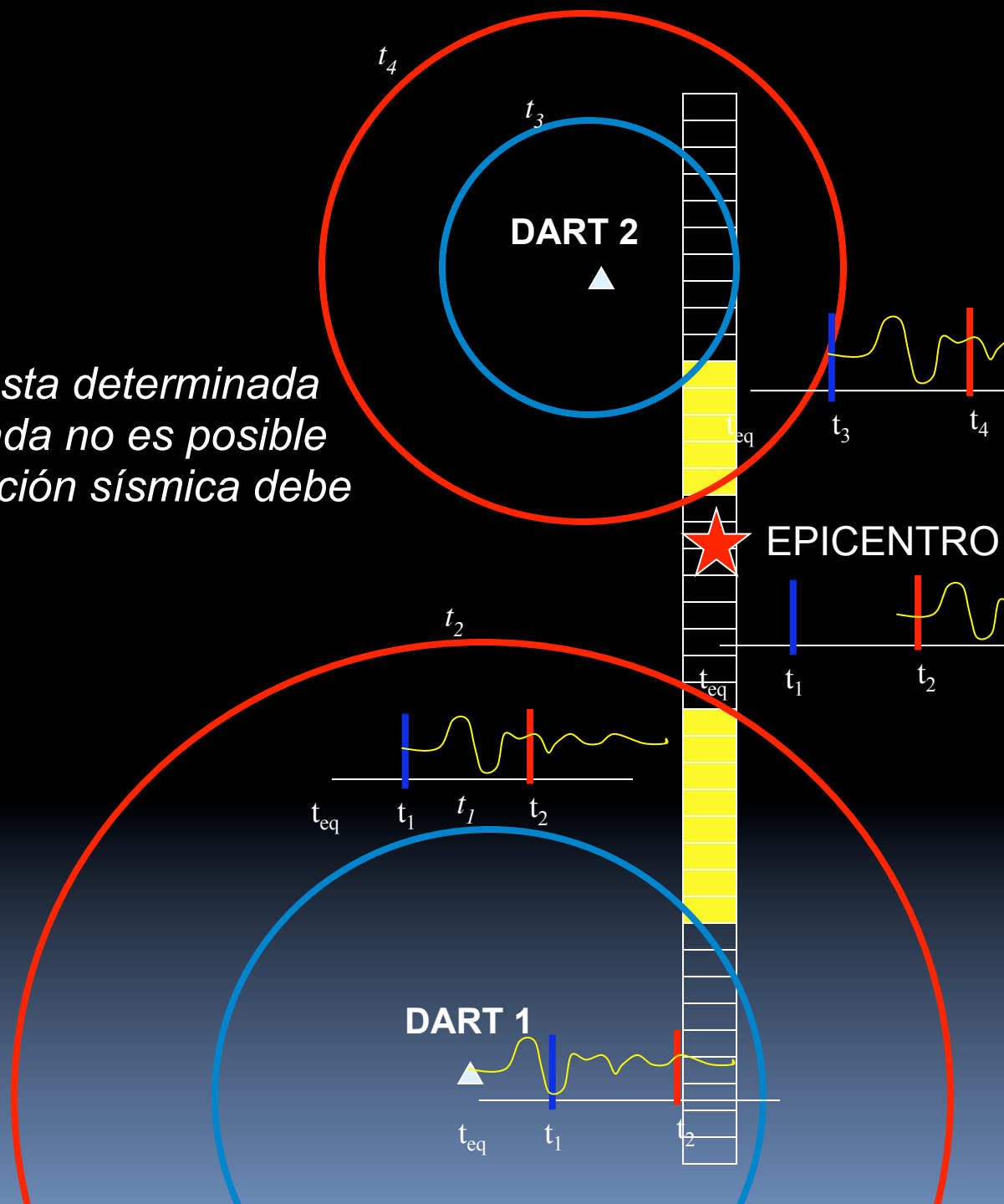


Selección de fuentes para inversión de datos DART

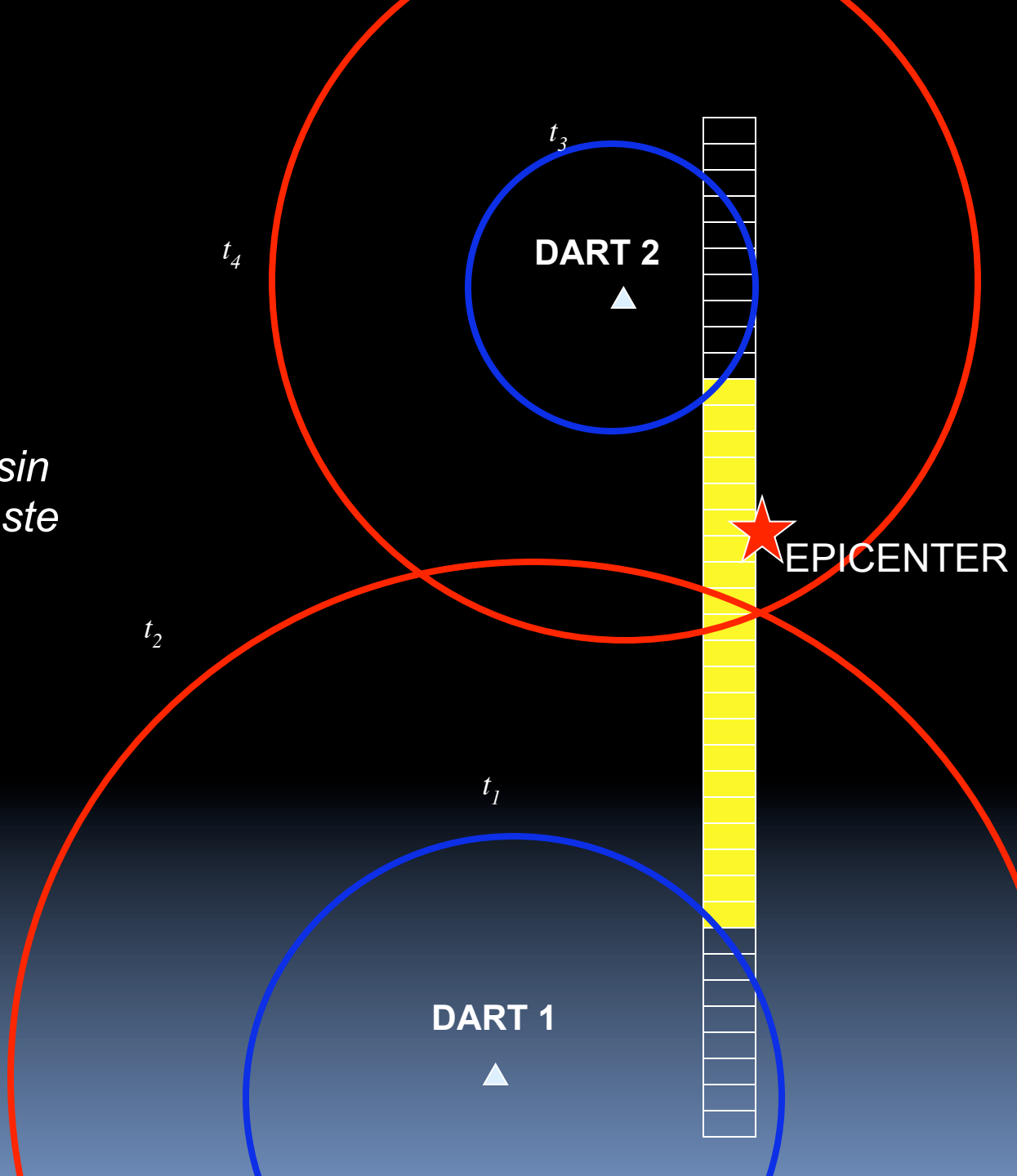
- Soft exclusion sources
- Hard exclusion sources
- Valid sources
- . - → DART data

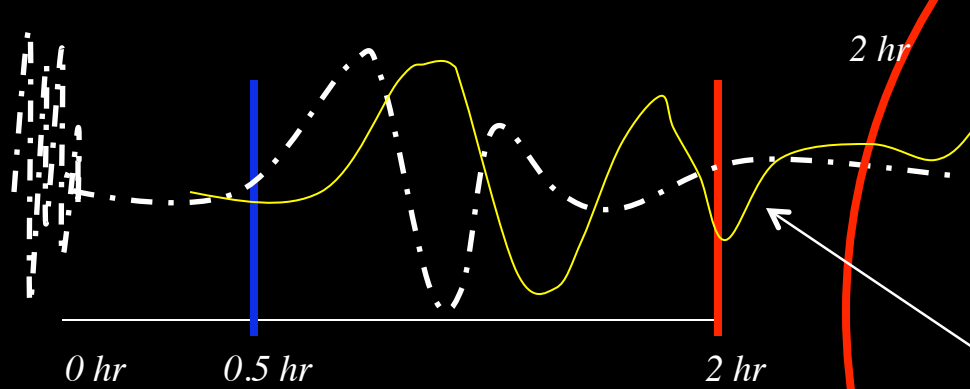


La longitud de la ruptura esta determinada pero una solución conectada no es posible en este momento. La solución sísmica debe ser usada.

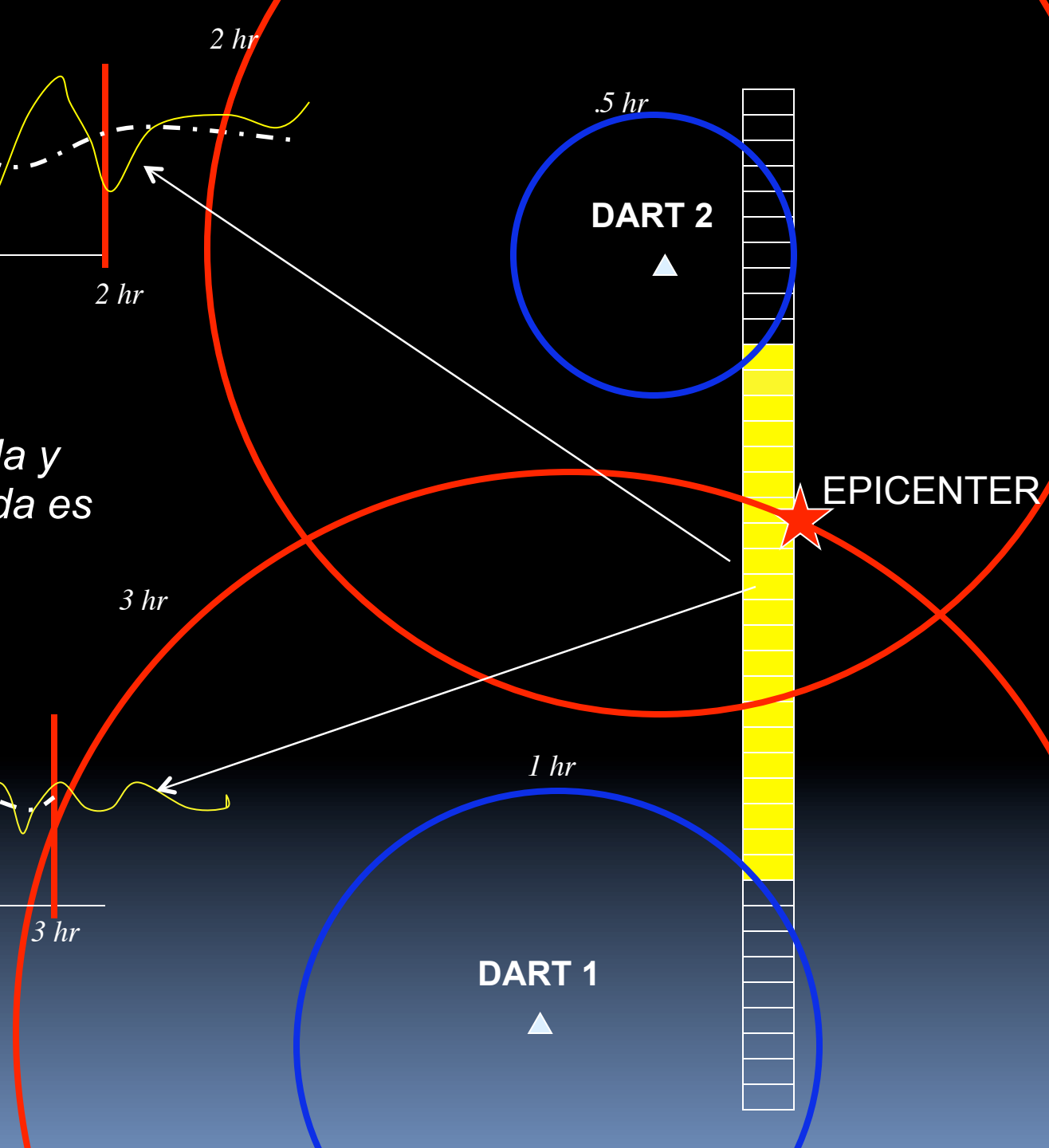
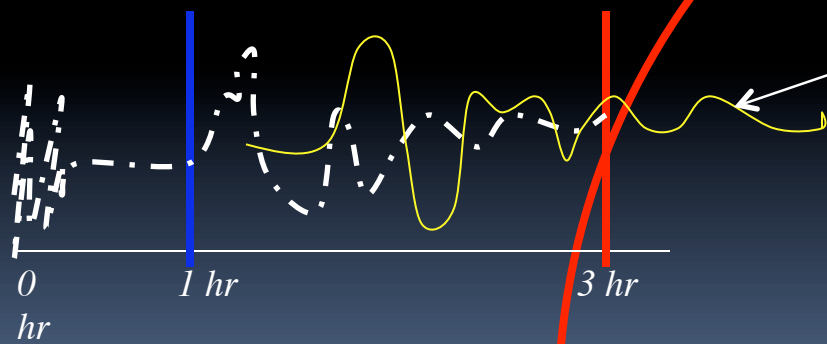


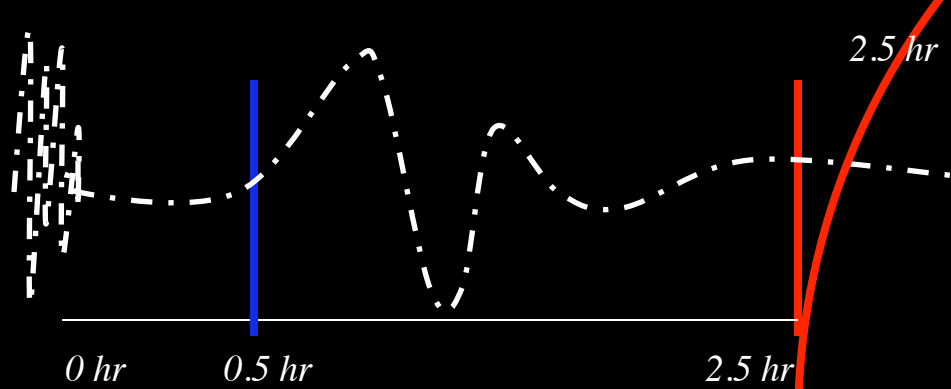
*Una solución conectada sin
combinar es posible en este
momento.*



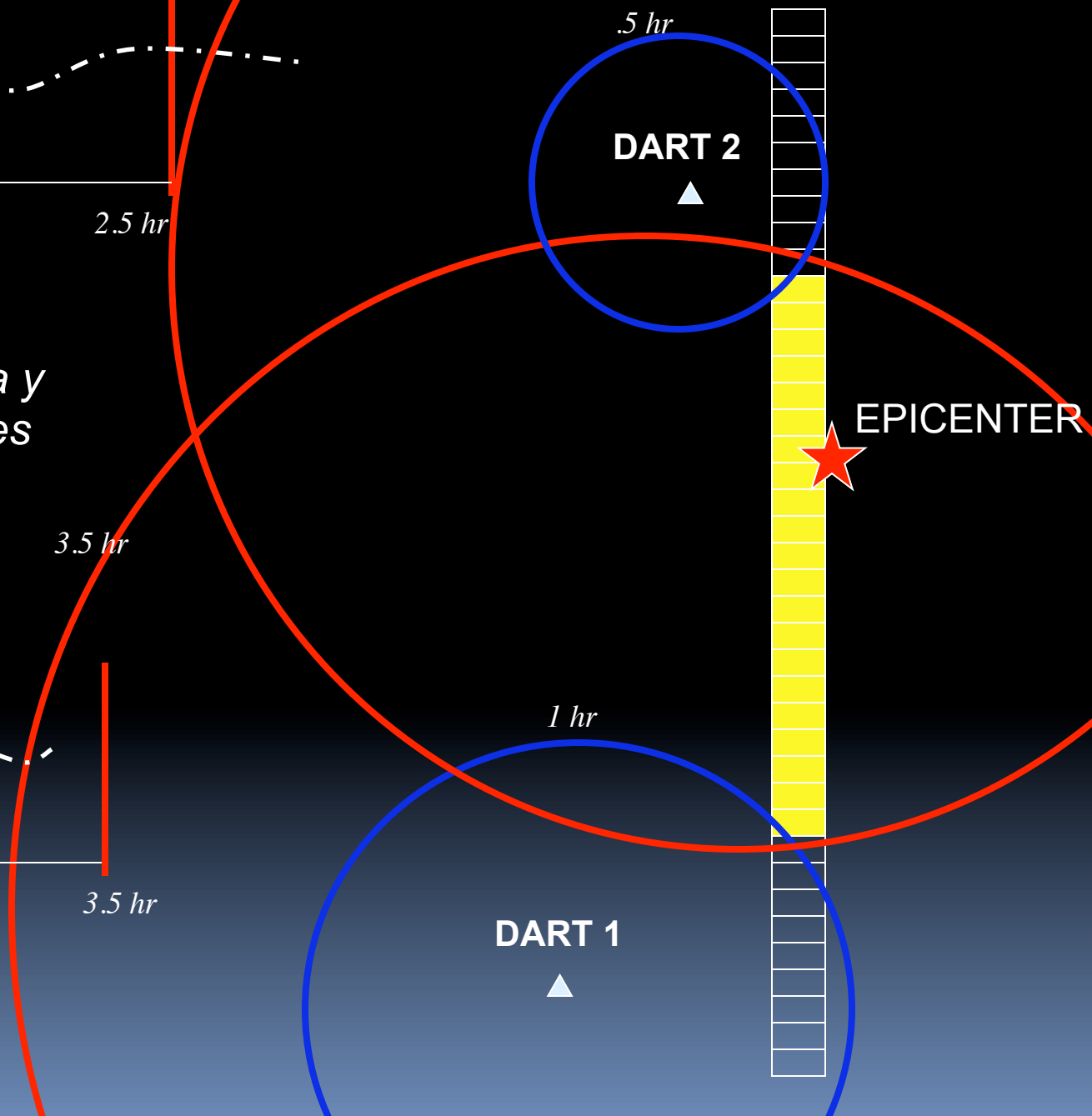
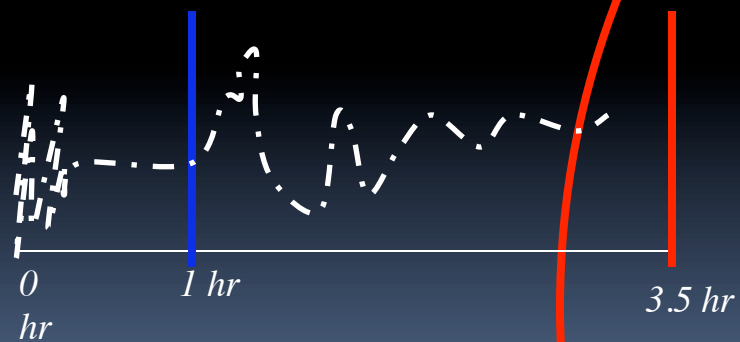


*Una solución conectada y
parcialmente combinada es
posible.*

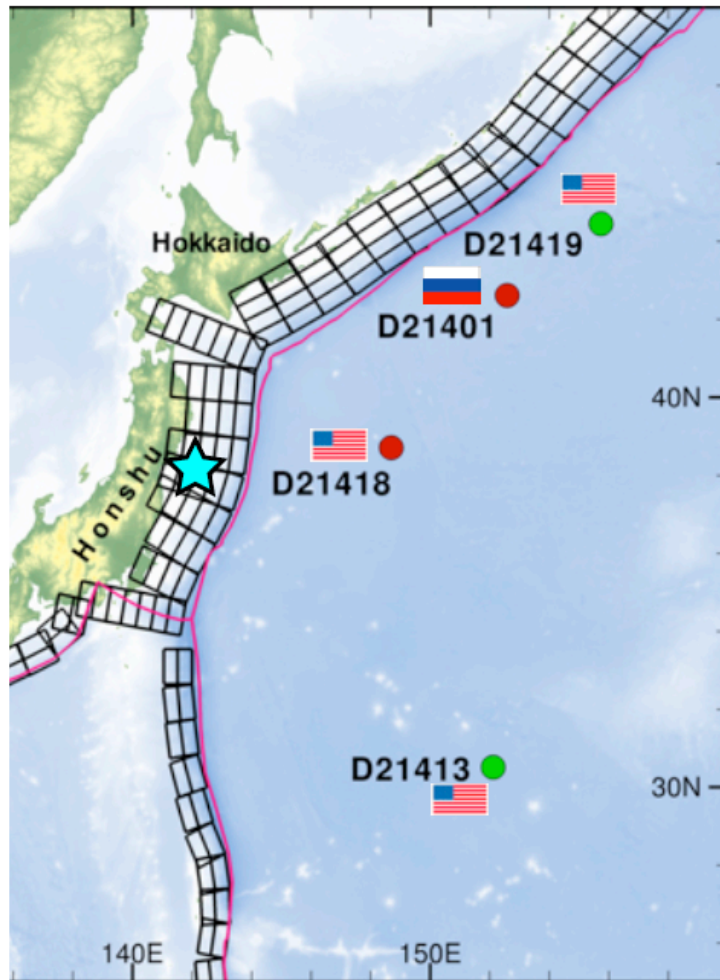




Una solución conectada y totalmente combinada es posible.

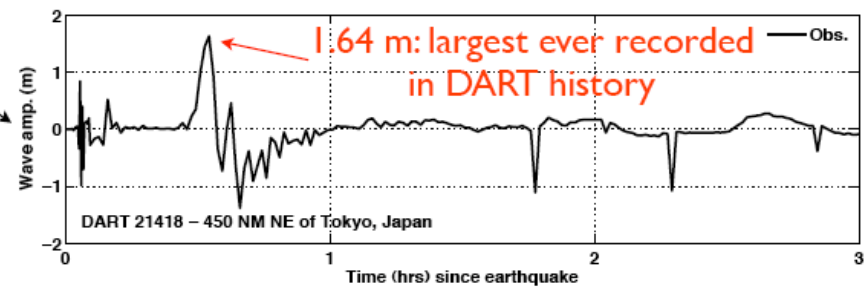
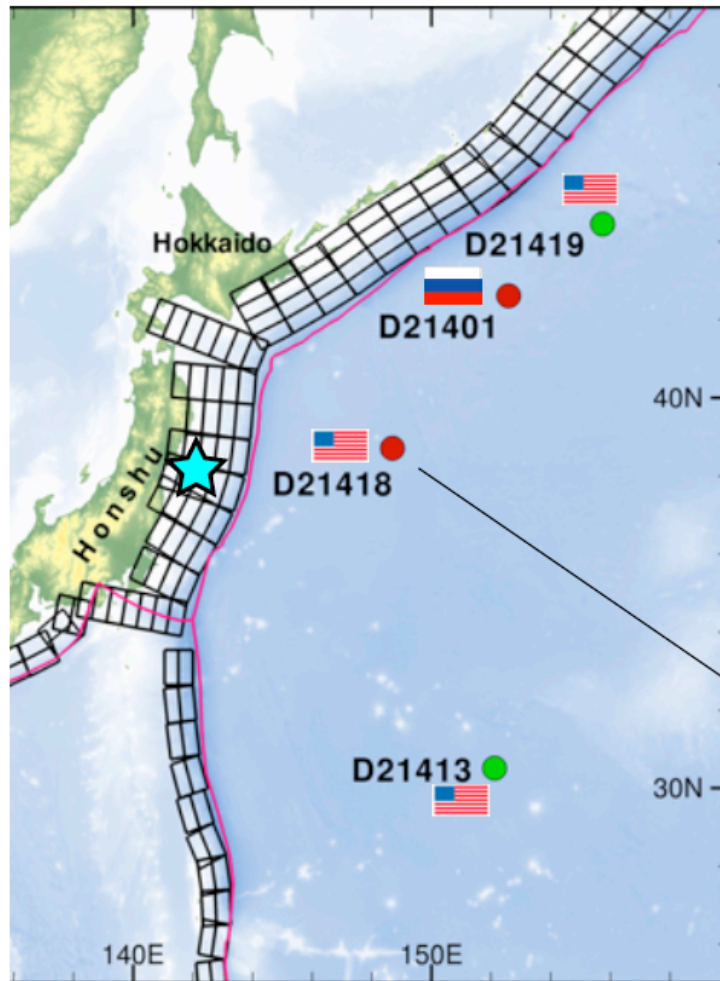


Inversión basada en datos DART



Inverting tsunami source from
DART buoy measurements

Inversión basada en datos DART



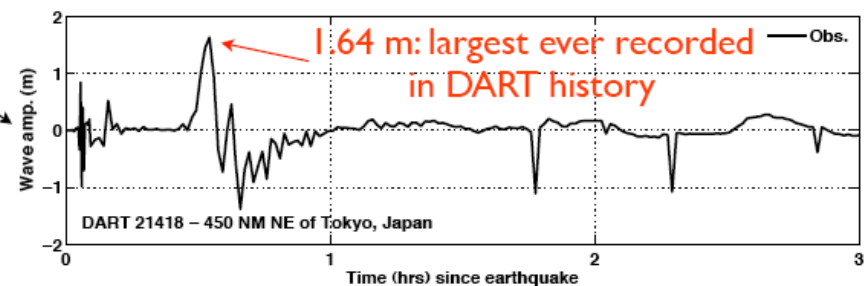
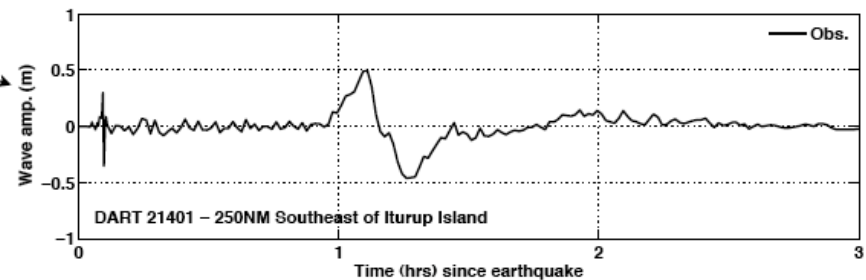
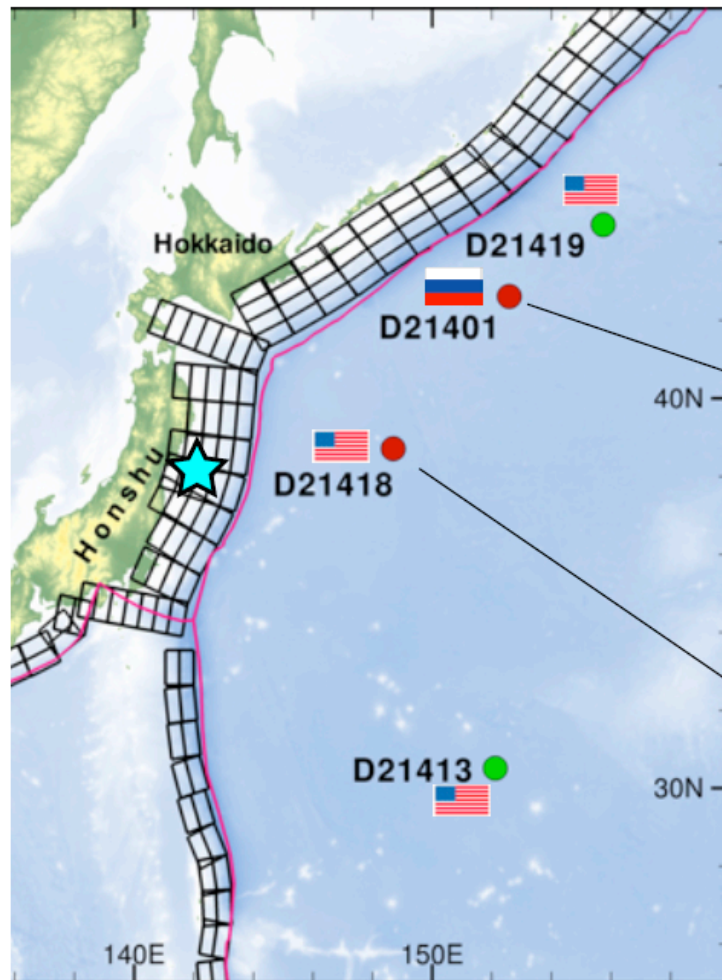
Honshu (northeastern Taiheiyou) tsunami, 11 March 2011



NOAA Center for Tsunami Research

Inverting tsunami source from
DART buoy measurements

Inversión basada en datos DART



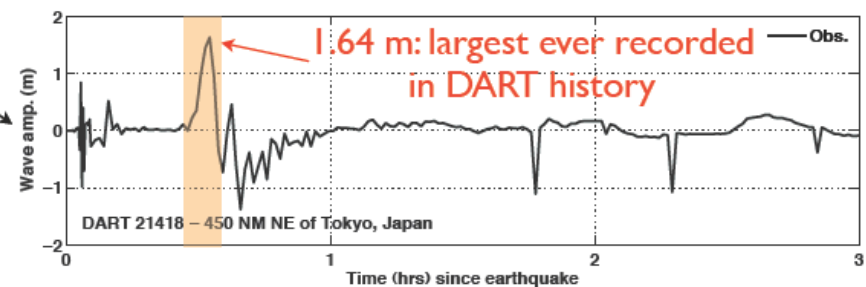
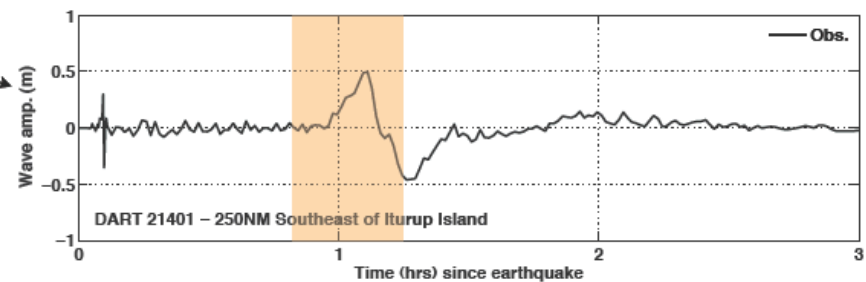
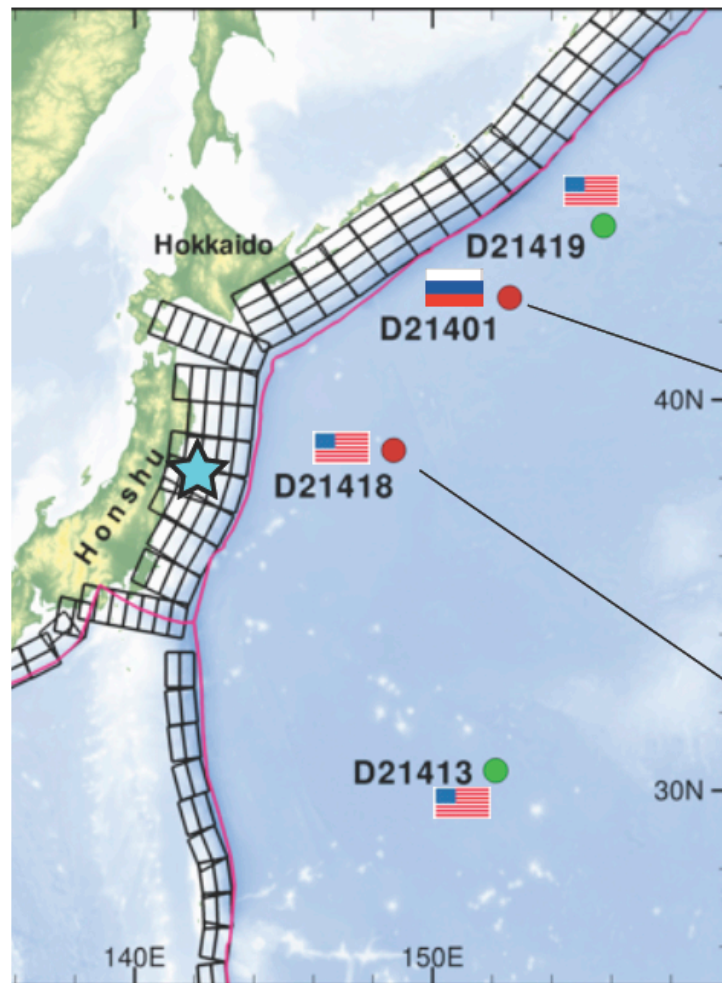
Honshu (northeastern Taiheiyou) tsunami, 11 March 2011



NOAA Center for Tsunami Research

Inverting tsunami source from
DART buoy measurements

Forecasting Method: Inversion from DART



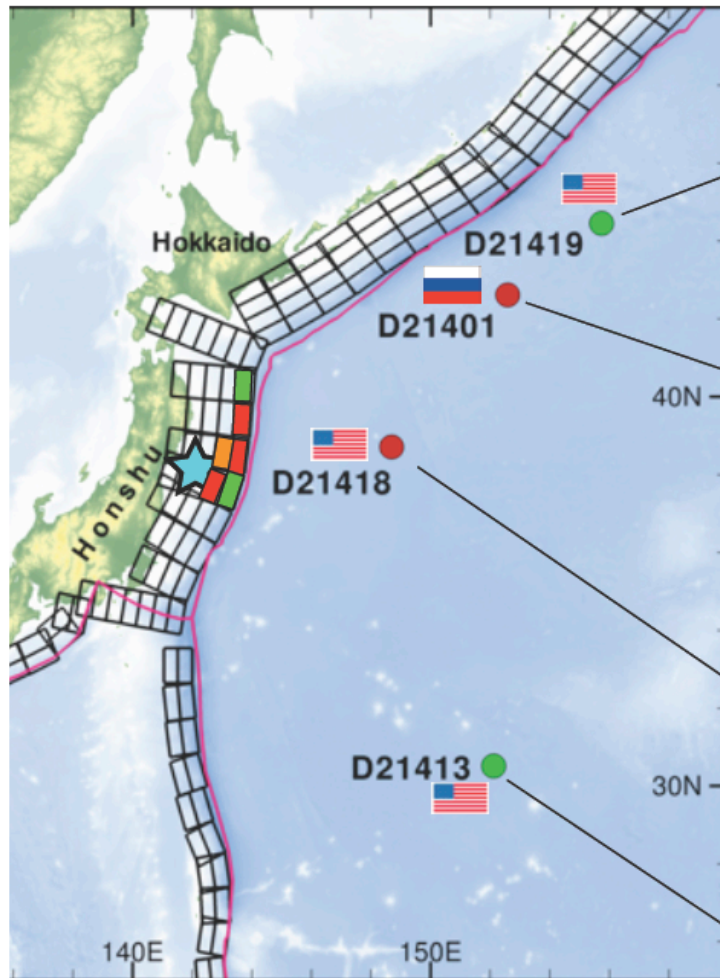
Honshu (northeastern Taiheiyou) tsunami, 11 March 2011



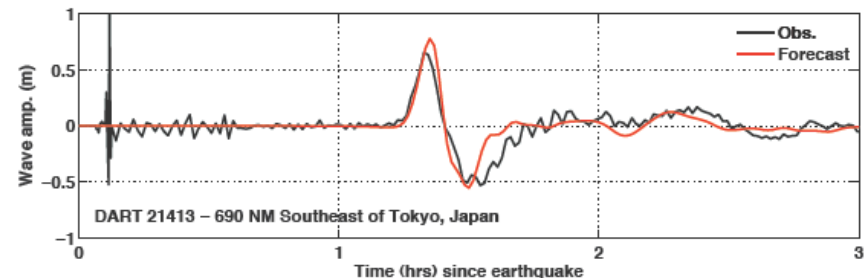
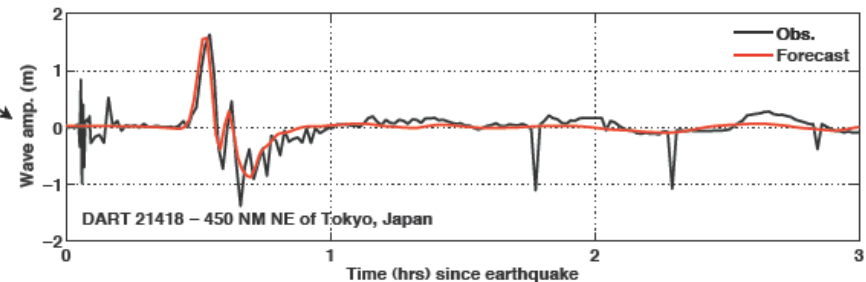
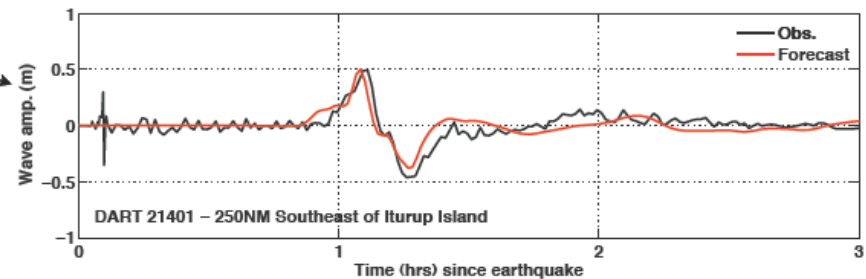
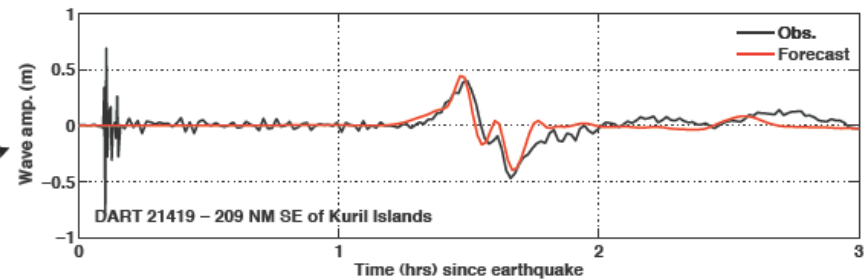
NOAA Center for Tsunami Research

Inverting tsunami source from
DART buoy measurements

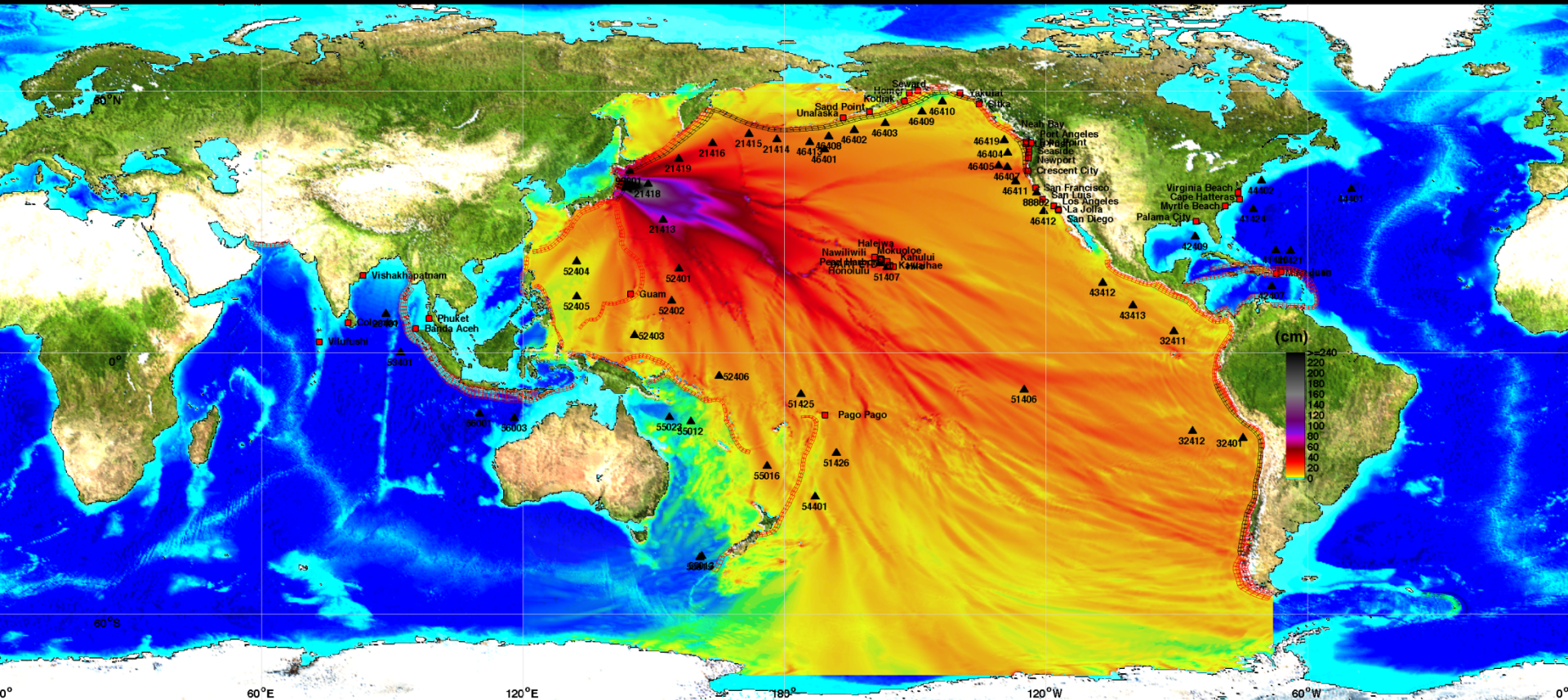
Inversión basada en datos DART



Inverting tsunami source from
DART buoy measurements



Preddicción de la Amplitud Máxima (Japón 2011)



Modelo de Predicción Específico para una Comunidad: SIM

Ocean Shores, WA

Time since EQ = 00:00:00

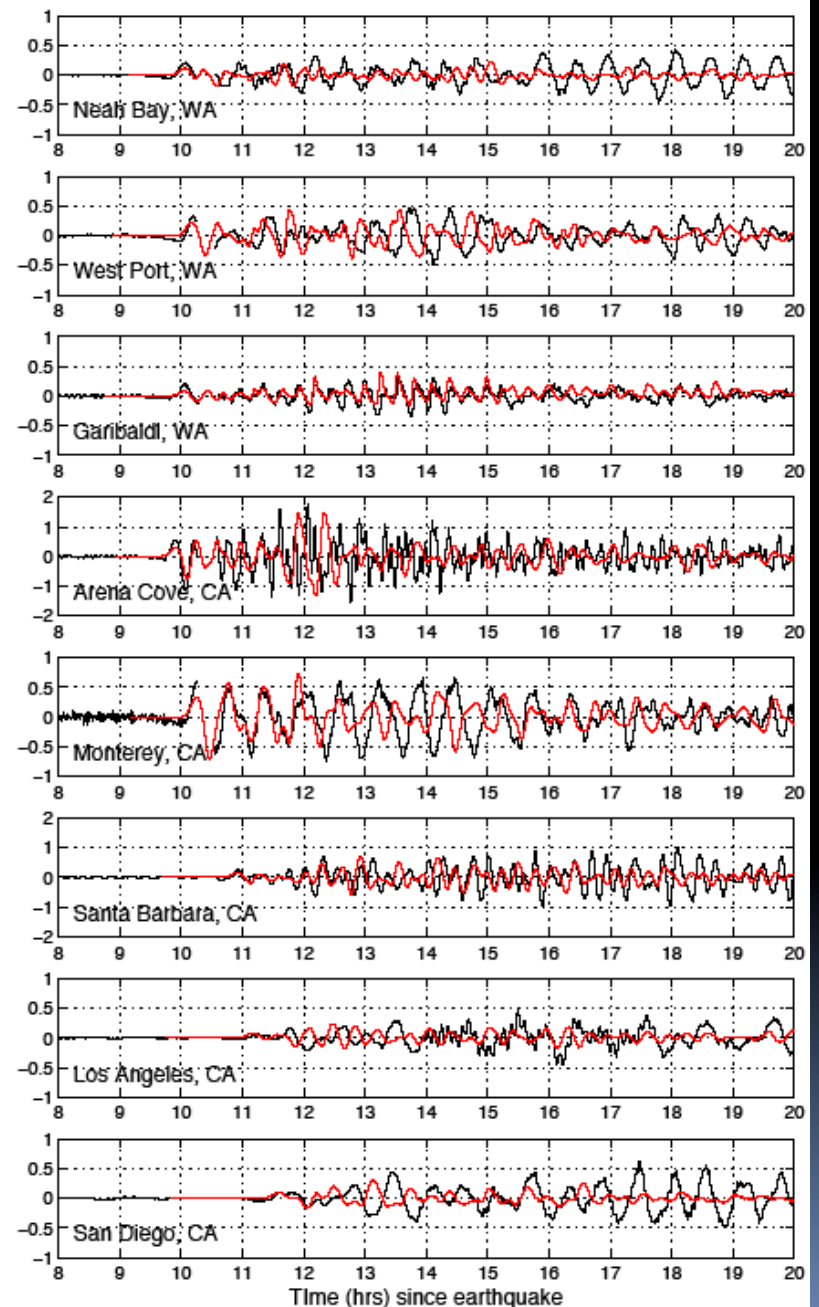
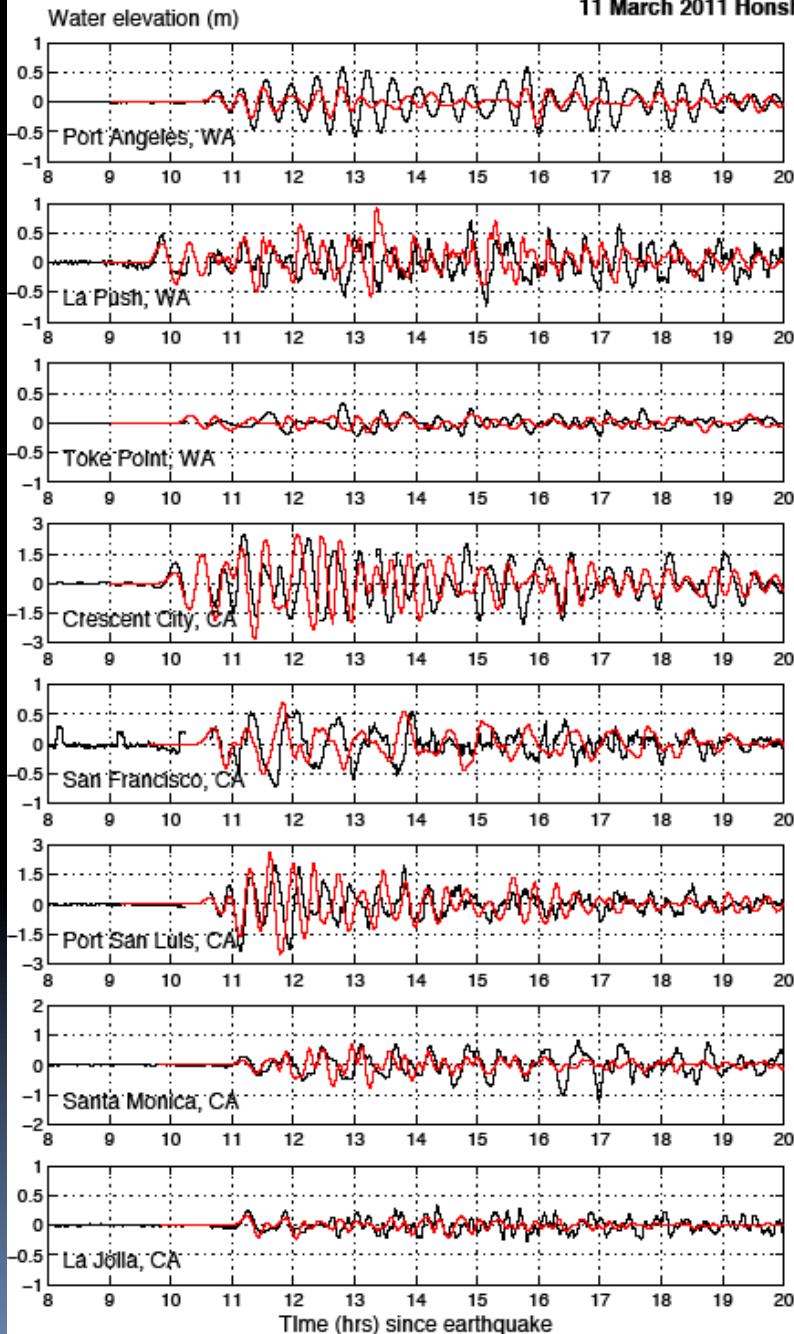


PMEL/NCTR

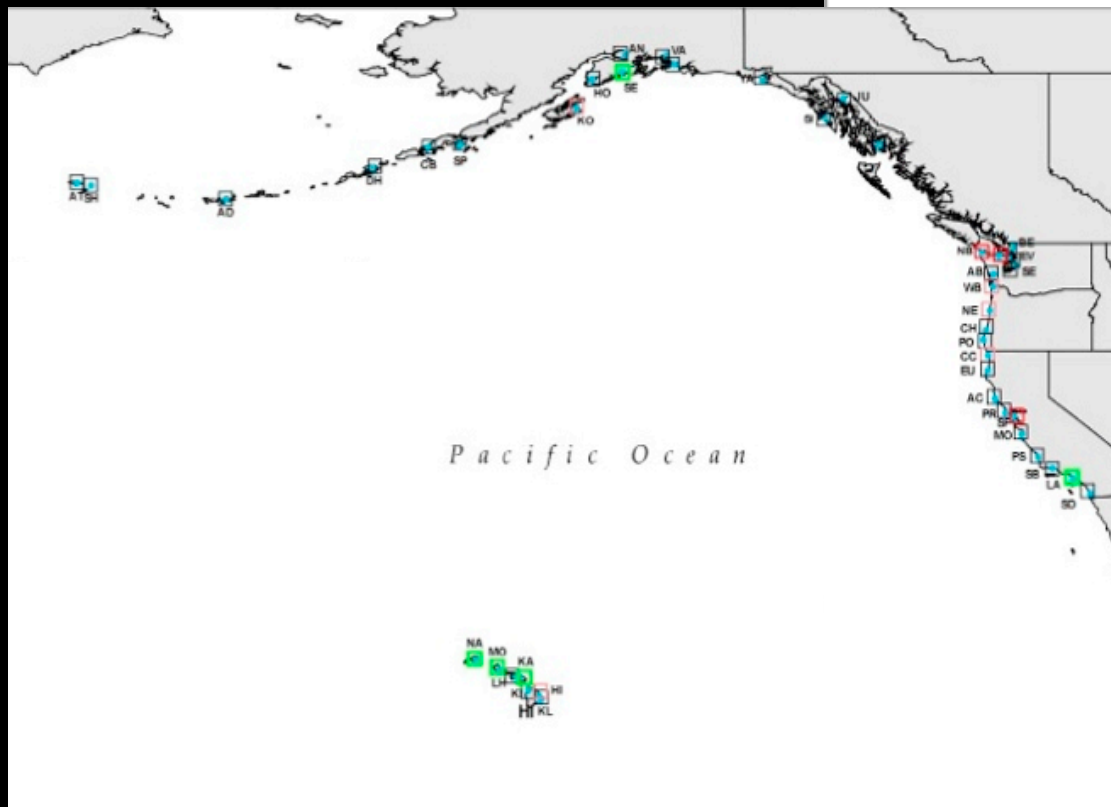
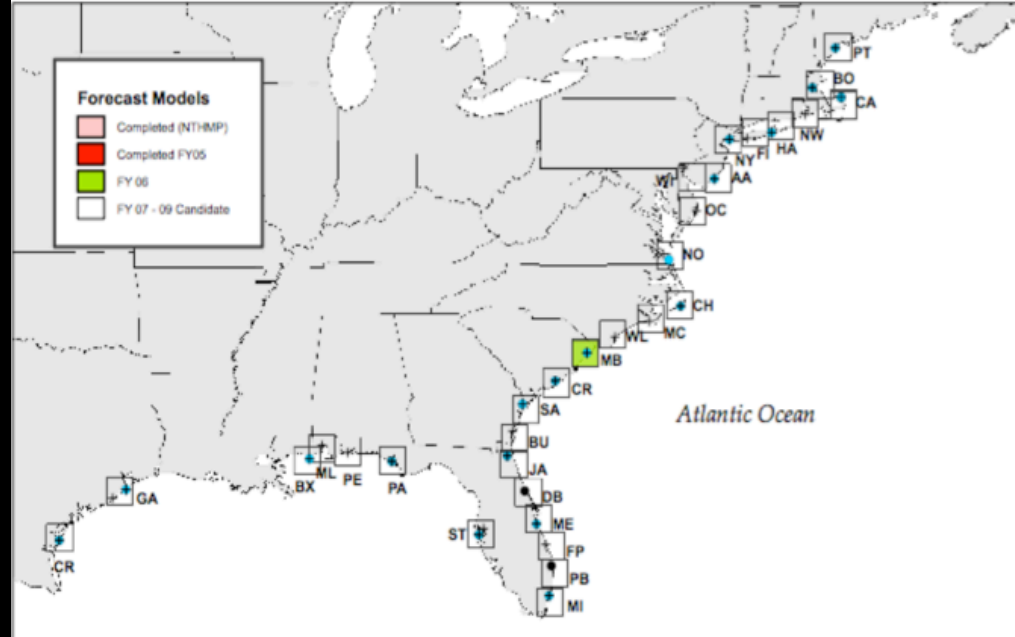


11 March 2011 Honshu Tsunami – West Coast

— Obs. — Forecast

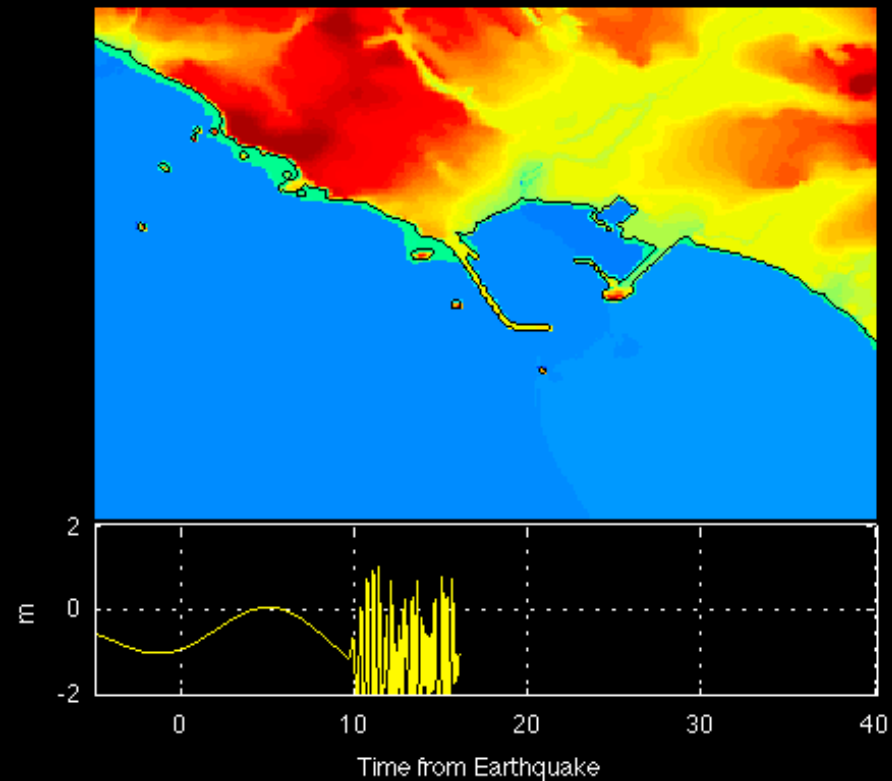
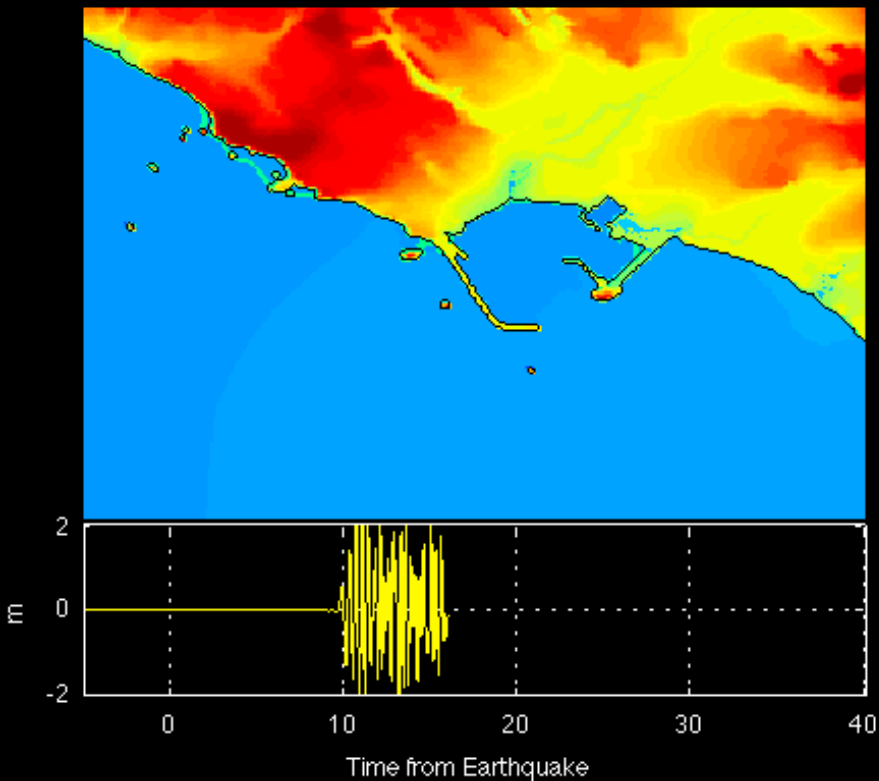


Modelos de predicción en la costa de EEUU

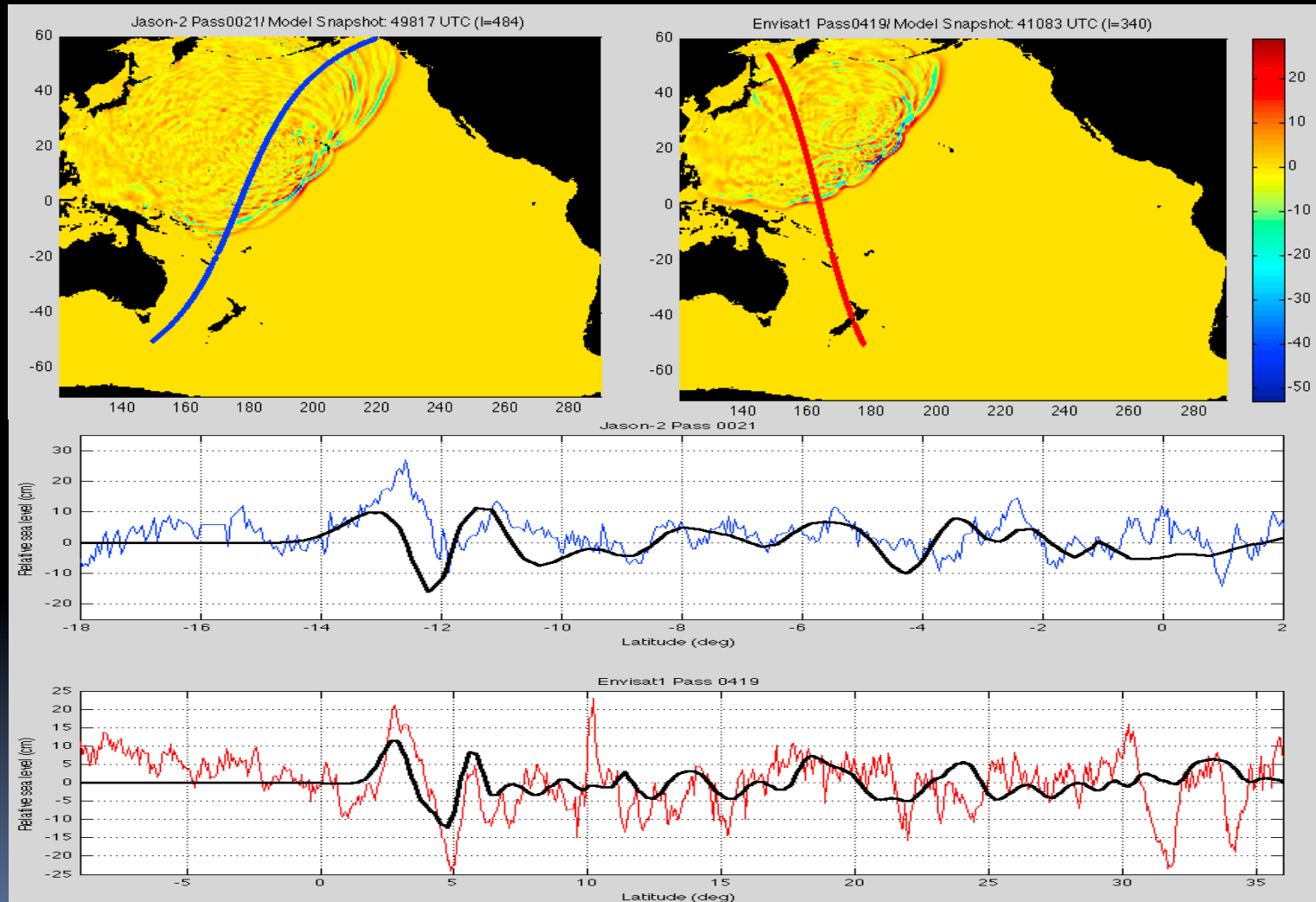


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INCLUSION DE LOS EFECTOS DE LA MAREA EN LOS MODELOS DE INUNDACION



Solución de inversión basada en altimetría satelital: Japón 2011



Definición de las condiciones iniciales del tsunami basada en mediciones de GPS: Japón 2011

