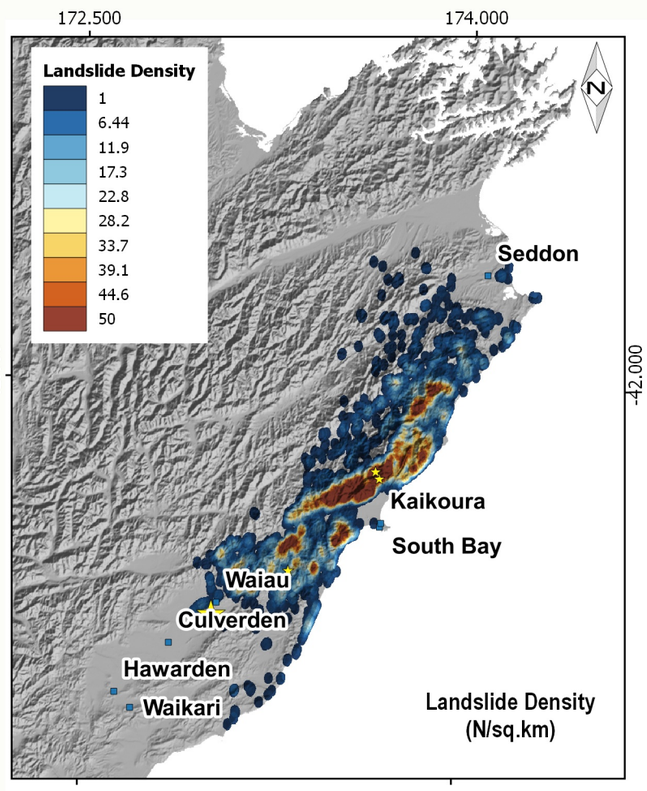

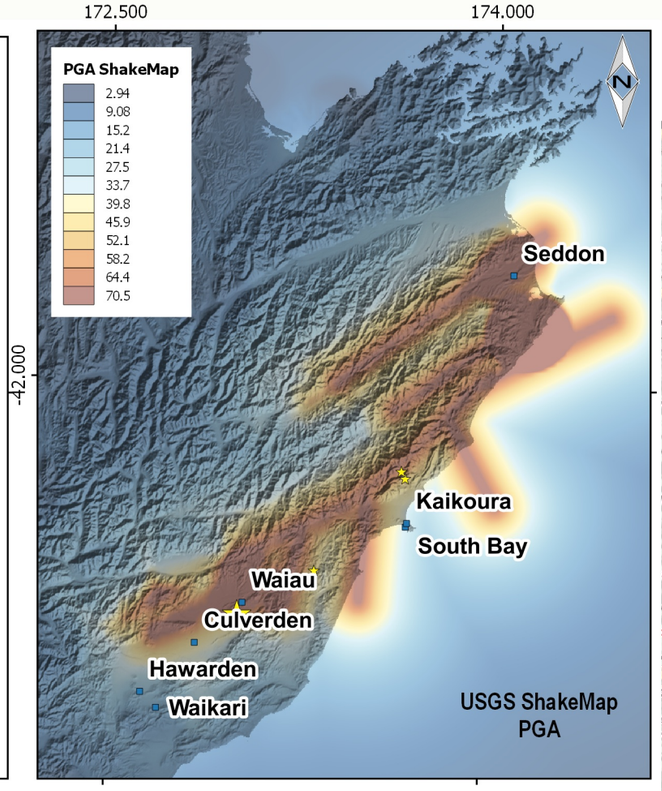

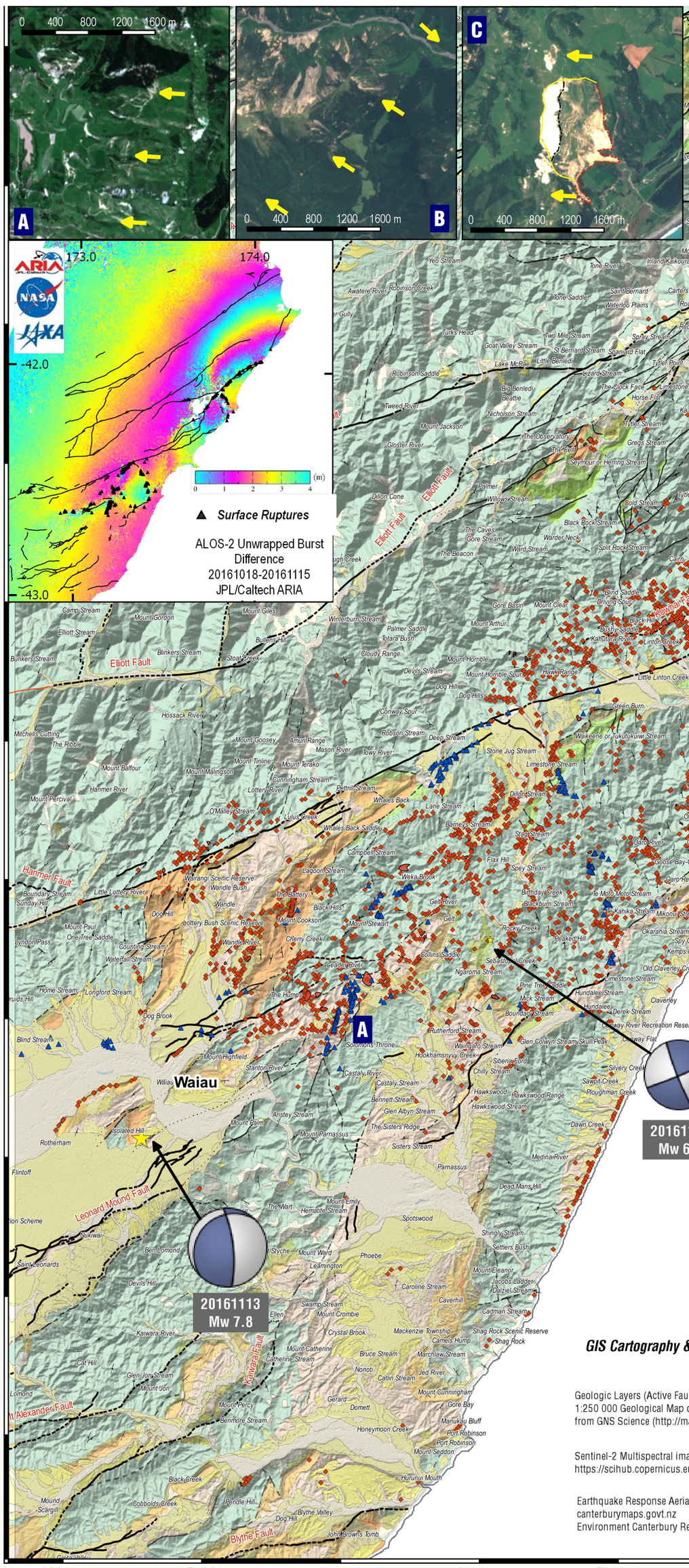

GIS Cartography & Design - Valkaniotis Sotiris @ 2016

Geologic Layers (Active Faults, Formations & Structural Data)
1:250 000 Geological Map of New Zealand (QMAP)
from GNS Science (http://maps.gns.cri.nz)

Sentinel-2 Multispectral imagery from ESA Copernicus
https://scihub.copernicus.eu/

Earthquake Response Aerial Photos
canterburymaps.govt.nz
Environment Canterbury Regional Council

Earthquake Geology Research Team
eqgeogr.weebly.com

ARISTOTLE UNIVERSITY OF THESSALONIKI

Map of Co-Seismic Landslides and Surface Ruptures

for the M 7.8 Kaikoura, New Zealand Earthquake

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Landslides were mapped using Sentinel-2 satellite images from Copernicus, European Space Agency, dated 15,22 and 25 November 2016. Images were visually compared with previous last available S2A images without cloud cover (13 September and 26 October) and landslides and large slope failures were manually mapped. Areas covered by cloud are omitted and shown on map. 5875 landslide sites are shown. A small number of landslides could have been mis-identified due to insufficient resolution of the images, small gaps of cloud cover or for other reasons. Also, re-activated landslides on the central mountainous area were unabled to identify due to imagery restrictions (medium resolution, relief shadows etc).
Surface ruptures were mapped using Sentinel-2 imagery and images from the aerial surveys of Environment Canterbury Regional Council (http://ecan.govt.nz).
Authors believe the current data set and spatial coverage is sufficient for available data and restrictions.

Map created using QGIS 2.18.0
Projection UTM 59 South WGS84
Scale 1:300.000

Research Group on Earthquake Geology in Greece
http://eqgeogr.weebly.com/

0 10 20 30 40 Km
0 5 10 15 20 miles