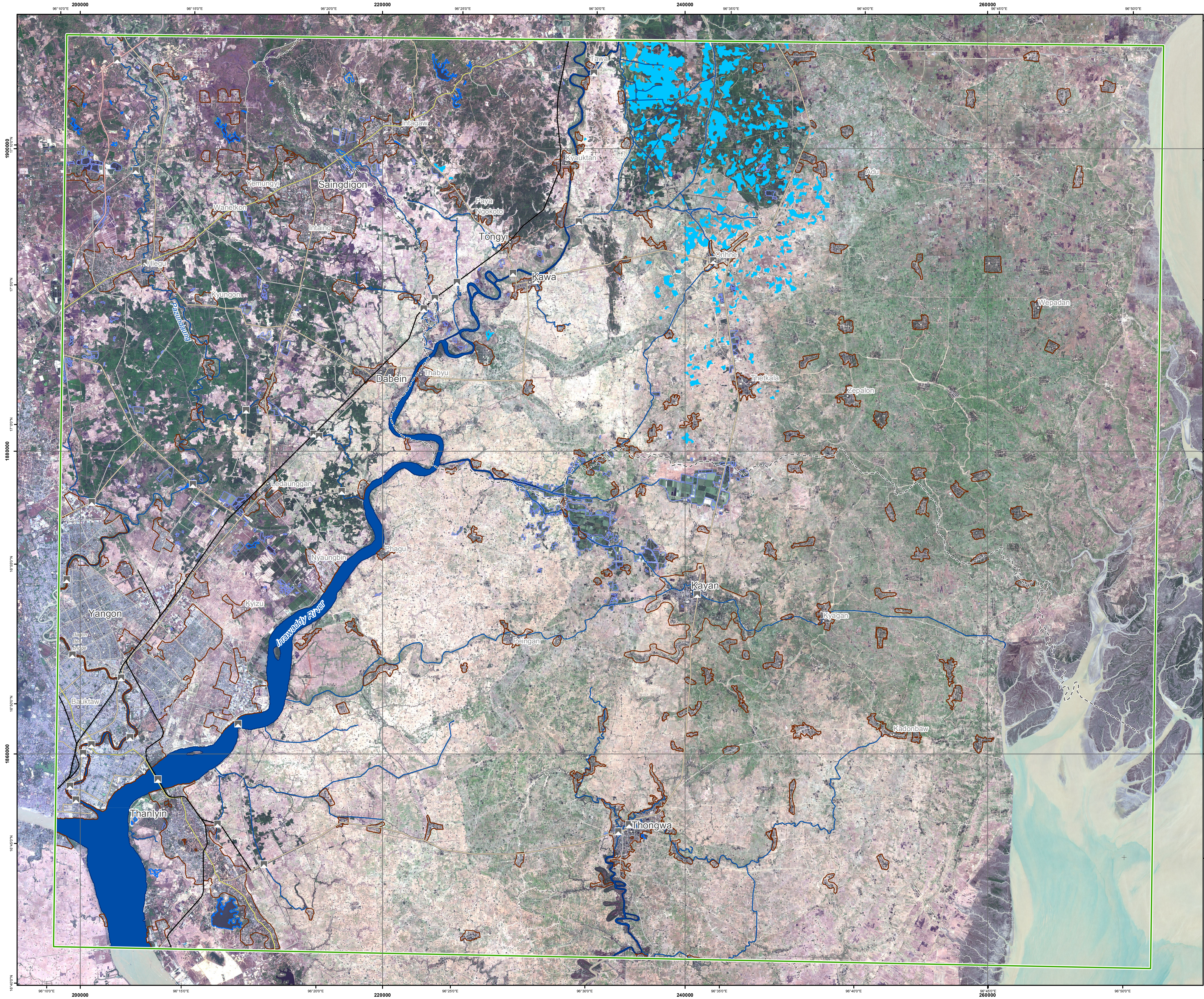
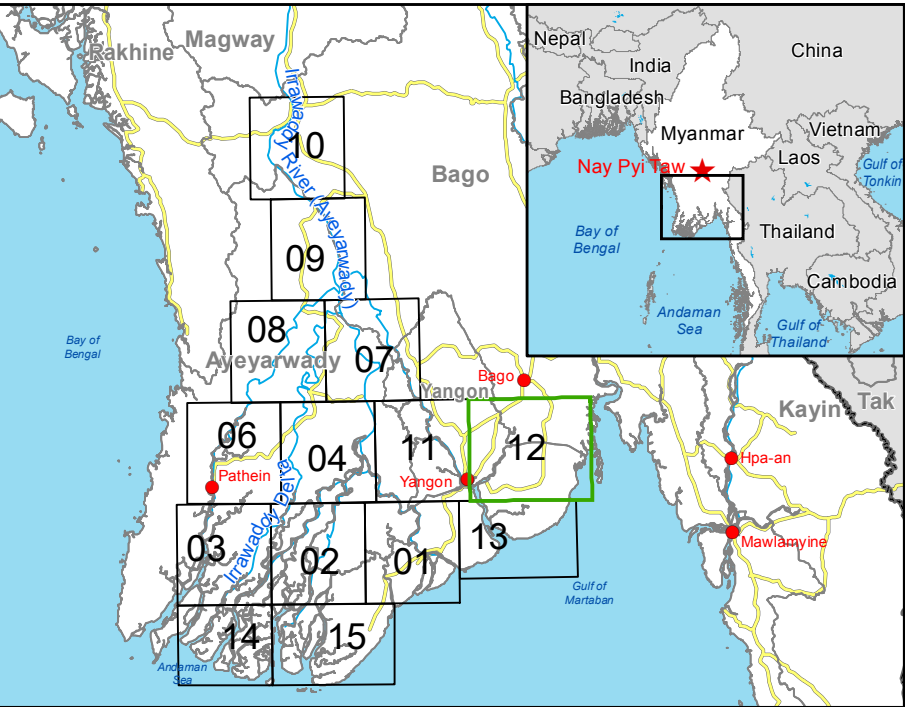




Yangon East - Myanmar Flood - 01/08/2015 Delineation Map



Cartographic Information

1:115000 Full color ISO A1, medium resolution (200 dpi)



Grid: WGS 1984 UTM Zone 47N map coordinate system
Tick marks: WGS 84 geographical coordinate system

Legend

Crisis Information	Hydrology	Transportation
Flooded Area (04/09/2015 11:46 UTC)	Lake	Bridge
Area of Interest	Reservoir	Railway
Administrative boundaries	River	Motorway
Region	Dam	Primary Road
Populated Place	River	Secondary Road
Built-Up Area		Local Road

Consequences within the AOI on 04/09/2015			
		Affected	Total in AOI
Flooded area		ha	4427
Estimated population	Inhabitants	6036	217745
Settlements	Built-up area	ha	0.5
Transportation	Bridge	No.	0
	Motorway	km	0
	Primary road	km	0
	Secondary road	km	0
	Local road	km	0
	Railway	km	0

Map Information

Unusual heavy monsoon rains have been affecting Myanmar since 16 July causing river overflows and floods. In the past few days, torrential rains damaged farmland, roads, rail tracks, bridges and houses. Reservoir are seasonal inundated areas and water bodies probably due to agricultural practices (paddy fields).
The core users of the map is Emergency Response Coordination Centre (ERCC).

Relevant date and time records (UTC)			
Event	01/08/2015 00:00	Last crisis status	04/09/2015 11:46
Activation	07/08/2015 10:00	Map production	05/09/2015

Data Sources

Sentinel-1A (acquired on 04/09/2015 11:46 UTC, GSD 20 m) provided by European Space Agency.
Landsat-8 © U.S. Geological Survey (acquired on 26/02/2015, GSD 15 m, 1 % cloud coverage).
Base vector layers based on GAUL © UN 2008, OpenStreetMap © OpenStreetMap contributors, Wikimapia.org, GeoNames (approx. 1:10000, extracted on 08/08/2015), refined by ITHACA. Source information is included in vector data.
Elevation data: SRTM (30 m posting). Height in meters above mean sea level.
Population data: Landscan 2010 © UT BATTELLE, LLC.
All data sources are complete and with no gaps.
Inset maps based on: Administrative boundaries (JRC 2013), Hydrology, Transportation (Natural Earth, 2012), Settlements (Geonames, 2013).

Dissemination/Publication

Delivery formats are GeoTIFF, GeoPDF, GeoJPEG and vectors (shapefile and KML formats).
Map products available in the Copernicus EMS Portal at the following URL:
<http://emergency.copernicus.eu/mapping/list-of-components/EMSR130>
All products are © of the European Union.

Disclaimer

The products elaborated in the framework of current mapping in rush mode activation are realized to the best of our ability, within a very short time frame during a crisis, optimising the available data and information. All geographic information has limitations due to scale, resolution, date and interpretation of the original data sources. The products are compliant with Copernicus EMS Rapid Mapping Product Portfolio specifications.

Map Production

The present map shows the flood delineation in the area of Yangon East (MYANMAR). The basic topographic features are derived from public datasets, refined by means of visual interpretation of pre-event image Landsat-8.
The thematic layer, assessing the delineation of the event, has been derived from post-event image Sentinel-1A.
All satellite images have been radiometrically enhanced, orthorectified with RPC approach (using SRTM elevation data).
The estimated geometric accuracy of this product is 40 m CE90 or better, from native positional accuracy of the background satellite image.
The estimated thematic accuracy of this product is 85 % or better, based on previous experience in using high-resolution SAR for flood extent delineation. Please be aware that the thematic accuracy might be lower in urban and forested areas due to known limitations of the analysis technique.
Only the area enclosed by the Area of Interest has been analyzed.

Contact

Map produced by ITHACA under contract 259736 with the European Union.
Name of the release inspector (quality control): e-GEOS (ODO).
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