

Poitevin marsh wetland



Sentinel-1A / C-SAR / IW DV / GRD acquired on **12 March 2015** at 17:55:55 GMT
Sentinel-1A / C-SAR / IW DV / GRD acquired on **30 January 2016** at 17:56:01 GMT

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Keywords : land, coastal, flooding, wetland, marsh, Poitou, France

2D

3D

Fig. 1 - S1 C-SAR (12.03.2015) over the Poitevin marsh, near the Atlantic French coast - VV/VH/NDI(VH,VV) composite. [2D view](#)

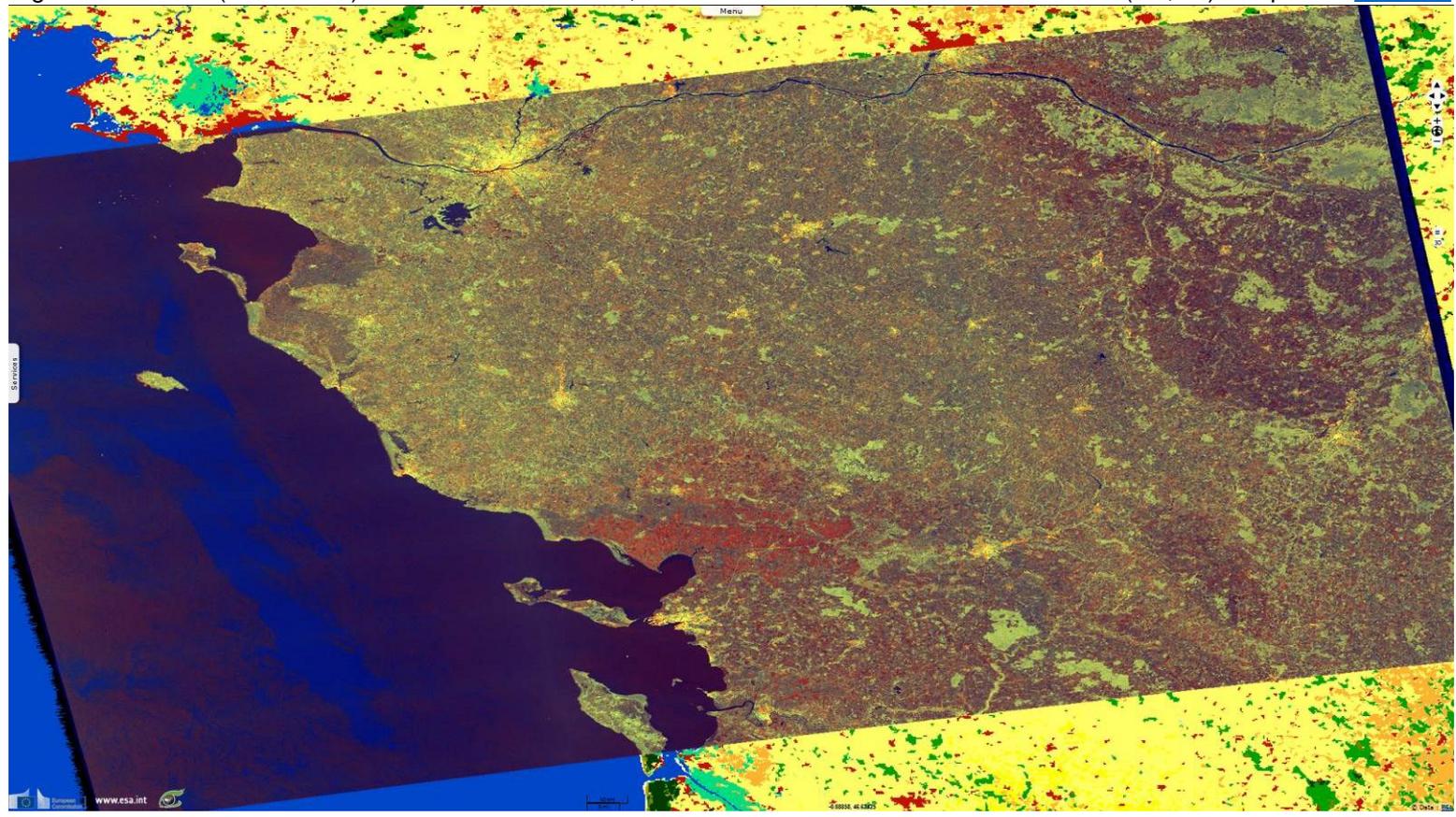


Fig. 2 - S1 C-SAR (30.01.2016) - idem over the CCI-LC 2010 produced by ESA.. [2D view](#)

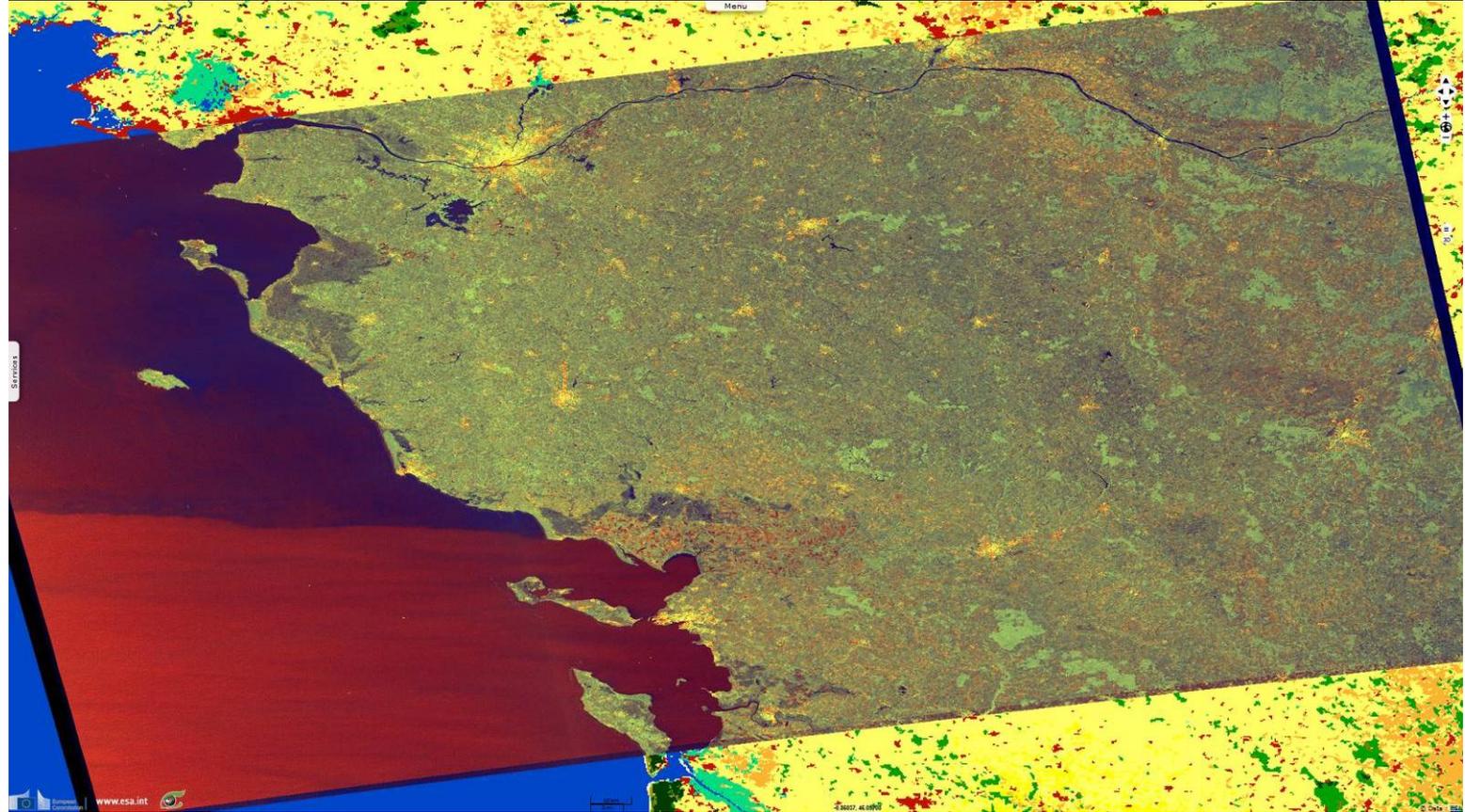


Fig. 3 - S1 C-SAR (12.03.2015) - Zoom over the marsh of Lairoux.

[2D view](#)

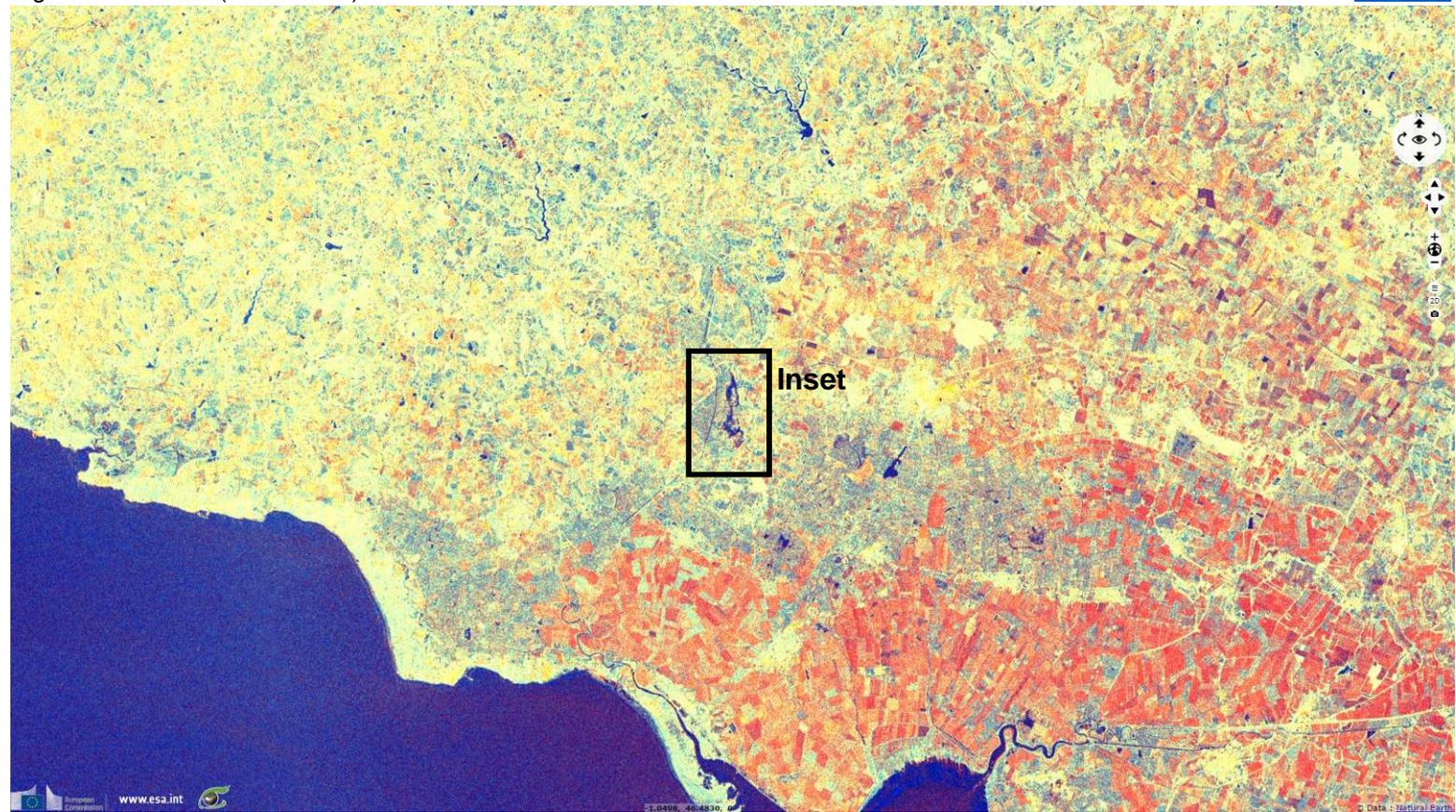
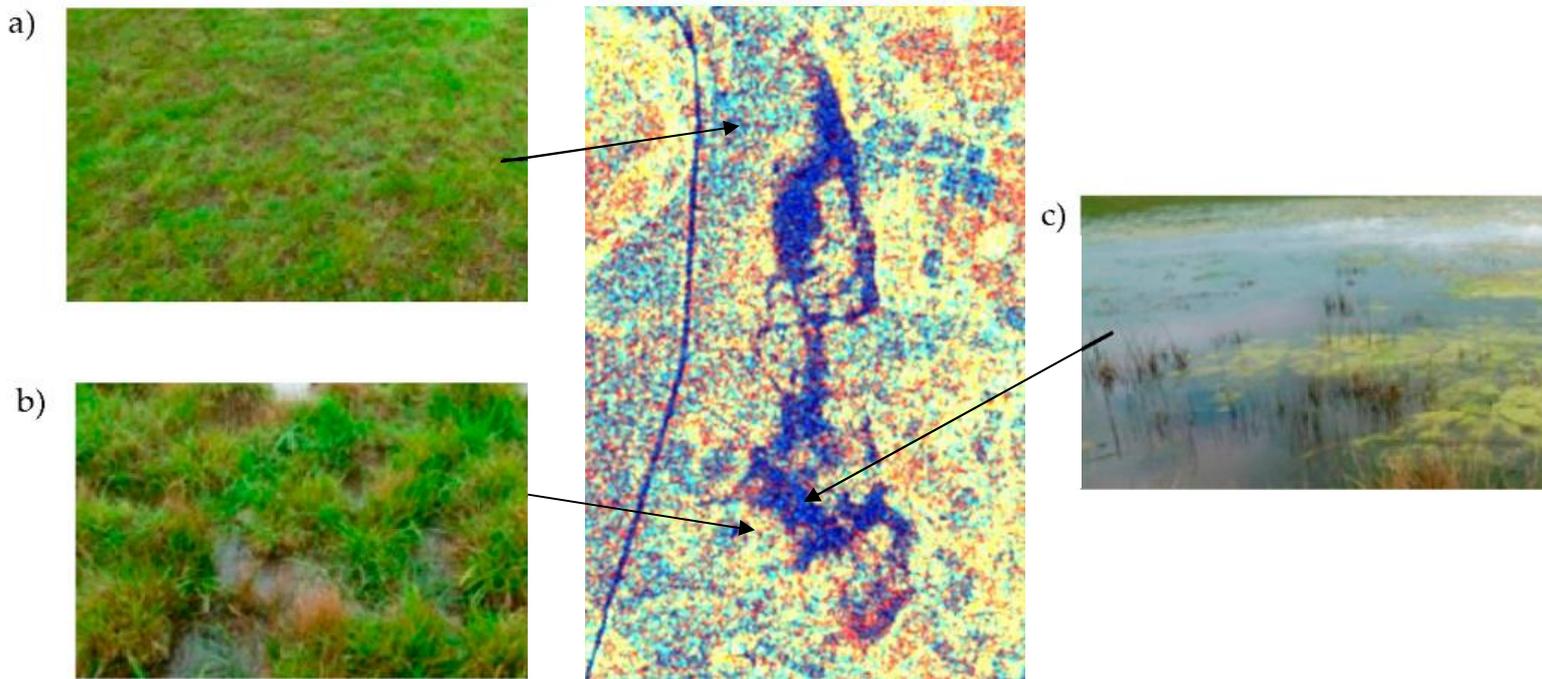


Fig. 4 - S1 C-SAR (12.03.2015) and in-situ photographs.



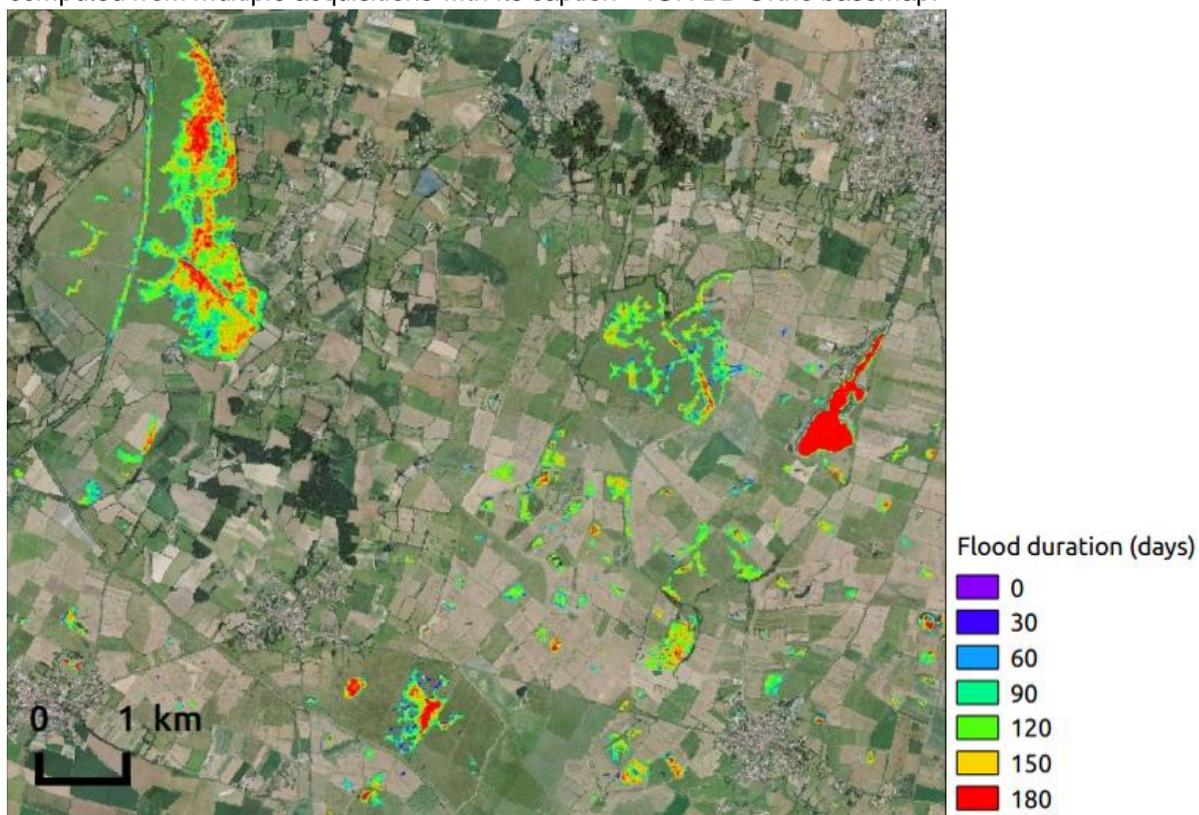
Cécile Cazals, researcher for l'Institut national de l'information géographique et forestière (IGN) in France described fig 2: "Three main tones are clearly visible: (a) cyan-dominated areas correspond to non-flooded grassland; (b) orange areas correspond to flooded vegetation; and (c) dark blue areas correspond to open water (see fig. 4)."

Cécile Cazals, commented: "In Europe, water levels in wetlands are widely controlled by environmental managers and farmers. However, the influence of these management practices on hydrodynamics and biodiversity remains poorly understood. Remote sensing appears to be an efficient way to monitor floods dynamics in natural environment."

Due to the specular reflexion of C-band radar wave occuring over water surfaces, all water bodies can be characterized (in dark blue in the images fig. 1 to fig. 5) by Sentinel-1. Its temporal resolution of 6 days allows an accurate flood dynamic monitoring, deriving several indicators like floods duration, drying period or spatial coverage of wetland. Theses indicators are essential to a better water levels management, improve our knowledge of wetland and preserve biodiversity expression."



Fig. 6 - Flood duration map computed from multiple acquisitions with its caption – IGN BD Ortho basemap.



The views expressed herein can in no way be taken to reflect the official opinion of the European Space Agency or the European Union.

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