The BIMESAT State of the SAF Support to Operation of Hydrogeneral Water Management	H-SAF CASE STUDY		
Product Name	H11 – SN-OBS-02	Validation Institute	IRM
Case Study Period	13-03-2013, 16-01-2013	Case Study Geographical Area	Belgium

Cases of snow cover are presented. The first one concerns the abundant snowfalls that were observed during March 2013. More precisely, in next two figures are presented the original satellite image, the result of the processing of satellite data for Belgium and the station status for March 13, 2013.

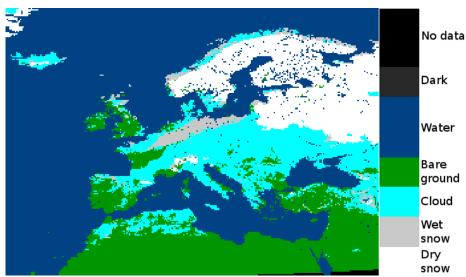


Figure 1 Satellite image of snow status over the H-SAF domain (March 13, 2013).

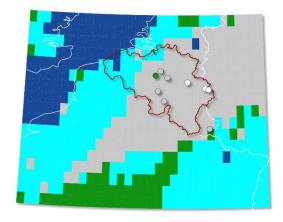


Figure 2 Satellite image for snow status over Belgium, including data from 9 stations (March 13, 2013). The colour code for stations is the same as for the satellite).

In this case, only 1 out of 9 stations reports no snow while the satellite image shows snow over all the stations. The satellite detection shows wet snow but we see three stations in the Ardennes area reporting dry snow.

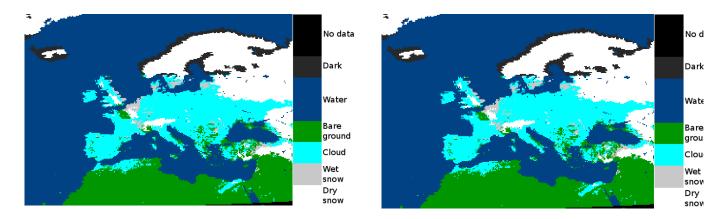


Figure 3 Satellite image of snow status over the H-SAF domain (January 16, 2013)

The second case (figures above) refers to the snow cover of January 16, 2013. The situation is here shown in terms of scales of the H-SAF domain and of Belgium. Presence of snow regardless of its status (dry or wet) is rather well detected, with 5 or 6 stations reporting snow located on or near satellite pixels detecting also snow. However the snow status is detected correctly for the data of only 1 out of 9 stations.

It is noteworthy that the coastal pixels from the satellite are not the same across the two cases considered. Moreover, there are two land pixels in the image from March 13 for which water is encoded in the corresponding GRIB file. These pixels are located in places where no known large water areas exist. Quality control check did not show any anomaly that could account for such differences