

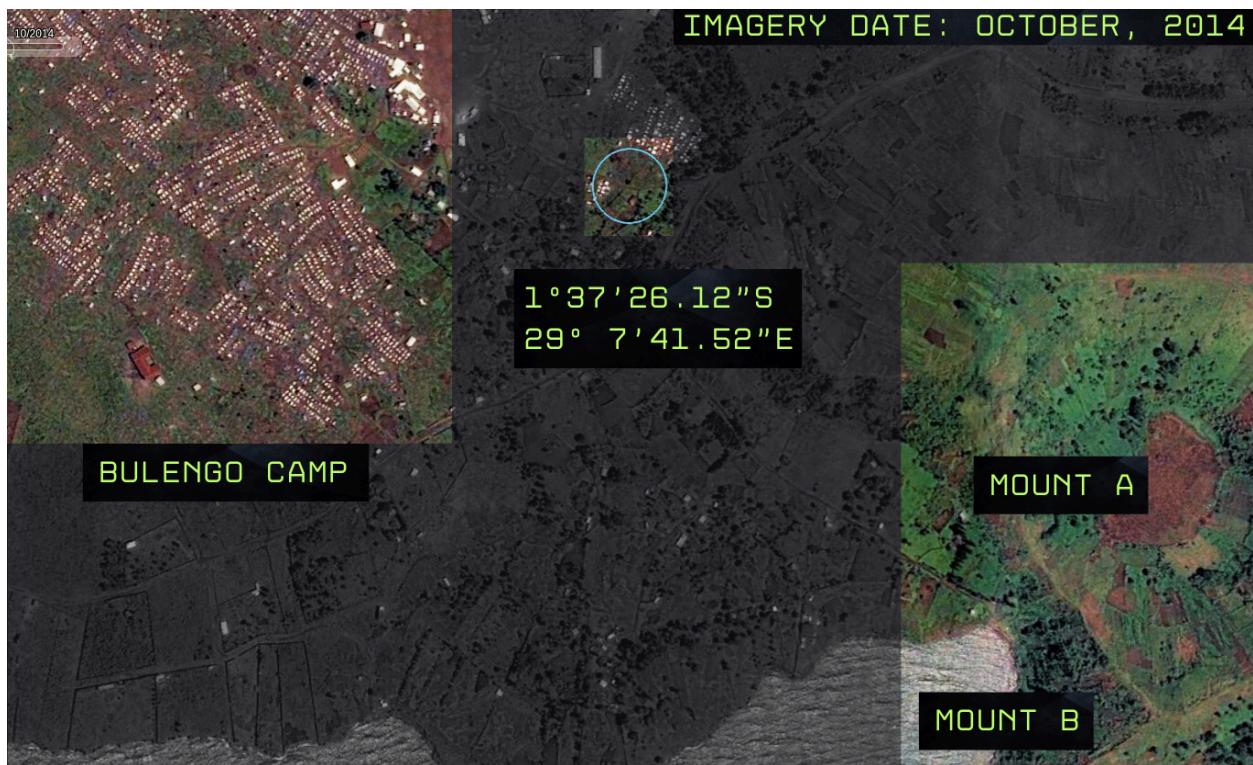
**SOLUTION: SOFIA SANTOS - OSINT
EXERCISE #30
0Z4I**

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Summarize

The [Sofia Santos OSINT Exercise #30](#), proposes to **find the location from an image of YouTube video** extracted from minute **1:16**, that shows a man sitting in front of a white tent, is a refugee camp on Democratic Republic of Congo, this approximate location is at: **1°37'26.12"S - 29° 7'41.52"E**

This result was obtained through the analysis of **Open Source information** and images, making cross reference between text mention and visual elements on the found images, identifying on satellite imagery places with visual matches that allows the location of the desired location of the white tent.



Starting point

The YouTube video^[1] (Oct 24, 2007) "Democratic Republic of the Congo: Helping the Displaced" show at the **minute 1:16**, the image of a man in a refugee camp talking to the camera, at the background:

- White tent
- Group of trees
- Mounts

Following the video at **3:05 minute**, the image of a group of people appears at the background:

- The whole picture of a mount
- Part of a mountain
- A white tent shown partially at the right of the image
- some trees

Some elements between the two scenes have visual similarities, the white tent in both has a door (cut on the tent) with the same shape.



1. <https://youtu.be/BRoQva6wX24>

The YouTube Channel where the video was uploaded is **UNHCR, the UN Refugee Agency**, and the **UNHCR** logo is observer along the video on shelters, staff clothes, and flags, also some places are mentioned on it:

- Bulengo Camp
- Goma
- North Kivu

UNHCR: United Nations High Commissioner for Refugees



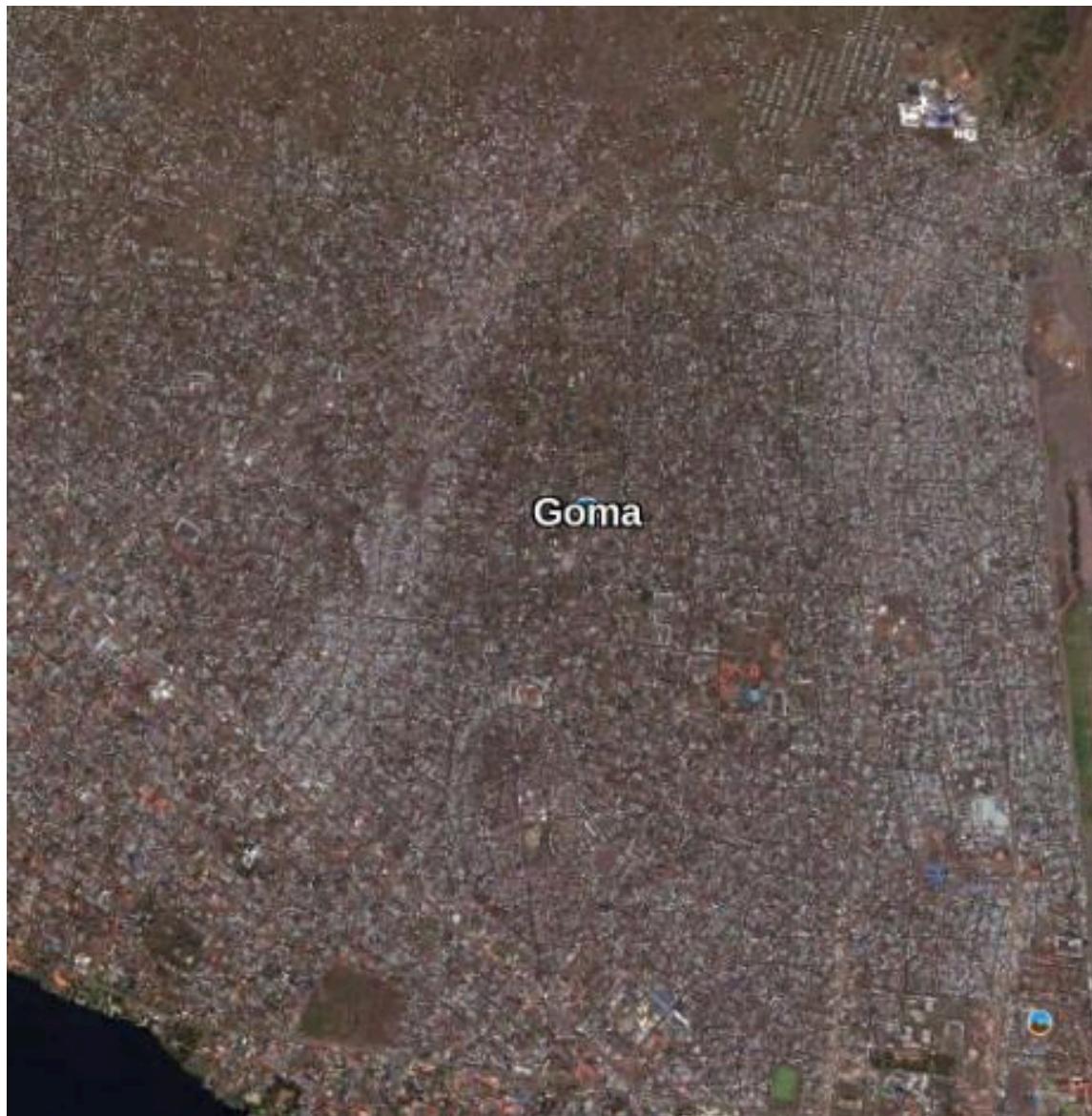
Democratic Republic of the Congo: Helping the Displaced

UNHCR, the UN Refugee Agency 212K subscribers [Subscribe](#)

Goma City

From the above information obtained in the video, a google search for *Goma, Republic of Congo*, it return **Democratic Republic of the Congo, North Kivu - Goma area**, then this result allows to search the location on Google Map and this place was located at:

-1.658530, 29.220448



Bulengo Camp

Using the presence of the **UNHCR**, with the google dork *before:2008 after:2006 UNHCR Bulengo*, two news from 2007 about the refugee camps on the area was found, the news mention the camps **Mugunga** and **Bulengo**, on the Goma, North Kivu area and mention the approximate location of these camps:

- six kilometres west of Goma^[2]
- Mugunga I and Mugunga II camps, located 15 kilometres west of the North Kivu capital of Goma^[3]

Performed a search on Google for *bulengo camp* a picture (April 4, 2008) from Flickr^[4] was found, the image description say:



"Mugunga I and II (in the foreground) and Bulengo (in the background) camps of Internally Displaced Persons (IDPs)"

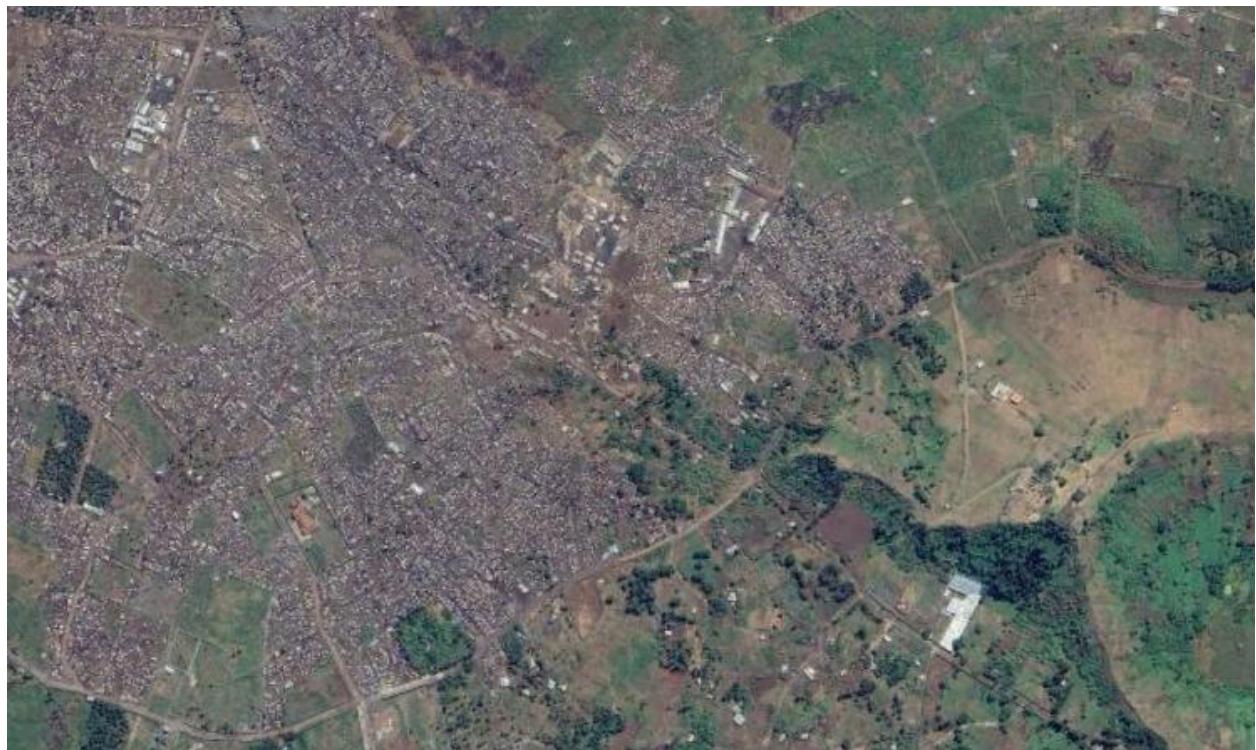
-
2. <https://www.unhcr.org/news/unhcr-moves-displaced-new-camp-north-kivu>
 3. <https://www.unhcr.org/news/stories/displaced-congoleses-return-camps-near-goma>
 4. https://www.flickr.com/photos/un_photo/5737272258

With the information previously gathered, it's possible to infer:

- Camps are to the West of Goma City
- There are two camps Mugunga and Bulengo
- Bulengo Camp is on the cost of a big lake (South)
- Bulengo Camp have a lake rounded by mountains to the North
- Have a mountain to the east

All these points makes possible to locate on Google Earth assisted by satellite imagery the Bulengo Camp zone at:

1°37'20.60"S - 29° 7'29.16"E



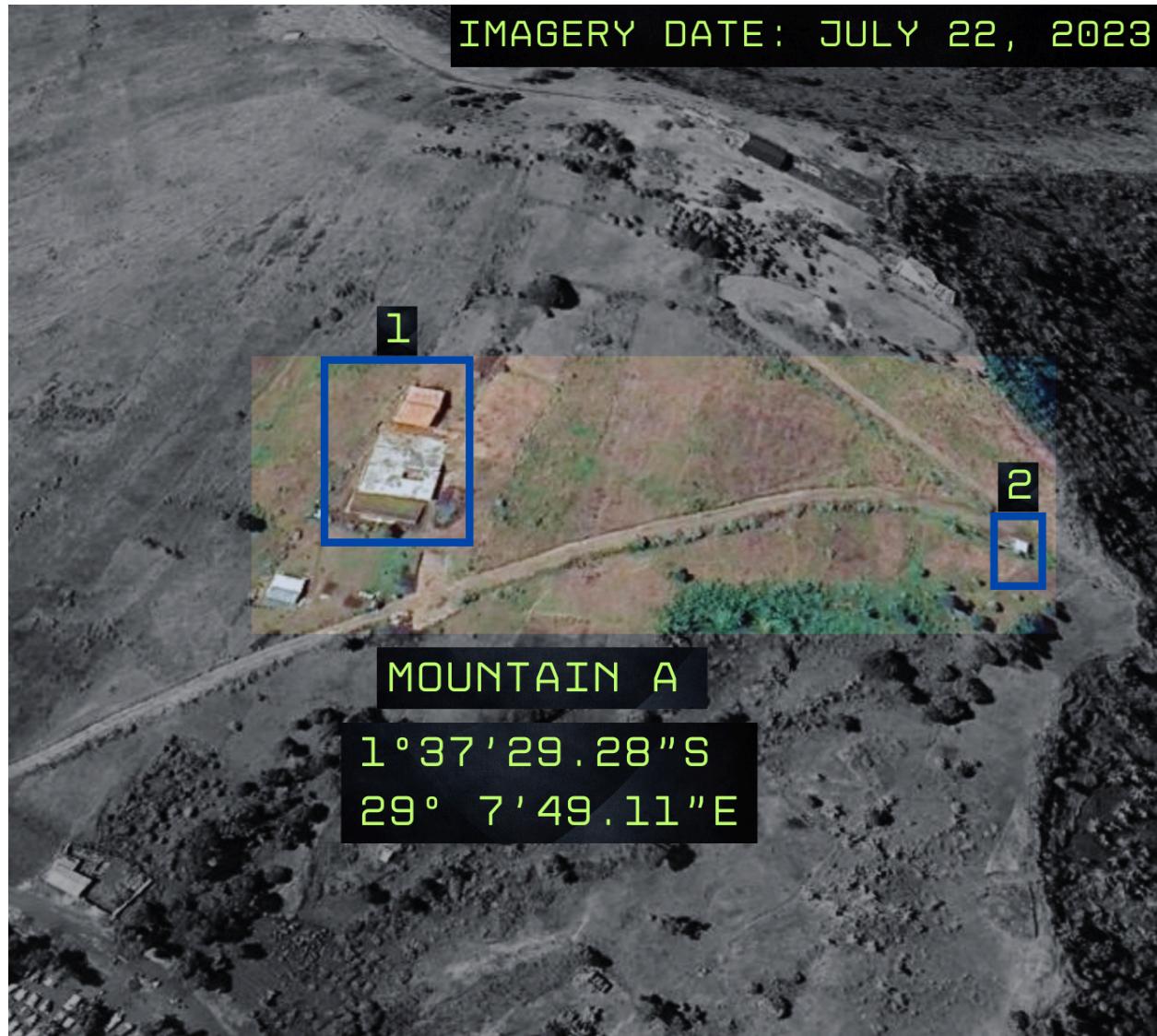
Mounts as references

The Flickr^[4] image mention Internally Displaced Persons (IDPs), with these a Google search for *bulengo IDP* returns an Getty Images Collection^[5], two of the images about Bulengo shows at the background a mount similar to the mount on the pictures extracted from Youtube video.

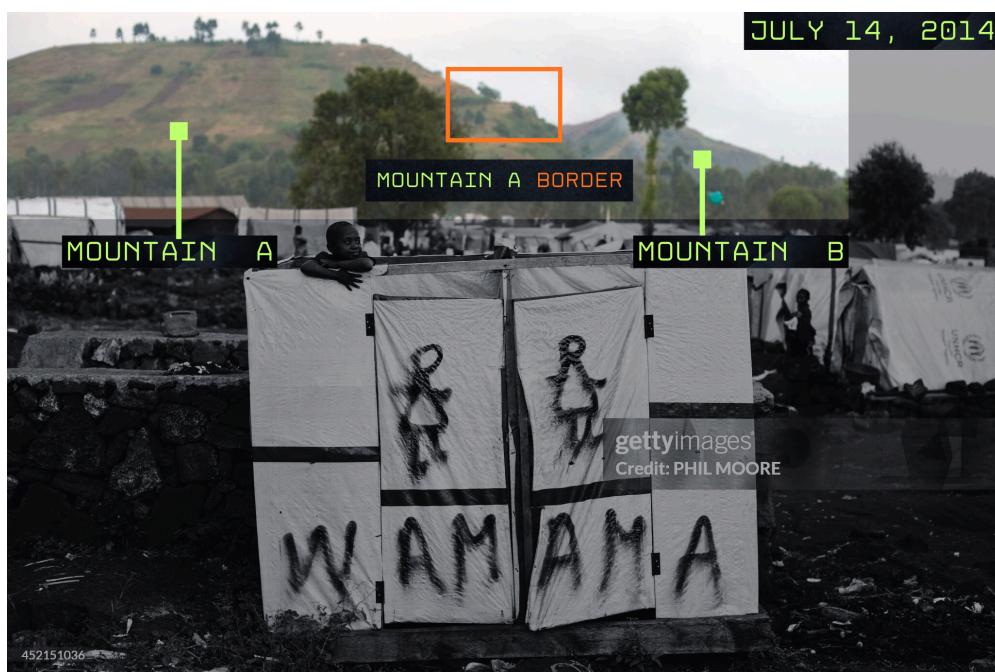
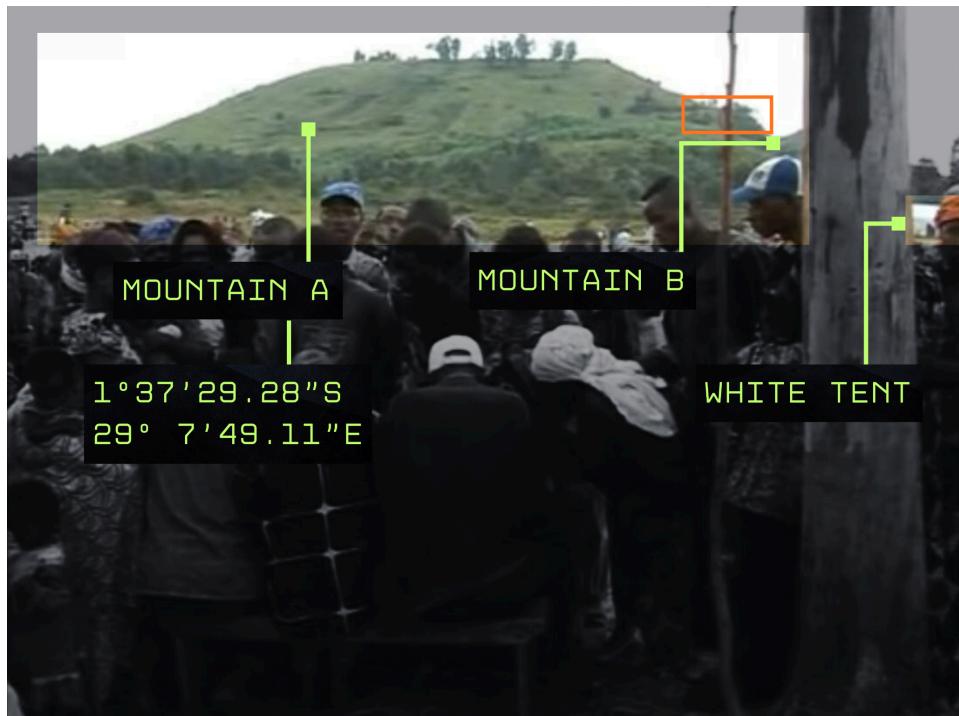


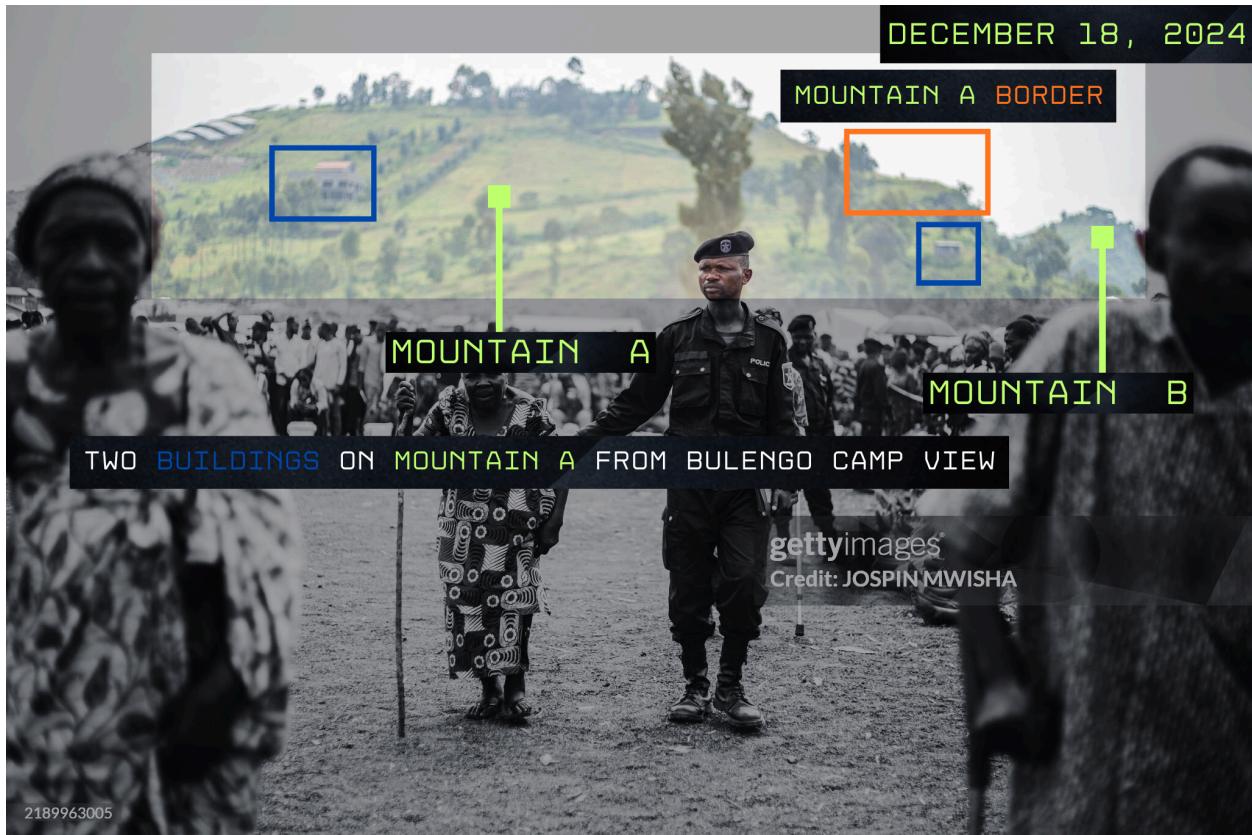
5. <https://www.gettyimages.com.mx/search/2/image?phrase=bulengo+idp>

Based on the image from above and the location obtained on Google Earth, a mountain with similar characteristics to those observed on the picture was located to the East (as the Flickr image) of Bulengo camp at **1°37'29.28"S - 29° 7'49.11"E.**



Despite the difference on the satellite imagery and the found images, it is possible to identify some visual elements in both and on the image extracted from the YouTube video.





Used visual elements:

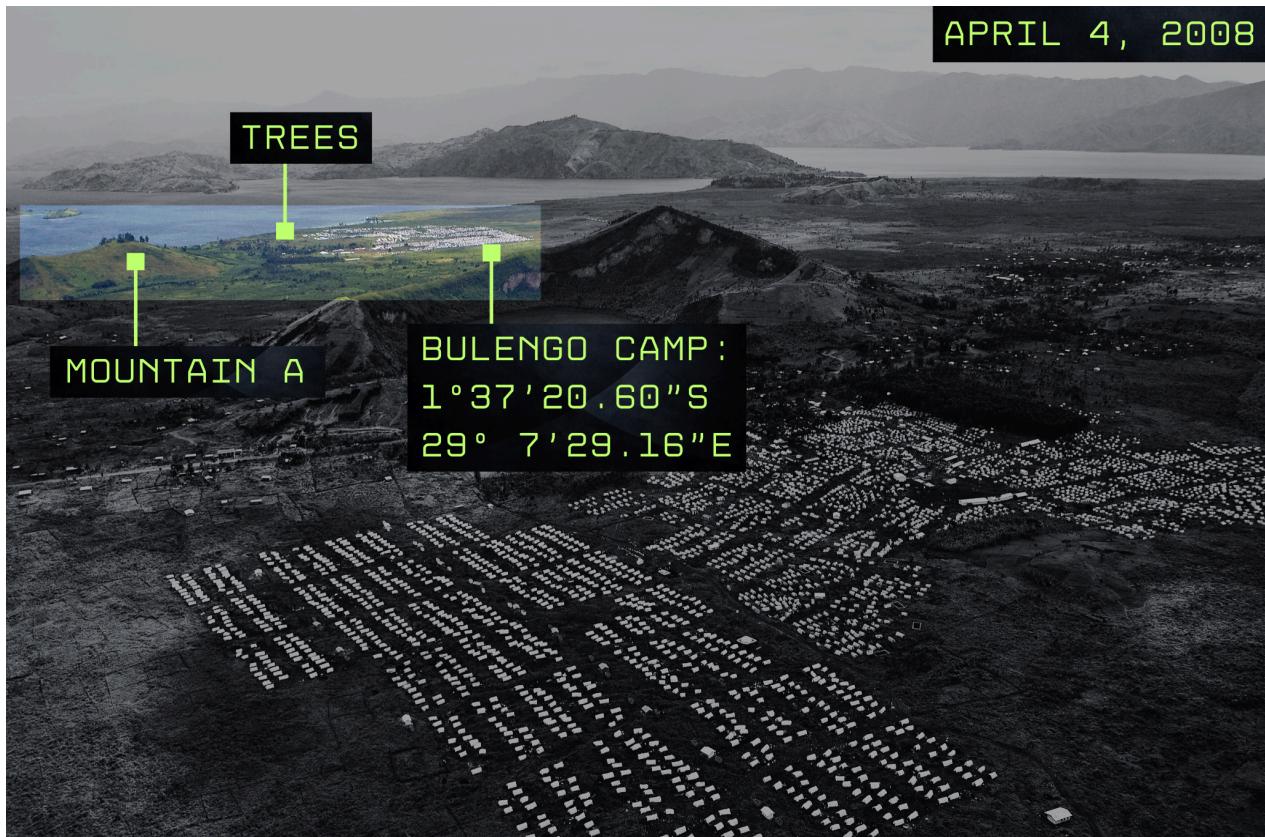
- Buildings 1 and 2 (Blue)
- Mountain A Border (orange)
- Mountain B

The White Tent

In the original image with the white tent, the Mountains (A,B), were observed, but also a **group of trees**, it can be used as reference to find the white tent location, using all the previous data it's possible to infer that this image is oriented to East (background).



The group of threes can be observed alongside de mountain A on the Flickr^[4] image; these elements put the tree group between **mountain A** and **Bulengo Camp** from **West to East**.



On the located zone, the **imagery data from 2014 and 2015**, shows a group of trees, similar to the one sought, also the Bulengo camp tents have a similar location to the Flickr^[4] image, likewise **Mountain A is to the East of camp**.

The date of satellite imagery is 2014 because the quality it's better.



The Mountain B is an extension of Mountain A, using their location and the found group of trees in relation with Bulengo camp position and oriented the view to the east, it's possible to locate an approximate zone where the YouTube video^[1] scene with the **white tent** was taken, it is located at

1°37'26.12"S - 29° 7'41.52"E

The blue circle have a radio of 4 meters because is an approximate area

