



KENYA'S MICRO-SATELLITE PROGRAM

"1ST KENYAN UNIVERSITY NANOSATELLITE -
PRECURSOR FLIGHT (IKUNS-PF)"

KiboCUBE SESSION (UN/IAF WS)
30TH SEPTEMBER, 2019

Presentation: Dr John Kimani (Kenya)

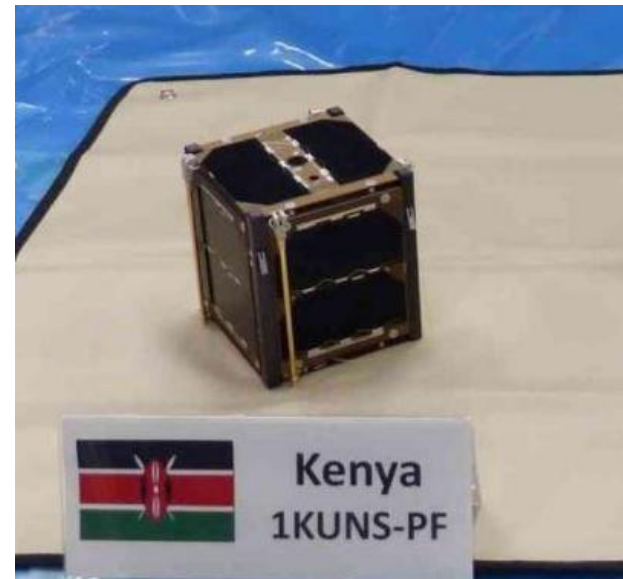
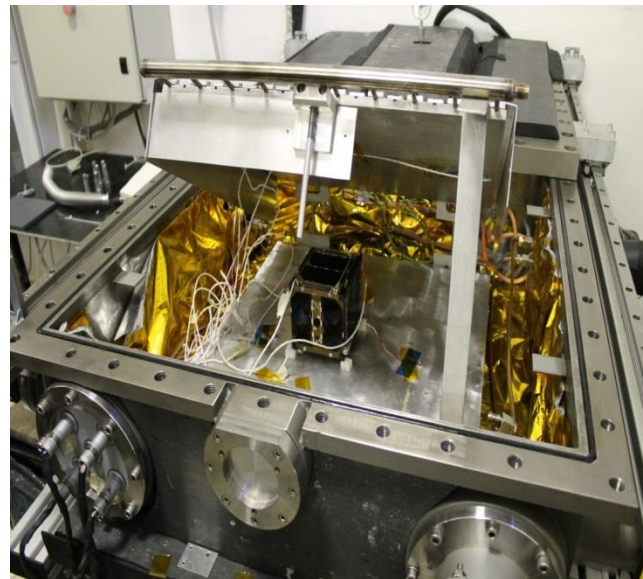
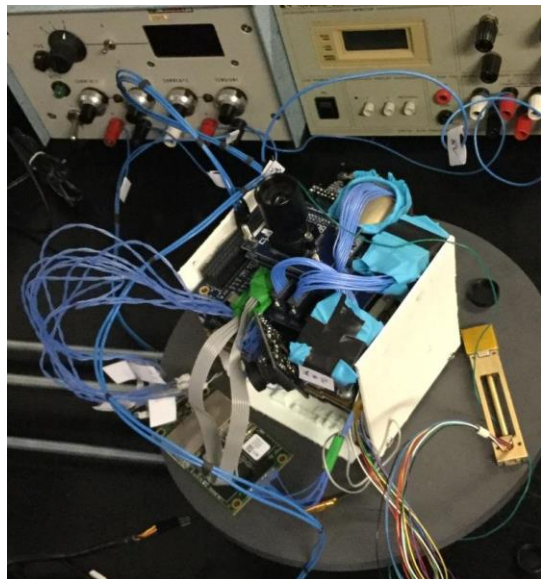
Kenya's Nano-Satellite Project

- ❑ KiboCUBE 1st Round launched by UNOOSA/JAXA in 2016 to offer an opportunity for developing country to launch cubesat from JAXA's KiboCUBE module on ISS.
- ❑ Kenya University Nano-Satellite (IKUNS) program team submits application to benefit from KiboCUBE program.
- ❑ Objective of precursor mission flight is to test sub-systems for Italian-Kenya University Nano-Satellite (IKUNS) and the team calls it First Kenya University Nano-Satellite-Precursor Flight (1KUNS-PF)
- ❑ Kenya is selected to benefit from 1st Round of the UNOOSA/JAXA KiboCUBE program.

1 KUNS-PF Mission

- ▣ **Primary goal:** verify the performance of the on-board subsystems, by receiving telemetry data from the satellite.
- ▣ **Secondary goal:** acquisition, on-board storage and transmission to ground of low-definition, panchromatic images of Kenya and the East African region.
- ❖ *A number of images have been received since launch.*

1 KUNS-PF Development



1 KUNS-PF Development team

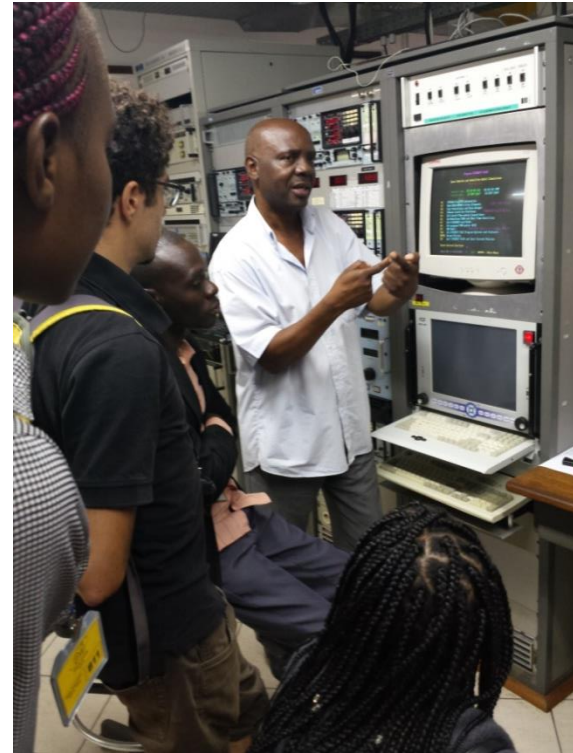
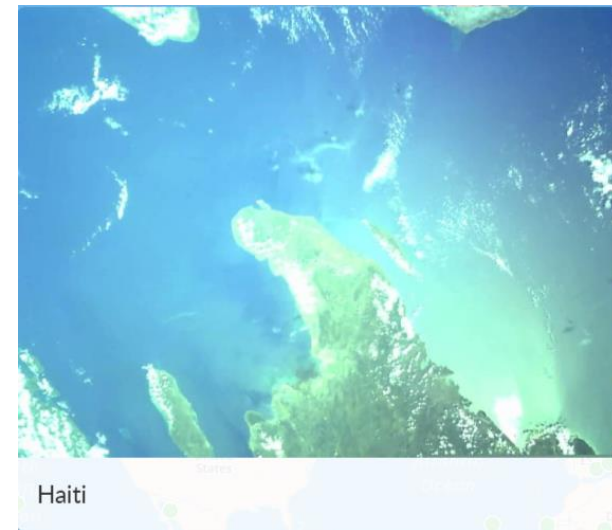


Image from 1 KUNS-PF



See additional images received from the Cubesat on this link:

<https://1kuns-pf.ns0.it/index.php/satellite-pictures/>

Key Lessons Learnt from 1KUNS-PF

- Important role of International Collaborators:
 - ❖ Italian Space Agency (ASI) – Cubesat development
 - ❖ UNOOSA and JAXA – Launch opportunity
- Importance of structured planning for the whole process of Cubesat development (University of Nairobi, Kenya benefitted a lot from interactions with University of Rome, Italy)
 - ❖ *Some process such as frequency application and eventual allocation by WTO takes at least 9 months and can easily be overlooked.*

Benefits of the Cubesat Program

- Building human capacity in space disciplines for developing countries that could otherwise find it difficult to build satellites
- Technology transfer and support from international partners enabling the developing countries to grow their indigenous space sector.
- Enables developing countries to send “satellites” in space, as piggy-back and with opportunities such as the KiboCUBE program.
- Promoting uptake of STEM subjects in schools to guarantee the future of the space industry

Handover at Tsukuba Space Centre



See detailed timelines of the Cubesat development on:

<https://1kuns-pf.ns0.it/index.php/timeline/>

Thank you...



GIGA BUNDLE KShs.99 for

Home News Videos Artists Govt Politicians Counties



You can buy airtime easily from MCo-op Cash by dialling *667*Amount#

Kenya Launches First Satellite 1KUNS-PF, Developed by University of Nairobi

By [MIRIAM MUSYOKI](#) on Friday, 6 April 2018 - 7:58pm

NEW FRONTIER



/click?xai=AKAOjstNDkuFSokpUVJpL2Eka-5mFVMmg...

THE STAR

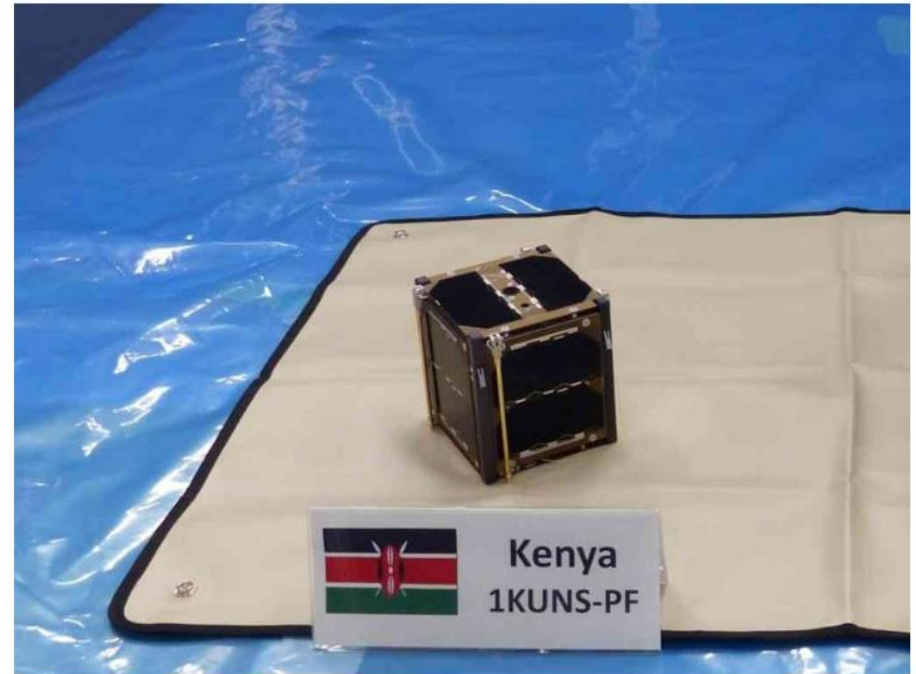
June 14, 2018

Home Latest News Russia 2018 Today's Paper Business Sport Opinion Health

Home Latest News

Kenya's first satellite set for launch into space on Friday

May. 07, 2018, 12:00 pm | By JOHN MUCHANGI



The nanosatellite developed by a team from the University of Nairobi. /COURTESY