

Satellite boosts Europe's environmental, border surveillance

February 16 2016, by Frank Jordans

A European satellite designed to monitor environmental changes will also be able to provide early warnings of possible migrant flows at a time when governments on the continent are grappling with an unprecedented influx of people fleeing conflict and poverty elsewhere in the world.

The Sentinel-3A satellite was lifted into orbit by a Russian rocket Tuesday. It is the third of more than a dozen "eyes in the sky" that make up the Copernicus program, which the European Space Agency describes as the most sophisticated Earth observation system ever launched.

Two satellites already in orbit are equipped with radar and high-resolution cameras, to which Sentinel-3A will add instruments for measuring sea and [surface temperatures](#), among other things, said Josef Aschbacher, who oversees the Earth observation program.

The satellite will be able to spot upcoming droughts by detecting subtle changes in surface color that suggests crops are failing, he said. "(This) will warn politicians that the harvest in a particular country will be lower and this can be a source of migration."

One of Sentinel-3A's greatest advantages is its ability to scan the entire planet in just over a day and send back data within hours, giving scientists and policy-makers detailed information on [environmental changes](#) in close to real time. By measuring sea temperatures it will boost short-term weather forecasts and help track the impact of climate

change, which is expected to trigger mass migration in coming decades.

Being able to forecast currents and wave heights should also warn coast guards of hazardous conditions at sea that could pose a particular danger to migrants trying to cross the Mediterranean in small boats.

Aschbacher said the Copernicus system could also identify areas where people may be gathering to cross the Mediterranean to Europe, though other satellites or drones with greater resolution would be needed to get detailed images and confirm boat-sized objects.

Finding ways to slow the influx of migrants and prevent mass drownings at sea has become a priority for Europe, which last year saw more than a million people arrive on its shores. Some of the migrants were fleeing war and persecution in countries such as Syria and Iraq, while others sought to escape poverty at home.

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