**Sentinel-6 Michael Freilich Ready for Launch**

Final preparations are underway in California for the launch of Sentinel-6 Michael Freilich, a joint European and US satellite designed to carry out precise measurements of sea level changes.

The satellite forms part of the European Union’s Copernicus Earth Observation programme and will employ a radar altimeter to map sea-surface topography. The satellite will provide fundamental data for climate science and policymaking, helping to protect the 600 million people who live in vulnerable coastal areas. It will also deliver near-realtime information for marine and weather forecasts.

The mission is a collaboration between ESA, the European Commission, EUMETSAT, NASA and NOAA, with support from the French space agency CNES.

Scheduled for launch on 21 November on a SpaceX Falcon 9 rocket from the Vandenberg Air Force Base on the California coast, the satellite is named Michael Freilich after NASA’s former Director of Earth Science.

A-roll contains clean room images from Vandenberg and new interviews. B-roll includes clean room, nearby coast and soundbites in English, French and German.

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| **Pictures** | **Script and soundbites** |
| *10:00:07*  Pacific Ocean – people and the waves, long shot of Vandenberg  SpaceX clean room shots of Sentinel-6 | The Pacific Ocean next to Vandenberg Air Force Base…the launch site for an important ocean mission.  Here, over the past few weeks, preparations have been made for the launch of Sentinel-6 on a SpaceX Falcon 9 rocket.  Because of the Covid-19 pandemic, many of the team are working remotely in Europe, with only a few engineers able to make final checks on the satellite. |
| *10:00:34*  **Bill Simpson**  **Sentinel-6 Launch Campaign Manager, ESA**  Could cutaway to launch adapter | *Well, for all of us, the launch campaign is the culmination of many years of work and to actually see the satellite in its usually most beautiful state when you've got all the covers off, you've got all the thermal blankets on, for all of us it's a wonderful moment. It's emotional. And to see it as you see it here nicely on the adaptor for the launcher, we're really proud and looking forward to the launch.* |
| *10:01:02*  Animation of radar waves  Topex Poseidon in clean room  Jason-3  Sea level rise animation  <https://www.esa.int/Applications/Observing_the_Earth/Copernicus/Sentinel-62/A_rising_threat> | Equipped with a radar altimeter [BRITISH PRON], Sentinel-6 will make the most accurate measurements yet of sea level.  *[could have sound from Topex Poseidon up here]*  A joint project between Europe and the United States, Sentinel-6 will continue the legacy of almost 30 years of radar altimetry missions…starting with Topex-Poseidon in 1992…  …and continuing through Jason 1, 2 and 3… providing an accurate record of sea-surface measurements and proving that mean global sea levels are rising. |
| 10:01:36  **Pierrik Vuilleumier**  **Sentinel-6 Project Manager, ESA** | *We want to continue that record for another five years and demonstrate and quantify the sea level rise we have been observing since the 90s, in average about three point two millimetres per year, even though the scientists tell us in the last year this has been accelerating, in particular due to the acceleration in melting of ice. So, over the last year, it's above 4mm every year we record in the sea level.* |
| 10:02:06  Sentinel-6 in orbit animation  Sentinels animations | Sentinel-6 will map up to 95 percent of the world’s oceans every ten days.  Taking continuous measurements of sea surface and wave height, as well as wind speed, the satellite will also provide vital safety information for shipping through marine and meteorological forecasts.  It will operate alongside other Sentinel satellites as part of the European Copernicus Earth Observation Programme. |
| 10:02:32  **Bill Simpson**  **Sentinel-6 Launch Campaign Manager, ESA** | *For me to be part of Earth observation is special because you really do feel you're doing something that can help the future of mankind.* |
| 10:02:40  Clean room shots | These are the last views of Sentinel-6 before it’s covered by the fairing for launch…  …if all goes to plan, the satellite will soon be in orbit, providing vital data to help us better understand our changing world. |

**B-ROLL**

10:03:01:18

**Bill Simpson (additional soundbites)**

**Sentinel-6 Launch Campaign Manager, ESA (English)**

*It's been amazing how the team has managed to remotely still continue all the testing and actually hold the original schedule. It's been really credit to the teams involved in this programme.*

*Normally you would have a lot of the support engineers would be at the test site this time we couldn't because of travel restrictions, et cetera. So we had to improvise, getting telemetry links, setting up people carrying phones to show what you were looking at. It's been it's been an interesting challenge to get there.*

*For me to be part of Earth observation is special because you really do feel you're doing something that can help the future of mankind. And this one, especially as a follow on to help with modern monitoring sea, state and meteorology, which when you actually look at what's happening with the scare of sea rise, sea level rise, it is an important mission and of course, continues from the Toxep, the Jason series, to keep a continuity of all the data***.**

10:04:18:12

**Pierrik Vuilleumier (additional soundbites)**

**Sentinel-6 Project Manager, ESA (English)**

*We all know sea level is rising, and how do we know that because we measure this since the 90s from space through a series of satellites. [9.1s] It Started with Topex Posiedon, which was a French American satellite, followed by the Jason one, two and three series, which was also French American satellite. And Sentinel-6, as you said, also called Jason-CS stands for continuity of service, is meant to go in orbit to follow Jason three to continue with the record of sea level since about 30 years. And [00:00:43]we want to continue that record for another five years and demonstrate and quantify the sea level rise we have been observing since the 90s in average about three point two millimetres per year, even though the scientists tell us in the last year this has been accelerating, in particular due to the acceleration in melting of ice. So over the last year, it's above 4mm every year we record in the sea level.*

*The instruments have got better and better. We have now an overall accuracy of each range measurement in the order of a centimetre. And these measurements are also heavily processed. We now know much better how to process the measurement in order to to predict and quantify the sea level evolution in a very, very accurate manner.*

10:05:59:01

**Pierrik Vuilleumier**

**Sentinel-6 Project Manager, ESA**

**Soundbites in French**

10:09:39:09

**Klaus-PeterKöble**

**Sentinel-6 Project Manager, Airbus**

**Soundbites in German**

10:10:54:16

**Lompoc Beach near Vandenberg AFB**

Also includes the Vandenberg sign at the base entrance

10:12:39:11

**Sentinel-6 in the SpaceX cleanroom at Vandenberg AFB**

10:14:26:14

**[B-roll ends]**

10:14:36:04

**[ends]**