

90 minutes around the Earth : : : A documentary

Video and film footage of the Earth from space has been around since the early days of space flight. Footage of this sort, available in the public domain today, is however mostly made up of short clips, showing only certain regions of the Earth in daylight conditions. And although these clips provide a beautiful impression of the Earth as seen from space, they generally fail to communicate an important aspect of life up there, in Low Earth Orbit (LEO) and beyond.

At a typical altitude of 300-400 km above the Earth, astronauts and cosmonauts onboard their space habitats circle the Earth every 90 minutes. Every 90 minutes, they experience some 30 minutes in darkness as the spacecraft moves through the Earth shadow. Every Earth day of 24 hours, they experience 16 sunsets and sunrises.

This cultural proposal aims to capture and communicate this Low Earth Orbit fact of life by filming a real-time unedited view of the Earth during a full 90-minute orbit around the Earth. The objective is to let the general public experience for themselves what it is like to be up there, what it is like to circle our planet in 90 minutes, what it is like to be in space anno 2004.

This film is proposed for realisation onboard the International Space Station ISS during the Dutch DELTA mission by ESA astronaut André Kuipers in April 2004. Looking out through a window onboard the ISS, the camera can film the curvature of the Earth. Filling up only part of the screen, it will vividly show the Earth in its natural outer space environment. Un-edited and real-time, it will give people watching it a real-life experience of what it is like to be up in space, to experience planet Earth as you circle it in 90 minutes.

The resulting footage will be unique. Ideas on how to present it are numerous. A video on display in musea, an artistic DVD for sale, large screen projection are just a few examples. At the same time, both the film and the cultural nature of the project offer an interesting opportunity, both for the Dutch DELTA mission as well as for the ISS program in general.

A first iteration on the feasibility of this artistic project for the upcoming DELTA flight showed that it can likely still be realised in the short timeframe available. The most important asset, a digital video camera, is already onboard the International Space Station. In fact, several different cameras are onboard and scheduled for use by André Kuipers for educational purposes. This cultural project was found very similar in its requirements to these other planned filming activities. Additional requirements therefore consist mainly in a limited period of crew time to set up the camera and the up/down shipment of 2-3 mini-DV tapes (<200 grams).

Delta-Utec would like to realise this cultural project together with the Dutch space community and ESA in the context of the Dutch DELTA mission.

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