











# **SYNOPSIS**

"THE ARCTIC CHALLENGE" is the unique combination of scientific know-how and a daring adventure: A small team of renowned international scientists and the best bush pilot of the world team up to do what nobody has done before: They combine the outstanding flying- and landing capabilities of ultra-light airplanes, with cutting-edge monitoring technology and scientific know-how to survey key areas from Alaska to Greenland. They will document the secrets of the formation of ancient mountains, as well as even subtle changes in the environment.

This may sound difficult, and in fact it's even more difficult than it sounds. For helicopters, the distances in Greenland are too long, and big airplanes lack the necessary landing capability. Sometimes you simply have to take a closer look or collect samples on site.

This is, when the flying skills of the pilot come in: The landing strip on a glacier might occasionally be less than 25 meters.

## THE PROTAGONISTS

**Dr. Kurt Stüwe** is a geologist from Austria who has been on and organised more than 20 expeditions to both the Arctic and Antarctic. On this expedition, he is mainly interested in the secret of the formation of the Caledonian Mountain Range - a mountain range that dominated Europe almost 400 Million years ago, long before the Atlantic tore open. Today, this incredible mountain range is long eroded, but the most significant remnants are found in Greenland.

Kurt will use geological mapping of ancient rocks to study which tectonic plates collided to form this range. Due to the huge extent of the range, this expedition will uniquely be able to compare geological structures over many hundreds of kilometres. This will enable Kurt to derive a complete geological story or the building, formation and decay of this ancient, enigmatic mountain range.

**Dr. Chris Larsen** is a glaciologist from Alaska, who has studied glaciers, ice-fields and snow in the arctic all his life. His expertise is performing and interpreting LIDAR measurements to determine changes in ice cover over time and motions of glaciers. On this expedition Chris will re-measure glaciers that have already been surveyed in the past to determine changes and

make initial measurements on a series of ice fields. At the current rate of disappearance of ice, such initial measurements are critical in order to document what may never exist again. Re-measuring to determine changes will be done on the way to Greenland, two weeks after the initial measurements on the way home.

**Dr. Deta Gasser** is a geologist from Trondheim University. Her expertise is absolute geochronology, the science of determinig the age of rocks. In particular, she uses zircon crystals because they contain enough Uranium to perform age measurements of rocks that are several hundreds of millions of years old. Collecting the right zircon-bearing rocks is of crucial importance when a meaningful age is to be measured.

Paul Claus from Ultima Thule Outfitters, Alaska, is the chief pilot of this expedition. Paul has more than 25.000 hours flying experience in small aircraft in glaciated terrains of Alaska and the Arctic and he has been voted by several institutions and magazines as "Best bush pilot in the world".

OUSTANDING SCIENTIFIC RESEARCH ACROSS DISCIPLINES IN BREATH-TAKING SCENERY FULL OF ADVENTURE -- THIS IS: "THE ARCTIC CHALLENGE"

## **CREDITS**

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#### **TECHNICAL INFORMATION**

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