BLOODHOUND SSC
ENGINEERING ADVENTURE

# Desert Living Challenge

Simon Procter.
BEng(Hons),CEng,MIET, MIMechE.

28th November 2016

# Race Track

Hakskeen Pan

# Logistics :-

- How do we get the car, team and equipment to the Desert ?

# Antonov large cargo aircraft.

# The Hakskeen pan desert surface.

# Weather

Day – Hot and dry

Night – Very cold!

Quite strong winds

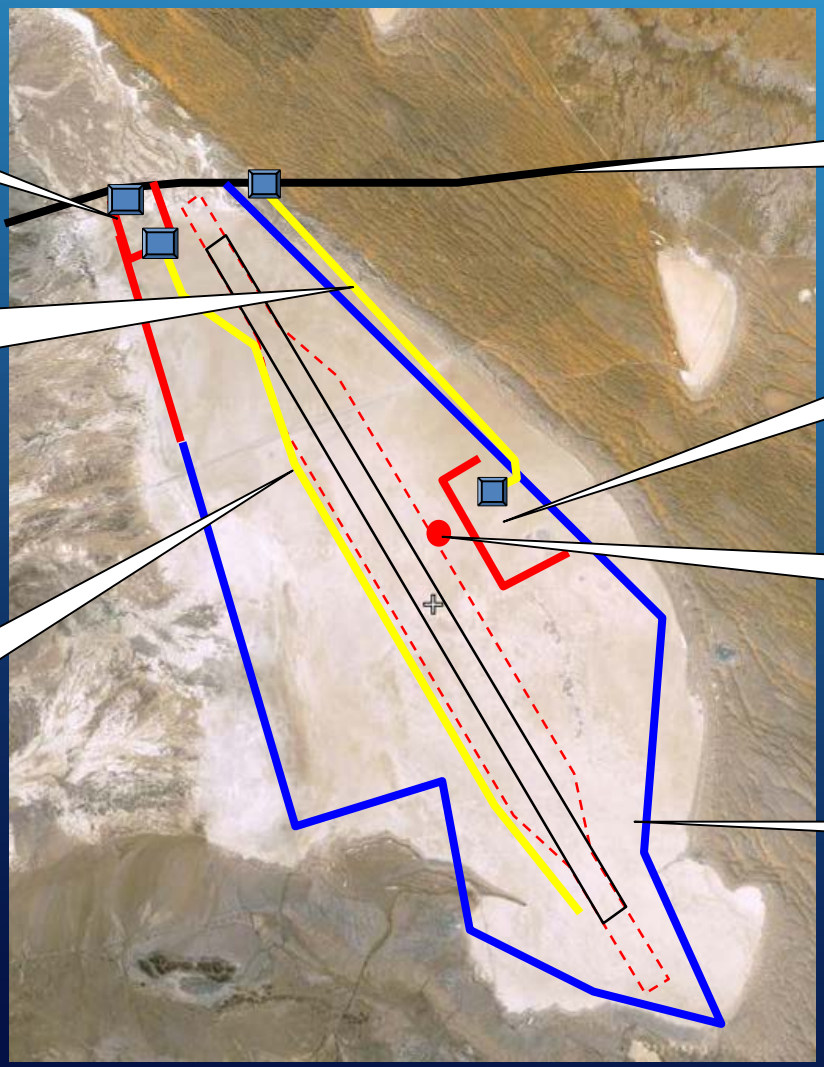
Dry lake bed – dust!

# Problems with dust and sand ?

# Can flood to knee height December to March !

# Desert Preparation

# The Desert Layout



# Hazmat chemical protection

Chemical resistant.

Chemical proof !

# Team Task

Design a suitable village, based next to the track, for the team to live in whilst out at Hakskeen Pan in South Africa.

# Team Task

WHAT THINGS DO YOU NEED TO CONSIDER ?

# Don’t forget…

- Shelter – Team & Car
- Equipment
- Power Sources
- Medical Arrangements
- Evacuation Procedures
- Food & Water

# Remember!

Nearest town – 154 miles away

We need to look after the team…

AND the car!

# Join the Adventure

Sign up to the 1K Club:
www.BLOODHOUNDSSC.com

Follow us on Twitter:
www.twitter.com/BLOODHOUND_SSC

Find us on Facebook:
www.facebook.com/BLOODHOUNDSSC

# Meteorites can be seen in Deserts.

# 10 AMAZING FACTS ABOUT THE HAKSKEENPAN

This dried lake bed in the Northern Cape of South Africa has been chosen as the ideal location to run BLOODHOUND SSC at 1000mph

40cm

12 MILES

With so little undulation over the full length the pan is effectively smoother than a pool table

**21.5 MILLION**

... square metres of desert were cleared by hand. The same as 3,000 international football pitches!

**20,000**

Swansea University created a bespoke computer programme to scour satellite earth observation imagery and assessed over 20,000 potential sites

A **PAN** is a dry lake

**HAKSKEEN** means **HEEL** in Afrikaans

**6,000 TONNES OF ROCKS**

The team picked up every stone - however tiny!

APPROX.

**50CM**

The pan regularly (almost every year) floods under this much water. This is what makes it so smooth.

The surface is made of 1-2cm thick plates of sun-baked mud. These sit on more mud which has built up over 1,000's of years.


The Pan's crust is so hard the sharp metal wheels of the 7.5 tonne car hardly leave a mark!

**317 PEOPLE**

From the local community cleared stones for 120 days

**STATS**

Age.....10,000-20,000 years
Altitude.....794 metres
Av. annual rainfall.....200mm
Av. temp. range.....-6 to +45°C

This classified ad in the The Times was a take on one by Shackleton 100 years earlier*...

People wanted to clear desert track for 1,000 mph car. No wages, constant heat, tough work in beautiful but remote Hakskeenpan, Northern Cape, South Africa. Scorpions may be present. Inspiring next generation of engineers the reward.

*Actually no one has been able to find the original & there's a $100 prize if you do!

# Power generation on the Hakskeen Pan.

DIESEL GENERATOR

WIND TURBINES.

SOLAR PANELS.