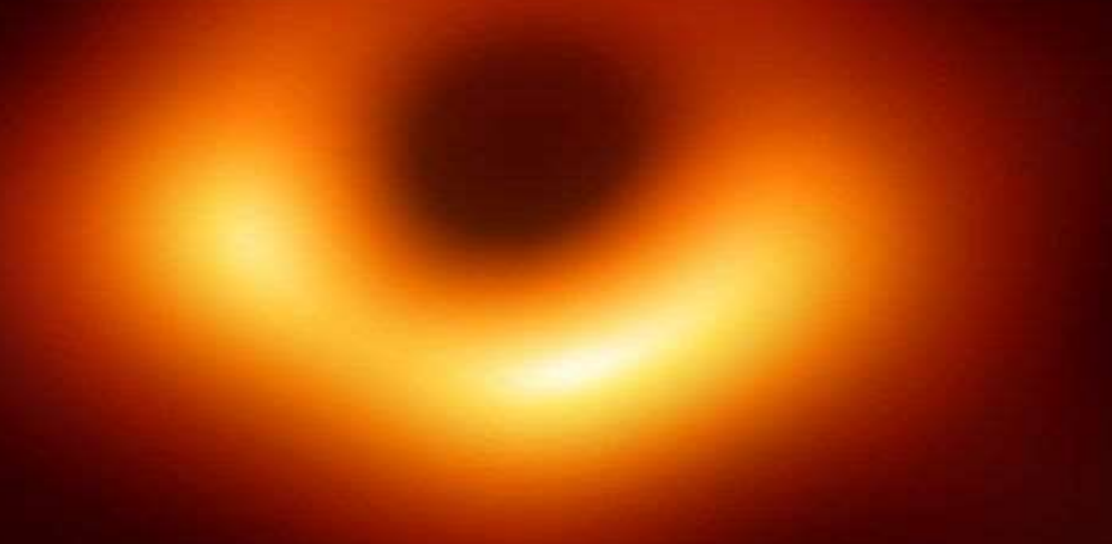


Prof dr. Ian Lovegrove



Opening Conference 2019 | Intelligence & Sustainability

Sustainability of the Universe



40 billion km wide black hole

A wide-angle photograph of the Arctic Ocean. The foreground is filled with numerous ice floes of various sizes, some appearing as large, flat sheets and others as smaller, more irregular chunks. The water between the floes is a deep, dark blue. In the distance, the horizon line is visible under a vast, overcast sky filled with heavy, grey clouds. A bright sun is partially obscured by a cloud in the upper left quadrant, creating a soft glow. The overall scene conveys a sense of a cold, desolate, and rapidly changing environment.

Sustainability of Arctic Ocean

Over 30 years – 95% reduction in oldest and thickest ice

Sustainability of Greenland Ice-Cap



**Loss 4 trillion tonnes of ice; loss 5 time greater
than 25 years ago**

An aerial photograph of a vast, white, cracked ice field, likely in Antarctica. The ice is broken into large, irregular floes separated by dark, narrow channels of water. Two small, dark aircraft are visible on the surface of the ice, providing a sense of scale. The lighting is bright, creating high contrast between the white ice and the dark shadows and water.

Sustainability of Antarctica

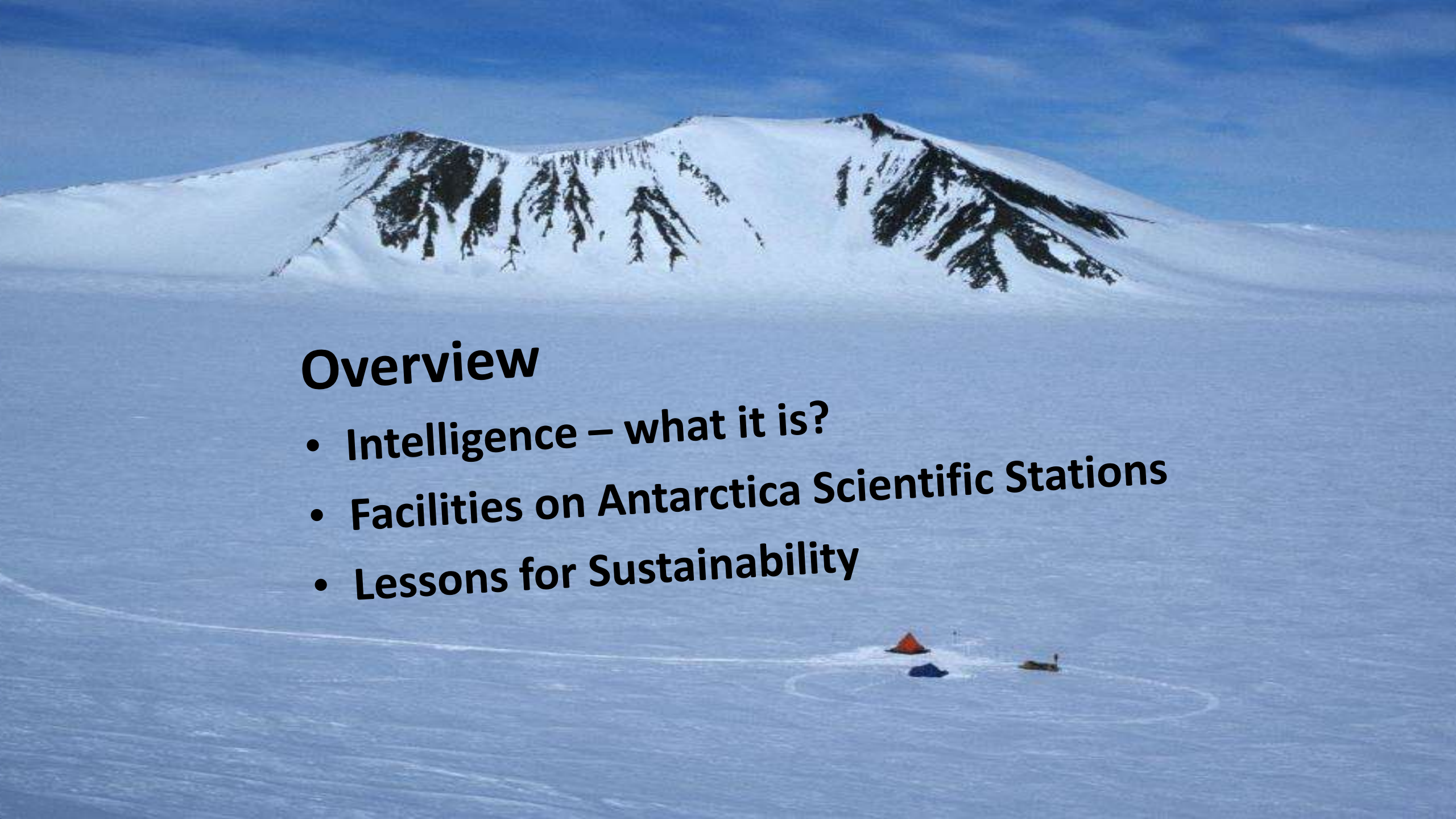
Sea rise – 70 meters

Survival



Survival





Overview

- **Intelligence – what it is?**
- **Facilities on Antarctica Scientific Stations**
- **Lessons for Sustainability**

Intelligence

A wide-angle photograph of a vast, flat, snow-covered landscape. The snow is bright white and reflects the light. In the distance, there are dark, silhouetted mountains or hills. The sky is a pale, clear blue. In the lower right foreground, there is a small, dark, triangular object on the snow, possibly a marker or a small structure, with some faint tracks or lines around it.

“Ability to *acquire* and *apply* knowledge and skills”

“the most important trait or construct in all of psychology” (Schmidt and Hunter, 2000:4)

Where does intelligence come from?

Possibly genetics

Only part of story



How do we measure intelligence?

We can't measure it physically – petri dish!

Differences in Intelligence

General intelligence – IQ

Multiple Intelligence theory (Gardner, 1983)

**Verbal, Maths, Musical, Naturalistic,
interpersonal, Spatial and on**

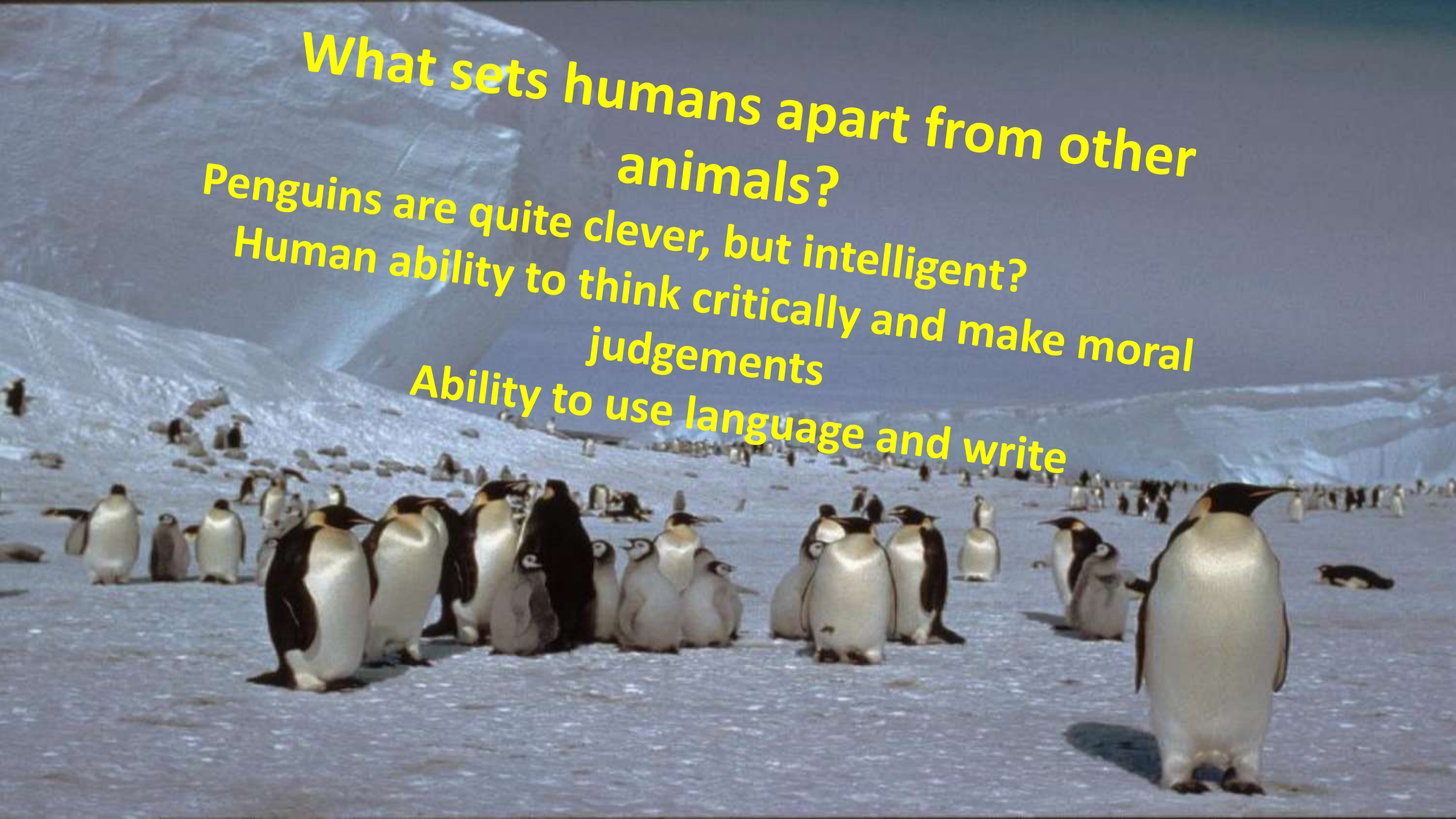


What sets humans apart from other animals?

Penguins are quite clever, but intelligent?

Human ability to think critically and make moral judgements

Ability to use language and write



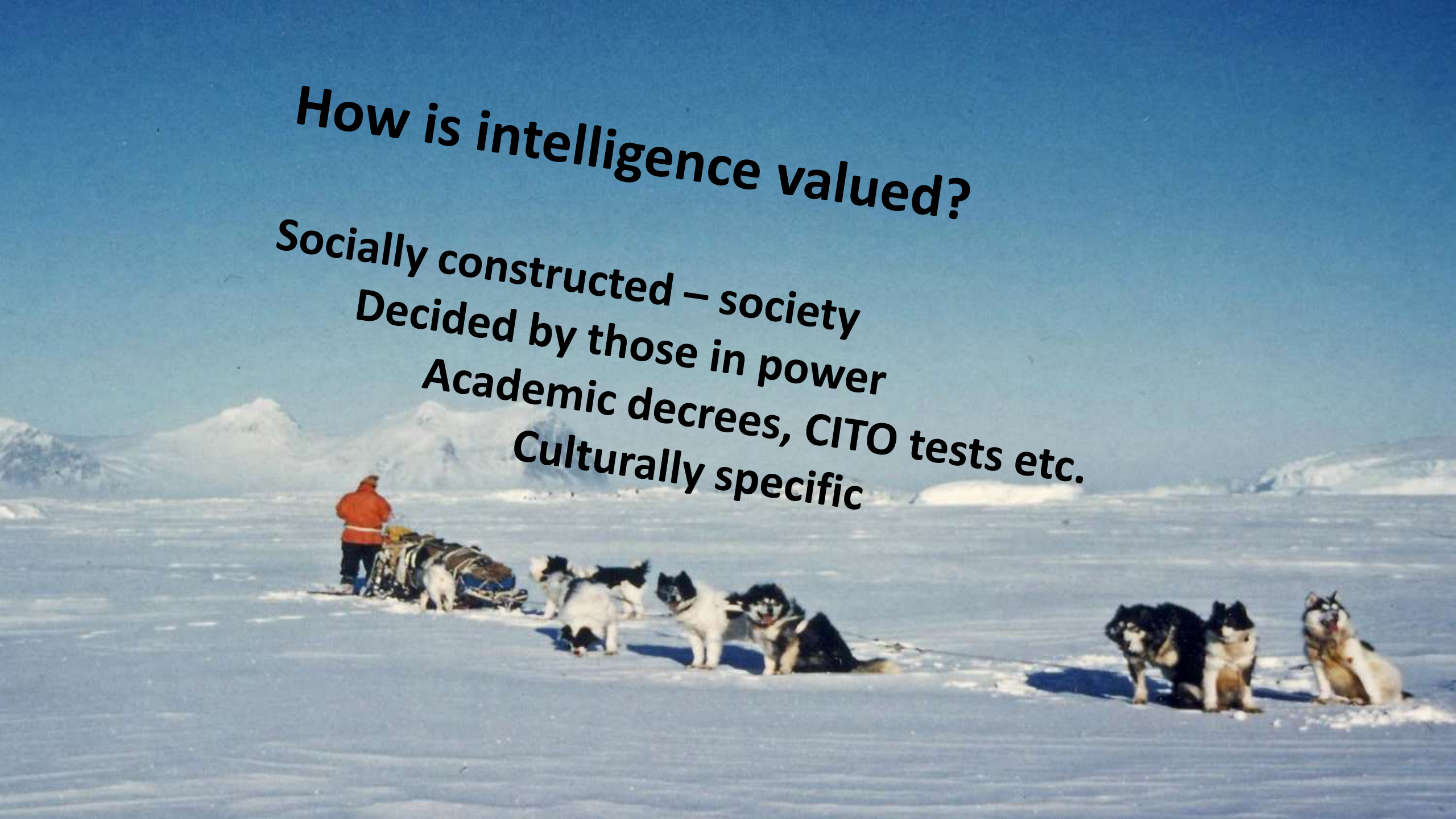
How is intelligence valued?

Socially constructed – society

Decided by those in power

Academic decrees, CITO tests etc.

Culturally specific



People cope without formal intelligence



Station Facilities In Antarctica

Remote: supply once
or twice a year



**Station Manager
(Overall responsibility)**

Renewal and Repair





**Rothera Station 1976 on
New runway 1992**

**Dutch Dirck Gerritsz laboratory
Royal BAM Company –
Building new wharf
(82 containers, 4,000 tonnes
materials)**

Royal BAM Company building new wharf





Accidents happen – you are on your own

New Runway Facility





Power facility

Catering Facility





Laundry Facility



“Making” water

**Motor Facilities: diesel fuel is sluggish
at minus 40 Celsius)**



Snow Blower



Earlier 'Field' Transport



Field Transport



Air Facility
Fuelling, maintenance and flying





**Limited
medical
facilities**

Intelligence and Situation



Halley Scientific Station



Different sort of wharf!

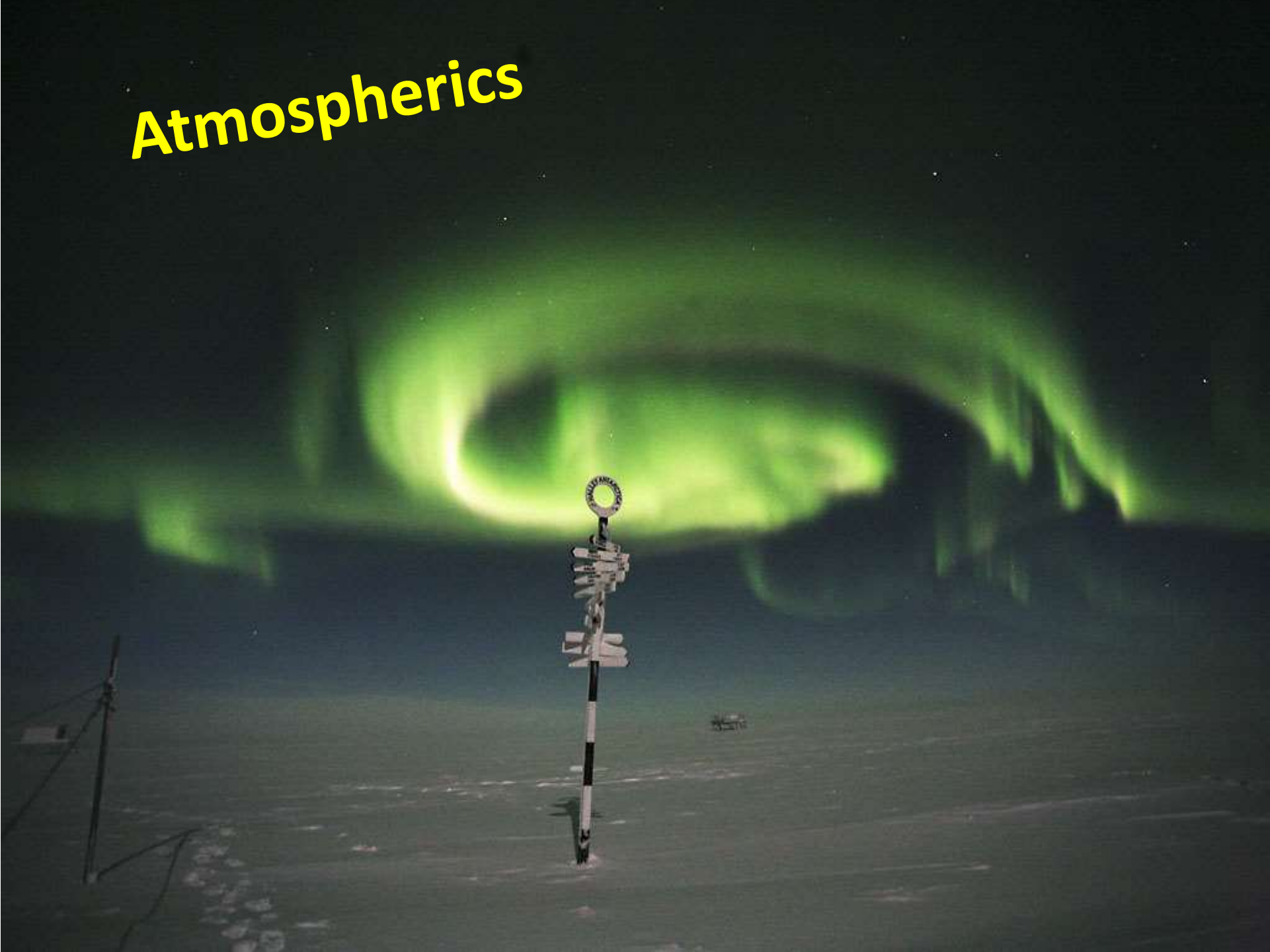
Storage Facilities



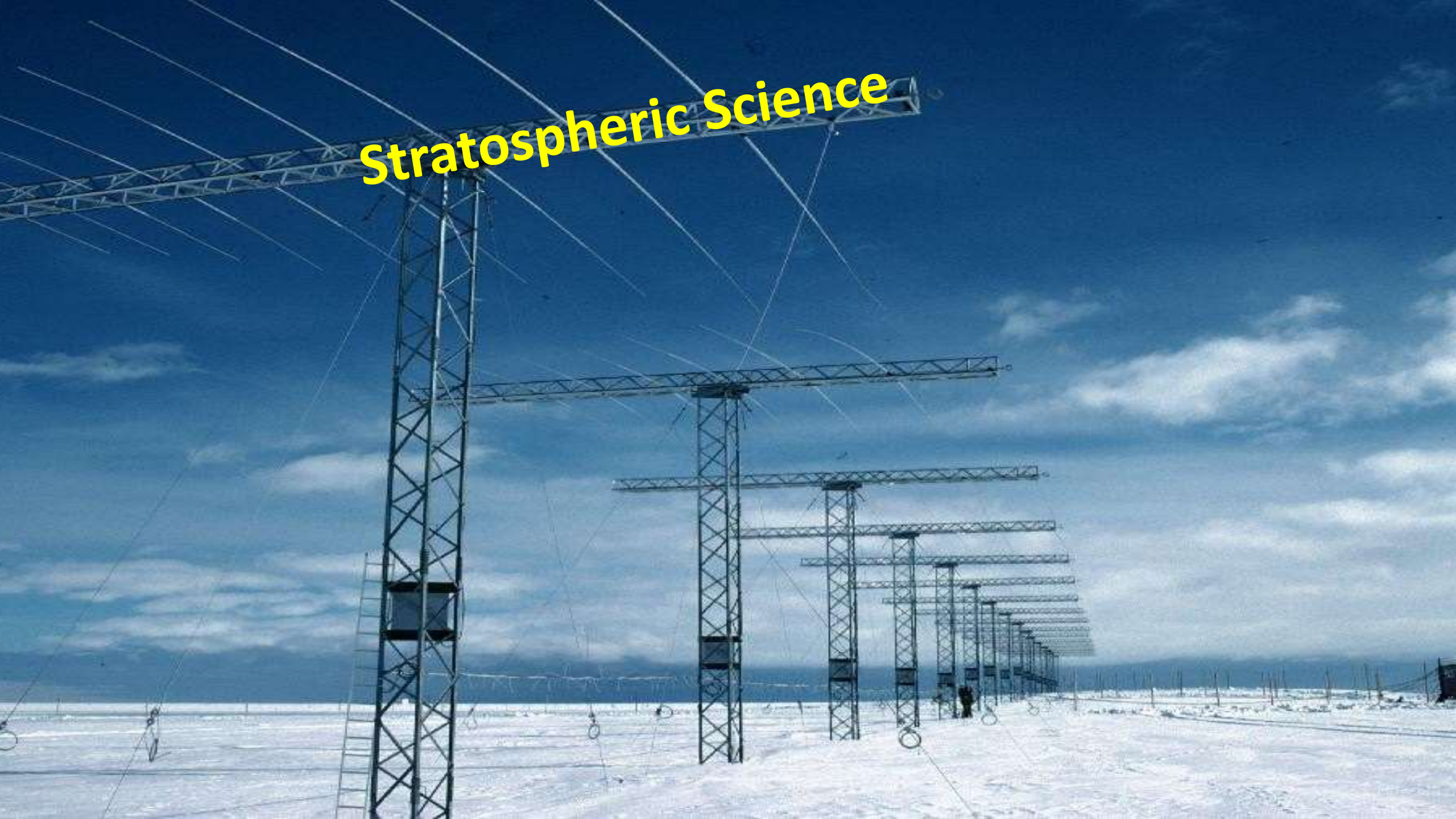
Modern Self-Contained Facilities



Atmospherics



Stratospheric Science



Meteorology – ozone layer





Leading 24/7

**Leader and Intelligence –
low correlation (0.21)**

TRUST

**Inspire and
Influence**



A photograph of a group of people, mostly men, sitting at long wooden tables in a canteen or mess hall. They are eating and talking. In the background, there is a kitchen area with a person working. The room has framed pictures on the wall and a window with curtains. Overlaid on the image are three yellow text labels: 'Emotional Intelligence' at the top, 'Know self and others' on the left, and 'Feelings' on the right.

Emotional Intelligence

Know self and others

Feelings

Empathy



**Maintain balance:
scientists and**

**facilities
personnel**



Emotions in Difficult Times

(Fire Hazard)



Alternatives to General Intelligence

Wisdom, knowledge, experience and judgements

Intelligence – gathering





Take Home – Facilities Management

Reject general intelligence as a measure

Support ‘front line’ staff

Seek specific situation intelligence

Provide continuity and quality

Take Home – Personal

Develop your interpersonal skills

Follow your values – trust, empathy, humility

Become more emotionally intelligent

Adopt a 'can do' positive attitude

Value optimism – embrace hope

**Fairness, Humility, Trust, Empathy, Just
treatment, Integrity and Authenticity
are not determined by intelligence**

