

1.

ANTARCTIC STORM
MAN OPENS HATCH
CLIMBS OUT

WALKS ALONG MARKERS
HOLDING ONTO GUIDE ROPE

CU MAN IN PARKA

NARRATOR: Temperature...minus 40^o degrees. Wind
velocity, thirty knots.

MAN WALKS AWAY
FROM CAMERA

SUPERTITLE:
THE MOST BEAUTIFUL PLACE
ON EARTH

SNOW
ICICLES

Antarctica...undisturbed since the beginning of
time. Its existence even unknown for centuries.

CU SEAL

But today things have changed. There are two new
species on the ice....scientific man and his great
big machines.

MAN PASSES BY
CLIMBS SMALL RISE

In the year since the Antarctic became accessible,
entire new fields of exploration have opened to
science. Researchers flock here from Europe,
Asia and the Americas. Geologists, cartographers,
biologists, oceanographers, meteorology and
glaciology experts.

PLANE ON ICE
INSIDE PLANE
OPEN DOOR OF PLANE

MEN CLIMB OUT
SIGN ON PLANE "WELCOME
TO ANTARCTICA"
AIRDEVON SIX"

SEAL IN ICE POND
SNOWMOBILE ON ICE
SHIFTING ICE AND SNOW

(BLACK AND WHITE
FOOTAGE)
SHIPS ON OPEN SEA

ETCHING OF MOORED
SHIPS

FOOTAGE OF SHIPS
UNLOADING SUPPLIES
AT ANTARCTIC BASE

ETCHING
DOG TEAMS
AMUNDSEN AT POLE

PLANE
AERIAL VIEW
LANDSCAPE

RETURN TO COLOR
FOOTAGE
DISSOLVE TO MS
LAURENCE GOULD
SUPERTITLE: DR.
LAURENCE GOULD
NATIONAL ACADEMY OF
SCIENCE. USA
(B&W - MAN WITH PENGUINS)
GOULD (VO)

PLANE FLYING OVER
BASE
AERIAL VIEW
SHIPS, DOG TEAMS

RETURN TO COLOR
FOOTAGE

DOG TEAMS ACROSS
LANDSCAPE

CU DOG
HANDLER
TEAMS TRAVELLING UP
SLOPE

NARRATOR: It is just over a century since the first explorers came down, some to plant their flag over slices of the new continent, all of them ready to go through endless misery to reach that seemingly impossible goal, the South Pole. But the newcomers were barely visible dots on the landscape of the world's great desert. Amundsen was first to set foot at the South Pole - that was in 1911. In 1929, Richard Byrd flew over the Pole. The air age had come to Antarctica.

GOULD (SYNC): I was the Executive Officer or second in command, also the senior scientist and geologist. The only thing we saw when we arrived were Emperor penguins, nothing else. We were the only people on the continent at that time, I think. The flight over the Pole was so spectacular that people don't realize that we were doing a great many other things as well. It was a full blown scientific expedition so when the Polar flight was completed I was able to take my dogs and sledge for three months in the Queen Maude Mountains and we carried out a pretty good geological survey, a thousand miles from where any other geologist had ever been before.

NARRATOR: Barely forty years ago the dogs helped men explore a continent. Yet today there are exactly two dog teams left in all Antarctica, kept by the New Zealanders mainly for nostalgic value.

The dog teams too have succumbed to progress, to the laws of economics, replaced by aircraft and motorized sleds. Gone are some of the poetry, the romance of departures for distant horizons, a bit of the feeling of high adventure.

GOULD ON
CAMERA

GOULD (SYNC): The sixteen hundred mile dog sled journey which I made forty years ago remains perhaps the high point of my whole life. I do miss them but, on the other hand, it would be silly to cling to dogs when we can do the tasks we want to do so much more efficiently with something else.

(GOULD VO)
DOG TEAMS

DISSOLVE TO
ANTARCTIC BASE
TRUCKS

There were no settled communities in Antarctica until 1957 but people have lived there the year round ever since. 1957 was IGY, the International Geophysical Year. Twelve nations built bases in the Antarctic as part of the joint effort to improve knowledge of the world we live in. That program was extended and continues to this day. The existence of a permanent population on the ice made it desirable to devise a formal political status for the Antarctic. So on December 1st 1959, the twelve nations signed a formal treaty. The treaty provides that for the next thirty years the Continent is to be used by all mankind but only for scientific or peaceful purposes.

B&W FOOTAGE
CONFERENCE
SIGNING OF TREATY

RETURN TO COLOR
SNOW TRACTOR
MAN CARRIES OUT
METEOROLOGICAL BALLOON
BALLOON ASCENDS
CU MAN WITH RED PARKA

Many things have changed below the South

Polar Circle in the last sixty years but keeping

track of the weather is no less crucial today in spite of all the modern means available than it was for explorers of the past.

RADIO OPERATOR
PANEL OF RADIO
TWO MEN EXAMINING
METEOROLOGICAL MAP

OPERATOR (SYNC): ...you can tell 'em it's snowing in the upper right and the wind is from the south west.....

Antarctic weather directly affects the climate -- not only of the Southern Hemisphere but even that of the rest of the world.

VASILIEV AND
AMERICAN SCIENTIST
STUDY CHARTS AT
DESK

AMERICAN (SYNC):...of prime importance is this low system that's developed yesterday south of Tasmania and it's moving....

CU VASILIEV
VASILIEV AND
AMERICAN
VASILIEV AT DESK

Alex Vasiliev is a Soviet meteorologist but he works with the Americans at their McMurdo base. The twelve nations which set up stations in the Antarctic for IGY are Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the Soviet Union, the United Kingdom and the United States. Exchange scientists from all over the world have worked together at these stations.

MS VASILIEV

VASILIEV MARKS
CHART

MS VASILIEV
SUPERTITLE:
DR. ALEXANDER VASILIEV
USSR

VASILIEV (SYNC): Antarctica is good example of such kind of cooperation in scientific fields and not only that, but surely people can work together and they work together and they are working now.

GOULD ON CAMERA

GOULD (SYNC): We are not involved in any kind of political agreements or disagreements and science is the most nearly international aspect of our lives. Everything else that man does -- whether it's his language or music or art is national. Science alone has only one language. There is no Russian physics, there is no United States chemistry, it is international.

USSR FLAG
FLYING AT MASTHEAD
AMERICAN SCIENTISTS
ARRIVE
GREETED BY
RUSSIANS

5. from
NARRATOR: A few of the Americans / McMurdo arrive
at the Soviet's Vostok station for their annual
visit. This trip is quite an event. An exchange
scientist from the States is just completing a
year's stay there. Michael Maish, from Stanford
University.

MAISH GREETING
GROUP

CU MAISH

INTERVIEWER (OFF CAMERA): What was the weather
like in the winter.

MAISH (SYNC): Just like Colorado. When you
get below zero it's all cold -- 100 degrees
below zero. And it was no different than
skiing in Colorado.

GROUP ENTERS
HUTS
US AND USSR
FLAGS FLYING OVER
DOOR

NARRATOR: Vasiliev came on the trip to act as
interpreter.

TABLE WITH FOOD
GROUP MOVE AROUND

Each station in Antarctica reflects its national
atmosphere and the Soviet ones are no exception. At
Vostok, tea is simmering in the samovar. There is
flowered wallpaper and comfortable old armchairs
that would be right at home in a Russian dacha.

DAVID WELCH AND
GROUP ON CAMERA
SUPERTITLE:
REAR ADMIRAL DAVID WELCH
UNITED STATES NAVY

RUSSIANS AND AMERICANS
SHAKE HANDS

APPLAUSE

TRANSLATOR (SYNC): I offer toast for co-
operation of all.

WELCH ON CAMERA

WELCH (SYNC): The United States Navy is here in an experiment solely in support of scientific effort. It is the first time in my life that I have been involved with a purelysupport of a peaceful endeavour.

(RUSSIAN SYNC)

WELCH (SYNC):.....and it's a pleasure.

CU WELCH
APPLAUSE

I only know one phrase of Russian and I learned it when I was a bachelor -

Za vashe zdorovye.....

APPLAUSE

FOOD AT PARTY
DRINKING
SCIENTISTS IN FRONT
OF BOOKCASE
TRAVELLING SHOTS

WELCH (VO): The Antarctic treaty is a very fine document indeed for those people who cooperzte in the International Geophysical Year and the continuing program in the Antarctic continent. It provides that the Antarctic shall be used for peaceful purposes only. It provides however that military men can be used in the support of the science program --- I would think that in the Antarctic the cooperation among nations who are signatory members of the Antarctic treaty is, perhaps, some of the best in the world.

Certainly we have found that in our operations with other nations who have expeditions, scientific expeditions in the Antarctic Continent, our relationships have been more than good...they've been outstanding. And it's a real pleasure to work in this sort of an atmosphere.

CEREMONY OF
PINNING WINGS
ON ADMIRAL WELCH

VASILIEV (VO): Our relations is good relation -- sure, very often we have different points of view on international problems, for instance, but we have no different points of view on scientific problems. People all over the world can see this wonderful example of great co-operation and international cooperation and they can see that there is, for instance, there is in the world one country where there is no borders, there is no -- never been and never will be -- war. It is very wonderful.

VASILIEV ON CAMERA
(SYNC)

GOULD ON CAMERA

GOULD (SYNC): As the years pass we are getting involved in more and more real international programs. For instance, right now, Soviet Russia, Australia, France and the United States are in the process of organizing an interdisciplinary international cooperative expedition to study glaciology in East Antarctica.

GOULD OFF CAMERA
(VO)
MEN IN ICE TUNNEL

MAN UNDERGROUND
DRILLING CABLE

NARRATOR: What is the thickness of the ice? What are its characteristics at various levels? At Byrd Station, two teams -- one Swiss and one American -- are drilling down through the ice. Bedrock is over 7,000 feet below.

DRILL RIG

HANSEN ON CAMERA

HANSEN (SYNC): The purpose of the hole is to provide cores for analysis -- the ice sheets are formed by a continual accumulation of snowfall and they provide samples of the earth's atmosphere in past time.

(HANSEN VO)
DRILLING RIG

STOUFFER (SYNC) We take out of the air the carbon dioxide and a part of this carbon dioxide is carbon 14, radioactive carbon, a very small part and the part indicates the age of the ice.

HANSEN ON CAMERA

HANSEN (SYNC): The minimal age is probably in the neighborhood of 50,000 years -- it could be much older than that.

STOUFFER (SYNC): I think it could be 200,000 years old...or more.

GARBAGE DUMPED
ON FIRE

GOULD (VO): Wherever man is, pollution follows. And of course, it will in Antarctica, but here I hope we can control it. Even now, as you may know, DDT has been found in seals and penguins -- on the other hand, however, neither by design nor accident, has man introduced on this continent any new species of plant or animal. This is the only place on earth where the original indigenous population can still be studied. It is the only part of planet Earth that we may still save as it was before the planet was polluted by man. And this is one of the marvellous things about the Antarctic Treaty.

(GOULD VO)
PENGUINS
SEALS

TRACTOR
 CU SEAL
 INSIDE HUT

NARRATOR: In contrast with the barren continent, the waters of the Antarctic are teeming with life, both plant and animal. On sea-ice at the edge of the Ross Shelf at the foot of Mt. Erebus, the only active volcano on the icy continent, biologists use specially designed under water television equipment to study the life pattern of the Weddel seal....a mammal noted for its ability to dive 2000 feet below the surface.

TV SCREEN
 IMAGE
 SEALS UNDER WATER
 MAN WITH HEADPHONES
 SCIENTIST WATCHING
 TV SCREEN

SCIENTISTS
 CLINE AND
 SHUSTER
 ON CAMERA

CLINE (SYNC): 2306....the pup leaves this position in the tide crack at this stage. A little bit awkward in its swimming. Now it's swimming over to join its mother...blows a few bubbles....maneuvering toward the camera and starts nuzzling with its mother.

SHUSTER (SYNC): They're playful.

CLINE (SYNC): Look at that --they are... she's tickling....a very friendly little pup, how are you eh?

MEN ON ICE FLOE
 WITH SEALS

NARRATOR: Flinty eyes are already fixed on the seals with the idea of harvesting them. But the important thing is to make sure that the species is not in danger like so many others have been through over-exploitation.

SCIENTISTS
 WITH TV EQUIPMENT

The first scientists had to go under water to dive beneath the ice through airholes to observe the seals. But extremely cold water temperatures made this type of research hazardous and now TV cameras bring the life down under to the surface and are less disturbing to the animals than divers would be.

SEAL UNDER ICE

Miniature radio transmitters attached to the animals make it possible to trace them for weeks at a time. And to know what they are doing, both in and out of the water.

TV IMAGE
OF SEAL
TECHNICIAN

CLINE (SYNC): There she goes. The female now leaves the tide crack and very slowly turns...now they're really --- see that --- they're, now they're really joining in active play. You really get some weird sounds on this hydrophone now.

SEALS

And so it is.....through television, that modern science gets its first eye-witness observation of the mating of the Weddel Seal.

RADAR SCREENS ON
ANTARCTIC WASTES

Here scientists found an ideal location to find more about our world, to study the inter-relation between our atmosphere, the earth's geomagnetic field and cosmic radiations from stars in distant galaxies.

DIALS ON
SCREEN

They observe Auroras and from their burrows under the ice listen with rapture to strange and mysterious radio noises from Outer Space.

INTERIOR OF
PLANE
ICE DESERT
AERIAL VIEW
FROM WINDOW OF
PLANE

NARRATOR: It takes imagination to realize that all
this barren ice desert was once lush tropical
forest....coal and other rich mineral deposits
are known to lie below. Laurence Gould told us....

GOULD (VO): ...whatever lies here in the
way of riches belongs to all mankind. And
it ought to be exploited by the United
Nations which could share whatever is here
with all men.

PILOT IN PLANE
ARCTIC WASTES BELOW

PILOT (VO): We're going down now. This is
Peidmont Glacier. And over there, the
mountains round the Polar Plateau. Scott
went right up this on foot sixty years ago
on his way to the Pole. Died on his way
back, poor chap. Some of our scientists
just found a whole bunch of fossils
down these very mountains -- old bones and
stuff. You know...millions of years old.

COLBERT ON
CAMERA
SUPERTITLE:
DR. EDWIN COLBERT
USA

COLBERT (SYNC): I believe there are bones
of various amphibians and reptiles which
lived about 200 million years ago, more
or less, and they are of the same type that
are found in South Africa and India and s
South America. This is jut before the
evolution of the dinosaur.

(COLBERT VO)
FOSSILS BEING
HANDLED
CU FOSSILS

ELLIOTT
ON CAMERA
SUPERTITLE: DR.
DAVID ELLIOTT
U. K.

ELLIOTT (SYNC): The concept is of a con-
glomerine super-continent really built
up from a lot of facts gathered particularly
in South Africa or Southern Africa and
South America and envisages one large
continent of Antarctica, Australia and
peninsula India, Southern Africa, Sth. America,
this was based on paleontological and
other geological factors, and the real
key to the whole idea lay in Antarctica.

(ELLIOTT VO)

ANIMATED SEQUENCE
MAP OF WORLD MASS
BREAK UP OF CONTINENT
DETAILED MAP OF
ANTARCTICA

COLBERT ON
CAMERA

COLBERT (SYNC): These animals were very certainly very definitely land living animals and they had to come from Africa to here or vice versa on dry land - so that's why we think that Antarctica must have been connected to Africa at that time.

WS ANTARCTIC
BASE

NARRATOR: Inside the ice an entire village is hidden, fifty feet below the lonely antenna. There is hardly any precipitation but the wind which blows at gale force a good part of the time forever carries snow that never melts. Anything constructed on the surface is soon buried under snowhills and so some stations in-land have been built in tunnels dug deep into the ice.

MEN WITH
TRACTOR MOVE
TO END OF
TUNNEL

MAN MOVES
THROUGH TUNNEL
CLIMBS STAIRS

Life here is quite different from anywhere else. The temperature in the tunnels remains about 18 deg. Fahrenheit the year round. It is bitterly cold outside and those who have no business up top often prefer to stay in. Men live weeks underground without seeing sunshine or even daylight. Wintering-over personnel, all of them volunteers, go through special psychological training before being accepted for Antarctic service.

INSIDE BASE

CHRISTMAS
TREE

MAN AT
COMMISSARY

MEN RELAX
MUSIC PLAYING
MAGAZINES
CU PINUP ON
WALL

AMERICAN (SYNC): It's an adventurous, very romantic thing to do. The conditions here aren't like what they were in Scott's day. But there's still a lot of adventure in it.

SWISS (SYNC): It's also not very romantic ...it's not so - what you mean when you say Antarctica.... it's just working like somewhere else, a little colder.

MEN WITH SHORT
WAVE RADIO

NARRATOR: Amateur short wave radio blunts the
isolation.....

(SYNC - SHORT-
WAVE RADIO
SEQUENCE)

SHELVES OF
BOOKS
AMERICAN TECHNICIAN
ON CAMERA

AMERICAN (SYNC): We go down to the Club and play some pool or have a few beers, a few movies.....it's like living in a submarine here, I think. When it's dark and windy and cold nobody goes up, everyone stays in their room all day long. It's quite dull, I think.

2ND AMERICAN (SYNC): If we don't go outside, we stay in the station -- we have station maintenance, the heaters, the water, the fuel -- we have plenty to do under the ground even without going outside.

MACHINERY

TECHNICIAN (S): We have ice coming down, as you can see. The accumulation of the snow up on the topside which is about thirty to forty feet up, keeps pushing the ice down - and the shelf that you see now, every year comes down about one foot. You have to go up with chain saws and cut it down.

MAN WITH CHAIN
SAW
STORING BLOCKS OF
ICE
SHOVELLING SNOW

SWISS (VO): Well, the water we need in the station, it's shovelled in here - in this hole and then melted inside in a big tank. Water is saved. You don't wash very often, you don't wash your things -- but it's not so bad as you think. It's not so stinky in the station because it's very cold, you don't sweat very much and so therefore it is not so bad.

NARRATOR: Water supply is not the only problem. What does one do about waste in a place where the cold preserves everything forever - that hasn't been solved yet, so far it is just carefully collected and buried in the ice downwind from the station. But

DIGGING IN
TUNNEL
MAN CLIMBS LADDER

even in the Antarctic, life needn't be all work and no play. Some people have the foresight to come fully equipped.

EXTERIOR
MAN ON SKIS

MEN MOVE
ABOUT ON SKIS

1st NEW ZEALANDER (SYNC): Aw, it's a wonderful place, yes. Wouldn't be anywhere else at the moment.

2nd NEW ZEALANDER (SYNC): No tow chairs, no tickets to buy or anything down here. really great.

The New Zealanders -- the Kiwis as they like to be called - could hardly have found a bigger snowfield for a winter resort.

1st NEW ZEALANDER (VO): The only thing we miss are the females... really. No women down here, but it's not too bad.

MAN
MAN ON SKIS
JUMPS OBSTACLE
FALLS

And the "in" thing to do is to go on a trip to the very bottom of the world, a visit to Pole Station is one occasion in a lifetime to gather proof, later to be proudly displayed to families and friends that one indeed has been there.

MAN WITH CAMERA
MEN GROUP AROUND
SIGNPOST

UNITED NATIONS
FLAG AGAINST
SUN

GOULD (VO): The example that we have set and achieved here in Antarctica is the pattern that the rest of mankind could well follow. We have had the hardest most complete kind of cooperation and as you know full well the Antarctic Treaty was an outgrowth of the success of our scientific cooperative project. The first treaty in the history of mankind designed to protect the scientific program.

MAN WALK ACROSS
ICEY WASTES

What is it that fascinates one about the desert?

GOULD ON
CAMERA

GOULD (SYNC): This is the world's
greatest desert and I think it affects me
a good deal like the desert does - mystery,
unknown, lots of questions unanswered,
about it - these are the things that stimu-
late a scientist to want to keep on, I sup-
pose. And its beauty.

SLOW PAN OF
ICEY WASTES

SUPERTITLE:
THE MOST BEAUTIFUL PLACE
ON EARTH

INTERNATIONAL ZONE

DIRECTED, FILMED AND EDITED BY
PIERRE DESBONNET
MARTIN BUNNEL

NARRATED BY PETER THOMAS

SOUND MIX
ROY WERNER

EXECUTIVE PRODUCER
GILBERT LAUZUN

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