

Adventures from the Coldest Part of the Cold War



Brian Jeffrey — VE3UU / ex-VE8SK

A Special Presentation for...



Ottawa Vintage Radio Club

DEWLiner's Share a Bond

From today's perspective, being some 83 years old, my time spent on the Distant Early Warning Radar Line amounts to less than 4% of my life.

Strange this small percentage should occupy so much of my memories; stranger still, some of my oldest friends to this day are DEWLiners.

We probably owe our bond to sharing a unique experience and to the conviction that nothing before or since has equaled it.

DEWLiner Dewitt Thompson II, in 2006 (R.I.P.)

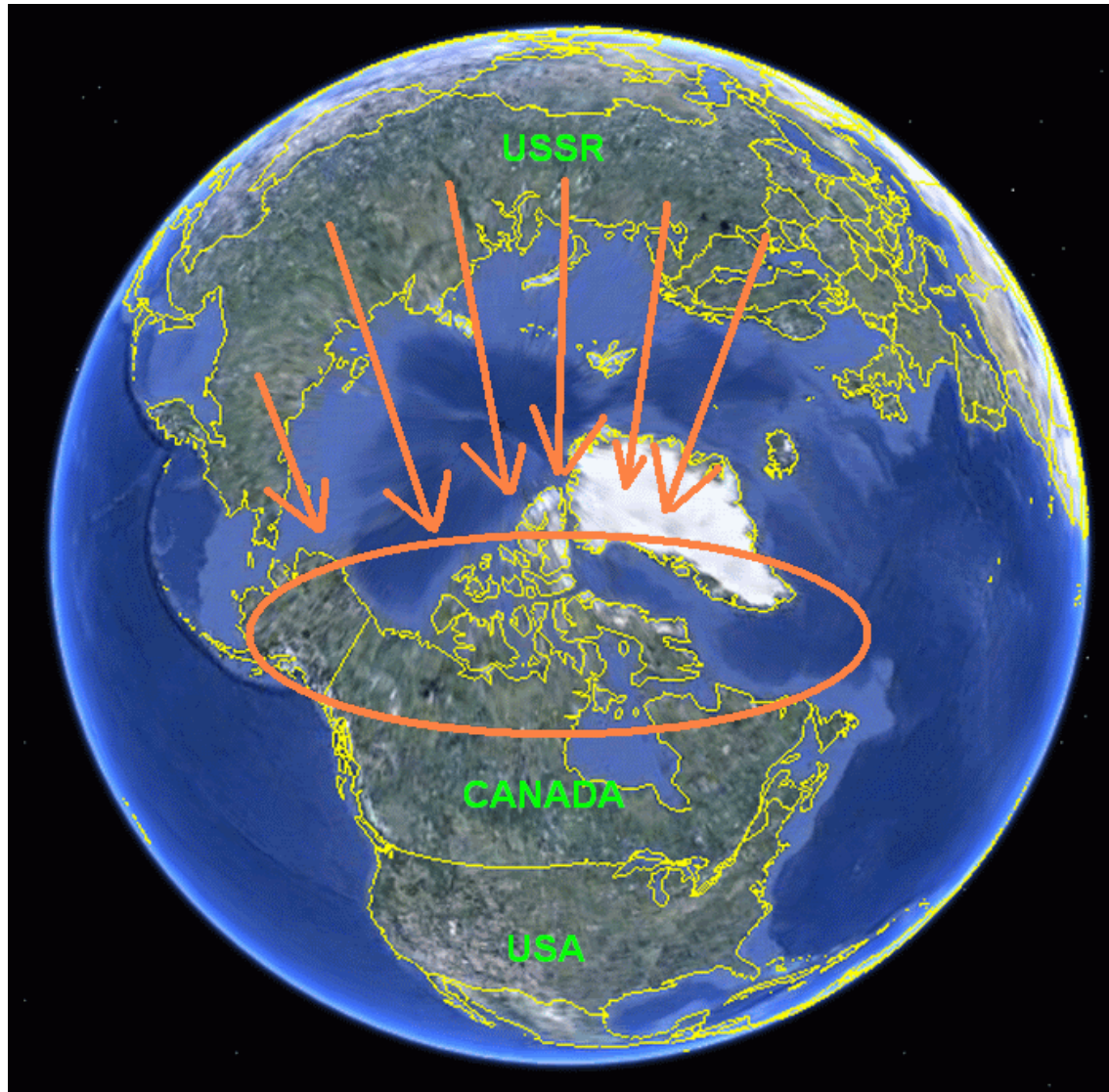
Agenda

- What & Why
- Life on the Line
- Why go North?
- Story time
(Tall tales from the frozen North)
- From manned to unmanned
- Going back “home” 52 years later

What is (was) the DEWLine?

- **DEWLine** = **D**istant **E**arly **W**arning **L**ine
- Chain of 58 manned radar stations
- Scattered across 2800 miles of nothing
- Built between 1955 and 1957 @ a cost of \$550M
- Operational in August 1957
- Morphed into the North Warning System in 1993

The Necessity



The Thin Line



3 Types of DEWLine Stations

6 Main stations
48+ personnel



27 Auxiliary sites
16+ personnel



25 Intermediate sites
5+ personnel
(Taken out of service by 1963-4)

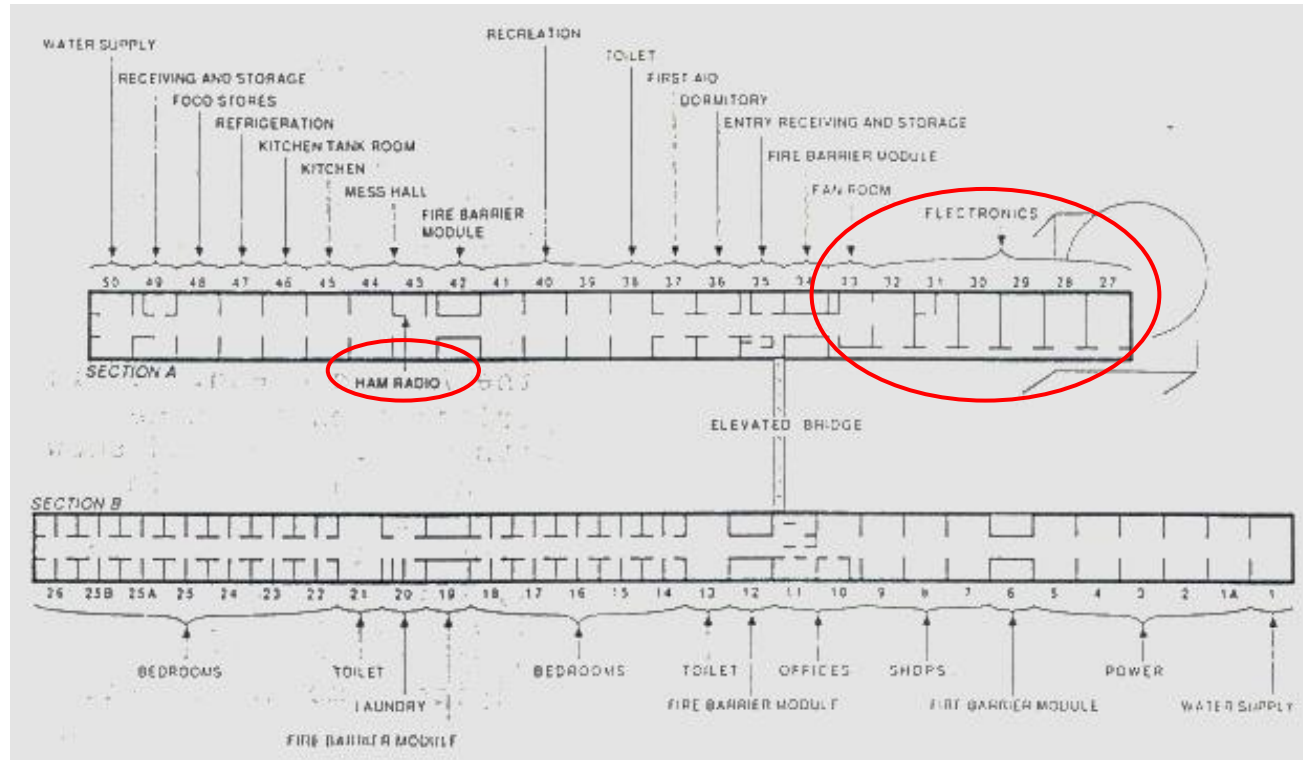


Building a building

- Use “building blocks” called modules
- Basic module: 28' x 16' x 10' high
- Assembled side-by-side into module “trains”
- I-Site: 5-modules (28' wide x 80' long)
- Aux-Site: 25 modules (28' wide x 400' long)
- Main-Site: 52 modules in two module trains



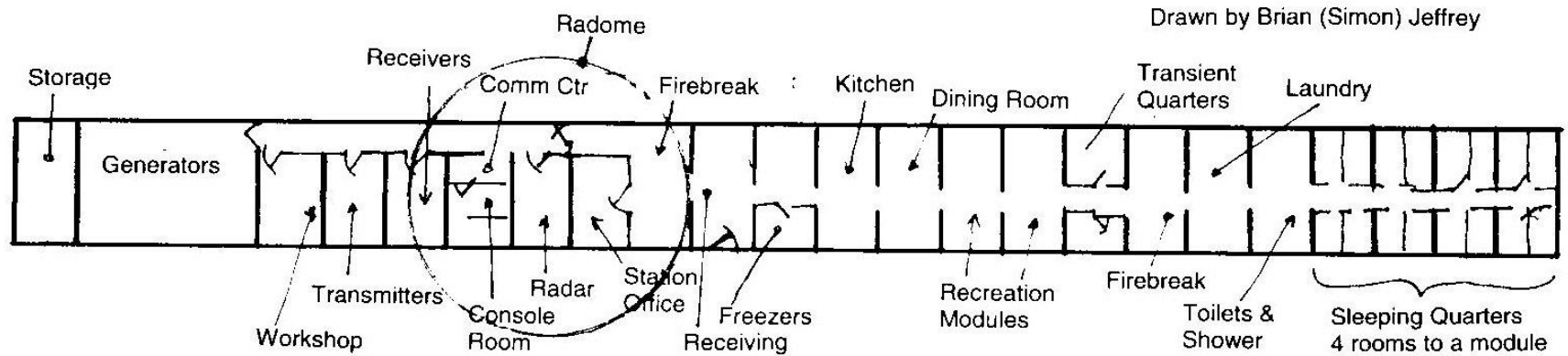
Typical Main Site



40 - 75 personnel
48 bedrooms
7-8 Radicians

Typical Auxiliary (Aux) Site...

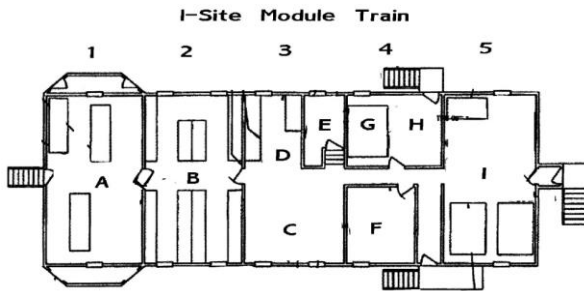
Station layout



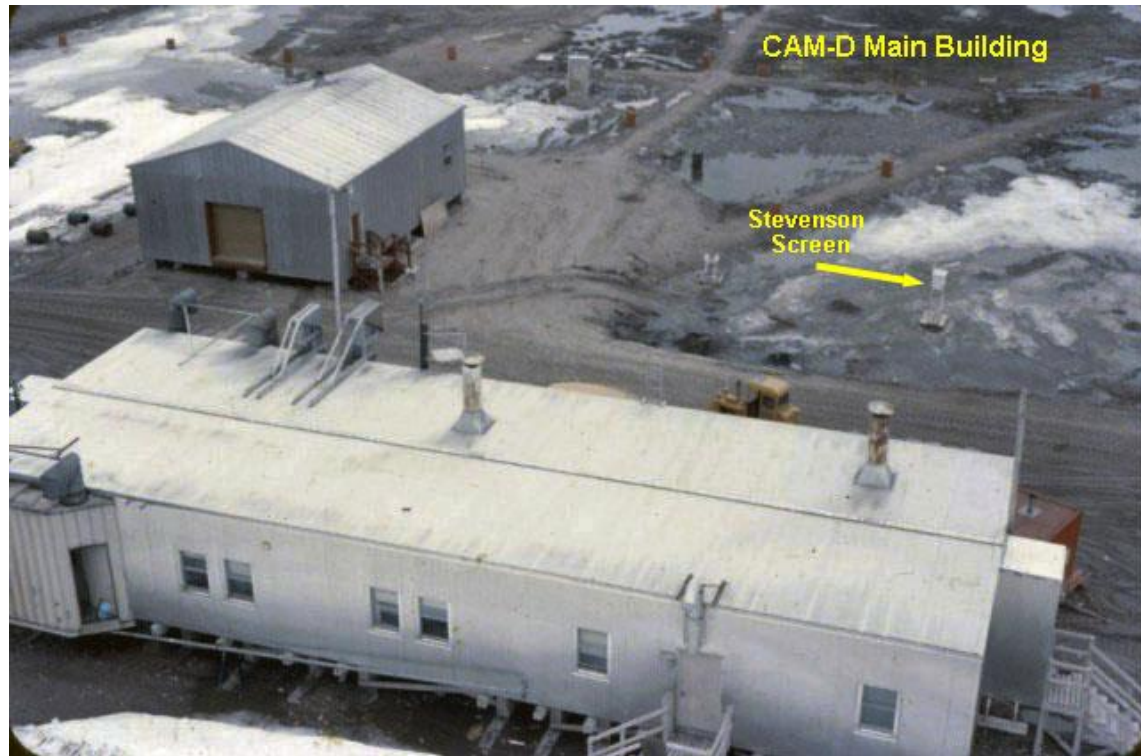
14 - 20 personnel
16 bedrooms
7-8 Radicians



Typical Intermediate Site (I-Site)...



4 - 6 personnel
1 Shared bedroom
1 Radician



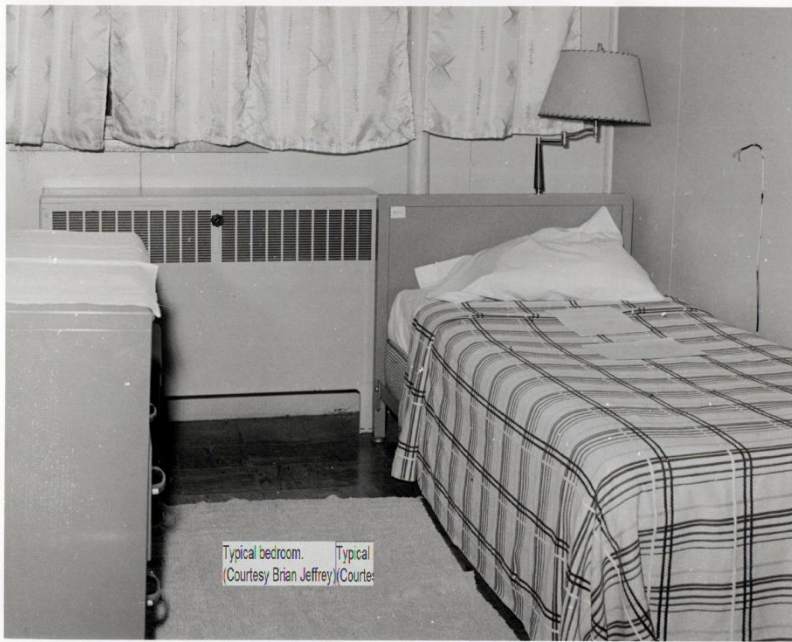
My Workstation



FOX-Main

#3

Typical bedrooms



Recreation Module



Life on the Line

- ❑ 54-hour work week (six, 9-hour days)
- ❑ 6-month minimum stay
- ❑ No outside communications
- ❑ No TV, no radio
- ❑ No news
- ❑ Mail, once a week (maybe)
- ❑ Some creature comforts...
 - ▣ 3 first run movies/week
 - ▣ Incredible food

Middle of Nowhere

D.E.W. Line Station "Fox Two" (14 men) - Longstaff Bluff - Late winter 1965

Courtesy
Mort Doyle



Edge of Nowhere



Find the Site (FOX-C)



Cold Personified

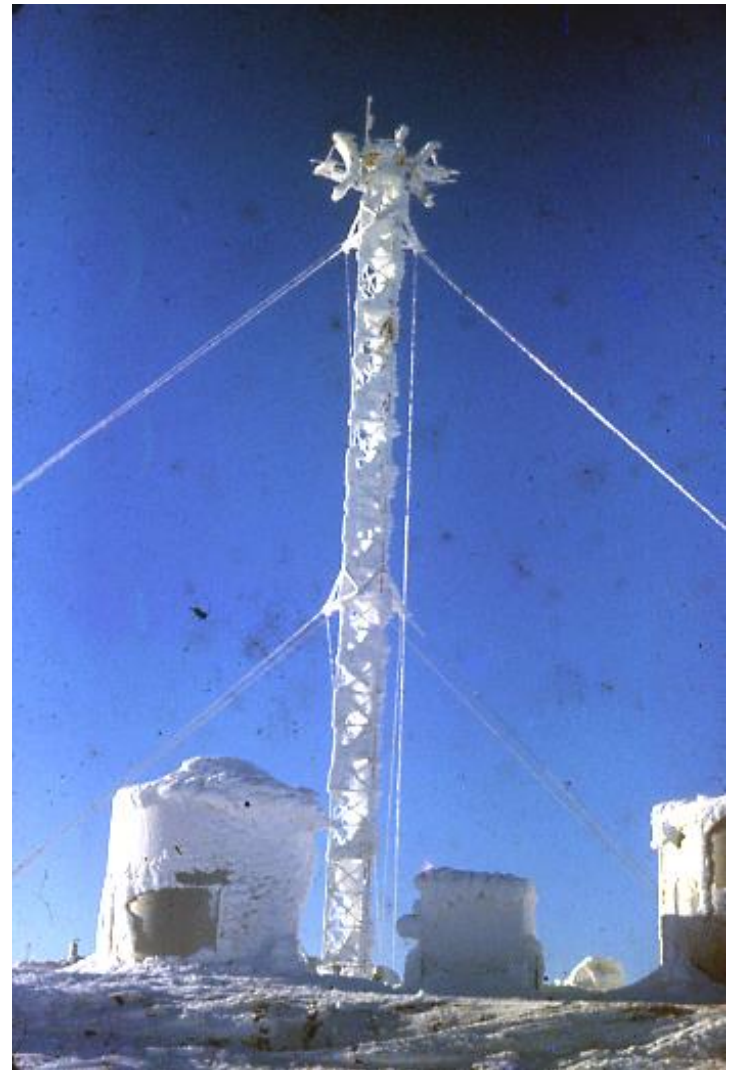
Typical frosty morning. Trucks were often left running 24 hours/day to avoid freezing up.



Typical winter view



Unending Cold

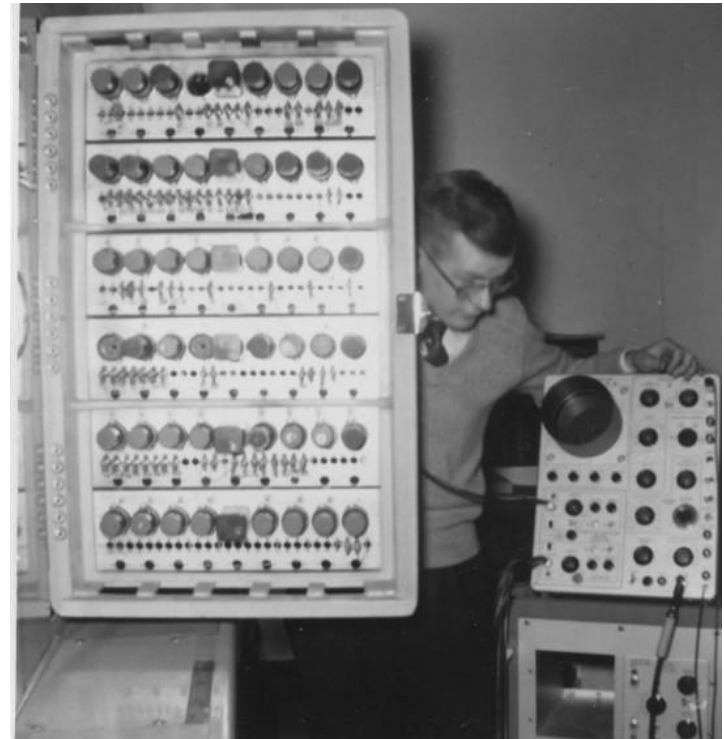
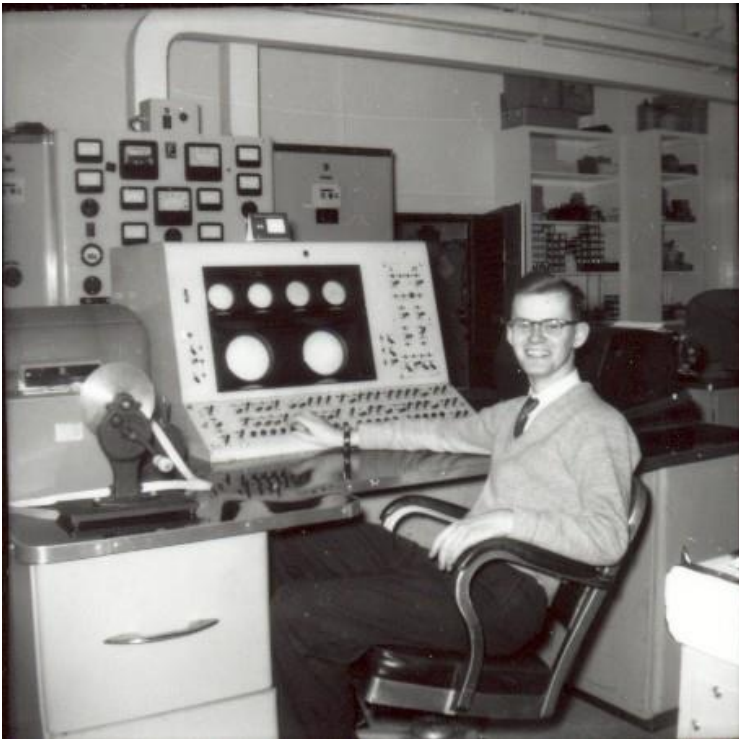


Why Do This?

\$\$\$

National Research Council...

- ❑ Canada's first commercial digital computer (FERUT)
- ❑ Earning \$2750/Annum (\$53/week)
- ❑ Living at home



Financial Incentive

Montreal Gazette
January 1960 issue

**ELECTRONIC
TECHNICIANS**

SALARIES
\$195 PER WEEK
PLUS ROOM
AND BOARD

After Short Training Period

Salaries Are Based On
54-Hour Week And Are
Subject To
Canadian Income Tax
(No Arrangement Can Be
Made for Family Relocation)

ASSIGNMENT IN DEW LINE
(DISTANT EARLY WARNING SYSTEM)

TO QUALIFY YOU MUST HAVE AT LEAST
A TECHNICAL SCHOOL DIPLOMA
WITH 2 YEARS' CURRENT
EXPERIENCE IN THE FOLLOWING FIELDS:

COMMUNICATIONS
UHF AND VHF
TRANSMITTERS AND RECEIVERS

**RADAR
NAVIGATIONAL AIDS**
TV-RADIO SERVICE
EXPERIENCE NOT ACCEPTABLE

Only Persons With The Above Experience
Need Apply

Canadian Or British Citizens
Pass A Technical Test
Be In Top Physical Condition,
Pass A Psychological Screening

Mail your complete resume to
FEDERAL ELECTRIC CORP.
SERVICE DIVISION OF
INTERNATIONAL TELEPHONE
AND TELEGRAPH CORPORATION
DEW LINE OFFICE, MONTREAL AIRPORT
MONTREAL, QUEBEC

\$195/week!

The adventure begins...

- Streator III for 12 weeks of training
- Non-descript town 90 miles south of Chicago
- Billeted at the Columbia Hotel, AKA *Tiltin Hilton*



In the Middle of a Cornfield...

- ❑ 12 miles outside town, hidden out of sight
- ❑ Was the secret training facility
- ❑ Decommissioned in 1982. Now a derelict



Northward bound...

- ❑ Issued with my Arctic gear in Montreal
- ❑ Departed Dorval July 28, 1960 for Hall Beach, NWT
- ❑ 12 hour, non-stop, flight in a DC-4, CF-IQM



CF-IQM Still Flies Today



Hall Beach NWT, FOX-Main...



- Had my 20th birthday.



Lateral Flights

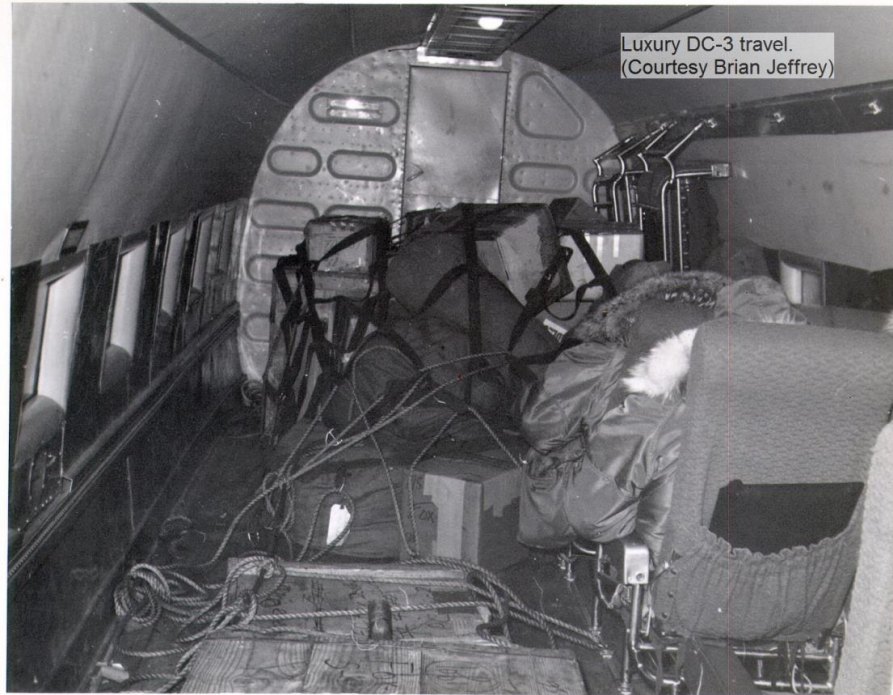


Douglas DC-3



Curtis Wright C-46

Luxury Arctic Air Travel...



1st Home: Pelly Bay...



- ❑ Code name: **CAM-4**
- ❑ 2 Hours west of Hall Beach (FOX Main)

My new “Family”



Story Time

Saturday Night Hi-Jinks

AKA: Shaving your teeth.

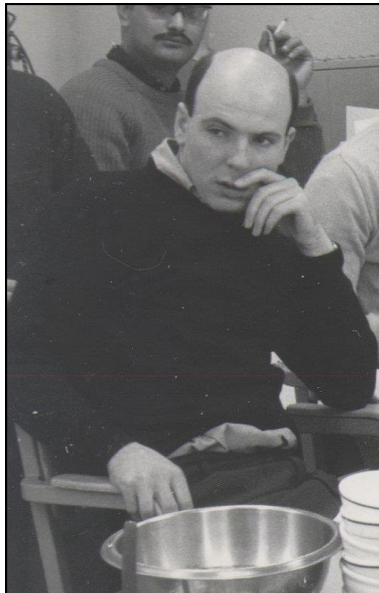
Starring:

- ▣ Brian Webb
- ▣ Brian Jeffrey

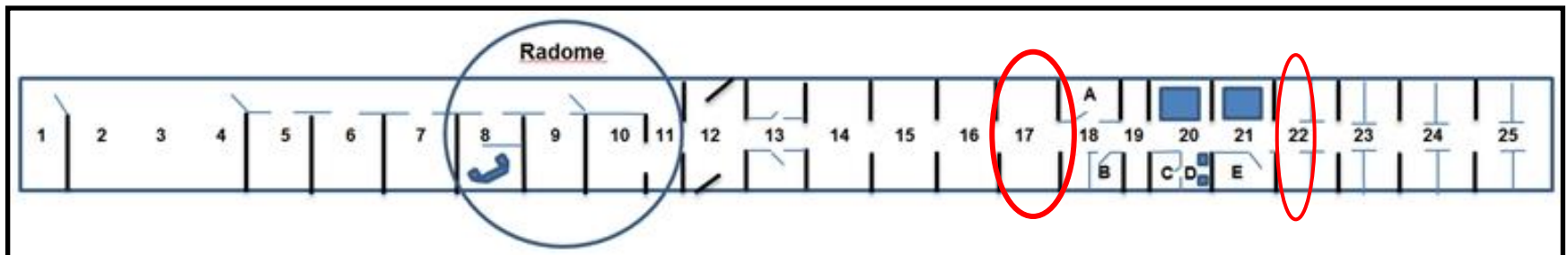
The Scene:

- ▣ Saturday night and Sunday morning/evening

Brian Webb (sober)



Brian Jeffrey (also sober)



Console

Recreation
Module (17)

Bedrooms

Story Time

Missed Bogie (Target)...

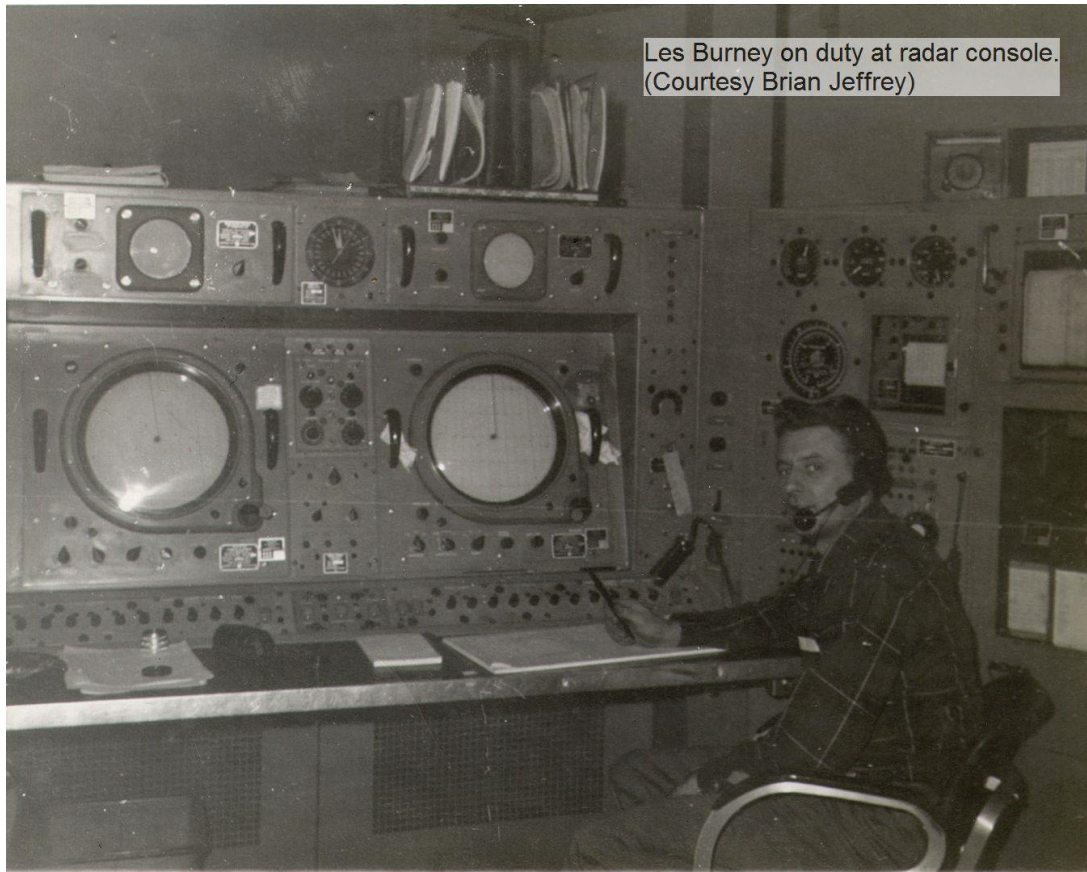
- Starring:

- Tom Billowich
- Brian Jeffrey

- The Scene:

- 4:15 - 4:30 AM
- The PA system came alive & all hell broke loose

No alarm in the Radar Room



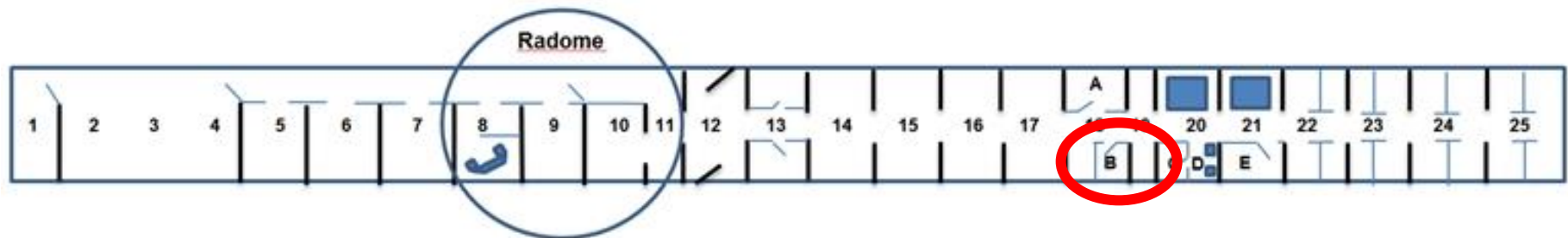
Story Time

- CQ **S**anta **K**lause...
- Starring:
 - ▣ Brian Jeffrey - VE8SK
 - ▣ A load of happy children
- The Scene:
 - ▣ December 1960
 - ▣ In CAM-4's Emergency Radio Room



Emergency Radio Room

- Located away from the Electronic Modules
 - ▣ Collins 431-B1, one kilowatt transmitter
 - ▣ Collins 51J4 receiver
 - ▣ 3-Element beam



Ham Radio Equipment



VE8SK became
VE8 **S**anta **K**laus

Phone Patches

Escape from the North...

- Waited 12 months
- Had gained 30 pounds
- Bought some “going home” clothes
 - ▣ 3-piece suit for \$29.95 from Sears (mail order)
- Somewhat “bushy”
- Don’t use the “**F**” word with your Mother!
- Returning North via Winnipeg

10 Hour flight... 9 Hours of Hell

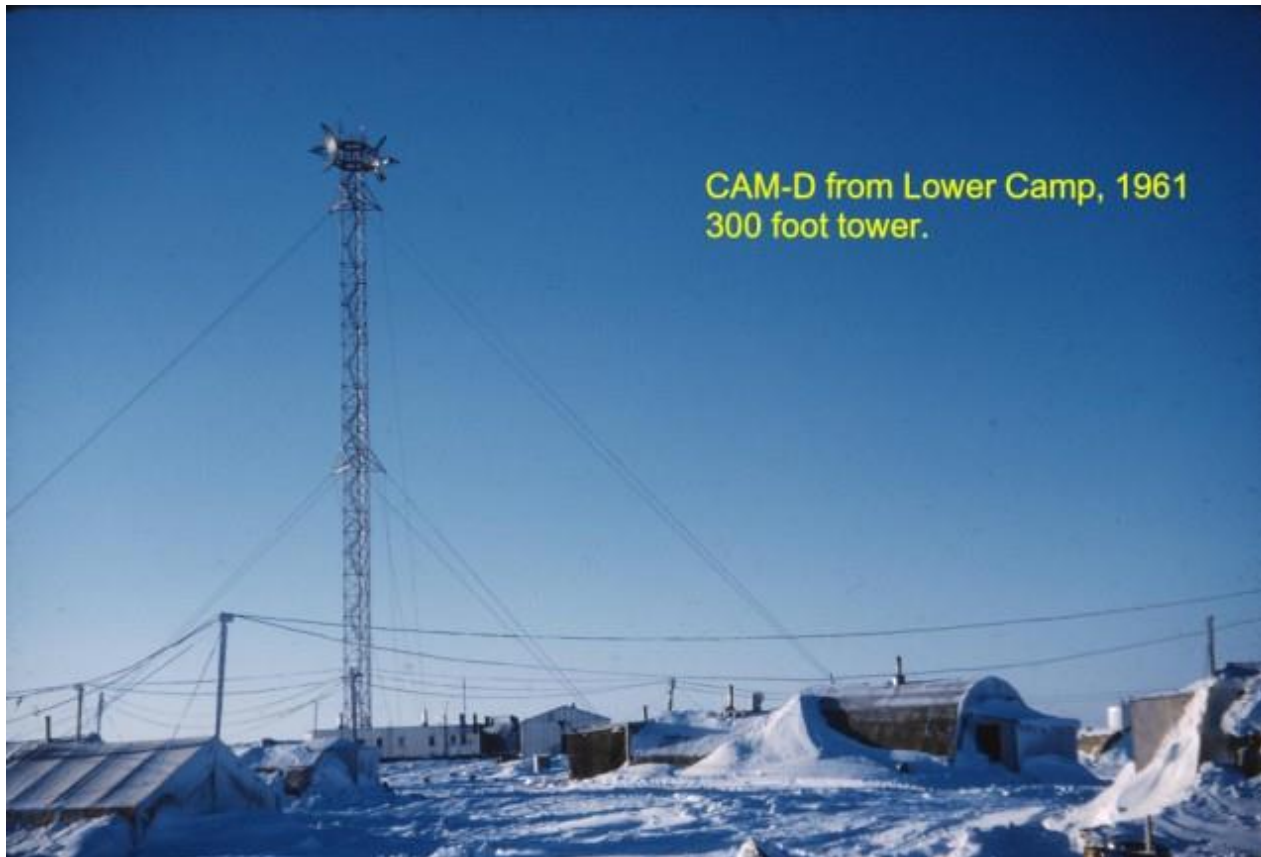


1st Class Travel



New Assignment

- ❑ Bribe into going to an Intermediate Site (I-Site)
- ❑ Off I went to Simpson Lake, CAM-D



Working Around the Clock...

- Springtime is airlift time (POL supplies)
- Flights operated 24 hours a day for weeks



Happy Landings (Not!)...

(Courtesy Brian Jeffrey)



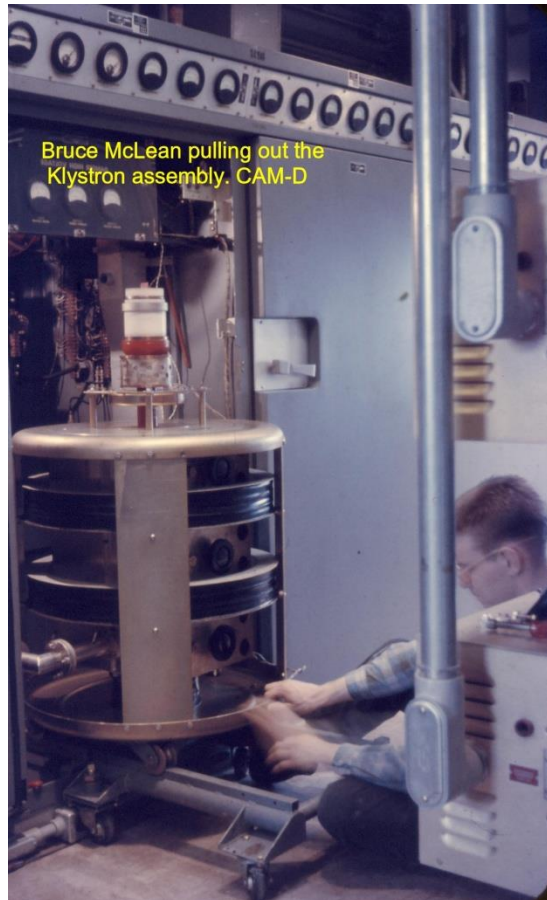
Brian Simon with original "Snowmobile"
(Courtesy Brian Jeffrey)



Pulling an airlift plane back onto
the strip at CAM-D
(Courtesy Brian Jeffrey)



Replacing a Klystron



Story Time

Moving the Radio Beacon

CAM-D ADF beacon hut, 1961



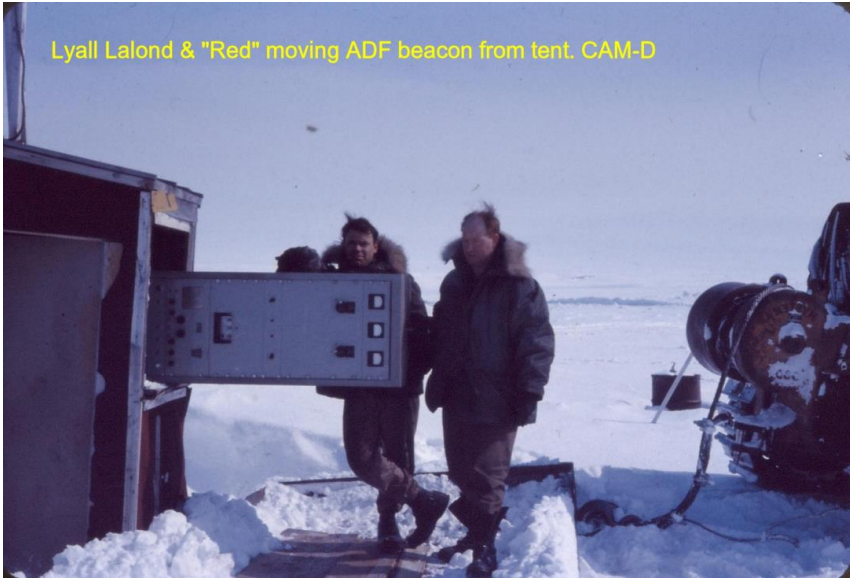
Lights on since 1957



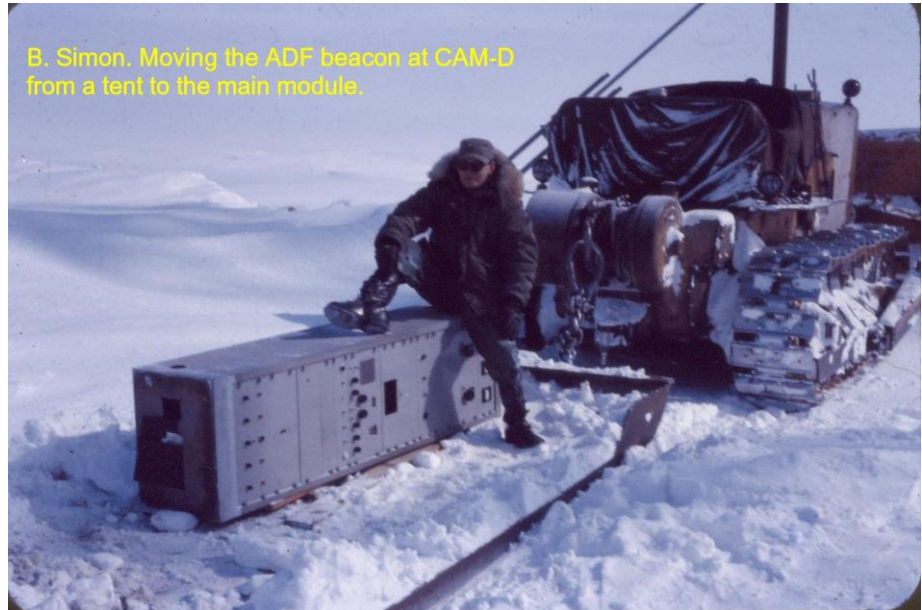
Old abandoned lower camp kitchen at CAM-D, 1961

Moving the beacon

Lyall Lalond & "Red" moving ADF beacon from tent. CAM-D



B. Simon. Moving the ADF beacon at CAM-D from a tent to the main module.



Installing the beacon



One of Life's Lessons

Fill your pockets!!!



Story Time

Doctor Brian...

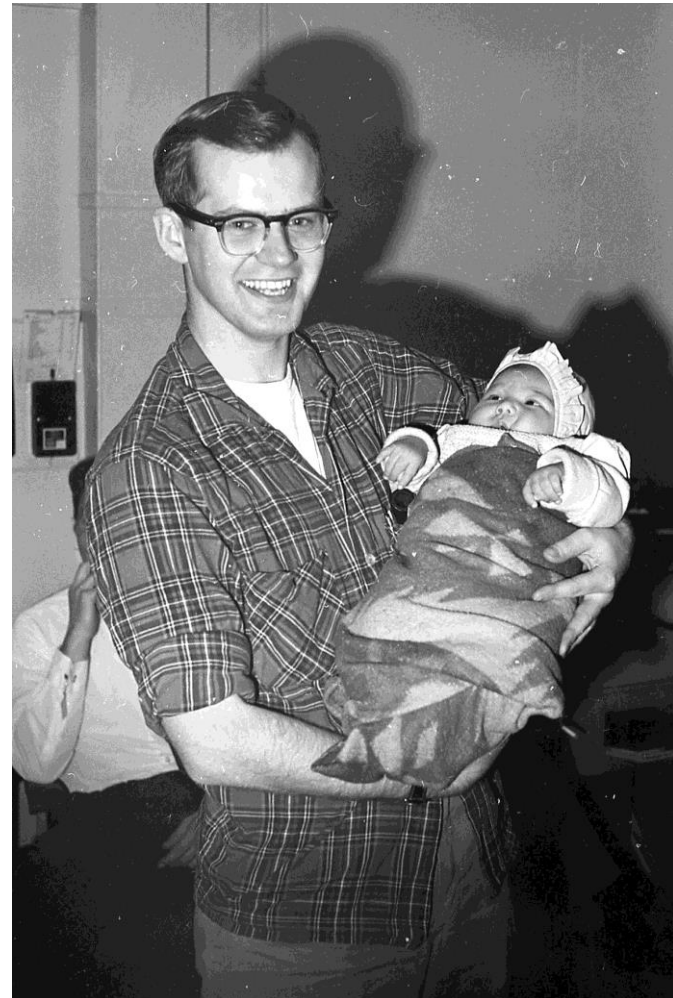
□ Starring:

- ▣ A very pregnant Eskimo woman
- ▣ Brian Jeffrey
- ▣ A Saint John's Ambulance first aid book
- ▣ A remotely located medical doctor at FOX-Main

□ The Scene:

- ▣ Middle of nowhere with a moaning pregnant lady
- ▣ Tense radio traffic
- ▣ Lots of shouting (by me)

New Arrival



Meet Emily Nakoolak

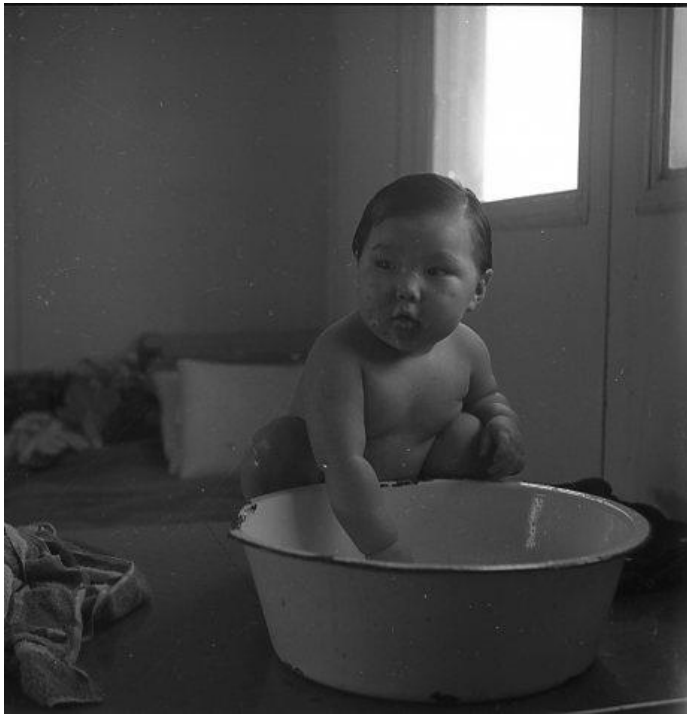


MAY

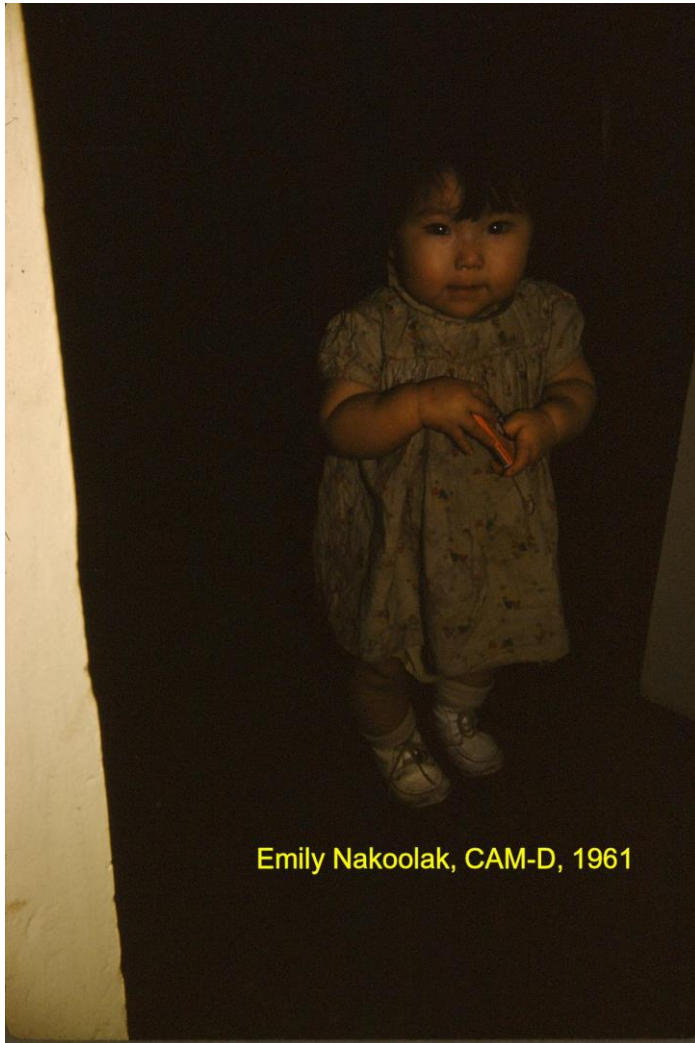


Story Time

Doctor Brian, part two...



A Sad Ending



Emily Nakoolak, CAM-D, 1961

Emily died in the late 60's

Time to Move Along Again...

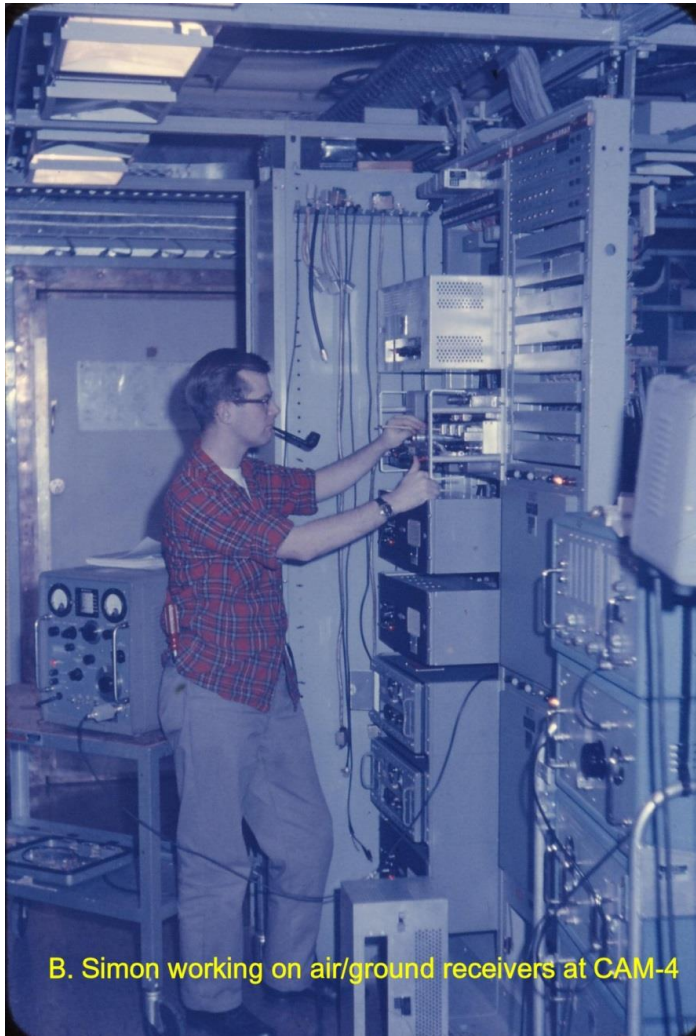
- Another trip South
- Offended my Mother... again
- Great 6-week R & R (Rest & Recreation)
- Returned to the Line and got my wish
- Became a member of the Sector Crew
- Air/Ground equipment
 - Collins 242F3, AN/GRT-3, AN/FRT-3 LF beacon,
 - I-Site communications system – GE VO-38 VHF

Story Time

God's Will...

- Starring:
 - ▣ An inspector from FEC head office (Paramus NJ)
 - ▣ Brian Jeffrey
- The Scene:
 - ▣ Receiver room at Rowley Island (FOX-1)

Air/Ground Equipment



B. Simon working on air/ground receivers at CAM-4



Radician Brian Simon working on
air/ground transmitters, 1961

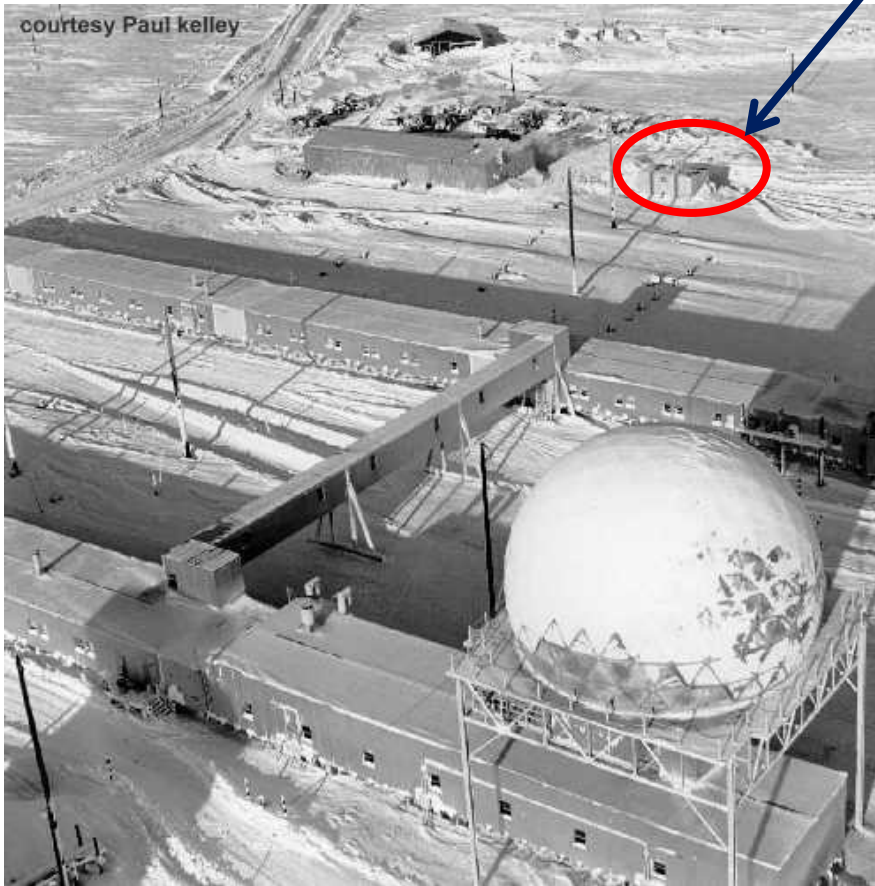
Story Time

The BOPSR Club...

- Starring:
 - ▣ Brian Jeffrey
 - ▣ Newbies Radicians
- The Scene:
 - ▣ BJ in transit with too much time on my hands
 - ▣ Too much booze (supplied by the Newbies)
 - ▣ Small bladder + cold urinal (-40 F & C)

Home away from home

BOPSR Club



“Home” for the Sector Crew
& transient sleeping quarters.

Story Time

The Great Polar Bear Hunt...

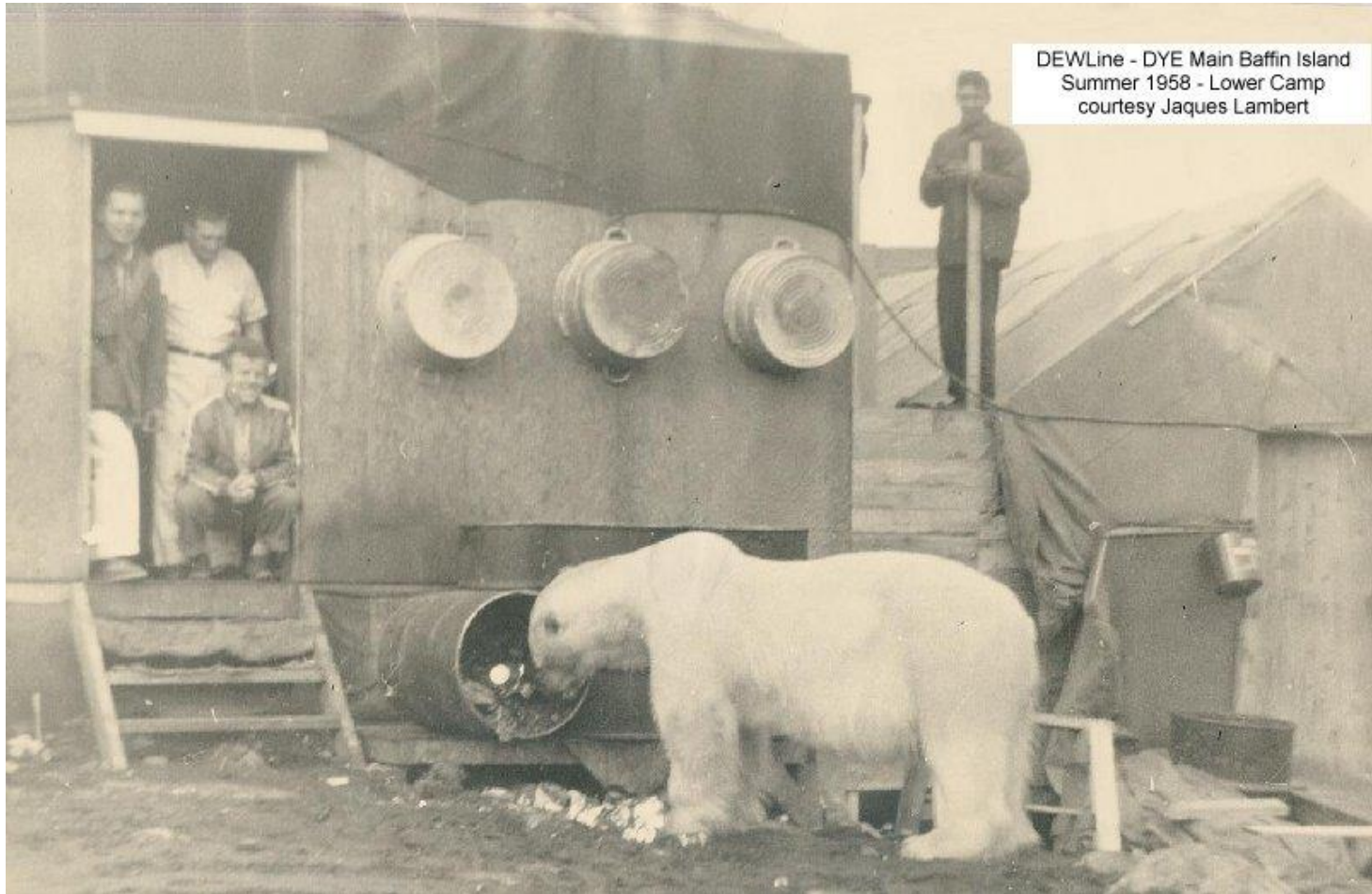
□ Starring:

- ▣ A polar bear
- ▣ An Eskimo hunter
- ▣ Various pretend hunters

□ The Scene:

- ▣ Late summer at Rowley Island (FOX-1)
- ▣ A polar bear is sighted close to the module train

A very dangerous situation



Dropping in for lunch



Too close for comfort



Polar bear near FOX-1, 1961

Great White Hunter!!



Eskimo going in for the final kill using
a single shot .22 rifle. FOX-1 1961



Great white hunter!

Foxes, Foxes Everywhere...

Arctic fox, FOX-1, 1961



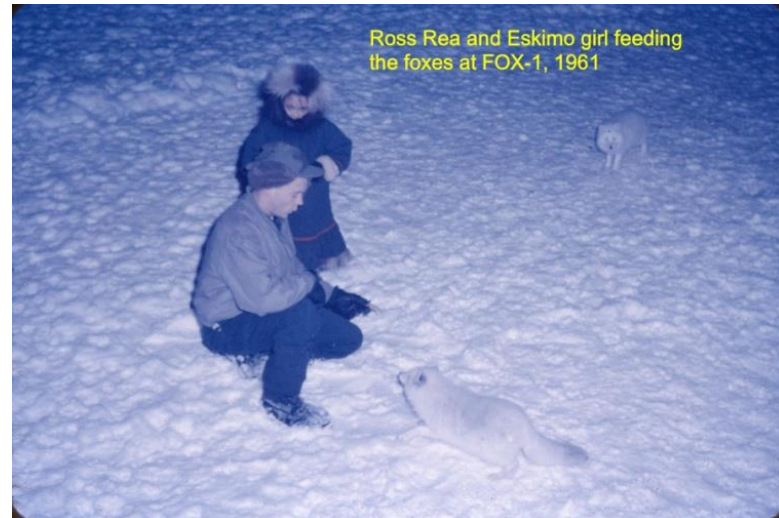
Arctic fox, FOX-1, 1961



Arctic Fox-2
(Courtesy Brian Jeffrey)



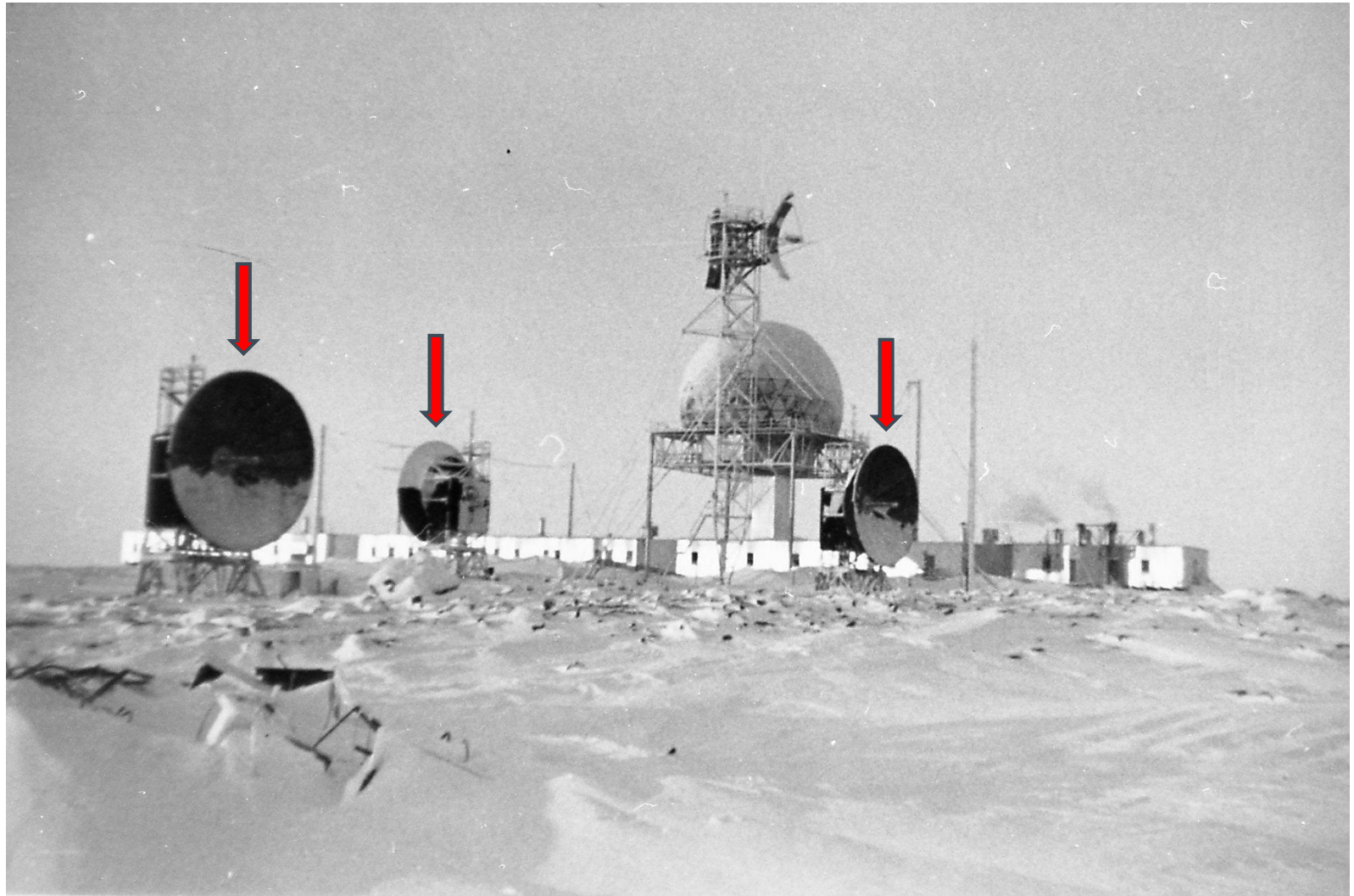
Ross Rea and Eskimo girl feeding
the foxes at FOX-1, 1961



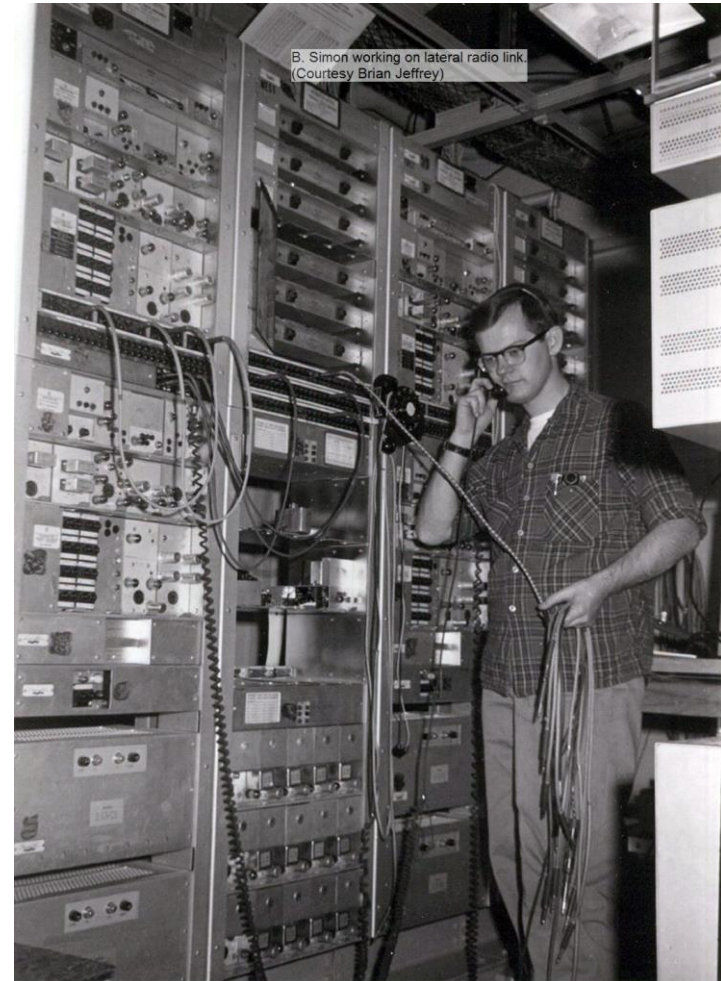
One Last Contract...

- Returned from my last R&R leave
- Wanted off the Sector Crew
- Became the “Lateral Radician” at Fox Main
- AN/FRC-45 tropo scatter system
 - ▣ 24 channel Lenkurt multiplex equipment
 - ▣ Required monthly alignment
 - ▣ Orchestrated from the Main Station

Lateral Antennas



Monthly Chores



“Failsafe” Device...

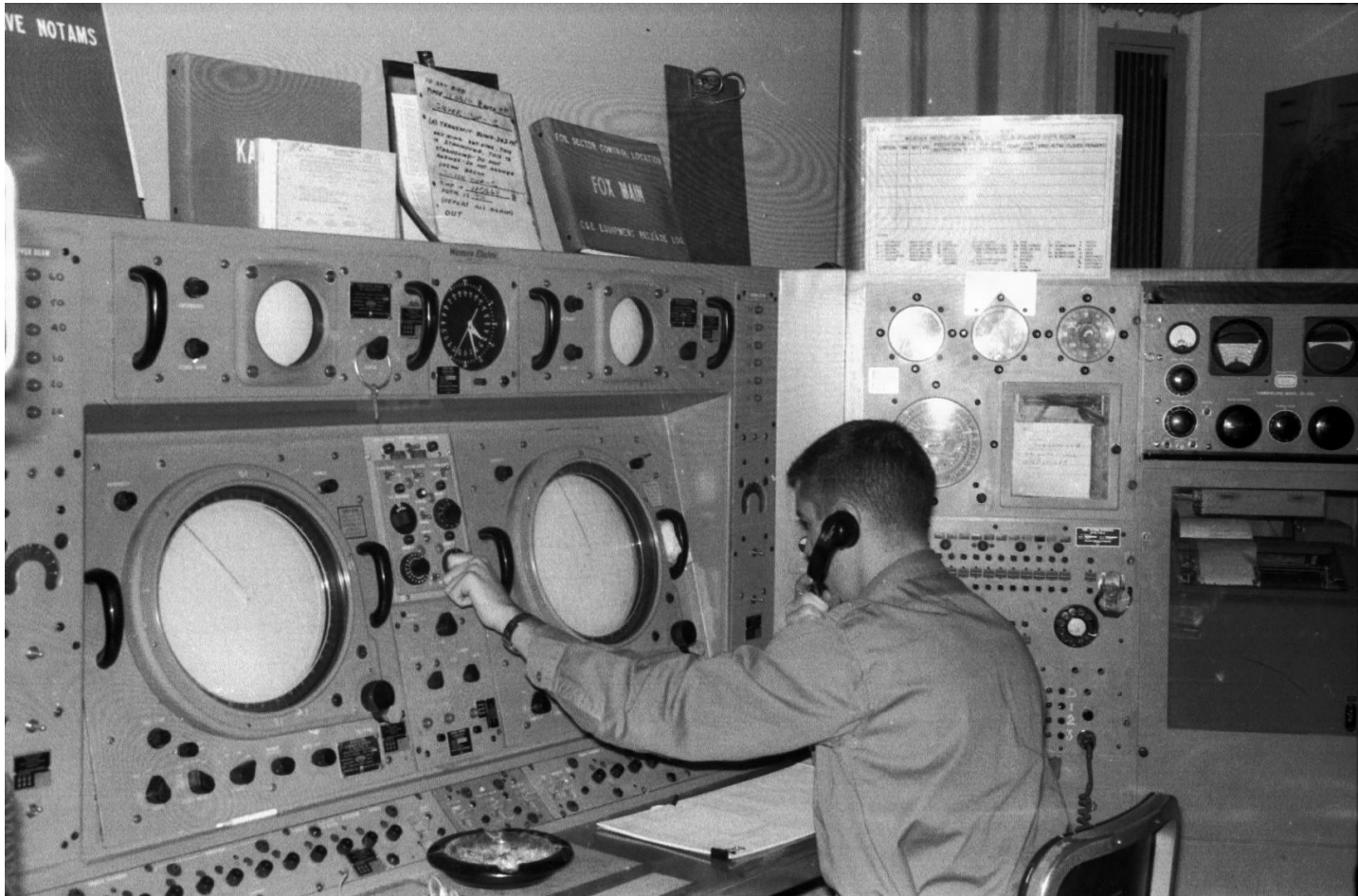
- Movie **Failsafe** starring Henry Fonda
 - ▣ Device in a SAC bomber goes bad
- No such device!
 - ▣ There was **Us!**
 - ▣ Transmitting the “Go – No go” message
- Emergency Action Message (EAM)
- Listen on 11.175 MHz for...
 - ▣ “*Sky King, Sky King...*”

EAM Format...

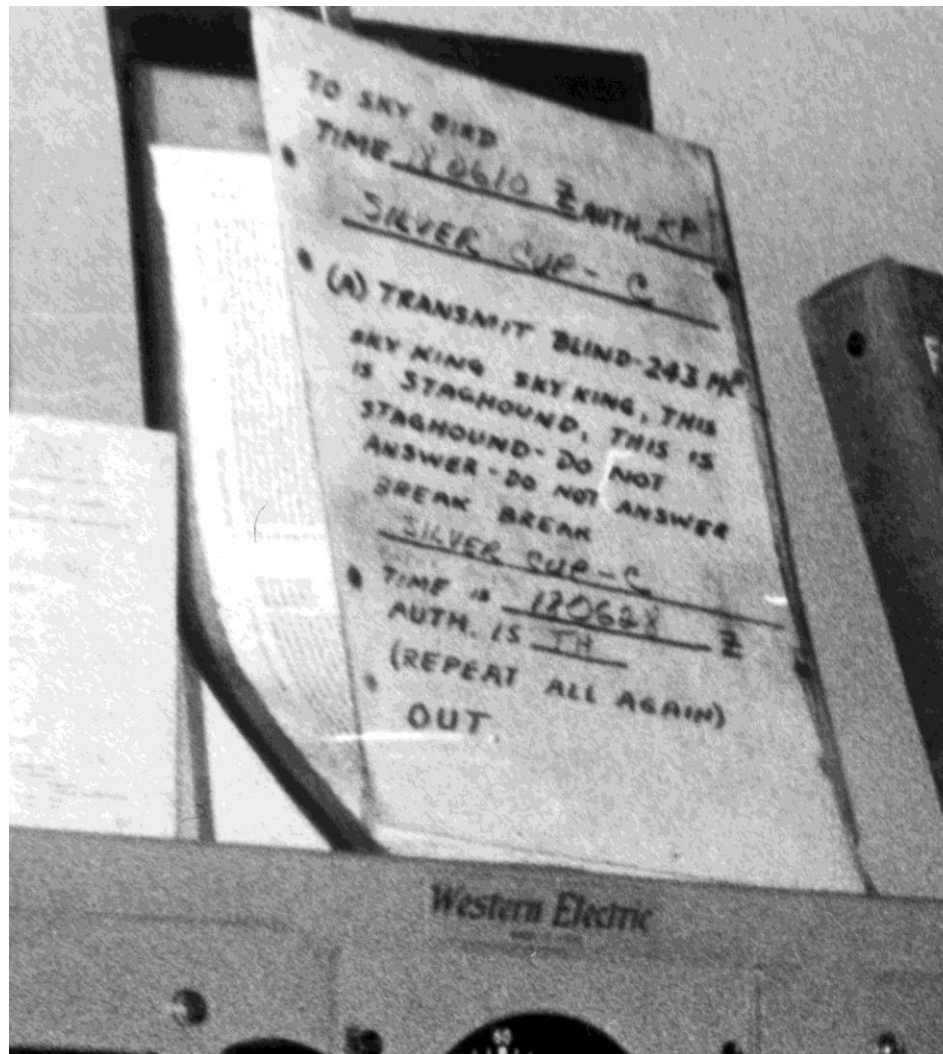
- Two letter message (go/no-go code)
- Time (GMT)
- Two letter authenticator (tied to the time)
- Usually transmitted blind

“Skyking, Skyking, this is Staghound Radio. Do not answer. Do not answer. Charlie November. Time 1724Z. Authentication, Oscar Papa. Staghound out.”

The “Go” – “No go” Message

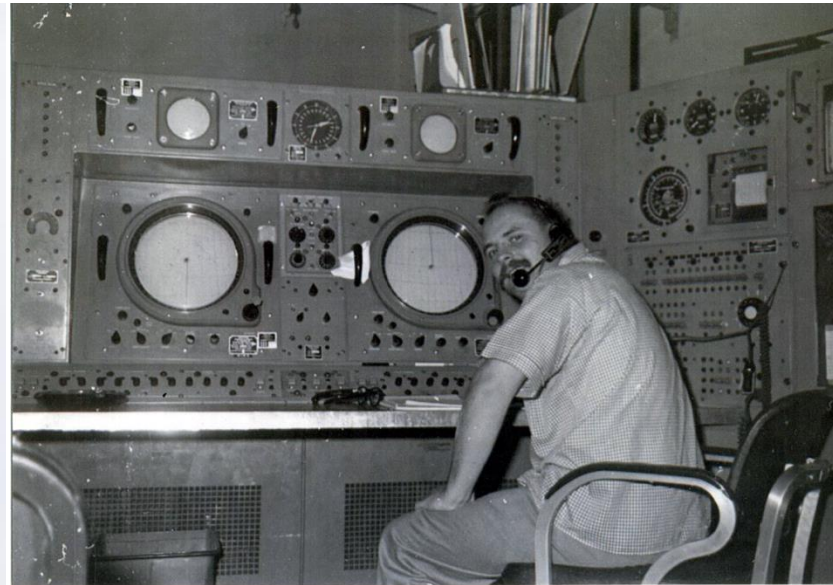


“Sky King, Sky King...”



Talking to SAC B-52's...

- ❑ Used tactical call signs
- ❑ *"Hall Beach Radio"* to commercial flights
- ❑ Became *"Staghound Radio"* to SAC



Cuban Missile Crisis

- Oct 22/62: Defcon 5 upgraded to Defcon 3
 - ▣ B-52 bombers increased from 12 to 66
- Oct 24/62: Defcon 3 becomes Defcon 2
 - ▣ An additional 130 ICBM's are readied
 - ▣ SAC-alerted nuclear weapons now at 2952
- Oct 26/62: Still at Defcon 2
 - ▣ Missiles are programmed with Soviet targets
 - ▣ Minuteman missiles are readied for firing
 - ▣ Some B-52 fly past their turn-around points
 - ▣ Gen Lemay is pushing Pres Kennedy to bomb Cuba

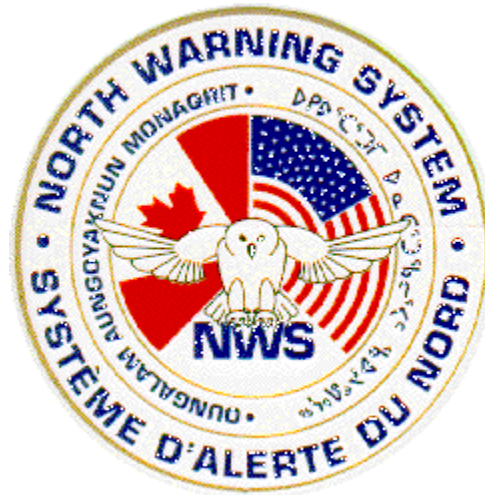
Cuban Missile Crisis



We were not sure there would
be a South left to go back to!

From Manned to Unmanned

- ❑ DEWLine ceased operations in July 1993 and migrated to the North Warning System (NWS).
- ❑ Manned DEWLine sites were converted to unmanned sites with upgraded capabilities.



The “New”

Typical Long-Range Radar (LRR) site.



The “New”

Typical Short Range Radar (SRR) site.



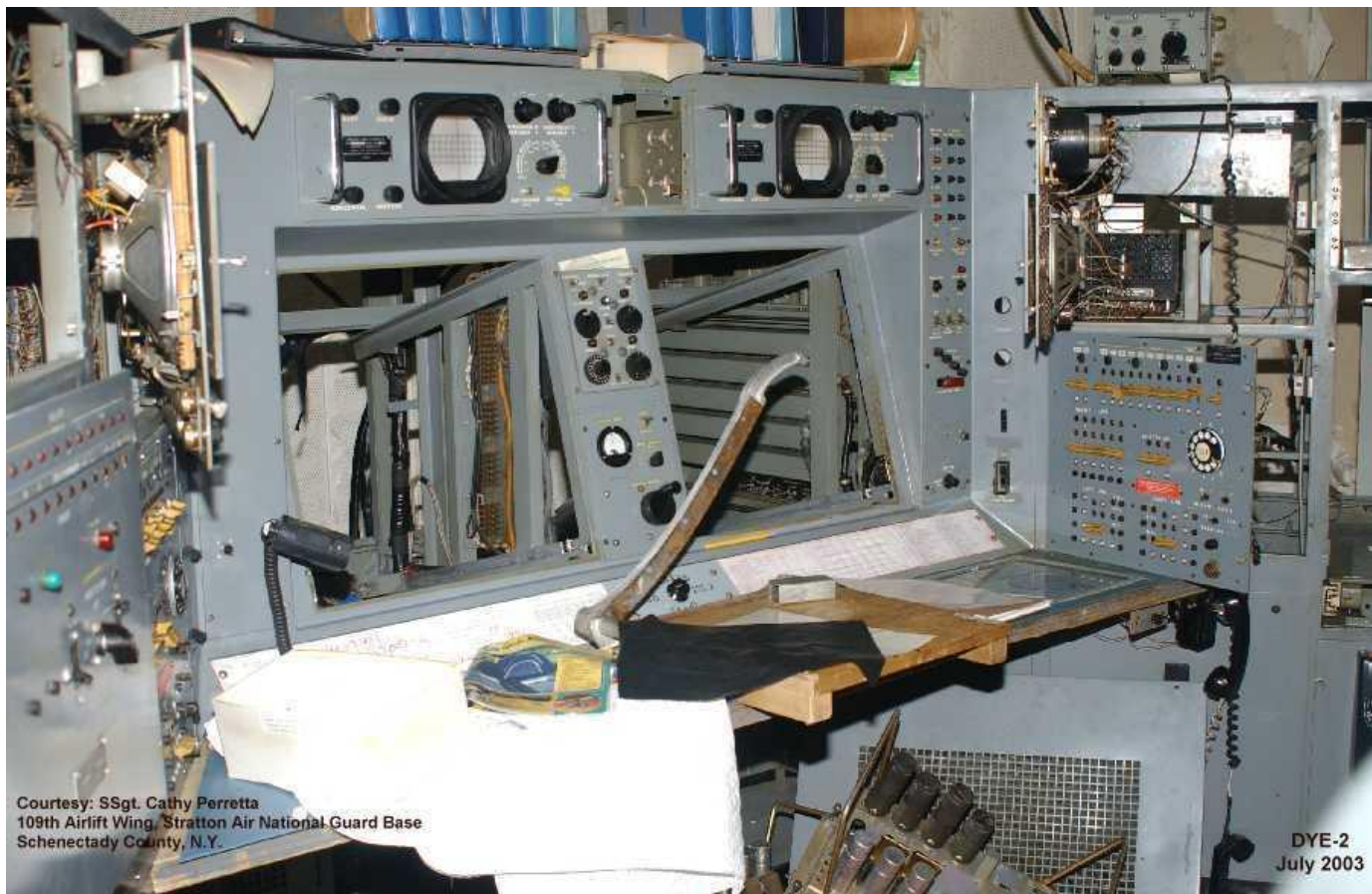
The “Old”

They just walked away and left everything behind.



The “Old”

They destroyed classified equipment.



Courtesy: SSgt. Cathy Perretta
109th Airlift Wing, Stratton Air National Guard Base
Schenectady County, N.Y.

DYE-2
July 2003

The DEWLine legacy

DEWLine Doo-Doo (36 years of garbage)!



DEWLine Clean-up

CAM-4 was one of the first sites to be cleaned up.



DEWLine Clean-up

From the mid 1950's until the early 1990's the CAM4-PELLEY BAY military radar station was located at this site. It was one in a series of military radar stations called the Distance Early Warning Line. Known as the DEW Line, it stretched across Alaska, Yukon Territory, Northwest Territories and Nunavut at this latitude. The North Warning System replaced the DEW Line in the early 1990's.

- ❑ Completed in 2014
- ❑ At a cost of \$575,000,000
- ❑ More than it cost to build
- ❑ Many Inuit were employed to work on the clean-up

Reclamation Plaque

Last Trip ...

- ❑ Left the Line for the last time in March 1963
- ❑ Had spent 36 months in the Arctic
- ❑ Got married
- ❑ Returned to school (U of O) (1964)
- ❑ Joined Instronics Ltd & met Ralph Cameron
- ❑ I lied... it wasn't my last trip!

Return to Hall Beach

- I returned, July 2nd-4th, 2012.
- 52 years after I first arrived at Hall Beach
- Incredible journey down memory lane

Return to Hall Beach



A Changed World

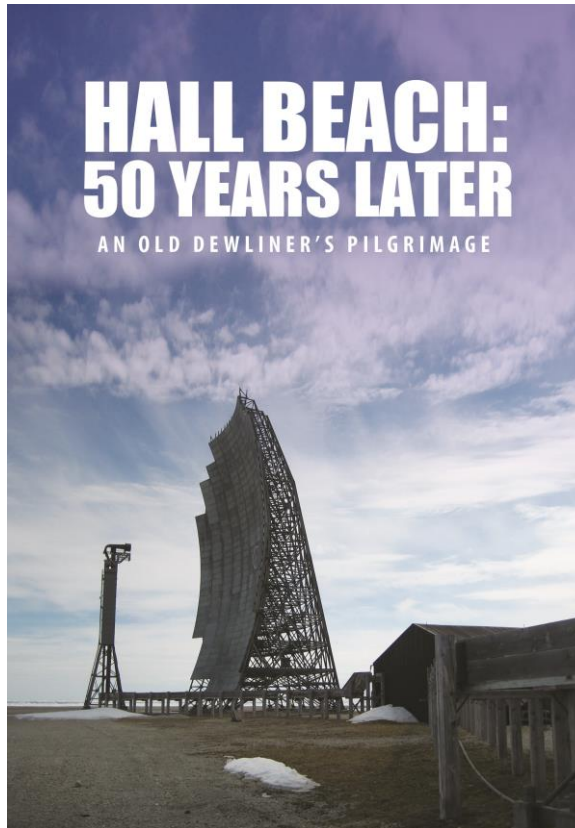
- All but abandoned facilities
- 15-20 personal, not 50-70
- No isolation
- Multi-channel TV in every room
- Telephone access versus radio phone patches
- 2 flights a day versus 1 flight a week (maybe)
- 6-week versus 6 to 9-month rotation
- 3 Technicians versus 42 Radicians/sector

Historic Landmarks



See the movie!

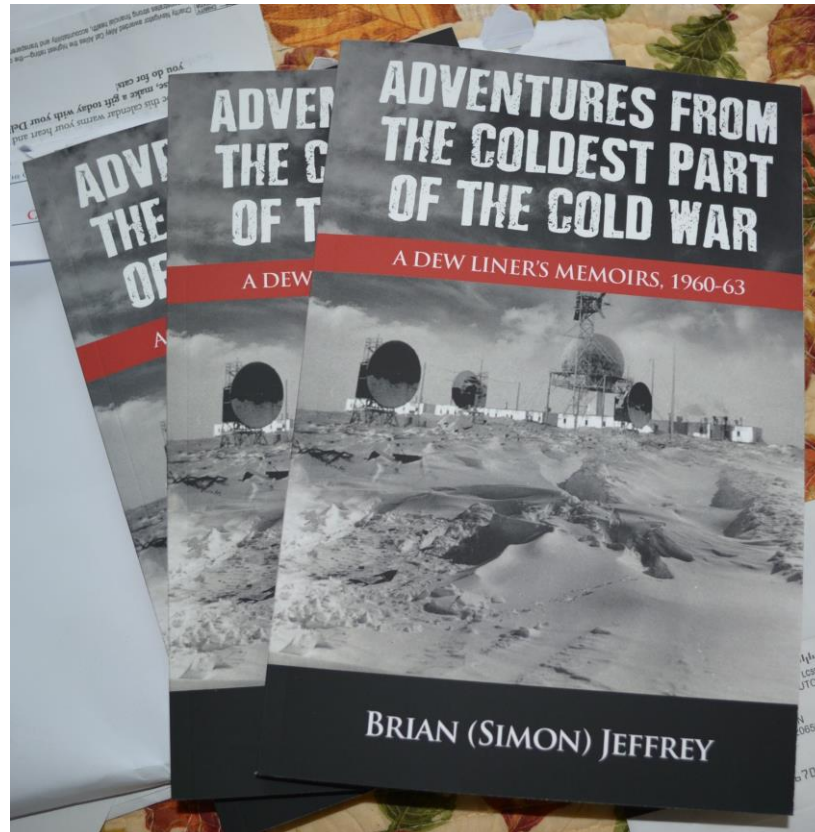
On YouTube with over 45,000 views!



For more stories, visit www.DEWLine.ca

Or Buy the Book!

- Get your autographed copy for a \$15 donation to the Brian Jeffrey retirement fund. 😊



For those of you still awake...

Thanks for allowing me to share these memories.

What questions might you have?



CAM-D Motley Crew...



Idle Hands (& Minds) at Work...

- Starring:
 - ▣ Don Kerr, Radician
 - ▣ Brian Jeffrey (star of stage & screen!)
 - ▣ Helicopter CF-HNG
- The Scene:
 - ▣ Two bored Radicians
 - ▣ Early summer morning
 - ▣ Bad combination

HNG lifting off from FOX-C



B. Jeffrey (on top of console) and
Doug Kerr at radar console.
(Courtesy Brian Jeffrey)





Don Kerr (left) & Brian Simon, FOX-3, 1962.

The Ghost at the Airfield...

- Starring:

- Brian Jeffrey
- Console Radician
- **“It”**

- The Scene:

- Summer time, 3-4 AM
- Off-hook condition in the 740 PBX telephone switch



Brian Simon filling up at local gas station, CAM-D.
(Courtesy Brian Jeffrey)



Brian Simon driving 4x4 at CAM-D.
(Courtesy Brian Jeffrey)

