

Air Force Technical Applications Center



RTG Transport Project



On behalf of:
Colonel Jennifer P. Sovada
Commander

OVERVIEW

AFTAC History

RTG Background

Transport Plan

RTG Extraction





“The Army Air Force is hereby charged with the overall responsibility to detect atomic explosions anywhere in the world.”

**--General Dwight D. Eisenhower
September, 1947**

Nuclear Explosion Detection

Atmosphere and Space



GPS Satellites

Nuclear Materials



Airborne

Geophysical



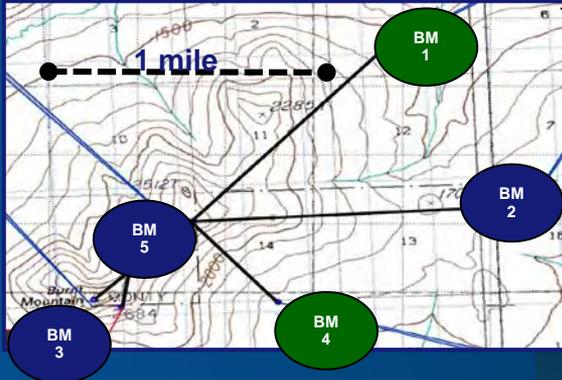
Seismic & Hydroacoustic



Laboratories

RTG Background

AFTAC maintains a seismic observatory at Burnt Mountain, Alaska used to verify international compliance with nuclear weapons testing treaties. The data collection and communications equipment were initially powered by 10 RTGs.



Five seismic sites – 2 RTGs per site



Forest Fires and growing power needs necessitated a replacement power source

RTG Transport Plan

Burnt Mountain Alaska

2 RTGs per CH-47

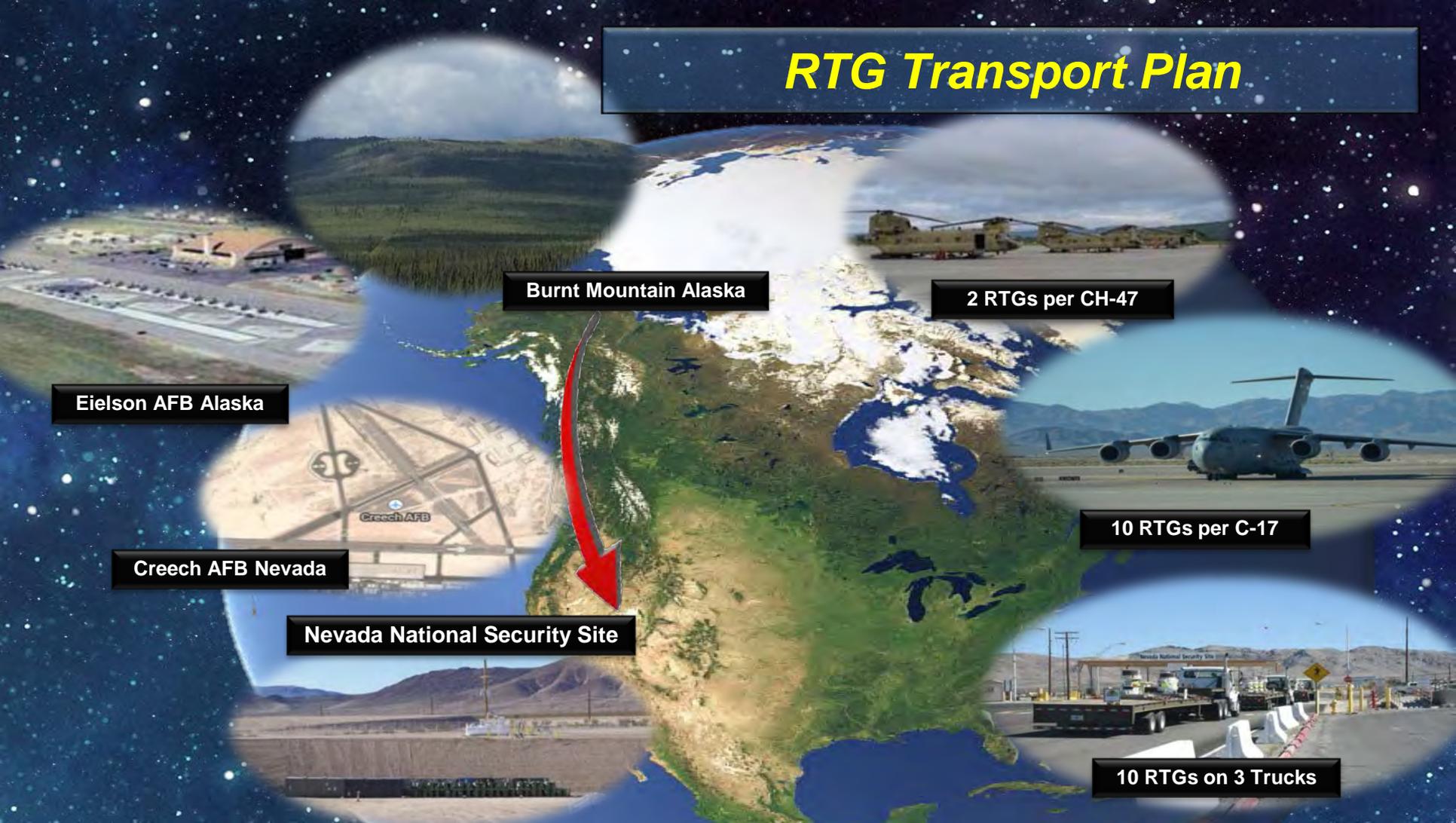
Eielson AFB Alaska

10 RTGs per C-17

Creech AFB Nevada

Nevada National Security Site

10 RTGs on 3 Trucks



RTG Transport Milestones

Documentation

Programming Plan

Certificates of Compliance

Certificate of Exemption

Environmental Assessment

Transportation Plan

Decommissioning Plan

Approvals/Requests

AF Base Support

Army CH-47

SAAM

Ground Transport

AF RIC Notification

NRC Notification

BMAR Extraction

14 July 2015 – Site 3
RTG001 & RTG014 successfully extracted from BMAR



BMAR Extraction

14 July 2015 – Site 3

Weather delay diversion to Fort Yukon Long Range Radar Site



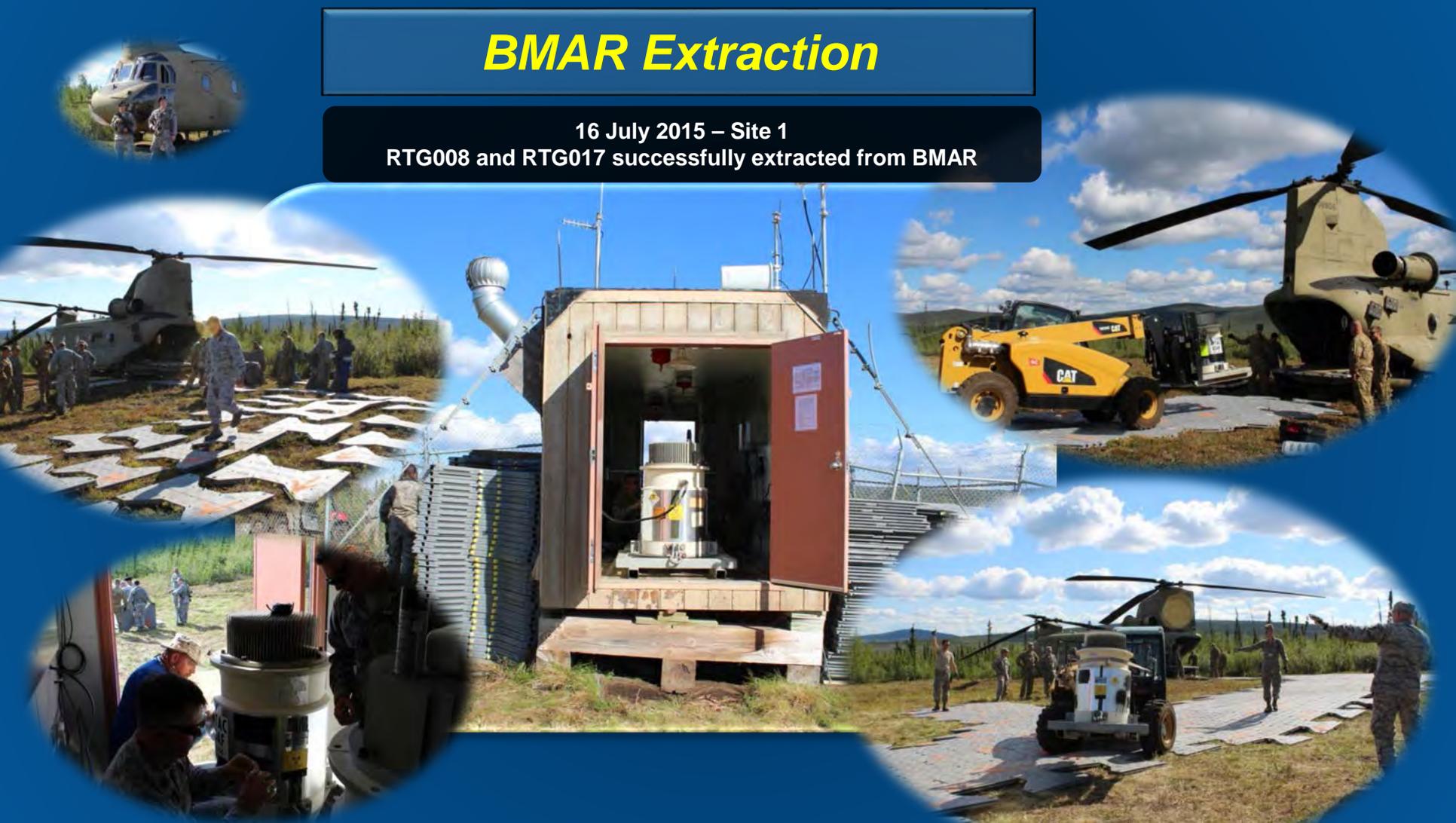
BMAR Extraction

15 & 20 July 2015
Weather Delays



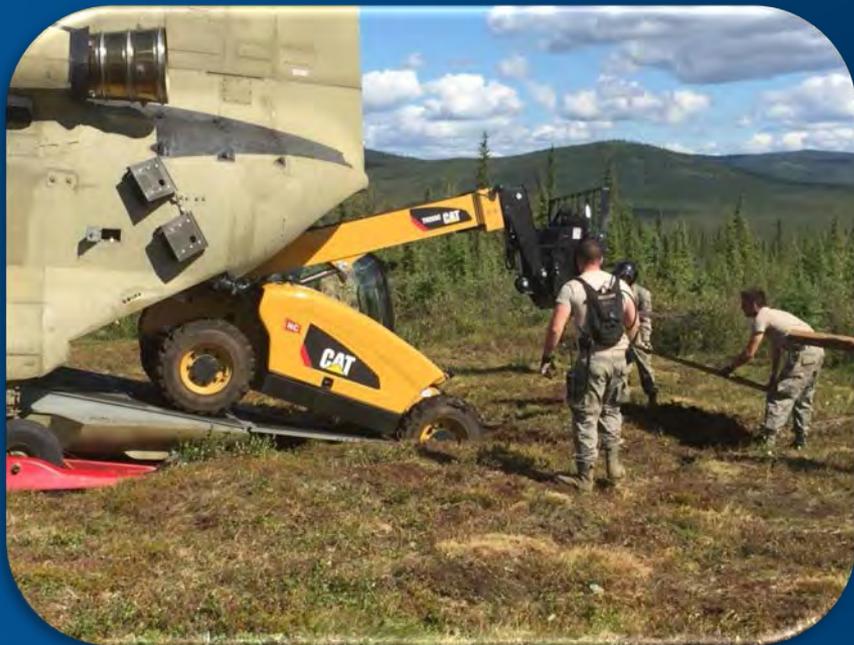
BMAR Extraction

16 July 2015 – Site 1
RTG008 and RTG017 successfully extracted from BMAR



BMAR Extraction

16 July 2015
Forklift Bog



BMAR Extraction

17 July 2015 – Site 2
Medical Emergency



BMAR Extraction

18 July 2015 – Site 2
RTG009 & RTG020 successfully extracted from BMAR
Weather – Fairbanks flyover



BMAR Extraction

21 July 2015 – Site 4
RTG010 & RTG018 successfully extracted from BMAR



BMAR Extraction

22 July 2015 – Site 5
RTG040 & RTG019 successfully extracted from BMAR



RTG Facility Decommissioning

Each RTG storage facility was decommissioned following guidance in accordance with NUREG 1757, *Consolidated Decommissioning Guidance, Vol. 1, Rev. 2*



15 direct static Measurements and an equal number of removable surface measurements were collected.



Each facility consists of 141 square meters of floor surface. Scanning surveys were conducted over 100% of the floor surface

Eielson AFB Storage

RTG were stored in the CAC Building from 14-23 July 2015.
Prior to storage of RTGs and after removal of all RTGs surveys
and swipes were conducted.



RTG Transport to C-17

On 23 July 2015 RTGs were loaded onto 3 K-Loaders at CAC Facility then transported to C-17



C-17 Transport

10 RTGs loaded onto a C-17 for transport to Creech AFB Nevada on 24 July 2015



RTG Transport to Creech Storage

C-17 arrived at Creech AFB 24 July 2015 and transported to Building 120



Creech AFB Storage

10 RTGs were stored at Creech AFB from 24-28 July 2015.
RTGs were loaded onto tractor trailers 27 July 2015.



RTG Transport to NNSS

RTGs were transported to NNSS (Area 5) on 28 July 2015 where the USAF handed possession over to DOE at 0945 hours.



NNSS Disposal of RTGs

RTGs were disposed of at NNSS (Area 5) on 28 July 2015. The first RTG was placed in the trench at 1145 hours; the last at 1520 hours.



Successful RTG Removal from Burnt Mountain



Burnt Mountain Alaska



Operational Highlights

Helo flights covered **6000+ miles**
10 RTGs moved, 2 per successful trip
Spanned 11 days
40+ people on Transport Team



Nevada National Security Site



Collaboration

2 States
4 Government Agencies; 30 Org
100+ People
15+ Yrs planning/coordination



Questions?

