ARCTIC RISK MANAGEMENT NETWORK

ARMNET TEAM:

HINA KILIONI, DISASTER COORDINATOR, AND FREDERICK BROWER, RISK MANAGER
(NORTH SLOPE BOROUGH RISK MANAGEMENT)

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ANTHROPOLOGY/HISTORICAL ECOLOGY

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OCEANOGRAPHY
(APPLIED RESEARCH IN ENVIRONMENTAL SCIENCES NONPROFIT, INC. WWW.ARIESNONPROFIT.COM)

LIANE BENOIT, M.P.A., F.R.C.G.S
SAR/EM POLICY RESEARCHER
(BENOIT & ASSOCIATES)

Barrow AK 8.4.2015
ARCTIC RISK MANAGEMENT NETWORK (ARMNET)

Barrow, AK 8.27.2015 (Sea Ice Webcam, http://seaice.alaska.edu/gi/observatories/barrow_webcam)
ARMNET GOALS

**WHO:** RISK MANAGEMENT PRACTITIONERS AND RESEARCHERS LINKED ACROSS THE ARCTIC REGIONS OF CANADA AND ALASKA

**WHY:** TO IMPROVE RISK, EMERGENCY AND DISASTER PREPAREDNESS AND MITIGATION THROUGH COMPARATIVE ANALYSIS AND APPLIED RESEARCH

COASTAL OBSERVERS OF BARROW
COMMUNITY BASED MONITORING

**CURRENT PARTNERS:** NORTH SLOPE BOROUGH (NSB) RISK MANAGEMENT, APPLIED RESEARCH IN ENVIRONMENTAL SCIENCES NONPROFIT, INC. (ARIES), CANADIAN RISK AND HAZARDS NETWORK (CRHNET), BENOIT & ASSOCIATES

**CURRENT FUNDING SPONSORS:** US EMBASSY (OTTAWA), ARIES, NSB RISK MANAGEMENT, CRHNET, BENOIT & ASSOCIATES
NORTH SLOPE BOROUGH RISK MANAGEMENT

The Risk Management Office coordinates

- the NSB insurance retention levels and policy coverage.
- all claims management including general liability and workers compensation.
- implements assessment recommendations, employee safety training and quarterly property inspections.

Risk Management is also responsible for emergency management and disaster coordination within the NSB as required by municipal code 2.32.

http://www.north-slope.org/departments/administration-finance/risk-management
MISSION

ARIES IS A NON-PROFIT RESEARCH ASSOCIATION PROMOTING COLLABORATIVE RESEARCH, PUBLIC EDUCATION, AND PUBLIC OUTREACH DESIGNED TO ENHANCE CORPORATE AND COMMUNITY BASED DECISION MAKING.
CANADIAN RISK AND HAZARDS NETWORK

REDUCING RISK THROUGH PARTNERSHIPS

THE CRHNET IS A NOT-FOR-PROFIT ORGANIZATION ESTABLISHED IN 2003 TO PROMOTE AND STRENGTHEN DISASTER RISK REDUCTION AND EMERGENCY MANAGEMENT IN CANADA. THE NETWORK CREATES AN ENVIRONMENT FOR HAZARDS RESEARCH, EDUCATION AND EMERGENCY MANAGEMENT PRACTITIONER COMMUNITIES TO EFFECTIVELY SHARE KNOWLEDGE AND INNOVATIVE APPROACHES THAT REDUCE DISASTER VULNERABILITY.
WORKING TOGETHER FOR A SAFER TOMORROW

PROGRAM:
APPLIED RESEARCH IN ENVIRONMENTAL SCIENCES NONPROFIT, INC. (ARIES)

SPONSOR:
DHS NATIONAL CENTER OF RISK AND ECONOMIC ANALYSIS OF TERRORISM EVENTS (CREATE) CENTER OF EXCELLENCE FOR SCIENCE AND TECHNOLOGY
DHS RESEARCH ASSOCIATES: ANNE GARLAND AND LLOYD MITCHELL, CO-PIS
CREATE MISSION

To improve our Nation’s security through research and development of advanced models and tools to evaluate the risks, costs and consequences of terrorism and natural and manmade hazards to guide economically viable investments in homeland security. (Strategic Plan 2012-2016)
“WORKING TOGETHER FOR A SAFER TOMORROW”
RESEARCH FRAMEWORK
(TRIBALLY INCLUSIVE GEOGRAPHIC AREA)

- Risk Assessment
  - Indian Communities
  - Non-Indian Communities

- Risk Perceptions / Communication

- Economic Assessment
  - Indian Communities
  - Non-Indian Communities

- Risk Management
  - Indian Communities
  - Non-Indian Communities
WORKING TOGETHER FOR A SAFER TOMORROW MODEL

DHS NATIONAL CENTER OF RISK AND ECONOMIC ANALYSIS OF TERRORISM EVENTS (CREATE)

ACTIVITIES

• OUTREACH EDUCATION
• INTEGRATED DISCIPLINES
• UNITIZED RESEARCH (TEAM)
• RESEARCH AND FIELD PROJECTS
• PRACTITIONER MODELS, TOOLS AND PRODUCTS
• RESEARCH TRANSITIONS
• NATIONAL CONFERENCE PRESENTATIONS AND PUBLICATIONS

HTTP://CREATE.USC.EDU/

AUDIENCES/PARTICIPANTS

• TIGA RELATED (TRIBALLY INCLUSIVE GEOGRAPHIC AREAS)
• MINORITY RELATED (AFRICAN AMERICAN, AMERICAN INDIANS, HISPANICS, LATINOS, CHICANOS)
CUMULATIVE REGIONAL INTEGRATED OPERABILITY SCORE (CRIOS) FOR TRIBAL INCLUSIVE GEOGRAPHIC AREAS (TIGA)

ACHIEVING REGIONAL, LOCAL, AND TRIBAL INTEGRATION TO REDUCE RISKS AND THE ECONOMIC IMPACTS OF DISASTER AND TERROR EVENTS

THE PROJECT ALIGNS WITH DHS SECRETARY NAPOLITANO FIRST ACTION DIRECTIVES OF JANUARY, 2009, RELATIVE TO STATE, LOCAL, AND TRIBAL INTEGRATION.


CRIOS Workshop, Cattaraugus Seneca Reservation, Gowanda, NY, 2009
CUMULATIVE REGIONAL INTEGRATED OPERABILITY SCORE (CRIOS) FOR TRIBAL INCLUSIVE GEOGRAPHIC AREAS (TIGA)

- Collaboratively designed (2008) and implemented by a student participant team of Applied Research in Environmental Sciences Nonprofit, Inc. (ARIES), in the Department of Homeland Security (DHS CREATE) program titled Working Together for a Safer Tomorrow (WTST),

- Applies a three-step model for multi-jurisdictionally diverse regions (tribally inclusive geographic area or TIGA) to integrate emergency resources, services, and capabilities

- With the management goal of operating cooperatively as resilient communities in the event of natural disasters or from terrorism.
CRIOS 2007 (IPY) AND 2012-2015 NORTH SLOPE BOROUGH AK.

- Collaboration with the North Slope Risk Management and Local Emergency Planning Committee for risk assessment workshops IPY2007-2008

- Historical Ecology for Risk Management: Youth Sustainability (HERMYS) 2012 Facebook Journal @arieshermys

- Coastal Erosion Mitigation Study of Critical Infrastructure
  - Sea level rise
  - Storm Surge
  - Permafrost Calving
  - RM Priority Risk for mitigation
THE ARCTIC RISK MANAGEMENT NETWORK (ARMNET) WAS CONCEIVED AS A TRANS-DISCIPLINARY HUB

• TO ENCOURAGE AND FACILITATE GREATER COOPERATION, COMMUNICATION AND EXCHANGE AMONG AMERICAN AND CANADIAN ACADEMICS AND PRACTITIONERS ACTIVELY ENGAGED IN THE RESEARCH, MANAGEMENT AND MITIGATION OF RISKS, EMERGENCIES AND DISASTERS IN THE ARCTIC REGIONS.

• TO ASSIST REGIONAL DECISION-MAKERS THROUGH THE SHARING OF APPLIED RESEARCH AND BEST PRACTICES

• TO SUPPORT GREATER INTER-OPERABILITY AND BILATERAL COLLABORATION

• TO FACILITATE NETWORKING, JOINT EXERCISES, WORKSHOPS, TELECONFERENCES, RADIO PROGRAMS, AND VIRTUAL COMMUNICATIONS (EG. WEBINARS).
**CLEARINGHOUSE FOR RISK REDUCTION PARTNERSHIPS**

*MOST IMPORTANTLY, ARMNET IS A CLEARINGHOUSE FOR ALL INFORMATION RELATED TO THE MANAGEMENT OF THE FREQUENT HAZARDS OF ARCTIC CLIMATE AND GEOGRAPHY IN NORTH AMERICA,*

- **EMERGING CHALLENGES ARISING FROM CLIMATE CHANGE,**
- **INCREASED MARITIME POLAR TRAFFIC,**
- **EXPANDING ECONOMIC DEVELOPMENT IN THE REGION.**


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*Most of the Arctic, like most of the world, is commonly owned. With ownership comes the obligation to manage our resources for the benefit of the total.*

*To do that, we must understand the reality, the richness, and the responsibility of the North.*

– Governor Walter J. Hickel, Founder *Institute of the North* [http://www.institutenorth.org/about/](http://www.institutenorth.org/about/)
OVERVIEW AND FEEDBACK

WHO:
ARCTIC EM, RM, AND SAR PRACTITIONERS
ARCTIC RESEARCHERS (DISASTER RISK REDUCTION)

HOW:
ARMNET PARTNERSHIPS AMONG PRACTITIONERS AND DISASTER RESEARCHERS

PHOTO: UAA COASTAL ENGINEER AND NSB DISASTER COORDINATORS IMPACT ASSESSMENT AND CONSULT OF ERODED RESERVOIR AT PRUDHOE BAY

WHAT:
ARMNET INFRASTRUCTURE

WHERE AND WHEN:
ARMNET LOGISTICS
ARMNET INFRASTRUCTURE

WHAT:
• EXISTING RESEARCH CONTENT
• GAPS IN RESEARCH THAT NEED TO BE FILLED

HOW:
• ACCOMPLISH RESEARCH
• APPLY RESEARCH WITH COMMUNITIES
• EMO AND SAR INVOLVED TO PROVIDE GUIDANCE AND PERMISSIONS
• RESEARCHERS SEEK TRAINING IN RISK AND DISASTER MANAGEMENT ABOUT EMO/SAR OPERATIONS
  • EMERGENCY MANAGEMENT INSTITUTE INDEPENDENT STUDY ON LINE CERTIFICATES HTTP://WWW.TRAINING.FEMA.GOV/IS/CRSLIST.ASPX
  • HIGHER EDUCATION EMHS CONFERENCE OR CURRICULA (EMI) HTTP://TRAINING.FEMA.GOV/HIEDU/

WHO:
• EMO AND SAR LIMITED TIME DOING THE RESEARCH
• PARTNER WITH DISASTER RESEARCHERS TO PLAN, DEVELOP RESEARCH FOCI
CURRENT CONTEXT

ARE THE RESEARCH NEEDS OF YOUR ORGANIZATION REGARDING ARCTIC SAR/EM CURRENTLY BEING MET BY THE CANADIAN ACADEMIC/RESEARCH COMMUNITY IN YOUR RELEVANT REGIONS OF STUDY?

NO __ SOMEWHAT __ ADEQUATELY __ COMPLETELY ___

COMMENTS:
AS AN ARCTIC RESEARCHER, WHERE DO YOU CURRENTLY ACCESS RELEVANT RESEARCH/NEW INFORMATION ON ARCTIC SAR/EM/RM

ACADEMIC JOURNALS/PERIODICALS
NORTHERN ROUNDTABLE MEETINGS
BOOKS

TABLETOP EXERCISES

TRAINING EXERCISES
SAR/EM WEBSITES
ARCTIC CONFERENCES

CONSULTANTS

EG. ARCTICNET

NATIONAL SAR/EM CONFERENCES

OTHER ______________________________

COMMENTS:
WHAT ARE THE BIGGEST OBSTACLES TO RESEARCH ON ARCTIC SAR/EM/RM

- LACK OF EMO TIME TO PARTNER
- LACK OF FUNDING/RESOURCES
- LACK OF RESEARCHERS/EXPERTS EDUCATED IN ARCTIC SAR/EM
- NO COORDINATING RESEARCH BODY
- LACK OF COMMUNITY RESOURCES/INTEREST

OTHER: _______________________

COMMENTS:
RATE THE RESEARCH TOPICS RELATED TO ARCTIC RISKS AND HAZARDS THAT ARE OF GREATEST INTEREST/CONCERN TO YOUR RELEVANT REGION(S) OF STUDY?

(Scale of 0 – 3)
0 = NO INTEREST 1 = SOME INTEREST 2 = STRONG INTEREST 3 = CRITICAL INTEREST

- FLOODING
- CATASTROPHIC
- POWER FAILURE
- FOREST/TUNDRA FIRE
- STORM SURGE
- COASTAL EROSION
- PLANE CRASH
- OIL SPILL
- CHEMICAL SPILL
- SHIP SINKING
- TERRORISM
- INFRASTRUCTURE FAILURE
- EXTREME WEATHER
- VANDALISM
- RESUPPLY FAILURE/CUT OFF
- EPIDEMIC
- SAR INCIDENT

OTHER _____________

COMMENTS:
Could an Arctic Risk Management Network (ARMNET) support Arctic EMO by:

- Compiling and synthesizing existing Arctic risk/hazard research
- Matching EMO research needs and experts
- Facilitating Pan-Arctic collaboration in new research
- Fostering the exchange of research between Arctic regions
- Supporting participatory research with the involvement of communities
- Networking EMOS/Communities with common research interests
- Facilitating joint research projects/funding applications/training

Other:

Comments:
ARMNET LOGISTICS:  WHERE AND WHEN

SCORE WITH THE FOLLOWING SCALE:

0=NOT LIKELY  1=SOMEWHER LKELY  2=LIKELY  3=MOST LIKELY

VIRTUAL HUB
RADIO PROGRAMS
CDS
DVDS
TELECONFERENCES
NEWSLETTER BRIEFS
RISKY BUSINESS ARTWORK/MUSIC
ROLE PLAYS
TABLE TOP EXERCISES
TRAINING SCENARIOS
APPLIED THEATER
WORKSHOPS AT CONFERENCES
ANNUAL TRAVEL AWARDS TO CONFERENCES

AMONG EMO, SAR, AND RESEARCHER PARTNERS, REDUNDANT AND INTEROPERABLE COMMUNICATIONS CAN INCLUDE THE FOLLOWING:

• VIRTUAL HUB (ANY TIME AVAILABILITY)
  RADIO PROGRAMS (REGULAR DISTRIBUTION SUCH AS PER MONTH)
  CDS (TELECONFERENCE RECORDINGS TO SHARE)
  DVDS (SHARING CASE STUDIES AND STRATEGIES)
  TELECONFERENCES (AS NEEDED OR ROUTINE)
  NEWSLETTER BRIEFS (VIRTUAL HUB, E-NEWSLETTERS AND MAIL)
  RISKY BUSINESS ARTWORK/MUSIC FOR SHARING ACROSS COMMUNITIES
  ROLE PLAYS (E.G, TELECONFERENCE, VIDEOS OR RADIO PROGRAMS)
  TABLE TOP EXERCISES (AMONG EMO, SAR AND RESEARCHERS)
  TRAINING SCENARIOS (AMONG EMO, SAR AND RESEARCHERS)
  APPLIED THEATER (LOCAL CREATIVE DRAMAS FOR RISK EDUCATION AND COMMUNICATION)
  REGULAR ARMNET WORKSHOPS AND RECEPTIONS AT FAVORITE CONFERENCES
  ANNUAL TRAVEL AWARDS FOR ARMNET PARTNERS (EMO, SAR AND RESEARCHERS) TO CONFERENCES
  OTHERS?
ARMNET
WHY?

LIST YOUR REASONS ARMNET MIGHT BE VALUABLE FOR RISK REDUCTION

EXAMPLE: INCLUDE OR DISCUSS A SITUATION, SCENARIO, OR EMERGENCY EVENT WHICH WOULD BENEFIT FROM AN ASSOCIATION WITH ARMNET
ARMNET VALUE?

IS THIS INITIATIVE OF INTEREST TO YOU? ____

SCORE USING THE FOLLOWING:

0 = NO INTEREST   1 = SOME INTEREST   2 = INTEREST   3 = STRONG INTEREST

THANK YOU FOR SHARING YOUR SUGGESTIONS!!