



ICAO Global Civil Aviation Search & Rescue Conference 21-22 June 2010



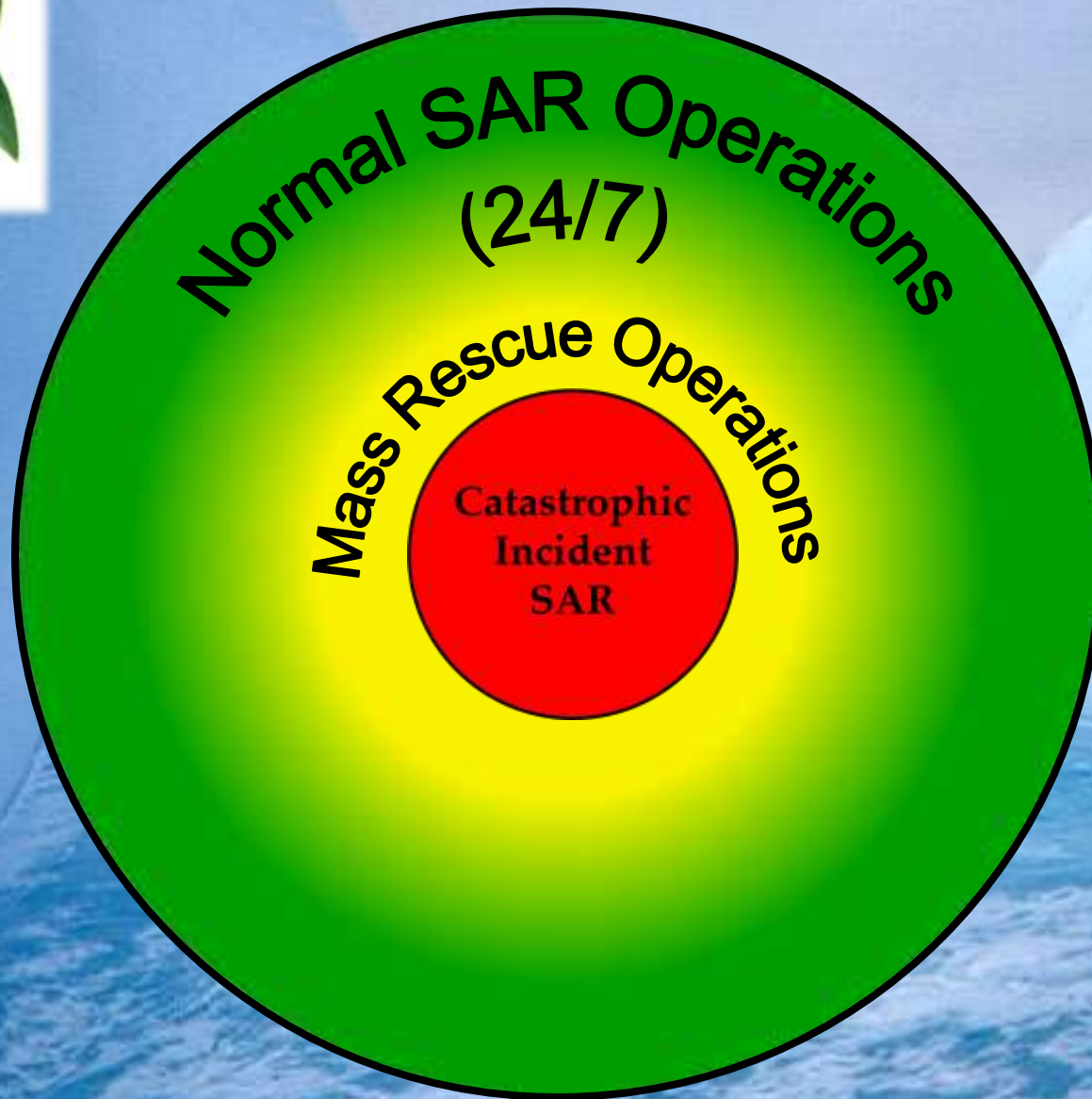
Civil/Military Cooperation in SAR

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www.uscg.mil/nsarc



The “Olive”



“Normal” SAR Operations (24/7)

Coast Guard/JRCCs
DOD/AFRCC
National Park Service

“Normal” SAR:

SAR federal agencies conduct day in and day out throughout the year.

Any SAR case, not an **MRO** or **Catastrophic Incident**, can be considered a “Normal” SAR operation.

Potential Military Insertion Extraction Capabilities



•Maritime



**“Normal” SAR
Operations (24/7)**

**Mass Rescue
Operations**

MROs:

Infrequent ops
that require the
search and
rescue of large
numbers of
people.

Not considered
“Normal” SAR,
but also does not
meet the criteria
for a
**Catastrophic
Incident.**





**MROs are low
probability, high risk
events!**

*“ **MROs** are required less frequently than typical rescue efforts. Flooding, earthquakes, terrorism, and large passenger aircraft or ship disasters are examples of scenarios that may involve the need for **MROs**. Potential adverse consequences of poor preparedness for **MROs** are enormous.”*

Ref: NSS, paragraph 6.11.5

Top 6 of 13 Mass Rescue Scenarios

- ✓ Passenger Vessel Requires Evacuation
- ✓ Large Passenger Vessel Sinks
- ✓ Natural Disaster Requires Air, Land or Sea Rescue
- ✓ Mass Casualty Aboard Ship
- ✓ Rescue and Interdiction
- ✓ Airliner Crash

#10 Offshore Rig Sinks



Issues

- CG: Deliberate, comprehensive effort to plan for and respond to MROs
 - Established CG MRO Program with dedicated MRO Program Manager and District MRO personnel (Passenger Vessel Safety Specialists)
- For MRO responses offshore: Are DOD (AF SAR assets) available for support?
 - DOD/AF assets may be available, but not postured on alert.
- Requirements to provide additive support to CG/AF MRO response posture.
 - Coordinate possible use of AF assets
 - Joint AF/CG acquisition efforts to meet MRO capability gaps

AF MRO Capable Rescue Force

- Guardian Angel (Combat Rescue Officer/Pararescue)
 - Scuba qualified precision parachutist
 - EMT-Paramedics
 - Water/Field survival experts
- HC-130P
 - Specs similar to USCG HC-130H
 - Deploy PJs, rafts, water skis, zodiac boats, supplies
 - Air refuelable helos (USAF Rescue, SOF, Navy/USMC)
- HH-60G
 - Extra fuel internal vice external
 - Deploy PJs, slung zodiacs, supplies
 - Air refuelable from tankers (USAF, USMC, SOF)
- SAR Task Force – SATCOM, integrated C2, long range overwater capable; (interoperable) with CG assets

USAF SAR Task Force CONOPS

CONOPS:

REPORT:

- USCG District RCC alerts AFRCC
- AFRCC sources and provides SAR Forces to USCG

LOCATE:

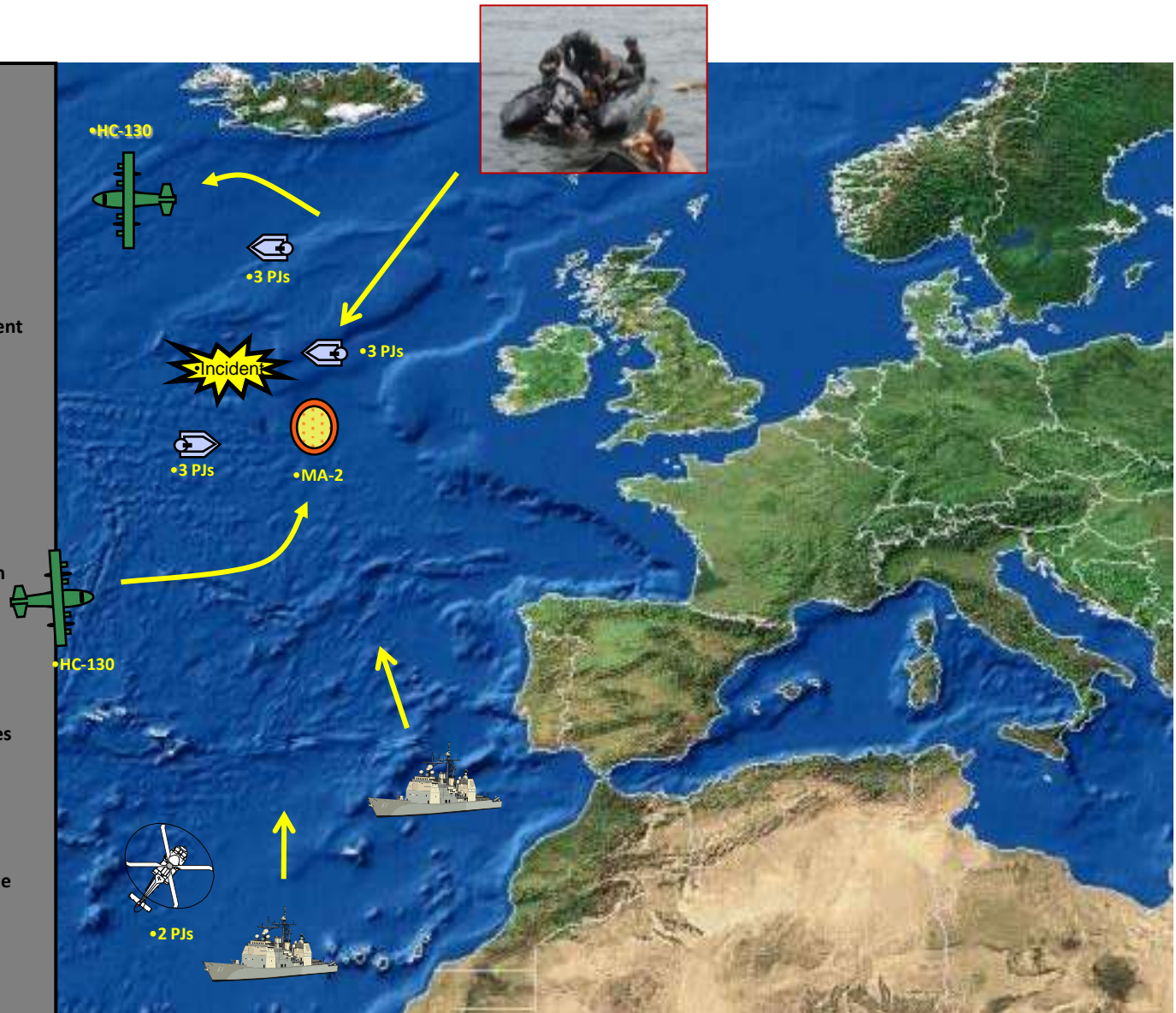
- USCG or USAF C-130's arrives incident site, overhead C2

SUPPORT/RECOVER:

- Assess situation, report to RCC
- Deploy extra rafts, supplies
- Deploy PJs and boats (zodiac/waverunner)
- Collection Point (CCP) using 20-man life raft
- Treat injuries
- USCG vectors surface vessels
- As needed, long range USAF helos deploy enroute for critical casualties

RETURN:

- Surface vessel arrives, onloads survivors and PJ
- Air assets cycle as needed for rescue escort



Recommendations

1. Current: USAF and USCG partner on operational support
 - Leverage relationship between 1 AF (AFRCC) and CG Districts
 - Develop interagency agreement to provide MRO response support options
2. Future: Implement Joint CG/AF Work Group to examine and develop COAs for future options
 - Review resources and look for common joint programs for CG/AF partnership
 - Review existing programs for MRO response resource sharing

Arctic Air Routes

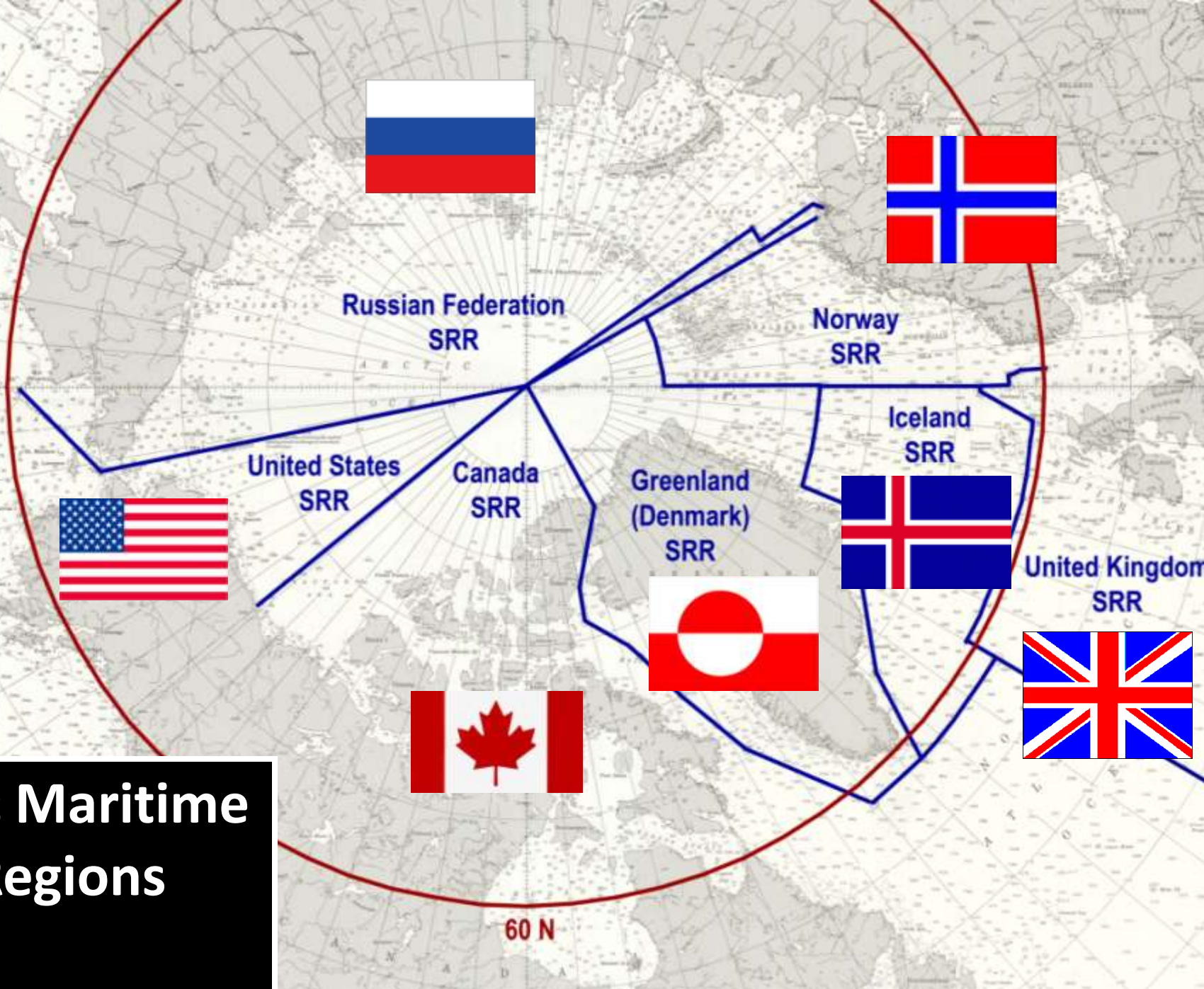


Polar air routes are now in common use.

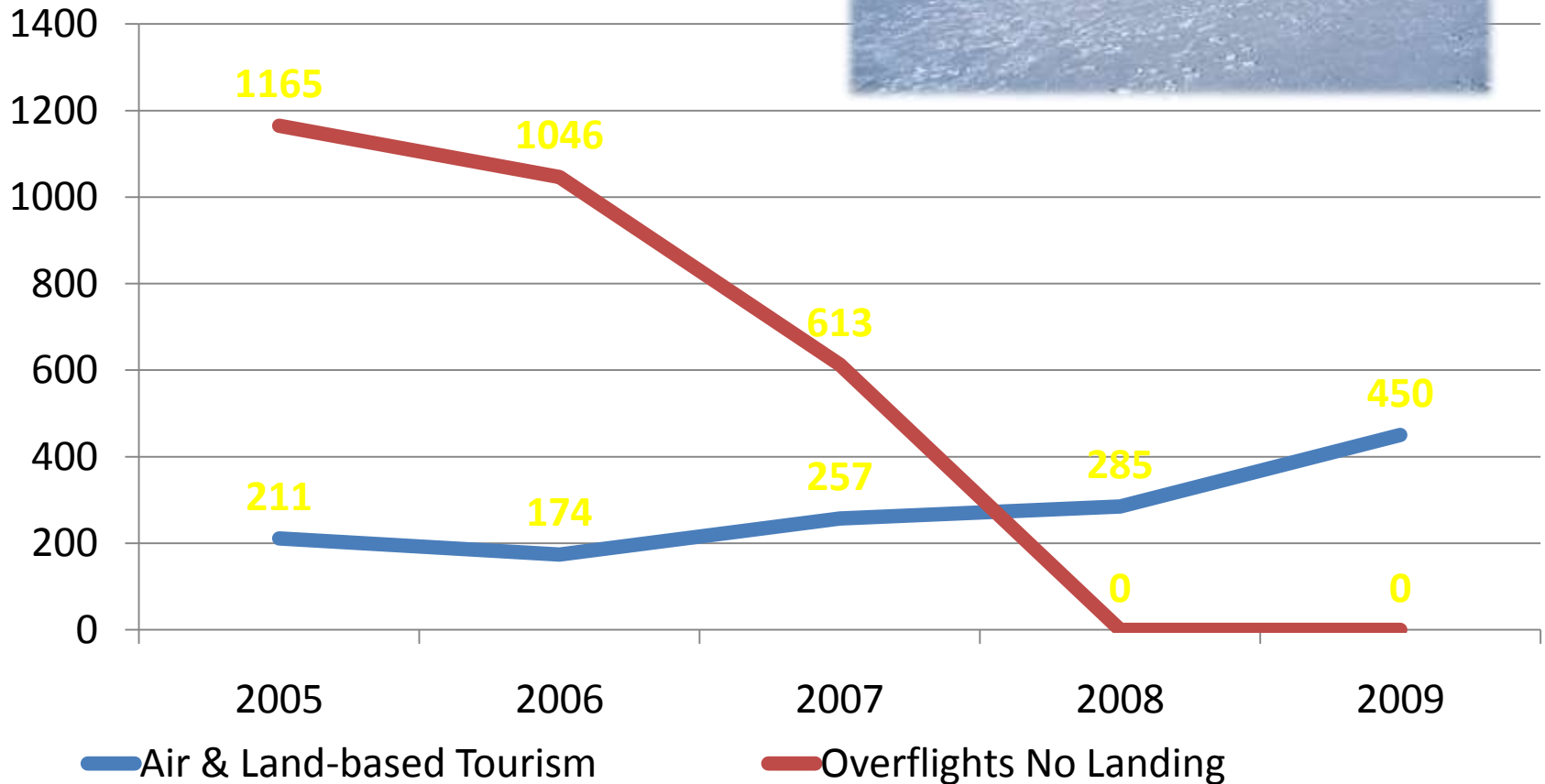
For example:

In 2008, almost 8,000 flights crossed the North Pole region.

Arctic Maritime SAR Regions



Air & Land-based Tourism & Over-flights, No Landing





Australia

RCC New Zealand

La Reunion



New Zealand



South Africa



Chile



Argentina

ARCC Punta Arenas

Rescue Coordination Centers

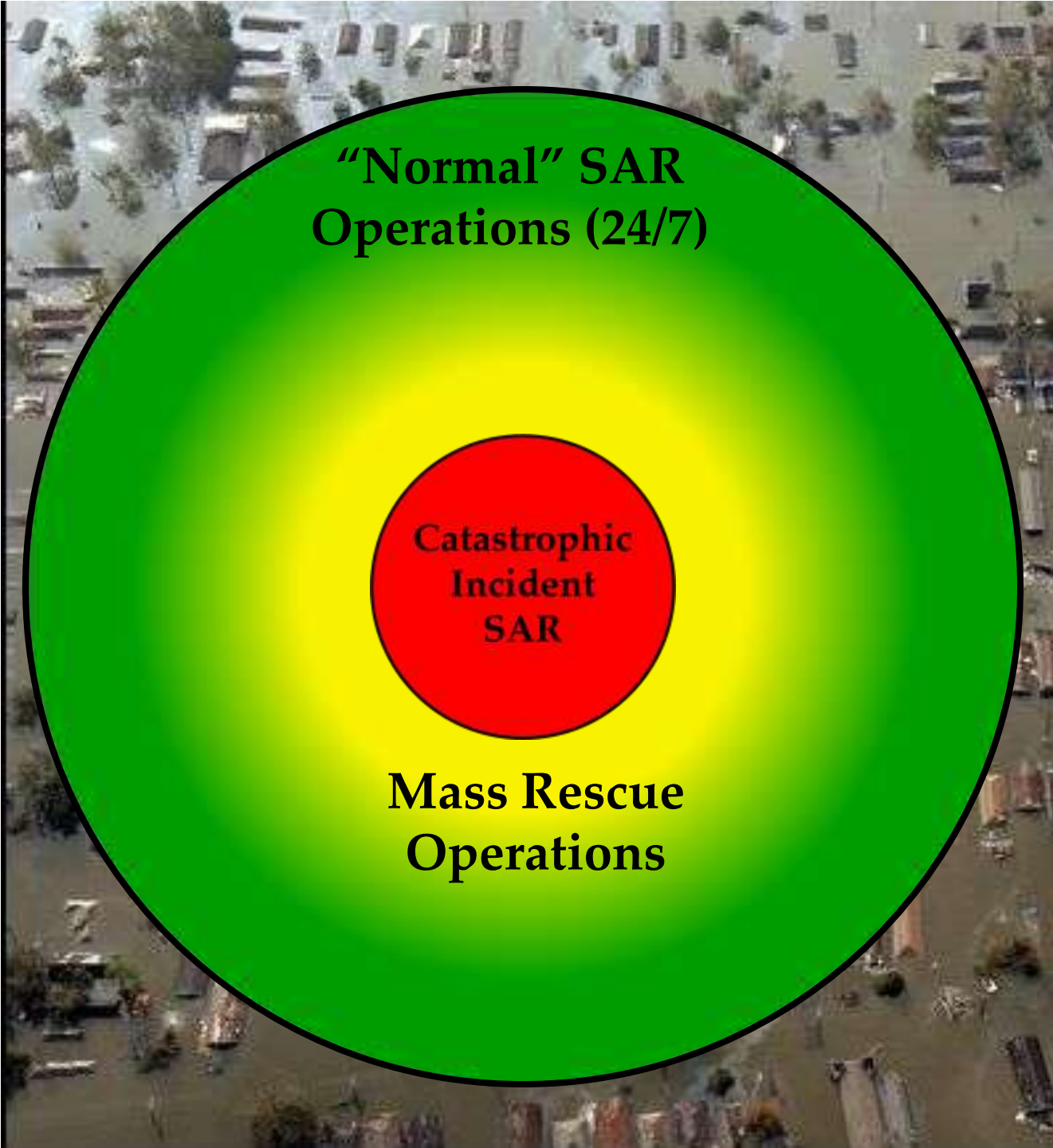
Search & Rescue Agreements

Challenges:

- Boundaries (FIRs & RCC)
- Assistance Entry: Application to aircraft & Landing Clearance issues

Solution is resolve those issues in the agreements

*However challenges arise when not signatories or when considered Military/State Aircraft



**“Normal” SAR
Operations (24/7)**

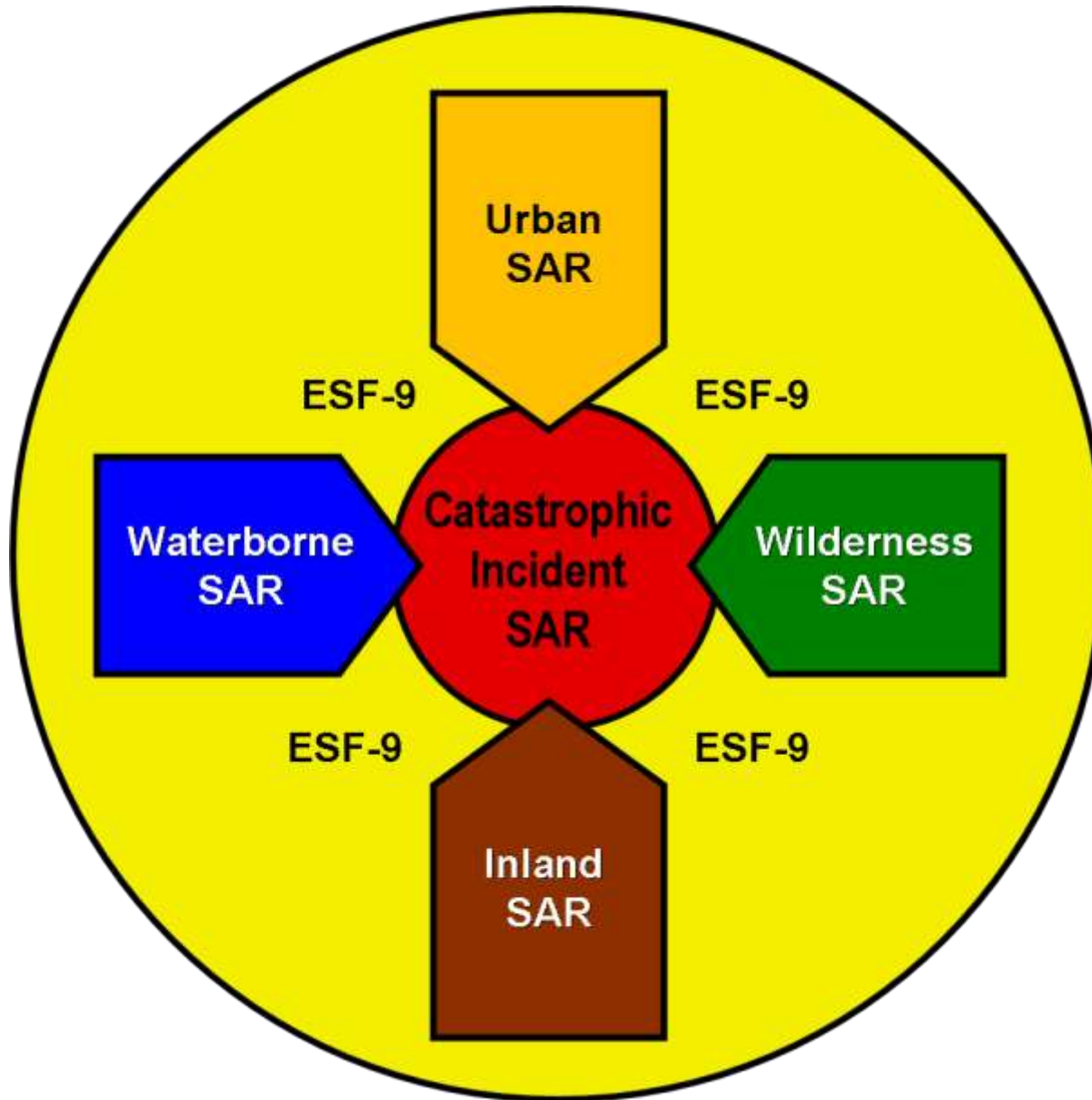
**Catastrophic
Incident
SAR**

**Mass Rescue
Operations**

“A catastrophic incident is any natural or manmade incident, including terrorism, which results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions.”

***National Response
Framework, page 42***

ESF - 9 and the Olive



Aircraft Coordination

- Major challenges experienced during CISAR & MROs with coordinating numerous aircraft missions.
- Civil Air Traffic Control usually not equipped or staffed to handle low level mass rescue operations occurring outside Airport Traffic areas.

Solution:

Civil/Military cooperation: Ground & Air Traffic Control capabilities.

IMO: International SAR Convention (1979)

ICAO: Convention on Civil Aviation (1944)

Global SAR Plan

Int'l Aeronautical & Maritime SAR (IAMSAR) Manual

U.S. SAR System (NSARC)

**- U.S. Nat'l SAR Plan -
Nat'l SAR Supplement (NSS)
to the IAMSAR Manual**

NRF (2008)

ESF-9

Coast Guard Addendum

Inland SAR Addendum

SAR Legal Addendum

CIS Addendum

