

## Advice to the C-NLOPB: Recommendation 4

### Recommendation

It is recommended that, with the agreement of DND, a formal protocol be entered into between DND and the helicopter operator (s) so that each will know what the other's aviation resources are, know how response efforts will be deployed and in what circumstances, and clarify their respective roles. The Regulator, the oil operators, the helicopter operator(s) and worker representatives should be informed of the protocol.

### Method

The Operators met with Cougar Helicopters regarding the Recommendation and requested that they engage DND to formalize a Protocol to document Search and Rescue (SAR) capabilities and interface details.

Subsequently, Cougar Helicopters and DND worked to develop a draft Protocol. The draft Protocol was reviewed with the Operators and was shared with the CNLOPB Aviation Advisor and the Implementation Team.

The Operators also provided the CNLOPB with monthly progress updates.

A final Protocol was developed (see attached)

### Discussion

Although it was acknowledged that Cougar Helicopters and DND had a positive and effective working relationship, it was observed that there was no formal Protocol established to detail this relationship.

As noted above, a formal Protocol has been established and implemented. The Protocol provides the clarity and structure required to meet the intent of the Recommendation.

Key elements of this Protocol include:

- SAR Capabilities - Cougar Helicopters
- Cougar Response Time
- First Response SAR Services
- First Response SAR Equipment
- Characteristics of the First Response SAR S-92
- Cougar Helicopters Emergency Response-Regulatory Requirements
- DND SAR Interaction with Cougar Helicopters Response
- DND-Search and Rescue
- DND Response Time
- DND Resources Based in Halifax and Gander
- Cougar Helicopters Tasking
- Cougar Helicopters SAR Coverage Interruption

## Advice to the C-NLOPB: Recommendation 4

The Protocol is a Cougar controlled document and will be reviewed with DND on an annual basis and revised as required.

### **Conclusion**

The Operators have facilitated the development of the Protocol as required.

Operators consider that the Recommendation has been appropriately addressed and request that the CNLOPB advise if the action taken is acceptable to support formal closure.

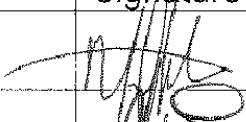



# Cougar Helicopters / DND - Protocol

*A VIH Aviation Group Company*

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Approval:	
Prepared by:	Mike Whittle

## Acceptance:

Name:	Organization and Title	Signature / date
Michael Whittle	Cougar Helicopters Base Operations Manager	 12-Dec-2011
Major Ali Laaouan	OIC JRCC Halifax	 14 Dec 2011

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### Revisions and Document Access

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In order to ensure accuracy and consistency when changes occur affecting the contents of the Cougar Helicopters / DND - Protocol, a new manual will be issued in its entirety.

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## Objective

Clarify the relationship between Cougar Helicopters and the Department of National Defence relative to Search and Rescue activity. Outline the resources available to each party, function and method of deployment of individual/joint response efforts and clarification of their respective roles.

## Currency

The relationship will be reviewed on an annual basis. The document will be updated to reflect revisions to items listed in the objective.

Review Frequency	Participants	
Annual (September)	BOM Cougar Helicopters	OIC JRCC



## SAR Capabilities - Cougar Helicopters

Cougar Helicopters Inc (CHI) currently provides SAR and MEDEVAC resources to the offshore industry from St. John's, NL. CHI provides a 24/7 response. A crew of five comprised of two pilots, a hoist operator, and two rescue specialists, makes up the standard crew. Many of the CHI SAR crewmembers are ex-military, including ex-military SAR.

CHI provides this service using a dedicated SAR configured S-92. The S-92 is capable of day/night IFR. It is de-ice equipped. Unlike the military, CHI SAR operations are conducted in accordance with the Canadian Aviation Regulations (CARs). Therefore, CHI crews may be unable to perform certain tasks unless there has been an exemption provided by Transport Canada (e.g. land at an unlit aerodrome after dark).

The SAR aircraft carries: FLIR; Night Sun; Dual-hoist; "Triple Stacker" patient litter; Rescue Basket; Homer, Stokes Litter; Rescue Collar; Marine Radio and a Satellite Phone. SKAD and Pump kits are available at CHI in St. John's for mission use. Rescue specialist kit generally corresponds to the kit carried by military SAR Techs.



### Response Time (wheels up)

Cougar (During offshore operations)	30 minutes
Cougar (After hours, no flight operations)	45 minutes

## First Response Search and Rescue (SAR)

### First Response Search and Rescue (SAR) Services

#### Mission Profile

SAR support is provided to any/all offshore operator assets or assets utilized by offshore operator (via contract or sub-contract), operating within the contracted field area or other assets that may be approved by offshore operator.

Support may be provided to a number of asset types including but not limited to:

- Fixed installation (GBS) Semi-submersible drilling units
- Drill ships
- FPSO's
- Jack-up drilling units Various support vessels

The base of operations will be St. John's International Airport.

## First Response SAR Services

Cougar Helicopters provides all personnel, equipment, infrastructure required to provide First Response SAR support on a 24 hour, seven day per week basis. While not limiting the foregoing, Cougar Helicopters provides the following as part of its First Response SAR services:

- Twelve (12) rescue technicians, three (3) of whom are available on a twenty-four (24) hour, seven (7) day a week basis.
- Dedicated first response flight personnel comprised of nine (9) pilots

Cougar Helicopters provides First Response SAR services such that the "wheels- up" response time is not more than thirty (30), when passenger transport flights are ongoing and no more than forty-five (45) minutes when they are not ongoing.

Helicopters provided as part of the First Response SAR service are twin Engine, IFR helicopters equipped with the following:

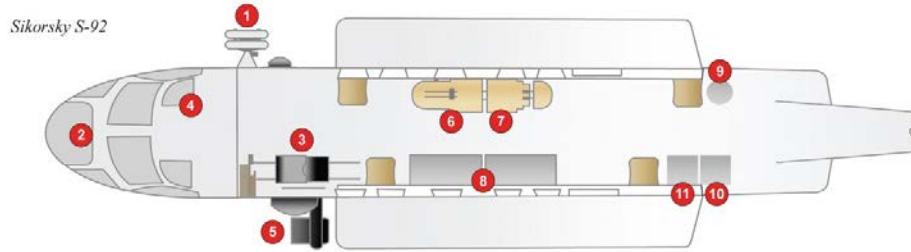
- FLIR (Forward Looking Infra Red system)
- Rear Ramp
- Dual hoist
- Night sun (or similar)
- Direction finding/homing system (121.5 Mhz)
- De-icing system
- Stretcher stack system
- Satellite communication/tracking
- Enhanced flotation (where available for type)
- Auxiliary fuel tank provisions utilizing tanks from pooled aircraft
- External life rafts
- Egress lighting
- Night Vision Goggles (for rescue technicians)
- Communication system at cabin crew station(s)
- A full set of seating (stroking) with high backs and four (4) point harnesses

## **First Response SAR Equipment**

Cougar Helicopters provides and maintains for purpose, First Response equipment which includes, but not be limited to:

- Three (3) Sea Kit Air Droppable (SKAD), or similar — subject to Owner approval, of which at least one (1) shall be stored at the operating base and one (1) on the Hibernia platform;
- At least four (4) variable speed rescue winches;
- Billy Pugh nets (1), as required;
- First Aid supplies, as required, but to include thermal recovery capsules;
- Guideline ropes, as required;
- Monkey harnesses;
- Stokes litters;
- Cable cutters;
- One (1) pair night vision goggles;
- One (1) set of quick coupled controllable search lights;
- Single lift collars; and
- Headsets and helmets as required.

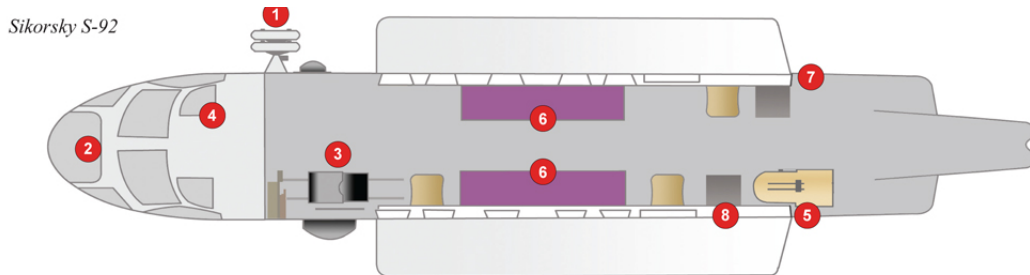
Single auxiliary fuel tank configuration



SAR Equipment

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>1 Goodrich Dual Rescue Hoist</li> <li>2 Forward Looking Infrared (FLIR)</li> <li>3 FLIR Station</li> <li>4 Wireless Intercom System</li> <li>5 Nitesun Search Light</li> <li>6 Stokes Litter</li> <li>7 Multi-level Stacker Stretcher System</li> <li>8 Auxiliary Fuel Tank</li> </ul> | <ul style="list-style-type: none"> <li>9 Marine Salvage Pumps</li> <li>10 Collapsible Rescue Basket</li> <li>11 Other equipment includes:                     <ul style="list-style-type: none"> <li>» Rescue Sling</li> <li>» Guideline</li> <li>» Survival Kit Air Dropable (SKAD)</li> <li>» Night Vision Goggles (NVG)</li> <li>» Advanced Medical Kits</li> </ul> </li> </ul> |
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Dual auxiliary fuel tank configuration



SAR Equipment

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>1 Goodrich Dual Rescue Hoist</li> <li>2 Forward Looking Infrared (FLIR)</li> <li>3 FLIR Station</li> <li>4 Wireless Intercom System</li> <li>5 Folding Stokes Litter</li> <li>6 Auxiliary Fuel Tanks</li> </ul> | <ul style="list-style-type: none"> <li>7 Collapsible Rescue Basket</li> <li>8 Other equipment includes:                     <ul style="list-style-type: none"> <li>» Rescue Sling</li> <li>» Guideline</li> <li>» Survival Kit Air Dropable (SKAD)</li> <li>» Night Vision Goggles (NVG)</li> <li>» Advanced Medical Kits</li> </ul> </li> </ul> |
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## Characteristics of the SAR S-92

Empty Weight – 18484 lbs  
 MTOW – 26,500 lbs  
 Range – 750 nm  
 Speed – 130 kts normal cruise, 165 Vne  
 Seats – four  
 Crew – Two pilots, one hoist operator, two RS  
 Auto-hover – Awaiting Certification  
 NVG

## SAR – Department of National Defence

### Cougar Helicopters Emergency Response-Regulatory Requirements

- Joint Rescue Coordination Centre (JRCC) will be immediately notified of any mobilization of the standby helicopter or any urgent or emergency requirement. JRCC will assume command of any SAR response directing the standby helicopter and deploying Department of National Defence (DND) aircraft, including Cormorants based in Gander, Canadian Coast Guard (CCG) vessels and other assets, as may be required.

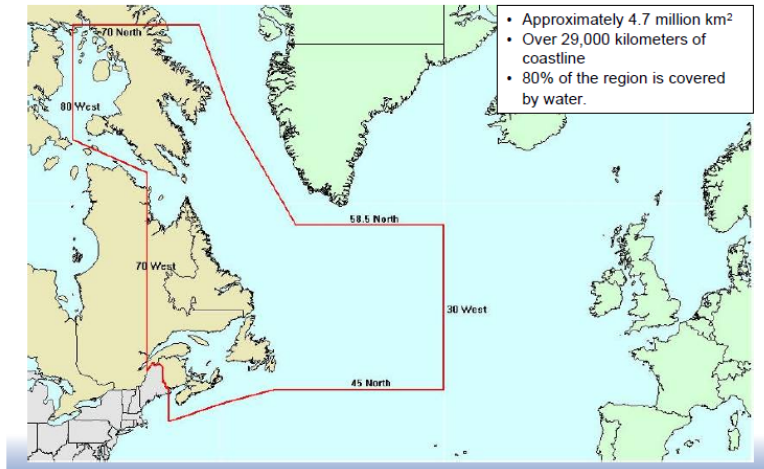
### DND SAR Interaction with Cougar Helicopters Response

- In Canada SAR is provided by the federal government. DND controls and directs all SAR response including the Cougar standby helicopter. Cougar aircraft will only be directed following acceptance of the tasking.
- DND has the authority to command any vessel or aircraft of opportunity to support their search and rescue missions. (only aircraft over navigable waters (ocean))
- As DND Cormorants are located in Gander, the Cougar standby helicopter will likely always be the first responder to an offshore emergency and provide the first on-site aid. It depends on the location and type of incident. For offshore emergencies involving Cougar aircraft or industry vessels, this may be correct
- DND's SAR assets are not single purpose. Personnel and equipment are normally used on a full time basis only for SAR training and SAR response. Assets and personnel may also be used for transport missions when required.
- DND has acquired an unparalleled level of training and experience for search and rescue with specialized equipment that is fit for SAR purposes.
- In the event of an escalating emergency DND can provide a cascade of backup resources (federal or other) necessary to mount and execute a full emergency response.

## DND-Search and Rescue

- By international agreement Canada is obliged to provide aeronautical and maritime search and rescue (SAR) response to a vast area, which includes the Newfoundland Offshore Area.

### JRCC Halifax – Search and Rescue Region



- The National Search and Rescue Program coordinate search and rescue operations in Canada.

#### DND-Search and Rescue

- Aeronautical and Marine SAR is carried out principally by DND and CCG.
- DND has overall responsibility for the coordination and operation of aeronautical and maritime SAR.
- DND has established Joint Rescue Coordination Centres (JRCC) in various regions in Canada which are responsible for coordination of all aeronautical and maritime SAR operations within their regions.
- Some regions also have Marine Rescue Sub-Centres (MRSC) manned by CCG.

#### DND-Search and Rescue

- JRCC has direct tasking authority over all primary SAR resources such as DND aircraft (fixed wing and helicopters) and primary SAR CCG vessels. Secondary federal resources, such as navy vessels, can also be deployed.
- Under the Canada Shipping Act, JRCC and CCG have the authority to direct all other (civilian) vessels and aircraft over federal waters to render assistance to a nearby vessel or aircraft in distress.
- Additionally, both JRCC and CCG can task voluntary aviation and maritime civilian resources to assist with a SAR operation such as CASARA and the CCG Auxiliary.

#### DND Aviation Search and Rescue (SAR) for the Grand Banks

### Response Time (wheels up)

JRCC (week days 8am to 4pm)	30 minutes
JRCC (after hours)	2 hours
Cougar Support	30 minutes during flight operations. 45 minutes outside of flight operations

## **Resources Based in Halifax and Gander**

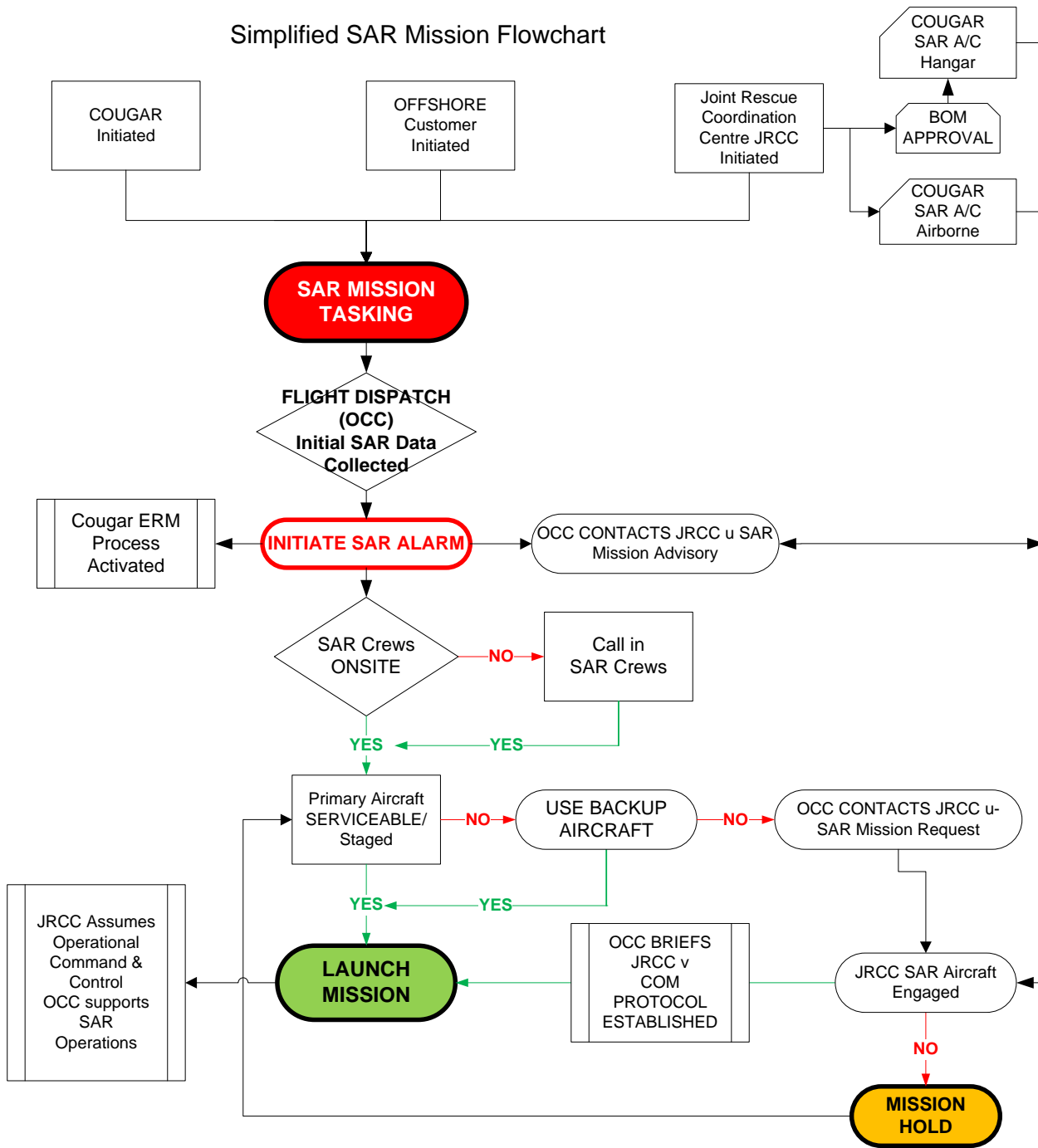
Gander 103 Squadron:	3 Cormorant Helicopters
Greenwood 413 Squadron:	4 Cormorant Helicopters
	1 CC-130 Hercules Aircraft

Aircraft numbers will fluctuate

Only one of each type in each location is available for primary SAR response, other available aircraft are considered secondary SAR resources.

# Cougar Helicopters Tasking:

Simplified SAR Mission Flowchart

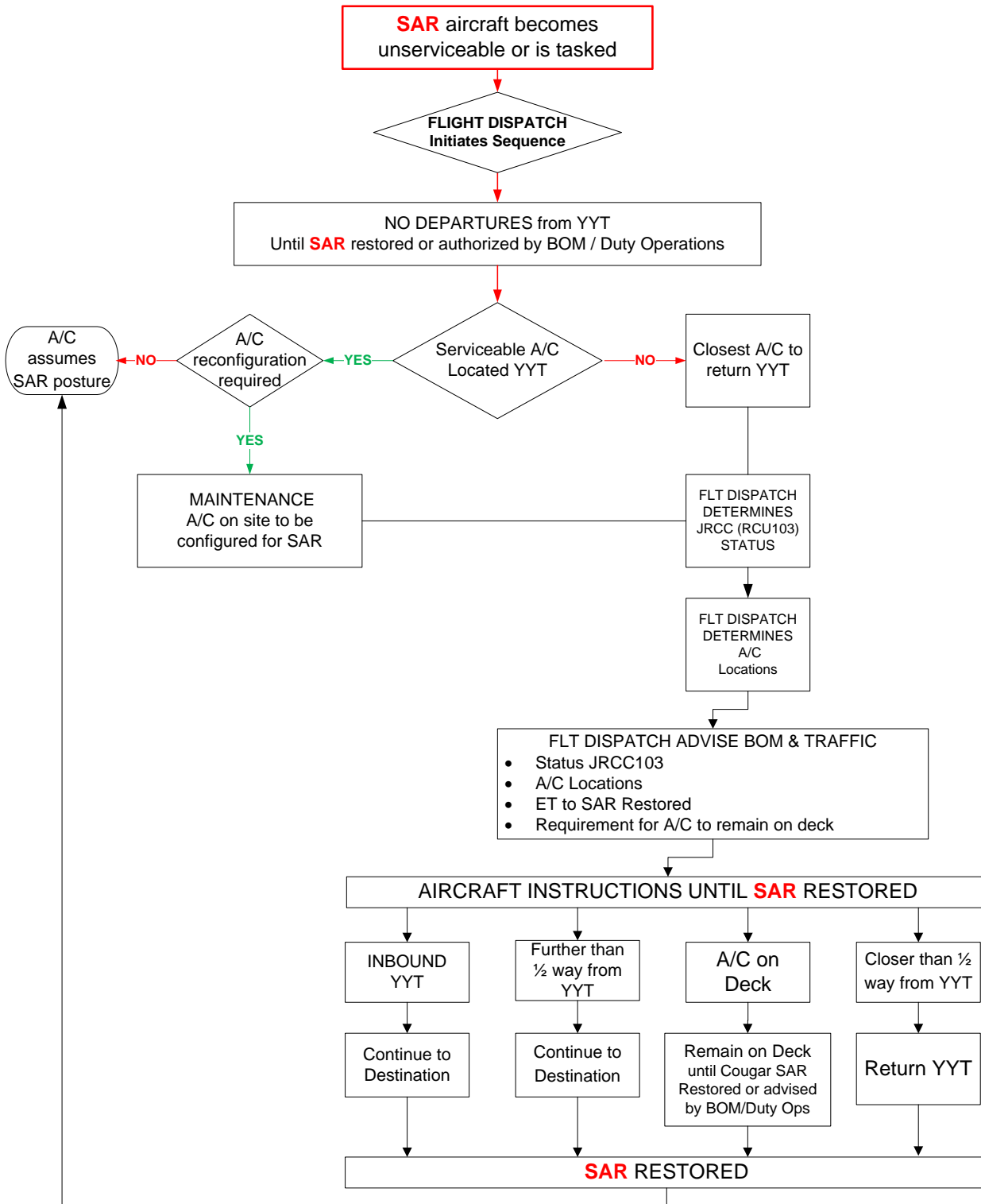


uHalifax RCC:(800) 565-1582

General Info: Non-Emergency:(902) 427-2100 or (902) 427-2102  
 vGander, NF RCU 103(709) 256-1703 Ext: 1342



## Cougar Helicopters SAR Coverage Interruption:



# Cougar Helicopters / DND Protocol

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## Cougar Helicopters SAR Operations Manual

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## National Search and Rescue Manual