

COUGAR SAR

October 2021



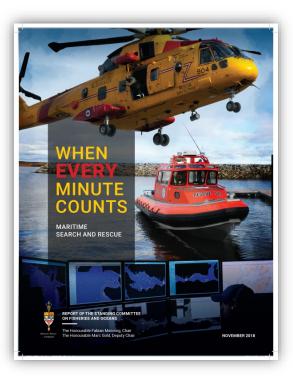
SAR in The News

VOCAL NEWS NOW

Injured Man Spends Night on Beach in St. Vincent's Due to Lack of Cell Service

Sep 27, 2021 | 12:37 PM







FLOAT PLANE CRASH

A float plane carrying four fishermen, two guides and a pilot crashed in Mistastin Lake on July 15. 2019

SAR in The News

Labrado. Sea

Schefferville •

Crossroads Lake

Nain

N.L.

hibit P-194

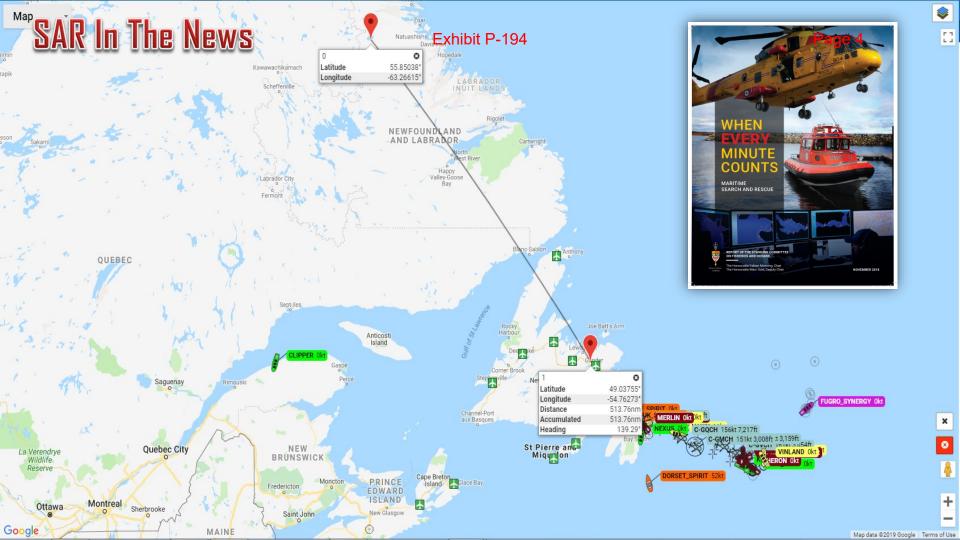
 Happy Valley-Goose Bay

QUÉBEC

It's possible he survived the crash and died just waiting.

- Curtis Saunders

St. John's







- Cougar Helicopters (CHI) maintains a 'First Response' SAR capability in support of NL offshore oil operations and all associated facilities and chartered vessels.
- Dedicated SAR & MedEvac capability for NL offshore operators:
 - One S-92A in full SAR configuration,
 - Day/Night capability,
 - 20 minute SAR response (wheels-up/fly-away), and
 - 24/7/365 support.

"SAR Aircraft Serviceability & Readiness > 95%"





Cougar Helicopter Capability Exhibit P-194

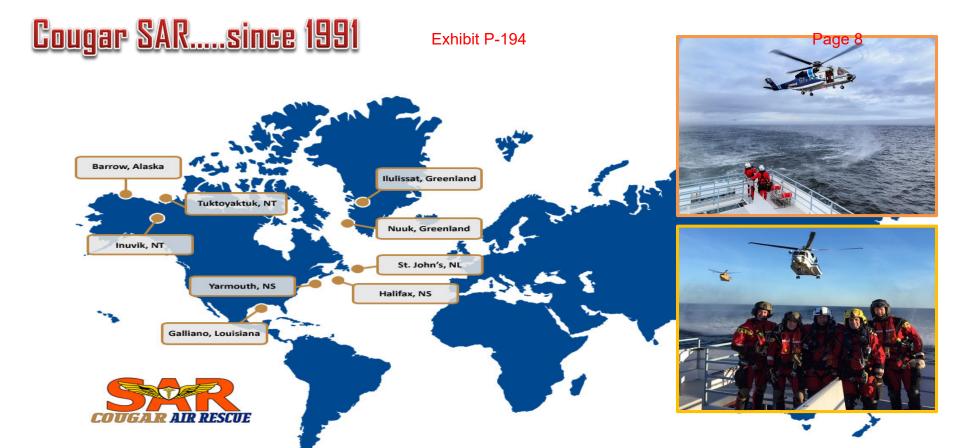
Sikorsky S-92



Bell 412







CHI has provided various SAR capabilities to Oil & Gas customers since 1991.

CHI's SAR capability, expertise, training & equipment has continuously improved.

Cougar SAR Facilities





- Dedicated to the St. John's offshore SAR Program
- In service since 2012
- Firehouse concept SAR crews onsite 24/7
- Houses operations & ready rooms, training, storage, aircraft maintenance facilities and accommodation support facilities
- Capacity for two S-92A aircraft



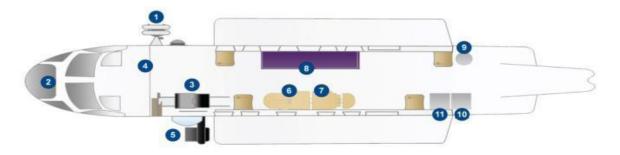
Oil & Gas

- Quick Response SAR for offshore passenger flights
- Installation, Support Vessel and Shuttle Tanker MedEvac
- Installation Emergency
 Evacuation
- Persons Overboard
- Support Vessel and Tanker
- Distress

JRCC & Provincial Government

- Aircraft Incidents/Crashes
- Vessel Hoisting
- Vessel Sinking / Fire
- Lost or Injured Persons
- Coastal Response
- **Provincial Medevacs**
- COVID-19 Pax Transport

S-92 Configuration - Equipment Grew



In addition to two pilots, the standard SAR crew complement is one hoist operator and two rescue specialists.

- Goodrich Dual Rescue Hoist
- Forward Looking Infrared (FLIR)
- **FLIR Station**
- Wireless Intercom System (pending)
- Nitesun Search Light
- Stokes Litter
- Multi-level Stacker Stretcher System
- Auxiliary Fuel Tank

- Survival Kit Air Dropable (SKAD)
- Collapsible Rescue Basket
- Other equipment includes:
 - » Rescue Sling
 - » Guideline
 - » Marine Salvage Pumps
 - » Night Vision Goggles (NVG)
 - » Advanced Medical Kits

In addition to two Pilots, the standard SAR crew complement is one Hoist Operator and two Rescue Specialists.



B-412 Configuration - Equipment & Grew



One/two Pilot(s) and Paramedics/Nurses.



S-92 Rescue Hoist System



Goodrich Dual Hoists

- Max wt 600lbs
- (1100lb Overload capacity)
- Usable cable 300ft
- Max cable speed 325fpm



S-92 Forward Looking Infrared (FEIR) & Nitesun

Thermal Energy/Imagery Recognition - (heat source locator)











Platform serves as locator tracking screen, FLIR and Nitesun control, communication hub: radios, SAT phone and medical triage relay to onshore emergency physician.



CHI S-92 Night Operations

- The Night Vision Goggle (NVG) program enhances SAR capabilities dramatically by allowing crews to safely and effectively search, transition to mission specific areas and assist hoisting operations at night in a low light environment.
- Crews are training nightly both in the offshore and land environments.
- CHI has in-house NVG maintenance department to ensure 100% readiness of units and immediate access to calibration of lenses.
- CHI is utilizing the 10 sets of ANVIS 9 -NVG' and associated equipment that are rated "top-of-the line" units within the Civilian industry.







CHI SAR - Experience & Trainiagbit P-194

- 10 Rescue Pilots; 16 Rescue Specialists with extensive experience in harsh climates and offshore waters (YYT Staffing).
 - 80% of SAR staffing is comprised of Canadian Military SAR background.
- Transport Canada Approved Operations Manual and SAR Standard Operating Procedures
- Daily training scenarios and live exercises on land and sea.



Simulation Training

S-92 Flight Simulator (Fsim - Level D)

- Operational since 2016
- SAR AFCS & NVG Compatible





Helicopter Mission Training System (HMTS):

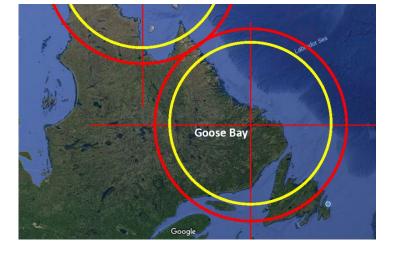
- Delivered installed at CHI mid-Oct 2021
- Linked with S-92 Flight Simulator



S-92 Standard MedEvac Configuration



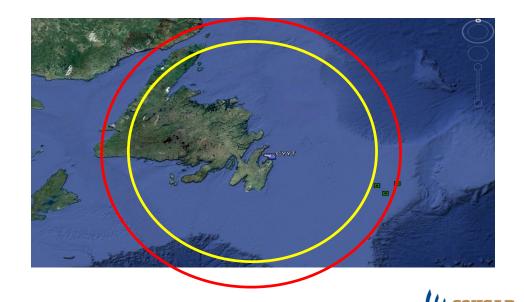


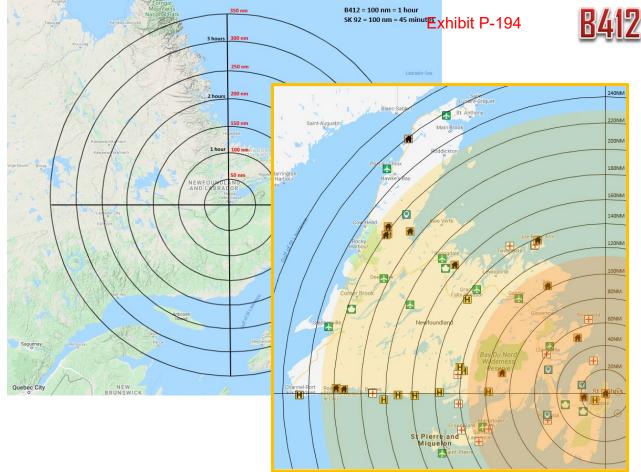


S-92 SAR Radius - NL

One Aux Tank, 30 minutes 'on scene' ≥ 240 nm radius.

Two Aux Tanks, 30 minutes 'on scene' > 290 nm radius.





B412 Range - NLPage 20

B412, with on-board auxiliary fuel has island of Newfoundland covered from YYT.

Combined with airport fuel stops, we can cross the island and return to St John's in about 6 hours.

It can reach ½ provinces population with enough onboard internal fuel to return to St John's





SAR Ecosystem

Public Private Partnership(s)

Connected Support

Partnerships

Performance Based

Training Support

Flight Crew

Back End Crews

Cost Model







