

# COVID – 19 MEDIA PAMPHLET 2021



## WEATHERHAVEN'S AGILE RESPONSE TO COVID – 19



Front page of Weatherhaven's website immediately after the World Health Organization declared the pandemic



### Coronavirus disease (COVID-19) - Turnkey Field Hospitals with Isolation Wards

March 18, 2020 – Port Coquitlam, Canada

With the unprecedented rise of the pandemic COVID-19 effecting nations around the world, Weatherhaven is committed to providing the necessary essentials for individuals and nations in this time of crisis. Our Turnkey Field Hospitals with isolation wards provide the solution through this difficult time. Key features include all key hospital functions encompassing isolation wards, staff quarters and air transportability.

#### Key Features:

- Rapid Supply - Global Manufacturing & Supply Chain
- Modular and Scalable
- Interconnected on Raised Floor Platforms with Hospital Grade Floor Finish
- Furnished to Desired Capability
- HVAC and HEPA Filtration. (Negative Pressure Environment Available)
- Medical Equipment to Suit
- All Electrical and Mechanical Systems Including Power Generation, Distribution, Water Purification and Waste Management
- Deployable Support Team for Training & Installation
- Long Term Regional Support



Weatherhaven's COVID -19 press release on the website

MARCH 18, 2020

Days after the World Health Organization (WHO) declared the coronavirus pandemic an outbreak, Weatherhaven immediately acted with our news release on March 18, 2020, highlighting our resources. Shortly following, we immediately pivoted with a press release and alert on our website to draw attention to the immediate need for field hospitals. Within 6 weeks, Weatherhaven had engineered, tested, and developed a new negative pressure COVID-19 hospital ward that was both safer for front line workers and could be rapidly deployed to outbreak locations across the world. As of May 2021, Weatherhaven had deployed 23 hospital solutions around the world.

## NEWS ARTICLE HIGHLIGHT – VANCOUVER SUN, NOVEMBER 2020

### Coquitlam company pivots field-hospital expertise to fill COVID-19 niche

*Weatherhaven has long experience making remote field hospitals.*

Author of the article:

**Derrick Penner**

Publishing date:

Nov 12, 2020 • November 12, 2020 • 2 minute read • [Join the conversation](#)



Ray Castelli, CEO of Weatherhaven. The firm manufactures mobile hospitals and adapted their facilities specifically for COVID-19. PHOTO BY FRANCIS GEORGIAN /PNG

Designing the mobile COVID-19 hospitals Canada hopes to deploy across the country was a quick pivot for their Coquitlam manufacturer Weatherhaven to adapt things they were already doing specifically for the

pandemic.

The Public Health Agency of Canada has ordered two, 100-bed isolation hospitals from Weatherhaven, with the option of taking eight more, based on design work the company started only in March at its local headquarters, said CEO Ray Castelli.

“(When) COVID came along, we started getting inquiries about field hospitals just as clinics,” Castelli said, which Weatherhaven had already been building for clients such as the Red Cross and Doctors Without Borders over the last 15 years.

Instead of just field hospitals, Castelli said one of their lead designers deduced they could take the design for modular structures they were already making for the Canadian military and combine them with their technique for building pressure-sealed shelters to protect people from hazardous environments.

The result was a prototype, 10-bed isolation ward set up in the parking lot of Weatherhaven’s production facility in Coquitlam, which, from the outside, looks a lot like a typical military-green army tent.

“We tested the idea and determined that we can seal them up enough so that we could over-pressurize them and create that negative-pressure environment” suitable for treating COVID-19 patients, Castelli said.

Its air-handling unit can pressurize the space and exchange all the air inside it once every two minutes with expelled air run through HEPA filters.

And to date, Weatherhaven has manufactured and shipped 17 of the isolation hospitals at production facilities in Ottawa, Peru and Dubai to places as far flung as Chile, El Salvador, Guinea in Africa, the Middle East and Greenland.

Their modular design means they can be as small as 10 beds or as big as 100 beds, which occupy the space of a typical soccer field, and cost \$2 million or more, depending on how customers want them outfitted, Castelli said.

Some just want the empty, negative-pressure facilities. Canada, however, is one of the customers looking for turnkey hospitals complete with beds, oxygen systems, ventilators and portable X-ray machines.

Weatherhaven partnered with Calgary firm the Atco Group to develop, build, store and deploy the mobile respiratory care units, MRCUs, designed for a range of uses, depending on how provinces want to use them, Castelli said.

In some instances, they might be used as COVID-19 wards attached to hospitals, in others adjacent to long-term care homes or to provide resources in remote locations where the capacity to deal with COVID-19 is thin including First Nations, Castelli said.

“We’re going to be deploying the first one in about a week or so in a trial in Ontario,” Castelli said.

Weatherhaven got its start making camp facilities for remote mining camps then evolving and expanding to mobile military accommodations and shelters rated and tested to -80 C temperatures to house researchers in harsh Arctic and Antarctic environments.

“We’ve been innovating all the way through,” Castelli said about their COVID-19 response that has been somewhat of a business boom when other projects have dropped off. “What we’re actually delivering today is better than what we did back in March.”

## OUR STORY IN THE NEWS MEDIA

### Press Coverage in Canada

- In Canada, Weatherhaven effectively utilized a combination of media options to reach a wider audience
- These publications include, the Canadian Defence Review (CDR), the Tri-City News, and the Vancouver Sun

In CDR Magazine

### QUOTE FROM LIEUTENANT-COLONEL SHANNON GOUDIE

“The Headquarters Shelter System was bought by the Canadian Army and they are using it quite extensively. We have adopted that as our newest and greatest shelter capability, but we certainly have other shelter systems like the Tent Expandable Modular System or TEMS, and the MECC.”



From CDR Magazine



From the Vancouver Sun



From the Tri-City News

“AS WE CONTINUE TO BATTLE COVID-19, WE ARE PROVIDING THESE MOBILE HEALTH UNITS IN ONTARIO TO RELIEVE PRESSURE ON HEALTH CARE WORKERS AND HELP PATIENTS. WE WILL CONTINUE TO BE THERE TO SUPPORT PROVINCES AND TERRITORIES TO HELP CANADIANS AND COMMUNITIES ACROSS THE COUNTRY GET THROUGH THIS DIFFICULT TIME.”

- THE HONOURABLE PATTY HAJDU, MINISTER OF HEALTH



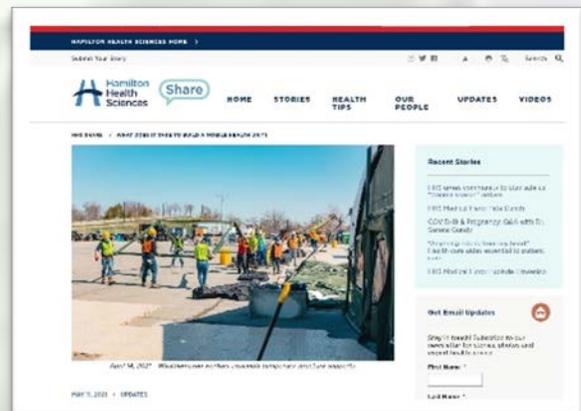
Prime Minister Justin Trudeau made the announcement of the deployment of two field hospitals on January 19, 2021



The premier of Ontario, Doug Ford



Video from Global News Canada highlighting the government's decision



Weatherhaven shelters on display at Hamilton Health Sciences

# COLLECTION OF PRESS RELEASES AND CLIPPINGS FROM CHILEAN MEDIA



Coverage of Weatherhaven shelters on Chilean TV



Chilean President Sebastián Piñera Echenique making the announcement of field hospitals to Chile



Weatherhaven Shelters featured in Chilean News

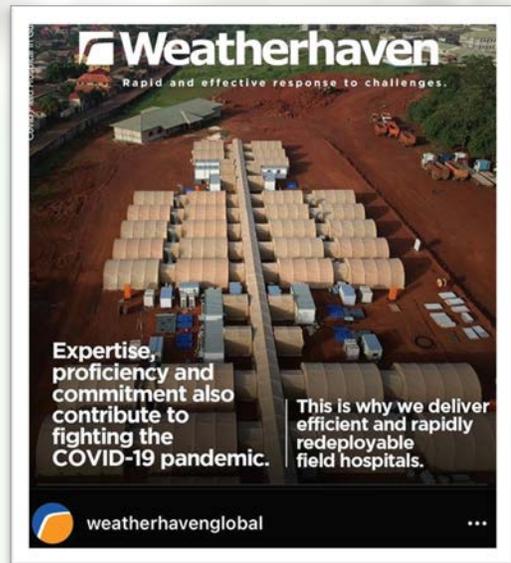
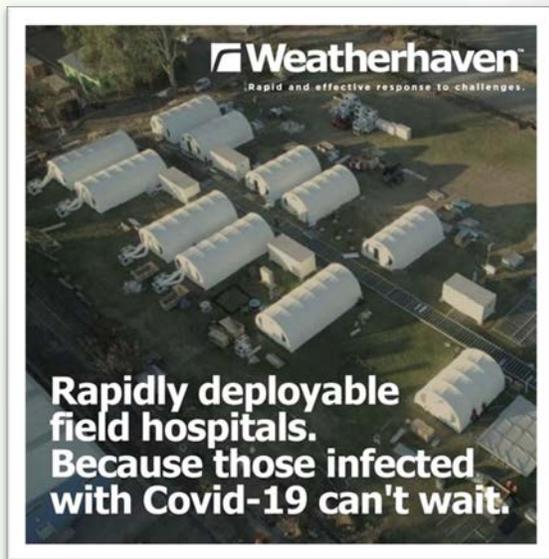


Weatherhaven shelters depicted by Chilean media

## OUR STORY ON SOCIAL MEDIA

### Weatherhaven Social Media Highlights

- In response to the pandemic and our new corporate refresh, we showcased our innovation and history throughout advertisements displayed on our various social media channels



## COVID-19 Partnerships and Alliances

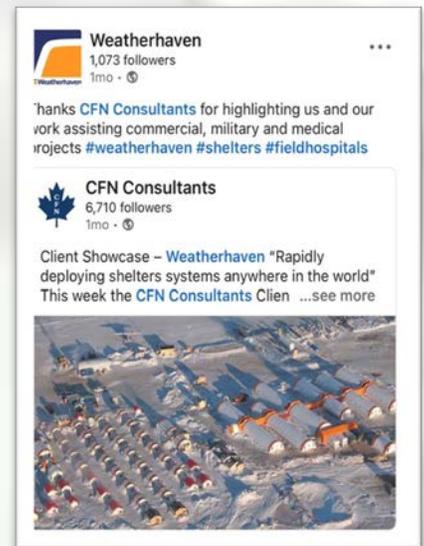
- Throughout COVID -19, Weatherhaven has continually participated in online seminars and events to network with those in the defence industry
- Such events include CADSI Conference in Ottawa and IDEX Conference in Dubai among others
- Alliances were continually expanded and forged between various organizations



We were ranked in the top 100 defence companies by CDR Magazine



Attending the CADSI Conference with leading companies in the defence sector



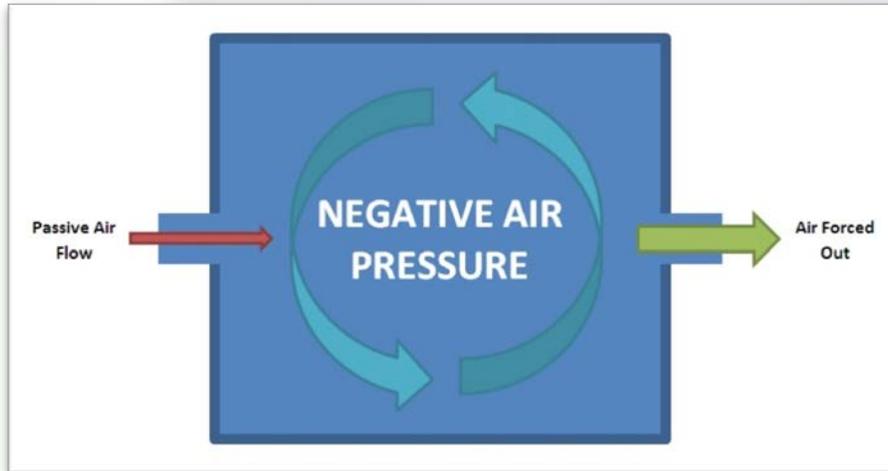
CFN Consultants highlight our work



Our booth at the IDEX Conference in Dubai

## UNDERSTANDING THE SCIENCE BEHIND THE STORY

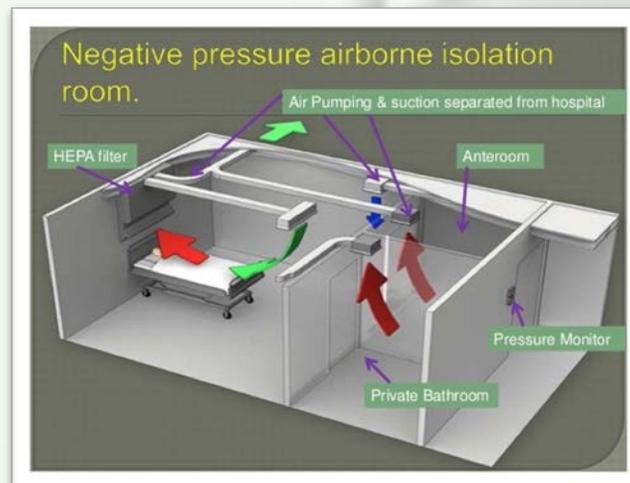
### WEATHERHAVEN INNOVATION



*Diagram of the cycle of negative air pressure*

### Negative Air Pressure

- Understanding negative air pressure is critical to the success of the mobile field hospitals
- A negative pressure room in a field hospital is used to contain airborne contaminants within the room, blocking out harmful outside particles



*Diagram of the various factors involved in a negative pressure isolation room*

# INSIDE THE WEATHERHAVEN MOBILE FIELD HOSPITAL

## 3.0 Equipment Map

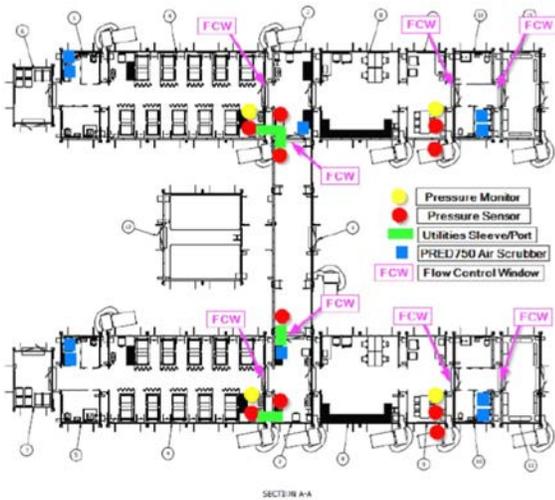


Figure 2 - Equipment Map

This diagram illustrates the connection of several factors of equipment that are required to facilitate the negative pressure in the mobile field hospital

## 2.0 Airflow Map (goal)

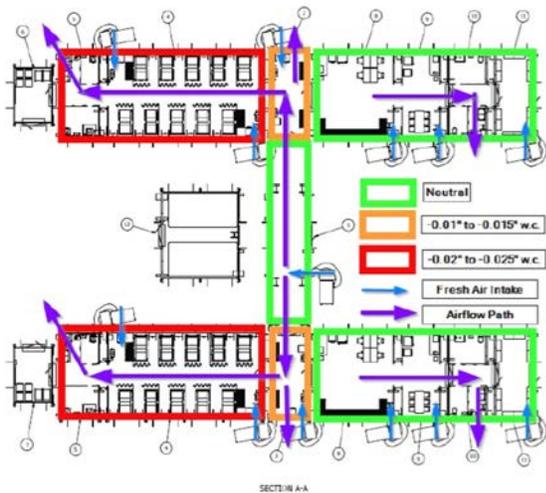


Figure 1 - Airflow Map

This diagram illustrates the airflow and circulation with different colours, representing various levels of water column readings

## WEATHERHAVEN INNOVATION – HEPA UNITS

### HEPA UNITS

- Units meet CDC & CSA Guidelines
- Provide flexibility and easily customizable hospital wards
- Filter the recirculated air passing back through the ECUs



Detailed Map of HEPA Filter

## HEPA FILTERS

To create the negative pressure steps, we have utilized ductable portable HEPA air scrubbers that typically sit inside the patient washrooms. They draw air from the washroom, filter it, and blow it outside through a duct passing through a shelter's ECU port.

By using adjustable openings in the windows between the ward, anteroom, and corridor, pressure differentials achieved at each transition can be controlled.

Digital pressure monitors are mounted on the wall just inside each ward that measure to 0.001" of water column, so we can analyze how the system is performing.

## INNOVATIVE AWARDS BEHIND THE SCIENCE

- Weatherhaven has 52 awards worldwide and 4 global patents
- We were awarded the Autodesk Inventor of the Month in March of 2011, as the only third Canadian company to receive the award

### Shelter from the elements.

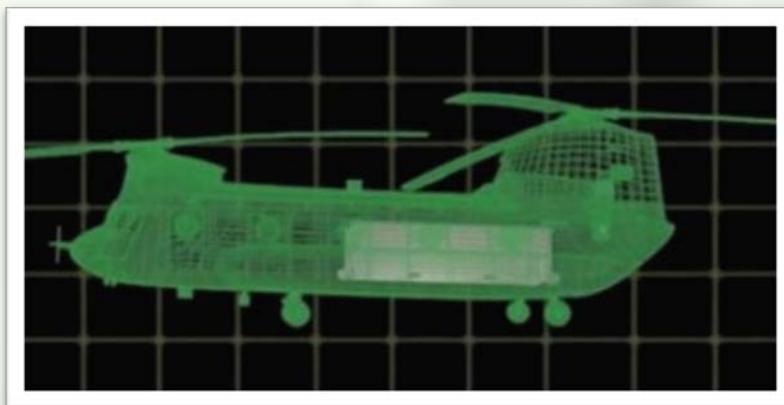
Weatherhaven relies on Autodesk® Inventor® software to design portable shelter systems for the most rugged environments and remote locations.



*Depiction of Autodesk technology*



*Weatherhaven inside the edition of BC Business*



*A simple rendition design of our shelter within a helicopter*

## OUR STORY OF FIELD HOSPITAL PROJECTS AROUND THE WORLD

### Field Hospitals in Chile

- Five high quality field hospitals were erected in various locations surrounding Chile
- These field hospitals were constructed at a rate of around one every 45 days, starting in May 2020
- Remote support and installation were provided, aiding in the success of the projects



Hospital #1



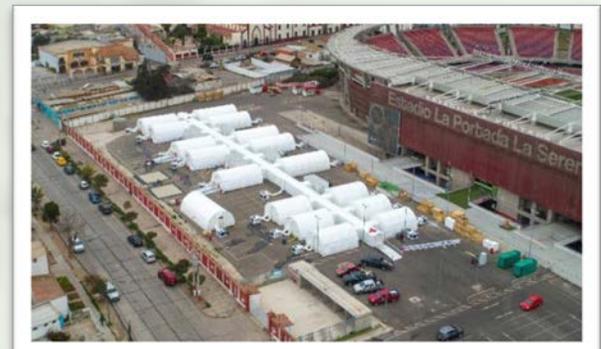
Hospital #2



Hospital #3



Hospital #4



Hospital #5

## Greenland Shelters

- Our COVID-19 field hospital solutions in Greenland provided viable shelter space for the homeless population of Greenland against the harsh climate conditions
- Xploration Services, a long time Weatherhaven customer, was contracted to erect our shelters to combat the spread of COVID-19 and to further encourage social distancing



*Weatherhaven shelters on display at Nuuk, Greenland*

## NEWS ARTICLES AND PUBLICITY

### WEATHERHAVEN SHELTERS AID GREENLAND'S MOST VULNERABLE

25 May 2020



#### May 25, 2020 - Port Coquitlam, Canada

Weatherhaven shelters have been erected in Nuuk, the capital city of Greenland to protect the homeless in the region against the widespread COVID-19 pandemic. The Sermersooq municipality has contracted Xploration Services, a long time Weatherhaven customer, to erect our shelters to combat the spread of COVID-19 and to further encourage social distancing. The first 30 persons moved into the camp on May 22. The Government of Greenland has passed an emergency measures act forbidding gatherings of more than 10 people in the country. Twelve people in Greenland have tested positive for the virus, eleven have recovered and there have been no deaths. The last recorded positive test was on April 7.



*From Weatherhaven website*

SATURDAY, MAY 22, 2021  
JOBS NOTICES ADVERTISE

NUNATSIAQ NEWS

TOPICS\* REGIONS\* NEWS OPINION\* TAISSUMANI FEATURES\* WEE

PHOTO APR 6, 2020 - 1:00 PM EDT

### To fight COVID-19 spread Greenland erects tent camp for homeless



*News article for the Nunatsiaq News*

## Hospital in Panama

- In July of 2020, the Canadian Embassy, in partnership with Scotiabank, donated a field hospital to aid Panama in their COVID-19 struggle
- This donation generated social media buzz in Panama and Canada via Twitter



Photo of Weatherhaven shelter in Panama City, Panama on Panama TV

## SOCIAL MEDIA TWEETS FROM MEDIA



## Weatherhaven Shelters in Africa

- Six field hospitals were purchased by Weatherhaven Dubai and were deployed to combat COVID-19 in various regions
- In November of 2020, The United Arab Emirates donated a field hospital, which can house up to 200 patients, to the capital of the West African nation of Guinea, Conakry



*Mohamed bin Zayed Field Hospital in Conakry, Guinea*



*Field hospital in Mauritania*

# FIELD HOSPITAL IN SIERRA LEONE



## NEWS ARTICLES AND PUBLICITY

**Construction Week**  
NIGERIAN NATIONAL PETROLEUM CORPORATION (NNPC)  
EXPRESSION OF INTEREST (EOI) FOR THE PROVISION OF OPERATION AND MAINTENANCE (O&M) SERVICES FOR THREE (3) RCN REFINERIES

Expo 2020 Business People Projects & Tenders Products & Services Lists Events Webinar Construction

Home » Projects And Tenders

THREE DAYS OF FOCUSED, HIGH-IMPACT, ENGAGING EXPERIENCES  
8 MAR - 13 MAR 2021 (AT THE VIRTUAL TRADE CENTRE)  
www.constructionweek.com

### EGA's GAC completes Sheikh Mohamed bin Zayed Field Hospital in 30 days

The COVID-19 field hospital was erected and fitted out by Tamouh Healthcare and Weatherhaven

Third Party Coverage by Construction Week

Home News Bulletin Careers Multimedia World Business Sports Reports

Hospital Inauguration with the Minister of Health of the Republic of Guinea, Doctor Colonel Rémy Lamah, in the presence of representatives from the United Arab Emirates

### **Mobile Field Hospital Demonstrations in Brockville, Canada**

- In November of 2020, Weatherhaven Brockville put up a demonstration illustrating the potential re-deployability of our shelters in Canada for the Government of Canada
- This demonstration drew media attention on Twitter and local news outlets



*MHU Demonstration in Brockville, Canada in November 2020*

## Canadian Field Hospitals

- The Government of Canada announced our cooperation with ATCO and Aggreko to provide essential shelter solutions to battle the third wave of COVID -19 in Canada in January of 2021
- In May of 2021, Weatherhaven successfully procured two field hospitals to the Greater Toronto Region (GTA), one beside Hamilton Health Sciences and the other at Sunnybrook Hospital



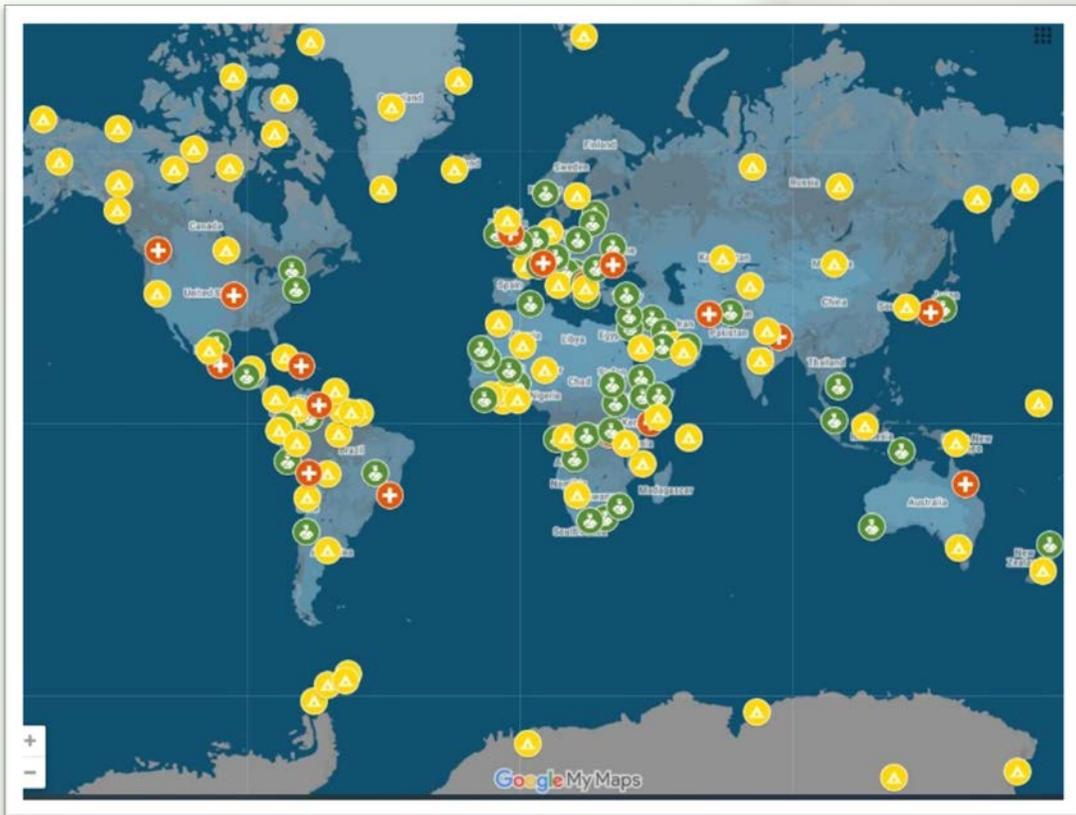
*Sunnybrook Field Hospital*



*Hamilton Field Hospital*

## WEATHERHAVEN'S COVID - 19 LEGACY

- Weatherhaven's COVID-19 legacy is appreciated around the world, having designed, manufactured, and procured 23 COVID-19 field hospital shelters to nations around the world. We continue to be an international defence and shelter company and a world leader in manufacturing fabric-covered shelters for commercial, military, and medical purposes.



*World Map of Weatherhaven Deployments Around the World*