North Island 9-1-1 Corporation
serving the regional districts of Alberni-Clayoquot, Comox Valley, Mt. Waddington, Nanaimo (School District #69), Powell River, and Strathcona

File: 9-RA

January 13, 2015

Islands Trust Fund
200-1627 Fort St
Victoria, BC V8R 1H8

Attention: Islands Trust Fund Board

Dear Sir:

Re: Mt. Trematon Nature Reserve on Lasqueti Island – 9-1-1 fire dispatch services

The North Island 9-1-1 Corporation (NI 911 Corp) was established on January 5, 1995 to manage the provision of 9-1-1 and fire dispatch services to the Comox Valley Regional District, Strathcona Regional District, Regional Districts of Mt. Waddington and Alberni-Clayoquot and a portion of the Nanaimo Regional District. The Powell River Regional District joined the service in 1999. The population served is approximately 215,000 people with funding for the non-profit service sourced through property taxation as assessed by each participating regional district.

NI 911 Corp has agreed to include Lasqueti Island within its existing 9-1-1 and fire dispatch service network after being formally approached by the Powell River Regional District. NI 911 Corp formally requests that the Islands Trust Fund assist with obtaining all necessary approvals to install a fibreglass solar powered radio shelter on or near the peak (east side) of Mt. Trematon. The round shelter is painted dark green and measures six feet in diameter at the base by one foot at the top. It is fifteen feet six inches in height with the antenna housed internally; the enclosure will be anchored by three bolts drilled and epoxied into rock directly below the shelter.

The requests above are the direct result of Telus Communications Inc. formally notifying the Powell River Regional District that CDMA (cellular) technology will not be available after March 31, 2015. The loss of this service from Telus means that the residents of Lasqueti Island will not be able to alert the fire department to medical and fire incidents. The topography of Lasqueti Island creates a significant challenge for establishing a new reliable island wide emergency services communication system to replace the current one.

NI 911 Corp staff have conducted extensive radio testing on Lasqueti and have concluded that the installation of a solar power VHF radio repeater near the peak of Mt. Trematon to be the only reliable, cost effective solution. Initial installation costs will be in the range of approximately $60,000, plus associated legal and administrative costs. The annual operating costs are very low and the site will require very infrequent maintenance.

600 Comox Road, Courtenay, B.C. V9N 3P6
Telephone (250) 334-6000 • Fax No. (250) 334-4358
TOLL FREE: 1-800-331-6007

In the event the request for a solar site on Mt. Trematon is not approved a less desirable alternative is for NI 911 Corp to erect to two separate radio towers, one at each end of the island measuring between 250 and 300 feet each in height. Each tower would require a four acre foot print to include supporting guy wires with initial installation costs in the range of $250,000, not including land lease costs.

NI 911 Corp has previous experience installing radio equipment in sensitive protected areas for the provision of emergency dispatch services. In 2005, a radio tower was installed near the summit of Mt. Geoffrey, in Mt. Geoffrey Nature Park on Hornby Island. NI 911 Corp continues to operate from this site today and remains a tenant in good standing.

We look forward to a response as soon as is practical regarding the feasibility of this request. We will also be happy to provide any other information as necessary upon request.

Sincerely,

Debra Oakman, CMA
Secretary, North Island 9-1-1 Corporation

Enclosures

1. Formal request from Powell River Regional District
2. Resolution by Powell River Regional District regarding Lasqueti
3. Technical Memo from North Island 9-1-1 Technology Manager
4. Technical drawing of proposed radio network
5. Technical Specifications radio communications shelter

cc: A Radke, PRRD

POWELL RIVER REGIONAL DISTRICT

#202 - 4675 Marine Avenue, Powell River, BC V8A 2L2
Telephone: 604-485-2260 Fax: 604-485-2216
Email: administration@powellriverrd.bc.ca
Website: www.powellriverrd.bc.ca

"Genetically Engineered Free Crop Area"

September 18, 2014

Debra Oakman
Chief Administrative Officer
Comox Valley Regional District
600 Comox Road
Courtenay, British Columbia V9N 3P6

Dear Ms Oakman:

RE: APPLICATION TO NORTH ISLAND 911 SERVICE

At the last regularly scheduled meeting of the Powell River Regional District Board held on September 17, 2014; the Board passed the following resolution:

"THAT the Board concur with the recommendation of the Committee of the Whole to direct staff to explore Electoral Area E (Lasqueti Island) joining the North Island 911 service".

Please accept this as our formal letter seeking information relative to applying on the behalf of Electoral Area E (Lasqueti Island) to the North Island 911 Corporation and expanding the already established service area through our current shares and membership. We would like to request you to investigate the opportunity and legal process for Electoral Area E (Lasqueti Island), including amendment to the Powell River service establishment bylaw, in joining North Island 911.

The Lasqueti Island Volunteer Fire Department currently operates on a Telus pager system along with a team of volunteer dispatchers. In June of this year Telus informed the Regional District that it was discontinuing this pager service on March 31, 2015.

We are interested in knowing how appropriate it is to apply or whether an application would be entertained. We would like to know the proper procedures and protocol, whether there are any initiation fees or start-up capital costs, what ongoing maintenance or membership fees would be and if there are any obstacles or legal impediments.

Time is not on our side so reviewing this request expeditiously would be greatly appreciated. We look forward to your direction, information and any advice or guidance that you can give us.

Sincerely,

Al Radke, BSBA, CLGM
Chief Administrative Officer

From: Al Radke [mailto:al.radke@powellriverrd.bc.ca]
Sent: Tuesday, January 06, 2015 9:20 AM
To: Debra Oakman
Cc: Ryan Thoms; Merrick Anderson; Patrick Brabazon
Subject: LASQUETI ISLAND NI 911

Please be advised that at the last regularly scheduled meeting of the Powell River Regional District Board, the Board adopted the following resolution:

M. Anderson / P. Brabazon THAT *the Board concur with the recommendation of the Committee of the Whole to add Electoral Area E as a participant in both the Emergency 9-1-1 and the House Numbering Services; and*
THAT *funds from Electoral Area E be included in the Emergency 9-1-1 budget to pay the one-time costs required to the 9-1-1 system in order for 9-1-1 PSAP and fire dispatch SSAP services to be provided to Lasqueti Island, projected to be in the range of $60,000 to $70,000; and*
THAT *all other Emergency 9-1-1 costs will be cost shared pursuant to the existing shareholders agreement; and*
THAT *Electoral Area E pay for the costs associated with the house numbering of Lasqueti Island and road mapping, estimated at $18,620; and*
THAT *the Board enter into an agreement with North Island 9-1-1 Corporation that it will pay the direct cost upgrades required to the systems in order for 9-1-1 PSAP and fire dispatch SSAP services to be provided to Lasqueti Island and acknowledging all other costs would be cost shared pursuant to the existing shareholders agreement.*

This should now pave the way for NI 911 to perform the necessary groundwork and make arrangements/agreements with Telus, E-Comm and Campbell River Dispatch as well as engaging planning with Islands Trust and any other required agencies.

As a side note, Director Anderson from Lasqueti Island has already been attempting to make inroads with the proper authorities to seek informal pre-approvals before NI 911 approaches them with a formal application for tower placement etc..

Should you have any questions or concerns, please do not hesitate to contact me.

Thanks,

Al Radke, BSBA, CLGM
Chief Administrative Officer

POWELL RIVER REGIONAL DISTRICT

CALL US WE ARE YOUR LOCAL GOVERNMENT

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Save a tree. Do not print this e-mail unless it is really necessary.

NI 9-1-1

Memo

DATE: November 21, 2014

FILE:

TO: Debra Oakman, Secretary
North Island 9-1-1 Corporation

FROM: Randy Zaleschuk, Technology Manager
North Island 9-1-1 Corporation

RE: Radio Dispatching Coverage – Lasqueti Island

November 13th 2014, Chris Vrabel and I travelled to Lasqueti Island to complete paging coverage tests of the island with Richard Carlson, Lasqueti Island Fire Chief. A review of the existing radio equipment was also conducted and the results of my findings are as follows:

Existing Lasqueti Island Radio Equipment
Lasqueti Island's existing radio system does not provide adequate coverage for acceptable paging of their entire fire protection area.

The radio equipment on Lasqueti Island is sub-standard and includes a dead Hemlock tree as their main repeater tower and a non-commercial grade antenna at the Lasqueti #1 Fire Hall. Transmissions from this tower are not sufficient to provide coverage of the island.

The radio equipment at the south-end repeater site is also sub-standard, using an amateur radio grade antenna. This site also does not provide sufficient coverage and there are no links connecting the two radio sites, as such, they operate independently.

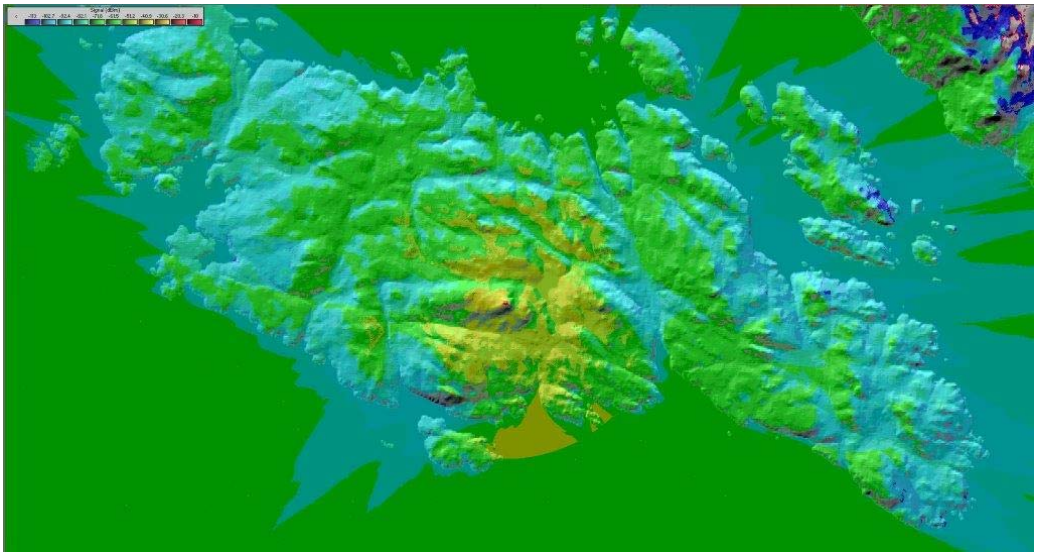
Existing 9-1-1 Corp Infrastructure
Testing from Lasqueti Island of the existing systems that NI911 currently has in place including Mt Pochahontas on Texada Island, Mt Geoffrey on Hornby Island, Cameron Lake in District 69, and Qualicum Beach Repeater was completed.

Testing revealed that the best coverage of Lasqueti Island for existing infrastructure would be from the Cameron Lake Repeater, however it would only provide intermittent paging at best in some areas.

Due to the performance results of the testing, I suggest that paging from any of our existing sites would be unsuitable.

New 9-1-1 Corp Infrastructure
To overcome the coverage issues with providing service to this new area my recommendation is as follows:

- **New repeater installation.** To provide adequate paging coverage for Lasqueti Island, a repeater should be located on the highest point of the island. Mt Trematon is the highest point on Lasqueti Island and would provide excellent coverage for paging and dispatch.



- **Low profile solar-powered site.** With Mt Tremeton being located in a nature reserve, it will likely be necessary to obtain Powell River Regional District support and support of the Lasqueti Island Fire Department for assistance in securing the location.

  Equipment would be solar powered and installed in a comshell enclosure with internal antenna to provide maximum protection and the lowest possible footprint.

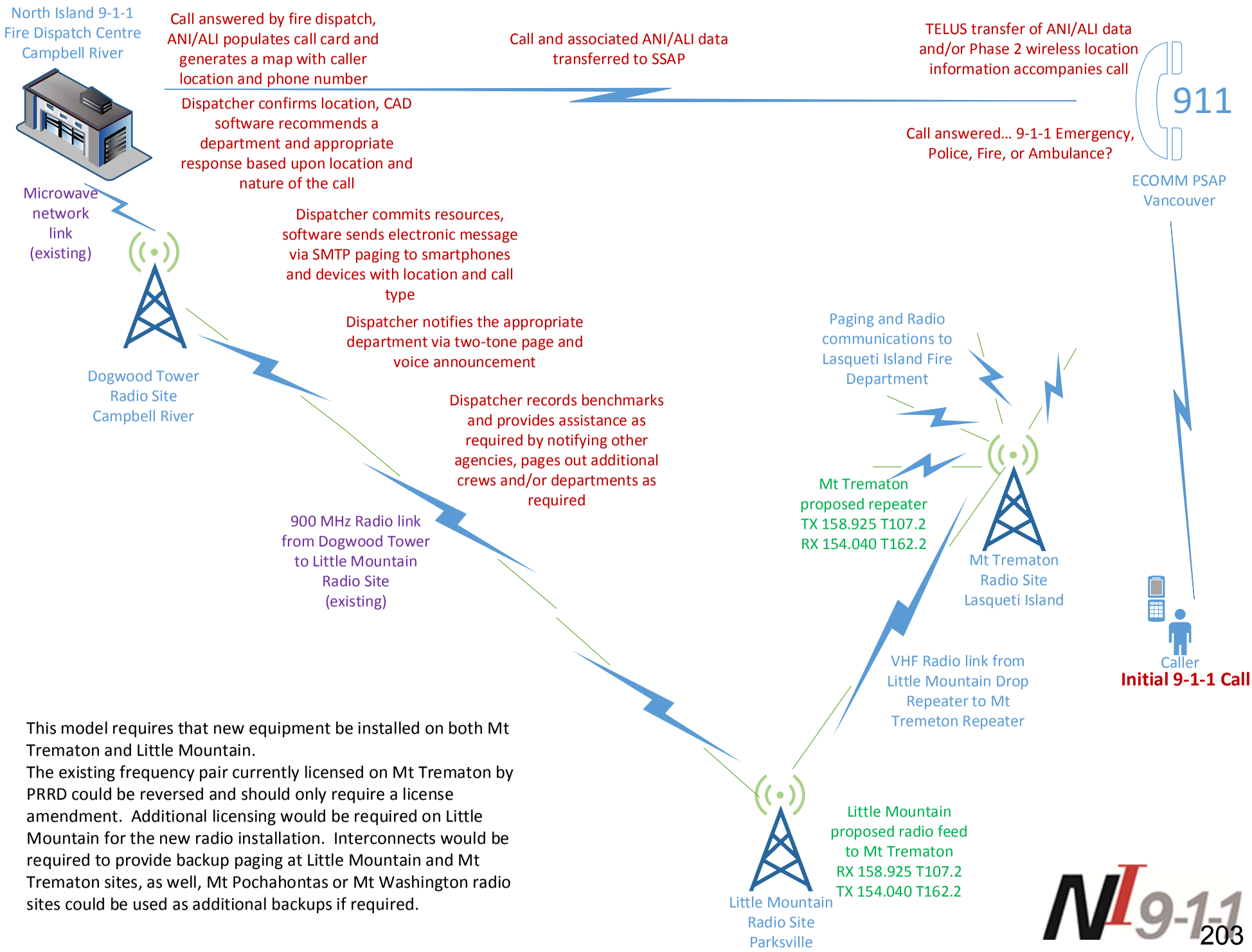
  Industry Canada would also have to approve of the radio licensing at this location and any necessary amendments to existing licenses.

- **Estimated costs.** I am getting a quote prepared for the delivery and installation of a turn-key solution, but at the time of this writing, the quote wasn't available. I estimate the costs to be around $50,000.

A backup paging solution will also be required to provide paging coverage in the event that the repeater is out-of-service. The cost for two interconnects and associated equipment will add an additional $10,000 to this project.

Respectfully:

Randy Zaleschuk
Technology Manager, NI 9-1-1



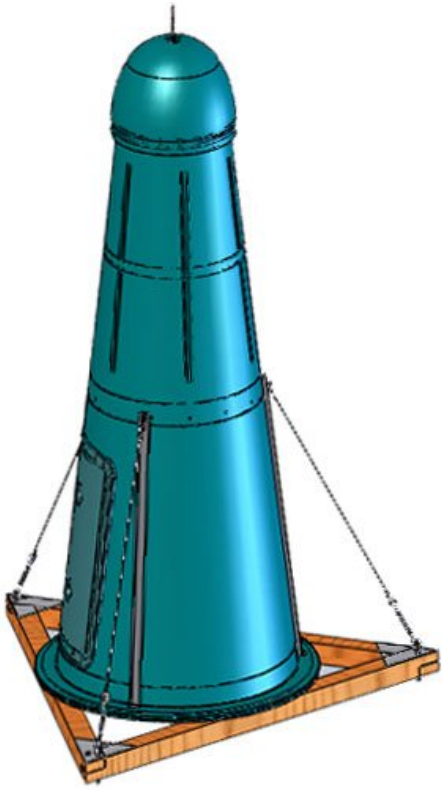
This model requires that new equipment be installed on both Mt Trematon and Little Mountain.
The existing frequency pair currently licensed on Mt Trematon by PRRD could be reversed and should only require a license amendment. Additional licensing would be required on Little Mountain for the new radio installation. Interconnects would be required to provide backup paging at Little Mountain and Mt Trematon sites, as well, Mt Pochahontas or Mt Washington radio sites could be used as additional backups if required.

COMSHEL 15-W

Comshel, 15'-6" height, timber frame base

Also referred as: Comshel Junior

- Proven protection for communication systems
- Cedar wood base included
- Several height options available to accommodate varying space needs.
- Various specially designed compact Base station antennas available for Comshels.



Sinclair's Comshel has been used for years to shelter communications systems from hostile environments in remote locations. It has proven itself able to withstand strong winds and a build-up of radial ice. Installations, as long as they are powered properly, can be left for years.

The durability and longevity of a Comshel installation means savings in service and replacement of equipment.

The basic composition of the Comshel is fiberglass roving with cloth and mat as reinforcement for a thermoset resin. Depending on specific needs, the resin can contain fire-retardant additives and ultra-violet inhibitors. The base selection includes a layer of polyurethane foam that provides excellent thermal insulation and adds to the strength of the structure. The Comshel has many superior features:
- sections nest for easy shipping
- smooth gel-coat surface and round design sheds ice
- rock anchors help withstand high winds
- bullet-resistant shell
- access door securely bolted to base
- molded-in colors
- custom construction
- Sinclair service and expertise

Sinclair's sales and engineering offices will be pleased to assist you in selecting the right products for your application, with quality and service second to none. With our forty years of experience in designing and manufacturing products for the mobile radio industry, Sinclair can offer the best solution for your system. With the great variety of antennas and duplexers we have available, and the flexibility to customize these to your exact specifications, Sinclair can do the job for you, often at no extra cost.

If you have an unusual frequency assignment, or need special protection or coverage at your site, our sales engineers can readily determine the antennas and filters you need, and calculate the probable response. With the use of Sinclair's computerized databases and specialized software, we can canfigure the optimum system based on the information you provide.

Proper antenna installation is essential for satisfactory performance and long antenna life. We encourage customers to request assistance with the selection of appropriate hardware and to follow the installation guidelines provided with each antenna.

Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

Mechanical Specifications		
Length	in (mm)	188 (4775)
Comshel Weight (Less Base)	lbs (kg)	703 (319.16)
Comshel Base Frame Weight	lbs (kg)	269 (122.13)
Comshel With Frame Weight	lbs (kg)	972 (441.29)
Base Diameter	in (mm)	78.12 (1984)
Top Diameter	in (mm)	34.38 (873)
HFC (Horizontal force center)	in (mm)	73 (1854)
Mounting hardware		Timber Base Frame
Wind Loading Area	ft² (m²)	57.1 (5.3)

Environmental Specifications		
Temperature range	°F (°C)	-58 to +158 (-50 to +70)
Rated wind velocity (no ice)	mph (km/h)	175 (282)
Lateral thrust (100 mph No Ice)	lbs (N)	979 (4354.6)
Rated Wind Velocity (2" Radial Ice)	mph (km/h)	135 (217)