

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Bid Receiving
PWGSC
33 City Centre Drive
Suite 480C
Mississauga
Ontario
L5B 2N5
Bid Fax: (905) 615-2095

SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Public Works and Government Services Canada
Ontario Region
33 City Centre Drive
Suite 480
Mississauga
Ontario
L5B 2N5

Title - Sujet Weather Radar Network Modernization	
Solicitation No. - N° de l'invitation K3D33-141144/A	Amendment No. - N° modif. 005
Client Reference No. - N° de référence du client K3D33-141144	Date 2014-12-19
GETS Reference No. - N° de référence de SEAG PW-\$TOR-018-6639	
File No. - N° de dossier TOR-4-37044 (018)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2015-02-17	Time Zone Fuseau horaire Eastern Daylight Saving Time EDT
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Pan, Long	Buyer Id - Id de l'acheteur tor018
Telephone No. - N° de téléphone (905) 615-2076 ()	FAX No. - N° de FAX (905) 615-2060
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

Solicitation No. - N° de l'invitation

K3D33-141144/A

Amd. No. - N° de la modif.

005

Buyer ID - Id de l'acheteur

tor018

Client Ref. No. - N° de réf. du client

K3D33-141144

File No. - N° du dossier

TOR-4-37044

CCC No./N° CCC - FMS No/ N° VME

AMENDMENT NO. 05

Please see attached documents.

Amendment No.05 to Letter of Intent

Amendment No.05 is raised to include the following information:

1. One-on-one Meetings Summary;
 2. Radar Site information;
 3. Potential Standard Acquisition Clauses and Conditions;
 4. Canadian Content;
 5. Trade Agreements;
 6. Integrity; and
 7. Security.
-

One-on-one Meeting Summary

12 one-on-one meetings were held during the period from September 23 to October 24, 2014 as part of the Engagement Process in support of Canadian Weather Radar Network Modernization Project (CWRNMP). Public Works and Government Services Canada (PWGSC) and Environment Canada (EC) met with 17 interested suppliers to discuss the requirement from different aspects pertaining to the technical requirements, procurement process and possible solutions. A third party Fairness Monitor was present at the meetings to ensure that the process was fair, open and transparent. During the one-on-one meetings, EC clarified the scope of the project; PWGSC explained the procurement process and offered opportunity to the participants to express suggestions and concerns. All suppliers expressed the interests and most of them provided answers to address the questions described in the Letter of Intent.

In the following paragraphs, we will provide more information to address the key questions from industry.

Radar Site information

As requested during the one-on-one meetings, please find the attached documents – Annex E: Radar Site Information and Attachment 01 – Inspection Reports.

Potential Standard Acquisition Clauses and Conditions (SACC)

Suppliers are encouraged to review the following SACC that may apply to any potential solicitation:

- 2030 General Conditions (2014-09-25) - Higher Complexity - Goods:

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/3/2030/14>

- 2035 General Conditions (2014-09-25) - Higher Complexity – Services

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/3/2035/14>

- 2003 Standard Instructions (2014-09-25) - Goods or Services - Competitive Requirements
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/1/2003/19>
- R2410T General Instructions (2014-09-25) - Construction Services
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/R/R2410T/13>
- R2710T General Instructions (2014-09-25) - Construction Services - Bid Security Requirements
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/R/R2710T/14>
- 4006 (2010-08-16) Supplemental General Conditions - Contractor to Own Intellectual Property Rights in Foreground Information;
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/4/4006/3>
- A9033T (2012-07-16) Financial Capability
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/A/A9033T/8>

Canadian Content

The Canadian Content Policy will not be applied to this procurement. However, Canada may consider improving economic outcomes from this procurement (i.e. including the point-rated criteria for economic benefits) if there are areas within the scope of the requirement where significant Canadian capabilities exist.

Trade Agreements

This requirement pertains to goods (FSC Group 58, Communication, Detection, and Coherent Radiation Equipment) and, as such, is exempt from:

- The North American Free Trade Agreement (NAFTA)
- The World Trade Organization Agreement on Government Procurement (WTO-AGP)
- The Canada Chile Free Trade Agreement (CCFTA)
- The Canada Peru Free Trade Agreement (CPFTA)

The Agreement on Internal Trade (AIT) is applicable to this requirement.

Comprehensive Land Claim Agreements (CLCA)

This requirement is not subject to the Comprehensive Land Claim Agreements (CLCAs) as the final delivery points of the goods and services required are not within the Comprehensive Land Claims Settlements Areas.

Integrity

The following terms will be included in any potential solicitation:

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in Section 01 Integrity Provisions - Bid of Standard Instructions 2003. The associated information required within the Integrity Provisions will assist Canada in confirming that the certifications are true.

Subsections 04 and 05 of Section 01, Integrity Provisions - Bid of Standard Instructions (2003) incorporated by reference above are deleted in their entirety and replaced with the following:

- Bidders who are incorporated or who are a sole proprietorship, including those bidding as a joint venture, have already provided a list of names of all individuals who are directors of the Bidder, or the name of the owner, at the time of submitting an arrangement under the Request for Supply Arrangement (RFSa). These bidders must diligently inform Canada in writing of any changes affecting the list of directors during this procurement process as well as during the contract period.
- Canada may, at any time, request that a bidder provide properly completed and signed Consent Forms (Consent to a Criminal Record Verification form - PWGSC-TPSGC 229) for any or all individuals mentioned above within a specified time frame. Failure to provide such consent forms and associated information within the time frame provided, or failure to cooperate to the verification process, will result in the bid being declared non-responsive.”

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in GI01 of Integrity Provisions - Bid of General Instructions Construction Services, R2410T General Instructions – Construction Services – Bid Security Requirements, R2710T. The associated information required within the Integrity Provisions will assist Canada in confirming that the certifications are true.

Security

There may be a security requirement associated with this requirement. A requirement of this scope could require an Enhanced Reliability clearance to perform the project management or in-service support work.

Industry Security Program (ISP)

The Industrial Security Program (ISP) is responsible for security in Government of Canada (GC) contracts. The ISP protects sensitive GC and foreign government information and assets in contracts with industry. ISP will be working with Canadian organizations and the counterparts in partner foreign countries to make sure the private information of Canadians as well as national and foreign security information is treated properly.

ISP makes sure contracts clearly state the security requirements of the work and it security screens organizations and their personnel. ISP also inspects industry work sites and equipment where work on sensitive information or assets is taking place in the private sector.

If your organization is bidding on a GC contract with security requirements, you will need to register in the program. The same goes for organizations working on subcontracts.

Note: Work cannot begin until the contractor obtains the necessary security screening from the Industrial Security Program.

Please read carefully the process and requirements contained in the link below including the following contents:

<http://ssi-iss.tpsgc-pwgsc.gc.ca/index-eng.html>

- [Organization Security Screening](#)
- [Personnel Security Screening](#)
- [Contract Security](#)
- [Requests for Visit](#)
- [Subcontracting Security](#)
- [Physical Security](#)
- [Transfer of Classified and Protected Information and Assets](#)
- [Reporting Security Incidents](#)

Should you have any questions, please contact Contracting Authority Long Pan by email:
long.pan@tpsgc-pwgsc.gc.ca

Annex E - MSC Radar Site Location Information

General Notes:

Because of distances from accommodations and local villages/towns, technicians for the most part choose to bring lunch with them to carry them through the day. Breakfast and dinner are taken near their accommodations.

Issues with crane accessibility are detailed in a number of site accesses.

Sites

Holyrood, Nfld

Province/location: Holyrood, NFLD (near St John's NFLD)

Latitude: 47° 19' 32 " N (47.32556 degrees)

Longitude: 053° 07' 43" W (53.12861 degrees)

Site ground elevation: 86.2 metres top of tower pillars

NEAREST SITE ACCOMMODATIONS:

City: St John's NFLD

City: travel distance of 50 Km;

SITE LOCATION:

Approximately 40 minutes west on Highway #1.

SITE ACCESS:

From City:

Proceed westward on highway #1 to "St Mary's/Holyrood" interchange (exit #35 at hwy 90). Loop backward - east bound to St. John's - for 7 kilometres to the hill top access road on the south side (to driver's right when proceeding towards St. John's) of the freeway. Road access is not signed however is right before the exit sign for South Conception Bay

This hillside road is tranquil collection of large boulder rocks and base rock outcroppings. It proceeds up, around, and over the hill at a 6% to 8% incline for about 1 km. Gravel driveway from gravel road. Padlock on gate, site fully fenced. There are difficulties with transporting a crane up to the site.

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:

voltage: 120/240, single phase

current: 200 Amps service

frequency: 60 hertz

regulation: commercial

Tower:

Model: original; Unknown tower

Design: 807 or sceptre design

Installed Moved 1987 , Height: 12m.

New concrete footings in good physical shape, externally.

A ground wire is tied to each tower leg

Marion Bridge, NS

Province/location: Cape Breton County, Nova Scotia

Legal Land Description:

PID 15346547, Lot #2

Lands of the Mira Pasture Co-op Ltd.

Crown Release Bk 1339, PG.694

see Plan N-1998)

GPS

Lat: 45° 56 ' 58.4 " N (45.94955N)

Long: 60° 12' 19.5" W (60.20542W)

Site ground elevation: 104.68m

NEAREST SITE ACCOMMODATIONS:

City: Sidney, Nova Scotia. A restaurant is available in the town of Marion Bridge.

City: travel distance of 17Km;

SITE LOCATION:

3.8 Kilometres southward from the Marion Bridge, Nova Scotia Post Office .

SITE ACCESS:

From City:

At Delta Hotel; sw along Esplanade St./Kings Rd to the traffic lights at Comfort Inn; 1.7Km

From Comfort Inn on Kings Road travel SW to Kenwood Drive - 1.8 Km,

Left turn onto Kenwood Drive and travel to Highway 327 South - 1.4 Km,

Right turn onto Hwy 327 South; (Marion Bridge posted showing distance of 13 Km)

Arrive Marion Bridge Post Office/Church's Clover Farm SuperMarket - 14.3 Km,

Continue on Hwy 327 South to MacKeigan Road (left side) - 0.9 Km

Left turn onto the gravel of MacKeigan Road.

Follow the gravel road to the site access road - 3.0 Km (power line poles run beside the road during this time and will turn into the site)

Turn right into the site access road and continue to the site - 0.6 Km.(low trees and scrub brush obscure the site for the first 0.2 Km of the access road)

The radar site is located atop a 50 acre clearing surrounded by either scrub brush or clear

land sloping downwards towards farming fields below. The site is grass covered while the ground is light loam with no rock content. Soft to walk upon.

Entrance: Gated, fenced ,

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:

voltage: 120/240, single phase

current: 100 Amps service

frequency: 60 hertz

regulation: commercial

Tower:

Model: original Halifax tower

Design: Curtis Wright

Relocated/Installed May 2002 , Height: 18 m. (60 feet)

New concrete footings.

A ground wire is tied to each tower leg,

Chipman, NB

Province/location: Chipman, New Brunswick

Lot 02-01

part of N.B. Natural Resources & Energy

location/map 45141959.

Civic Address:

1970 Bronson Settlement Road, Bronson Settlement, NB., E4A 2M3

Site approximation

Lat: 46° ' 40 " N (46.222778)

Long: 65° 42 ' 00 " W (-65.70000)

Site ground elevation: 100 metres

AVAILABLE TRANSPORTATION METHODS:

Car/truck. No commercial transportation.

NEAREST SITE ACCOMMODATIONS:

City: Chipman on occasion. (Fredericton or Moncton are most available).

City: travel distance of 20 Km;

SITE LOCATION:

Chipman, New Brunswick

SITE ACCESS:

From Fredericton:

- Proceed out of Fredericton on your choice of Hwy 2 or 10 with aim of reaching community of Chipman on Hwy 10 travelling distance approx 80 km
- In the town of chipman turn NE on the Bronson Settlement Road and start the odometer count at zero. There is a Shoppers Drugmart at the corner of the intersection.
- Proceed Northeast on Bronson Settlement Road, for a total of 18.4 km, you will cross a set of railroad tracks (at 12.1Km), pass a cemetery (at 16.5Km) on your left and pass over a pipeline right of way clearing (at 18.3 Km).
- At the 18.4 Km point, turn right onto a dirt road identified as "Irving B7" and proceed for 800metres.
- The radar site is located on the right side of road. Total from start of Bronson Settlement Road is 19.2Km.

Gravel driveway (80 metres long) from dirt/gravel road. Road is washed out from time to time. In the past EC has been responsible for the payment of having about 1km of the road to be rebuilt.

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:

voltage: 120/240, single phase

current: 100 Amps service

frequency: 60 hertz

regulation: commercial

Tower:

Model: original Mechanic Settlement tower

Design: MH,

Installed December 2003 , Height: 24 m.

New concrete footings in good physical shape, externally.

A ground wire is tied to each tower leg,

Morrison-Hershfield designed tower

Villeroy, PQ

Province/location: Villeroy, Quebec

From Legal Survey & GPS

Lat: 46° ?26' 58.4 " N (46.449556)

Long: 71° 54' 49.2" W (71.913667)
Site ground elevation: 100 metres

NEAREST SITE ACCOMMODATIONS:
Villeroy, Plessisville or Sainte-Foy. 75Km from site

SITE LOCATION:
South East of Quebec city; Villeroy or Ste Francoise.

SITE ACCESS:
From Quebec City proceed south on highway #20 to exit #273. Take the exit and proceed west on county road 265, through Villeroy to county road "RANGS 12-13 EST". Turn right (north bound) onto the gravel road and proceed along the road to the radar site which will be found on one's right, approximately 3 kilometres.

Caution: the driveway to the radar compound is built up by about 1.5 metres. During winter conditions the driveway's edge is marked with orange painted stakes. Failure to negotiate the driveway will require a tow truck to extract the visitor's vehicle.

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:
voltage: 120/240, Single Phase,
current: 400 Amps service
frequency: 60 hertz
regulation: commercial

Tower:
Model: original tower
Design: Lablanc ,
Installed 1977 , Height: 18.2 m.
concrete footings in good physical shape, externally.
A ground wire is tied to each tower leg,

Landrienne, PQ

Province/location: Landrienne, Quebec
Survey & GPS
Lat: 48° ' 4.8 " N (48.55133)
Long: 77° 29.1" W (77.80808)
Site ground elevation: 393.91 metres

NEAREST SITE ACCOMMODATIONS:
Hotel Amosphere, Amos, 1-800-567-7777. (25 km)

There is a restaurant located at Landrienne, (15 min).

SITE LOCATION:

East of Amos on route 386.

SITE ACCESS:

From Amos:

- Proceed south on highway #111 to junction highway #111/386 (7 km).
- Travel east on #386 to Landrienne (8 km).
- Proceed east on #386 for 10 km to radar access road on left.

Gravel driveway from paved road. Padlock on gate, site fully fenced.

SITE ELECTRICAL POWER:

voltage: 120/240, single phase

current: 200 Amps service

frequency: 60 hertz

regulation: commercial

Tower:

Model: original tower Carp Tower with extension

Design: Lablanc & Royle, Morrison Herschfeldt

Installed Mar 2001, Height: 24.4 m.

concrete footings in good physical shape, externally.

A ground wire is tied to each tower leg,

Timmins, ON

Province/location:

Near town of Smooth Rock Falls ("Departure Lake road"), Ont.

Lat: 49° ' 48 " N (49.28000N)

Long: 81° 38" W (81.7939W)

NEAREST SITE ACCOMMODATIONS:

City: Smooth Rock Falls, Hwy 11. Moonbeam. or Kapuskasing.

City: travel distance of 12.3 Km west on Hwy 11 from Smooth Rock Falls to radar site.

SITE LOCATION:

On Departure Lake Road at Highway #11, between Smooth Rock Falls and Moonbeam.

SITE ACCESS:

Take Ontario Highway #11 through Hearst, Kapuskasing, and Strickland.

From Strickland continue eastward on Hwy 11 for a nominal 4.5 Km to a cross road

called "Departure Lake Road". There are some houses near the cross road which itself is signed.

Turn right (southbound) onto Departure Lake Road.

On Departure Lake Road proceed over the train tracks and along the road for about 800 metres.

1a. From North Bay take Hwy # 11 to Cochrane and continue westward on Hwy #11 to Smooth Rock Falls.

2a. The radar site access road (Departure Lake Road) is 12 Km west of the Smooth Rock Falls Mattigama River bridge.

3a. Turn left onto Departure Lake road , over the train tracks and to the site within 800 metres.

Gravel driveway from gravel road. Padlock on gate, site compound fully fenced.

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:

voltage: 120/240 1 ⚡

current: 200 Amps service

frequency: 60 hertz

regulation: commercial

Tower:

Model: original; Exeter Ont. c/w extension of 8 metres

Design: MH for extension,

Installed March, 2004, Height: 20 m.

New concrete footings in good physical shape, externally.

A ground wire is tied to each tower leg,

Montreal River Harbour, ON

Province/location: Sault Ste Marie, ON area

Lat: 47° 14' 52 " N (47.247777°)

Long: 84° 35' 45 " W (84.595830°)

Site ground elevation: 520 metres

NEAREST SITE ACCOMMODATIONS:

Batchawana Bay or Sault Ste Marie.

SITE LOCATION:

118 kilometres (as measured from the junction of #17 and the Second Line road) north of Sault Ste Marie via highway #17. Watch for access road on West side, just after the high

voltage lines (dual wooden poles) from a small power dam in the valley below and to the East.

SITE ACCESS:

From Sault Ste Marie:

- Proceed north on Highway 17. Things to watch for prior to Montreal River Harbour in the last 50 km is the blue water motel, hill top motel, canadian carver, pancake bay provincial park.
- Proceed north on Highway 17. Arriving to Montreal River Harbour. The community is not very distinct so a good reference is the UPI Gas station located adjacent to the highway 100m after the sign Montreal River Harbour,
- Proceed north on Highway 17 for 8.0 Km. Pay attention to the hydro high tension lines that cross the highway starting at the community. This hydro line crosses the highway 4 times and the approach is located at the fourth and final crossing. The double poled hydro lines on the West side will be adjacent to the approach to the site. The approach is gated with a daisy chain lock system. Environment Canada lock on chain is combination 3065. The radar site, located at the top of the hill adjacent to four other towers.
- Pass through the gate and follow the hill road for 1.8 Km. Radar is to the left of the second microwave tower which has a guy wire concrete anchor at the road's edge.
- Use 4-wheel drive immediately after passing through gate: the road slopes away from the hill and the grade of the road is considerable. In winter conditions a 2 wheel drive car/truck is unable to make the first grade.

AVAILABLE TRANSPORTATION METHODS:

Must rent a four wheel drive vehicle with good under carriage clearance.

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:

voltage: 120/240, single phase

current: 200 Amps service

frequency: 60 hertz

regulation: commercial

Tower:

Model: CWSR-81

Design: CWSR-81,

Installed ? , Height: 21m.

Constructed of galvanized steel; concrete footings 63 cm above ground level.

Lasseter Lake, ON

Province/location: Near Thunder Bay, Ontario

Legal: Part 1, PAR-173, TW-88, Parcel 14891 TBF

approx:

Lat: 48° ' 17" N (48.85472N)

Long: 89° ' 17" W (89.12139W)

NEAREST SITE ACCOMMODATIONS:

Thunder Bay area has many motels and hotels.

City: travel distance of 69 Km;

SITE LOCATION:

On Secondary Highway 527, 44 kilometres north of the junction formed by Ontario Secondary Hwy 527 and the TransCanada Highway - known as Ontario Hwy 17.

SITE ACCESS:

From City of Thunder Bay:

- From "Arthur St" and Hwy 11/17:

- Proceed eastward on Highway #17 to Secondary Hwy 527 - distance of 18.5 Kilometres

- Travel northward on Secondary Hwy 527 to the radar site, - distance of 44 kilometres.

- The radar site, located on the right hand side - a 100 metres off the road.

Gravel driveway from paved highway road.

SITE COMMUNICATIONS: Landline and cellular availability

Tower:

Model: Morrison Hershfield cwsr81 tower

Design: MH,

Relocated/Installed: September 2002 , Height: 21 m.

New concrete footings.

A ground wire is tied to each tower leg,

Dryden, ON

Province/location: Dryden, Ontario

Plan of Topographical Survey of Location CL 12581

Pt of Lot 23, Concession 10, TwShp Zealand, District of Kenora

Lat: 49° 51' 29.5" N (49.85819)

Long: 92° 47' 48.8" (92.79689)

Site ground elevation: 411.6 metres

NEAREST SITE ACCOMMODATIONS:

City: Dryden, Ontario

City: travel distance of 11 Km;

SITE LOCATION:

Near Dryden Ontario.

SITE ACCESS:

From Aeroport:

1. Depart aeroport on eastbound exit road (the only road): becomes highway 601. This is a very little aeroport with trees all around and the highway starts as one exits the aeroport. At the aeroport entrance/exit, the highway 601 commences in its southbound direction while the westbound section requires, within 50 metres of the aeroport, a right turn onto hwy 601 westward.
- Take 601 westward - goes around the aeroport (aeroport ground on your right).
- After about 3 Km, Hwy 601 westbound does a full stop at the western edge of the aeroport (runway on your right). Hwy 601 turns right on pavement while left turn is gravel road. Take the left turn onto the gravel road and continue westward until the road stops (T-junction) at Hwy601, about 3Km. Turn right onto Hwy 601 (northbound) and proceed north about 1 Km. You will see - over the trees and farm fields -the radar tower on your right shortly after you commence your northward drive.
- Turn right onto Hoey road - radar is 400 m east of Hoey/601 junction.

From Dryden:

- At the western junction of highway 601 and highway 17, proceed north on highway 601
 - estimated distance of northward travel is 10 Km.
 - Proceed east on Hoey Road (concession road) for 400m.
 - The radar site is located on south side of Hoey Road by about 25 m.
- Gravel driveway from gravel road. Padlock on gate, building and tower.

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:

voltage: 120/240, single phase

current: 100 Amp service

frequency: 60 hertz

regulation: commercial

Tower:

Model: Trylon

Design: MH,

Installed: relocated Upsala in year 2003, Height:27 m.

New concrete footings in good physical shape, externally.

A ground wire is tied to each tower leg,

Foxwarren, MB

Province/location: Foxwarren, Manitoba
(Pt of NE 1/4, Section 14, TP18, Rge 27, WPM)
Lat: 50° 32 ' 55.7 " N (50.54881)
Long: 101° 05 ' 08 " W (101.08559)
Site ground elevation: 540 metres

NEAREST SITE ACCOMMODATIONS:

City: Russell or Virden, Manitoba

SITE LOCATION:

Approximately 4.5 Km (three miles) east and 3 km (two miles) north of Foxwarren, Manitoba (Highway #16 and Man/Sask Border). Measurements taken from the Kent Hotel in Foxwarren.

Russell: travel distance of 40.3 Km; As measured from east side of Russell Inn.

SITE ACCESS:

From Foxwarren:

- From the Kent Hotel proceed eastward on Highway 16 for 4.5 Km.
- Turn left onto the gravel road,
- Proceed north on the gravel road for 3.2 Km to the intersection of two (2) gravel roads
- The radar site is located (200 metres south) of the intersection's left (southwest) corner. Gravel driveway from gravel road. Padlock on gate, site fully fenced.

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:

voltage: 120/240, single phase, Main breaker located in radar building entrance way.
current: 100 Amps service
frequency: 60 hertz
regulation: commercial

Tower:

Model: Trylon

Design: MH,

Installed Feb 2002 , Height: 12m.

New concrete footings in good physical shape, externally.

A ground wire is tied to each tower leg,

Radisson, SK

Province/location: Radisson, Saskatchewan

GPS

Latitude: 52° 31' 14 " N

Longitude: 107° 26' 37" W

Site Elevation: 530.6 metres

NEAREST SITE ACCOMMODATIONS:

Saskatoon (60km)

SITE LOCATION:

The radar site is located approximately 64 km west of Saskatoon and 3.9 Km north of highway #16 near the town of Radisson. Highway #16 runs across the northern edge of Radisson.

From the "Red Bull" statue at the town of Radisson on highway #16 (junction of secondary highway 340 with highway 16), proceed 4.4 Km west on highway #16 to the first gravel cross road.

Turn right onto the gravel cross road which does an immediate west/north survey jog and then proceeds straight northward. The gravel cross road is unnamed; at the southeast corner of hwy #16 and the cross road there is a large white side supported anhydrous ammonia storage tank).

Proceed northward on the gravel road for 3.9 Km from highway #16.

The site is located on the east side of the gravel road. There are springtime weight restrictions on the road usage.

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:

voltage: 120 vac

current: 100 amp service

frequency: 60 Hz

regulation: Commercial

Tower:

Original Elbow Radar Site tower

Model: n/a Design: MH, Installed June 1999, Height: 12m.

New concrete footings.

A ground wire is tied to each tower leg,

Schuler, AB

Province/location: Schuler, Alberta
(SE Part of Section 3, TP 16 Rge 2, W4M)
Lat: 50° 18 ' 45.4 " N (50.312611N)
Long: 110° 11' 43.8" W (110.195500W)
Site ground elevation: 853 metres

NEAREST SITE ACCOMMODATIONS:

City: Medicine Hat, Alberta
City: travel distance of 60 Kilometres;

SITE LOCATION:

At the junction of Township Road #160 and Highway 41.

SITE ACCESS:

From City:

- Exit the Medicine Hat airport grounds turning right onto "Viscount" Avenue.
 - Travel north on Viscount Ave to the Hwy #1 eastbound access route
 - 2 km (towards Swift Current),
 - Proceed eastward on Hwy #1 for 15 Km to Hwy 41 north bound access.
 - Proceed north on Hwy #41 for 47 Km ,
 - The radar site, located on the NE corner of Hwy #41 and Twp Rd #160 junction..
- Gravel driveway from gravel road. Padlock on gate, site fully fenced.

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:

voltage: 120/240, single phase, Main breaker located Main Building
current: 200 Amps service
frequency: 60 hertz
regulation: commercial

Tower:

Model: Trylon

Design: MH,

Installed May 2002 , Height: 12m.

New concrete footings in good physical shape, externally.

A ground wire is tied to each tower leg,

Carvel, AB

Province/location: Carvel, Alberta

Lat: 53° 33' 37 " N or (53.56028)
Long: 114° 08' 38 " W or (114.14389)
Site ground elevation: 748.3 metres

NEAREST SITE ACCOMMODATIONS:

City: Stony Plain (10 km) Highway Inn located on highway 16.

City: Edmonton (30 Km);

SITE LOCATION:

From Edmonton city 170 street and 101 Avenue (Stony Plain road) junction proceed westerly on highway #16 (101 Avenue), through Spruce Grove and Stony Plain for about 40 kilometres. 1.6 kilometres west of Beach Corners (a restaurant/gas station stop) the radar site will be seen to the south of the highway.

Alternatively use the Edmonton north side freeway known as "The Yellowhead Trail" or Highway #16 (pickup at 170st and 122 Avenue). This 6/4 lane expressway is Highway #16 to the east of Edmonton and smoothly becomes highway #16 about 5 kilometres west of the radar site. Branch south to Beach Corners at the appropriate sign.

From Beach Corners it is necessary to over shoot the radar site to the first level crossing - 2 Kilometres west of Beach Corners - and then loop back 0.4 kilometres to the radar site.

SITE ACCESS:

Gravel driveway access from Highway #16 Eastbound.

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:

voltage: 120/240, single phase

current: 200 Amps service

frequency: 60 hertz

regulation: commercial

Tower:

Galvanized steel, concrete footings that are level with the ground.

Each tower footing is bonded to a ground stake.

Model: MH

Design: MH,

Installed 1983 , Height: 15 m.

concrete footings in good physical shape, externally.

A ground wire is tied to each tower leg,

Spirit River, AB

Province/location: Spirit River Alberta
Lat: 55° 41' 43 " N (55.69527777)
Long: 119° 14 ' 03 " W (119.2341666)
GPS measurement agrees
Site ground elevation: 1,015.28 metres

NEAREST SITE ACCOMMODATIONS:

Rycroft or Grand Prairie. If using Rycroft, hotel bookings must be in place well in advance. Much advanced planning will be required to complete this site.

SITE LOCATION:

25 Km west & 25 km south of the town of Rycroft. Town of Rycroft is nominally 80 km north-north-east of the city of Grand Prairie, Alberta. Use Hwy #2 from Grand Prairie to reach Rycroft and Hwy #49 crossing.

Actual site is located upon Spirit Ridge near the forestry lookout tower.

SITE ACCESS:

From the junction of Hwy #2 and Hwy #49 proceed west (0.8 Km) on Hwy #49 to the Crossroads Motel.

From Crossroads Motel proceed west on Hwy #49, through the town of Spirit River, to a crossing gravel access road marked "White Mtn Tower" on a tiny corner signpost - 25.7Km. A Hwy #49 sign indicates "Happy Valley Road" to left as gravel cross road is approached.

Turn left (south) onto the straight gravel road and travel south to the first stop sign (first cross road), 3.2 Km.

Turn right (west) onto the straight gravel crossroad and proceed westward to the "T" junction: 8.2Km.

Turn Left (south) onto the straight gravel road and proceed southward to the 90 degree right bend; 1.6 Km.

After taking the 90° bend proceed westward for 0.8 Km to a "T" junction, the left leg of which is marked "Watershed Management - Green Area" and the right leg is signed to an oil well facility.

Turn left onto the narrowing gravel road (watershed management - green area) and proceed upward towards the ridge hill top. There are a number of side roads leading to oil wells: keep to the main road and watch for the power lines which for the most part run beside the road. Approximately half way up, the main road has an apparent "Y": keep to the right. As the ridge top is approached the radar tower can be seen off to the left and the forestry lookout tower can be seen straight ahead.

After 5.4 Km turn left into the tower access road (small sign on right side of road indicates "PPL White Mtn Comm Site"); continuing along the main gravel road which immediately bends right and downward leads to unknown parts! - some where into BC, not Alberta.

Pass through the steel horizontal pole gates and upwards to the forestry tower. Turn left at the forestry tower and continue eastward, past the White Mountain Peace Pipe Lines communications tower, to the radar tower: 1Km. This last Km of road is quite poor

requiring 4-wheel drive and 20 cm clearance during spring (April, May) thaw: Gumbo, water and mud. At the site proper there is limited space to park a crane or other large construction vehicles. This site could be completed during the winter season ensuring a solid road bed.

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:

voltage: 120/240, single phase

current: 100 Amps service

frequency: 60 hertz

regulation: commercial

Tower:

Model: 27m free standing

Design: Advanced Tower,

Installed December 1996 , Height: 27m.

New concrete footings in good physical shape, externally.

A ground wire is tied to each tower leg,

Mt. Silver Star, BC

Province/location: Vernon, BC.

Lat: 50 ° 22' 10.0 " N (50.3694 °)

Long: 119 ° 51.1 " W (-119.0642 °)

Site ground elevation: 1886.7 metres

NEAREST SITE ACCOMMODATIONS:

City: Vernon

City: travel distance of 28 Km;

SITE LOCATION:

At the top of the Silver Star mountain: ski lift base at Silver Star Mountain Resort.

"Telus Silver Star Radio Site"

SITE ACCESS:

From Kelowna

- Proceed north on Highway 97 to Vernon BC - 40 Km from Aeroport
- Travel east on Vernon's 48 Avenue (Silver Star Road) to the Silver Star Resort - 28 Km
- Use Pinnacles Road for access to the top of the mountain - 3.5 Km
- The radar site, located at the top of the Ski lift - shared site with Telus.

Limited seasonal access to the site for heavy construction equipment/crane. Permission is required by the owner in advance. Having an escort arranged would be advantageous.

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:

voltage: 120/240, single phase

current: 30 Amps APU backup service costed at 80% of breaker: radar system

30 Amps non-APU service costed at 20% of breaker: non radar system

frequency: 60 hertz

regulation: commercial

Tower:

Model WestTower, Thorsby Alberta. Design: Morrison Hershfield

Installed: 2002 , Height: 24 m.

New concrete footings in good physical shape, externally.

A ground wire is tied to each tower leg,

Prince George, BC

Province/location:

(Prince George, BC)

Lat: 53° 36' 55" N (53.615278° N)

Long: 122° 57' 17.1" W (122.954750° W)

Site Elevation: 1117.701 (Norad Marker)

Site address: 33155 Blackwater Road, Prince George, BC.

NEAREST SITE ACCOMMODATIONS:

Prince George

SITE LOCATION:

Above the Baldy Hughes community area. Southwest of Prince George by nominally 38Km.

SITE ACCESS:

Take Hwy 16 West from (Prince George) junction of Hwy 16 and Hwy 97 to Blackwater Road, distance of 9.3 Km.

Turn left onto Blackwater road (paved secondary, southbound),

Follow Blackwater road to Baldy Hughes community: 27.3 Km.

100m before the community entrance (top of small hill), take the right blending gravel road.

Spring loaded barrier gate at gravel road entrance swings upward and is not locked.

Continue up the gravel road to the radar sites: distance 1900 metres.

200 m prior to the radar site is a bar gate requiring a key.

The radar site, located approximately 265 metres from RAMP radar.

Gravel driveway from gravel road. Padlock on gate, site fully fenced.

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:

voltage: 120/240, single phase

current: 100 Amps service

frequency: 60 hertz

regulation: commercial

Tower:

Model: original;

Design: Trylon,

Installed: September 2003, Height: 12 m.

New concrete footings.

A ground wire is tied to each tower leg.

Aldergrove, BC

Province/location: Aldergrove, BC

Latitude: 49° 00' 56" (49.01556)

Longitude: 122° 29' 11" (122.48639)

Site Elevation: about 94.2 metres (309 feet)

NEAREST SITE ACCOMMODATIONS:

Aldergrove or Abbotsford

SITE LOCATION:

Site is located a few metres south of 8th Avenue, 1/2 Km east of 264 Street\8th Ave junction, Surrey BC. 26600 - 8th Ave.

From Highway #1:

From the junction of highway #1 and 264 street - known as exit #73 - proceed south on 264 st (also known as Hwy #13) through Aldergrove (Hwy 1A or 31 Ave is the main cross road & the first set of lights) to 8th Avenue. Turn left (eastward) onto 8th Ave and proceed to the radar site which is 1/2 Km east of this last turn. |

SITE ACCESS:

The access road to the site - right side (south) of 8th Ave - crosses a small metal culvert in a deep ditch, through a fence gate using triple locks connected in a chain fashion, 20 \metres of grassed access to a narrow gate again using triple locks connected in a chain fashion into the compound. 15 metre evergreen trees border the west and north sides of the full radar site with a tree in each of the other corners.

SITE COMMUNICATIONS: Landline and cellular availability

SITE ELECTRICAL POWER:

voltage: 120/240 Vac single phase

current: 400 amp service

frequency: 60 Hz

regulation: commercial

Tower:

Modèle : Original WSR-807

Installed : ??? height 18m

Concrete footings outer appearance is good.

Grounding cable attached to each leg.