

**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
Travaux publics et Services gouvernementaux  
Canada  
Place Bonaventure, portail Sud-Est  
800, rue de La Gauchetière Ouest  
7 ième étage  
Montréal  
Québec  
H5A 1L6  
FAX pour soumissions: (514) 496-3822

**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**  
Travaux publics et Services gouvernementaux Canada  
Place Bonaventure, portail Sud-Est  
800, rue de La Gauchetière Ouest  
7 ième étage  
Montréal  
Québec  
H5A 1L6

<b>Title - Sujet</b> Procurement precision transponders	
<b>Solicitation No. - N° de l'invitation</b> 9F044-131060/A	<b>Amendment No. - N° modif.</b> 004
<b>Client Reference No. - N° de référence du client</b> 9F044-13-1060	<b>Date</b> 2014-09-26
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$MTB-770-12863	
<b>File No. - N° de dossier</b> MTB-4-37113 (770)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2014-10-15</b>	<b>Time Zone</b> Fuseau horaire Heure Avancée de l'Est HAE
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Mathurin , Martine	<b>Buyer Id - Id de l'acheteur</b> mtb770
<b>Telephone No. - N° de téléphone</b> (514) 496-3859 ( )	<b>FAX No. - N° de FAX</b> (514) 496-3822
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

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

Solicitation No. - N° de l'invitation

9F044-131060/A

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

9F044-13-1060

Amd. No. - N° de la modif.

004

File No. - N° du dossier

MTB-4-37113

Buyer ID - Id de l'acheteur

mtb770

CCC No./N° CCC - FMS No/ N° VME

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**PROJECT TITLE**

RCM and Multi-mission Precision Transponder(s)

The above mentioned Request for Proposal (RFP) is hereby amended as follows:

**Provide supplementary information necessary for evaluation criterion TECH01.**

**Please ADD the following document to the Request For Proposal:**

*Additional Information for Evaluation Criterion TECH01 Requirement TXPD-PASS-0020 – Availability Swath*

**Note:**

The supplementary information provided hereto is a small excerpt of the restricted access document AD-3, 849513 RCM Payload Engineering Budget.

As indicated in amendment 001 of the RFP, bidders interested in having access to the complete version, will have to request the document to the Contracting Authority, by e-mail. Distribution of this document or part of this document will only be possible after receipt of a custom signed Non Disclosure Agreement.

**ALL OTHER TERMS AND CONDITIONS OF THE RFP REMAIN UNCHANGED.**

**Additional Information for Evaluation Criterion TECH01  
Requirement TXPD-PASS-0020 – Availability Swath**

Requirement TXPD-PASS-0020 reads as follows in CSA-RC-RD-0010 – RCM and Multimission Precision Transponder Requirements Specification (see Annex A for more details):

**[TXPD-PASS-0020] Availability Swath:** *The Transponder System shall be able to operate over the complete range of swaths and incidence angles of the RCM SAR imaging modes, in any of the measurement modes [AD-3].*

AD-3 is document number 849513 – RCM Payload Engineering Budget.

For the purpose of this RFP, please use Table 1 and Table 2 below as the information required to evaluate the compliance against the requirement TXPD-PASS-0020 for the point-rated evaluation criterion TECH01.

**Table 1: All Beams - Minimum Altitude**

		Incidence angles			
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
Low Res 100m	SC1	19.0	23.2	525.3	262.9
	SC2	23.1	27.1		
	SC3	27.0	30.8		
	SC4	30.7	34.3		
	SC5	34.2	37.5		
	SC6	37.5	40.6		
	SC7	40.5	43.4		
	SC8	43.4	46.0		
	SC9	46.0	48.5		
	SC10	48.5	50.8		
	SC11	50.7	52.9		
	SC12	52.9	54.9		
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
Med Res 50m and Low Noise (100m)				350.1	This specific swath will be reduced to meet downlink capacity
	SC1	19.0	23.2		
	SC2	23.1	27.1		
	SC3	27.0	30.8		
	SC4	30.7	34.3		175.5
	SC5	34.2	37.5		Med Res 50m only
	SC6	37.5	40.6		
	SC7	40.5	43.4		
	SC8	43.4	46.0		
	SC3	27.0	30.8	350.4	
	SC4	30.7	34.3		

**Additional Information for Evaluation Criterion TECH01  
Requirement TXPD-PASS-0020 – Availability Swath**

		Incidence angles			
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
	SC5	34.2	37.5		
	SC6	37.5	40.6		175.4
	SC7	40.5	43.4		Med Res 50m only
	SC8	43.4	46.0		
	SC9	46.0	48.5		
	SC10	48.5	50.8		
	SC5	34.2	37.5	350.3	
	SC6	37.5	40.6		
	SC7	40.5	43.4		
	SC8	43.4	46.0		175.4
	SC9	46.0	48.5		Med Res 50m only
	SC10	48.5	50.8		
	SC11	50.7	52.9		
	SC12	52.9	54.9		
	SC7	40.5	43.4	350.5	
	SC8	43.4	46.0		
	SC9	46.0	48.5		
	SC10	48.5	50.8		175.6
	SC11	50.7	52.9		Med Res 50m only
	SC12	52.9	54.9		
	SC13	54.9	56.7		
	SC14	56.7	58.5		
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
Med Res 30m	SC15	17.3	20.3	125.1	Same coverage, 1 azimuth look instead of 2, higher NESZ, same resolution
	SC16	20.3	23.3		
	SC17	23.2	26.1		
	SC18	26.0	28.8		
	SC18	26.0	28.8	125.1	Same coverage, 1 azimuth look instead of 2, higher NESZ, same resolution
	SC19	28.7	31.4		
	SC20	31.3	33.8		
	SC21	33.8	36.2		
	SC21	33.8	36.2	125.1	Same coverage, 1 azimuth look instead
	SC22	36.2	38.4		

**Additional Information for Evaluation Criterion TECH01  
Requirement TXPD-PASS-0020 – Availability Swath**

		Incidence angles			
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
	SC23	38.4	40.6		of 2, higher NESZ, same resolution
	SC24	40.5	42.6		
	SC24	40.5	42.6	125.2	Same coverage, 1 azimuth look instead of 2, higher NESZ, same resolution
	SC25	42.6	44.6		
	SC26	44.5	46.4		
	SC27	46.4	48.1		
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
Med Res 16m	H2	20.1	22.9	30.0	Same coverage, 2 azimuth look instead of 4, same resolution
	H3	22.2	25.0	30.0	
	H4	24.2	26.9	30.0	
	H5	26.2	28.8	30.0	
	H6	28.1	30.6	30.0	
	H7	30.0	32.4	30.0	
	H8	31.8	34.2	30.0	
	H9	33.5	35.8	30.0	
	H10	35.2	37.4	30.0	
	H11	36.9	39.0	30.0	
	H12	38.4	40.5	30.0	
	H13	40.0	42.0	30.0	
	H14	41.4	43.4	30.0	
	H15	42.9	44.7	30.0	
	H16	44.2	46.0	30.0	
	H17	45.6	47.3	30.0	
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
High Res 5m	H1	19.0	21.8	30.1	Same coverage, degraded azimuth resolution: 10 to 12 m
	H2	20.1	22.9	30.0	
	H3	22.2	25.0	30.0	
	H4	24.2	26.9	30.0	
	H5	26.2	28.8	30.0	
	H6	28.1	30.6	30.0	
	H7	30.0	32.4	30.0	
	H8	31.8	34.2	30.0	
	H9	33.5	35.8	30.0	
	H10	35.2	37.4	30.0	

**Additional Information for Evaluation Criterion TECH01  
Requirement TXPD-PASS-0020 – Availability Swath**

		Incidence angles			
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
	H11	36.9	39.0	30.0	
	H12	38.4	40.5	30.0	
	H13	40.0	42.0	30.0	
	H14	41.4	43.4	30.0	
	H15	42.9	44.7	30.0	
	H16	44.2	46.0	30.0	
	H17	45.6	47.3	30.0	
	H18	46.8	48.5	30.1	
	H19	48.1	49.7	29.9	
	H20	49.2	50.8	30.0	
	H21	50.4	51.9	29.9	
	H22	51.5	52.9	30.2	
	H23	52.6	54.0	30.2	
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
Very High Res 3m	VH1	18.2	20.1	20.0	Same coverage, degraded azimuth resolution: 6 to 9 m
	VH2	19.4	21.3	20.0	
	VH3	20.5	22.4	20.0	
	VH4	21.7	23.5	20.0	
	VH5	22.8	24.6	20.0	
	VH6	23.9	25.7	19.9	
	VH7	25.0	26.8	20.0	
	VH8	26.0	27.8	20.0	
	VH9	27.1	28.8	20.0	
	VH10	28.1	29.8	20.1	
	VH11	29.2	30.8	19.9	
	VH12	30.2	31.8	20.0	
	VH13	31.1	32.8	20.0	
	VH14	32.1	33.7	20.0	
	VH15	33.1	34.6	20.1	
	VH16	34.0	35.5	20.1	
	VH17	34.9	36.4	19.9	
	VH18	35.8	37.3	20.0	
	VH19	36.7	38.2	20.0	
	VH20	37.6	39.0	20.1	
	VH21	38.5	39.8	20.1	
	VH22	39.3	40.7	20.0	
	VH23	40.1	41.5	20.1	

**Additional Information for Evaluation Criterion TECH01  
Requirement TXPD-PASS-0020 – Availability Swath**

		Incidence angles			
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
	VH24	40.9	42.2	20.0	
	VH25	41.7	43.0	19.9	
	VH26	42.5	43.7	20.0	
	VH27	43.2	44.5	20.1	
	VH28	44.0	45.2	20.0	
	VH29	44.7	45.9	19.9	
	VH30	45.4	46.6	20.1	
	VH31	46.1	47.3	20.0	
	VH32	46.8	48.0	20.0	
	VH33	47.5	48.6	19.9	
	VH34	48.2	49.2	20.1	
	VH35	48.8	49.9	20.1	
	VH36	49.5	50.5	20.1	
	VH37	50.1	51.1	19.9	
	VH38	50.7	51.7	20.1	
	VH39	51.3	52.3	19.9	
	VH40	51.9	52.8	20.1	
	VH41	52.5	53.4	20.0	
	VH42	53.0	54.0	20.0	
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
Quad Pol	VH6	23.9	25.7	19.9	NA
	VH7	25.0	26.8	20.0	
	VH8	26.0	27.8	20.0	
	VH9	27.1	28.8	20.0	
	VH10	28.1	29.8	20.1	
	VH11	29.2	30.8	19.9	
	VH12	30.2	31.8	20.0	
	VH13	31.1	32.8	20.0	
	VH14	32.1	33.7	20.0	
	VH15	33.1	34.6	20.1	
	VH16	34.0	35.5	20.1	
	VH17	34.9	36.4	19.9	
	VH18	35.8	37.3	20.0	
	VH19	36.7	38.2	20.0	
	VH20	37.6	39.0	20.1	
	VH21	38.5	39.8	20.1	
	VH22	39.3	40.7	20.0	

**Additional Information for Evaluation Criterion TECH01  
Requirement TXPD-PASS-0020 – Availability Swath**

		Incidence angles			
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
	VH23	40.1	41.5	20.1	
	VH24	40.9	42.2	20.0	
	VH25	41.7	43.0	19.9	
	VH26	42.5	43.7	20.0	
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
Spotlight	VH2	19.4	21.3	20.0	NA
	VH3	20.5	22.4	20.0	
	VH4	21.7	23.5	20.0	
	VH5	22.8	24.6	20.0	
	VH6	23.9	25.7	19.9	
	VH7	25.0	26.8	20.0	
	VH8	26.0	27.8	20.0	
	VH9	27.1	28.8	20.0	
	VH10	28.1	29.8	20.1	
	VH11	29.2	30.8	19.9	
	VH12	30.2	31.8	20.0	
	VH13	31.1	32.8	20.0	
	VH14	32.1	33.7	20.0	
	VH15	33.1	34.6	20.1	
	VH16	34.0	35.5	20.1	
	VH17	34.9	36.4	19.9	
	VH18	35.8	37.3	20.0	
	VH19	36.7	38.2	20.0	
	VH20	37.6	39.0	20.1	
	VH21	38.5	39.8	20.1	
	VH22	39.3	40.7	20.0	
	VH23	40.1	41.5	20.1	
	VH24	40.9	42.2	20.0	
	VH25	41.7	43.0	19.9	
	VH26	42.5	43.7	20.0	
	VH27	43.2	44.5	20.1	
	VH28	44.0	45.2	20.0	
	VH29	44.7	45.9	19.9	
	VH30	45.4	46.6	20.1	



**Additional Information for Evaluation Criterion TECH01  
Requirement TXPD-PASS-0020 – Availability Swath**

**Table 2: All Beams - Maximum Altitude**

		Incidence angles			
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
Low Res 100m	SC1	19.1	23.3	532.2	266.1
	SC2	23.2	27.2		
	SC3	27.2	30.9		
	SC4	30.9	34.4		
	SC5	34.4	37.7		
	SC6	37.7	40.8		
	SC7	40.7	43.6		
	SC8	43.6	46.3		
	SC9	46.2	48.7		
	SC10	48.7	51.1		
	SC11	51.0	53.2		
	SC12	53.2	55.2		
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
Med Res 50m and Low Noise				354.3	This specific swath will be reduced to meet downlink capacity
	SC1	19.0	23.3		
	SC2	23.2	27.2		
	SC3	27.2	30.9		
	SC4	30.9	34.4		177.1
	SC5	34.4	37.7		Med Res 50m only
	SC6	37.7	40.8		
	SC7	40.7	43.6		
	SC8	43.6	46.3		
				354.8	
	SC3	27.2	30.9		
	SC4	30.9	34.4		
	SC5	34.4	37.7		
	SC6	37.7	40.8		177.5
	SC7	40.7	43.6		Med Res 50m only
	SC8	43.6	46.3		
	SC9	46.2	48.7		
	SC10	48.7	51.1		
				356.0	
	SC5	34.4	37.7		
	SC6	37.7	40.8		
	SC7	40.7	43.6		

**Additional Information for Evaluation Criterion TECH01  
Requirement TXPD-PASS-0020 – Availability Swath**

		Incidence angles			
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
	SC8	43.6	46.3		178.2
	SC9	46.2	48.7		Med Res 50m only
	SC10	48.7	51.1		
	SC11	51.0	53.2		
	SC12	53.2	55.2		
	SC7	40.7	43.6	357.7	
	SC8	43.6	46.3		
	SC9	46.2	48.7		
	SC10	48.7	51.1		179.0
	SC11	51.0	53.2		Med Res 50m only
	SC12	53.2	55.2		
	SC13	55.2	57.1		
	SC14	57.1	58.9		
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
Med Res 30m	SC15	17.3	20.4	125.9	Same coverage, 1 azimuth look instead of 2, higher NESZ, same resolution
	SC16	20.4	23.4		
	SC17	23.3	26.2		
	SC18	26.1	28.9		
	SC18	26.1	28.9	126.1	Same coverage, 1 azimuth look instead of 2, higher NESZ, same resolution
	SC19	28.9	31.5		
	SC20	31.5	34.0		
	SC21	34.0	36.4		
	SC21	34.0	36.4	126.5	Same coverage, 1 azimuth look instead of 2, higher NESZ, same resolution
	SC22	36.3	38.6		
	SC23	38.6	40.8		
	SC24	40.7	42.8		
	SC24	40.7	42.8	127.0	Same coverage, 1 azimuth look instead of 2, higher NESZ, same resolution
	SC25	42.8	44.8		
	SC26	44.8	46.6		
	SC27	46.6	48.4		
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>

**Additional Information for Evaluation Criterion TECH01  
Requirement TXPD-PASS-0020 – Availability Swath**

		Incidence angles			
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
Med Res 16m	H2	20.2	23.0	30.2	Same coverage, 2 azimuth look instead of 4, same resolution
	H3	22.3	25.1	30.2	
	H4	24.3	27.0	30.2	
	H5	26.3	28.9	30.2	
	H6	28.3	30.8	30.3	
	H7	30.1	32.6	30.3	
	H8	31.9	34.3	30.3	
	H9	33.7	36.0	30.3	
	H10	35.4	37.6	30.3	
	H11	37.0	39.2	30.3	
	H12	38.6	40.7	30.4	
	H13	40.2	42.2	30.4	
	H14	41.6	43.6	30.4	
	H15	43.1	44.9	30.4	
	H16	44.5	46.3	30.5	
	H17	45.8	47.5	30.5	
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
High Res 5m	H1	19.1	21.9	30.2	Same coverage, degraded azimuth resolution: 10m
	H2	20.2	23.0	30.2	
	H3	22.3	25.1	30.2	
	H4	24.3	27.0	30.2	
	H5	26.3	28.9	30.2	
	H6	28.3	30.8	30.3	
	H7	30.1	32.6	30.3	
	H8	31.9	34.3	30.3	
	H9	33.7	36.0	30.3	
	H10	35.4	37.6	30.3	
	H11	37.0	39.2	30.3	
	H12	38.6	40.7	30.4	
	H13	40.2	42.2	30.4	
	H14	41.6	43.6	30.4	
	H15	43.1	44.9	30.4	
	H16	44.5	46.3	30.5	
	H17	45.8	47.5	30.5	
	H18	47.1	48.8	30.6	
	H19	48.3	49.9	30.4	
	H20	49.5	51.1	30.6	

**Additional Information for Evaluation Criterion TECH01  
Requirement TXPD-PASS-0020 – Availability Swath**

		Incidence angles			
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
	H21	50.7	52.2	30.5	
	H22	51.8	53.2	30.8	
	H23	52.9	54.3	30.9	
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
Very High Res 3m	VH1	18.3	20.2	20.1	Same coverage, degraded azimuth resolution: 6 to 9 m
	VH2	19.5	21.4	20.1	
	VH3	20.6	22.5	20.1	
	VH4	21.8	23.6	20.2	
	VH5	22.9	24.7	20.1	
	VH6	24.0	25.8	20.1	
	VH7	25.1	26.9	20.2	
	VH8	26.2	27.9	20.1	
	VH9	27.2	28.9	20.1	
	VH10	28.3	30.0	20.2	
	VH11	29.3	31.0	20.1	
	VH12	30.3	31.9	20.2	
	VH13	31.3	32.9	20.2	
	VH14	32.3	33.9	20.2	
	VH15	33.2	34.8	20.3	
	VH16	34.2	35.7	20.3	
	VH17	35.1	36.6	20.1	
	VH18	36.0	37.5	20.2	
	VH19	36.9	38.4	20.2	
	VH20	37.8	39.2	20.3	
	VH21	38.6	40.0	20.3	
	VH22	39.5	40.9	20.2	
	VH23	40.3	41.7	20.3	
	VH24	41.1	42.4	20.3	
	VH25	41.9	43.2	20.2	
	VH26	42.7	44.0	20.3	
	VH27	43.5	44.7	20.4	
	VH28	44.2	45.4	20.3	
	VH29	45.0	46.2	20.2	
	VH30	45.7	46.9	20.5	
	VH31	46.4	47.5	20.3	
	VH32	47.1	48.2	20.4	
	VH33	47.8	48.9	20.2	

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		Incidence angles			
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
	VH34	48.4	49.5	20.5	
	VH35	49.1	50.2	20.5	
	VH36	49.7	50.8	20.5	
	VH37	50.4	51.4	20.3	
	VH38	51.0	52.0	20.5	
	VH39	51.6	52.6	20.3	
	VH40	52.2	53.2	20.5	
	VH41	52.8	53.7	20.5	
	VH42	53.3	54.3	20.4	
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
Quad Pol	VH6	24.0	25.8	20.1	NA
	VH7	25.1	26.9	20.2	
	VH8	26.2	27.9	20.1	
	VH9	27.2	28.9	20.1	
	VH10	28.3	30.0	20.2	
	VH11	29.3	31.0	20.1	
	VH12	30.3	31.9	20.2	
	VH13	31.3	32.9	20.2	
	VH14	32.3	33.9	20.2	
	VH15	33.2	34.8	20.3	
	VH16	34.2	35.7	20.3	
	VH17	35.1	36.6	20.1	
	VH18	36.0	37.5	20.2	
	VH19	36.9	38.4	20.2	
	VH20	37.8	39.2	20.3	
	VH21	38.6	40.0	20.3	
	VH22	39.5	40.9	20.2	
	VH23	40.3	41.7	20.3	
	VH24	41.1	42.4	20.3	
	VH25	41.9	43.2	20.2	
	VH26	42.7	44.0	20.3	
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
Spotlight	VH2	19.5	21.4	20.1	NA
	VH3	20.6	22.5	20.1	
	VH4	21.8	23.6	20.2	

**Additional Information for Evaluation Criterion TECH01  
Requirement TXPD-PASS-0020 – Availability Swath**

		Incidence angles			
Mode	Beam	Near (deg)	Far (deg)	Ground Range Coverage of Swath (km)	Estimate of Ground Range Coverage of Swath (km), <b>HH+VV</b>
	VH5	22.9	24.7	20.1	
	VH6	24.0	25.8	20.1	
	VH7	25.1	26.9	20.2	
	VH8	26.2	27.9	20.1	
	VH9	27.2	28.9	20.1	
	VH10	28.3	30.0	20.2	
	VH11	29.3	31.0	20.1	
	VH12	30.3	31.9	20.2	
	VH13	31.3	32.9	20.2	
	VH14	32.3	33.9	20.2	
	VH15	33.2	34.8	20.3	
	VH16	34.2	35.7	20.3	
	VH17	35.1	36.6	20.1	
	VH18	36.0	37.5	20.2	
	VH19	36.9	38.4	20.2	
	VH20	37.8	39.2	20.3	
	VH21	38.6	40.0	20.3	
	VH22	39.5	40.9	20.2	
	VH23	40.3	41.7	20.3	
	VH24	41.1	42.4	20.3	
	VH25	41.9	43.2	20.2	
	VH26	42.7	44.0	20.3	
	VH27	43.5	44.7	20.4	
	VH28	44.2	45.4	20.3	
	VH29	45.0	46.2	20.2	
	VH30	45.7	46.9	20.5	