Guidelines for the Submission of Radarsat TPM Project Proposals

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1 INTRODUCTION

To get the authorisation from ESA to access RADARSAT data offered within the context of ESA TPM agreements the Principal Investigator needs to produce information about the following topics:

- Title of the Proposal /Coordinates of Principal Investigator and co-Investigators
- Description of the proposal
- Summary of data requirements
- Acceptance of ESA Terms and Conditions for data use

The proposal should be submitted via the WWW (https://earth.esa.int/aos/RADARSAT).

All proposals must be written in English or French.

Should you have any problem to submit your proposal, you can contact EOHelp: https://earth.esa.int/web/guest/contact-us

After the receipt of your project proposal, a review will be carried out by ESA. Data will be made accessible by MDA GSI, that will also be in charge of the Customer Access Profile (CAP) check, according to Canadian legislation.

2 LOGIN MY EARTHNET

A pre-requisite to access the Submission area is to be logged-in to My Earthnet (see Figure 1).

In case you are not registered to ESA Earthnet (https://earth.esa.int), please select the button Register: this will lead you to the ESA EO-SSO registration area (see Figure 2), where you will have to create a user name (UMSSO-ID), select a Secret question and the reply, a password (at...
least 8 characters long and contain digits, lower and upper case letters as well as symbolic characters -such as !@$*), and provide your Email address. A registration link will be then sent to the provided Email address, allowing to activate your registration. In case of problems, please contact: http://earth.esa.int/contactus/

To submit a proposal for RADARSAT TPM data, Login to MyEarthnet (see Figure 1), go to the RADARSAT ESA TPM homepage https://earth.esa.int/aos/RADARSAT and select the link Submit a proposal. See more details in 3 PROPOSAL SUBMISSION.

In case you lost your UM-SSO password, the system online at: https://eo-sso-idp.co.esa.int/idp/umssso20/admin will allow you to generate an Email with a link to create a new password. When accessing that link you will be requested to reply to the Secret question defined when creating the account. Note: in some cases ESA created an user account for you in the past. If you are unsure about it and you do not remind having set a Secret question, you can try using firstname.lastname as User ID and reply to the default question (Who is your favourite singer) with your firstname.lastname, even if you are off-key…. In case of problems, please contact: http://earth.esa.int/contactus/.

Important: Proposal submission is responsibility of the person uniquely associated with an ESA EO-SSO code: this corresponds to a name, lastname and Email and can’t be shared. This person (PI) will accept online the Terms of Conditions for the use of the data, therefore no delegation of the submission to third parties is acceptable. In case third parties need to have full visibility on the proposal, we advise the submitter of the proposal to include them in the proposal as co-Investigators.
3 STARTING THE SUBMISSION OF A PROPOSAL

If you have not yet registered to the ESA EO-SSO (see previous paragraph) you must do so before starting your submission.

After you have signed up Earth Online with your EO-SSO, you can select the 3d Party icon in the section “Apply for Data” (see Figure 3). This will lead you to the list of pages dedicated to ESA TPM: by selecting RADARSAT you will reach the page providing all the information dedicated to this call, including the link to submit the proposal.

The direct link: [https://earth.esa.int/aos/RADARSAT](https://earth.esa.int/aos/RADARSAT) will lead to the same page.

On acceptance of the proposal, the information provided about the PI, PI's Institute, Project's Summary and Schedule will be publicly available on the Website, unless differently requested and justified in the Detailed description of the proposal.

The following sections illustrate name and content of the forms that the PI must fill-in to provide all the detailed information to allow ESA to evaluate the proposal properly.
The submission forms are tailored to several different aspects of the proposal:

- The Cover page: general information about the PI, Co-Investigators and an overview of the project
- The Team Composition, Innovation and Contribution section
- The Detailed Description and Schedule of the proposal
- The Data Description pages
- Acceptance of ESA Terms and Conditions

Figure 4: The Submission area, enabling the navigation through the various parts of the proposal. Please note: only after the proposal will have been duly filled-in the Submit button will appear (to the right of the Quit button), enabling formal submission of the proposal.
4 SUBMITTING A PROPOSAL

Before starting the submission of a proposal, please verify compliance of your intended proposal with the Terms of Applicability of this call, published at: https://earth.esa.int/files/RADARSAT_Terms

In view of the limited amount of data available and the need to maximise the use of the data within the research community, proposers should limit their data requirements to less than 20 scenes. Note: the call will be closed as soon as the total quota of RADARSAT products agreed by the Third Party Mission entity will have been assigned.

4.1 Cover Page

4.1.1 TITLE

Title of the proposal (should not exceed 256 characters)

4.1.2 APPLICATION DOMAINS AND LOCATION

The applicable Theme(s) for the proposal can be specified in this section. Table 1 in Appendix contains an overview of the possible themes, including (for explanatory reasons only) several sub-themes. The field Study-area enables to broadly define the geographic area of study.

4.1.3 EXECUTIVE SUMMARY

A concise resume is required describing the objective, method and deliverables of the project. Availability of funding to run the project must be specified in this section (should not exceed 4000 characters).

4.1.4 PRINCIPAL INVESTIGATOR INFORMATION

This section contains details about the Principal Investigator (name, institution, town, address, postcode, phone...). The fields Fax and Acronym of the Institute are not compulsory, the fields Email cannot be modified (it can only be updated within the UMSSO interface at: https://eo-sso- idp.eo.esa.int/idp/umsso20/admin). All communications will be addressed to the Email provided in this section.

4.1.5 CO-INVESTIGATORS

Co-Investigators are entitled to order and receive data on behalf of the PI. To add a co-Investigator the PI is requested to provide his/her Email address and search it in the system:

- If the person is found, the PI is requested to confirm the selection
- If the person is not found, the PI is requested to submit further information –if available- about the co-Investigator (eg name, lastname, address, town, postcode, country of residence, phone, fax…).

On proposal submission, the co-Investigator will receive an Email to inform about involvement in the project.
Note: none of the fields presented in this section is compulsory, however for the Canadian Legislation check that will be performed by MDA GSI when data orders will be submitted, information about the Institution and address of the Co-Investigators will be requested.

4.2 **Team Composition, Experience, Innovation and Contribution**

A tentative list of the team members should be provided; the overall experience of the team shall be described.

4.2.1 **EXPERIENCE OF THE TEAM**

Respective experience of the Project leader and co-Investigators must be described *(should not exceed 2000 characters)*.

4.2.2 **INNOVATIVE CHARACTER OF THE PROPOSAL**

The innovative character of the proposal must be described, indicating the related domains. *(should not exceed 2000 characters)*.

4.2.3 **CONTRIBUTION TO THE OBJECTIVES OF THIS CALL**

This call aims to select a limited number of innovative research proposals addressing the exploitation of RADARSAT data for R&D. This call is not intended to support proposals already of commercial or operational nature. Proposals focusing on application of operational techniques (eg inSAR, feature tracking...) shall demonstrate an innovative content to be considered for this call. Further details can be provided in the Detailed Description of the proposal *(should not exceed 2000 characters)*.

4.3 **Detailed description and Schedule of the proposal**

4.3.1 **DETAILED DESCRIPTION**

This is the main part of the proposal and the main basis for its evaluation. It should include as a minimum the following information:

- Technical and scientific approach and methods proposed to meet the proposal’s objectives, and the success criteria of the project.
- Anticipated results and deliverables of the investigation, and schedule for availability of such results and deliverables.
- Work Plan of the investigation, including a description of the key milestones and associated deliverables, the planned use of data, models and facilities.
- Justification for the amount and type of requested data products. *(should not exceed 12000 characters)*.
4.3.2  SCHEDULE

The schedule must show the project phases (preparation, data acquisition, analysis) as well as the plan for reporting preliminary and final results (should not exceed 2000 characters).

4.4  Data Requirements: Instruments and Products

4.4.1  PRODUCTS SELECTION

In order to better complete this section, providing the necessary information about the requested products, before submitting a proposal it is strongly suggested to consult the RADARSAT Catalogues at: http://ceocat.ccrs.nrcan.gc.ca/portal/index.html and ESA Catalogues at: https://earth.esa.int/web/guest/data-access/catalogue-access.

In this section the PI can list the products requested to ESA to carry out the research. One dropdown menu enables selection of ESA products and a second dropdown menu enables selection of Third Party Mission (eg. RADARSAT) products. The selected product can then be confirmed by pressing the button “Add Product”.

Should the PI request “framed” products (SAR, ASAR…), details about number of archived scenes to be used during the project and broad location of the acquisitions may be asked. Note: in case systematically available data are requested, on full proposal submission immediate information access will be found in the section of My Earthnet dedicated to My Online Data (see Figure 4).

Details about type, amount of data (or time interval of the requested data) and eventually geographic coverage requested can be provided in the following Data requirements section.

In the context of this Call the following RADARSAT beam modes and polarization can be made available:

- ScanSAR Wide or Narrow (Single or Dual Pol)
- Wide (Single or Dual Pol)
- Fine (Single or Dual Pol)
- Standard (Single or Dual Pol)
- Extended High or Low (Single Pol)

Once all the needed products have been selected and confirmed, the PI can access the following pages by pressing the button “Next”.

4.4.2  DATA REQUIREMENTS

In this section the PI can provide detailed information about the requested products. It is in particular important, when relevant to the content of the proposal, to specify the required operating modes of the instruments.
The box “**RADARSAT Data: Details about required products**” must be filled-in with the following information:

- **For each test site:**
  - Country (or Exclusive economic zone -EEZ in case of areas of interest over sea)
  - Name of the site
  - and coordinates
  
  Note: this information will be required for the Canadian Legislation check that will be performed by MDA GSI when data orders will be submitted.

- **In case of requests for RADARSAT Standard or Fine products:**
  - Requested polarization (single or dual)

The box “**ESA Data: details about archive products**” can be filled-in with information about the requested ESA data. Please note that the data specified in this section should not be regarded as a final data order. This box can be left empty by users planning to request exclusively RADARSAT data.

Should you be willing to provide more information about the requested products (e.g. .kml of the study-areas), you can use the “**Upload a file**” tool available in this page. Please note: only one file can be uploaded in this area: should you have more files, please zip them together.

### 4.5 Upload a file

Should you need to provide more information (e.g. tables, list of publications, references etc), you have the possibility to upload a file. A short description of the file shall be provided in the relevant comment field. Please note: only one file can be uploaded in this area: should you have more files, please zip them together.

### 4.6 Terms and Conditions acceptance

The Principal investigator shall have read and accepted the Terms and Conditions for the utilisation of Earth Observation data provided by ESA.

Terms and Conditions for ESA TPM data (e.g. RADARSAT) are available at: [https://earth.esa.int/files/TPMterms](https://earth.esa.int/files/TPMterms);

Terms and Conditions for ESA data are available at: [https://earth.esa.int/files/terms](https://earth.esa.int/files/terms).

Acceptance of the terms and is expressed by ticking the boxes available on the page.

### 5 HOW TO MODIFY AND SUBMIT A PROPOSAL

Proposal submission can be quit at any moment, the PI shall ensure to press the "save" button in order to save all the information to be re-accessed at a later stage of proposal submission. To re-access the proposal the PI shall access his My Earthnet area and will find it listed in the section My Projects, with its associated status. A project with status “initial” can be still modified and updated by the PI, once a proposal has been submitted, this can not be any more modified.
Final submission of the proposal can be done only after all the fields have been duly completed: a "Submit" button will appear in the Proposal Submission Area. Pressing the button will produce a formal submission of the proposal (e.g. no more changes can be performed on the proposal's contents) and an automatic submission acknowledgement will be sent to the Email of the PI.
6 EVALUATION OF PROPOSALS

6.1 Evaluation and selection procedures

The proposals will be reviewed by ESA.

The purpose of the review is:
- To evaluate the degree of innovation of the proposal as well as its scientific merits in relation to the technical feasibility.
- To assess whether the specific projects are in accordance with existing data policy and with the Call

Final decisions concerning the acceptance of proposals will be made upon the review feedback. ESA may decide to select only a portion of the proposer's investigation, in which case the investigator will be given the opportunity to accept or decline such partial acceptance.

These final decisions will take into account the relevance to the objectives of this call and project feasibility requirements in terms of data availability.

6.2 Evaluation criteria

Each proposal will be evaluated against the following criteria:
- Requested volume of data
- The purely scientific and experimental (eg non-commercial, non-operational) nature of the proposal
- The demonstrated degree of innovation of the proposal and its scientific merit
- The technical feasibility of completing the project and achieving positive results within a period of typically two years, with special emphasis on the adequacy and practicability of the schedule presented in the proposal
- The competence and relevant experience of the Principal Investigator and collaborators, as an indication of their ability to complete the project successfully.

6.3 Follow-on actions and activities

Following approval of the proposed project by ESA, access to satellite images necessary to execute the projects will be provided to the selected Principal Investigators within the limits of the quota assigned to the proposal. In some cases the principal investigator will be required to amend his proposal in order to meet the acceptance criteria and in accordance with the remarks expressed by the evaluators.

The provision of RADARSAT products will be done by MDA GSI. Such provision is subject to the data policy, laws and regulations of Canada: these will be checked for each order by MDA-GSI.
## ANNEX: LIST OF POSSIBLE APPLICATION DOMAINS

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal zones</td>
<td>Bathymetry mapping&lt;br&gt; River discharge mapping&lt;br&gt; Coastal protection and change monitoring (algae blooms, erosion assessment, water pollution...)</td>
</tr>
<tr>
<td>Geodesy</td>
<td>Geodesy</td>
</tr>
<tr>
<td>Geology</td>
<td>Geological mapping&lt;br&gt; Geodynamics&lt;br&gt; Archaeology</td>
</tr>
<tr>
<td>Hazards</td>
<td>Volcanoes monitoring&lt;br&gt; Earthquakes&lt;br&gt; Earth motion (Crustal motion, Subsidence...)&lt;br&gt; Floods&lt;br&gt; Oil&lt;br&gt; Fires&lt;br&gt; Landslides and Soil erosion&lt;br&gt; Damage assessment</td>
</tr>
<tr>
<td>Hydrology</td>
<td>Snow melt&lt;br&gt; Soil moisture&lt;br&gt; Wetlands&lt;br&gt; Run-off&lt;br&gt; Water cycle</td>
</tr>
<tr>
<td>Ice</td>
<td>Ice sheet mapping&lt;br&gt; Ice-sheet dynamics and properties</td>
</tr>
<tr>
<td>Land environment</td>
<td>Environment (Urban SAR-climatology, Global change...)&lt;br&gt; Land surface temperature&lt;br&gt; Desertification</td>
</tr>
<tr>
<td>Methods</td>
<td>Algorithm development, Software development, Product development</td>
</tr>
<tr>
<td>Oceanography</td>
<td>Wind-wave&lt;br&gt; Primary production (Geochemistry, Fisheries, SST...)&lt;br&gt; Ocean dynamics (Circulation, Sea-level, NRT...)&lt;br&gt; Sea features (Ship detection, Air-sea features...)</td>
</tr>
<tr>
<td>Renewable resources</td>
<td>Agriculture&lt;br&gt; Vegetation&lt;br&gt; Forestry&lt;br&gt; Land cover/use mapping</td>
</tr>
<tr>
<td>Sea-ice</td>
<td>Sea-ice</td>
</tr>
<tr>
<td>Topographic mapping</td>
<td>DEMs</td>
</tr>
</tbody>
</table>

Table 1: Possible themes and correlated sub-themes