**Introduction to the Charter Data Contributor Approval Process** 

**The Charter and its Operational Data Management Workflow System (COS-2**):

The Charter is a multi-satellite operational system to provide space-borne data on disasters that have the potential of causing significant loss of life and/or property. The Charter covers only the response phase of a disaster, the later recovery and rehabilitation efforts are not supported under this initiative. Only basic imagery (typically georeferenced data) are provided, although any further value-adding (VA) and information extraction are commonly sponsored by the individual Charter members. The provision of the Charter data is subject to the data policies, government regulations and the intellectual property and copyrights of the Charter member space agencies and the contributing mission data providers. The Charter is carried out under the supervision of an Executive Secretariat comprising the representatives of the member space agencies, namely ESA, CNES, CSA, NOAA, USGS, ISRO, CONAE, JAXA, UKSA/DMCii, CNSA, DLR, INPE, KARI, ROSCOSMOS and ABAE. The Charter can be activated by an Authorized User (AU). The AUs are primarily institutions responsible for rescue and civil protection, or a space operator that is a member of the Charter. The Charter activation request is sent by the AU to a centralized 24/7 call receiving unit staffed by an On-duty Officer (ODO) at ESA, Frascati (Italy), and after initial validation the request, is passed on to an Emergency On-Call Officer (ECO), who is also accessible 24/7. The ECO verifies the request through interaction with the AU and by using the ECO's own sources of information. When the request is accepted, the ECO prepares a data acquisition plan for spacecraft tasking and archive retrievals by the individual space agency mission planners. At the same time, the Charter Executive Secretariat nominates a Charter Project Manager (PM) to take over the responsibility of managing the entire activation, which may include revision of the coverage area, selection and amount of data, Value Adding, data delivery, and assistance to the AU and the end user. At the close of the activation, within a period of 45 days from the date the activation request is received, the PM submits a report to the Executive Secretariat. All records associated with an activation are saved on the Charter FTP site.

To make sure the acquisition and delivery of satellite data is in line with the operational environment of the Charter, a workflow management system named the Charter Operational System (COS-2) is used. For all Charter activations, the end-to-end management is executed using COS-2 and all associated functions (e.g. ECO, PM) have specific access rights. It is an online and centralized system that registers a Charter Call submitted by an Authorized User and then provides the tools to manage the complete activation. It also provides a central data repository and a mechanism to download data provided by Charter member agencies. The satellites acquisitions may be provided either directly to the Charter PM or centrally using the COS-2 data repository, but the metadata and Quick Looks associated with the EO data products will be uploaded to COS-2.

COS-2 is following a key principle of the Charter: the Charter data contributor provides a selection of EO data products to support the activation (e.g. with regards to cloud cover, coverage of the target area, the potential of combining crisis data with relevant pre-event reference images). COS-2 is accessible at: [www.disasterscharter.org/.](http://www.disasterscharter.org/) An on-line geographic interface, the Charter Geo-browser (<http://cgt.prod.esaportal.eu/charterng/)> allows visualization of activations with satellite data footprints, Quick-Looks and basic information about the event.

**Applying to become an Approved Charter Data Contributor: Procedure and Criteria:**

The Charter Data Contributor Approval scheme is a baseline for cooperation between the Charter and data suppliers. However, the Charter may consider cooperating with suppliers that have not yet followed the scheme. By granting the status of Approved Charter Data Contributor, the Charter intends to both improve operations and acknowledge and promote the contribution of data suppliers. The criteria used in the scheme have the purpose to maximize the efficiency of the contribution of the data source to the Charter operations. It is to be noted that there is no commitment from the Charter that all EO data products supplied to support an activation are used to generate results, because this process is driven by user requirements and operational priorities in an emergency response basis.

Any EO data supplier can apply to become an Approved Charter Data Contributor, by filling in and returning the following application form to their Point of Contact within the Charter or the [executivesecretariat@disasterscharter.org.](mailto:executivesecretariat@disasterscharter.org) Further to the application form, the data supplier shall be requested to provide sample data and metadata of the proposed data source(s).

Each data supplier applying to become an Approved Charter Data Contributor shall be evaluated upon the following criteria:

1. Data Product Specifications and Processing Level
2. Sample data and data product specifications are provided.
3. The Processing Level (L1B or higher) of the data supplied is specified
   1. Radiometric corrections are applied to a known level.
   2. Geometric corrections are applied to a known level (e.g. geocoded ellipsoid corrected or ortho- rectified, etc.).
   3. The geolocation in the supplied data is known with sufficient location accuracy to ensure appropriate overlap with the Area of Interest of the requested observations.
4. Delivery Method, Media & Format
5. The format of the data is described and the delivery mechanism is indicated.
6. Cataloguing metadata: the supplier commits to provide the metadata associated to the data to be delivered, so these metadata can be published by the Charter on COS-2; for instance, this may help the PM locate the scenes using the Charter Geo-Browser Tool and verify their overlap with the AOI. Typically, the supplier uploads a file (i.e. a predefined XML) in the COS-2 system.
7. Quick-looks and cloud coverage
8. For optical data sources: If available, Quick-Looks or Browse images are provided together with the metadata describing the product. Quick-looks or Browse images provide useful information to the Charter Project Manager, especially in the case where the AOI is located in a non-cloudy part of the image that has important cloud coverage. Typically, the supplier uploads a file (i.e. jpeg or png) in the COS-2 system.
9. Cloud coverage for optical data sources: If available, information about cloud coverage, such as for instance representing the spatial distribution of cloud coverage within the scene is provided, in the products’ metadata.
10. Supporting services
    1. An operational point of contact is available to address queries about the delivery of data in the context of Charter activations; typically, this level of support does not require working on a 24/7 basis; contact details are available (telephone and email) and will be used in the list of Charter Order Desks.   
       If available, a technical point of contact might be helpful for enquiries about the technical specifications of the EO data provided.

**Application Form for Charter Data Contributor Approval**

This form is to be filled in by a data supplier wishing to contribute its data source(s) to the International Charter ‘Space and Major Disasters’. Please send this form completed and signed to your point of contact with the Charter or, alternatively, to the Charter Executive Secretariat: [executivesecretariat@disasterscharter.org](mailto:executivesecretariat@disasterscharter.org)

1. Contact details of responsible for application

Name of Organization/Company:

Point of Contact:

Position:

Telephone:

Email:

Address:

1. Please provide an overview of the products & services that your organization/company provides.
2. Information about EO missions:

Please indicate what currently operating EO mission(s) are proposed to support the Charter:

Please indicate if there are legacy EO missions with which you propose to support the Charter:

Do you plan consider providing access to new EO missions in the future?

**Data Product Specifications and Processing Level** for this EO mission(s):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Satellite** | **Sensor** | **Radiometric correction** | **Geometric correction (ortho- rectification)** | **Cloud coverage available through metadata** | **Revisit time** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Additional Product Specifications**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Satellite/Sensor** | **Optical or RADAR sensor** | **Spectral Bands** | **Modes (for SAR)** | **Image Size** | **Spatial Resolution** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Tasking and Delivery Timeliness**

Please describe time constraints and timeliness for tasking and delivery of data, the possibility of cancelling requests.

**Delivery Media and Format**

* 1. Please describe the format of the data product.
  2. If not already the case, please confirm delivering data by uploading products on the data repository of the Charter Operational System (COS-2) and/or HDDS?

Yes/No

* 1. If you are not willing to use the COS-2 and/or HDDS delivery method (see ii) please indicate the mechanisms you propose for data delivery (machine to machine, transfer protocol etc.).

* 1. Do you agree that the Charter publishes the metadata of the supplied data through the Charter Geo- browser (see [http://cgt.prod.esaportal.eu/)?](http://cgt.prod.esaportal.eu/))

Yes/No

* 1. Do you agree to provide Quick-Looks or Browse images together with the metadata associated to the data to be delivered?

Yes/No

* 1. Are the data available freely and/or openly?
  2. Is there a need for a Non-Disclosure-Agreement between the data provider and the recipient of data?

**Access to archive data**

Is it possible to request archive data (e.g. pre-event) in addition to new (e.g. crisis time) acquisitions? Yes/No

**Limitations concerning data supply volumes**

1. Is there a limitation on the maximum number of images to be provided per activation? Yes/No

If yes, please indicate the maximum number:

1. Is there a limitation of maximum number of images that can be provided each year?

If yes, please indicate the maximum number:

Yes/No

1. Are there any other limitations expected (e.g. depending on the AOI, the type of disaster etc.)? Yes/No

If yes, please provide details:

Declaration:

I declare the intent to comply with the criteria defined in the Introduction to the Charter Data Contributor Approval Process document.

Name of responsible:

Date:

Signature:

**Acronyms**

AAP AF

Acquisition and Archive Plan Application Form

AOI Area of Interest

COS-2 Charter Operational System (for data workflow management) ERF Emergency Request Form

ES HDDS

Executive Secretariat

Hazards Data Distribution System

NDA Non-Disclosure Agreement

PM Project Manager

VA Value Adding