International Charter
Space and Major Disasters

Charter Activation	595
Charter Call ID	685
Disaster Event	Flood
Disaster Location	BRAZIL
Date of Final Reporting	2019.04.24

PM Report

*Reporting forms completed by: Lucas Mikosz

*Reporting forms reviewed by:

Project Managers for Charter activations are expected to provide the PM report to the Charter Executive Secretariat within 45 days after the start of the activation.

A. Disaster Event Summary	
*A1. Emergency type:	Flood
*A2. Date disaster initiated: 13 Jan 2019	
*A3. Disaster location and extent: BRAZIL (~60 km2)	
A4. Estimated number of deaths: 03	
A5. Estimated number of people affected: 8496	
A6. Estimated economic losses: not estimated	
A7. Additional disaster impacts (environmental, infrastructure, etc): Flooded houses, dislodged people and agricultural damages	
A8. Additional disaster event details: Heavy rains on the Ibiraputã river affected the city of Alegrete and on the Ibicuí river affected the city of Manoel Viana. The Ibirapuitã merge with Ibicuí and then with Uruguay river. The combination of flood waves affected the downstream city of Uruguaiana,	

* mandatory

B. Activation Information Charter Call ID685			
*B1. Date of Charter activation 13 Jan 2019			
*B2. Geographical Coordinates (Lat - Long)			
Bounding Box:	Upper left corner:	Centre Point(s):	(1): centerPoint_1 S 29°47', W 55°47', radius: 4
	Upper right corner:		(2): centerPoint_2 S 29°35', W 55°29', radius: 4
	Lower left corner:		(3): centerPoint_3 S 29°45', W 57°5', radius: 10
	Lower right corner:		

*B3. Authorized User/Requestor: Lucas Mikosz	*Organization: CENAD	*AU contacted ODO: 13 Jan 2019

B4. On behalf:	Organization:	
*B5. ECO: Hendrik Zwenzner	*Organization: DLR	*ECO contacted PM: 13 Jan 2019 19:26
*B6. Project Manager: Lucas Mikosz	*Organization: INPE	*PM nominated: 13 Jan 2019 19:16 By: INPE
B7. Value-adding Reseller or organization(s): **CENAD**		First images available: • First archive (pre-event) image(s) (dd mmm yyyy): **14 Jan 2019** • First crisis (post-event) image(s) (dd mmm yyyy): **14 Jan 2019**
*B8. End User(s):	*Organization: National Center of Risk and Disaster Management, Geological Service of Brazil.	• Date of first Value-adding (VA) products (e.g. maps and charts from the PM or VAR) based on archive image (dd mmm yyyy): **15 Jan 2019** • Date of first VA crisis product** (dd mmm yyyy) delivered to End User: **15 Jan 2019** **can be a product based on both archive and crisis images.

* mandatory

C. Intervention Summary
*C1. Describe the activation in detail and describe the interaction between the PM and the AU: * The type(s) and acquisition date(s) of the first post-event (crisis) image(s) received from the Charter: * The type and acquisition date of the first post-event (crisis) image that was used to generate a VA product: * The date the first VA crisis product was generated:
*C2. Provide a chronology of events associated with the disaster and the Charter activation: - Call 685: ODO confirmation, ECO call notification on 13 Jan 2019 18:34 ECO URF validation on 13 Jan 2019 19:00 ERF v.1.0 sent to MPP of CSA on 13 Jan 2019 19:13 ERF v.1.0 sent to MPP of ROSCOSMOS on 13 Jan 2019 19:14 ERF v.1.0 sent to MPP of JAXA on 13 Jan 2019 19:14 ERF v.1.0 sent to MPP of ESA on 13 Jan 2019 19:14 ERF v.1.0 sent to MPP of CNES on 13 Jan 2019 19:14 ERF v.1.0 sent to MPP of INPE on 13 Jan 2019 19:14 ERF v.1.0 sent to MPP of PLANET on 13 Jan 2019 19:14 ERF v.1.0 sent to MPP of DLR on 13 Jan 2019 19:14 ERF v.1.0 sent to MPP of USGS on 13 Jan 2019 19:14 ERF v.1.0 sent to MPP of KARI on 13 Jan 2019 19:14

PM nominated by INPE on 13 Jan 2019 19:16

ERF v.1.0 sent to MPP of CNSA on 13 Jan 2019 19:18

ECO Dossier completed on 13 Jan 2019 19:26

ECO Dossier validated by PM on 13 Jan 2019 19:42

AAP received from MPP of ROSCOSMOS on 13 Jan 2019 20:02

AAP received from MPP of ROSCOSMOS on 13 Jan 2019 20:02

AAP received from MPP of ROSCOSMOS on 13 Jan 2019 20:02

AAP received from MPP of DLR on 13 Jan 2019 22:02

AAP received from MPP of DLR on 13 Jan 2019 22:03

AAP received from MPP of KARI on 14 Jan 2019 07:08

AAP received from MPP of KARI on 14 Jan 2019 07:08

AAP received from MPP of KARI on 14 Jan 2019 07:08

AAP received from MPP of KARI on 14 Jan 2019 07:08

Data Product received from MPP of ESA on 14 Jan 2019 18:30

Data Product received from MPP of CNES on 14 Jan 2019 21:04

VAP uploaded on 14 Jan 2019 21:12

Data Product received from MPP of ESA on 15 Jan 2019 00:00

Data Product received from MPP of ESA on 15 Jan 2019 00:00

Data Product received from MPP of KARI on 15 Jan 2019 02:01

Data Product received from MPP of KARI on 15 Jan 2019 02:02

Data Product received from MPP of KARI on 15 Jan 2019 02:03

Data Product received from MPP of KARI on 15 Jan 2019 02:04

Data Product received from MPP of KARI on 15 Jan 2019 02:04

AAP received from MPP of JAXA on 15 Jan 2019 04:45

Data Product received from MPP of INPE on 15 Jan 2019 11:57

Data Product received from MPP of INPE on 15 Jan 2019 12:09

Data Product received from MPP of INPE on 15 Jan 2019 12:46

Data Product received from MPP of INPE on 15 Jan 2019 12:52

AAP received from MPP of ESA on 15 Jan 2019 14:00

AAP received from MPP of ESA on 15 Jan 2019 14:00

AAP received from MPP of ESA on 15 Jan 2019 14:00

AAP received from MPP of ESA on 15 Jan 2019 14:00

Data Product received from MPP of INPE on 15 Jan 2019 17:23

Data Product received from MPP of INPE on 15 Jan 2019 17:35

VAP uploaded on 15 Jan 2019 21:10

Data Product received from MPP of ESA on 16 Jan 2019 00:00

Data Product received from MPP of ESA on 16 Jan 2019 00:00

VAP uploaded on 16 Jan 2019 19:28

VAP uploaded on 16 Jan 2019 20:09

Data Product received from MPP of USGS on 16 Jan 2019 23:50

Data Product received from MPP of USGS on 16 Jan 2019 23:50

Data Product received from MPP of USGS on 16 Jan 2019 23:50

Data Product received from MPP of USGS on 16 Jan 2019 23:50

Data Product received from MPP of USGS on 16 Jan 2019 23:51

Data Product received from MPP of USGS on 16 Jan 2019 23:51

Data Product received from MPP of USGS on 16 Jan 2019 23:51

Data Product received from MPP of USGS on 16 Jan 2019 23:51

Data Product received from MPP of USGS on 16 Jan 2019 23:51

Data Product received from MPP of USGS on 16 Jan 2019 23:52

Data Product received from MPP of USGS on 16 Jan 2019 23:55

Data Product received from MPP of USGS on 16 Jan 2019 23:55

Data Product received from MPP of USGS on 16 Jan 2019 23:55

Data Product received from MPP of USGS on 16 Jan 2019 23:55

Data Product received from MPP of USGS on 16 Jan 2019 23:56

Data Product received from MPP of USGS on 16 Jan 2019 23:56

Data Product received from MPP of USGS on 16 Jan 2019 23:56

Data Product received from MPP of USGS on 16 Jan 2019 23:57

Data Product received from MPP of USGS on 16 Jan 2019 23:57

Data Product received from MPP of USGS on 16 Jan 2019 23:57

Data Product received from MPP of USGS on 16 Jan 2019 23:58

Data Product received from MPP of USGS on 16 Jan 2019 23:58

Data Product received from MPP of USGS on 16 Jan 2019 23:58

Data Product received from MPP of USGS on 16 Jan 2019 23:58

Data Product received from MPP of USGS on 16 Jan 2019 23:59

Data Product received from MPP of USGS on 16 Jan 2019 23:59

Data Product received from MPP of USGS on 16 Jan 2019 23:59

Data Product received from MPP of USGS on 16 Jan 2019 23:59

Data Product received from MPP of JAXA on 17 Jan 2019 02:02

Data Product received from MPP of JAXA on 17 Jan 2019 02:13

Data Product received from MPP of ESA on 17 Jan 2019 11:00

Data Product received from MPP of INPE on 17 Jan 2019 12:58

Data Product received from MPP of INPE on 17 Jan 2019 13:09

VAP uploaded on 17 Jan 2019 19:04

Data Product received from MPP of ESA on 18 Jan 2019 16:30

Data Product received from MPP of CSA on 18 Jan 2019 19:28

AAP received from MPP of CSA on 18 Jan 2019 19:33

AAP received from MPP of CSA on 18 Jan 2019 19:33

Data Product received from MPP of KARI on 21 Jan 2019 08:31

Data Product received from MPP of KARI on 21 Jan 2019 08:32

Data Product received from MPP of USGS on 31 Jan 2019 18:14

Data Product received from MPP of USGS on 31 Jan 2019 18:15

Data Product received from MPP of USGS on 31 Jan 2019 18:15

Data Product received from MPP of USGS on 31 Jan 2019 18:15

Data Product received from MPP of USGS on 31 Jan 2019 18:16

Data Product received from MPP of USGS on 31 Jan 2019 18:16

Data Product received from MPP of USGS on 31 Jan 2019 18:16

Data Product received from MPP of USGS on 31 Jan 2019 18:16

Data Product received from MPP of USGS on 31 Jan 2019 18:17

Data Product received from MPP of USGS on 31 Jan 2019 18:17

*C3. Fill in the table below in order to include the data not received through COS-2. List the date (dd/mm/yyyy) that each image was collected).

Agency	Satellite Instrument Mode	Sensing dates of requested products	Date of:	Sensing / Reception dates of metadata / products			
				Attempt 1	Attempt 2	Attempt 3	Archive
CNES	PLEIADES PHR1A	14 Jan 2019	Reception	14 jan 2019			
			Sensing	14 jan 2019			

CNES	PLEIADES PHR1B	16 Jan 2019	Reception	24 Jan 2019			
			Sensing	16 Jan 2019			
CNES	PLEIADES PHR1A	21 Jan 2019	Reception	21 Jan 2019			
			Sensing	21 Jan 2019			
CNES	PLEIADES PHR1A	21 Jan 2019	Reception	21 Jan 2019			
			Sensing	21 Jan 2019			
CNES	PLEIADES PHR1B	20 Jan 2019	Reception	20 Jan 2019			
			Sensing	20 Jan 2019			
CNES	PLEIADES PHR1B	20 Jan 2019	Reception	20 Jan 2019			
			Sensing	20 Jan 2019			
CNES	PLEIADES PHR1B	20 Jan 2019	Reception	20 Jan 2019			
			Sensing	20 Jan 2019			
CNES	PLEIADES PHR1A	19 Jan 2019	Reception	19 Jan 2019			
			Sensing	19 Jan 2019			
CNES	PLEIADES PHR1A	19 Jan 2019	Reception	19 Jan 2019			
			Sensing	19 Jan 2019			
CNES	PLEIADES PHR1A	19 Jan 2019	Reception	19 Jan 2019			
			Sensing	19 Jan 2019			
CNES	PLEIADES PHR1B	18 Jan 2019	Reception	18 Jan 2019			
			Sensing	18 Jan 2019			
CNES	PLEIADES PHR1B	18 Jan 2019	Reception	18 Jan 2019			
			Sensing	18 Jan 2019			
CNES	PLEIADES PHR1A	17 Jan 2019	Reception	17 Jan 2019			
			Sensing	17 Jan 2019			
CNES	PLEIADES PHR1A	17 Jan 2019	Reception	17 Jan 2019			
			Sensing	17 Jan 2019			
CNES	PLEIADES PHR1B	17 Jan 2019	Reception	17 Jan 2019			
			Sensing	17 Jan 2019			
CNES	PLEIADES PHR1B	16 Jan 2019	Reception	16 Jan 2019			
			Sensing	16 Jan 2019			
CNES	PLEIADES PHR1B	16 Jan 2019	Reception	16 Jan 2019			
			Sensing	16 Jan 2019			
CNES	PLEIADES PHR1B	16 Jan 2019	Reception	16 Jan 2019			
			Sensing	16 Jan 2019			
CNES	PLEIADES PHR1A	15 Jan 2019	Reception	15 Jan 2019			
			Sensing	15 Jan 2019			
CNES	PLEIADES PHR1A	15 Jan 2019	Reception	15 Jan 2019			
			Sensing	15 Jan 2019			
CNES	PLEIADES PHR1A	15 Jan 2019	Reception	15 Jan 2019			
			Sensing	15 Jan 2019			
USGS	WORLDVIEW1 EO_IMAGER	24 Jan 2019	Reception	31 Jan 2019			
			Sensing	24 Jan 2019			
USGS	WORLDVIEW1 EO_IMAGER	24 Jan 2019	Reception	31 Jan 2019			
			Sensing	24 Jan 2019			
USGS	WORLDVIE	24 Jan 2019	Reception	31 Jan 2019			

	W1 EO_IMAGER						
			Sensing	24 Jan 2019			
USGS	WORLDVIEW1 EO_IMAGER	24 Jan 2019	Reception	31 Jan 2019			
			Sensing	24 Jan 2019			
USGS	WORLDVIEW2 EO_IMAGER	29 Jan 2019	Reception	31 Jan 2019			
			Sensing	29 Jan 2019			
USGS	WORLDVIEW2 EO_IMAGER	29 Jan 2019	Reception	31 Jan 2019			
			Sensing	29 Jan 2019			
USGS	WORLDVIEW2 EO_IMAGER	29 Jan 2019	Reception	31 Jan 2019			
			Sensing	29 Jan 2019			
USGS	WORLDVIEW2 EO_IMAGER	29 Jan 2019	Reception	31 Jan 2019			
			Sensing	29 Jan 2019			
USGS	WORLDVIEW2 EO_IMAGER	29 Jan 2019	Reception	31 Jan 2019			
			Sensing	29 Jan 2019			
USGS	WORLDVIEW2 EO_IMAGER	29 Jan 2019	Reception	31 Jan 2019			
			Sensing	29 Jan 2019			
USGS	WORLDVIEW2 EO_IMAGER	08 Dec 2018	Reception				16 Jan 2019
			Sensing				08 Dec 2018
USGS	WORLDVIEW2 EO_IMAGER	08 Dec 2018	Reception				16 Jan 2019
			Sensing				08 Dec 2018
USGS	WORLDVIEW2 EO_IMAGER	22 Nov 2018	Reception				16 Jan 2019
			Sensing				22 Nov 2018
USGS	WORLDVIEW2 EO_IMAGER	08 Dec 2018	Reception				16 Jan 2019
			Sensing				08 Dec 2018
USGS	WORLDVIEW2 EO_IMAGER	22 Nov 2018	Reception				16 Jan 2019
			Sensing				22 Nov 2018
USGS	WORLDVIEW2 EO_IMAGER	22 Nov 2018	Reception				16 Jan 2019
			Sensing				22 Nov 2018
USGS	WORLDVIEW2 EO_IMAGER	08 Dec 2018	Reception				16 Jan 2019
			Sensing				08 Dec 2018
USGS	WORLDVIEW2 EO_IMAGER	22 Nov 2018	Reception				16 Jan 2019
			Sensing				22 Nov 2018
USGS	GEO_EYE_1 EO_IMAGER	07 Jun 2018	Reception				16 Jan 2019
			Sensing				07 Jun 2018
USGS	GEO_EYE_1 EO_IMAGER	07 Jun 2018	Reception				16 Jan 2019
			Sensing				07 Jun 2018
USGS	GEO_EYE_1 EO_IMAGER	07 Jun 2018	Reception				16 Jan 2019
			Sensing				07 Jun 2018
USGS	GEO_EYE_1 EO_IMAGER	07 Jun 2018	Reception				16 Jan 2019
			Sensing				07 Jun 2018

USGS	GEO_EYE_1 EO_IMAGER	07 Jun 2018	Reception				16 Jan 2019
			Sensing				07 Jun 2018
USGS	GEO_EYE_1 EO_IMAGER	07 Jun 2018	Reception				16 Jan 2019
			Sensing				07 Jun 2018
USGS	GEO_EYE_1 EO_IMAGER	29 Nov 2018	Reception				16 Jan 2019
			Sensing				29 Nov 2018
USGS	GEO_EYE_1 EO_IMAGER	29 Nov 2018	Reception				16 Jan 2019
			Sensing				29 Nov 2018
USGS	GEO_EYE_1 EO_IMAGER	29 Nov 2018	Reception				16 Jan 2019
			Sensing				29 Nov 2018
USGS	GEO_EYE_1 EO_IMAGER	29 Nov 2018	Reception				16 Jan 2019
			Sensing				29 Nov 2018
USGS	LANDSAT 7 ETM	20 Nov 2018	Reception				16 Jan 2019
			Sensing				20 Nov 2018
USGS	LANDSAT 7 ETM	28 Oct 2018	Reception				16 Jan 2019
			Sensing				28 Oct 2018
USGS	LANDSAT 7 ETM	28 Oct 2018	Reception				16 Jan 2019
			Sensing				28 Oct 2018
USGS	LANDSAT 7 ETM	20 Nov 2018	Reception				16 Jan 2019
			Sensing				20 Nov 2018
USGS	LANDSAT 7 ETM	16 Jan 2019	Reception	16 Jan 2019			
			Sensing	16 Jan 2019			
USGS	LANDSAT 7 ETM	16 Jan 2019	Reception	16 Jan 2019			
			Sensing	16 Jan 2019			
USGS	LANDSAT 8 OLI_TIRS	28 Nov 2018	Reception				16 Jan 2019
			Sensing				28 Nov 2018
USGS	LANDSAT 8 OLI_TIRS	28 Nov 2018	Reception				16 Jan 2019
			Sensing				28 Nov 2018
USGS	LANDSAT 8 OLI_TIRS	07 Dec 2018	Reception				16 Jan 2019
			Sensing				07 Dec 2018
USGS	LANDSAT 8 OLI_TIRS	07 Dec 2018	Reception				16 Jan 2019
			Sensing				07 Dec 2018
INPE	CBER-4 panMUX	16 Jan 2019	Reception	17 Jan 2019			
			Sensing	16 Jan 2019			
INPE	CBER-4 panMUX	16 Jan 2019	Reception	17 Jan 2019			
			Sensing	16 Jan 2019			
INPE	CBER-4 panMUX	02 Jan 2019	Reception				15 Jan 2019
			Sensing				02 Jan 2019
INPE	CBER-4 panMUX	02 Jan 2019	Reception				15 Jan 2019
			Sensing				02 Jan 2019
INPE	CBER-4 panMUX	04 Feb 2018	Reception				15 Jan 2019
			Sensing				04 Feb 2018
INPE	CBER-4 panMUX	04 Feb 2018	Reception				15 Jan 2019
			Sensing				04 Feb 2018
INPE	CBER-4	04 Feb 2018	Reception				15 Jan 2019

	panMUX		Sensing				04 Feb 2018
INPE	CBER-4 panMUX	04 Feb 2018	Reception				15 Jan 2019
			Sensing				04 Feb 2018
CSA	RADARSAT2 SAR_RAD_2 ULTRA_FINE	(Archive) 13 Jan 2017	Reception				18 Jan 2019
			Sensing				13 Jan 2017
CSA	RADARSAT2 SAR_RAD_2 ULTRA_FINE	(Archive) 01 Mar 2017	Reception				18 Jan 2019
			Sensing				01 Mar 2017
CSA	RADARSAT2 SAR_RAD_2 ULTRA_FINE	16 Jan 2019	Reception	18 Jan 2019			
			Sensing	16 Jan 2019			
CSA	RADARSAT2 SAR_RAD_2 ULTRA_FINE	17 Jan 2019	Reception	18 Jan 2019			
			Sensing	17 Jan 2019			
DLR	TERRASAR_X SAR_DLR SM	17 Jan 2019	Reception	13 Jan 2019			
			Sensing	17 Jan 2019			
DLR	TERRASAR_X SAR_DLR SM	17 Jan 2019	Reception	13 Jan 2019			
			Sensing	17 Jan 2019			
ESA	SENTINEL_1 SAR IWS	14 Jan 2019	Reception	15 Jan 2019			
			Sensing	14 Jan 2019			
ESA	SENTINEL_1 SAR IWS	14 Jan 2019	Reception	15 Jan 2019			
			Sensing	14 Jan 2019			
ESA	SENTINEL_1 SAR IWS	15 Jan 2019	Reception	15 Jan 2019			
			Sensing	15 Jan 2019			
ESA	SENTINEL_1 SAR IWS	16 Jan 2019	Reception	15 Jan 2019			
			Sensing	16 Jan 2019			
ESA	SENTINEL_1 SAR IWS	17 Jan 2019	Reception	15 Jan 2019			
			Sensing	17 Jan 2019			
ESA	SENTINEL_1 SAR IWS	18 Jan 2019	Reception	15 Jan 2019			
			Sensing	18 Jan 2019			
ESA	SENTINEL_1 SAR IWS	18 Jan 2019	Reception	15 Jan 2019			
			Sensing	18 Jan 2019			
ESA	SENTINEL_1B SAR IWS	06 Jan 2019	Reception				14 Jan 2019
			Sensing				06 Jan 2019
JAXA	ALOS2 PALSAR2 SM	15 Jan 2019	Reception	15 Jan 2019			
			Sensing	15 Jan 2019			
JAXA	ALOS2 PALSAR2 SM	15 Jan 2019	Reception	15 Jan 2019			
			Sensing	15 Jan 2019			
JAXA	ALOS2 PALSAR2 SM	15 Jan 2019	Reception	15 Jan 2019			
			Sensing	15 Jan 2019			
KARI	KOMPSAT2 MSC PMS	(Archive) 15 Apr 2018	Reception				14 Jan 2019
			Sensing				15 Apr 2018
KARI	KOMPSAT2 MSC PMS	(Archive) 07 Aug 2018	Reception				15 Jan 2019
			Sensing				07 Aug 2018
KARI	KOMPSAT2 MSC PMS	(Archive) 17 Mar 2017	Reception				15 Jan 2019
			Sensing				17 Mar 2017

KARI	KOMPSAT5 COSI ST	(Archive) 21 Jun 2017	Reception				15 Jan 2019
			Sensing				21 Jun 2017
KARI	KOMPSAT2 MSC PMS	15 Jan 2019	Reception	14 Jan 2019			
			Sensing	15 Jan 2019			
KARI	KOMPSAT3 AEISS PMS	16 Jan 2019	Reception	14 Jan 2019			
			Sensing	16 Jan 2019			
KARI	KOMPSAT5 COSI ST	18 Jan 2019	Reception	14 Jan 2019			
			Sensing	18 Jan 2019			
KARI	KOMPSAT5 COSI ST	19 Jan 2019	Reception	21 Jan 2019			
			Sensing	19 Jan 2019			
ROSCOSMOS	RESURS_P GEOTON_1	15 Jan 2019	Reception	13 Jan 2019			
			Sensing	15 Jan 2019			
ROSCOSMOS	RESURS_P GEOTON_1	18 Jan 2019	Reception	13 Jan 2019			
			Sensing	18 Jan 2019			
ROSCOSMOS	RESURS_P GEOTON_1	21 Jan 2019	Reception	13 Jan 2019			
			Sensing	21 Jan 2019			

*C4. Fill in the table below identifying the available value added product data.

Title	Source	Acquired	Received	Copyright
Areas affected by flood in the city of Uruguaiana, Rio Grande do Sul, Brazil		17 Jan 2019	17 Jan 2019	
Areas affected by flood in the city of Uruguaiana, Rio Grande do Sul, Brazil		16 Jan 2019	16 Jan 2019	
Areas affected by flood in Manoel Viana City, Rio Grande do Sul, Brazil		16 Jan 2019	16 Jan 2019	
Areas affected by floods is Uruguaiana/RS		15 Jan 2019	15 Jan 2019	
Areas affected by flood in Alegrete City, Rio Grande do Sul, Brazil		14 Jan 2019	14 Jan 2019	

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D. Intervention Assessment

D1. Usefulness of data provided by the Charter

*D1.1 Did the post-disaster data ordered by the ECO (prescribed data) meet your expectations? (Indicate your level of satisfaction by placing an [X] in the appropriate box)

Service	Fully Satisfied	Partially Satisfied	Not Satisfied
a. Range/type of data (optical, radar)	x		
b. Volume of data provided (duplication of type, physical volumes)	x		
c. Coverage (visibility of area of interest)	x		
d. Timeliness of data delivery	x		
e. Data format	x		
f. Not applicable post-disaster data was not provided			

*D1.2 Did the pre-disaster data ordered by the ECO (prescribed data) meet your expectations? (Indicate your level of satisfaction by placing an [X] in the appropriate box)

Service	Fully Satisfied	Partially Satisfied	Not Satisfied
a. Range/type of data (optical, radar)	x		
b. Volume of data provided (duplication of type, physical volumes)	x		
c. Coverage (visibility of area of interest)	x		
d. Timeliness of data delivery	x		
e. Data format	x		
f. Not applicable post-disaster data was not provided			

*D1.3 If you requested additional Charter data, did these data meet your expectations? (Indicate your level of satisfaction by placing an [X] in the appropriate box):

Service	Fully Satisfied	Partially Satisfied	Not Satisfied
a. Range/type of data (optical, radar)	x		
b. Volume of data provided (duplication of type, physical volumes)	x		
c. Coverage (visibility of area of interest)	x		
d. Timeliness of data delivery	x		
e. Data format	x		
f. Not applicable post-disaster data was not provided			

D1.4 If you were not fully satisfied with the Charter data, please provide further details:

D1.5 If you did not use data provided by the Charter, please explain why they were not used:

Most of the post event data was used. We had some issues with images acquired outside area of interest, but the situation was reported directly to the Charter member involved.

D1.6 Were satellite data from outside the Charter used to support this event? If so, please indicate the type of data and their source

No.

D2. Usefulness of value adding service provided through the Charter

*D2.1 List the value-added products obtained from the Charter data:

a. Shape files	
b. Image files	
c. Web mapping services	
d. Others, please state	

*D2.2 How useful do you think the value-added products were for the end user(s)? (Indicate the level of usefulness by placing an [X] in the appropriate box):

a. Very useful	
b. Partially useful	X

c. Not so useful	
d. Unknown	

D2.3 If you believe the value-added products were not so useful, please explain why:

At some of the AOIs, the flooded areas are narrow strips within urban areas, and was difficult to pinpoint the precise extension of the affected areas.

*D2.4 If known, how were the value-added products used by the end user(s)? (Indicate the use by placing an [X] in the appropriate boxes):

a. Operations	x
b. Planning	
c. Communication	
d. Documentation	x
e. Lessons	x
f. Not used	
g. Unknown	
h. Other	

D2.5 How could the value added products be improved to make them more useful for the end user(s)?

VA products optimized to be displayed on end user's cellphones.

D3. Assessment of overall Charter process in support of this call

*D3.1 Did the following steps in the Charter process meet with your expectations? (Indicate your level of satisfaction by placing an [X] in the appropriate box):

Service	**Fully Satisfied**	**Partially Satisfied**	**Not Satisfied**
a. Assignment of PM (e.g. role acknowledgement, PM Welcome Package)	x		
b. Communication with the ECO (e.g. Delivery of ECO Dossier)	x		
c. Interface between the PM and Order Desks (if applicable)	x		
d. Performing licensing / signature of NDAs	x		
e. Interface between the PM and the End User(s)	x		
f. Interface between the PM and ES	x		
g. Interface between the PM and VA	x		
h. Use of the COS-2 system	x		

*D3.2 If you had to accept licensing terms and conditions / sign Non-Disclosure Agreements during this Charter call, did the procedure run smoothly?

a. Yes	x
b. No	
c. Not applicable	

If you experienced problems during the process, please provide further details:

No problems to report

D3.3 If you were not satisfied with any step in the Charter process, please let us know why:

D4. Additional comments, questions, observations, and lessons learned:

D5. End User Feedback

Attach a copy of user feedback forms (Annex G) submitted by the end users or email correspondence regarding the end user(s).

E. Supporting Documentation
*E1. Provide samples of media coverage of the disaster event from TV, radio, newspapers, websites, etc. Where possible, copy the content of the article into the PM report rather than only the web addresses: From: http://floodlist.com/america/argentina-brazil-uruguay-floods-january-2019 **[report]** **Argentina, Brazil, Uruguay – 4 Killed in Storms and Floods, Rivers Rising After Record Rainfall** 10 January, 2019 by Richard Davies in Americas, News At least 3 people have died in flooding and storms that have affected several provinces of Argentina over the last few days. Heavy rain and flooding was reported in Corrientes, Tucumán, Santa Fe and Chaco, while strong winds caused damage in Santiago del Estero. Record rainfall was recorded in Resistencia, Chaco.

Meanwhile authorities have warned that the Uruguay River could reach danger levels in Concordia, Entre Rios, Argentina.

The Uruguay River has already broken its banks upstream, causing flooding in the Brazilian state of Rio Grande do Sul, where some areas have recorded almost 500mm of rain in the last 3 days. Stormy weather has also caused at least one fatality in the state.

Heavy rain has also affected parts of Uruguay, including in the cities of Durazno and Sarandí del Yí, where the overflowing Yí river has prompted evacuations.

Argentina

Corrientes and Santiago del Estero

According to local media 2 people died when their car was swept away by flooding from an overflowing river in Paso de los Libres, Corrientes. A young child died as a result of falling trees in Santiago del Estero.

Tucumán

Flooding has caused damage to homes and roads in eastern pats of Tucumán. Local medai say that more than 450 families were affected in the towns of Finca Mayo, Las Cejas, Los Ralos, San José, Garmendia and La Florida.

Chaco

In Chaco, the mayor of Resistencia has described the flooding situation as catastrophic.

Record rain fell on 08 January, when Resistencia recorded 224 mm of rain beating the previous record high of 205.9 mm set in March, 1994. Authorities said that 180mm of rain fell in just 80 minutes. Around 90 families have been evacuated with a further 3,500 needing assistance.

Santa Fe

In Santa Fe, over 80 people have evacuated their homes in areas close to the border with Santiago del Estero and Chaco. Local media said that towns affected include Gregoria Pérez de Denis, Santa Margarita and Villa Minetti.

Entre Rios

Meanwhile the Uruguay River could reach danger levels in Concordia, Entre Rios, according to the Salto Grande Joint Technical Commission (CTM).

CTM forecast that levels could reach 11.2 metres, surpassing the 11 metres alert level, after heavy rain in river catchments since Monday 07 January, with further rain predicted.

Servicio Meteorológico Nacional (SMN) said that heavy rain on 07 January caused flooding in Irazusta and Larroque.

Brazil

Flooding has already been reported upstream along the Uruguay River in Uruguaiana municipality in the Brazilian state of Rio Grande do Sul. Levels of the river jumped from 4.36 metres on 09 January to 6.79 metres the following day.

MetSul said that 329.2 mm of rain fell in Uruguaiana in 24 hours to 09 January and a total of 497mm in 72 hours.

Levels of other rivers in the state are also increasing including the Ibirapuitã River which, as of 09 January, was already above flood level in Alegrete.

Strong winds have also affected the state. One man died after an uprooted tree fell on a house in Alegrete, according to local media.

Authorities say the severe weather in the state has left around 30 people displaced.

Uruguay

Heavy rain has also affected parts of Uruguay over the last few days.

The country's Sistema Nacional de Emergencias (SNM) said that flooding and heavy rain prompted evacuations in the departments of Canelones (17), Florida (14), Río Negro (8) and Durazno (84).

The cities of Durazno and Sarandí del Yí in Durazno state are among the worst affected after the overflowing Yí river caused severe flooding.

On 10 January the river stood at 9.95 metres in the city of Durazno, up from 9.74m the previous day. At Sarandí del Yí levels have started to fall from 4.14m on 09 January to 3.61m the next day.

[/end of report]

*E2. Provide a copy of the value-added products here. Please insert copies into this document as .jpeg or other small file formats:

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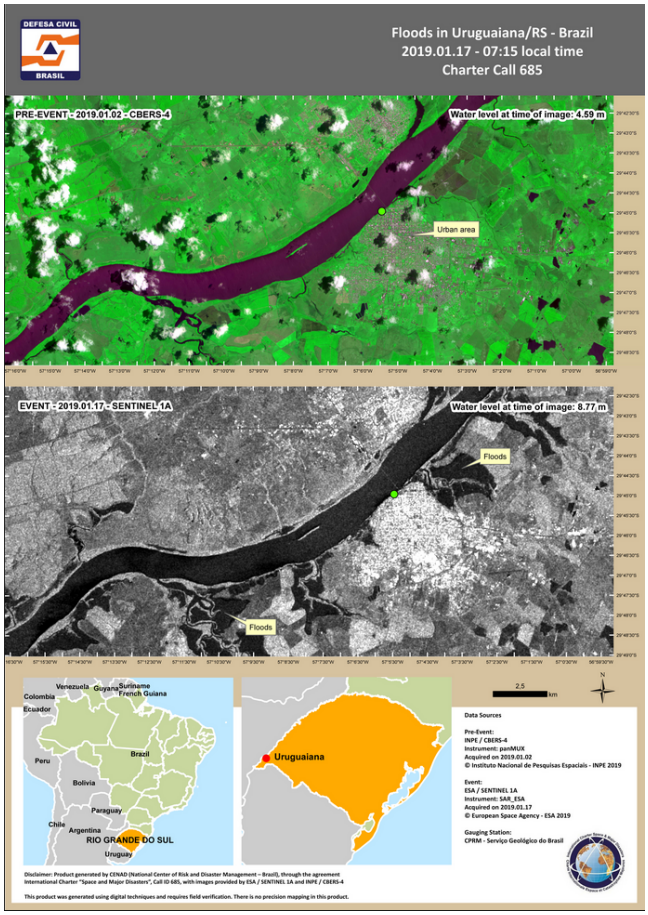
DEFESA CIVIL
BRASIL
Floods in Uruguaiana/RS - Brazil
2019.01.17 - 07:15 local time
Charter Call 685
PRE-EVENT - 2019.01.02 - CBERS-4
Water level at time of image: 4.59 m
Urban area
EVENT - 2019.01.17 - SENTINEL 1A
Water level at time of image: 8.77 m
Floods
Floods
Venezuela
Guyana
Suriname
French Guiana
Colombia
Ecuador
Peru
Brazil
Bolivia
Paraguay
Chile
Argentina
RIO GRANDE DO SUL
Uruguay
Uruguaiana
2.5
km
N
Data Sources
Pre-Event:
INPE / CBERS-4
Instrument: panMUX
Acquired on 2019.01.02
© Instituto Nacional de Pesquisas Espaciais - INPE 2019
Event:
ESA / SENTINEL 1A
Instrument: SAR_ESA
Acquired on 2019.01.17
© European Space Agency - ESA 2019
Gauging Station:
CPRM - Serviço Geológico do Brasil
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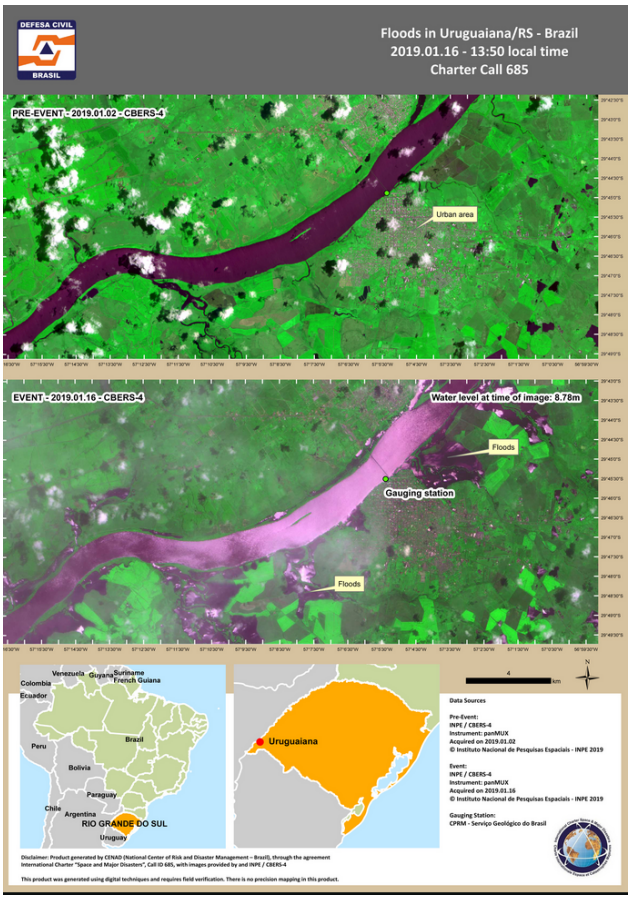
This product was generated using digital techniques and requires field verification. There is no precision mapping in this product.


DEFESA CIVIL
BRASIL
Floods in Uruguaiana/RS - Brazil
2019.01.16 - 13:50 local time
Charter Call 685
PRE-EVENT - 2019.01.02 - CBERS-4
Urban area
EVENT - 2019.01.16 - CBERS-4
Water level at time of image: 8.78m
Floods
Gauging station
Floods
Venezuela
Guyana
Suriname
French Guiana
Colombia
Ecuador
Peru
Brazil
Bolivia
Paraguay
Chile
Argentina
RIO GRANDE DO SUL
Uruguay
Uruguaiana
4
km
N
Data Sources
Pre-Event:
INPE / CBERS-4
Instrument: panMUX
Acquired on 2019.01.02
© Instituto Nacional de Pesquisas Espaciais - INPE 2019
Event:
INPE / CBERS-4
Instrument: panMUX
Acquired on 2019.01.16
© Instituto Nacional de Pesquisas Espaciais - INPE 2019
Gauging Station:
CPRM - Serviço Geológico do Brasil
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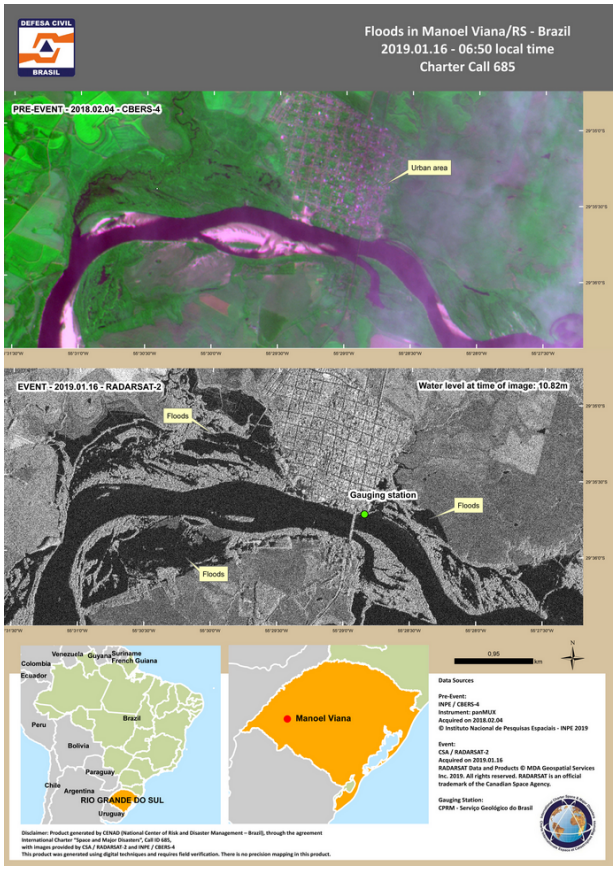
DEFESA CIVIL
BRASIL
Floods in Manoel Viana/RS - Brazil
2019.01.16 - 06:50 local time
Charter Call 685
PRE-EVENT - 2018.02.04 - CBERS-4
Urban area
EVENT - 2019.01.16 - RADARSAT-2
Water level at time of image: 10.82m
Floods
Gauging station
Floods
Floods
Venezuela
Guyana
Suriname
French Guiana
Colombia
Ecuador
Peru
Brazil
Bolivia
Paraguay
Chile
Argentina
RIO GRANDE DO SUL
Uruguay
Manoel Viana
0.95
km
N
Data Sources
Pre-Event:
INPE / CBERS-4
Instrument: panMUX
Acquired on 2018.02.04
© Instituto Nacional de Pesquisas Espaciais - INPE 2019
Event:
CSA / RADARSAT-2
Acquired on 2019.01.16
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Gauging Station:
CPRM - Serviço Geológico do Brasil
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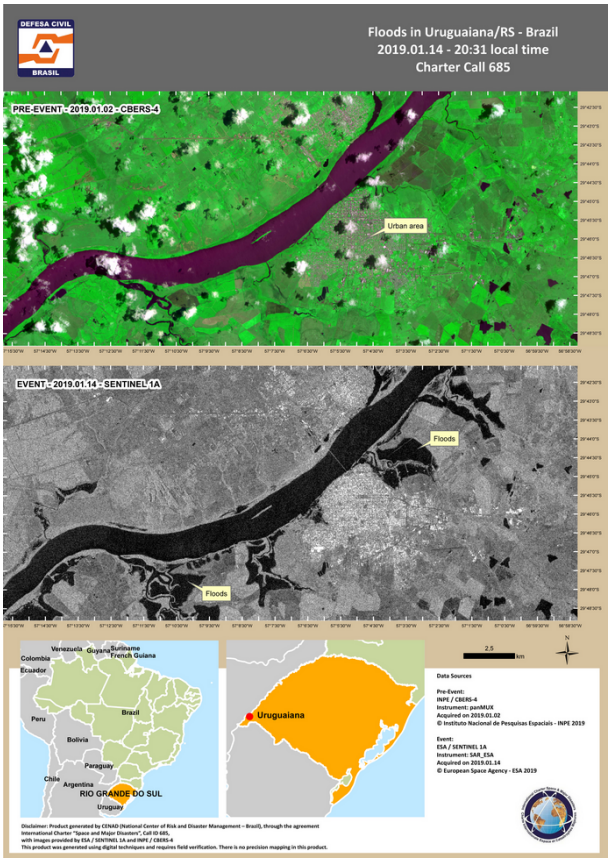
DEFESA CIVIL
BRASIL
Floods in Uruguaiana/RS - Brazil
2019.01.14 - 20:31 local time
Charter Call 685
PRE-EVENT - 2019.01.02 - CBERS-4
Urban area
EVENT - 2019.01.14 - SENTINEL 1A
Floods
Floods
Venezuela
Guyana
Suriname
French Guiana
Colombia
Ecuador
Peru
Brazil
Bolivia
Paraguay
Chile
Argentina
RIO GRANDE DO SUL
Uruguay
Uruguaiana
2.5
km
N
Data Sources
Pre-Event:
INPE / CBERS-4
Instrument: panMUX
Acquired on 2019.01.02
© Instituto Nacional de Pesquisas Espaciais - INPE 2019
Event:
ESA / SENTINEL 1A
Instrument: SAR_ESA
Acquired on 2019.01.14
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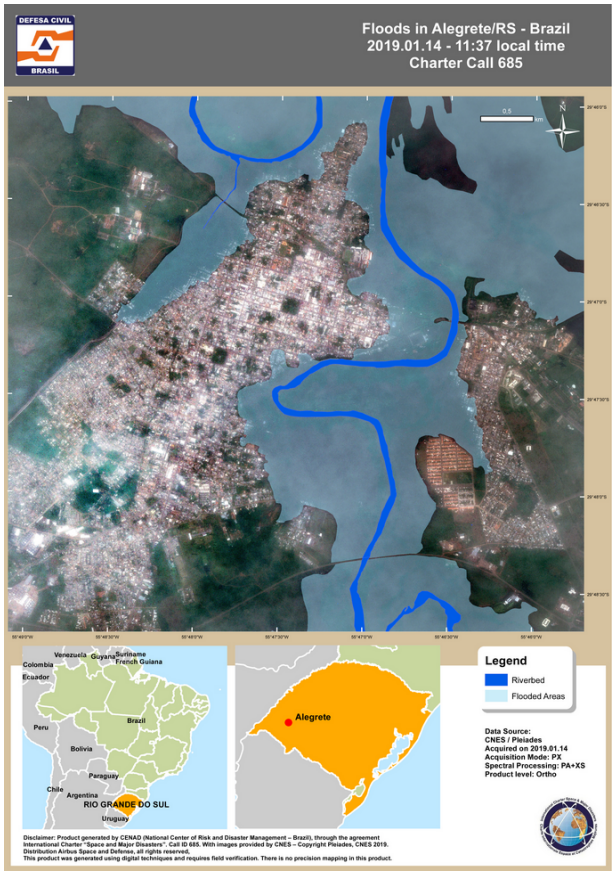
This product was generated using digital techniques and requires field verification. There is no precision mapping in this product.


DEFESA CIVIL
BRASIL
Floods in Alegrete/RS - Brazil
2019.01.14 - 11:37 local time
Charter Call 685
Venezuela
Guyana
Suriname
French Guiana
Colombia
Ecuador
Peru
Brazil
Bolivia
Paraguay
Chile
Argentina
RIO GRANDE DO SUL
Uruguay
Alegrete
Legend
Riverbed
Flooded Areas
Data Source:
CNES / Pleiades
Acquired on 2019.01.14
Acquisition Mode: PX
Spectral Processing: PA+XS
Product level: Ortho
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* mandatory

International Charter
Space and Major Disasters

End User Feedback Report

End User	CENAD
Organization	CENAD
Charter Call ID #	685
Disaster Event	Flood
Disaster Location	Brazil, Rio Grande do Sul State.

Indicate your choice with an "_X_". (VG: Very Good, G: Good, R: Regular, B: Bad)
Please provide additional comments to explain your choices.

1a. Did you encounter difficulties in triggering the Charter?	Yes__	No X
Comments:		

1b. Did you use COS-2 to activate the Charter?	Yes X	No__
Comments:		

1c. If you used COS-2 to activate the Charter, did you find it easy to use?	Yes X	No__
Comments: there was a problem with AU registration, but it was quickly solved		

2. How was the communication with the Charter Officers and the Project Manager?	VG X	G__	R__	B__
Comments: EU and PM are the same institution				

3. Did the delivered data and/or value-added products fulfill your request?	Yes X	Partly__	No__
Comments:			

4. Were the data and/or value-added products delivered in due time?	Yes X	No__
Comments:		

5. Were data and/or value-added products delivered in an appropriate way?	Yes X	No__
Comments:		

6. Were data and/or value-added products presented in an appropriate format?	Yes X	No__
Comments:		

7. Was the information content relevant and accurate?	Yes X	No__
Comments:		

8. How was the overall quality of the products delivered?	VG X	G__	R__	B__
Comments:				

9. Did you use the data for:			
Operations X	Communication	Planning	Documentation X
Lessons Learned / Training X	Other	Not used	

10. Overall, the Charter contribution to this emergency was:	VG X	G__	R__	B__
Comments:				

How could we improve the benefit of Charter activations for you?