ESA Communications for UNFCCC COP21

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Summary

1. UNFCCC COP21
2. ESA at COP21
3. Key Messages
4. ESA participation in preparatory activities for COP21
5. Communication activities and materials
The United Nations Framework Convention on Climate Change (UNFCCC) 21st Conference of Parties (COP21), will be held in Paris – Le Bourget, hosted by the French Government (chaired by Laurent Fabius, Foreign Minister) from 30 November to 11 December 2015. This is one of the major international political events of the year with key strategic relevance, also for ESA.
The ambition of the hosting country, France, is to agree on a global climate change Agreement which aims to obtain credible and fair emission reductions and legally binding commitments by all countries, to limit the maximum size of the global average surface temperatures by two degrees Celsius. The period being considered would begin in 2020. The proposed mechanisms will focus on assurances to limit emissions to the targets that have yet to be fixed.
France has engaged its action on the following:

- Achieve an agreement which is constraining and includes reduction commitment;
- Establish financial mechanisms to allow developing countries to meet costs;
- Create an “agenda for solutions” which involve different businesses, from partners of the civil society, regions etc.
2. ESA at COP21

- ESA participates in COP meetings with an observer status as IGO (Intergovernmental Organisation) since 2002;
- ESA will have a delegation at COP21;
- ESA has applied and received confirmation of acceptance for a side event at COP21 and a small exhibit inside the UNFCCC compound at Le Bourget.
- ESA will also have articles on space and climate in the official RTCC magazine distributed at COP21 and interviews in the RTCC TV magazine during COP.
2. ESA at COP21
Side Events at COP21

There are more than 800 applications for side events at COP21 and about 150 slots available.

- ESA has managed to merge applications of 4 partners (Australia, Cameroon and Japan’s RESTEC) for a single event under ESA lead, on “Supporting National Forest Monitoring with Earth Observation”. On 10 September ESA received confirmation that the event has been accepted and is planned on 3 December at 16h15.
- ESA is also discussing with DG RTD, DG GROW and JRC its participation in side events organised by the European Commission in the EU Pavilion.
3. Key Messages

ESA will prepare all activities towards COP21 and its participation in COP21 and include the following messages:

• Satellite observations provide vital information to politicians on the extent of climate change, climate mitigation and adaptation.
• Space Agencies worldwide are contributing, via CEOS, towards the delivery of a global observation system for climate.
• Satellite observations have enabled major advancements in climate science and models and are a key component to the IPCC assessments.
3. Key Messages – Rising Sea Levels

Average value: 3.1 mm/year (CCI)
3. Key Messages

CryoSat: Yearly Ice Loss in Greenland

<table>
<thead>
<tr>
<th>Year</th>
<th>IMBIE</th>
<th>CryoSat</th>
</tr>
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<tbody>
<tr>
<td>2003-2008</td>
<td>-189±20 km³/yr</td>
<td></td>
</tr>
<tr>
<td>2011-2012</td>
<td></td>
<td>-352±29 km³/yr</td>
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</tbody>
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Digital Elevation Model

Courtesy: Helm et al. (2014)
3. Key Messages

• ESA, Eumetsat and the European Union have invested heavily in a new generation of operational satellites (Copernicus, meteorological) to support climate action over the coming decades.

• Research satellites are providing the insights into climate change processes and help improve climate models.

• The free and open data policy will ensure that developed and developing countries have equal access to precise, timely and global information.
3. Key Messages

** ESA’s activities focused on climate change **

- Copernicus (Sentinels)
  - Free and open access
- MSG / MTG / Metop (Meteosat...)
- Earth Explorer Missions
- Climate Change Initiative (CCI)
- CEOS (Committee on Earth Observation Satellites)
  - Satellite Climate Handbook for COP 21
Cooperation with CEOS Agencies

- CNES chairs CEOS SIT until November 2015 and is coordinating with CEOS Chairmanship, preparing for a CEOS participation in COP21.
- ESA will chair CEOS WG on Climate and CEOS SIT from November 2015.
- Participation by CEOS in side events (TBC).
- CEOS statement in COP21 (TBC). This could be planned by CEOS Chairs as part of their national statement.
- GCOS will also deliver a status report at COP21 on climate observations.
4. Preparatory Activities for COP21 - ESA Participation

- Airbus press day on climate change, Toulouse, 20 May.
- Rome International Symposium on Climate Change, 27-29 May.
- ESA participation in SBSTA meeting in Bonn, June 2015, with a GFOI side event on “REDD+ training materials and support for forest monitoring and MRV”
- ESA participated in the Round Table discussion organised by CNES at the Bourget on 17 June on climate change and CEOS.
- ESA participated in the GIFAS event on climate change at the Bourget on 18 June.
- TAS publication on climate.
4. Preparatory Activities for COP21 - ESA Participation

- On 15 June ESA participated in the meeting organised by CNES to prepare a Joint Declaration by IAA (International Academy of Astronautics) for the Heads of Space Agencies Summit, hosted by Mexico on the 18 September 2015. ESA DG attended the Mexico Summit of Heads of Space Agencies, where a Declaration on Space and Climate Change was approved.

- ESA participated in the scientific conference at UNESCO on “Our Common Future under Climate Change”, 7-13 July 2015 and made a keynote speech on behalf of CEOS at the conference: The delivery of space data for climate.
4. Preparatory Activities for COP21 - ESA Participation


• Exhibit “My Planet from Space” at the UN General Assembly New York (9 July – 9 September 2015) with closing event attended by UN Secretary General, Ban Ki-moon.
5. Communication Activities around COP21

- Joint communication activities with CNES.

- Partnership with Solutions COP21 with activities at the Grand Palais for the general public: Special events and general public presentations, display of CCI (Climate Change Initiative) visualisations corner.

- Exhibit “My Planet from Space” at the Palais de la Découverte (for six months).
Publications and Communications Material

- Updated brochure on ESA CCI (Climate Change Initiative), “Understanding Climate Change from Space”;
- Special edition of CEOS Handbook for COP21 on Climate Change.
- Special website on COP21;
- Video material and special Euronews feature and ESA TV magazine;
- Production of special feature on space and climate with TF1;
- Update of CCI Visualization Corner for exhibitions, conferences, display at COP21
- Production of CCI fact sheets / newsletters on climate change.