H-SAF 3rd Open Workshop
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H-SAF: achievements and future perspectives

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• Short/medium terms objectives
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Operational Achievements

➢ to guarantee operational provision of high quality level 2/3 satellite-derived products and services for:

➢ 5 Precipitation products:

<table>
<thead>
<tr>
<th>H01</th>
<th>PR-OBS-1</th>
<th>Precip. rate at ground by MW conical scanners (DMSP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H02A</td>
<td>PR-OBS-2A</td>
<td>Precip. rate at ground by MW cross-track scanners (EPS-NOAA)</td>
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<tr>
<td>H03A</td>
<td>PR-OBS-3A</td>
<td>Precip. rate at ground by GEO (MSG)/IR supported by LEO/MW</td>
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<tr>
<td>H04A</td>
<td>PR-OBS-4A</td>
<td>Precip. rate at ground by LEO/MW supported by GEO (MSG)/IR</td>
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<tr>
<td>H05A</td>
<td>PR-OBS-5A</td>
<td>Accumulated precip. at ground by blended MW and IR (H03)</td>
</tr>
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Achievements and status of the Programme

Operational Achievements

➢ to guarantee operational provision of high quality level 2/3 satellite-derived products and services for:

➢ 2 Soil Moisture products:

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<tbody>
<tr>
<td><strong>H08</strong></td>
<td><strong>SM-OBS-2</strong></td>
<td>Small-scale surface soil moisture by radar scatterometer (EPS)</td>
</tr>
<tr>
<td><strong>H14</strong></td>
<td><strong>SM-DAS-2</strong></td>
<td>Soil Moisture Profile Index in the roots region retrieved by surface wetness scatterometer assimilation method (EPS)</td>
</tr>
</tbody>
</table>
Achievements and status of the Programme

Operational Achievements

➢ to guarantee *operational provision* of high quality level 2/3 satellite-derived products and services for:

➢ 4 Snow products:

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<tbody>
<tr>
<td>H10</td>
<td>SN-OBS-1</td>
<td>Snow detection by VIS/IR radiometry (MSG)</td>
</tr>
<tr>
<td>H11</td>
<td>SN-OBS-2</td>
<td>Snow status (dry/wet) by MW radiometry (DMSP)</td>
</tr>
<tr>
<td>H12</td>
<td>SN-OBS-3</td>
<td>Effective snow cover by VIS/IR radiometry (EPS-NOAA)</td>
</tr>
<tr>
<td>H13</td>
<td>SN-OBS-4</td>
<td>Snow water equivalent by MW radiometry (DMSP)</td>
</tr>
</tbody>
</table>
Achievements and status of the Programme

Development Achievements

- to perform development of 14 new products:
  - Precipitation products on full disc
  - Precipitation and Snow products based on MTG
  - New precipitation products: from new MW instruments and specialized for convection
  - Improved version of Large Scale surface Soil Moisture
  - Soil Moisture Time Series (surface and soil index)
Accomplishment of requirements

- in terms of quality of products and quality of operational performances, through:
  - Consolidation/maturity of operational services, also via the reengineering of Central Services
  - Improvement of algorithms, criticalities detection and recovery
  - Structuring of Quality Monitoring and Assessment process (Validation): procedures, methodologies, interfaces with hydrological modeling
Establishment of user community

- A consolidated user community has been set up: registered users are continuously increasing
- Contact with users has been enforced, through user survey, user conference
Achievements and status of the Programme

Establishment of user community

Trend in user registration:
Achievements and status of the Programme

Establishment of user community

categories of users

- Private Companies: 15%
- Private Subjects: 13%
- University /Research: 20%
- Public Agencies /Services: 52%
Future objectives

Short/medium term Objectives (current phase)

- To enlarge products’ area from **Europe** to **full disc**
- To bring the cooperation with **GPM into products**
- Enlargement of **user community** and further increasing in user contact (user meetings)
- Improvement of **central services**
  - New User Tools (i.e. map tool)
  - Coordination with EUMETSAT Central Services
Future objectives

Vision and Future Perspectives (CDOP3)

- to move to operations MTG-based products
- To develop new products for EPS-SG (for operations in CDOP4)
- To increase contributions to Quality Monitoring/Hydrovalidation (ground data availability, hydrological basins)
Vision and Future Perspectives (CDOP3)

- To enlarge products area from full disk up to **Global coverage** for precipitation and snow cover
- To consolidate the impact of **GPM data** in precipitation products
- To capture requirements for **areas with scarcity of ground data**
Vision and Future Perspectives (CDOP3)

- To exploit and refine the integration between precipitation and soil moisture parameters
- To capture operationally requirements for Water Scarcity Areas
- To satisfy Oceanography requirements on Water Balance (precipitation over oceans)
Thank you for your attention