Newsletter April 2016

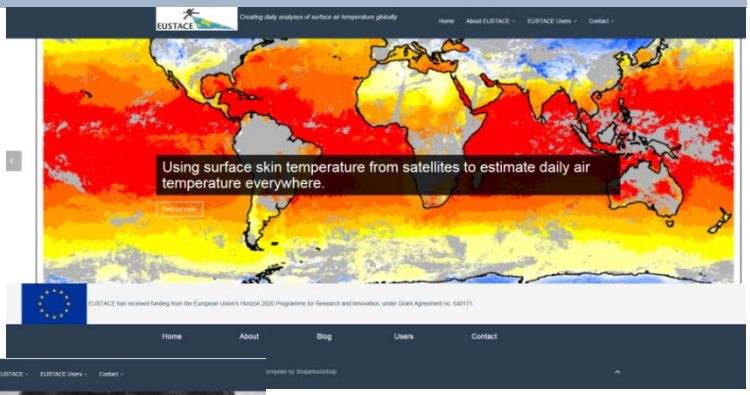
The EUSTACE project

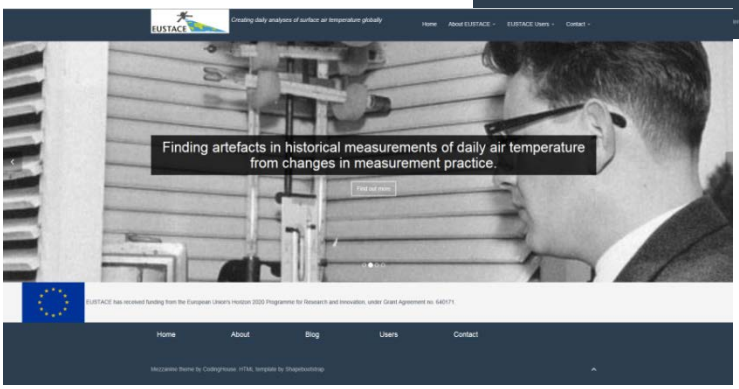
EU Surface Temperature for All Corners of Earth

EUSTACE will give publicly available daily estimates of surface air temperature since 1850 across the globe for the first time by combining surface and satellite data using novel statistical techniques.

EUSTACE Website

More information can be found about the project and its objectives on the EUSTACE website (https://www.eustaceproject.eu/).





A special entry is included for those people interested in the potential uses of the EUSTACE temperature datasets (https://www.eustaceproject.eu/users/).

Blog started

To inform people interested in our project about the progress a blog will soon be started. In the first blog item project leader Nick Rayner will tell how the idea for the EUSTACE project started. In the next blog items also other researchers will tell about the work they are doing and later on we will also introduce our trail blazer users. The frequency of the blog will be about once per month.

User consultation meetings in 2016

In 2016 user consultation meetings will be organized to inform potential users about EUSTACE progress, to show preliminary products and to collect feedback on the format and usability of the preliminary products.

During the first part of 2015 several user consultation meetings were held. Potential users were informed about the project and information on user requirements was collected. This information was used for determining the design requirements.

April 19, 2016 8:30-12:00, Vienna. Splinter meeting at the EGU-conference (for EGU-participants): Session nr. SMP15, room **2.96.** User consultation on preliminary EUSTACE-products.
During this user consultation meeting a presentation will be given on the methods used and progress within EUSTACE and an early mockup of several products will be presented. In the second part of the session we will discuss this mockup and collect feedback of the participants on data format/structure, needed content in user guides, etc. Registration is not needed, however, if you want to be sure you can participate, send an e-mail to bessembi@knmi.nl.

May-June 2016: other (virtual) user consultations, time and location to be determined.
If you are interested to participate in one of these consultations, please send an e-mail to bessembi@knmi.nl.

Session at EGU-conference: April 18, 2016, Vienna

During the yearly conference of the European Geosciences Union in Vienna, April 17-22, 2016 (www.egu2016.eu) EUSTACE co-organizes the following session:

Taking the temperature of Earth: Variability, trends and applications of observed surface temperature data across all domains of Earth's surface

Oral presentations: Monday, 18 Apr, 13:30–15:00, Room -2.47
Posters: Display Time: Monday, 18 Apr, 08:00–19:30 Author in Attendance: Monday, 18 Apr, 17:30–19:00

Surface temperature (ST) is a critical variable for studying the energy and water balances of the Earth surface, and underpinning many aspects of climate research and services. The overarching motivation for this session is the need for better understanding

of in-situ measurements and satellite observations to quantify ST. The term "surface temperature" encompasses several distinct temperatures that differently characterize even a single place and time on Earth's surface, as well as encompassing different domains of Earth's surface (surface air, sea, land, lakes and ice). Different surface temperatures play inter-connected yet distinct roles in the Earth's surface system, and are observed with different complementary techniques.

The EarthTemp network was established in 2012 to stimulate new international collaboration in measuring and better understanding ST across all domains of the Earth's surface including air, land, sea, lakes, ice. New and existing international projects and products have evolved from network collaboration (e.g. ESA Climate Change Initiative SST project, EUSTACE, FIDUCEO, International Surface Temperature Initiative, ESA GlobTemperature, HadISST, CRUTEM and HadCRUT). Knowledge gained during this EarthTemp session will be documented and published as part of the user requirements exercises for such projects and will thus benefit the wider community. A focus of this session is the use of ST's for assessing variability and long-term trends in the Earth system. In addition there will be opportunity for users of surface temperature over any surface of Earth on all space and timescales to showcase their use of the data and their results, to learn from each other's' practice and to communicate their needs for improvements to developers of surface temperature products.

Join the session (see programme, but submission of abstracts has closed).

First EUSTACE data product released in late Spring 2016

The first EUSTACE product that will be released in late Spring 2016 will be a set of consistent uncertainty estimates for satellite temperature estimates over land, ocean and ice. Satellite temperature estimates are already available from many other projects but, until now, their uncertainties have not been estimated in a consistent way across different surfaces of Earth, EUSTACE has now developed a consistent way to estimate uncertainties in these different retrievals. Our validation demonstrates that these estimates are indeed consistent and of appropriate size when compared to independent reference data.

Please find the newsletter archive at the EUSTACE-website
If you do not wish to receive this newsletter, send an e-mail to **bessembi@knmi.nl**

EUSTACE has received funding from the European Union's Horizon 2020 Programme for Research and Innovation, under Grant Agreement no 640171