REQUEST FOR A SPECIAL PROJECT 2013–2015

MEMBER STATE: …AUSTRIA………………………………...…

Principal Investigator[1]:   …Leopold Haimberger……………………………….……

Affiliation: …University of Vienna……………….……

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Project Title: Homogenization and uncertainty estimation of historic in situ upper air data

If this is a continuation of an existing project, please state the computer project account assigned previously.	**SP** ATLH00	
Starting year: (Each project will have a well defined duration, up to a maximum of 3 years, agreed at the beginning of the project.)	2012	
Would you accept support for 1 year only, if necessary?	YES ☐	NO X

Computer resources required for 2012-2014: (The maximum project duration is 3 years, therefore a continuation project cannot request resources for 2014.)	**2013**	**2014**	**2015**
High Performance Computing Facility (units)	10000	10000	-
Data storage capacity (total archive volume) (gigabytes)	1000	1000	-

*An electronic copy of this form **must be sent** via e-mail to:*   *special_projects@ecmwf.int*

Electronic copy of the form sent on (please specify date):

26 April 2012

Continue overleaf

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[1] The Principal Investigator will act as contact person for this Special Project and, in particular, will be asked to register the project, provide an annual progress report of the project's activities, etc.

This form is available at: <br> http://www.ecmwf.int/about/computer_access_registration/forms/

Principal Investigator: Dr. Leopold Haimberger

Project Title: Homogenization and uncertainty estimation of historic in situ upper air data

Extended abstract

The special project is intended to support the participation of University of Vienna in the EC 7th framework programme project ERA-CLIM. Work package 4 of this project deals with the assessment of the observation uncertainties of historic in situ data, especially those who have recently been digitized but never have been assimilated. If possible, observation records shall be improved through homogenization, either offline or online with variational bias estimation methods. Main candidates for homogenization back to the early 1940s are radiosonde temperatures and winds. Timely and convenient access to the reanalysis archives, especially the observations databases is needed for this purpose. The requested computer time will be needed mostly for statistical analysis of the observation data and background/analysis departures as well as short assimilation runs.