Readme.txt for ReSeDA UAV Experiments 2000 Data Archive 18 Apr 2007

ReSeDA (Remote sensing data assimiliation) is an international project jointly funded by the EU and France which ran 1997-2000. It involved field experiments just south of Avignon.

Cranfield staff participated by using a small remotely-piloted aircraft to make near-surface measurements of atmospheric temperture and humidity above field boundaries to study the influence of surface properties on the surface layer of the atmosphere.

The experiments and their analysis have been described in the following publications:

Hobbs, SE, et al., Surface layers of air temperature adn humidity measured from unmanned aircraft. Agronomie, 2002, vol 22(6), pp 635-640.

Agronomie, vol 22(6), Sept-Oct 2002: whole issue is dedicated to the ReSeDA experiments.

This archive contains the main data files for each day of the UAV experiments together with some documentation for the experiments. There should be enough information so that users can analyse the data for their own requirements.

THE MAIN DATA FILES FOR FLIGHTS 1-10 ARE PROVIDED AS ONE ZIPPED FILE (ReSeDA data.zip), CREATED USING 7-ZIP, AN OPEN SOURCE PROGRAM AVAILABLE FROM WWW.7-ZIP.ORG).
THE ZIPPED FILES SHOULD BE READABLE BY WINZIP, WINRAR, 7-ZIP AND SIMILAR PROGRAMS.

Experiment summary

Experiments took place during June 1997 on the dates in the following table. A total of 11 flights were made although only flights 2-10 resulted in useful data. The label prefixes f02, f03, ... f10 are generally used to indicate which flight the data were recorded from. The flights took place at 3 different test sites in the area over the 4 days.

Date	Flights	Experiment site
20 June 2000	2,3	Mas l'Ermite
21 June 2000	4,5	Alpilles
22 June 2000	6-8	Alpilles
23 June 2000	9,10	La Crau

Summary of files in this archive

This archive contains the main results files giving the aircraft's position as a function of time for each flight along with the payload sensor data. In addition, the data processing steps to obtain these results files are documented and files containing digitized local maps for each experiment site are provided.

File	Comments
ReSeDA data.zip	.zip file containing the data files for each flight:
f01all1.txt	Full data for flights 1 - 10 (position in local map
f02all0.txt	coordinate system, sensor data, time (GPS), etc.)
f03all0.txt	
f04all0.txt	

f05all0.txt f06all0.txt f07all0.txt f08all0.txt f09all0.txt f10all0.txt	
expt_file_error_list.doc	Log of glitches, etc. detected and edited in data files
ReSeDA Data Tables.doc	Compilation of tables recording the data processing steps
ReSeDA Technical Reference.doc	Main technical reference for the UAV and its payload
ReSeDA-report.pdf	Report submitted to EU on completion of the whole project which summarises the contributions made by all partners.
Site maps.xls	Excel spreadsheet listing coordinates (relative to local map origin) for key features (roads, field boundaries) to be related to the UAV position and its sensor data at those positions)
Readme.txt	This file

Table 1. Overview of contents for this archive.

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https://dspace.org/

Surface layer profiles of air temperature and humidity measured from unmanned aircraft

Hobbs, Stephen; Dyer, David; Courault, Dominique; Olioso, Albert; Lagouarde, Jean-Pierre ...

2002-09-01T00:00:00Z

http://dx.doi.org/10.1051/agro:2002050

Stephen Hobbs, David Dyer, Dominique Courault, Albert Olioso, Jean-Pierre Lagouarde, Yann Kerr, John Mcaneney and Jean Bonnefond, Surface layer profiles of air temperature and humidity measured from unmanned aircraft, Agronomie for Sustainable Development, 2002 Vol. 22 No. 6 (Sept-Oct) pg 635-640

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