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Supplement of

A collection of sub-daily pressure and temperature observations for the early instrumental period with a focus on the “year without a summer” 1816

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Table S1: Data sources and references for the land records. An asterisk marks the records that were digitised during the preparation of this paper. Most of this digitisation (with the only exception of Avignon) was carried out at the Institute of Geography of the University of Bern. Contemporary magazines and newspapers are written in italics. When original manuscripts were digitised, the archive, library or institution which provided copies of the documents is indicated.

Station	Source	References and Notes
Aarau*	<i>Archiv der Medizin, Chirurgie und Pharmazie</i>	Volumes 1–3
Albany*	<i>The North American Review and Miscellaneous Journal</i>	Volume 1
Althorp*	<i>The Quarterly Journal of Science and the Arts</i>	Volumes 1–4
Armagh	International Surface Pressure Databank	Yin et al. (2008)
Avignon*	Médiathèque d’Avignon	Digitised by G. Pichard (Université Aix-Marseille)
Barcelona	University of Barcelona	Rodríguez et al. (2001)
Barnton*	<i>The Edinburgh Magazine and Literary Miscellany</i>	Volumes 77–80
Bologna*	Library of the Astronomy Department, University of Bologna	
Boston*	<i>Philosophical Magazine</i>	Volumes 47–51
Brunswick*	National Climatic Data Center, Asheville, NC	
Cadíz	Project IMPROVE	Barriendos et al. (2002)
Calton Hill*	<i>The Edinburgh Magazine and Literary Miscellany</i>	Volumes 80–81
Cambridge*	<i>The North American Review and Miscellaneous Journal</i>	Volumes 1–3
Coimbra*	<i>Jornal de Coimbra</i>	Volumes 7–10
Cracow*	Jagiellonian University	Hess (1982)
Derby*	<i>The Annals of Philosophy</i>	Volume 11
Düsseldorf*	<i>Amtsblatt für den Regierungsbezirk Düsseldorf</i>	Years 1816–1817
Exeter	Project ACRE	http://www.met-acre.org
Gdansk	University of Gdańsk	Filipiak and Miętus (2010)
Geneva	University of Bern	Auchmann et al. (2012)
Göteborg*	National Archives, Stockholm	
Haarlem	KNMI-Royal Netherlands Meteorological Institute	Available on KNMI’s website
Härnösand*	National Archives, Stockholm	
Hohenpeissenberg	DWD-Deutscher Wetterdienst	Winkler (2006)
Karlsruhe	Karlsruhe Institute of Technology	
London	CRU, University of East Anglia	Cornes et al. (2012a)
Lviv*	<i>Lemberger Zeitung</i>	Years 1815–1817
Madrid	Universidad de Extremadura	Domínguez-Castro et al. (2014)
Milan	Università degli Studi di Milano	Maugeri et al. (2002a,b, 2004)
Natchez*	National Climatic Data Center, Asheville, NC	
New Bedford*	National Climatic Data Center, Asheville, NC	

Table S1: (continued)

Station	Source	References and Notes
New Haven*	National Climatic Data Center, Asheville, NC	
Nuuk*	National Archives, Copenhagen	
Padua*	Library of the Astronomical Observatory, Padua	Camuffo et al. (2006)
Paris (a)	University of Barcelona	Cornes et al. (2012b)
Paris (b)*	<i>Annales de Chimie et de Physique</i>	Volumes 1–6
Prague*	Masaryk University	
Quebec City	Project ACRE	http://www.met-acre.org
Rochefort	Météo-France	Bleuse (2010)
Salem	CRU, University of East Anglia	van der Schrier and Jones (2008); avail. on CRU's website
Stockholm	Bolin Centre, Stockholm University	Moberg et al. (2002); available on Bolin Centre's website
Turin	SMI-Società Meteorologica Italiana, Turin	Di Napoli and Mercalli (2008)
Umeå*	National Archives, Stockholm	
Uppsala	Uppsala University	Bergström and Moberg (2002)
Valencia	Justus Liebig University of Giessen	Domínguez-Castro et al. (2014)
Växjö*	National Archives, Stockholm	
Vienna	ZAMG-Central Institute for Meteorology and Geodynamics, Vienna	
Ylitornio	University of Helsinki	Klingbjør and Moberg (2003); Holopainen (2006)
Žitenice	Masaryk University	Brázdil et al. (2007)
Zwanenburg	KNMI-Royal Netherlands Meteorological Institute	Available on KNMI's website

Table S2: List of sub-daily pressure land records for the period 1815-1817 that are not included in the described collection but are listed in catalogues of archives/libraries, mentioned in the literature or published by contemporary magazines.

Station	Country	Period	Location of the manuscripts (if known) / Name and volumes of the magazine
Arnhem	Netherlands	1782–1819	KNMI-Royal Netherlands Meteorological Institute, De Bilt, Netherlands (copies)
Baltimore, MD	U.S.A.	1817–1824	Observations made in 1817 published in Brantz (1818)
Benefield	England	1815–1858	National Meteorological Archive, Exeter, U.K.
Berlin	Germany	1774–1826	Berlin-Brandenburg Academy of Sciences and Humanities, Berlin, Germany
Birmingham	England	1793–1830	Birmingham Archives and Heritage, Birmingham, U.K.
Carlisle	England	1801–1824	
Charlottesville, VA	U.S.A.	1802–1816	Coolidge Collection, Massachusetts Historical Society, Boston, MA, U.S.A.
Chennai (Madras)	India	1796–1824	The Royal Society’s Library, London, U.K.
Cookstown	Ireland	1817–1853	National Meteorological Archive, Exeter, U.K.
Copenhagen	Denmark	1767–1845	
Cork	Ireland	1799–1823	National Meteorological Archive, Exeter, U.K.
Delft	Netherlands	1777–1829	KNMI-Royal Netherlands Meteorological Institute, De Bilt, Netherlands (copies)
Dresden	Germany	1812–1829	
Dudson	England	1813–1817	Library of Birmingham, U.K.
Falun	Sweden	1803–1828	National Archives, Stockholm, Sweden
Florence	Italy	from 1813	Osservatorio Ximeniano, Florence, Italy
Gävle	Sweden	1817–1825	National Archives, Stockholm, Sweden
Gordon Castle	Scotland	1781–1821	National Meteorological Archive, Exeter, U.K.
Guilsborough	England	1815–1863	National Meteorological Archive, Exeter, U.K.
Hedvigsfors	Sweden	1810–1819	National Archives, Stockholm, Sweden
Helsinki	Finland	1780–1819	National Archives, Stockholm, Sweden
Holywell	Wales	1793–1832	National Meteorological Archive, Exeter, U.K.
Hudiksvall	Sweden	1813–1861	National Archives, Stockholm, Sweden
Kaliningrad	Russia	1815–1817	Published in Bessel (1816, 1817)
Kangasniemi	Finland	1810–1815	National Archives, Helsinki, Finland
Kinfauns Manse	Scotland	1816–1820	National Archives of Scotland, Edinburgh, U.K.
Lancaster	England	1817–1820	
London (Greenwich)	England	1811–1851	National Meteorological Archive, Exeter, U.K.
London (Holborn)	England	1815–1817	Published in <i>The London Medical Repository</i> , volumes 3–9
London (Kew)	England	1773–1840	National Meteorological Archive, Exeter, U.K.
London (Stanmore)	England	1817	Published in <i>Annals of Philosophy</i> , volumes 10–11
London (Strand)	England	1815–1817	Published in <i>Philosophical Magazine</i> , volumes 45–51

Table S2: (continued)

Station	Country	Period	Location of the manuscripts (if known) / Name and volumes of the magazine
London (Syon House)	England	1782–1822	National Meteorological Archive, Exeter, U.K.
London (Tottenham)	England	1797–1841	National Meteorological Archive, Exeter, U.K.
London (Walthamstow)	England	1816–1817	Published in <i>Philosophical Magazine</i> , volumes 48–51
Lund	Sweden	from 1740	Lund University Library, Lund, Sweden; described by Barring et al. (1999)
Maastricht	Netherlands	1802–1833	
Manchester	England	1794–1818	
Mikkeli	Finland	1816–1821	National Archives, Helsinki, Finland
Modbury	England	1788–1822	National Meteorological Archive, Exeter, U.K.
Mongewell	England	1770–1823	The Royal Society’s Library, London, U.K.
Montdidier	France	1783–1869	Bibliothèque Nationale de France, Paris, France
New Malton	England	1816–1820	
Newcastle-upon-Tyne	England	1802–1833	Newcastle Literary and Philosophical Institute, Newcastle-upon-Tyne, U.K.
Pavia	Italy	1808–1815	Published in <i>Giornale di Fisica, Chimica e Scienze Naturali</i> , volumes 1–9
Penzance	England	1807–1827	
Perth	Scotland	1813–1816	National Archives of Scotland, Edinburgh, U.K.
Plymouth	England	1814–1817	Published in <i>Annals of Philosophy</i> , volumes 3–8
Poitiers	France	1792–1819	Médiathèque F. Mitterrand, Poitiers, France
Regensburg	Germany	1815–1816	Published in <i>Journal für Chemie und Physik</i> , volumes 13–18
Richmond	England	1815–1817	Published in <i>The London Medical Repository</i> , volumes 3–9
Schiedam	Netherlands	1806–1841	KNMI-Royal Netherlands Meteorological Institute, De Bilt, Netherlands (copies)
Strängnäs	Sweden	1786–1843	National Archives, Stockholm, Sweden
Strömbacka	Sweden	1816–1826	National Archives, Stockholm, Sweden
Sunbury-on-Thames	England	1795–1839	National Meteorological Archive, Exeter, U.K.
Thetfort	England	1817–1837	
Toulouse	France	1809–1899	Archives du canal du midi, Voies navigables de France, Toulouse, France
Udine	Italy	1803–1842	

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