

C3S DRS under ACRE South Africa – progress report – 28 August 2018

This report serves to reflect on progress made thus far with photographing and digitizing historical instrumental weather records from South Africa under the C3S DRS ACRE South Africa initiative.

1. The Cape of Good Hope Meteorological Registers

Most of the original registers were located in the Cape Town Archives. The registers were inserted amongst incoming and outgoing original colonial letters, archived in bound letter books. It required several weeks of searching through these books and finding the Met Registers. Those found were then photographed with permission from the CT Archives. The registers are for several district centers across the former Cape Colony and include Swartland, Stellenbosch, Tulbagh, George, Uitenhague, Albany, Swellendam, Worcester, and Cape Town between December 1818 and 1826. These instrumental records are the earliest sub-regional multi-station records known to us for Africa. However, there are large gaps – some stations only cover a 2 to 3 months, while others may cover a few of these years. Records for some of the missing months were discovered in the earliest Newspaper in Cape Town, *The Cape Town Gazette*. Investigations are ongoing to locate possible copies of the registers for missing months.

Parameters covered: Daily temperature and barometric pressure & descriptions of wind speed & direction.

Digitization completed for all available years/months: Impoverished science university students were employed for digitization. Quality checking and data cleaning by Jessica Picas. Data files submitted.

2. Meteorological Diary kept at the Port Office of Cape Town (Harbour Master Record)

This record was found in the Cape Town Archives and covers the period 1829-1904. Sadly there are very large gaps in this record. Much time was spent searching for the missing years but it might be that these either no longer exist or are archived somewhere unknown to us.

The missing periods include:

1834 to 1840

1851-1854

1858-1869

1874-1889

1894-1903

Parameters covered: 3 x daily temperature and barometric pressure.

Digitization completed for all available years/months: Impoverished science university students were employed for digitization. Quality checking and data cleaning by Jessica Picas. Data files submitted.

3. The Royal Astronomical Observatory record: 1900-1940

This forms part of the longest known southern African (and likely southern hemisphere) single station instrumental record, which begins in 1834 and is ongoing to this day. There are a few missing years during the 19th C. The 19th C records have recently been digitized using my private funds. The aim has been to continue digitizing this record into the 20th C. While rainfall and temperature records had already been digitized, those for barometric pressure and other parameters had not. We thus photographed records from original register books held at the Royal Astronomical Observatory (now South African Astronomical Observatory – SAAO) for the years 1900-1940.

Parameters covered: 3 x daily temperature, barometric pressure. Daily rainfall, hours of sunshine, cloud cover, wind direction and force.

Digitization completed for all these years: Impoverished science university students were employed for digitization. Quality checking and data cleaning by Jessica Picas. Data files submitted.

4. The Robert Jacob Gordon Meteorological Journal: 1789-1792

This is the oldest detailed (sub-daily) instrumental weather record known to us for southern Africa. It contains 3x daily temperature and barometric pressure readings, as also other parameters by description.

Digitization is completed: Impoverished science university students were employed for digitization. Quality checking and data cleaning is yet to commence.

5. Forthcoming digitization targets:

- a) Continue with the SAAO records 1950s and 1960s
- b) Mauritius and St Helena records
- c) Ship log records for the Cape region covering years for which very little is known (mid 1790s to ca 1820)

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