

Data At Risk

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ABSTRACT

Science relies heavily, often crucially, upon recorded measurements (“observational data”) as well as on laboratory and theoretical facts (“laboratory data”). The furtherance of knowledge, achieved through progress in research, depends upon efficient access to all those data. Research nowadays requires data to be digital. New experiments and measurements fulfil that requirement, but some sciences depend significantly upon measurements that were made *before* the present era of digital-everything. Those earlier, non-digital data may be on photographic film or plates, magnetic tapes, punched paper tape, paper or other paper artefacts. But those kinds of physical media deteriorate – rapidly so if not correctly stored – so the preservation of the data which they record cannot be assured.

While **all** digital data are in some danger of loss through erasure, software or hardware changes or acts of vandalism, the data which concern us here are scientific observations which pre-date the digital era. Because the effort to recover the information which they contain is not small, those data suffer from (at the very least) benign neglect, and become regarded as unwanted simply because they cannot easily be accessed or incorporated into research. They are in constant danger of being discarded on that score alone; indeed, the human factor in their fate can be as threatening as physical ageing.

This Special Session is programmed for two sequential 90-minute slots. The first describes data in the “At Risk” category in different scientific disciplines through invited papers in the fields of biodiversity, oceanography and astronomy. The second (an open roundtable) session will invite participants to inform the meeting about other cases not cited, and will encourage discussions about possible remedial actions to pursue.