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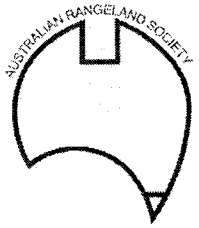

The Australian Rangeland Society

'THE LONG PADDOCK' WEBSITE
CLIMATE MANAGEMENT INFORMATION FOR RURAL AUSTRALIA

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INTRODUCTION

Queensland has high year-to-year variations in rainfall with the El Niño-Southern Oscillation (ENSO) phenomenon contributing strongly to this variability. The impacts of climate variability can be severe; for example, between 1991-1996 Queensland rural farm gate losses totalled $3 billion while overall drought losses to the Queensland economy exceeded $6 billion (DPI, 1996). In 1991 the 'Drought Group' was formed in recognition of the importance of climate variability on primary industries and natural resource management. More recently the Queensland Centre for Climate Applications was established (1998) to research the importance of climate variability, with extension aimed at both industry and policy development.

'The Long Paddock' website was launched in 1995 to make information on climate and resource condition readily available to clients in policy and across rural areas. The site has proven to be an effective method of providing an integrated suite of climate information. It contains over 63,000 maps of drought, pastures, satellite imagery and rainfall analyses on a monthly basis back to 1890. In particular, Long Paddock provides maps of rainfall probabilities associated with each Southern Oscillation Index (SOI) phase (Stone *et al.* 1996), allowing changes in conditional rainfall probability to be accessed operationally in the first week of each month. Although updated frequently, the site design remained unchanged for many years largely due to manual page-generation methods. Recently developed procedures now allow for automatic page generation and site management.

Building The Long Paddock

In digital environments like websites, a strong metaphor can guide a visitor and glue a site together, (Siegel 1997), The Long Paddock branding aims to bind the content themes of rainfall, drought, pasture growth, fire, climate drivers (e.g. ENSO) and degradation of the grazed resource. The Long Paddock trademark, because of its association with drought, is also easy to remember, assisting repeat client visits.

Neilsen (2002) stated that simplicity may be the single most important useability guideline one needs to follow when building a website. Both operational and functional aspects of 'The Long Paddock' were redesigned in the year 2002, the latest revision reducing complexity, thus improving useability. The preparation of pages is now automated using a new in-house content management system, Web Rapid Index Building System (WebRIBS) (Flood & Peacock, 2001). WebRIBS separates content from design and forces the designer to arrange information in nested directory structures with logical hierarchies and plain-English names. Pages are generated using hypertext mark-up language (html) design templates and are assembled from fragments of html content, graphics and the existence of various file types in given directories.

Incorporating rural-accessibility principles developed by Groves (2000), the web-pages served to clients are of a consistent layout, and average only 15 Kilobytes in size, theoretically taking only 2 seconds to download using a 56Kbps modem.

The range of content available is expanding and now includes (1) a Satellite Fire Monitor (Collett, *et al.* 2002); (2) a 'Climate Changes' theme area; (3) products from the national Aussie GRASS project (Hall, W. B., *et al.* 2000); and (4) experimental climate risk assessment incorporating the Pacific Decadal Oscillation (PDO) signal, (Seasonal Pacific Ocean Temperature Analysis-1, Day et al. 2000).

Future Developments

Nicholls (1999) discusses various problems associated with cognitive illusions and the difficulties people have interpreting probabilistic data accurately. Because most Long Paddock maps show probabilities, this is a core issue for the developers. In their national survey of Aussie GRASS clients, Paull & Hall (2000) reported that 65% of respondents agree with releasing seasonal climate forecasts in the form of probabilities, but cautioned that in extension activities care needs to be taken to explain the concept simply. Future web development will take a more considered approach to data presentation techniques incorporating more feedback from users, whilst development of information environments using webRIBS will speed up and improve webpage design, deployment and browsing.

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