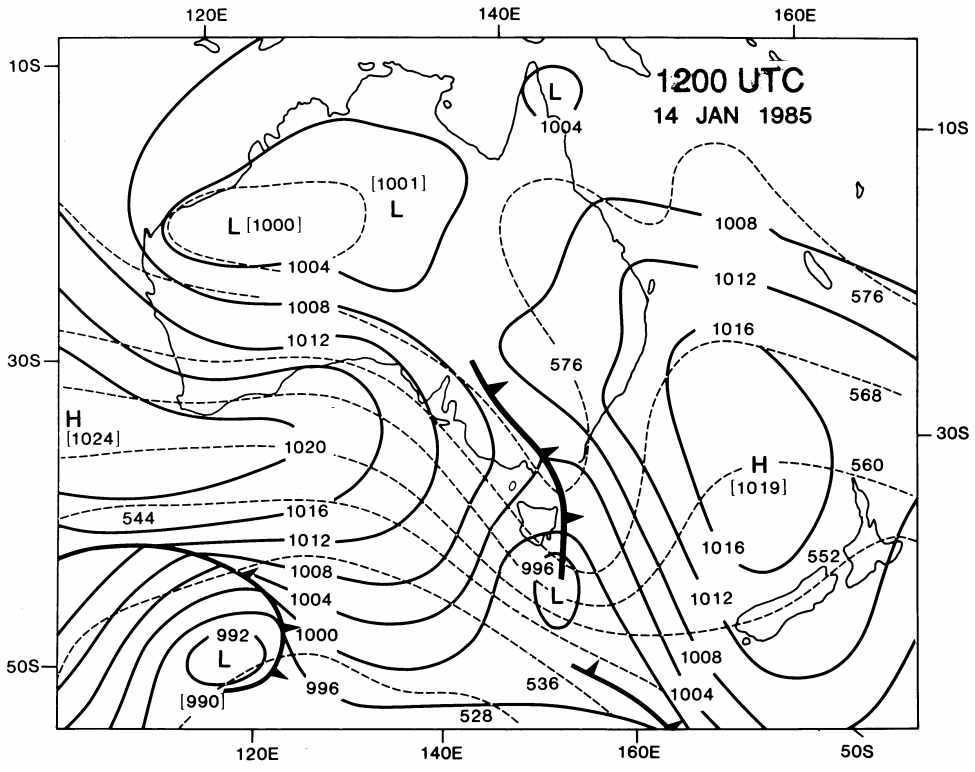
METR 2413 - Homework 10 **Name: _____**

Date assigned: 5 April, 2004
Date due: Monday, 12 April, 2004

1. Use air mass arguments to briefly explain why the temperature contrast across a cold front in Oklahoma is usually larger in winter than in summer.

2. Consider the typical summer synoptic map (below) for Australia showing mean sea level pressure (solid lines) and 1000-500 hPa thickness (dashed lines). Southeastern Australia is at a similar latitude to Oklahoma. Use air mass arguments to briefly explain why the temperature contrast across a typical cold front in southeastern Australia is larger in summer (January) than in winter (July).