NWP – SCM Comparison during RACORO
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Three Cases

Case 1: Cu with variable aerosols
Case 2: Cu and drizzling Sc
Case 3: Variable cloud types

Two NWPs and 2SCMs

<table>
<thead>
<tr>
<th></th>
<th>Horizontal Resolution</th>
<th>Vertical levels</th>
<th>dz @ 2 km</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECMWF</td>
<td>25 km</td>
<td>91</td>
<td>260 m</td>
</tr>
<tr>
<td>NCEP</td>
<td>35 km</td>
<td>64</td>
<td>300 m</td>
</tr>
<tr>
<td>SCAM4</td>
<td>170km</td>
<td>26</td>
<td>1 km</td>
</tr>
<tr>
<td>SCAM5</td>
<td>170km</td>
<td>30</td>
<td>700 m</td>
</tr>
</tbody>
</table>

Compare cloud fraction, liquid water mixing ratio, and relative humidity
Case 1: 22 -24 May

Cloud fraction

Note: low cloud fraction values extending through vertical extent is due to frozen precipitation falling from above.
Cu Case: 22 - 24 May

Liquid mixing ratio
Case 2: 26 -28 May

Cloud fraction
Case 2: 26 - 28 May

Liquid mixing ratio
Case 3: 6 - 8 May

Cloud fraction
Various Case: 6 - 8 May

Liquid mixing ratio
Cu Case: 22 -24 May

Relative humidity
Sc Case: 26 -28 May

Relative humidity
Various Case: 6 - 8 May

Relative humidity