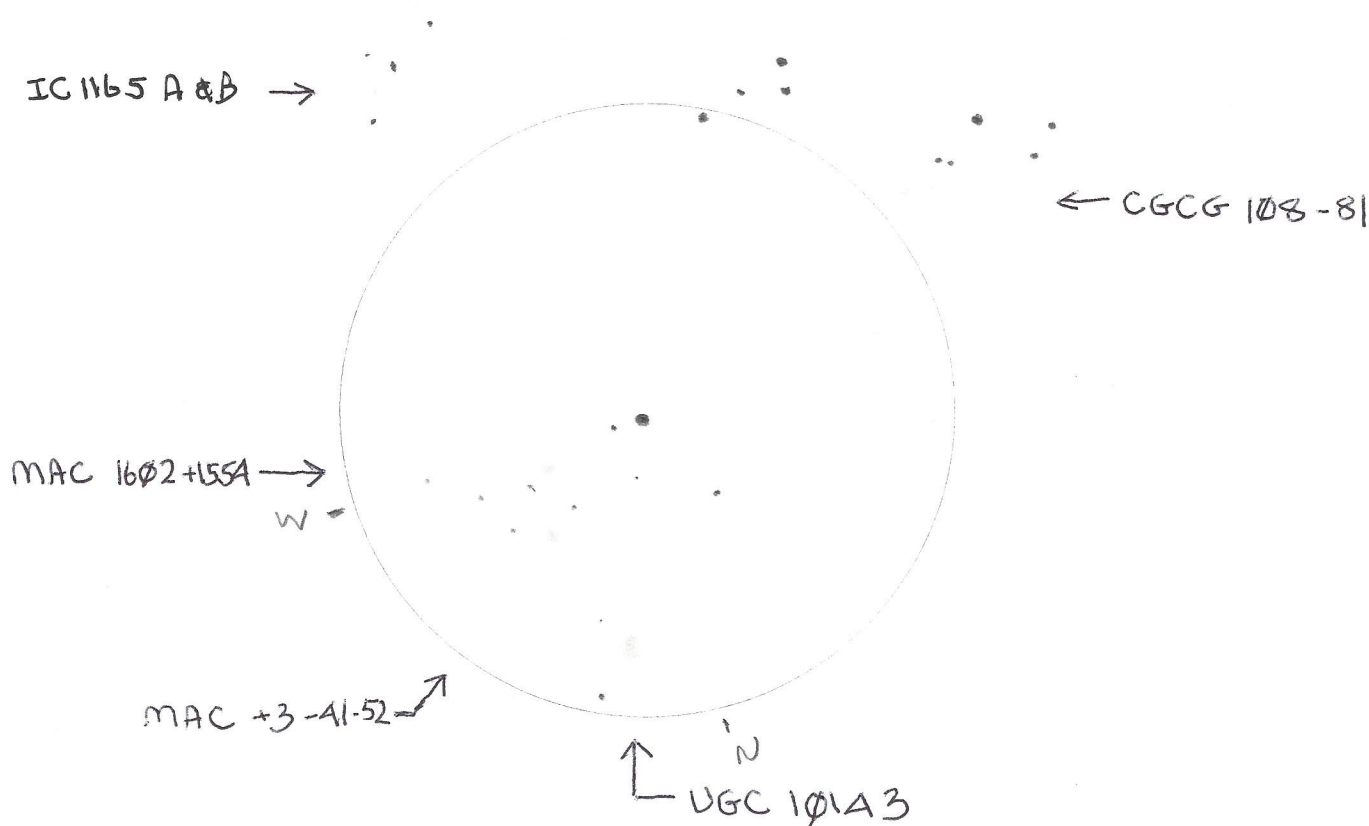


GALAXY GROUPS & CLUSTERS OBSERVATION RECORD

Date: 13 August 2014
 Time Started: 2100 CDT Time Finished: 2145 CDT
 Location: Huntingdon TN
 Weather: Clear & cool
 Transparency:(1-5) 4.5 Seeing:(1-5) 4.0
 Faintest Naked Eye Star: —
 Telescope: 18" Obsession - f/4.5 - f.l. 81"
 Eyepiece: 9mm Televue Nagler Type 6 (and 7mm)
 Magnification: 231x FOV: 21.3'

Object ID: ALGGAC Abell #37
Abell 2147
 Coordinates: 16 02.3 +15.9
 Constellation: Her
 Magnitude Range: 14.0 - ?
 Size Estimate: 20'
 No. Of AV Galaxies: 5
 No. Of DV Galaxies: 0



Description (Pattern? Distribution even or uneven? Galaxies superimposed or signs of interaction? Nuclei, dust lanes, spiral arms? Estimate on AV scale): Three larger & brighter galaxies in a short chain just NW of a 9th mag star plus two other outliers to the S & E.

UGC 10143 - AV2 - largest galaxy. Elongated NNW/SSE, becomes brighter toward the center.

MAC 1602+155A - AV2 Roundish. becoming brighter toward the center.

MAC +3-41-52 - AV2 small, Roundish.

CGCG 108-81 - AV3 small, roundish spot.

IC 1165 A & B - AV3 cannot separate A & B galaxies but

Reference: the combination appears elongated NNW/SSE.

Adventures in Deep Space - Jim Shields: 550 million light years.