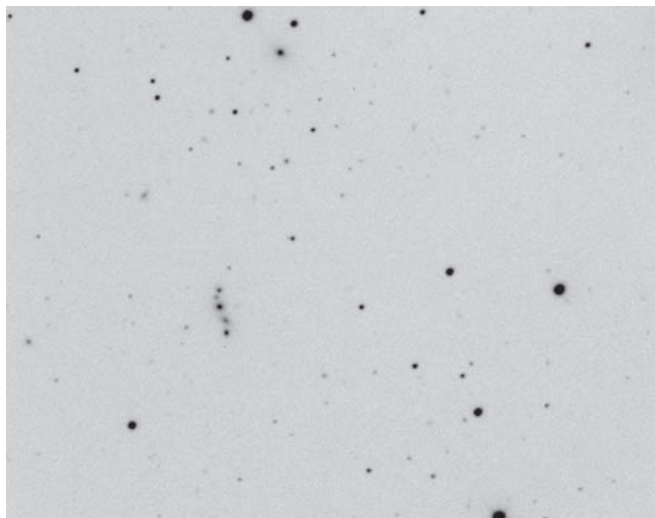
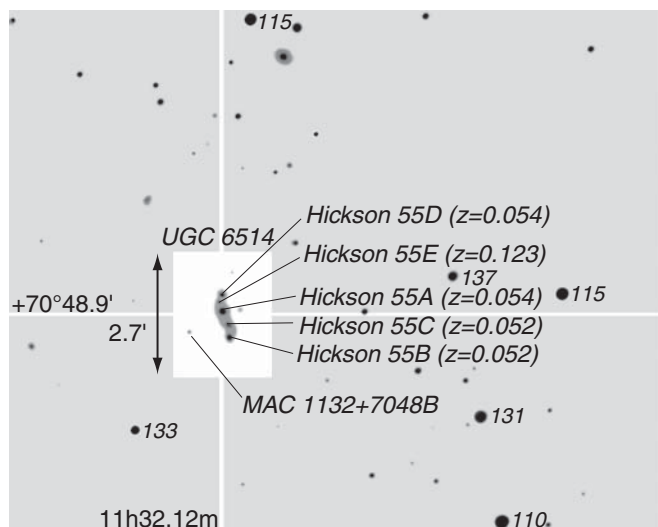


Arp 329, UGC 6514, Hickson 55  
Galaxy chain



Tim Hunter and James McGaha, 24-inch *f*/5 Newtonian, Apogee 7 camera, 60-second exposure.



**Visual Observations**

**Barbara Wilson** 20-inch *f*/4 Newtonian, 290x: At low power it is a linear blur. At higher power, when seeing settles down, three of the five galaxies are seen.

**David Tosteson** 25-inch *f*/5 Newtonian, 270x: After several minutes searching, four galaxies seen condensing out of the line. Component E probably not seen. Mag 13 star 4' to SE. In 36-inch: five Hicksons seen and MAC 1132+7148 SE of the main group. Galaxy W of 55A not seen.

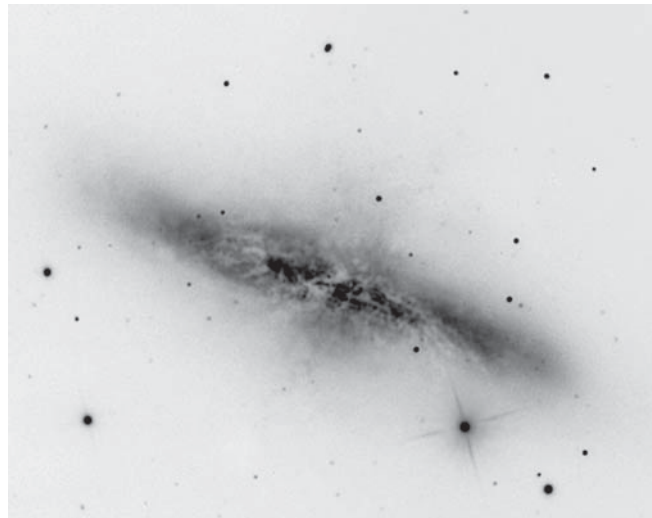
**Notes**

**Hickson 55A** mag 15.9, 0.2' x 0.2' and SA0 pec. See table at the start of Chart B for details of all galaxies.

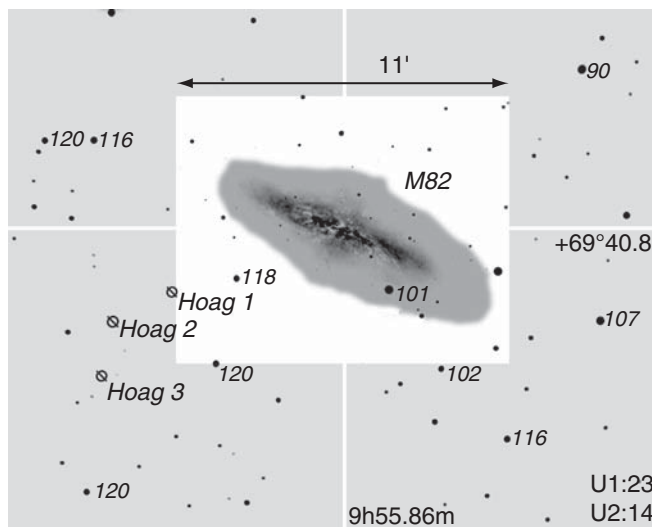
**Naming Irregularity** Hickson and VV letters are different.

**Challenge** Separate the five galaxies.

Arp 337, Messier 82, NGC 3034  
Unique



Robert Gendler, 12.5-inch Ritchey-Chrétien at *f*/9, SBIG ST-10XME camera, 120-minute exposure.



**Visual Observations**

**Barbara Wilson** 20-inch *f*/4 Newtonian, 290x: Long cigar-shaped with three dark lanes cutting across the width. Mottled appearance.

**David Tosteson** 18-inch Newtonian, 350x: 10'–12' with many dark stripes perpendicular to the plane of the galaxy, especially just N of the middle. Mottling, especially in the center.

**Notes**

**NGC 3034** Messier 82 is mag 8.4, 11.4' x 4.3', I0 sp, and  $z = 0.00068$ .

**Arp's Notes** Internal explosion.

**Note** the arc of three mag 20 quasars ( $z = 2.05$ ) examined by Burbidge *et al.*, *Ap. J.*, 242:L55-L57.

**Challenge** The filaments projecting from the center.