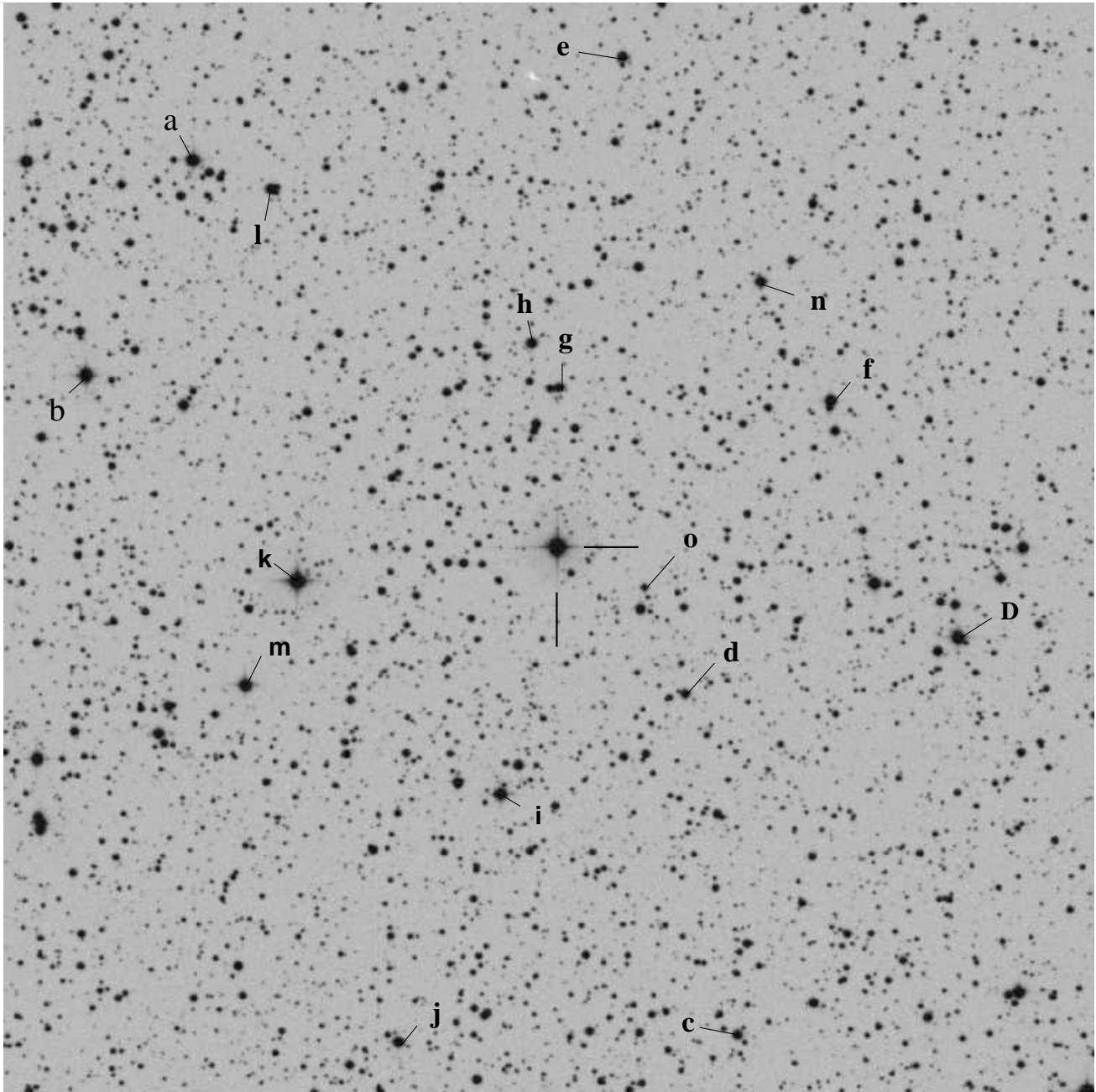


**LPH128, AUID 000-BDC-531**  
**(AAVSO 2204+54, 4U 2206+543, TYC 3973- 812-1,**  
**GSC 3973-0812)**



2206+543:  $22^{\text{h}}7^{\text{m}}56^{\text{s}}.2 +54^{\circ}31'06''.4$  (J2000)  $V=9.9$ ,  $B-V=0.2$   
 15m ( $1/4^{\circ}$ ) sq field — North up. Near Cyg, Cep, Lac border, Uranometria 57.  
 Position from: Steiner JE et al. 1984, ApJ 280,688

Comp and Check stars with relatively neutral B-V (from SRO data)

Star	RA	Dec	B	V	R	I	Revision
m	22 8 25.422	54 29 6.824	12.172	11.946	11.816	11.640	[2010-01-18]

Notes on data reduction: In the past star k was suggested as a comparison star, but it turns out to be an eclipsing binary! Please use star m as the comparison star. Star i is the recommended check star.

Original Henden sequence data for 3A2206+543 from the 0.35m telescope at Sonoita Research Observatory (SRO) for stars brighter than 13th magnitude and in the field  $331.8627 < RA < 332.1127$ ,  $54.3933 < Dec < 54.6433$ , plus star o for use with the Faulkes telescope north:

ID	RA(J2000)	raerr	DEC(J2000)	decerr	nobs	V	B-V	U-B	V-R	R-I	V-I	Errors					
f	331.877931	0.097	54.553268	0.032	5	11.865	1.198	99.999	0.686	0.655	1.345	0.009	0.123	9.999	0.012	0.012	0.014
n	331.906254	0.092	54.580171	0.020	5	12.418	0.914	99.999	0.524	0.457	0.979	0.010	0.019	9.999	0.018	0.012	0.020
c	331.908928	0.061	54.407845	0.031	5	12.857	1.290	99.999	0.682	0.652	1.338	0.014	0.021	9.999	0.018	0.010	0.008
d	331.932747	0.105	54.485652	0.011	5	12.998	1.302	99.999	0.738	0.736	1.481	0.022	0.036	9.999	0.025	0.013	0.013
e	331.962923	0.111	54.630877	0.018	5	12.528	1.429	99.999	0.802	0.784	1.592	0.010	0.016	9.999	0.007	0.012	0.009
obj	331.984361	0.074	54.518507	0.009	5	9.867	0.287	99.999	0.205	0.240	0.448	0.008	0.016	9.999	0.014	0.017	0.009
g	331.985316	0.167	54.554983	0.018	4	12.919	1.478	99.999	0.810	0.780	1.595	0.008	0.023	9.999	0.016	0.022	0.024
h	331.996234	0.057	54.565010	0.008	5	12.924	0.435	99.999	0.262	0.271	0.534	0.013	0.018	9.999	0.017	0.018	0.008
i=C	332.004323	0.071	54.461632	0.018	5	11.837	0.539	99.999	0.316	0.338	0.656	0.008	0.016	9.999	0.009	0.005	0.008
j	332.042322	0.063	54.404477	0.060	5	12.151	1.334	99.999	0.716	0.678	1.397	0.009	0.007	9.999	0.012	0.010	0.007
k=A	332.086486	0.083	54.509304	0.027	5	10.437	0.219	99.999	0.121	0.161	0.284	0.012	0.017	9.999	0.013	0.010	0.009
l	332.100419	0.067	54.598854	0.036	5	12.808	0.587	99.999	0.357	0.382	0.743	0.013	0.023	9.999	0.016	0.010	0.015
m=B	332.105925	0.086	54.485229	0.027	5	11.946	0.226	99.999	0.130	0.174	0.306	0.013	0.016	9.999	0.022	0.019	0.010
o	331.949552	0.068	54.509745	0.106	4	13.789	1.933	99.999	1.106	1.183	2.311	0.012	0.133	9.999	0.024	0.030	0.022

Note: V-I is used to determine I, not R-I.

Star o data (for Faulkes telescope): B=15.722, V=13.789, R=12.683, I=11.478

**ARCHIVAL REFERENCE DATA: Do not** use the data below for photometry. It is here for archival reference only to tie in old data with new data.

Reference star data from SIMBAD						
Ref Star	ID	RA	Dec	B	V	Comments
A=k	BD+53 2792	22 08 20.75	+54 30 33.2	10.70	10.6	
B=m	[BBB73] 52	22 08 25.40	+54 29 06.7	12.12	11.87	
C=i	[BBB73] 42	22 08 01.03	+54 27 41.7	12.35	11.76	
Other reference data						
b	GSC 3973-1698	22 08 41.23	+54 33 18.7		11.09 - 11.19	dSct: 0.06d per
D	GSC 3973-1316	22 07 18.15	+54 29 59.7		11.57 - 11.67	Be Luminous star
	[= ALS 12132					dSct-like pulsations
	= LSIII +54 15]					period in 1d range

If you have a wide field, Shawn Dvorak also discovered a nearby var not yet in VSX = GSC 3973-1124 (22 09 17.3 +54 37 26.7) - a bit far away, but some of wide frames will catch it. It is very orderly - likely a beta Lyr eclipser.