Mage Observing Run October 8, 2021

observers: Fakhri Zahedy, Michael Rauch
contact email (Michael): mr@carnegiescience.edu
contact email (Fakhri): fzahedy@carnegiescience.edu

contact phone (mr SBS office): 626-304-0262
contact phone (mr mobile): 626-620-9672

Aim:
take MagE spectra of up to 31 low z galaxies with extremely metal poor emission line regions

General setup:

- 1x1 binning, fast, full readout

- In good seeing use 0.7" slit

- in bad seeing use 1.0" slit

- catalog file is called Rauch.211008.cat

- try to get 2x900s on-source exposure time per object

- where possible try to see the galaxy directly on the slitviewer; put the slit roughly where suggested by the finding chart enlargements, even if this means off-center.

- if gal. not visible, use offset stars
  (tel. offsets in the FC are in arcseconds from the star to the target)

Afternoon calibrations:

(largely just the standard calibs. suggested on the web page):

10x0s bias

0.7" slit :

1x4s ThAr
1x10s ThAr
5x35s Xe flash in focus
5x90s Xe flash in focus
15x30s Qh domeflats in focus

1.0" slit :

1x2s ThAr
1x10s ThAr
5x25s Xe flash in focus
5x60s Xe flash in focus
15x20s Qh domeflats in focus

5.0" slit:

15x15s out of focus (focus=1100) (all orders but the six bluest orders saturated)
5x100s out of focus (focus=1100) (all orders but the two bluest saturated)

twilight skyflats for 0.7", 1.0" and 5"

night time observations:

-all observations at parallactic angle

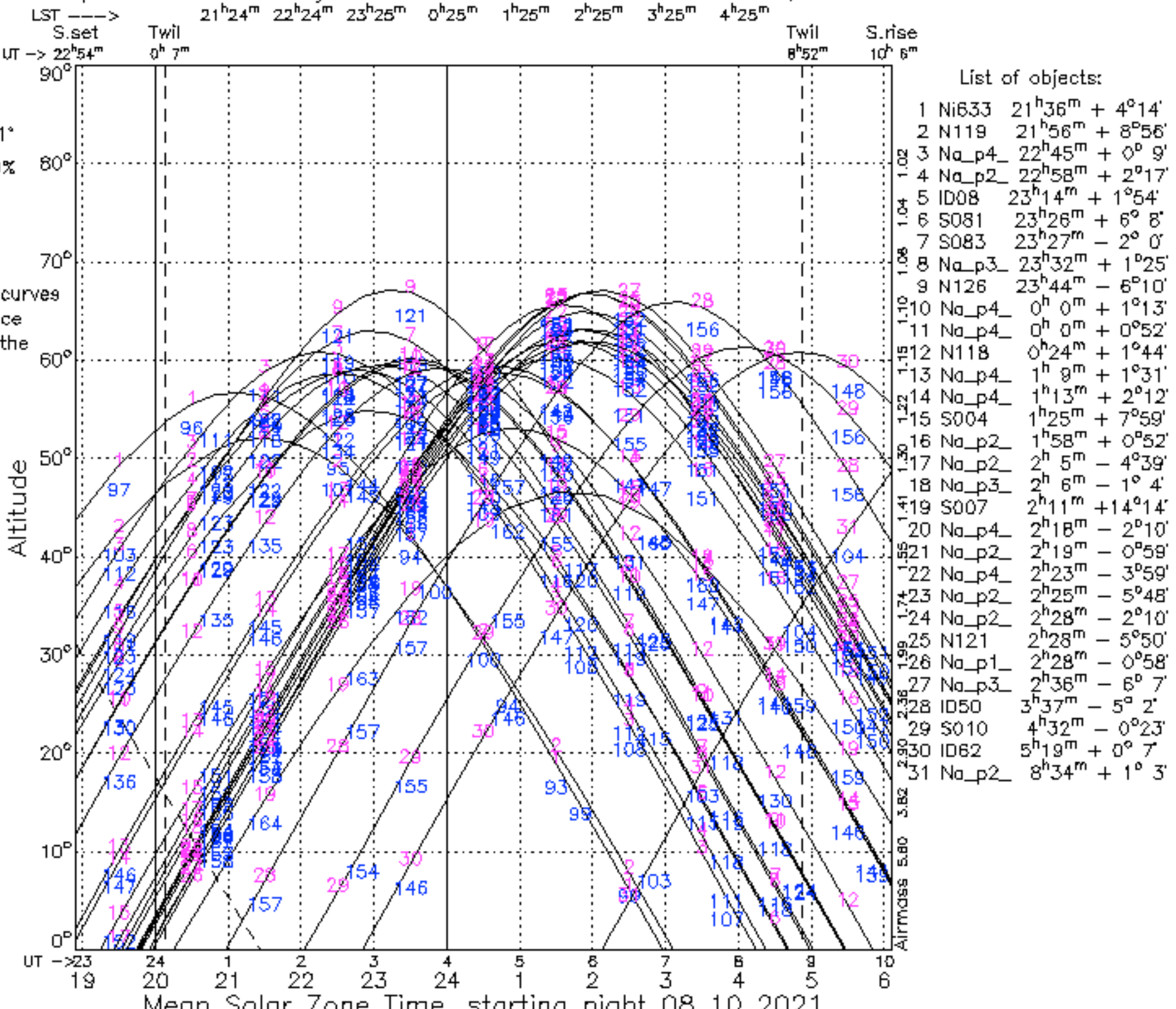
- get standard star exposure at the beginning, e.g., LTT7978 (20:10:57.38 -30:13:01.2)

- try to get 2x900s science exposures for each object

- take ThAr before moving to next object

- get standard star exposure in the morning, e.g., HR1996 (05:45:59.92 -32:18:23.4)

Altitudes, Las Campanas Observatory 289.3074E −29.0146N, 2380 m above sea level



List of objects:

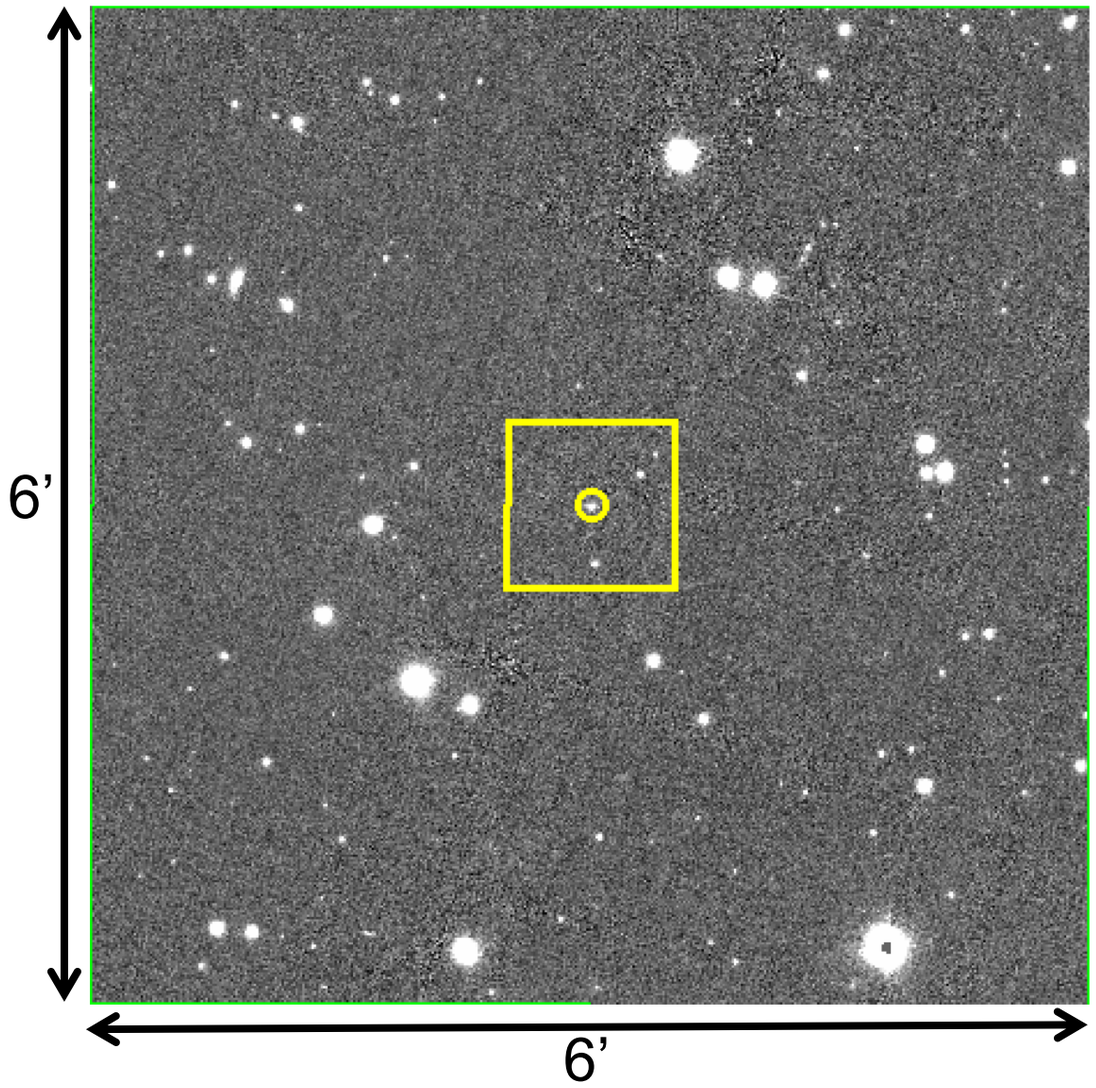
1	Ni633	21h36m	+ 4°14'
2	N119	21h56m	+ 8°56'
3	Na_p4_	22h45m	+ 0° 9'
4	Na_p2_	22h58m	+ 2°17'
5	ID08	23h14m	+ 1°54'
6	S081	23h26m	+ 6° 8'
7	S083	23h27m	− 2° 0'
8	Na_p3_	23h32m	+ 1°25'
9	N126	23h44m	− 6°10'
10	Na_p4_	0h 0m	+ 1°13'
11	Na_p4_	0h 0m	+ 0°52'
12	N118	0h24m	+ 1°44'
13	Na_p4_	1h 9m	+ 1°31'
14	Na_p4_	1h13m	+ 2°12'
15	S004	1h25m	+ 7°59'
16	Na_p2_	1h58m	+ 0°52'
17	Na_p2_	2h 5m	− 4°39'
18	Na_p3_	2h 6m	− 1° 4'
19	S007	2h11m	+14°14'
20	Na_p4_	2h18m	− 2°10'
21	Na_p2_	2h19m	− 0°59'
22	Na_p4_	2h23m	− 3°59'
23	Na_p2_	2h25m	− 5°48'
24	Na_p2_	2h28m	− 2°10'
25	N121	2h28m	− 5°50'
26	Na_p1_	2h28m	− 0°58'
27	Na_p3_	2h36m	− 6° 7'
28	ID50	3h37m	− 5° 2'
29	S010	4h32m	− 0°23'
30	ID62	5h19m	+ 0° 7'
31	Na_p2_	8h34m	+ 1° 3'

Processed: 2021/10/06 at 22:19:42 UT. Isaac Newton Group of Telescopes, La Palma.

Finding charts:

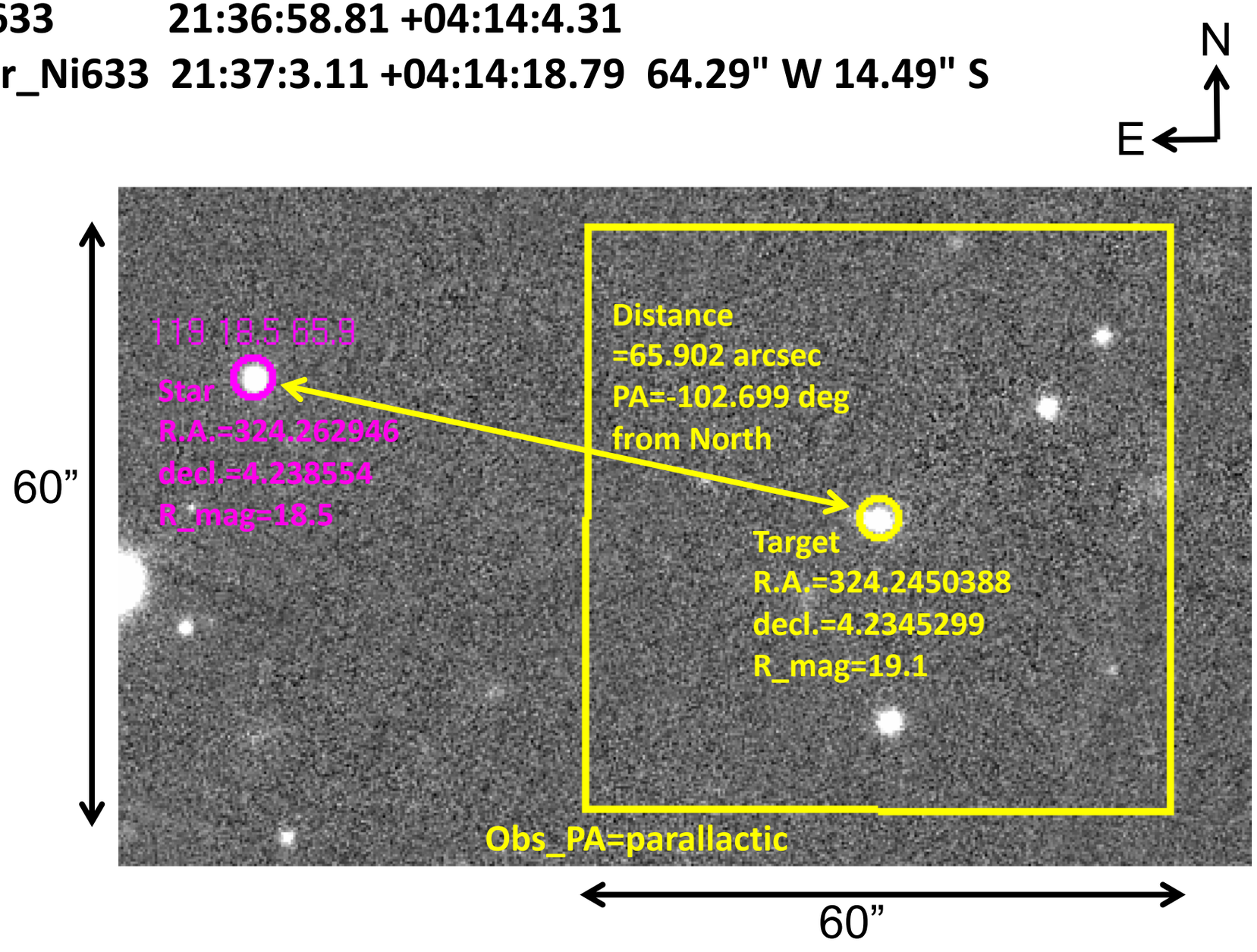
Below there are three finding charts per target, at different magnifications. The offsets are for telescope movements from the offset star to the science target. The finding charts are in order of increasing RA.

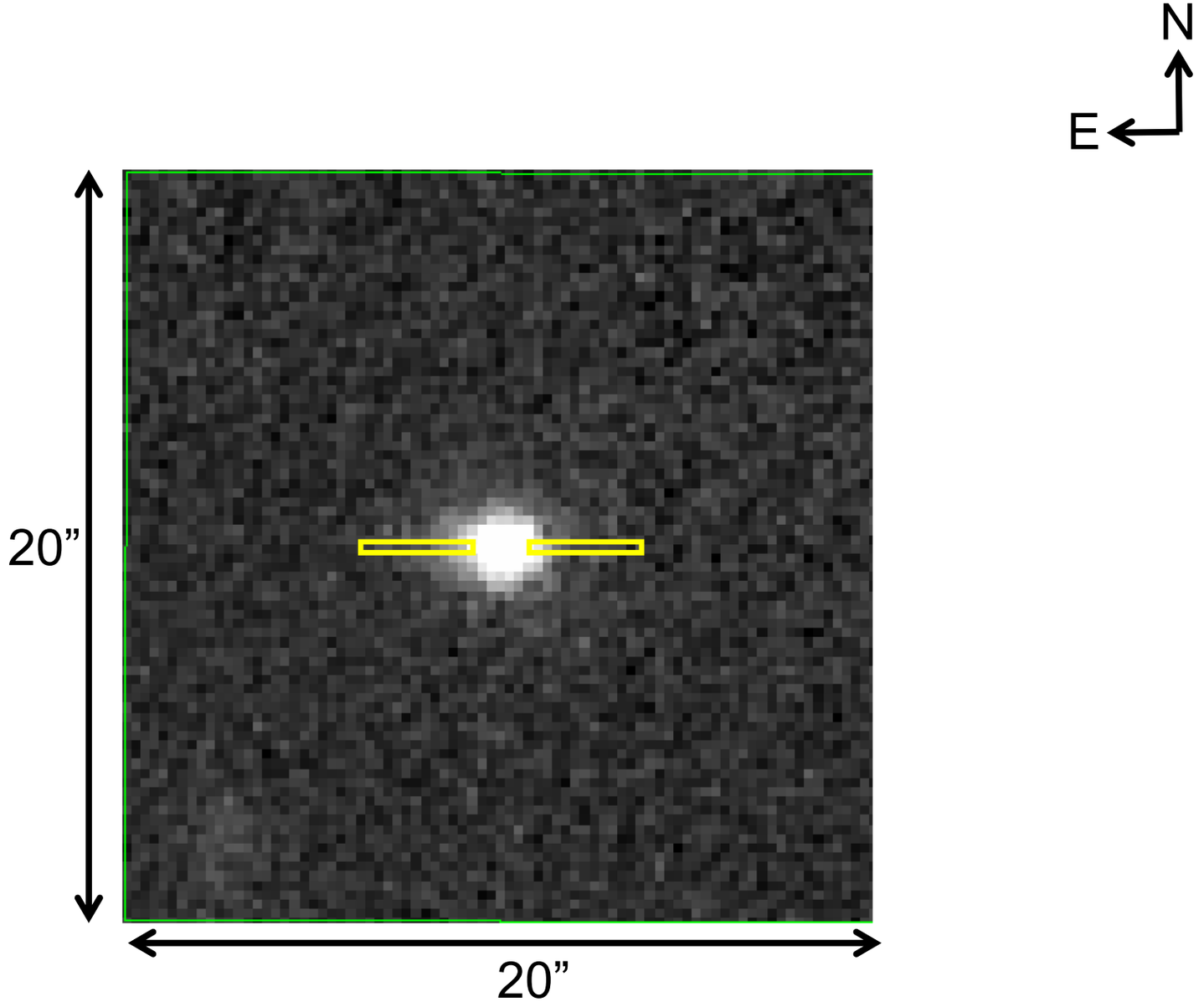
Ni633



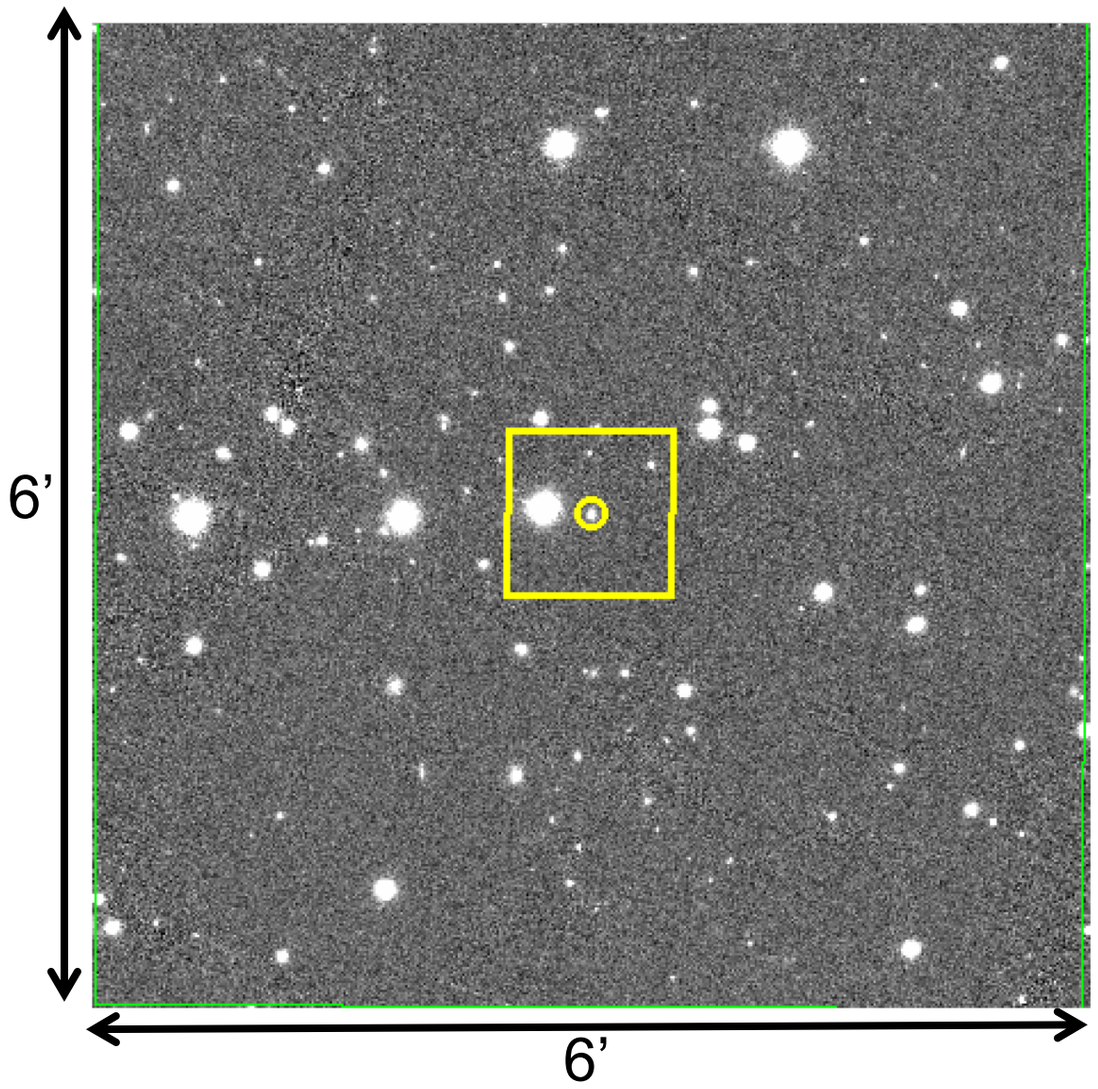
Ni633 21:36:58.81 +04:14:4.31

star_Ni633 21:37:3.11 +04:14:18.79 64.29" W 14.49" S



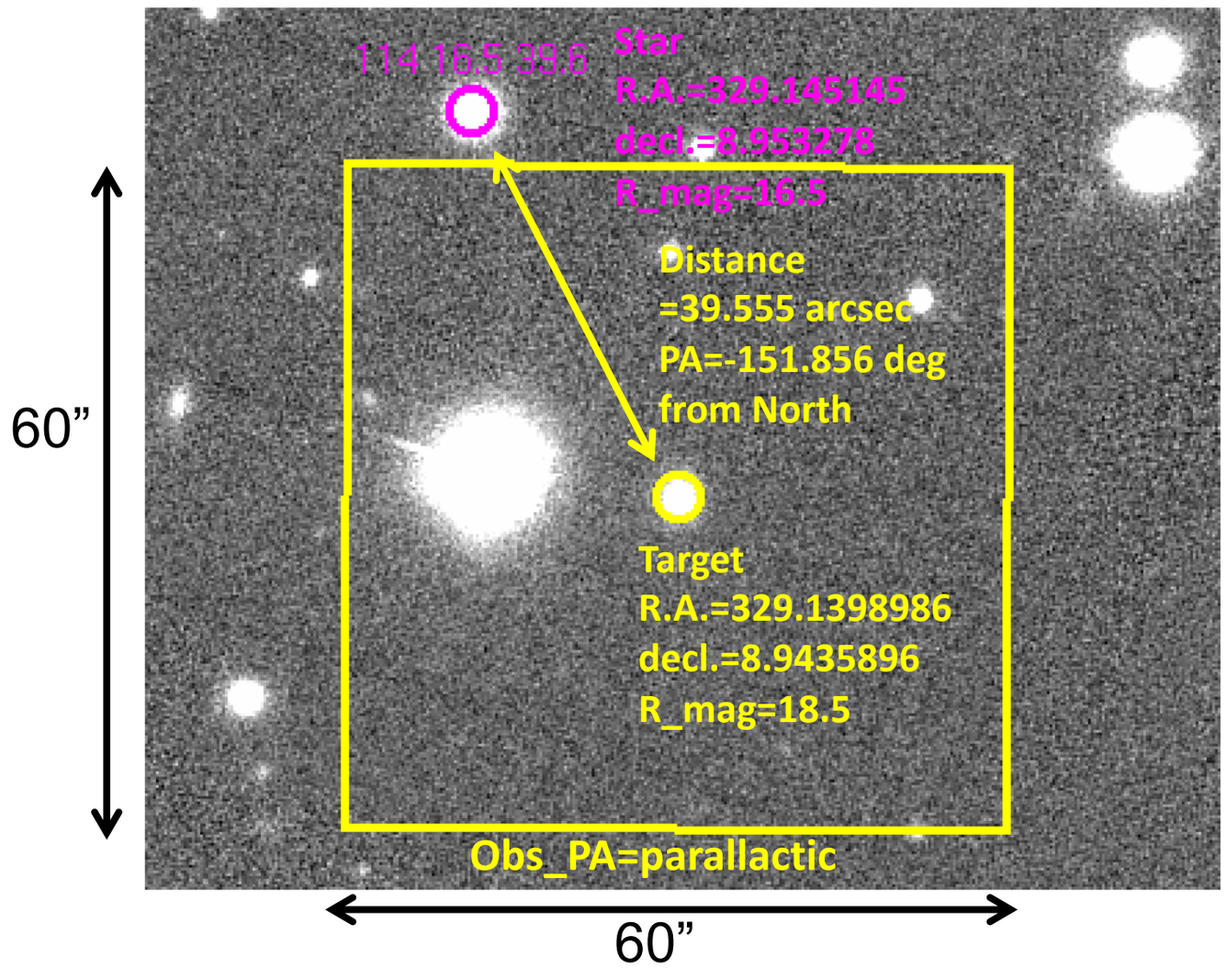

N
E
20”
20”

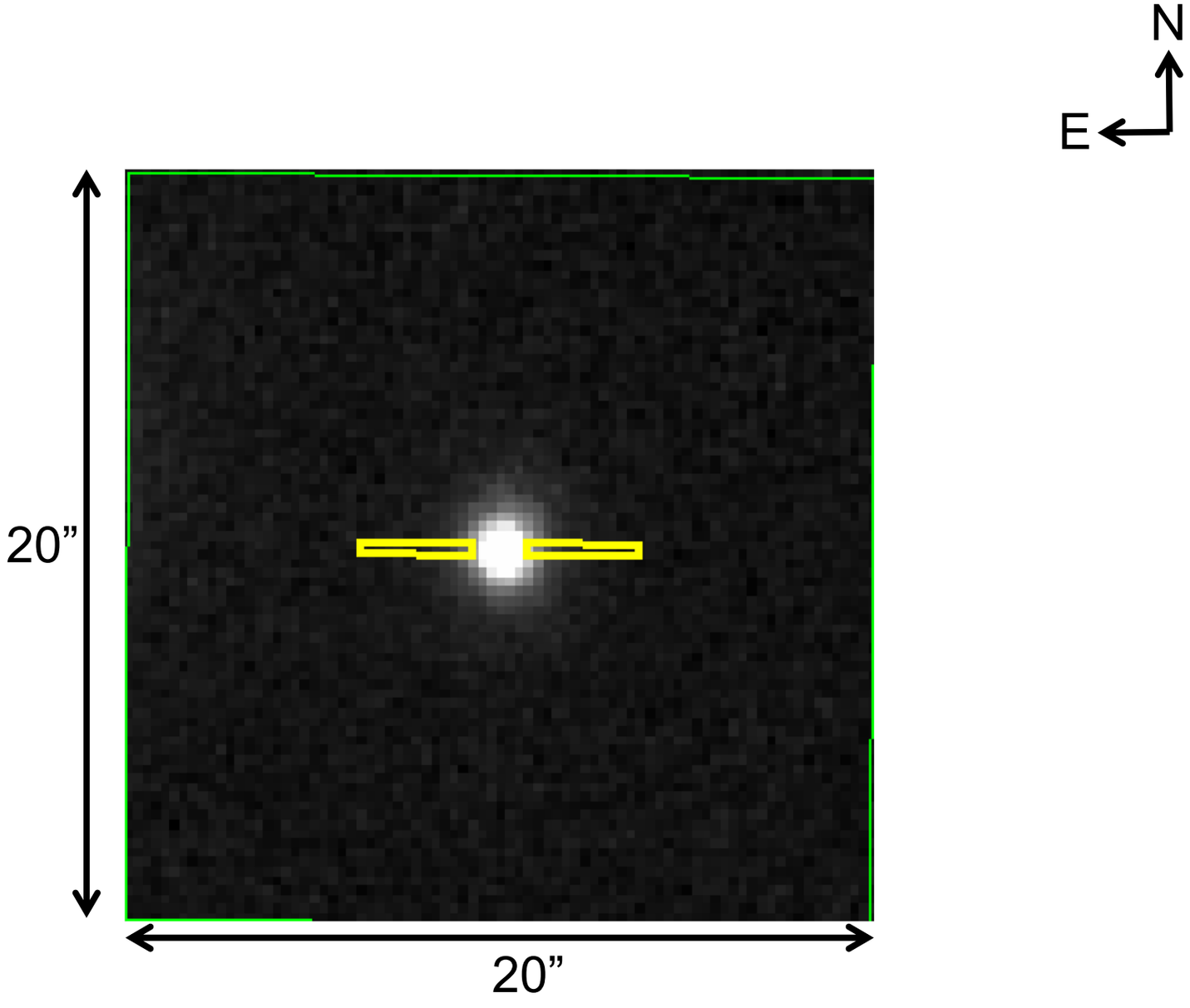
N119



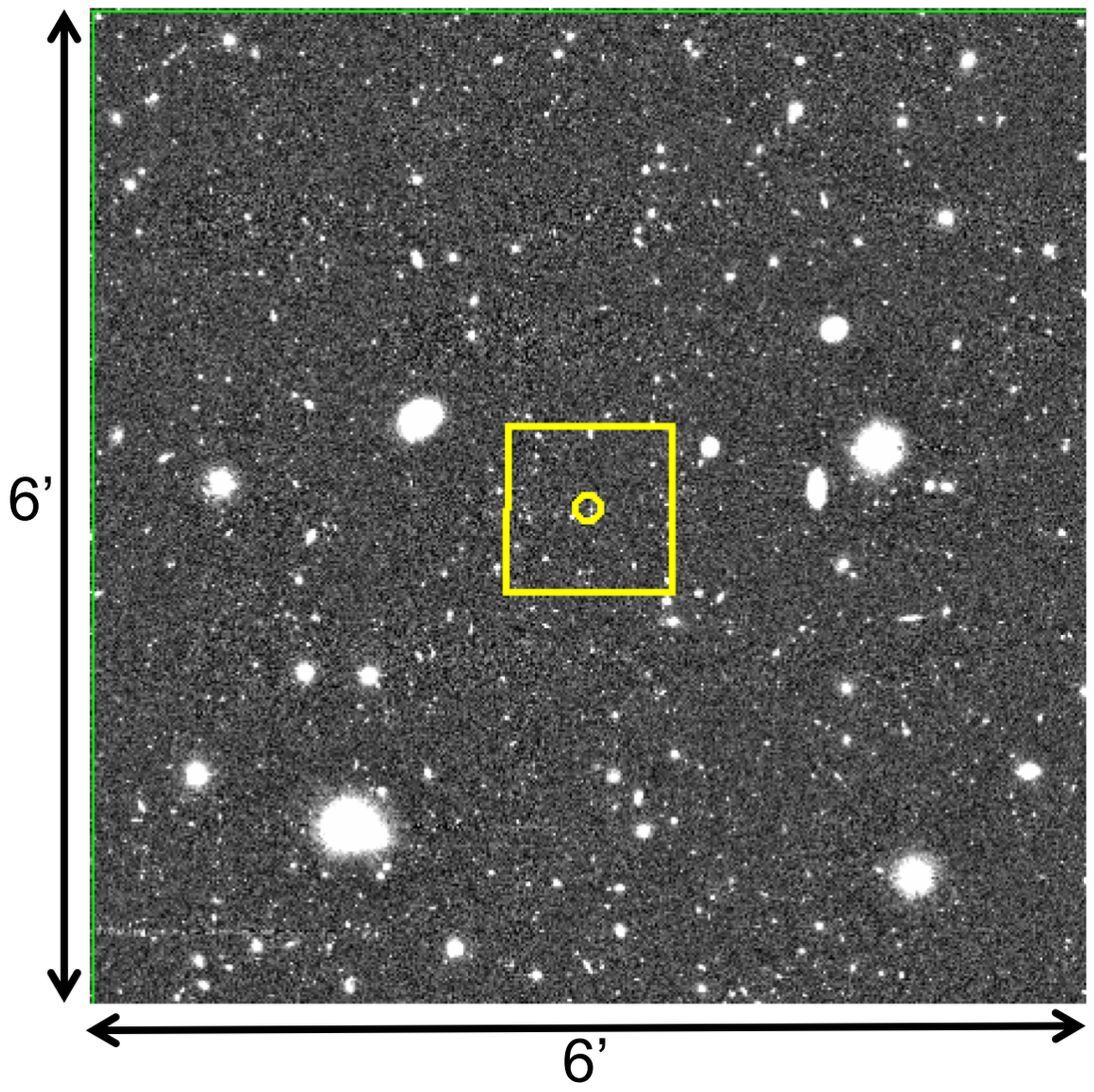
N119 21:56:33.58 +08:56:36.92

star_N119 21:56:34.83 +08:57:11.80 18.66" W 34.88" S



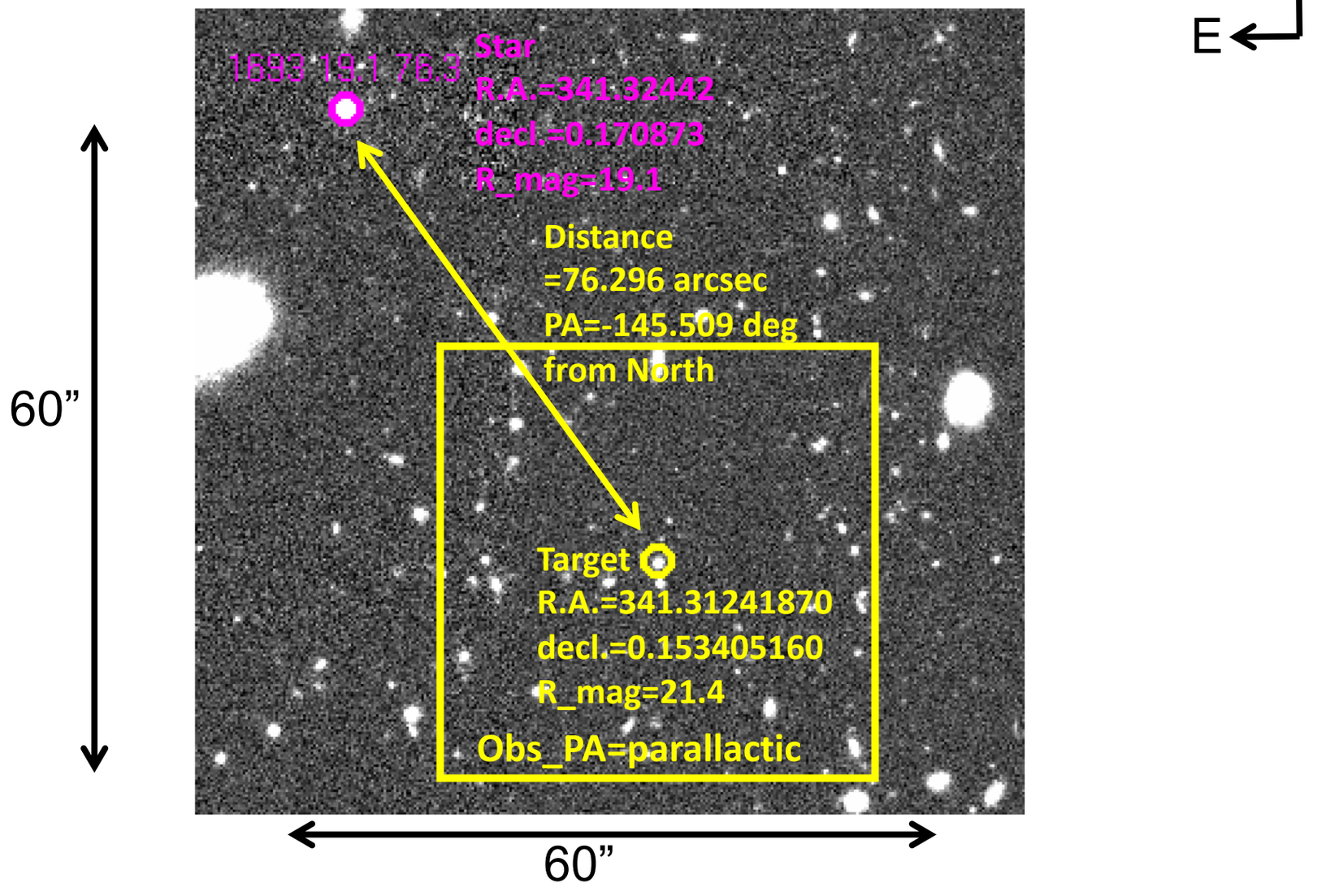

N
E
20”
20”

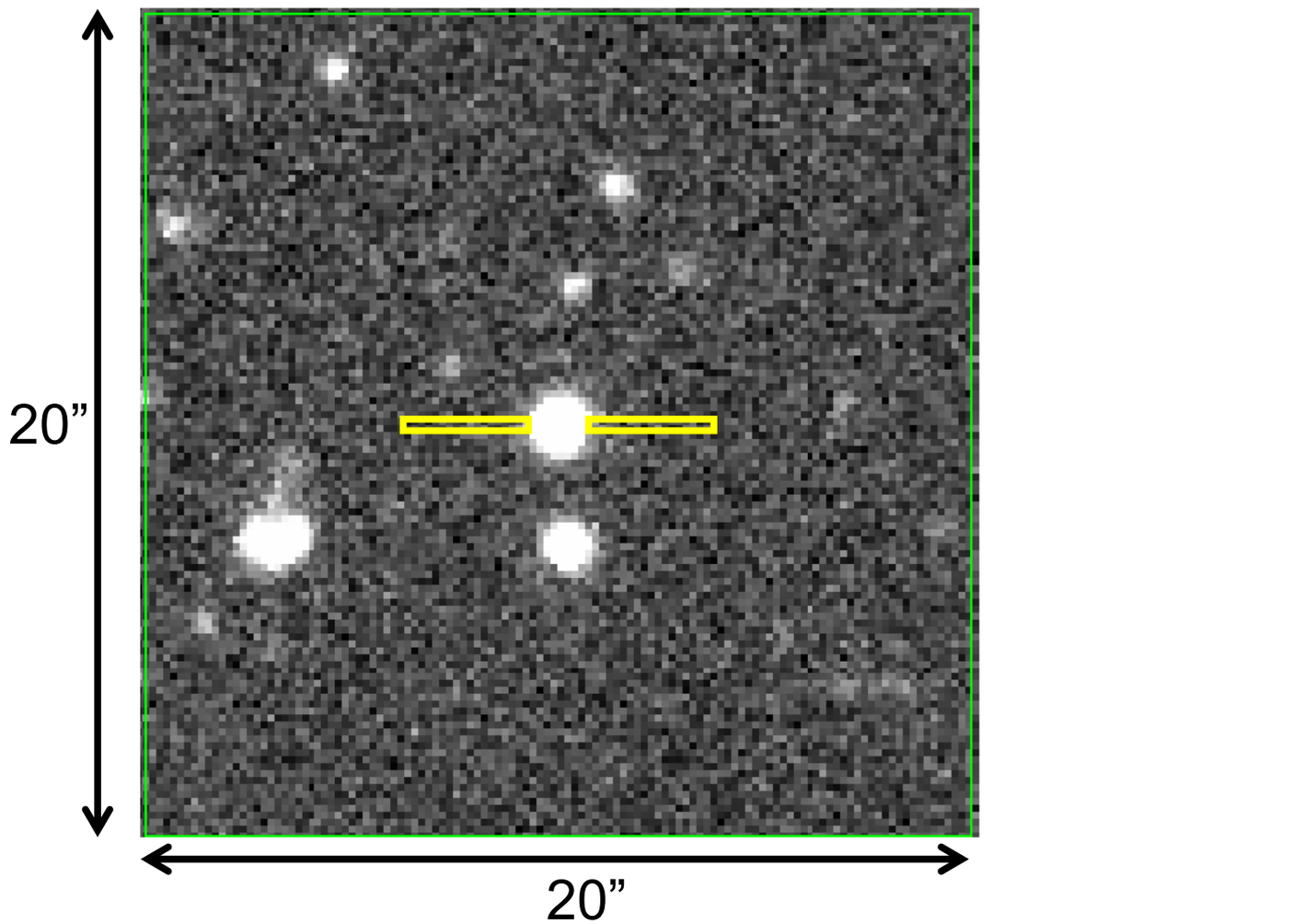
Na_p4_6132



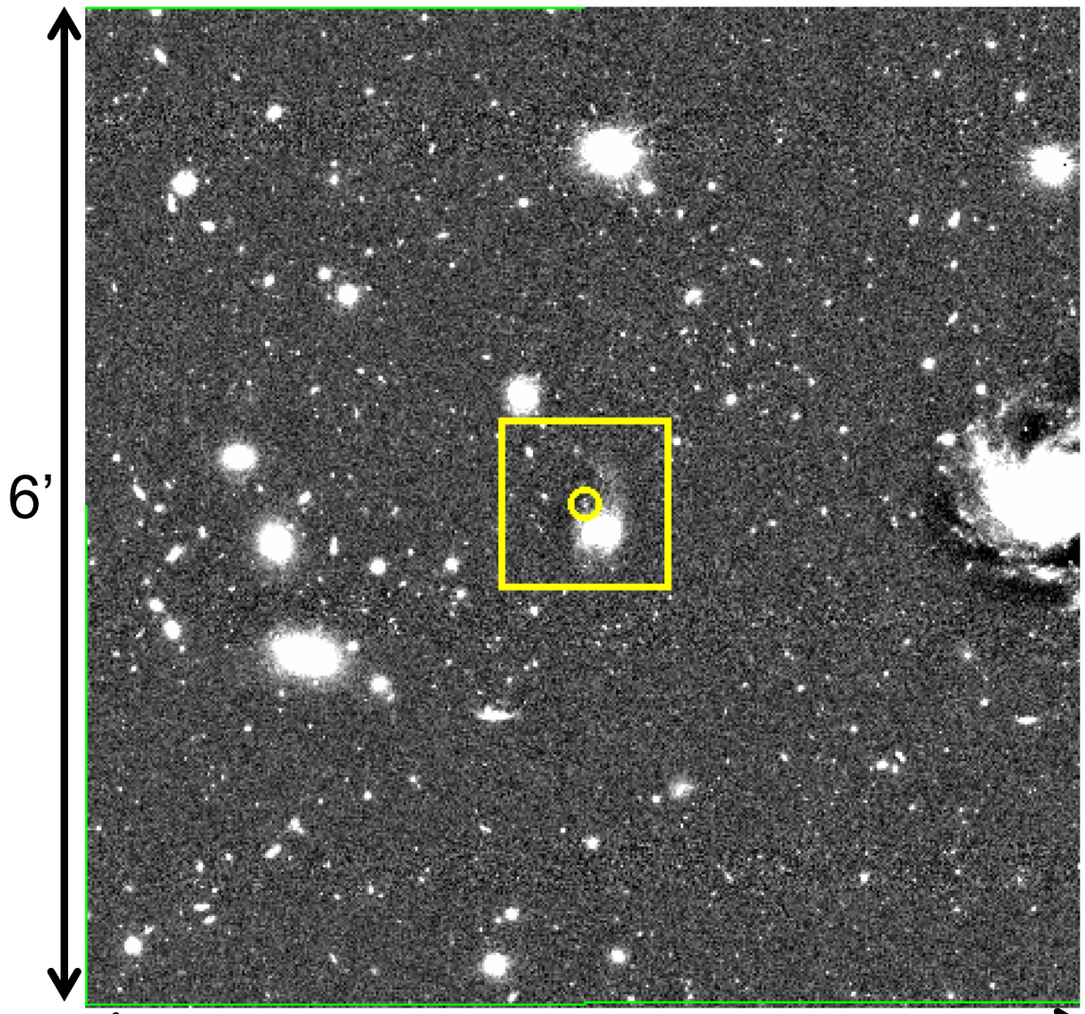
Na_p4_6132 22:45:14.98 +00:09:12.26

star_Na_p4_6132 22:45:17.86 +00:10:15.14 43.20" W 62.88" S




N
E
20”
20”

Na_p2_6486



N
E

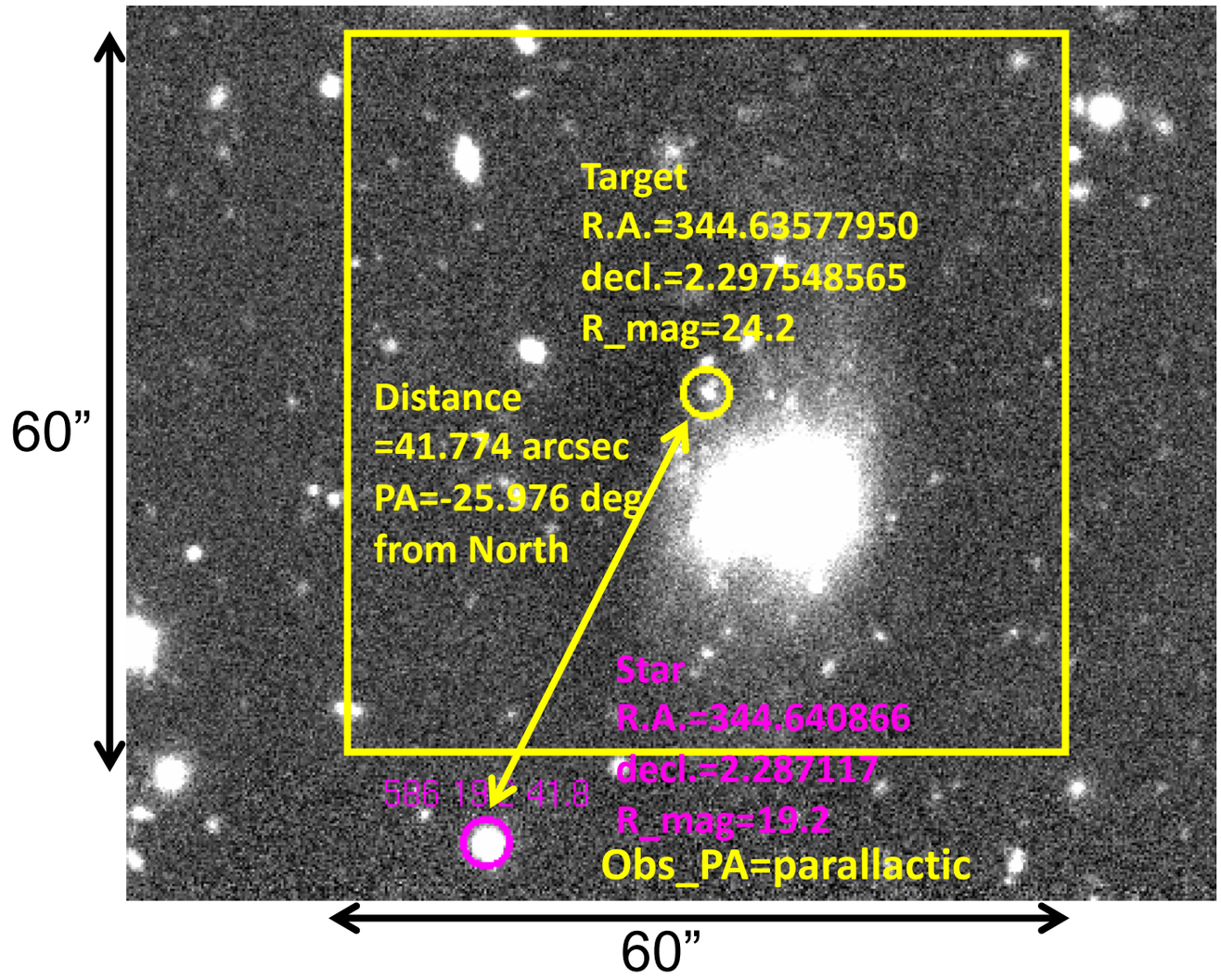
6’

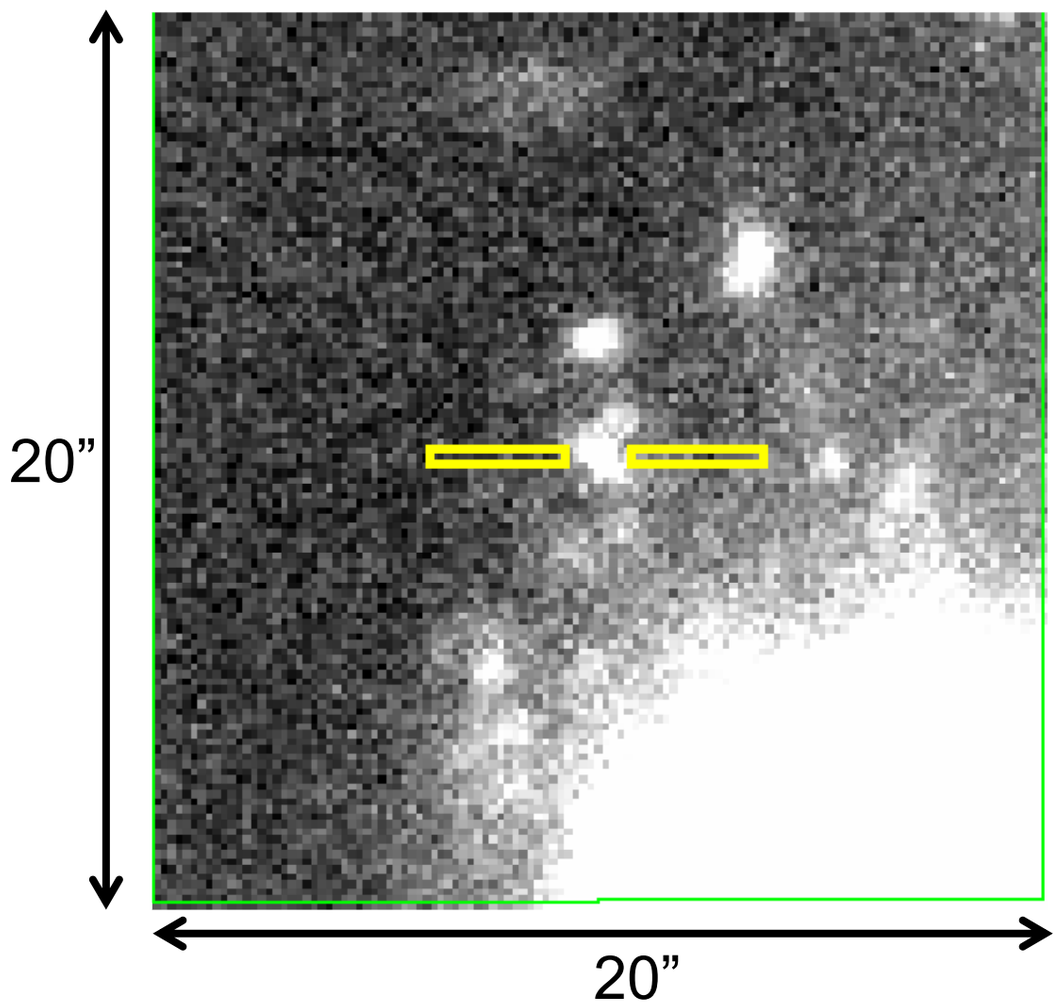
6’

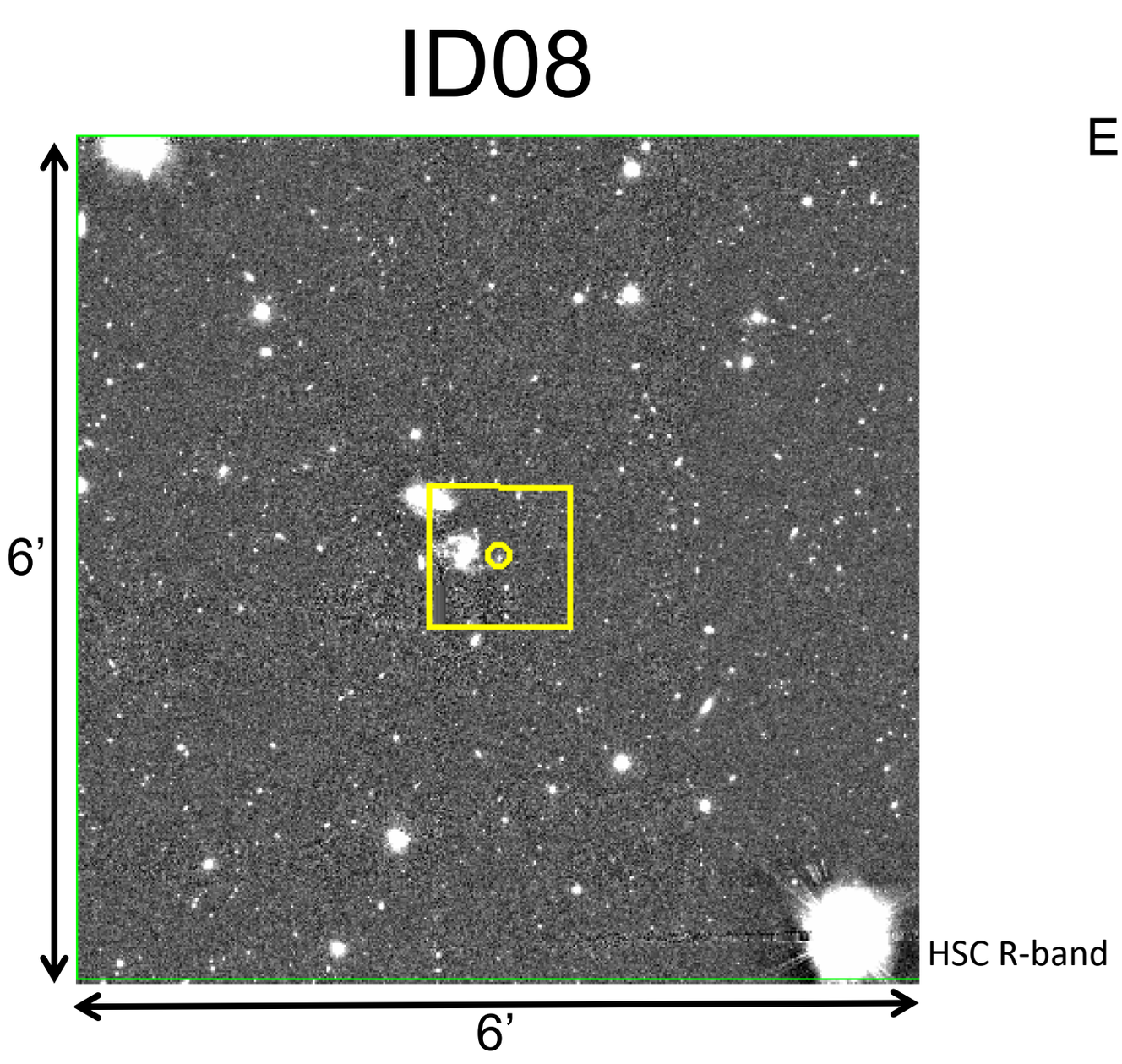
HSC R-band

Na_p2_6486 22:58:32.59 +02:17:51.17

star_Na_p2_6486 22:58:33.81 +02:17:13.62 18.30" W 37.55" N

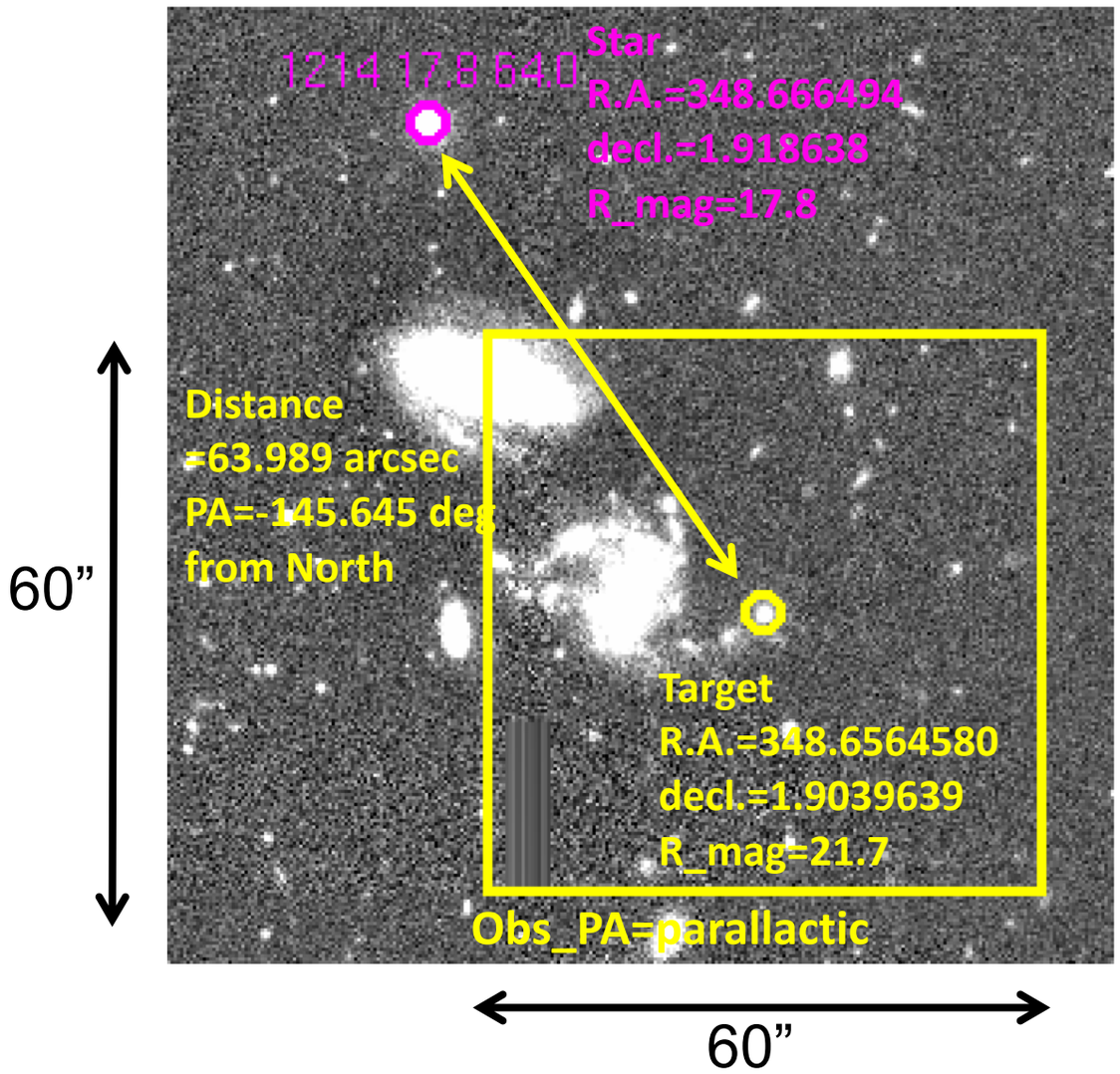


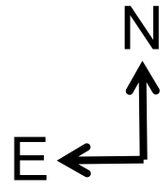

N
E
20”
20”

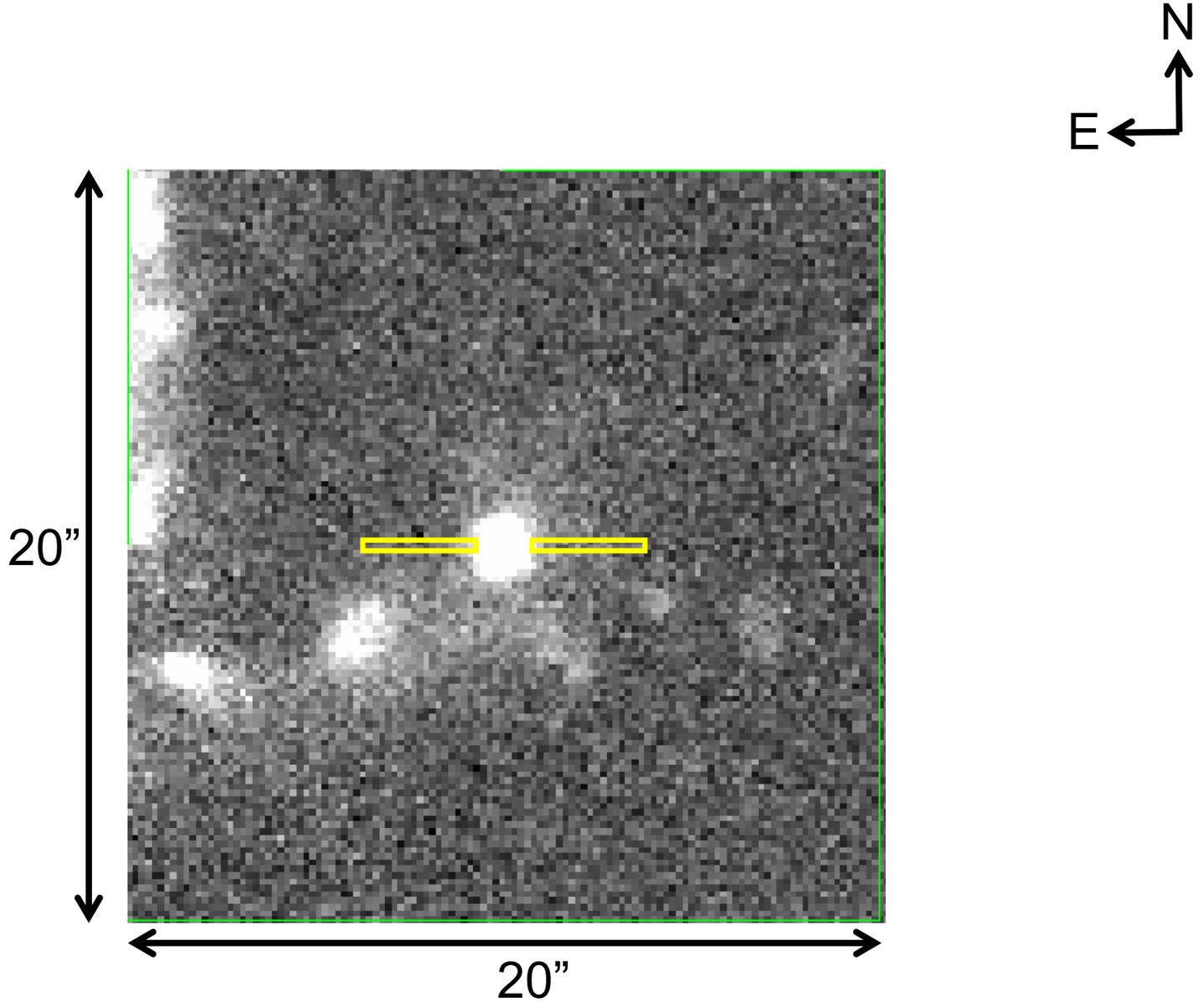

ID08
N
E
6’
6’
HSC R-band

ID08 23:14:37.55 +01:54:14.27

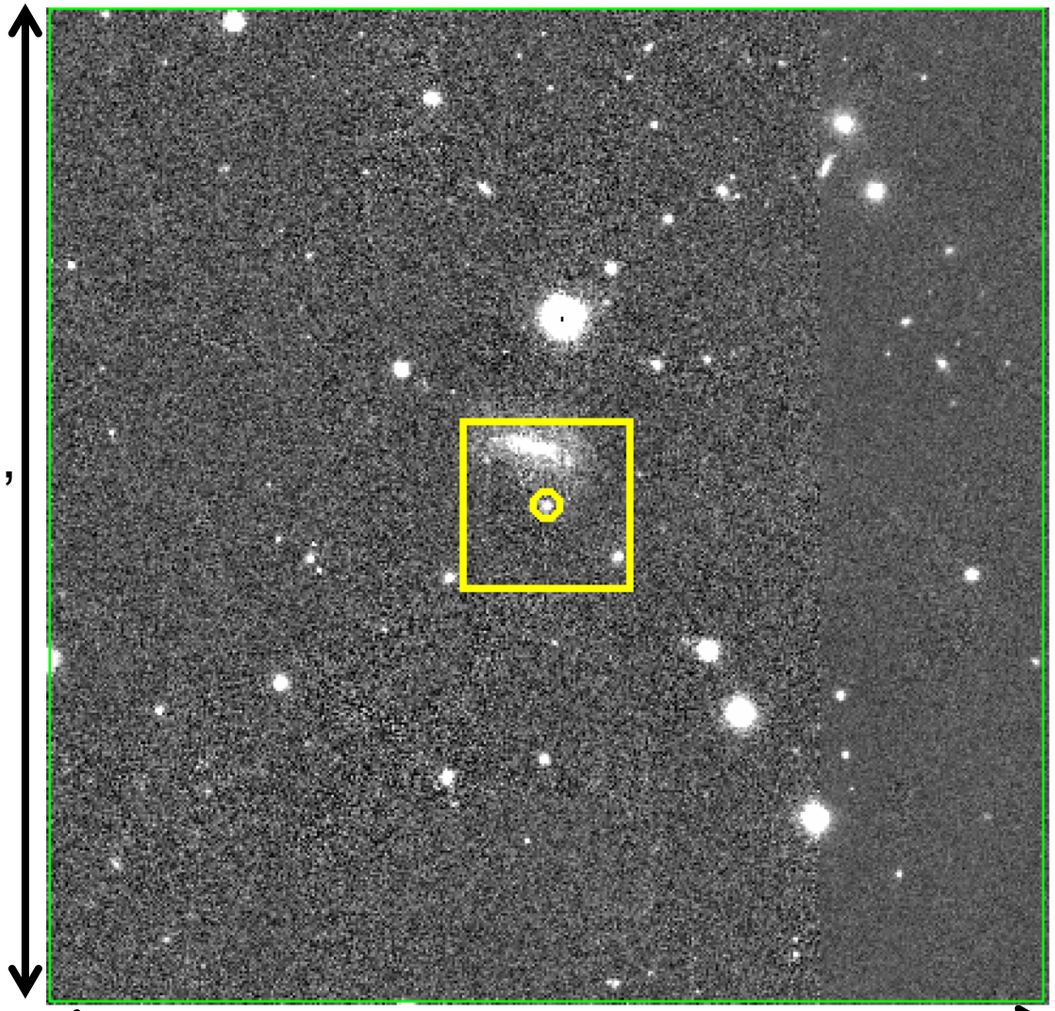
star_ID08 23:14:39.96 +01:55:07.10 36.11" W 52.83" S





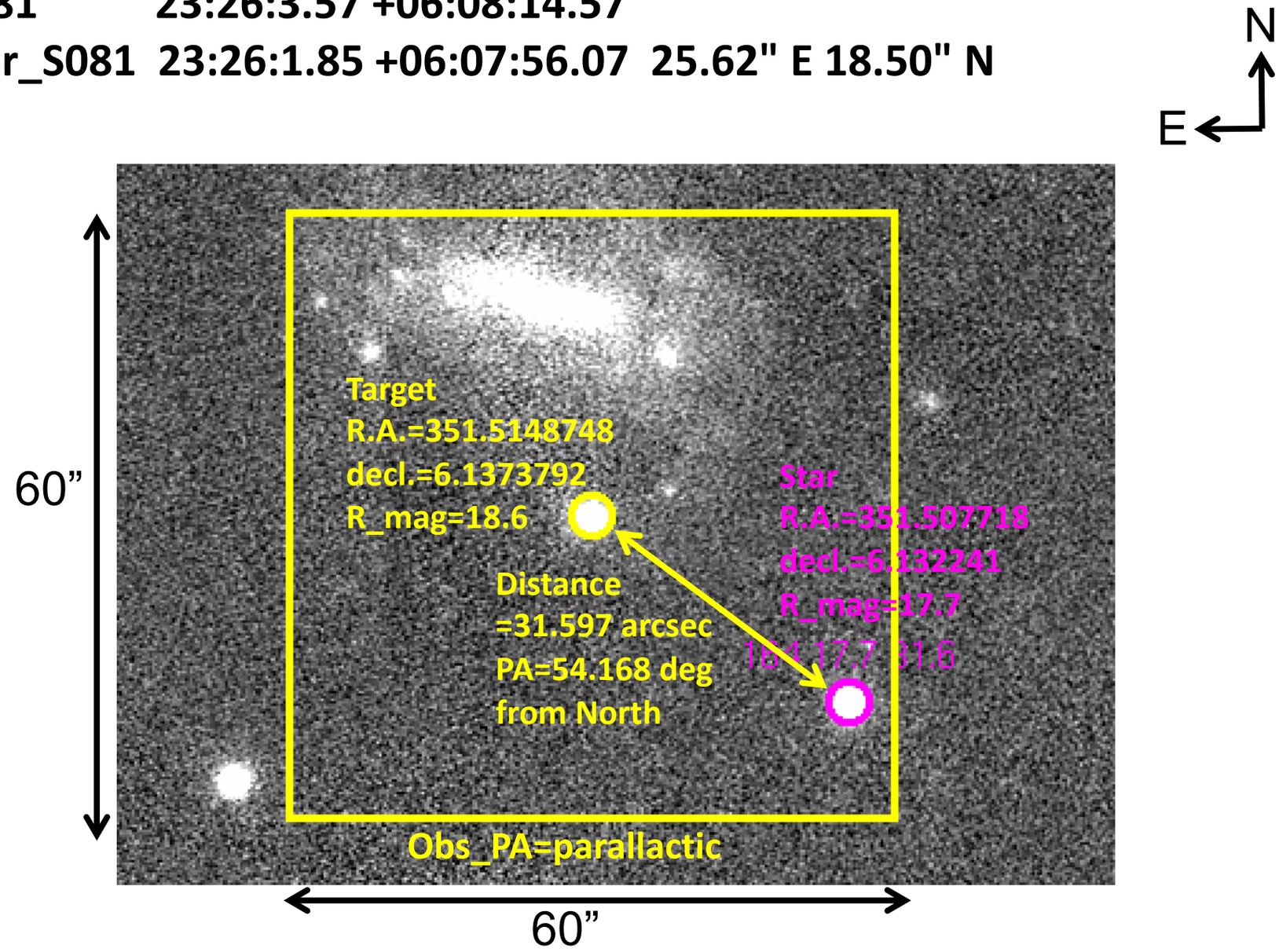

N
E
20”
20”

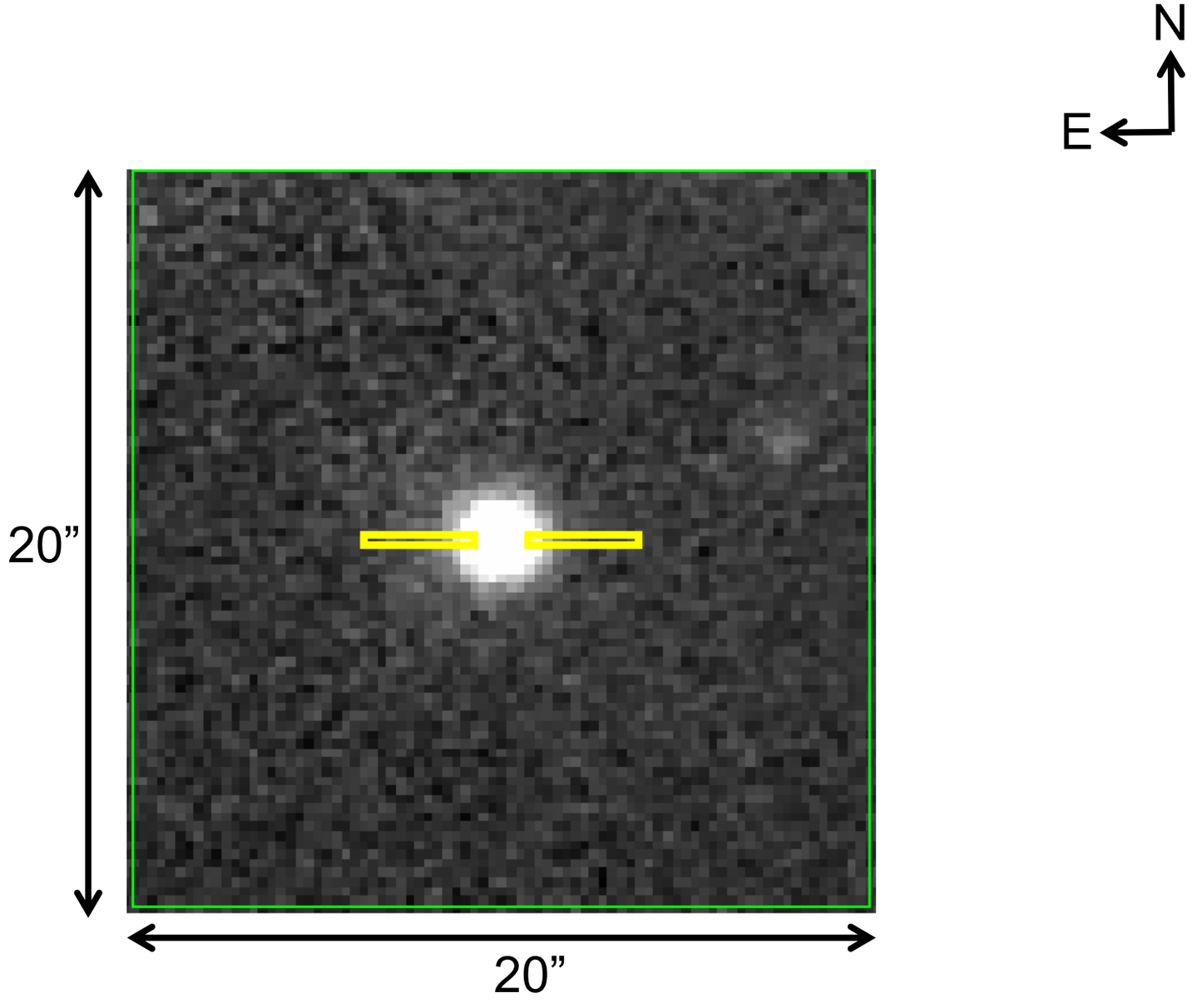
S081



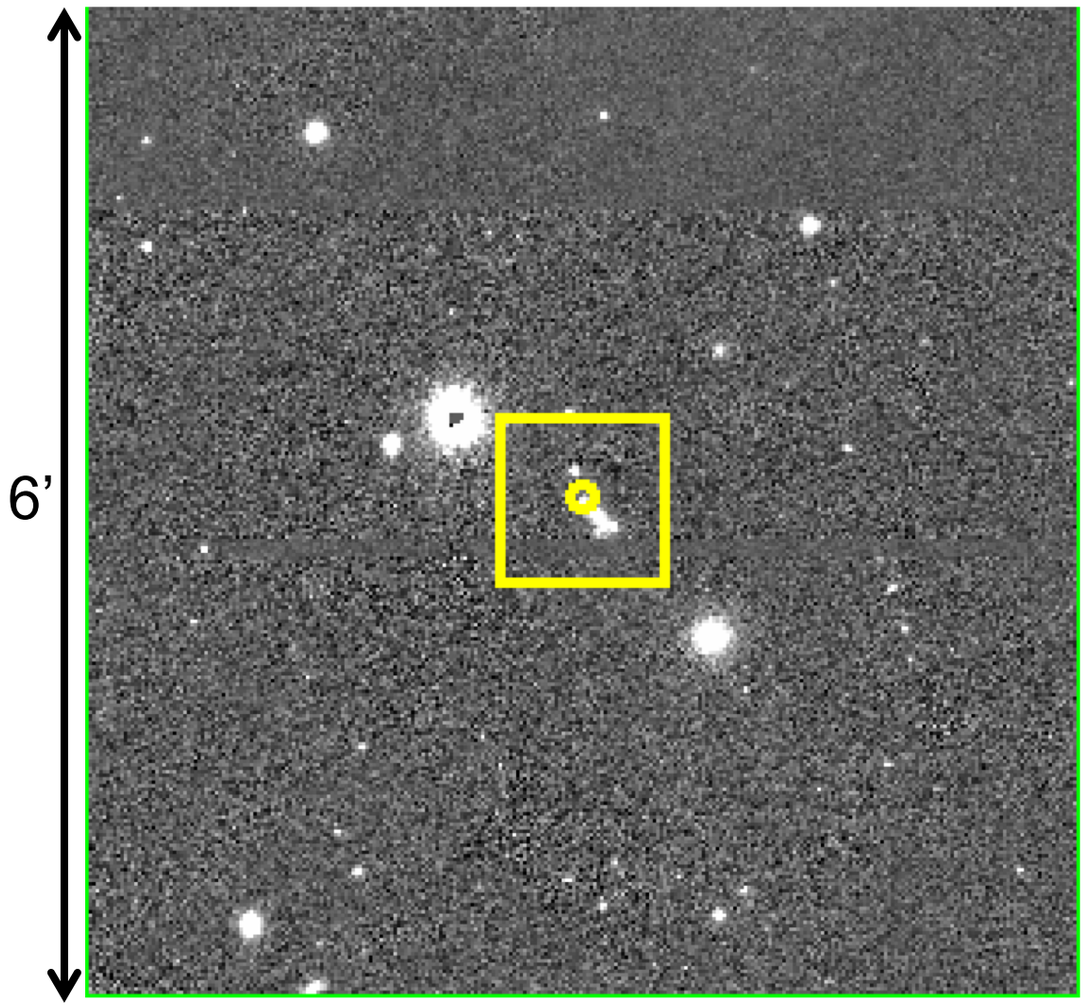
S081 23:26:3.57 +06:08:14.57

star_S081 23:26:1.85 +06:07:56.07 25.62" E 18.50" N



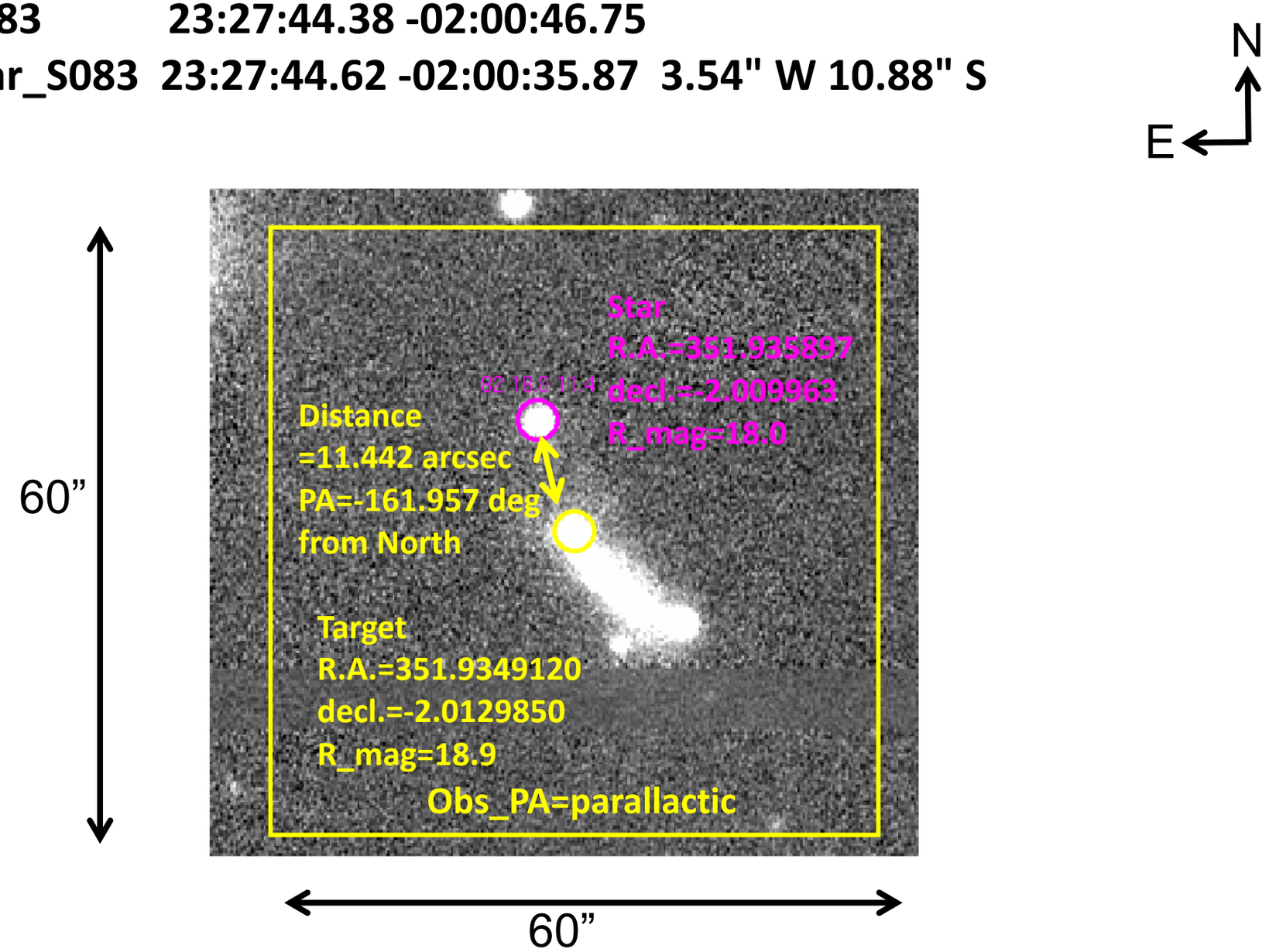

N
E
20”
20”

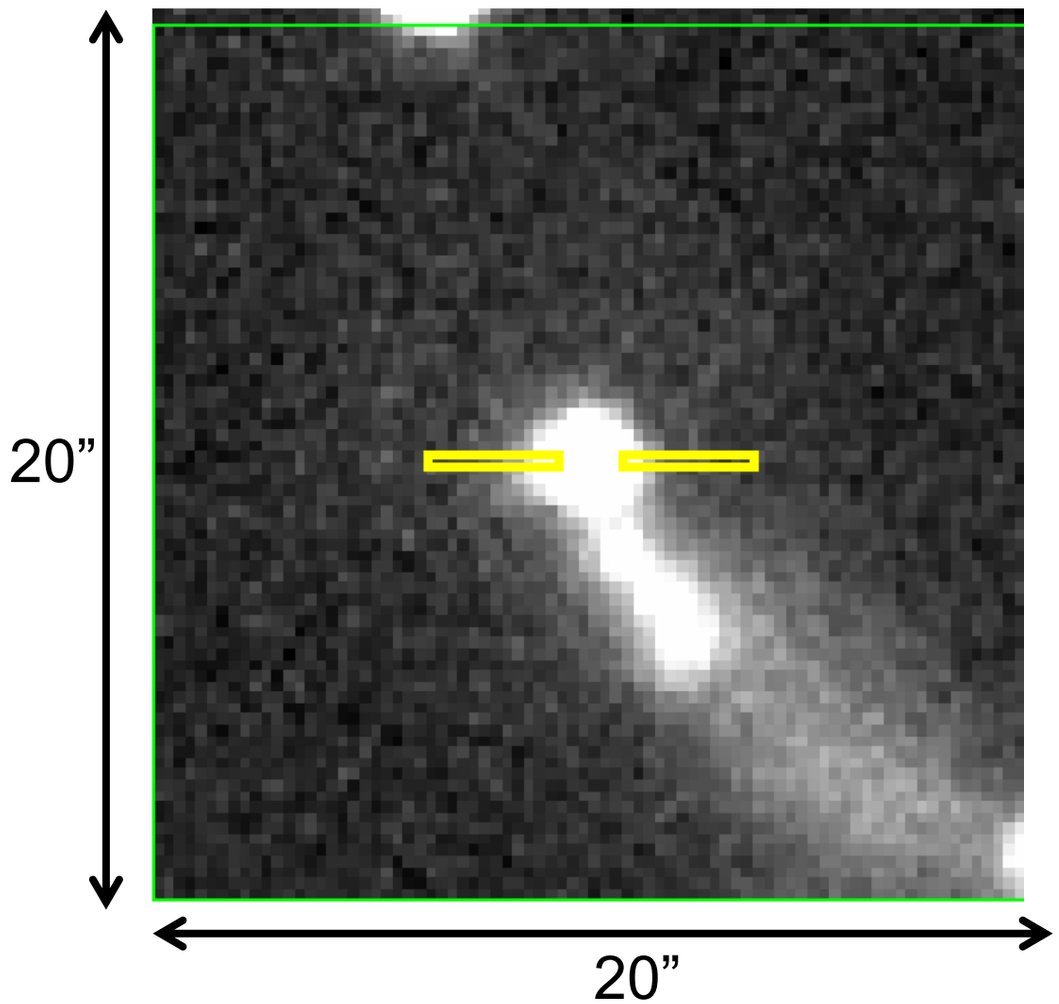
S083



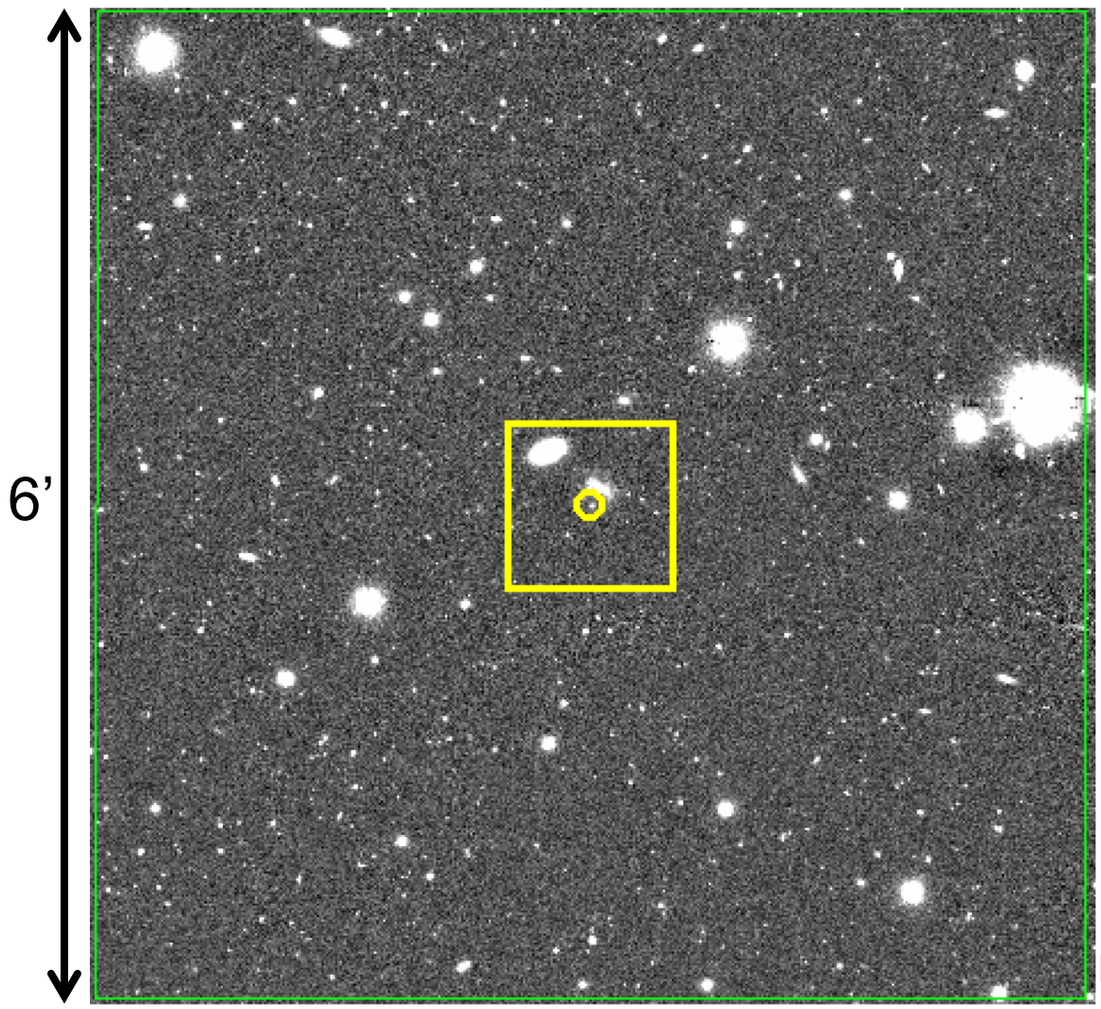
S083 23:27:44.38 -02:00:46.75

star_S083 23:27:44.62 -02:00:35.87 3.54" W 10.88" S

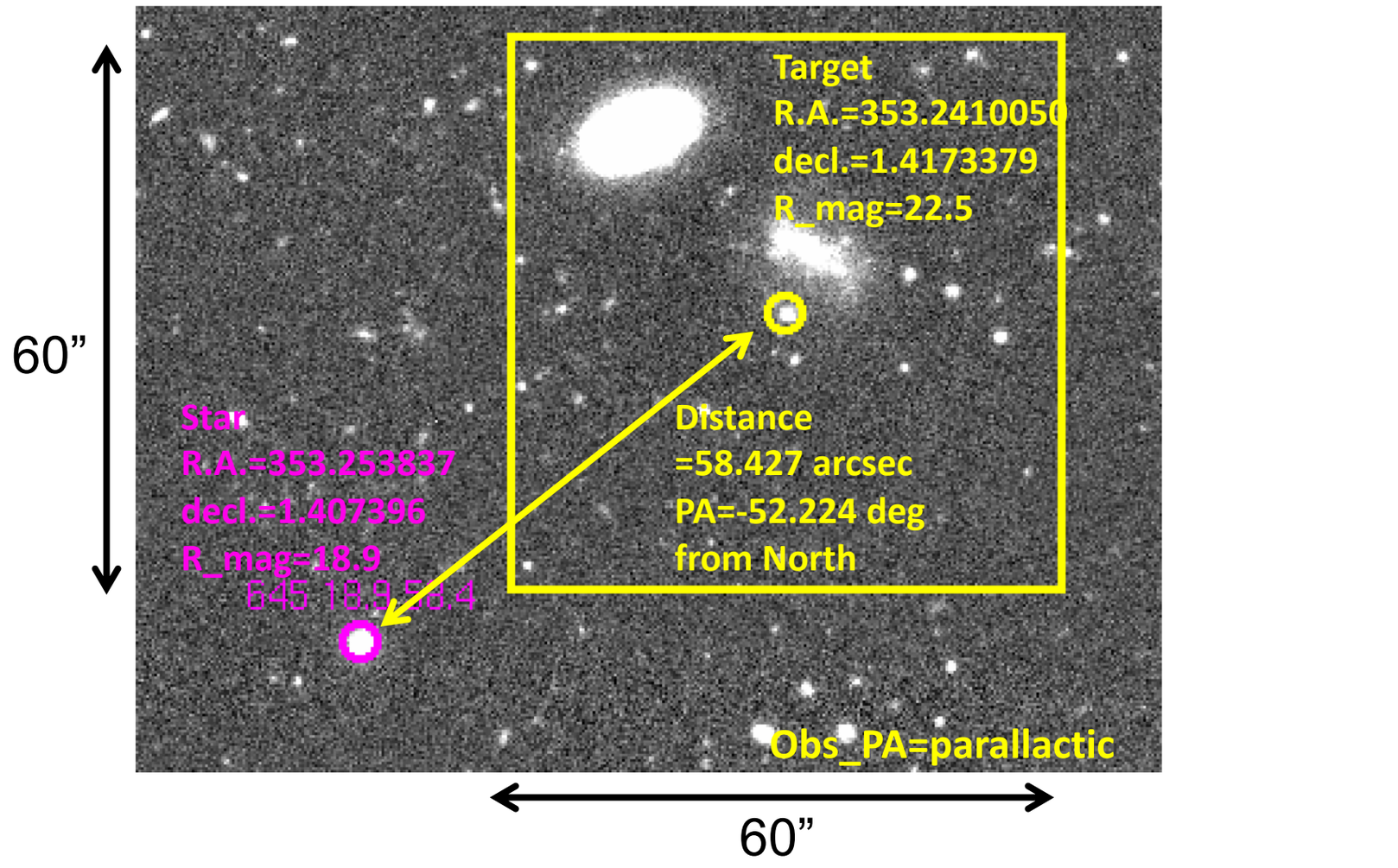


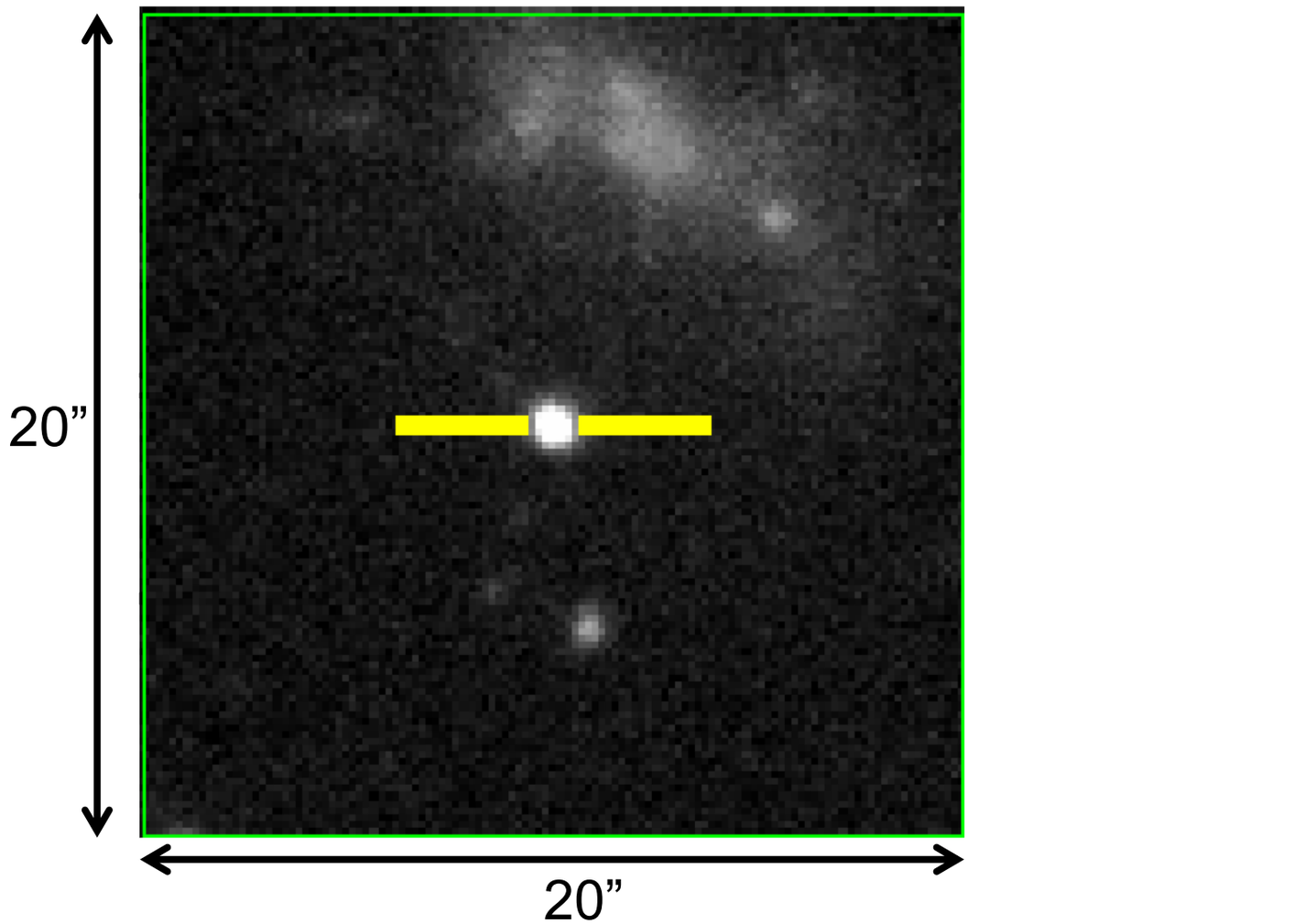

N
E
20”
20”

Na_p3_0227

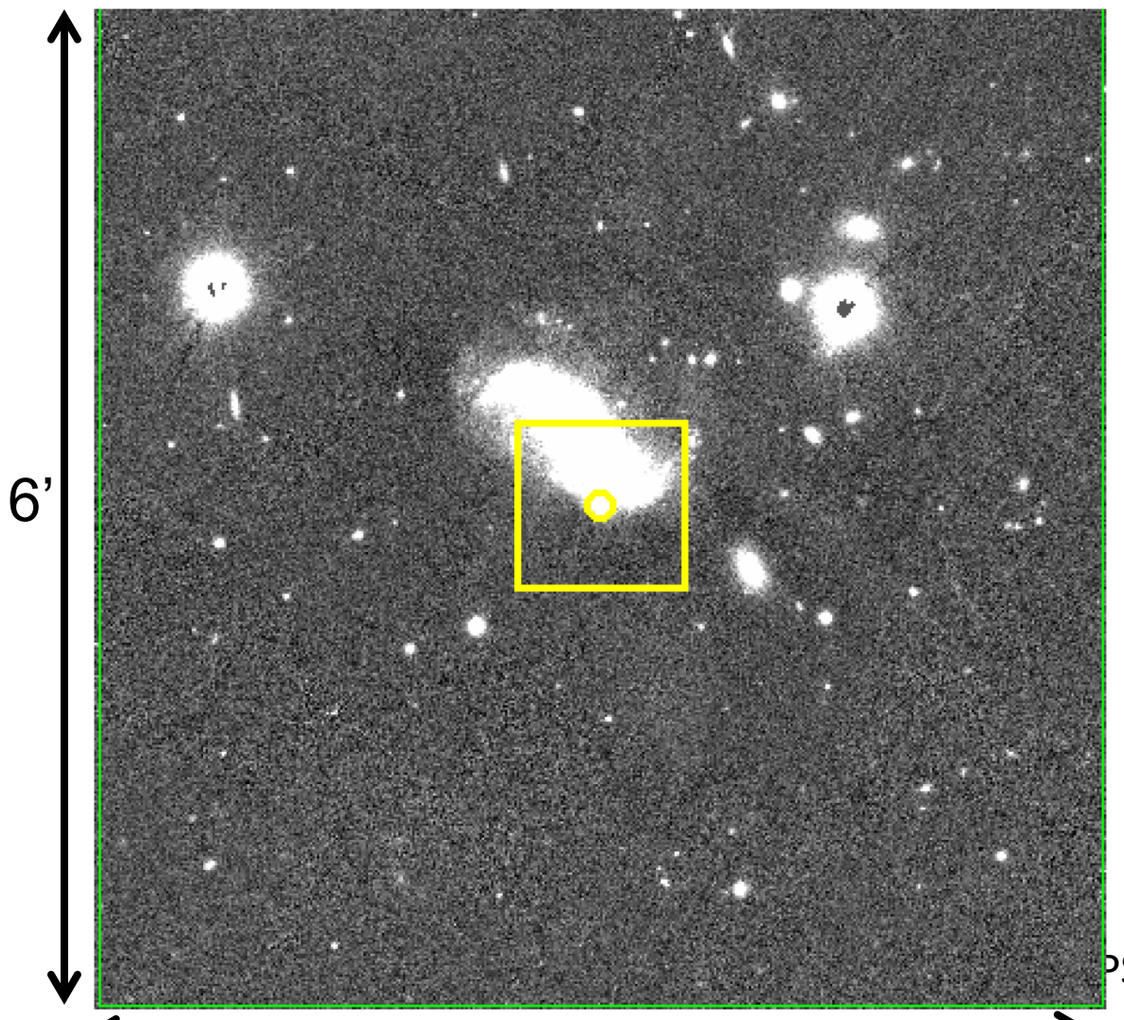


Na_p3_0227 23:32:57.84 +01:25:2.42
star_Na_p3_0227 23:33:0.92 +01:24:26.63 46.18" W 35.79" N




N
E
20”
20”

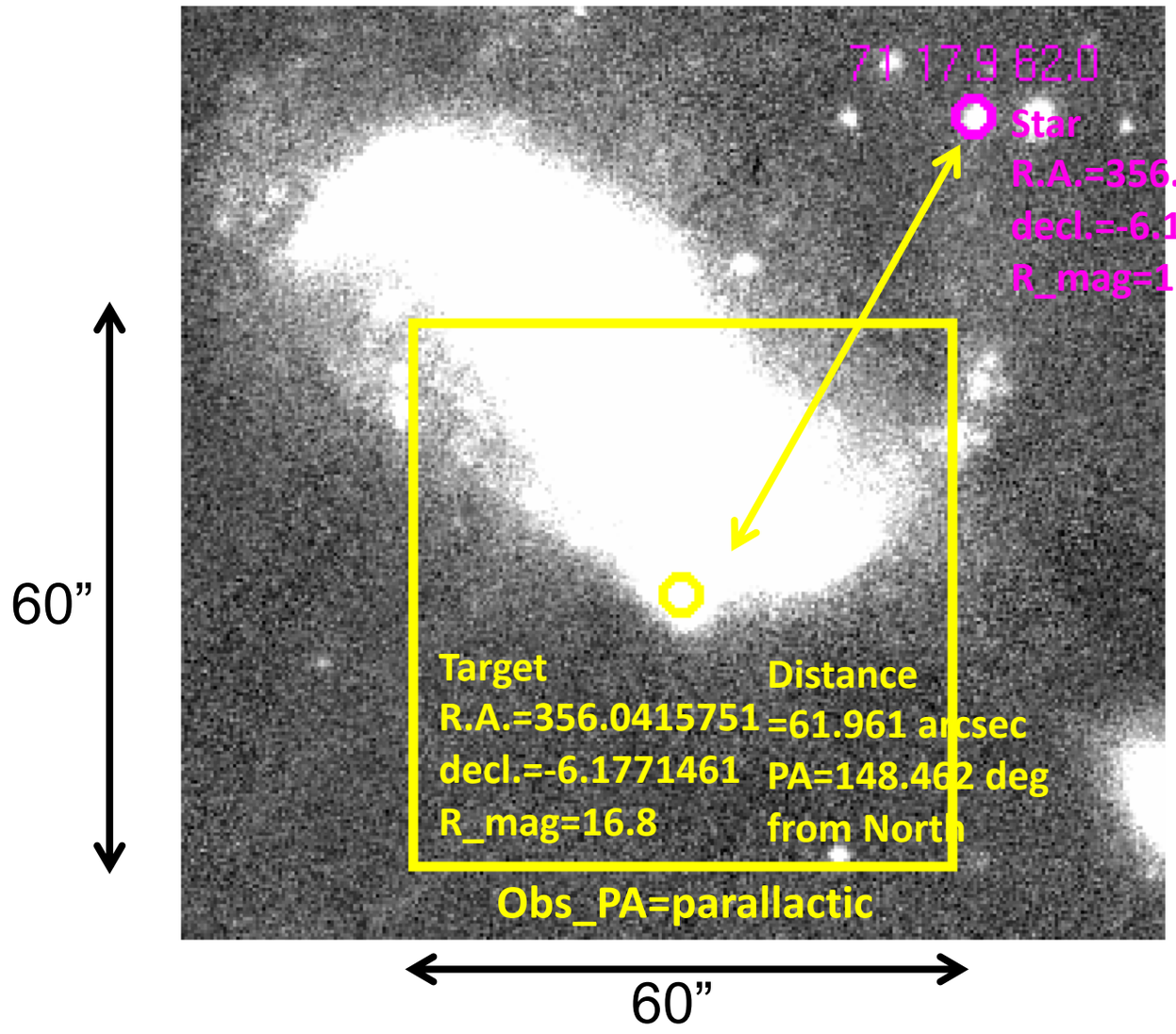
N126

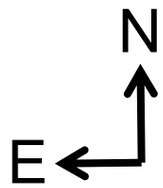


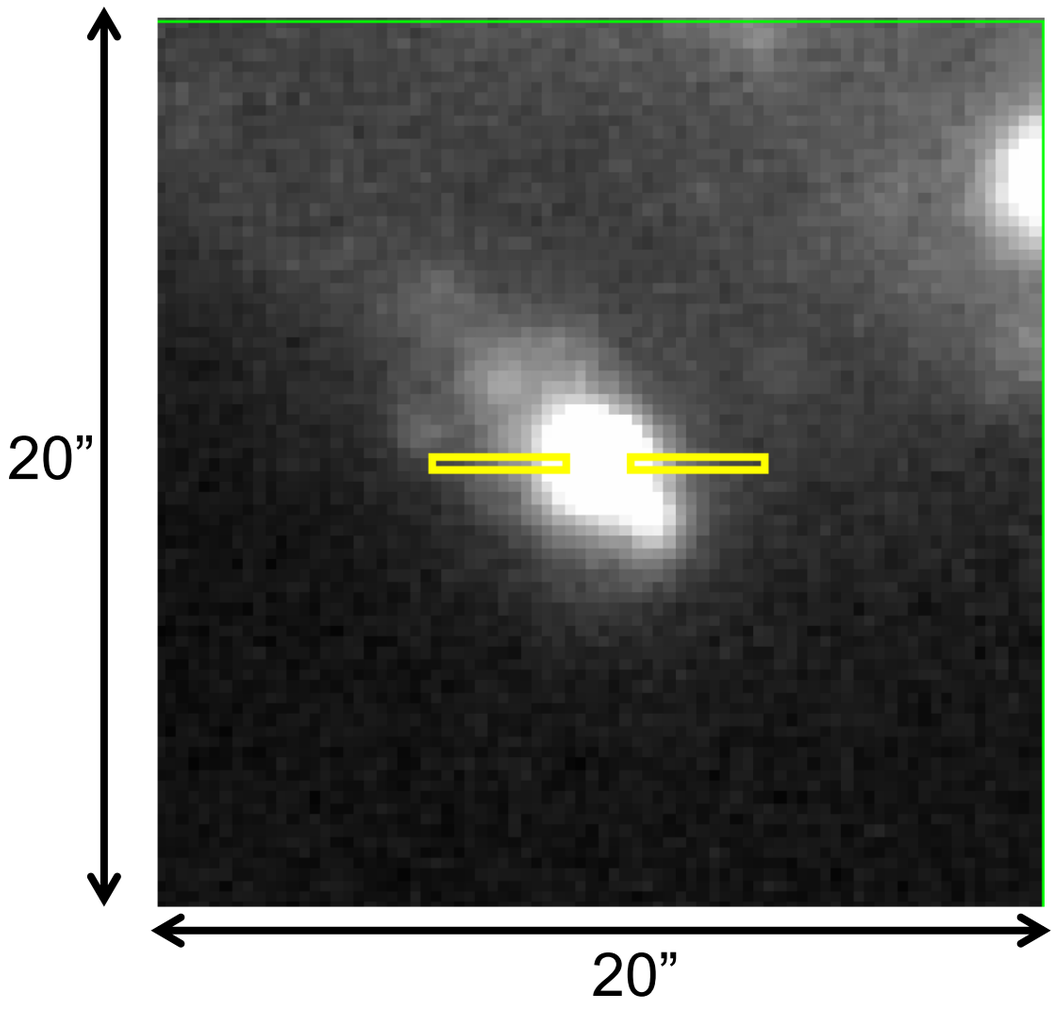
PS R-band

N126 23:44:9.98 -06:10:37.73

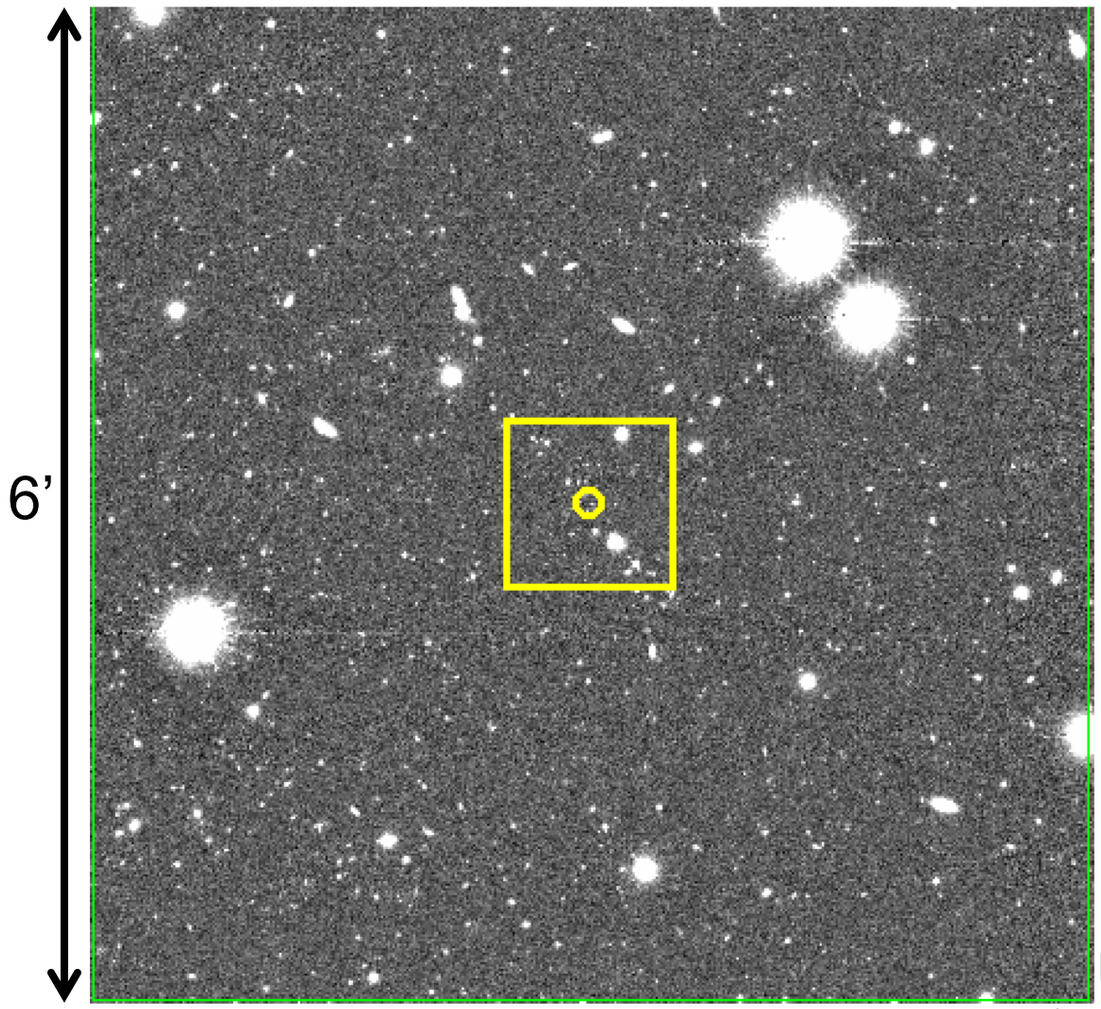
star_N126 23:44:7.80 -06:09:44.92 32.41" E 52.81" S





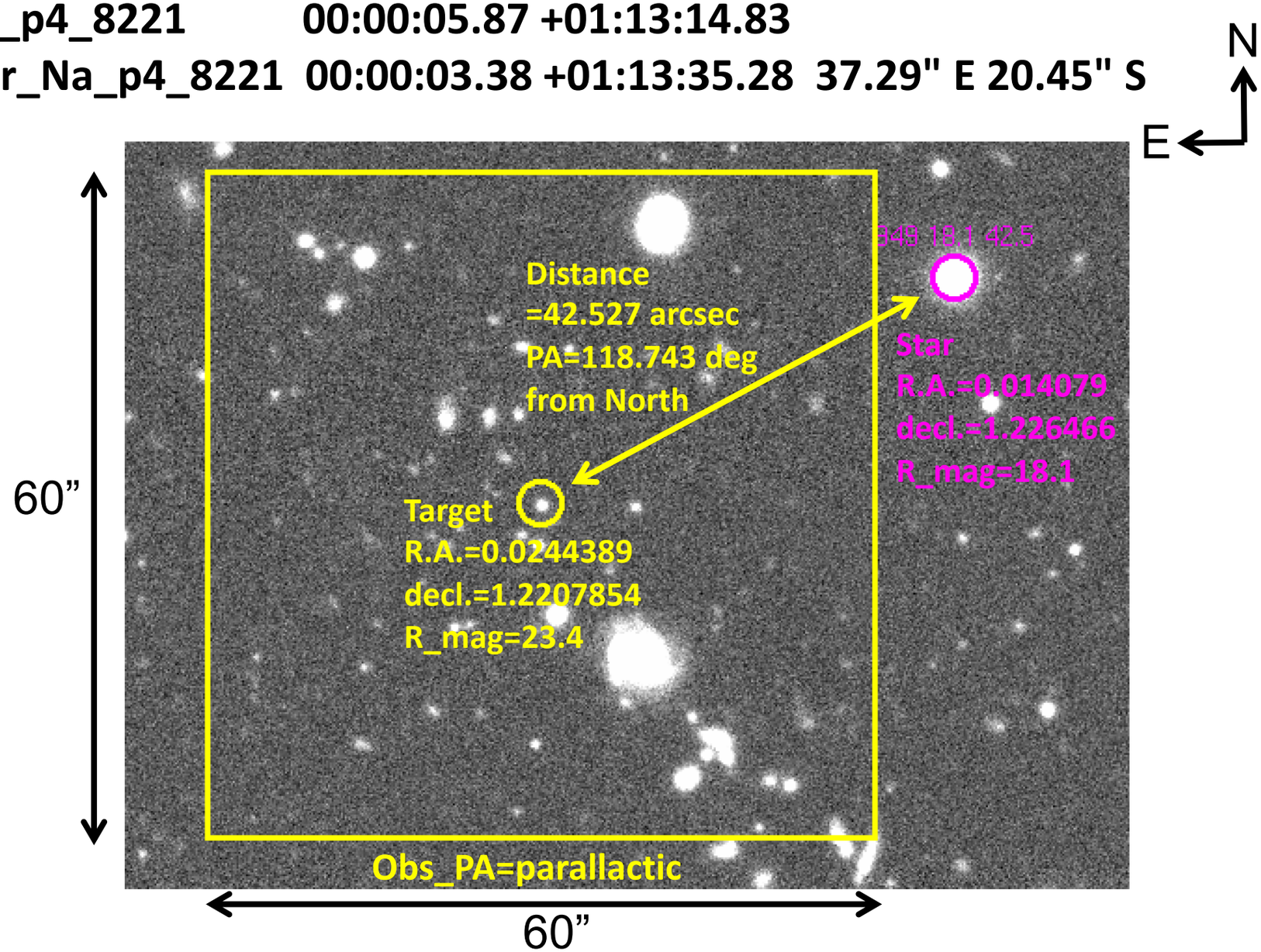

N
E
20”
20”

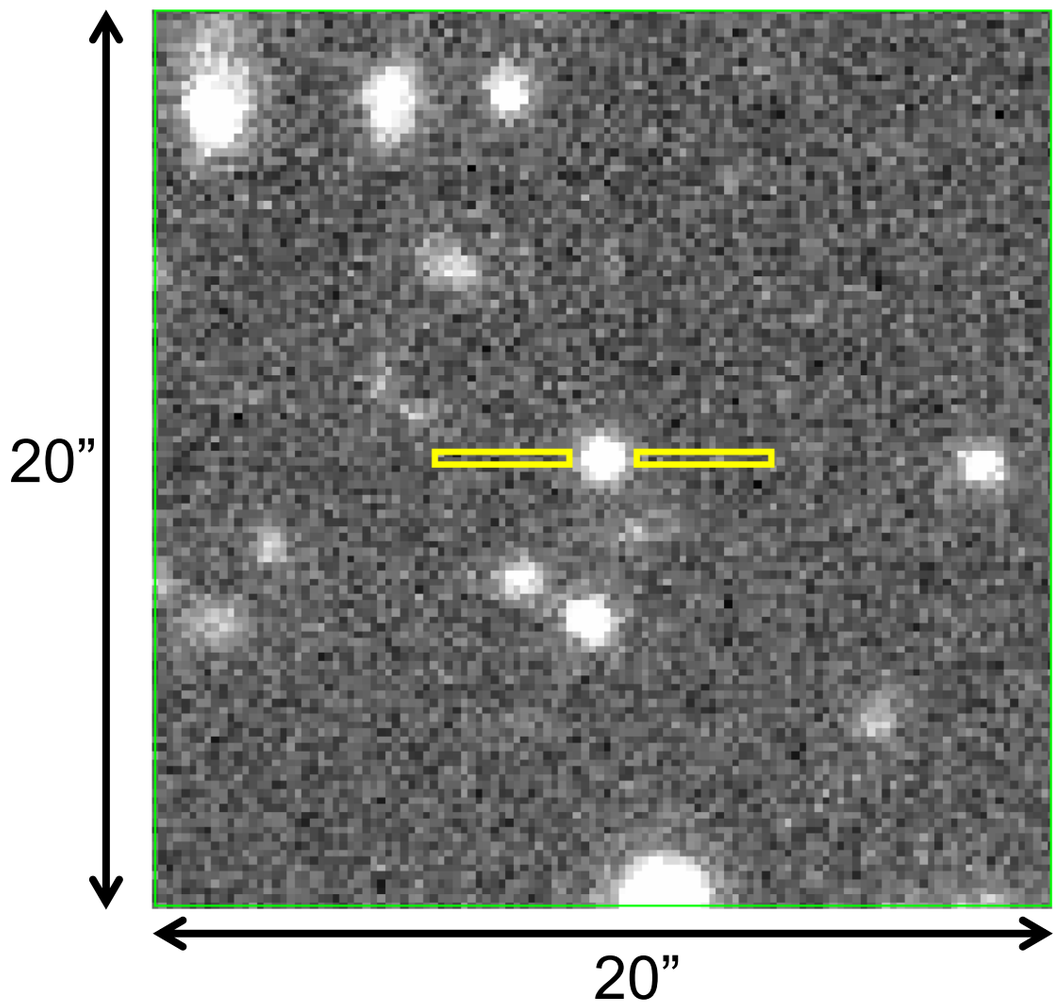
Na_p4_8221



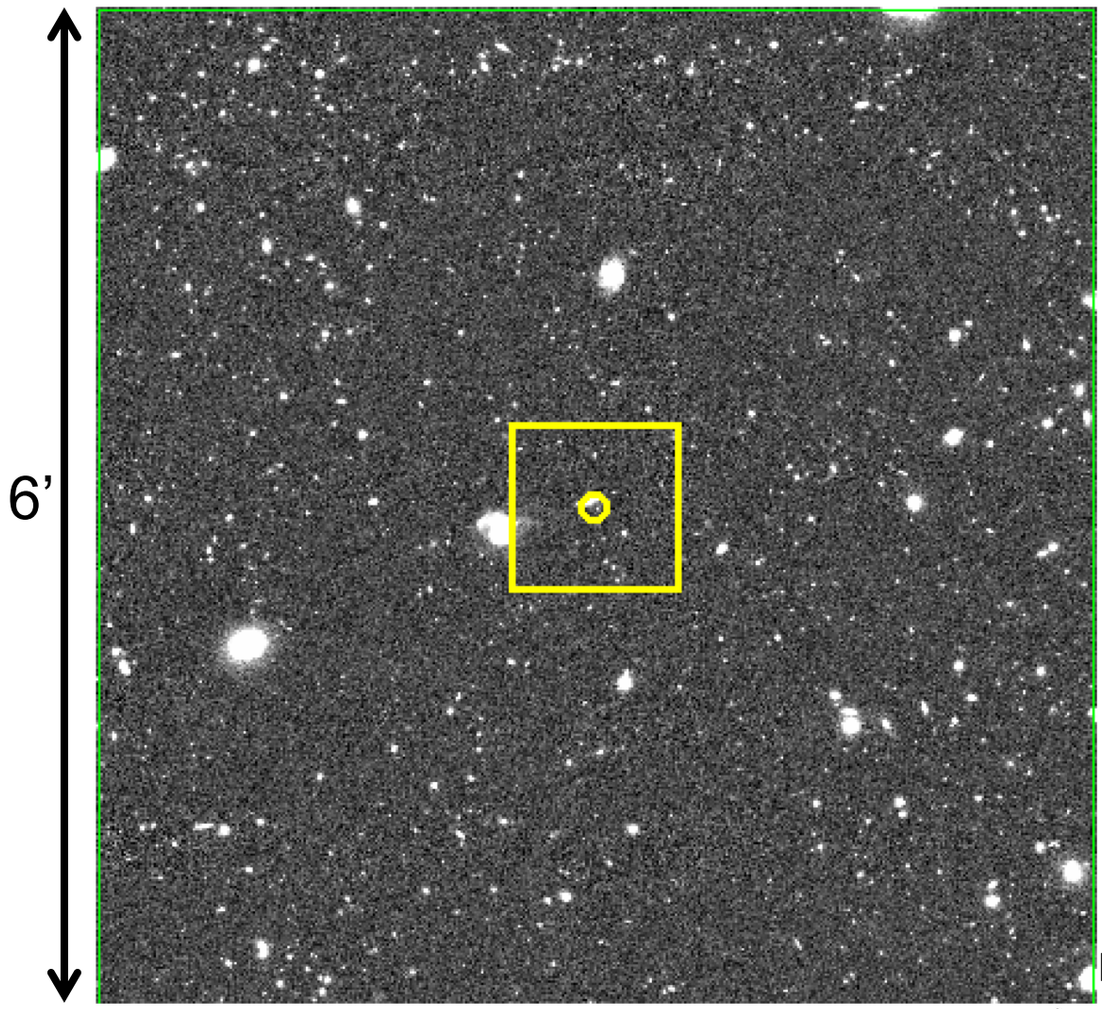
Na_p4_8221 00:00:05.87 +01:13:14.83

star_Na_p4_8221 00:00:03.38 +01:13:35.28 37.29" E 20.45" S



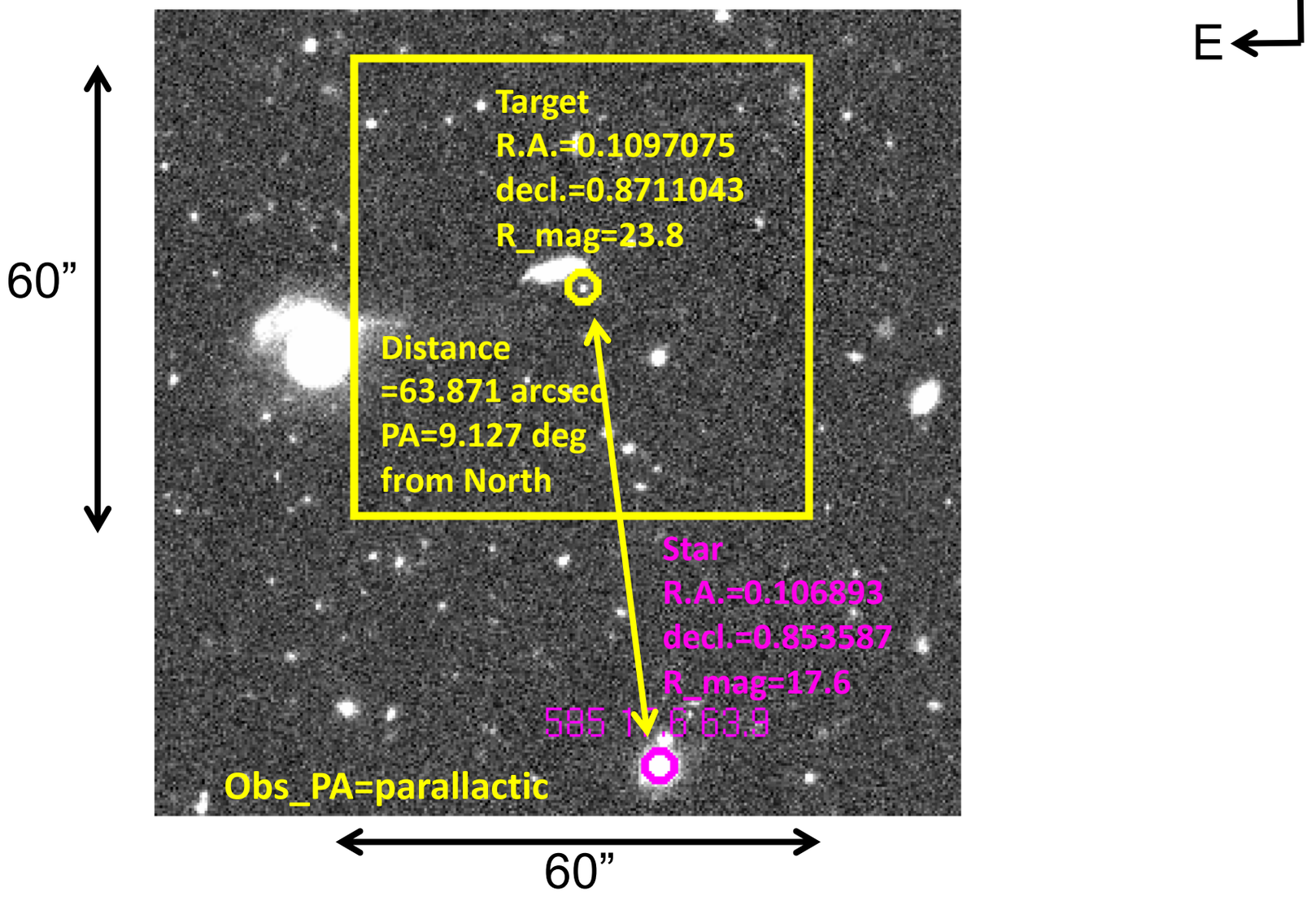

N
E
20”
20”

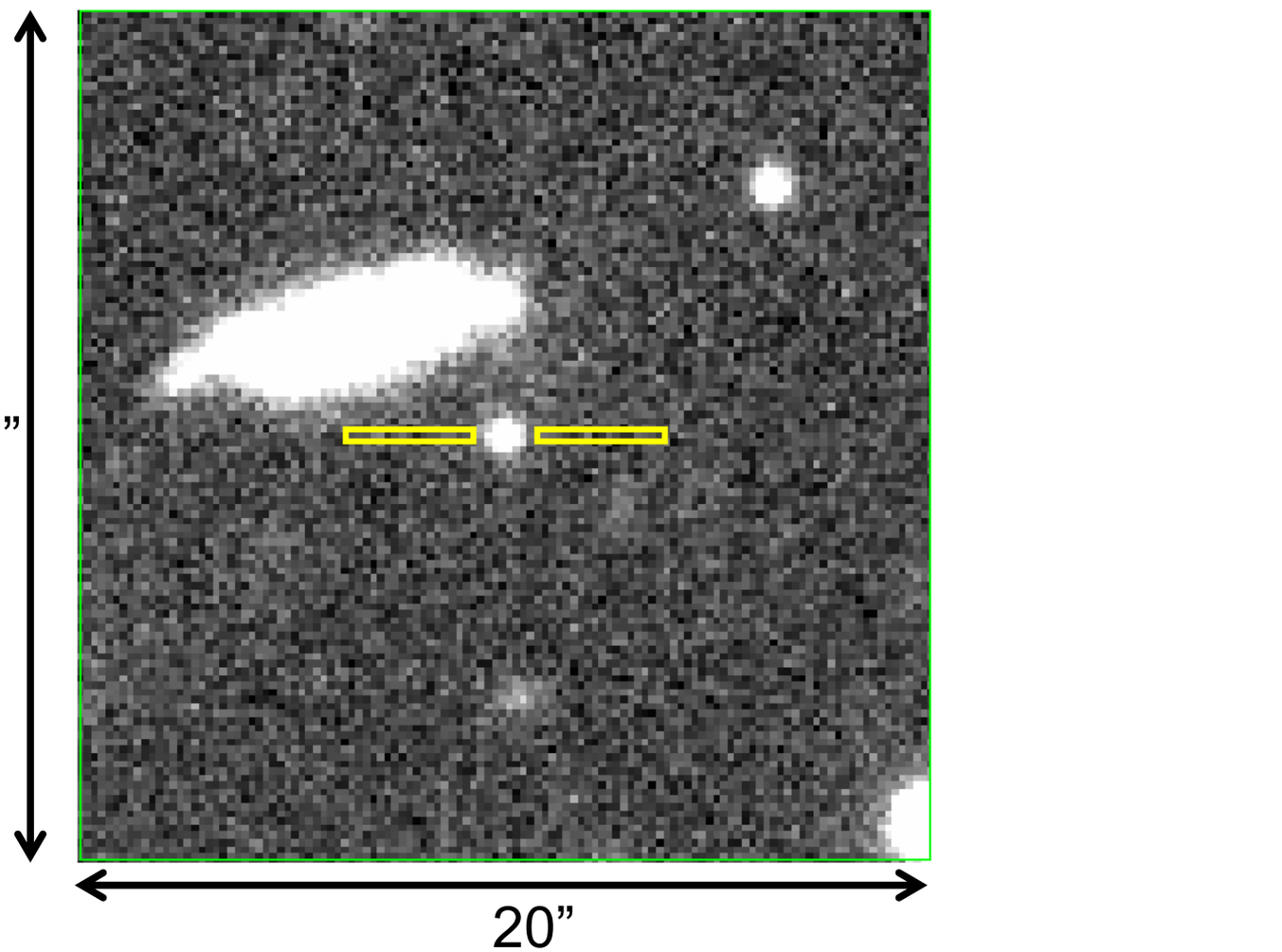
Na_p4_2602



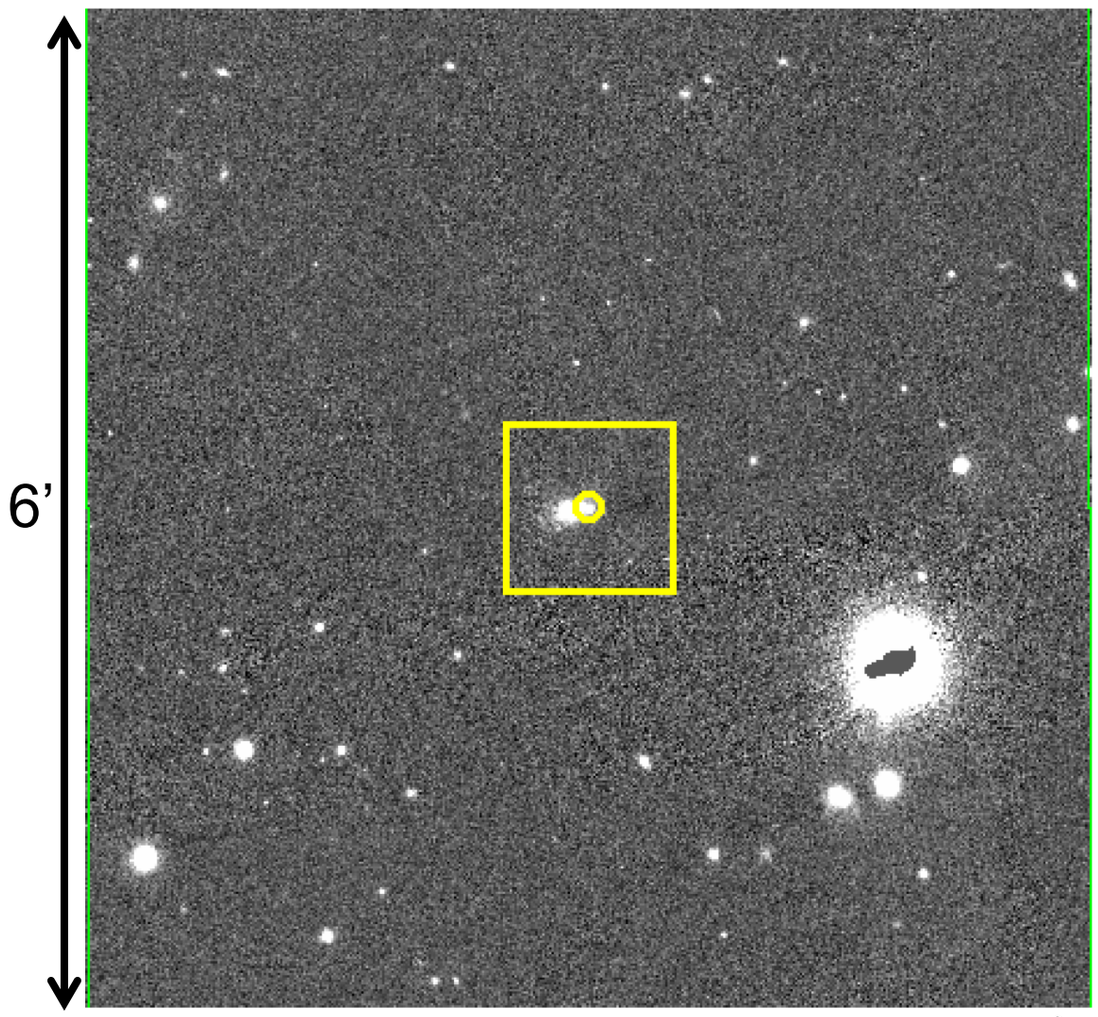
Na_p4_2602 00:00:26.33 +00:52:15.98

star_Na_p4_2602 00:00:25.65 +00:51:12.91 10.13" E 63.06" N



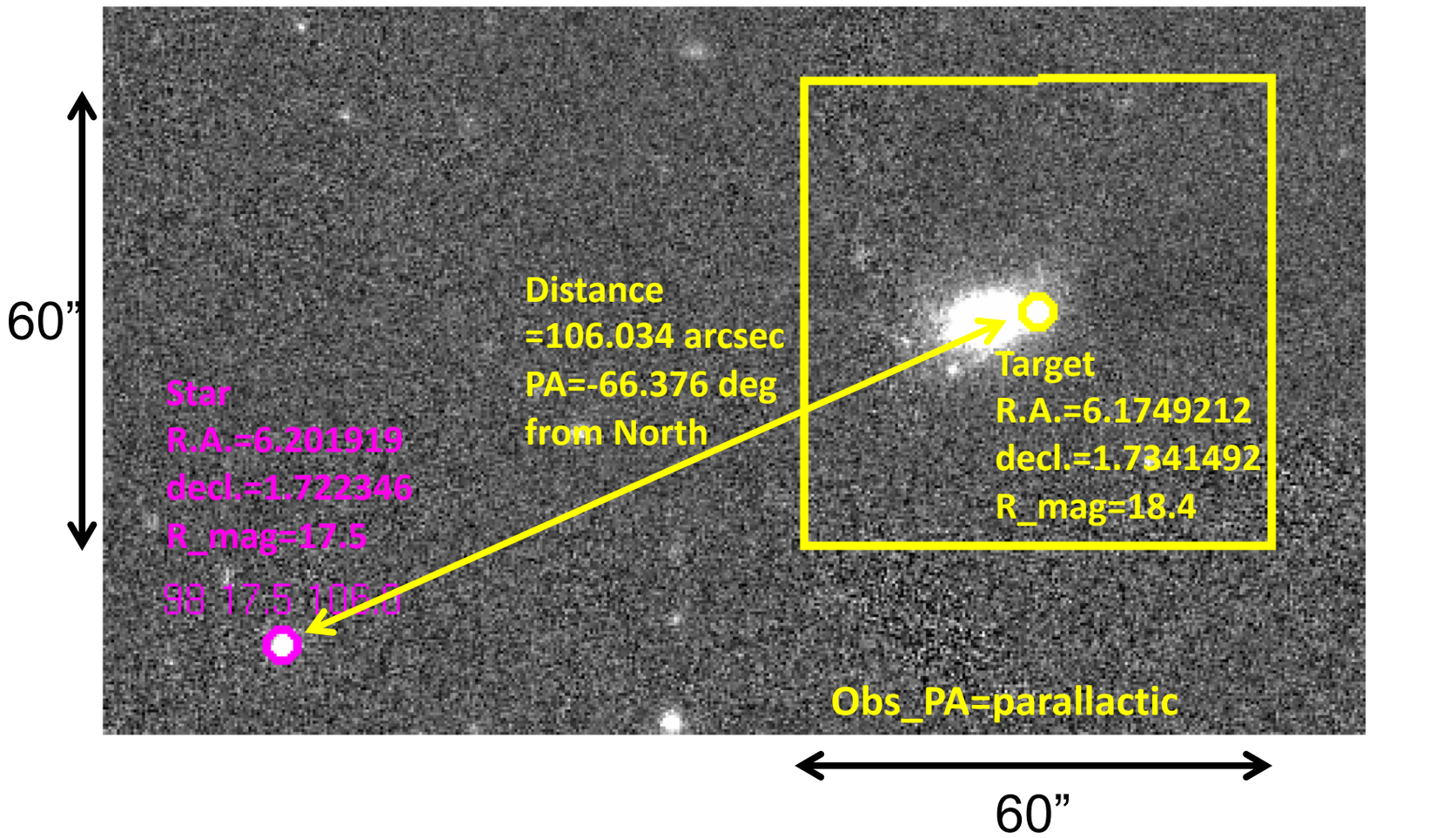

N
E
20”
20”

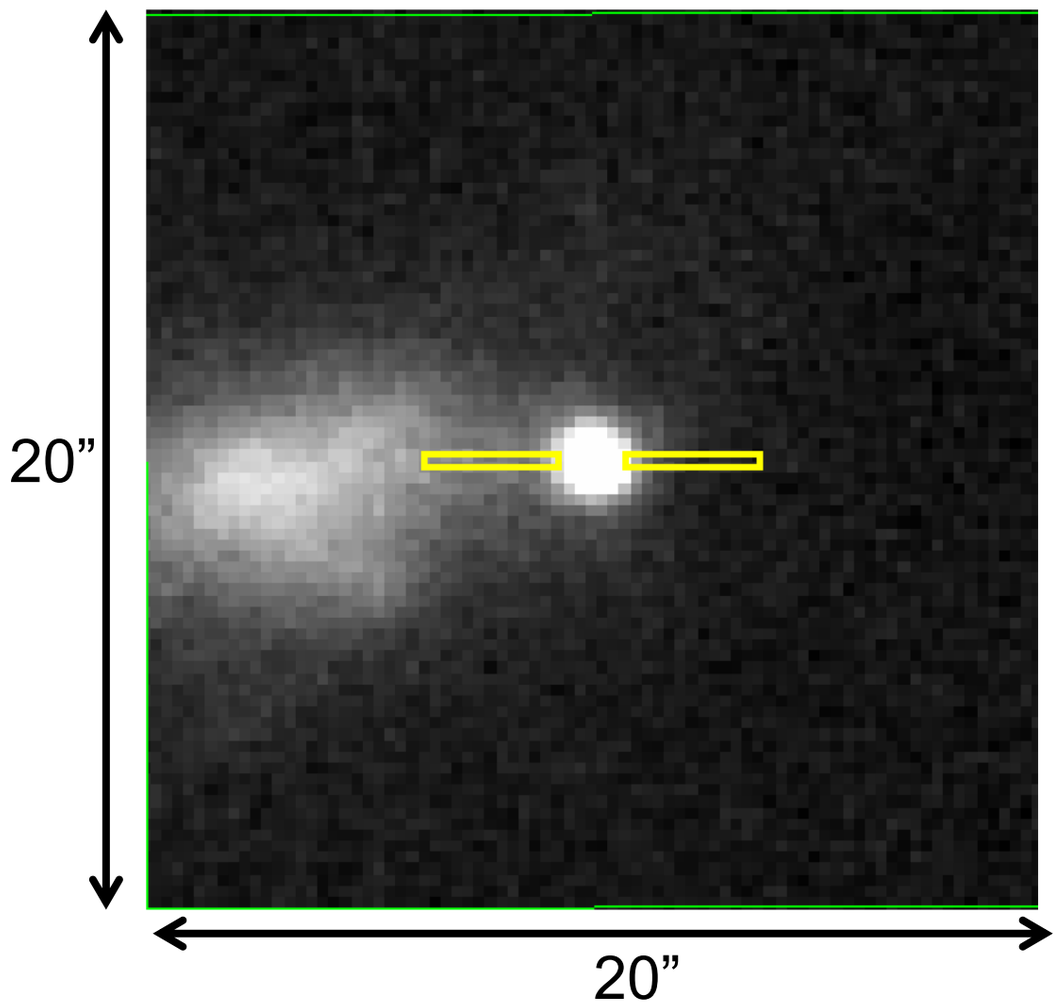
N118



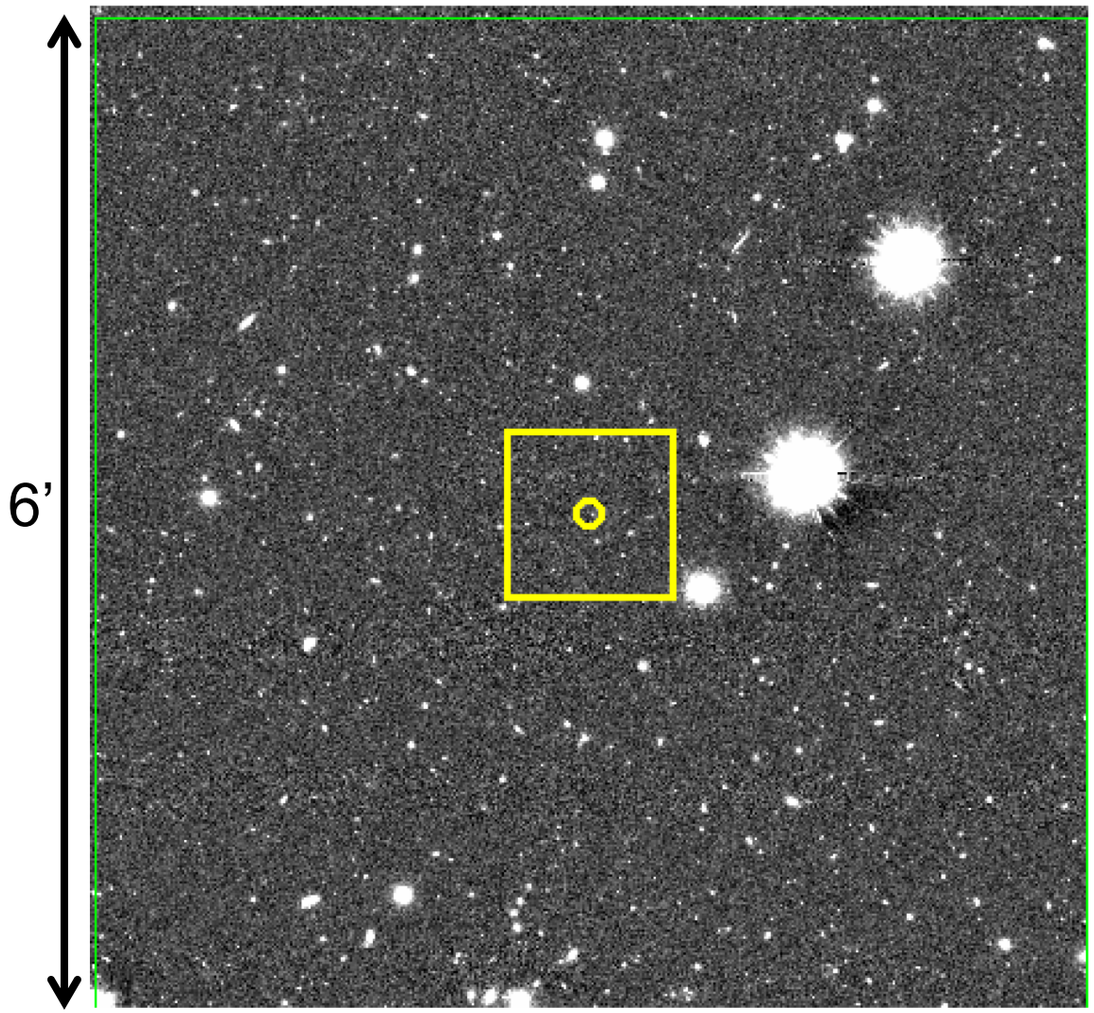
N118 00:24:41.98 +01:44:2.94

star_N118 00:24:48.46 +01:43:20.45 97.15" W 42.49" N



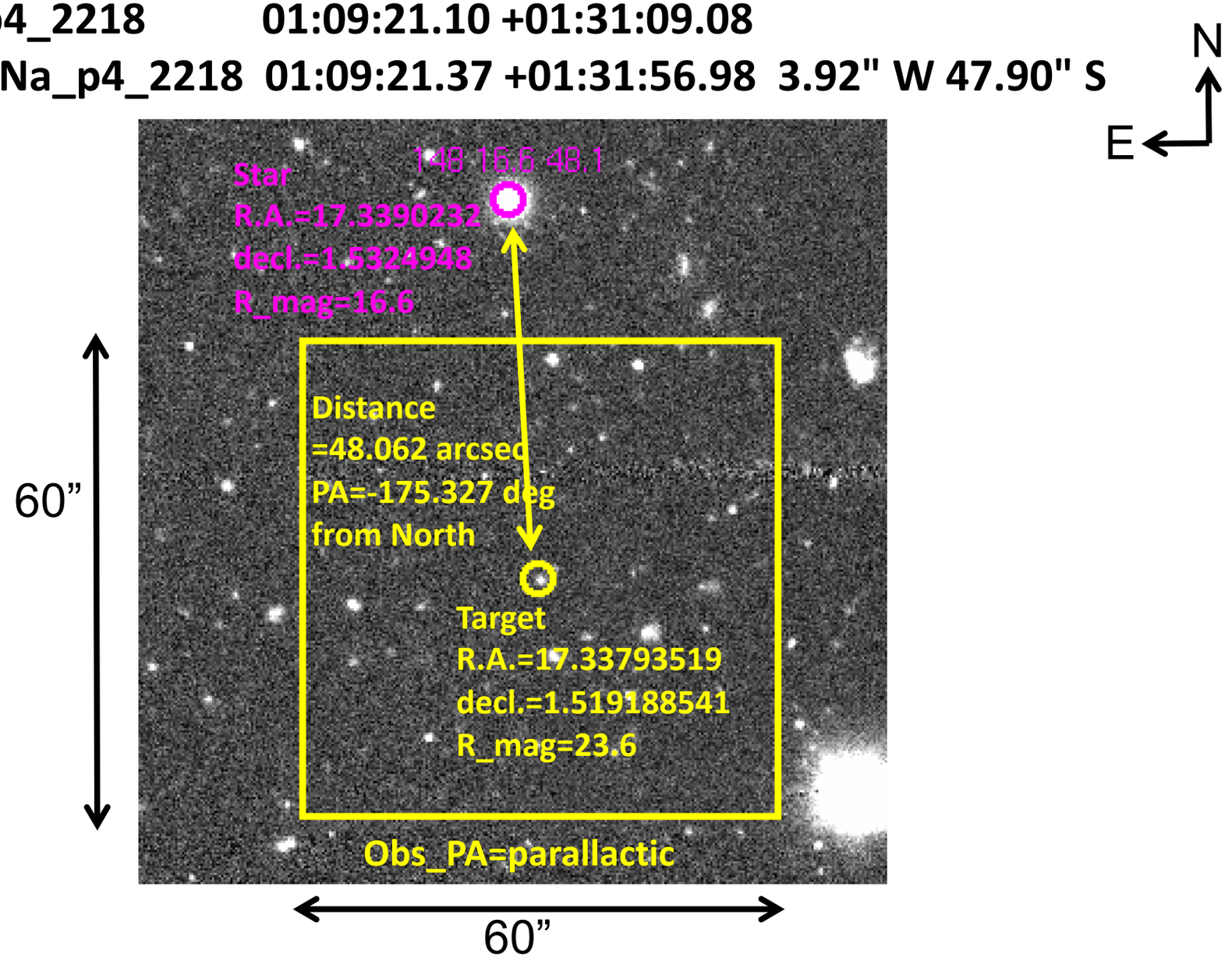

N
E
20”
20”

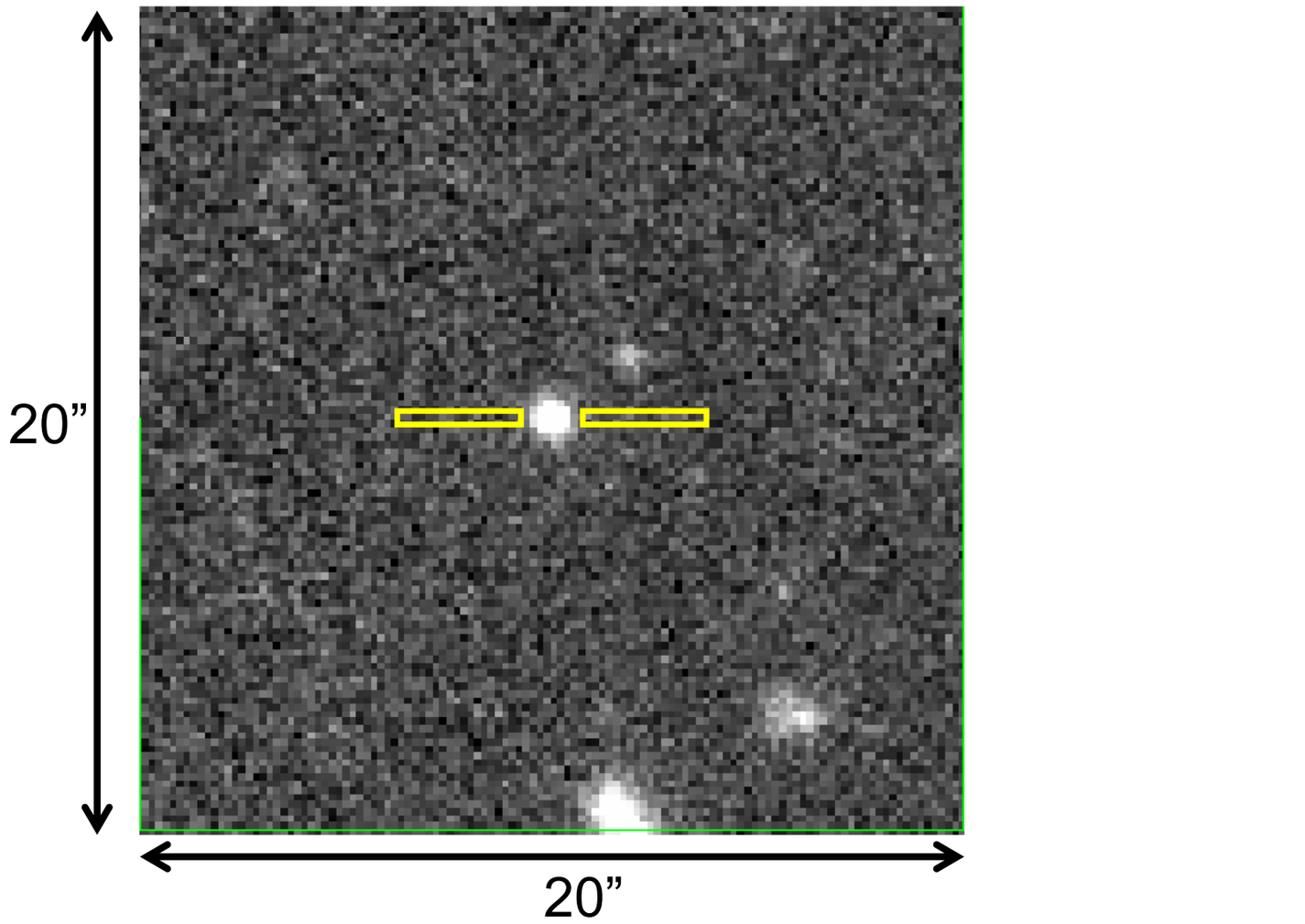
Na_p4_2218



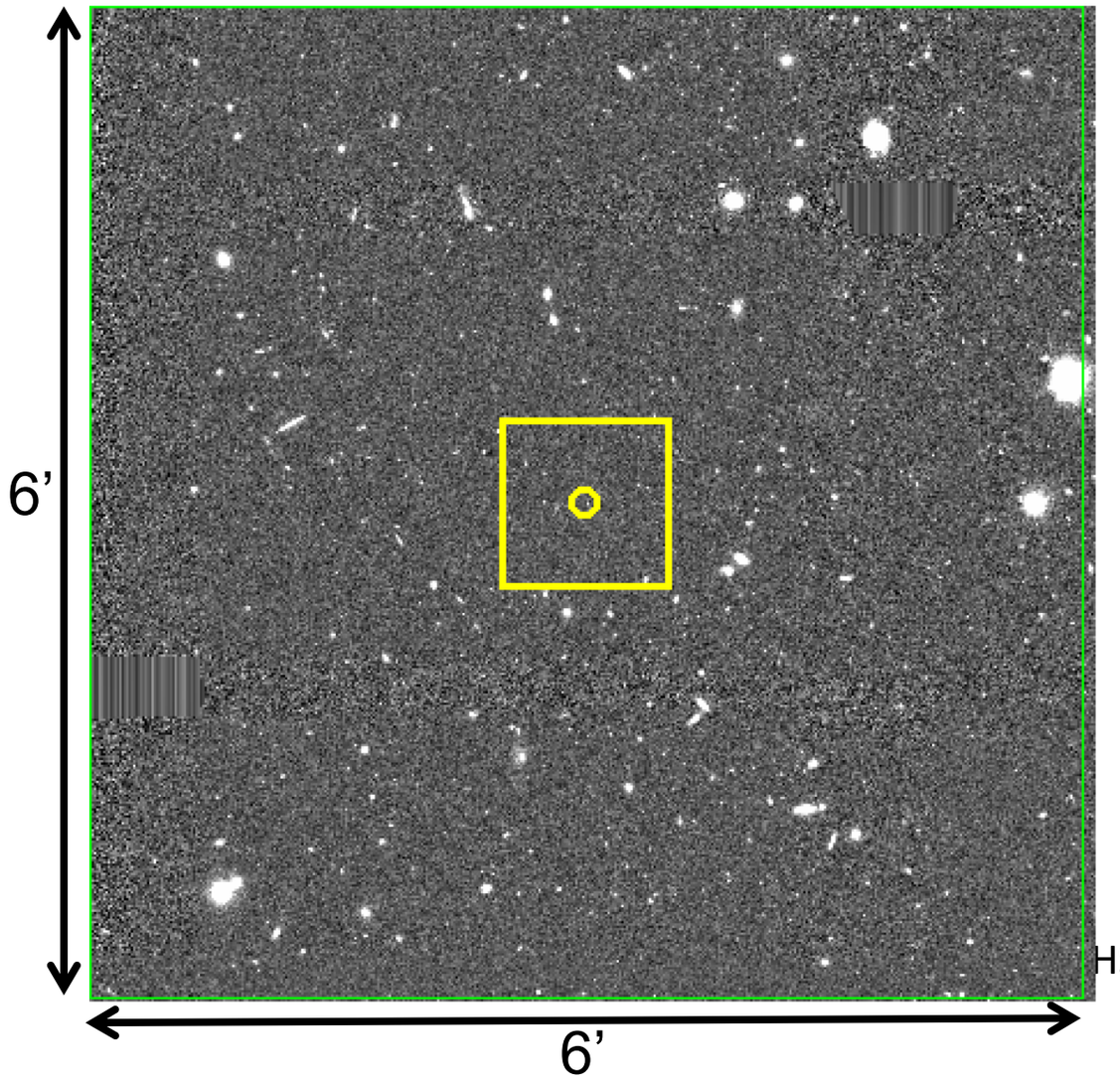
Na_p4_2218 01:09:21.10 +01:31:09.08

star_Na_p4_2218 01:09:21.37 +01:31:56.98 3.92" W 47.90" S

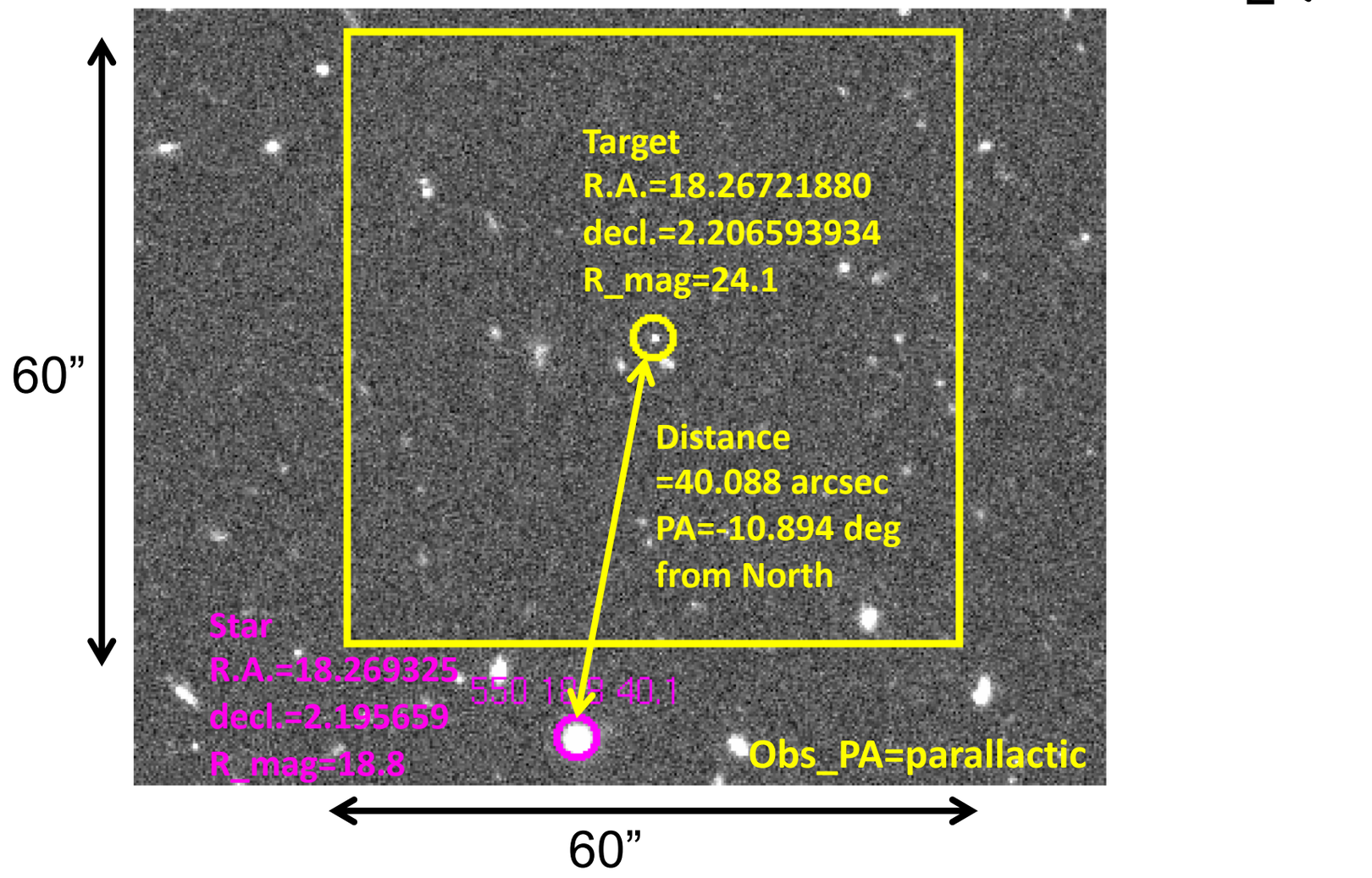


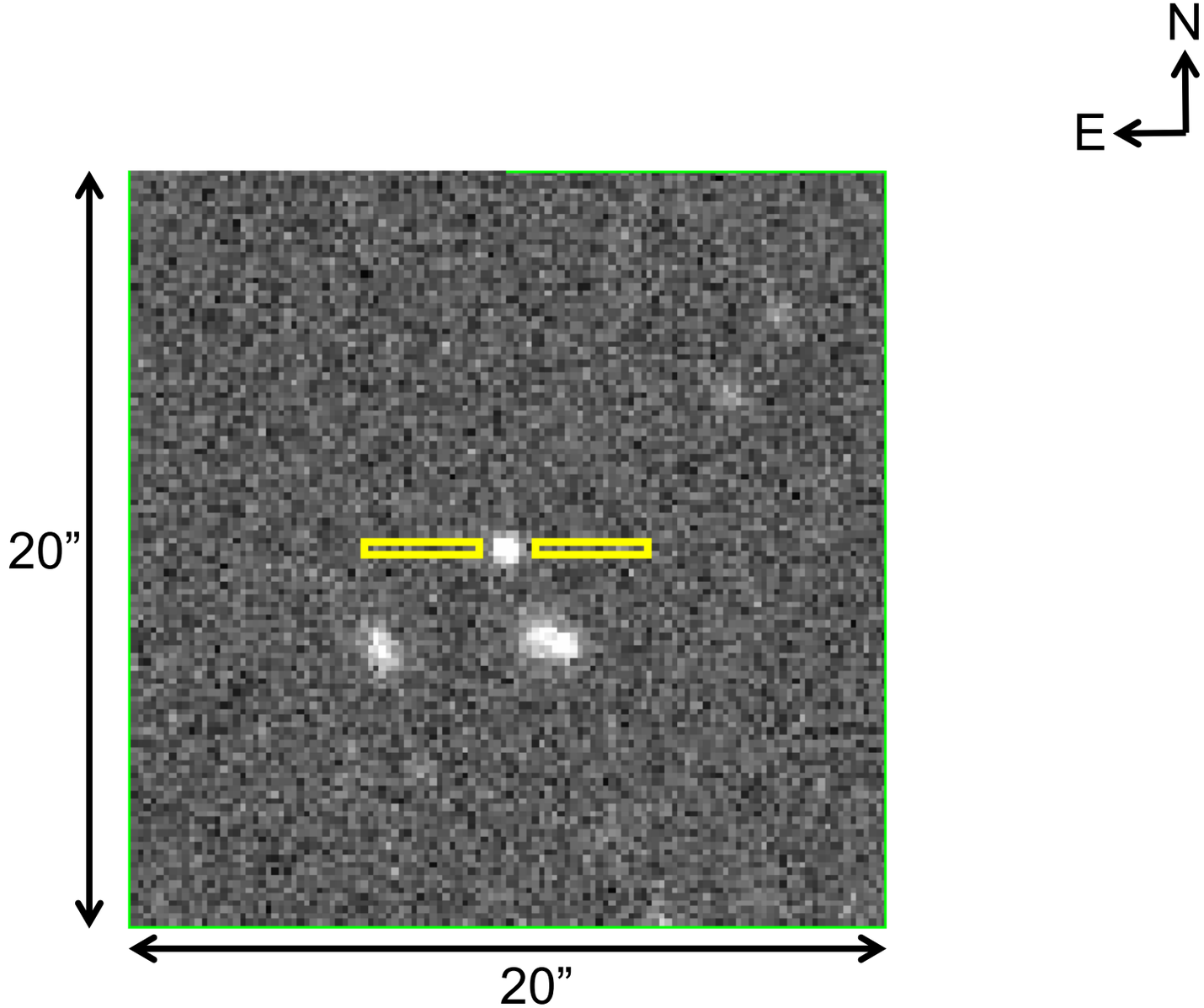

N
E
20”
20”

Na_p4_0339

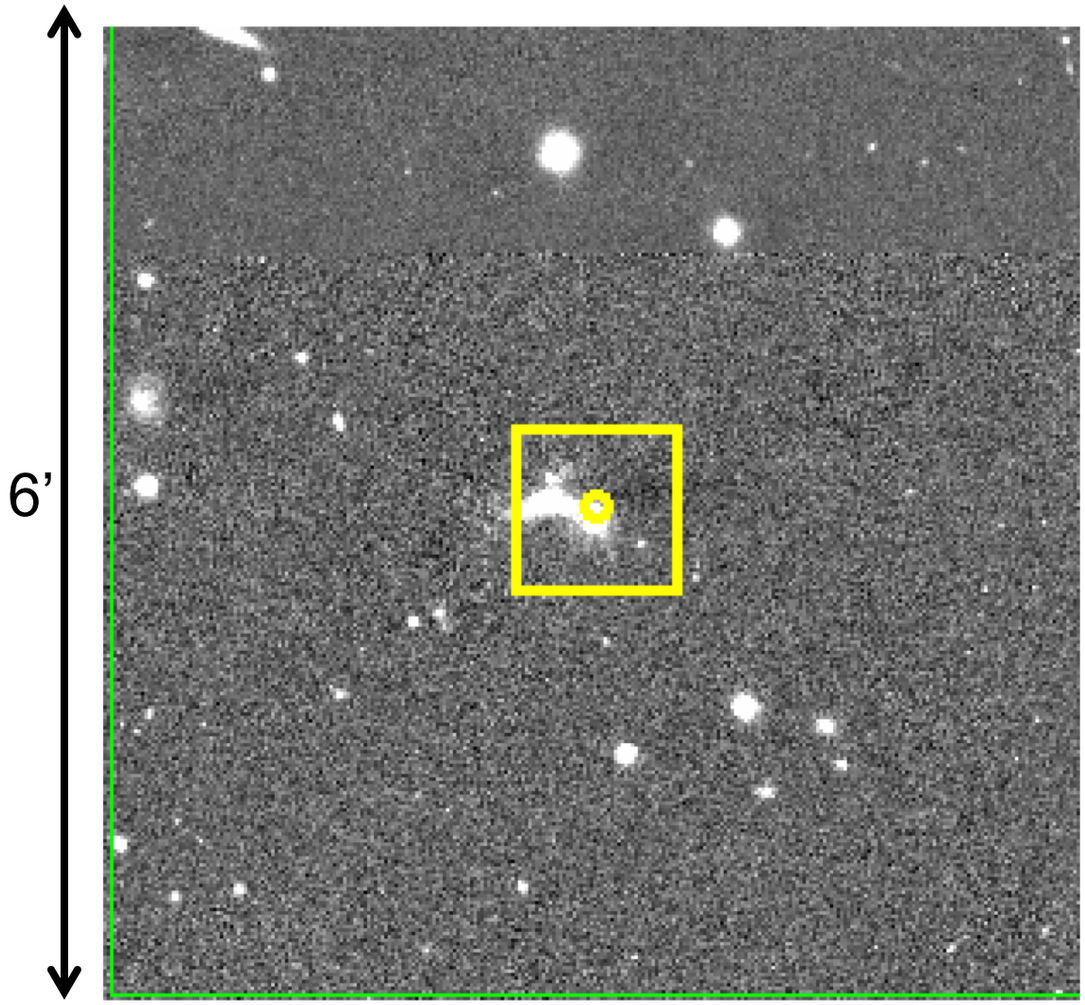


Na_p4_0339 01:13:4.13 +02:12:23.74
star_Na_p4_0339 01:13:4.64 +02:11:44.37 7.58" W 39.37" N

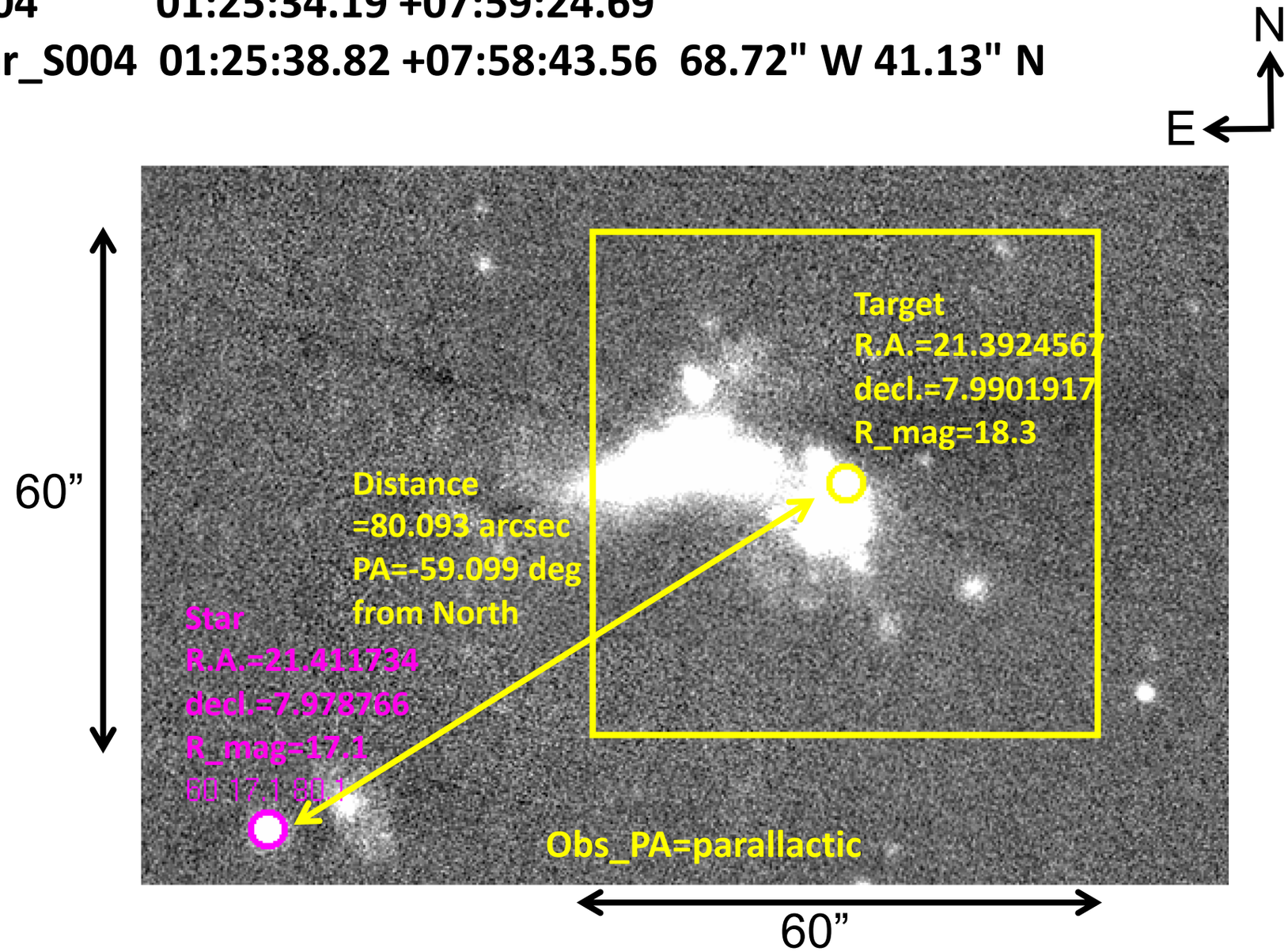


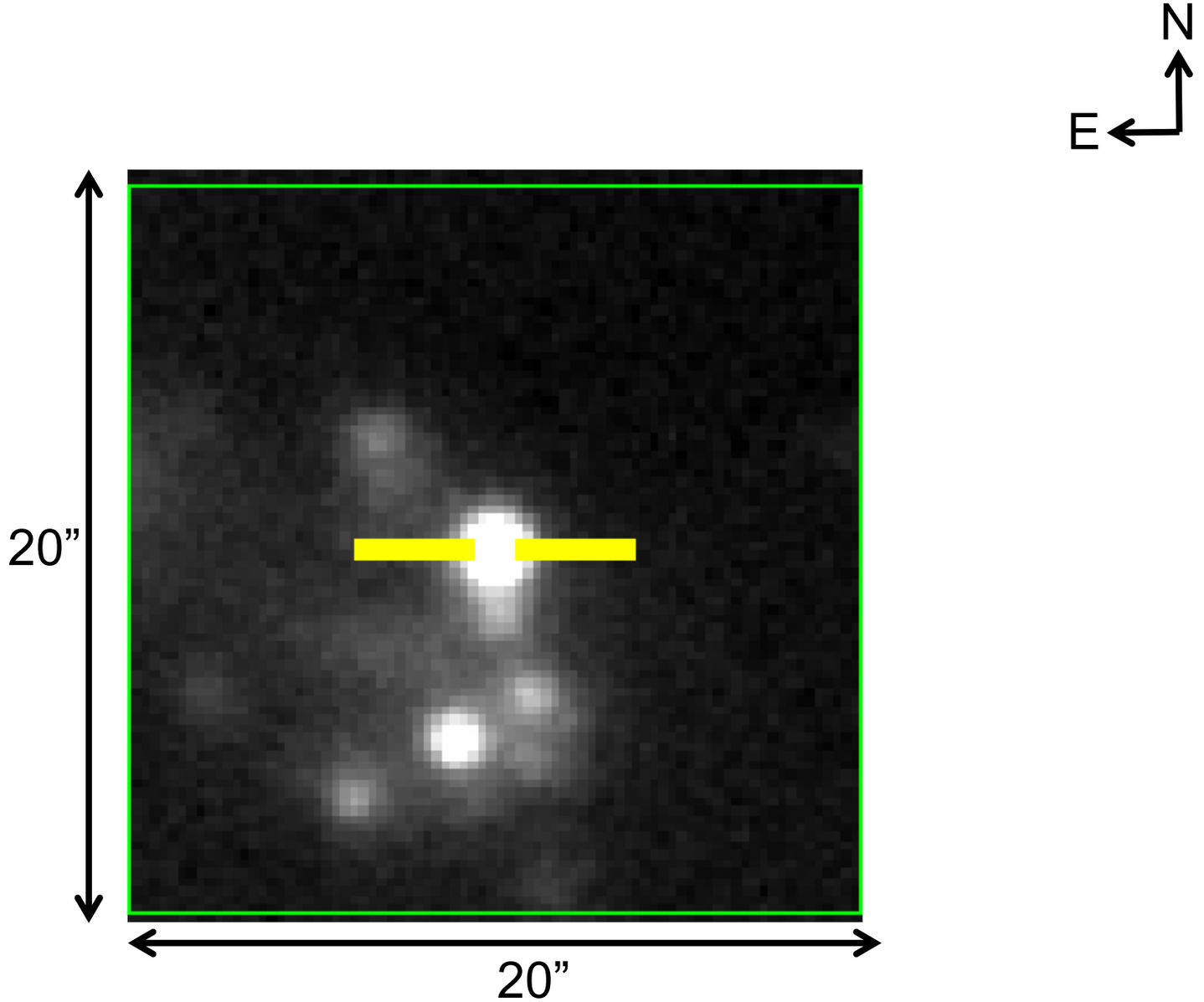

N
E
20”
20”

S004

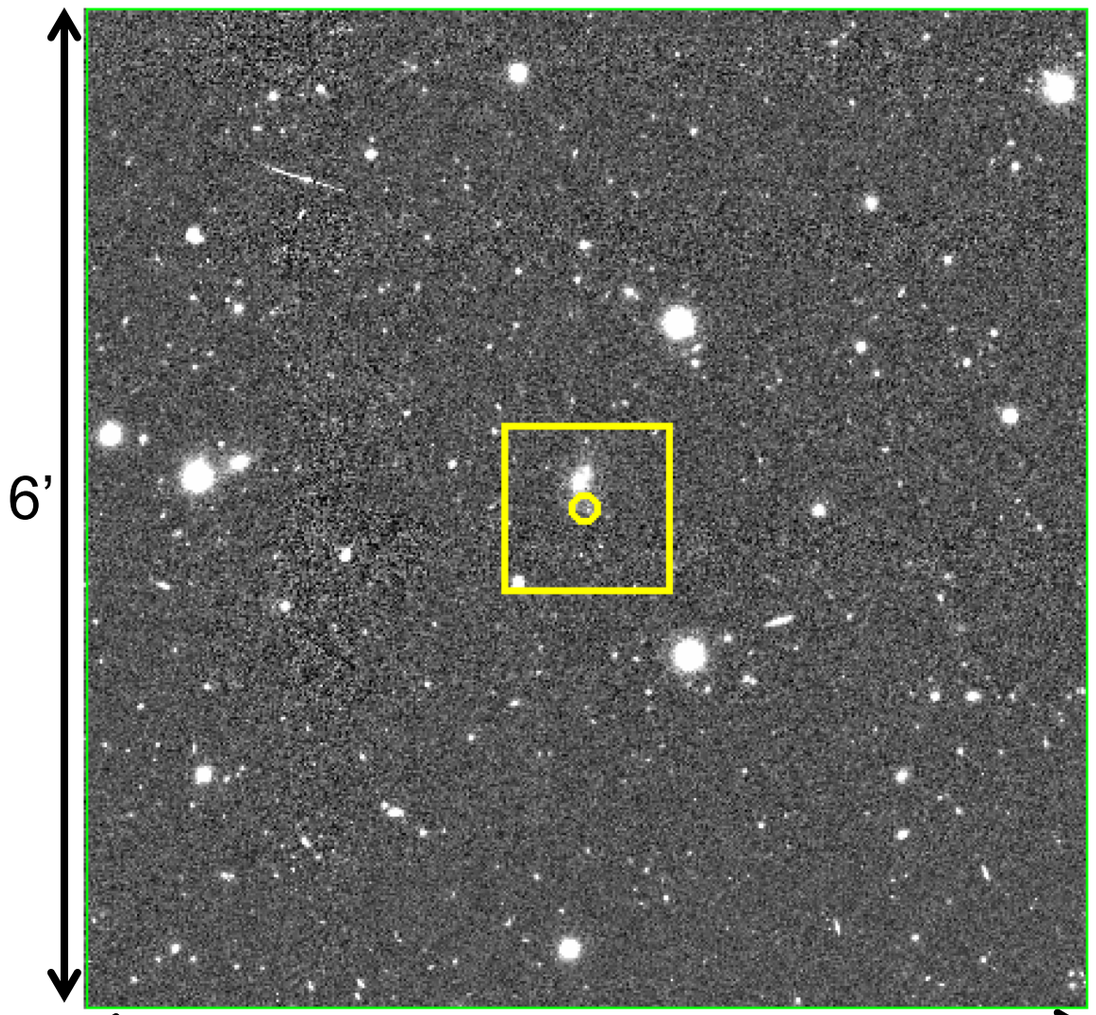


S004 01:25:34.19 +07:59:24.69
star_S004 01:25:38.82 +07:58:43.56 68.72" W 41.13" N

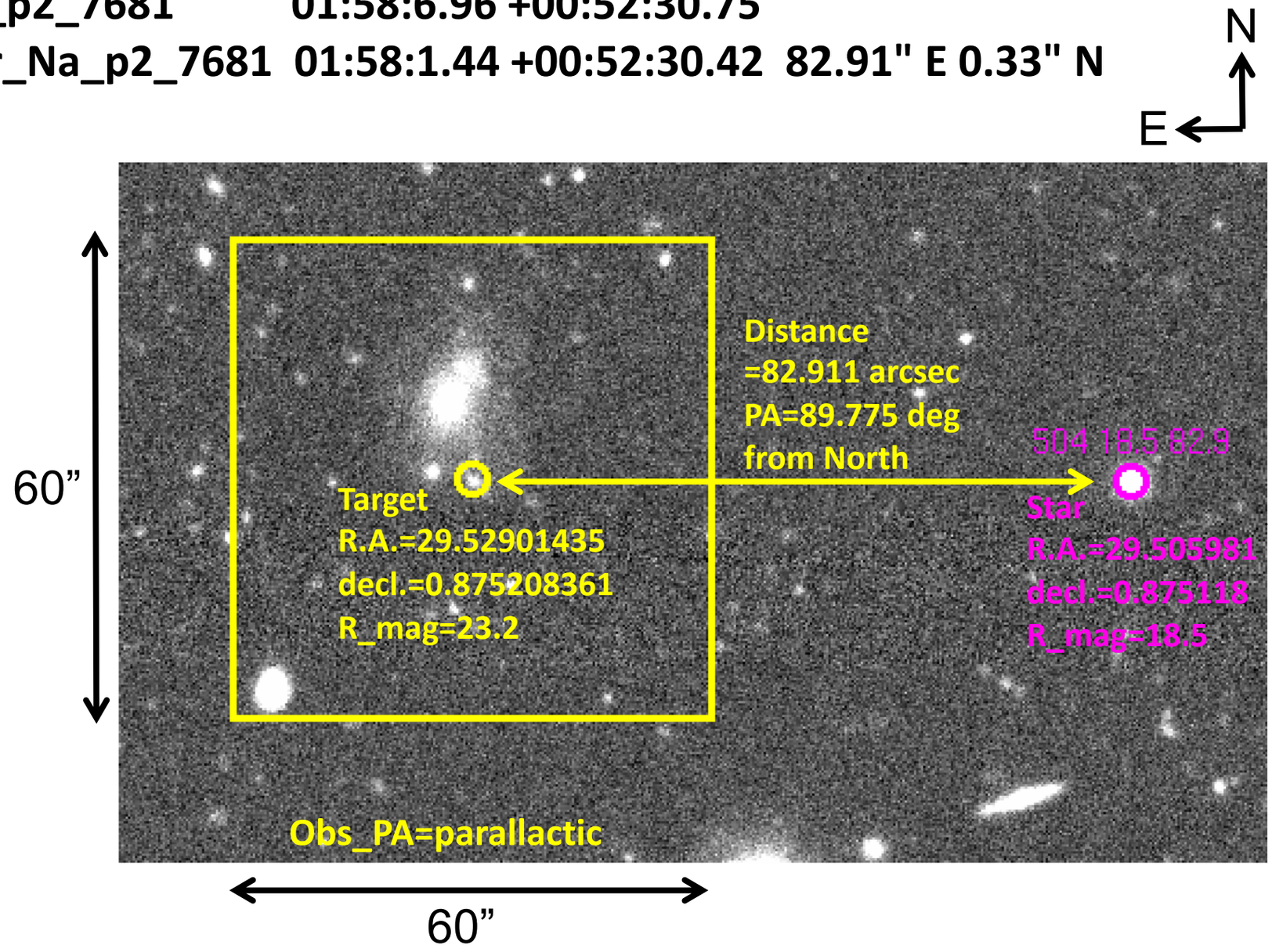


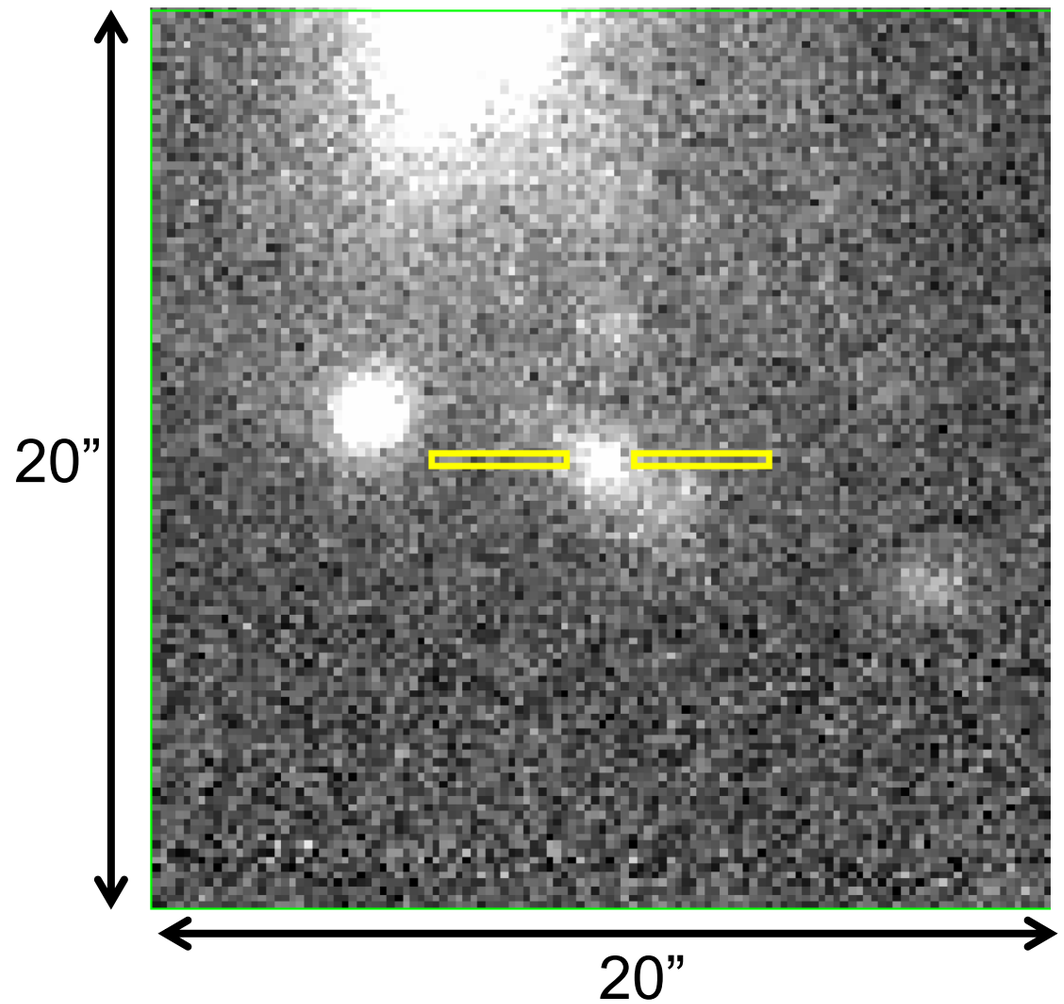

N
E
20”
20”

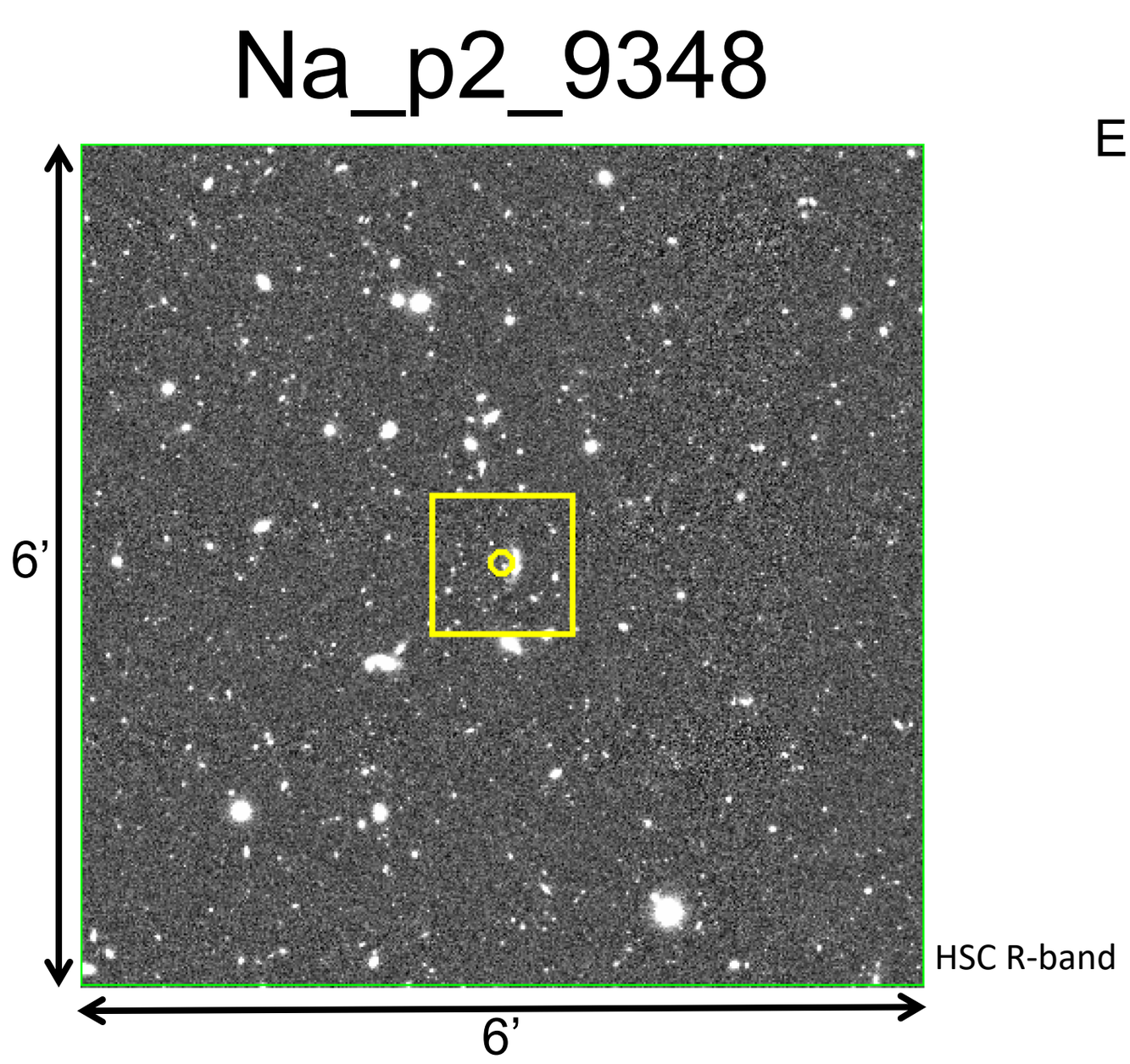
Na_p2_7681



Na_p2_7681 01:58:6.96 +00:52:30.75
star_Na_p2_7681 01:58:1.44 +00:52:30.42 82.91" E 0.33" N

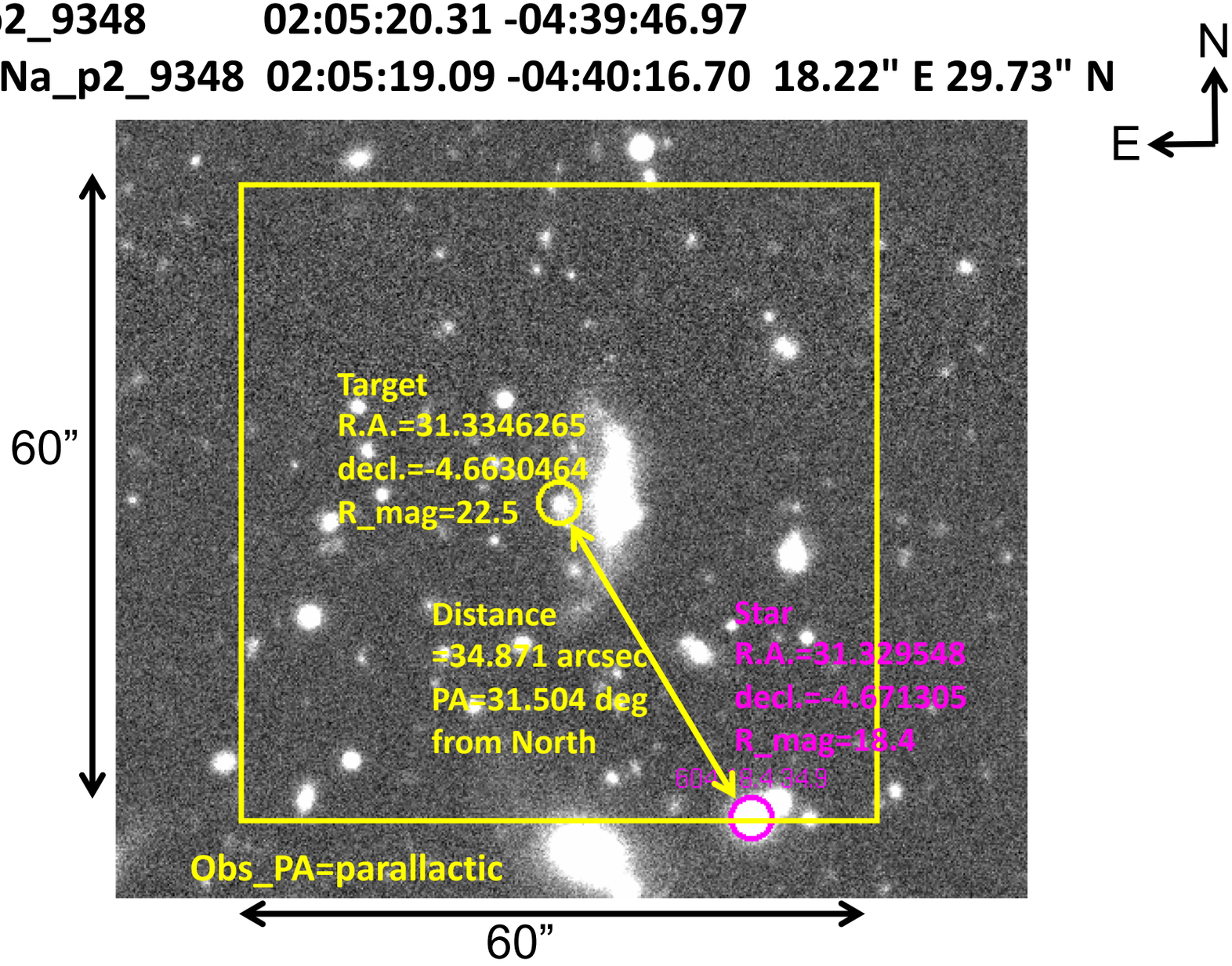


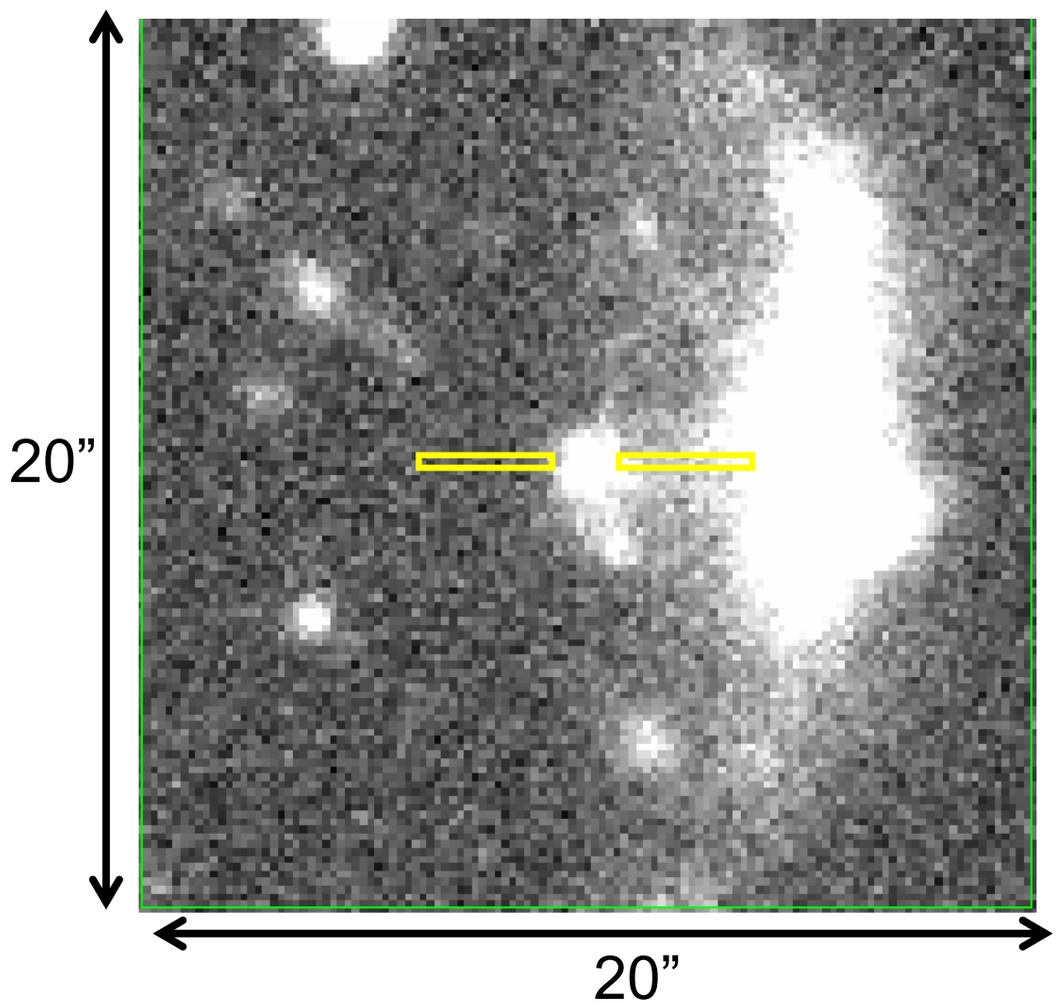

N
E
20”
20”

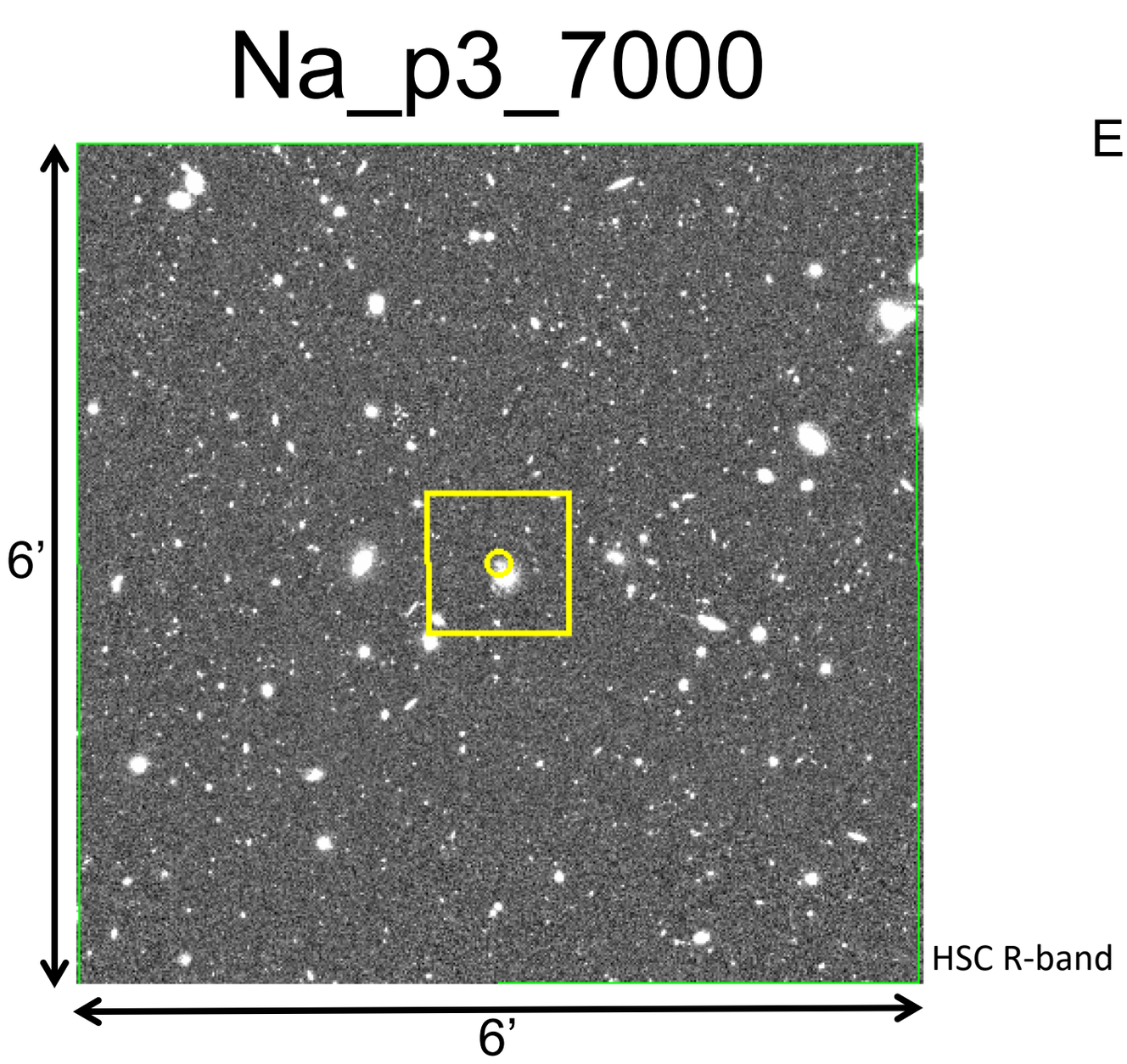

Na_p2_9348
N
E
6’
6’
HSC R-band

Na_p2_9348 02:05:20.31 -04:39:46.97

star_Na_p2_9348 02:05:19.09 -04:40:16.70 18.22" E 29.73" N

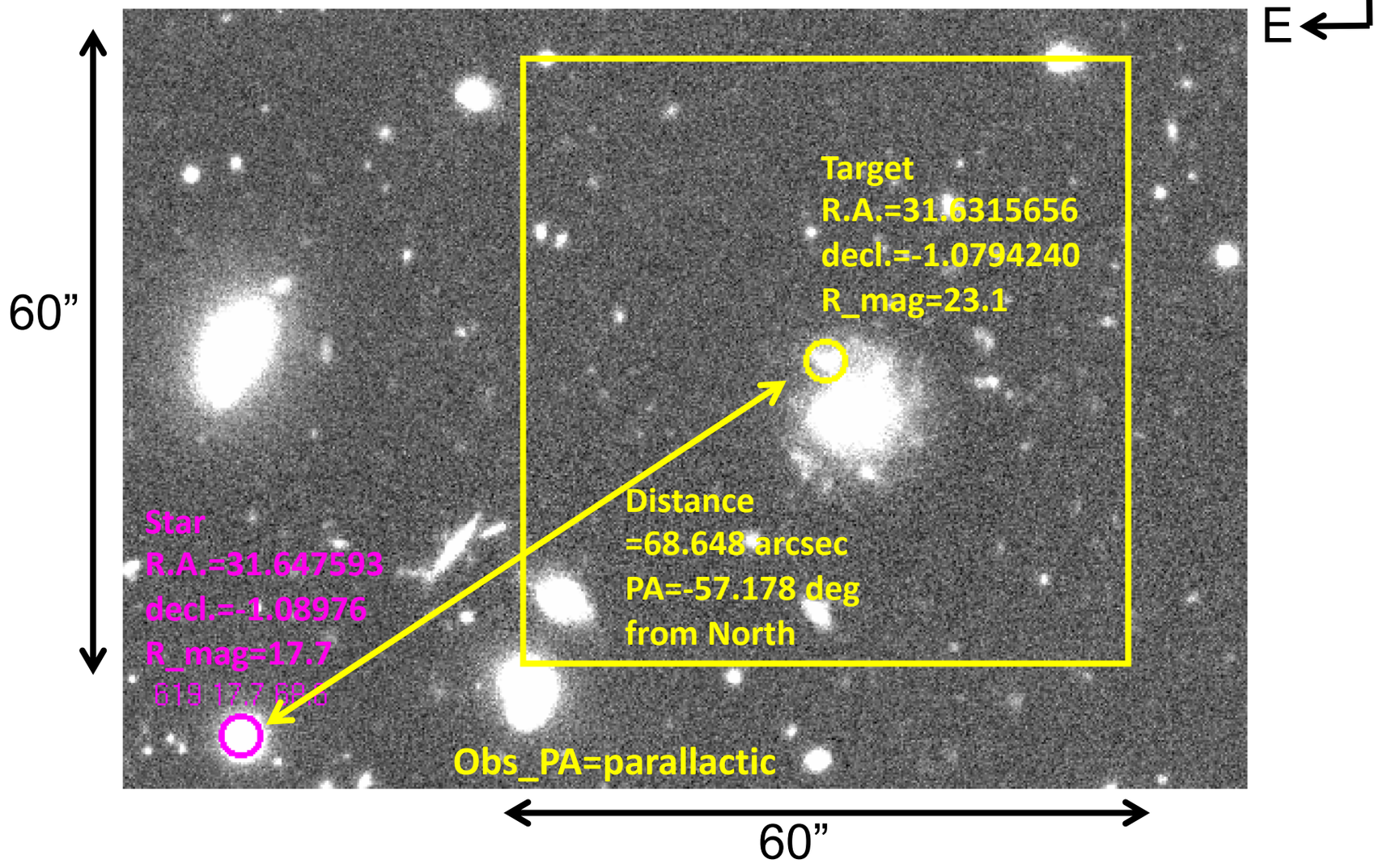


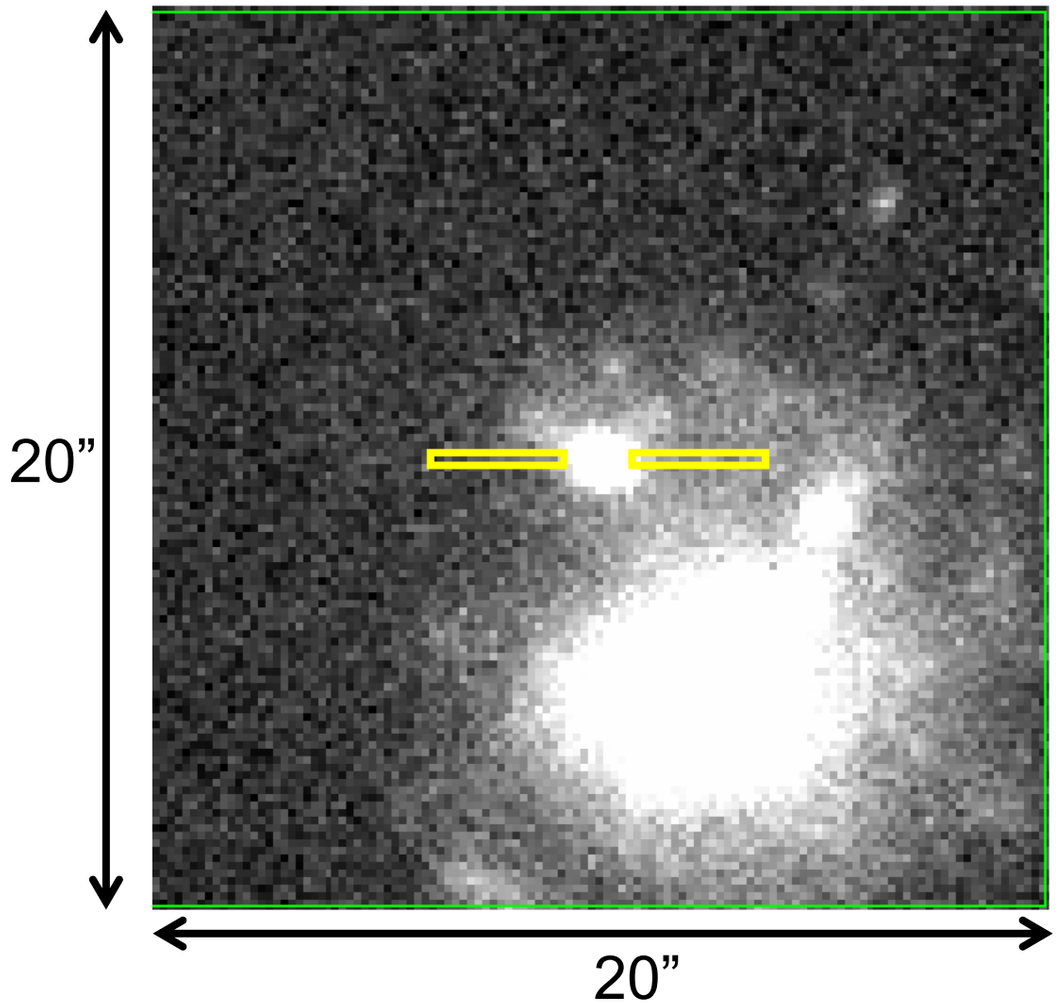

N
E
20”
20”


Na_p3_7000
N
E
6’
6’
HSC R-band

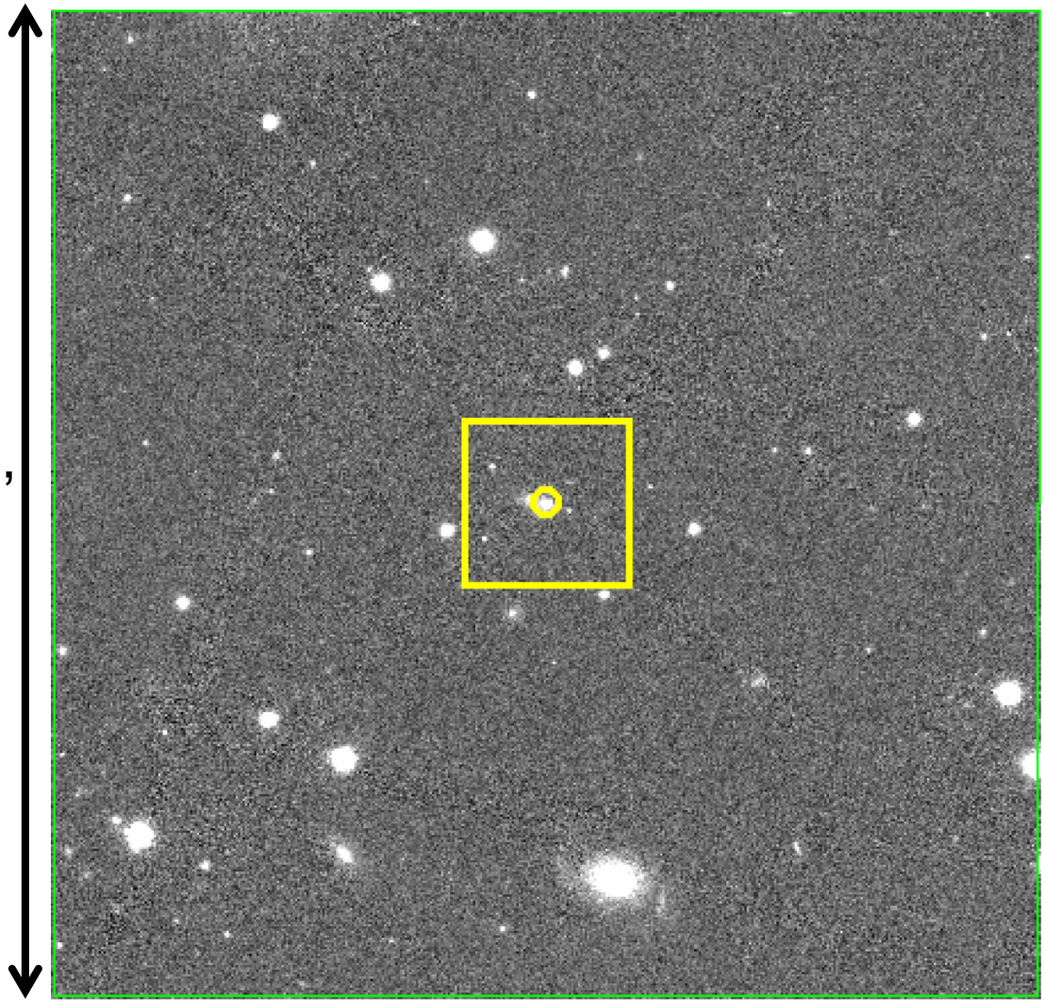
Na_p3_7000 02:06:31.58 -01:04:45.93

star_Na_p3_7000 02:06:35.42 -01:05:23.14 57.69" W 37.21" N



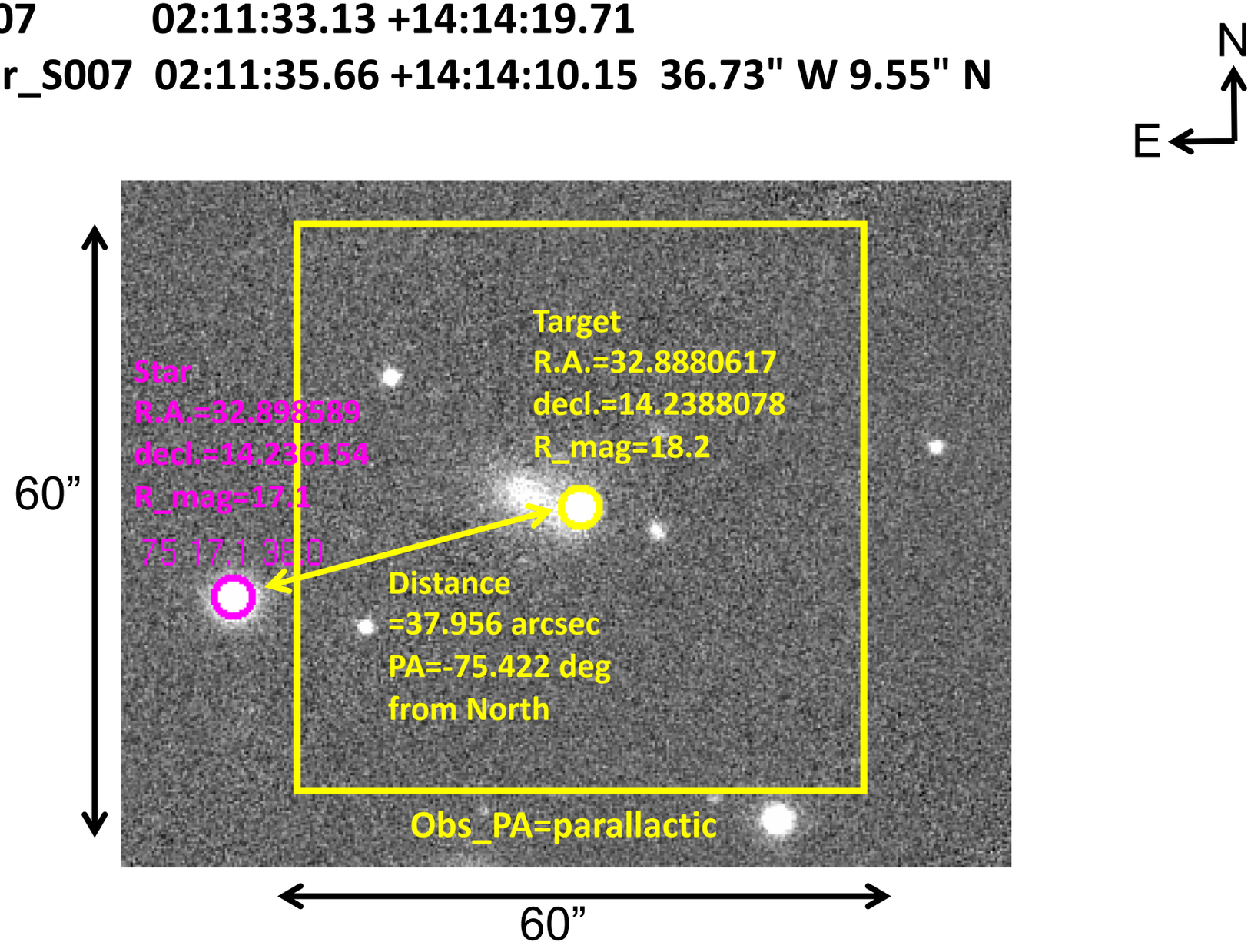

N
E
20”
20”

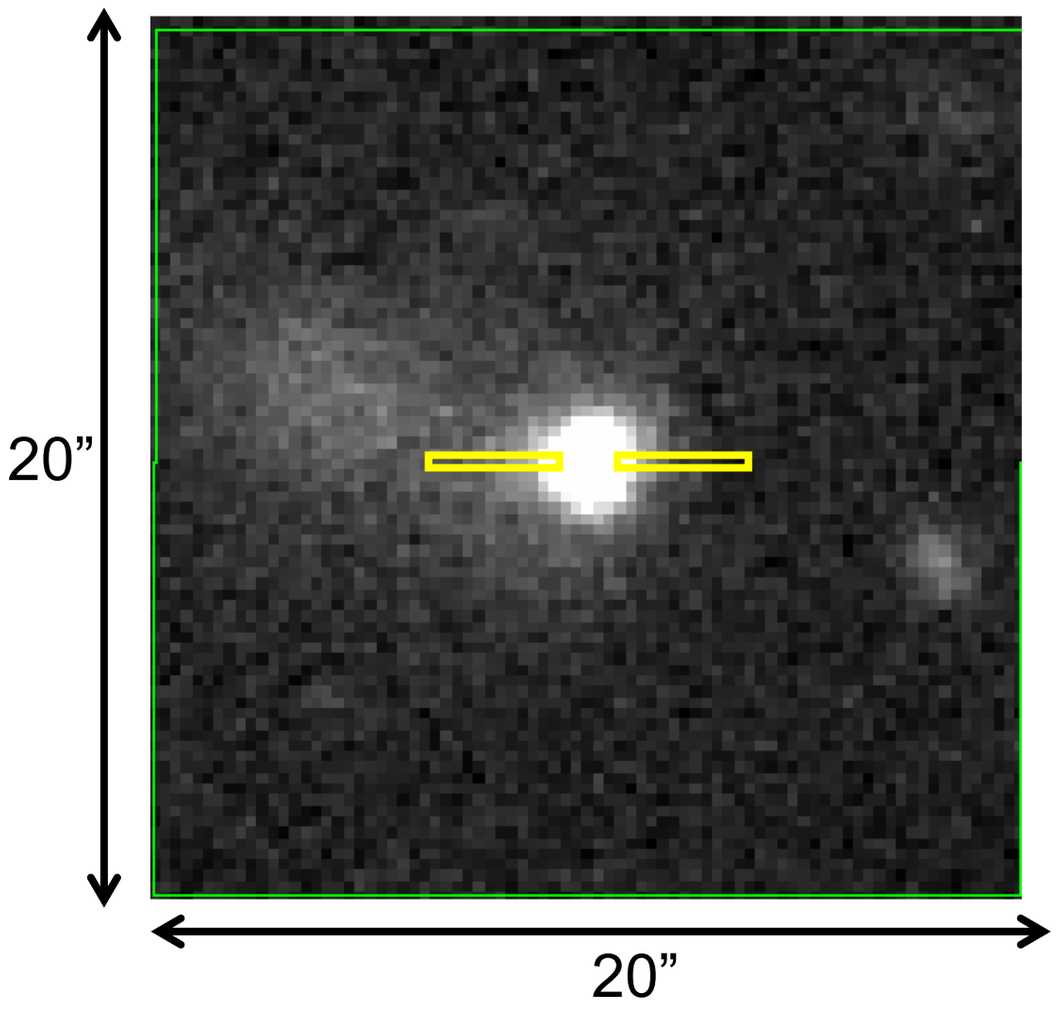
S007



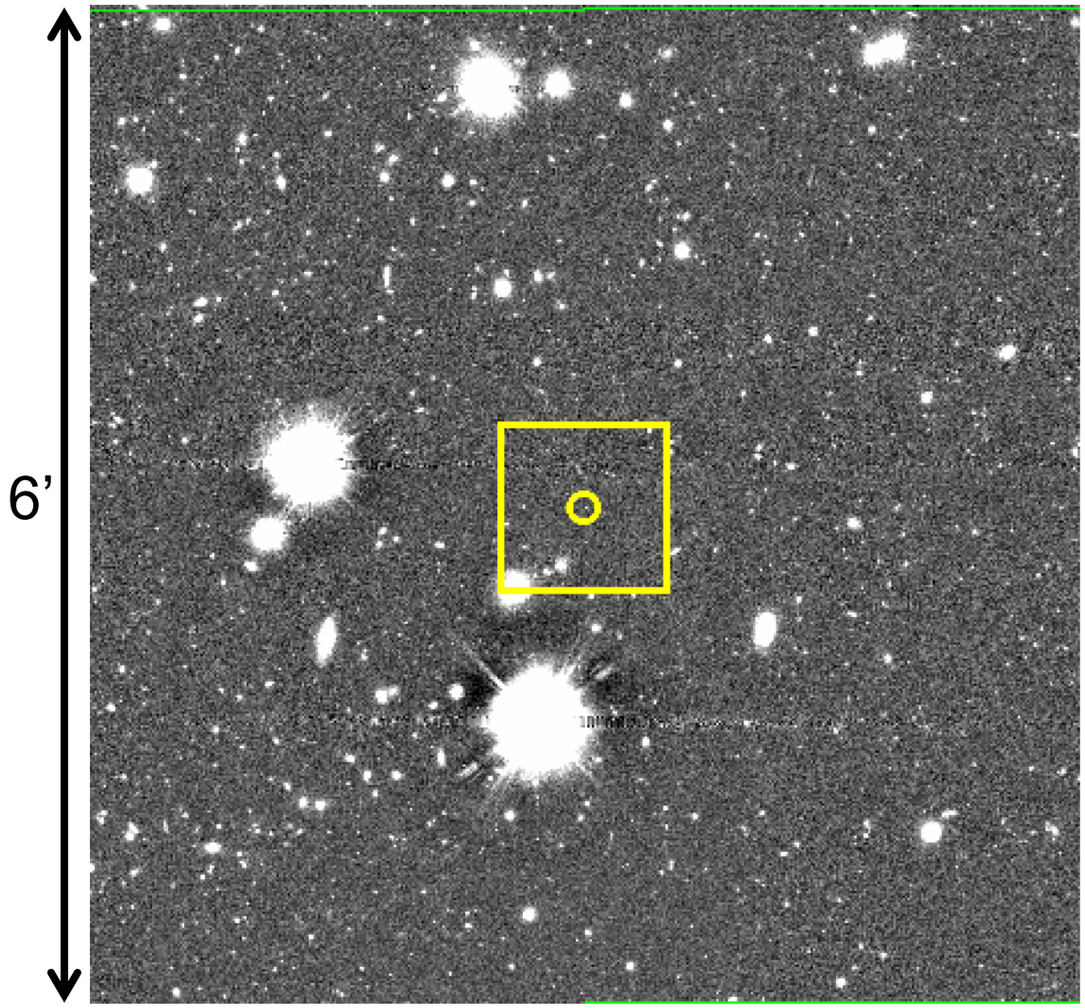
S007 02:11:33.13 +14:14:19.71

star_S007 02:11:35.66 +14:14:10.15 36.73" W 9.55" N



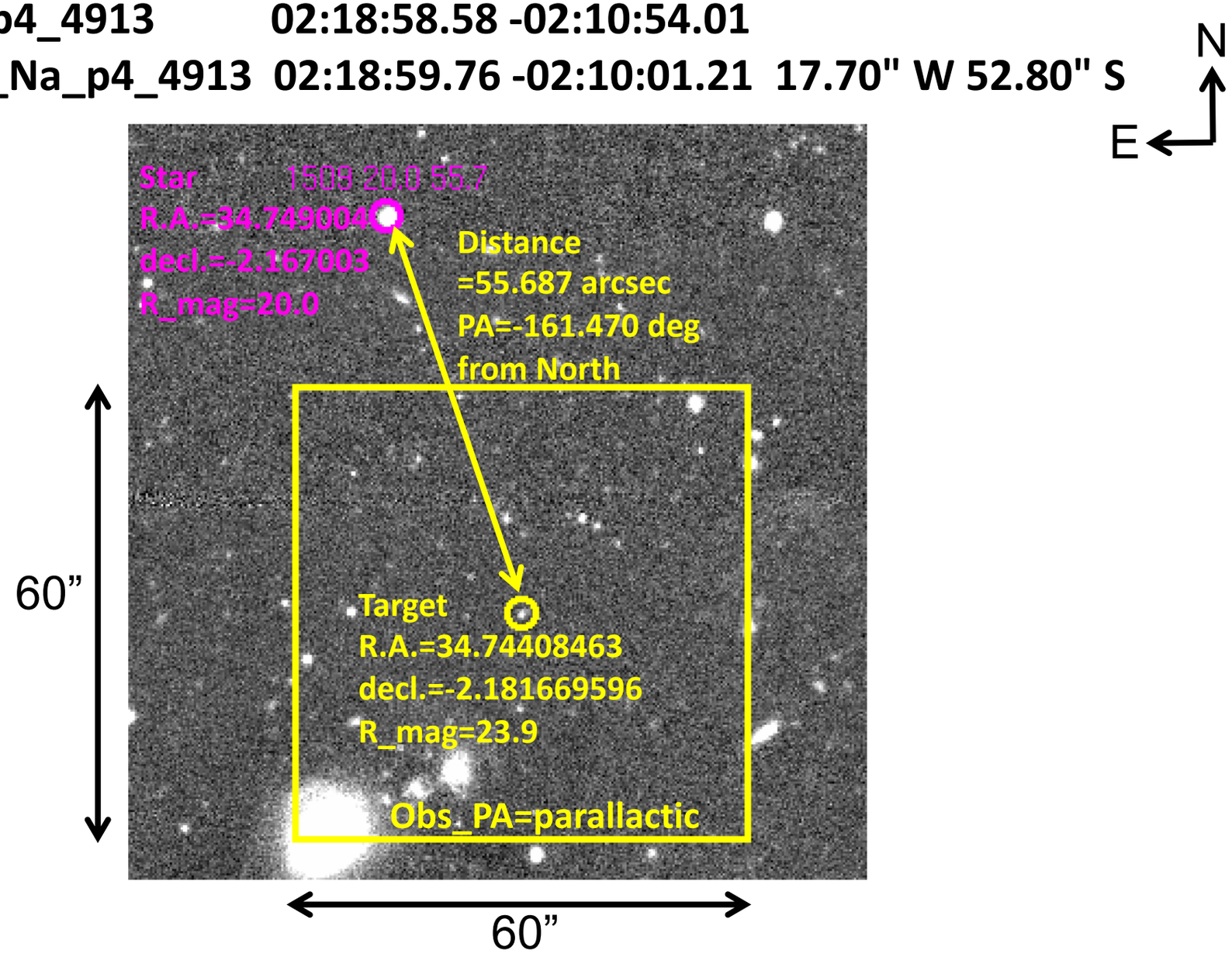

N
E
20”
20”

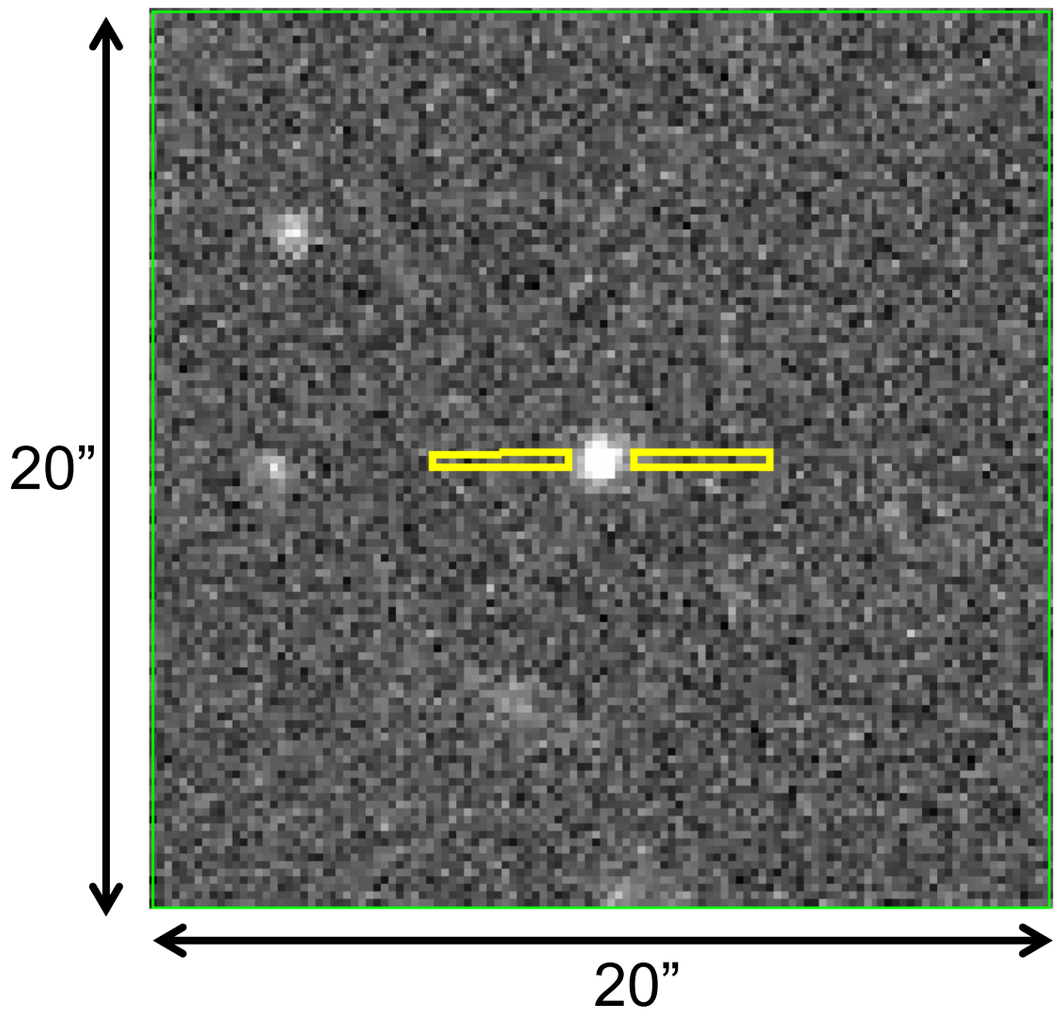
Na_p4_4913



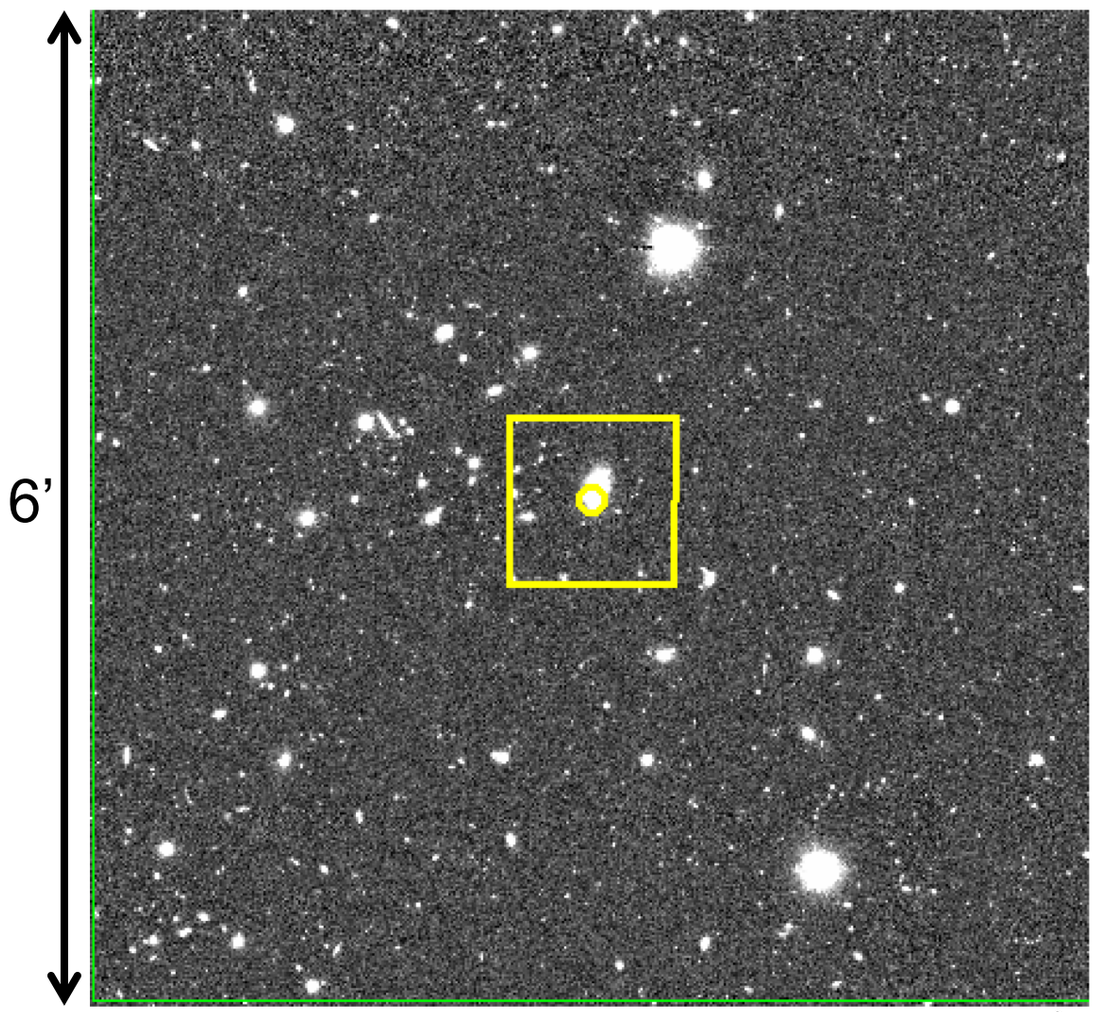
Na_p4_4913 02:18:58.58 -02:10:54.01

star_Na_p4_4913 02:18:59.76 -02:10:01.21 17.70" W 52.80" S

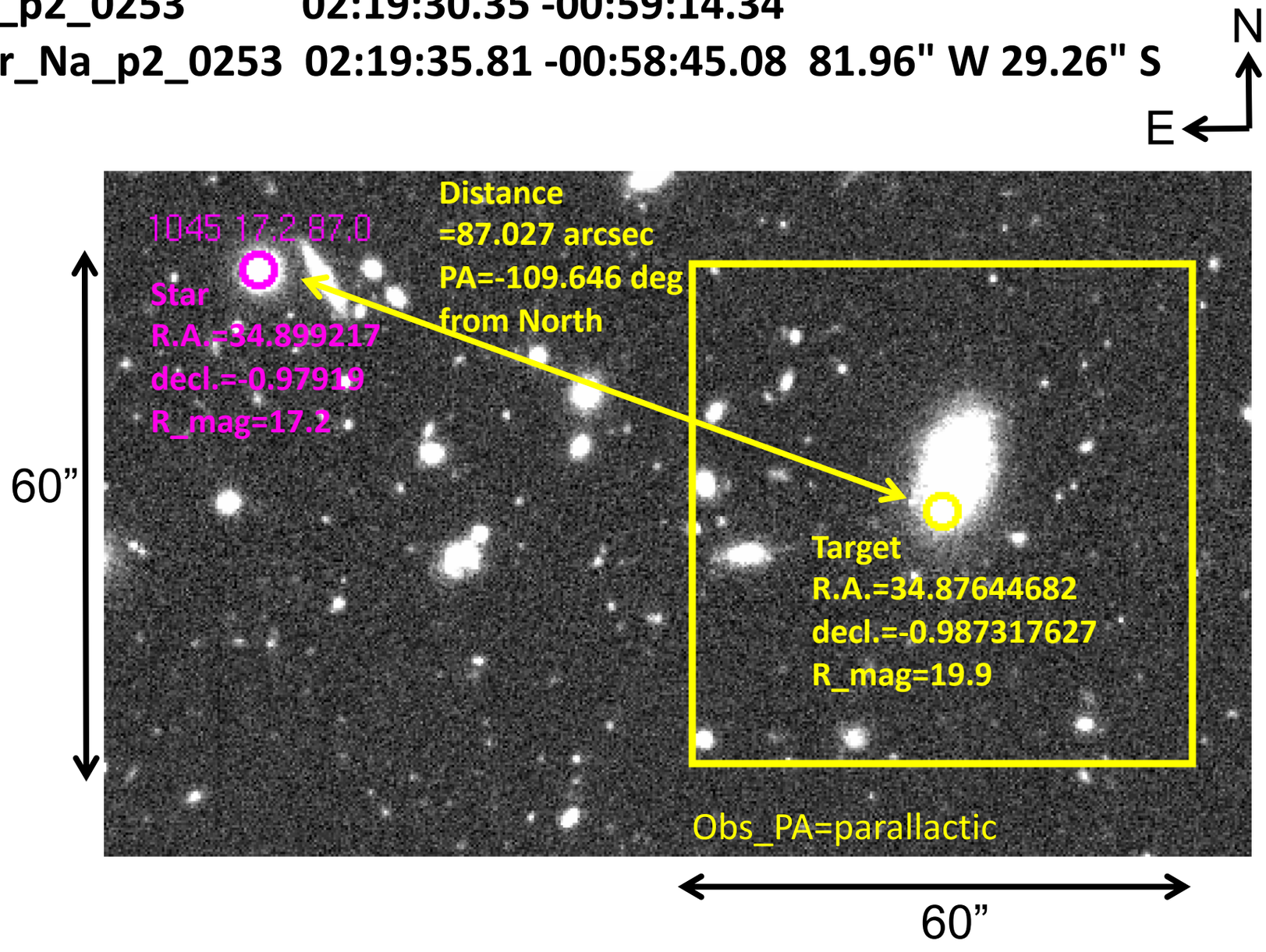


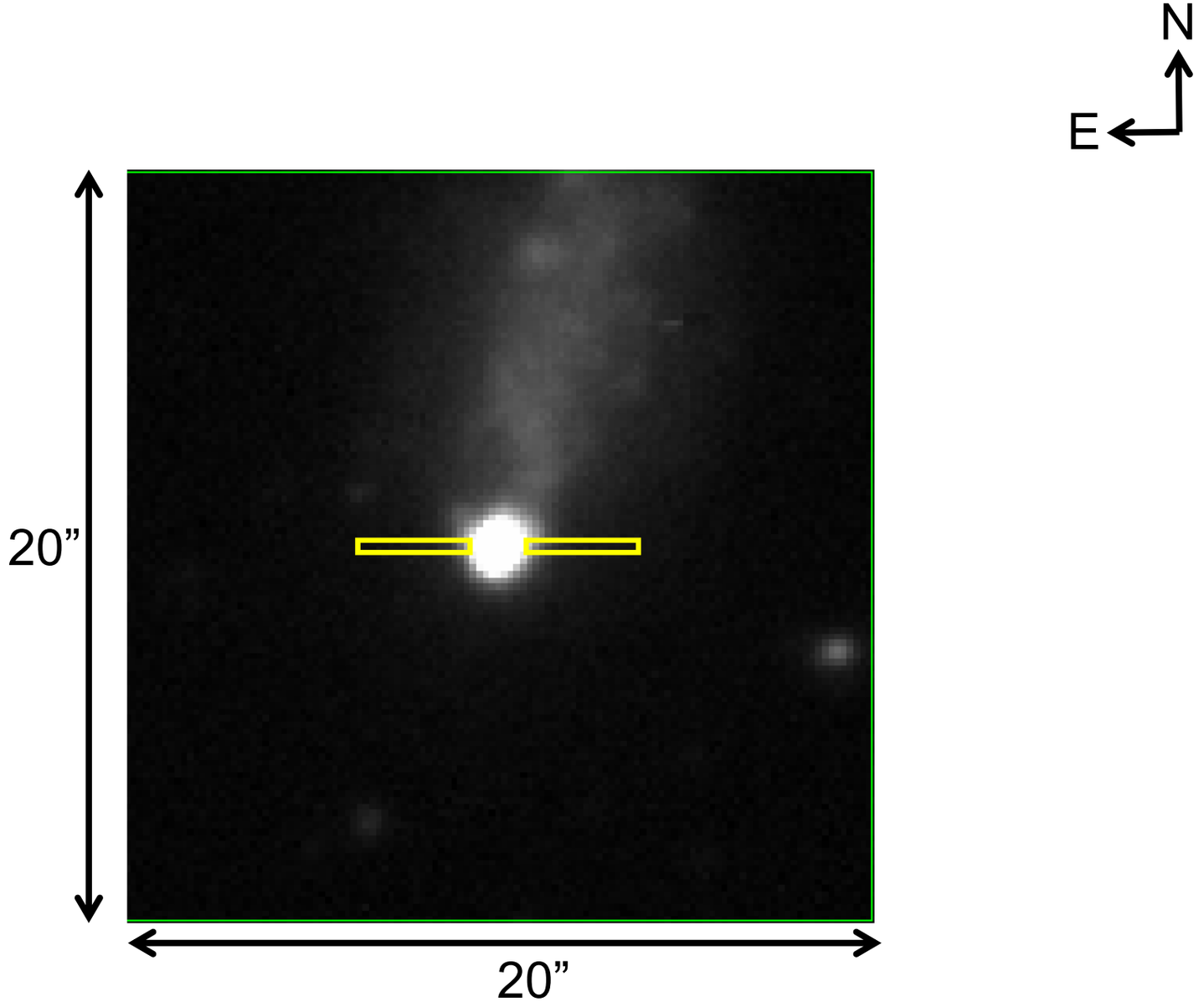

N
E
20”
20”

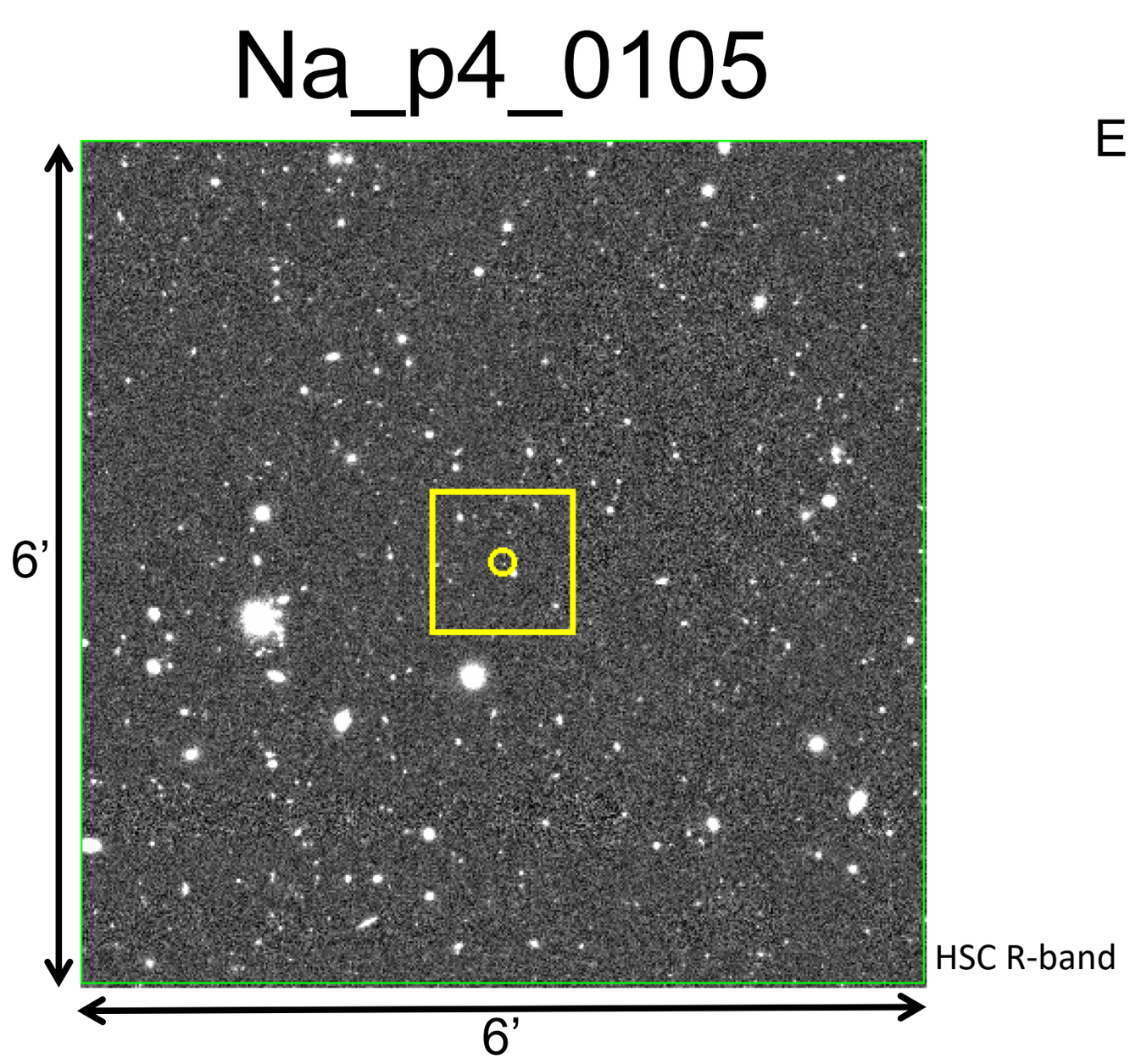
Na_p2_0253



Na_p2_0253 02:19:30.35 -00:59:14.34
star_Na_p2_0253 02:19:35.81 -00:58:45.08 81.96" W 29.26" S

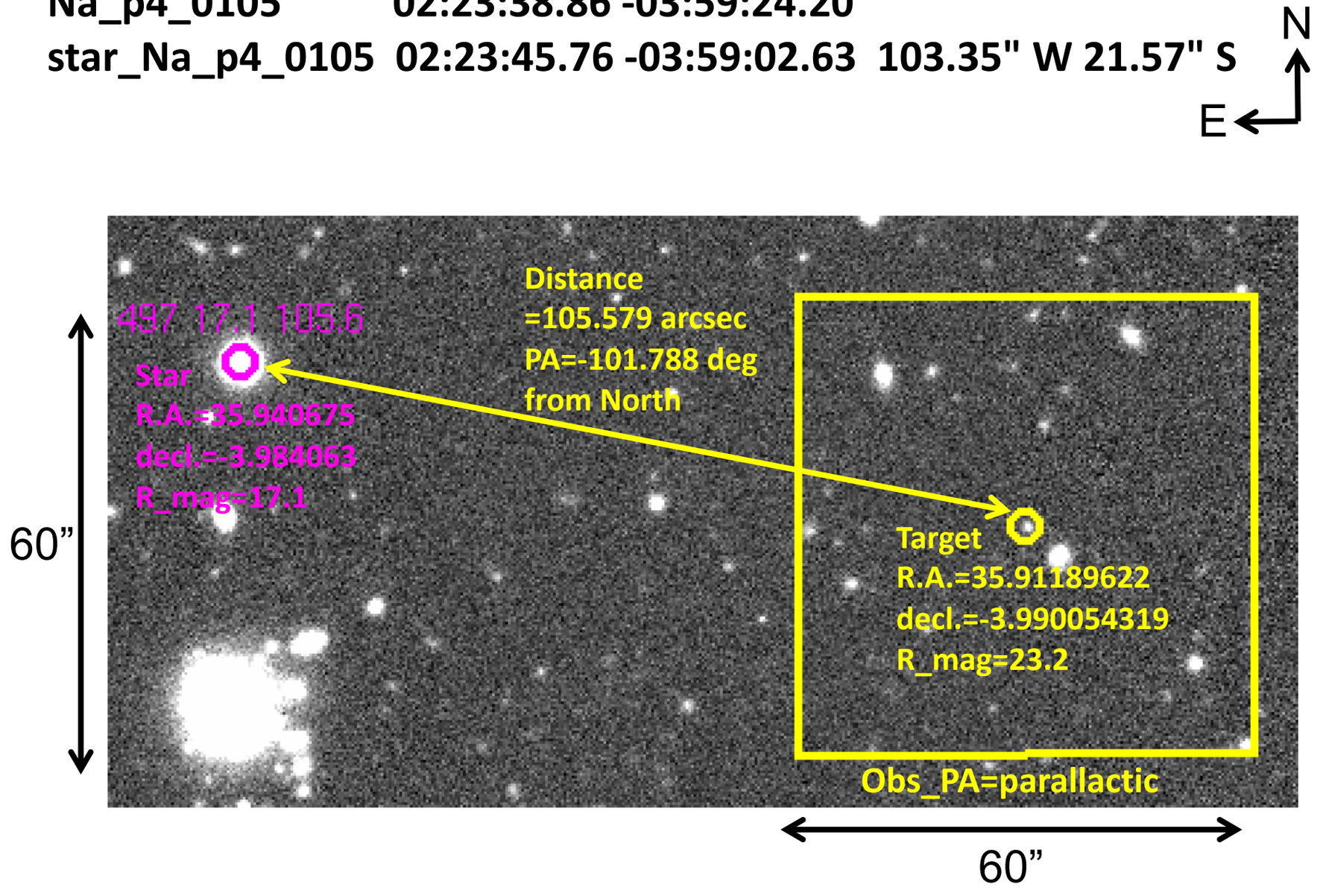


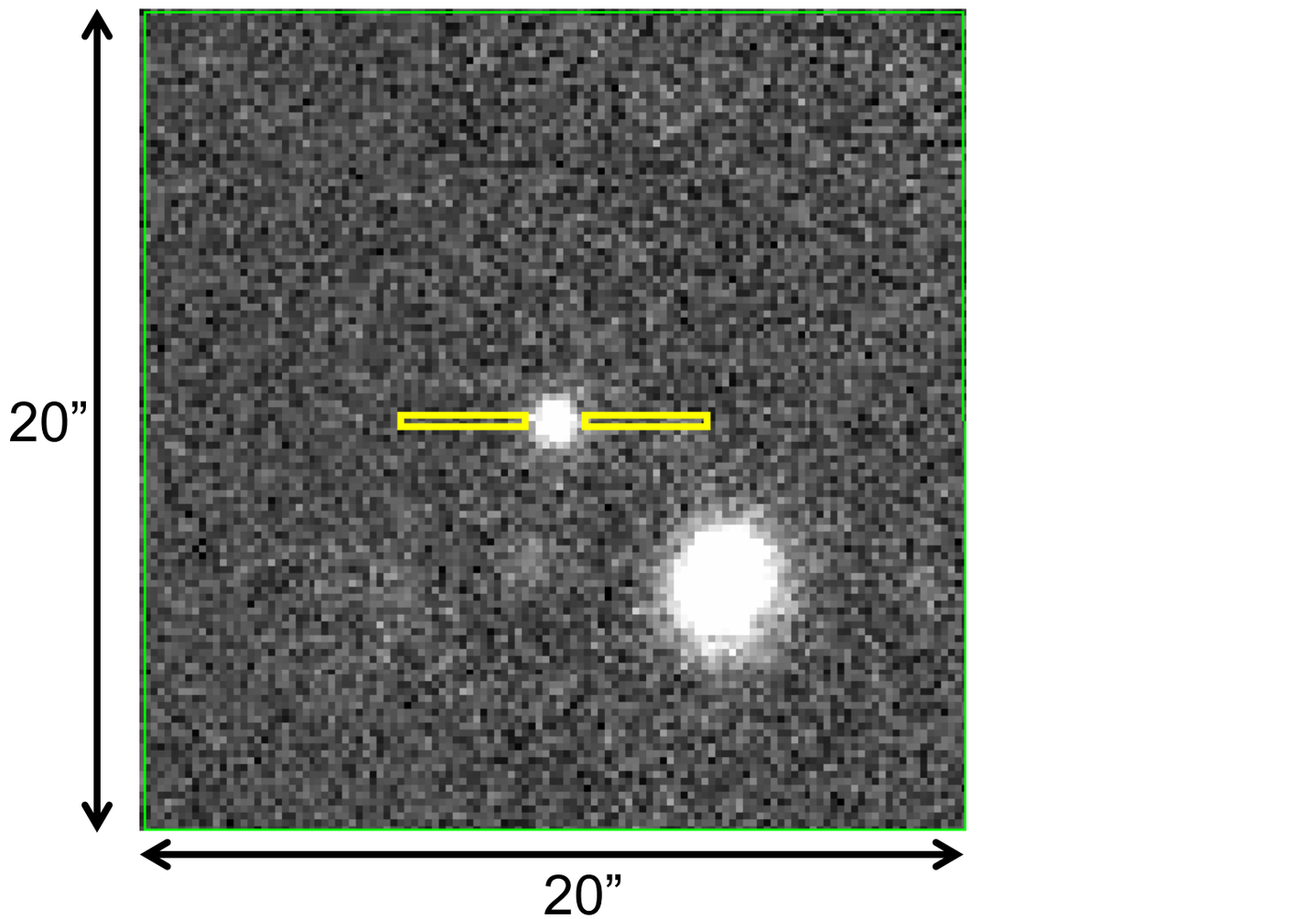

N
E
20”
20”


Na_p4_0105
N
E
6’
6’
HSC R-band

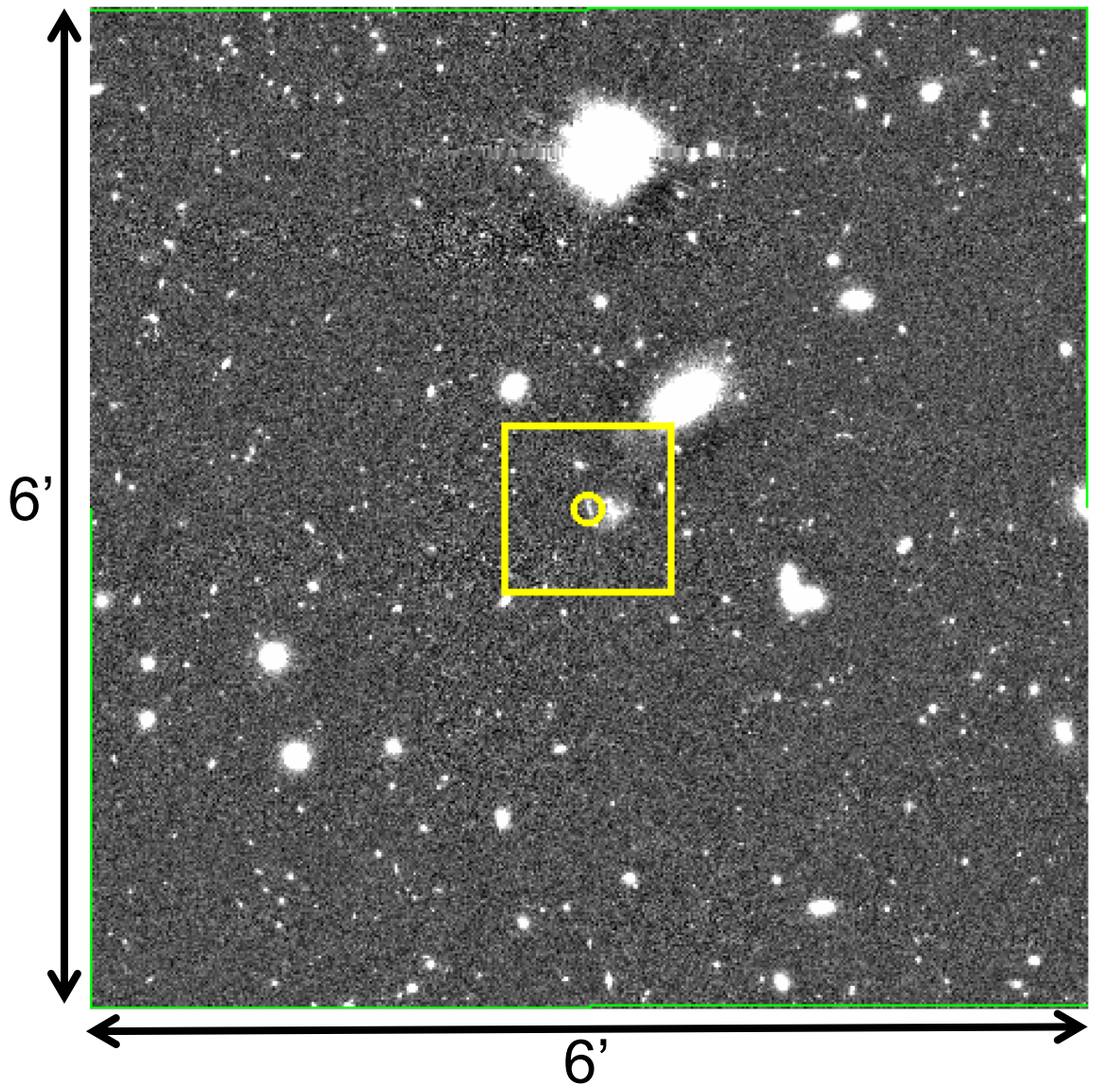
Na_p4_0105 02:23:38.86 -03:59:24.20

star_Na_p4_0105 02:23:45.76 -03:59:02.63 103.35" W 21.57" S



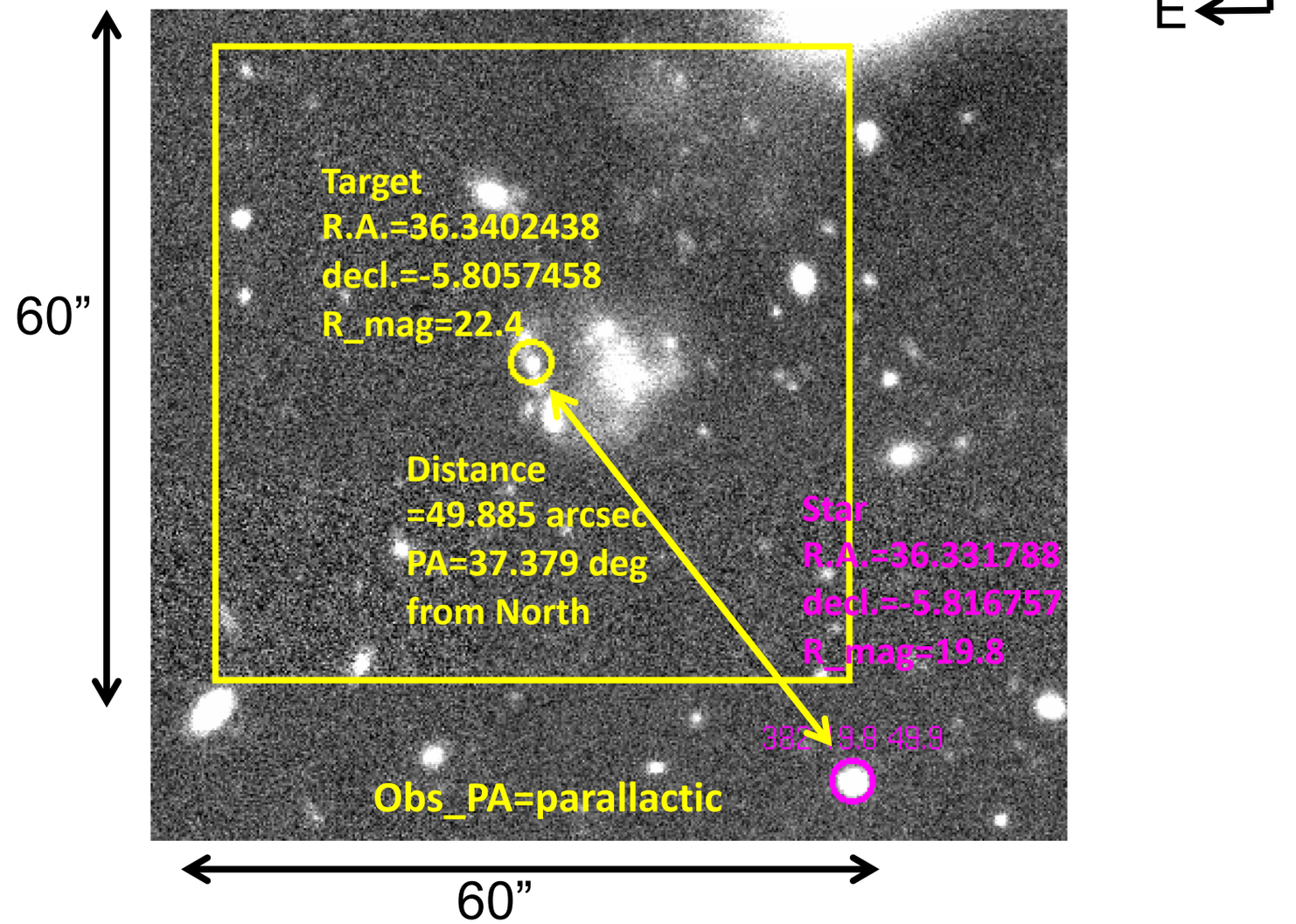

N
E
20”
20”

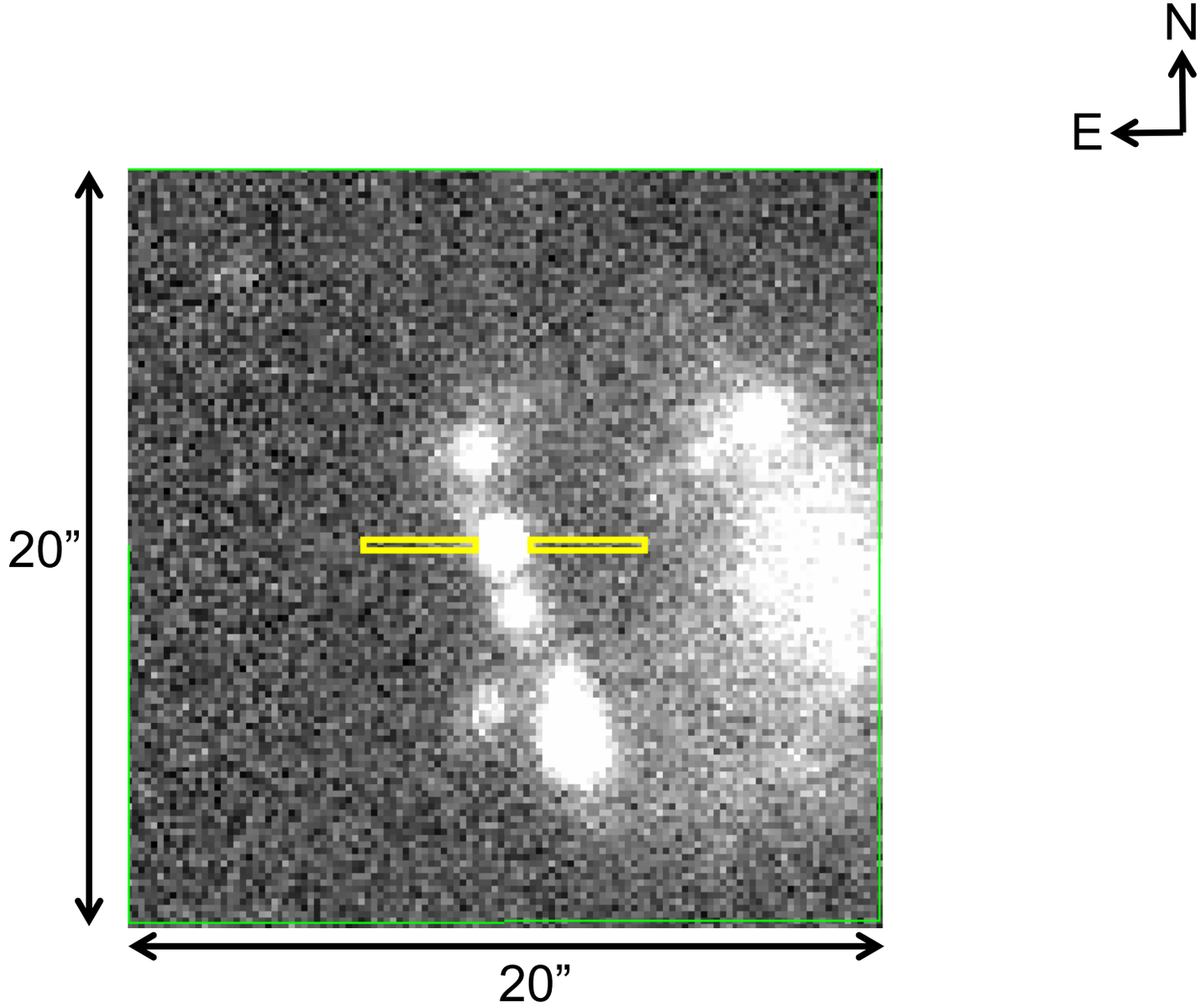
Na_p2_8119

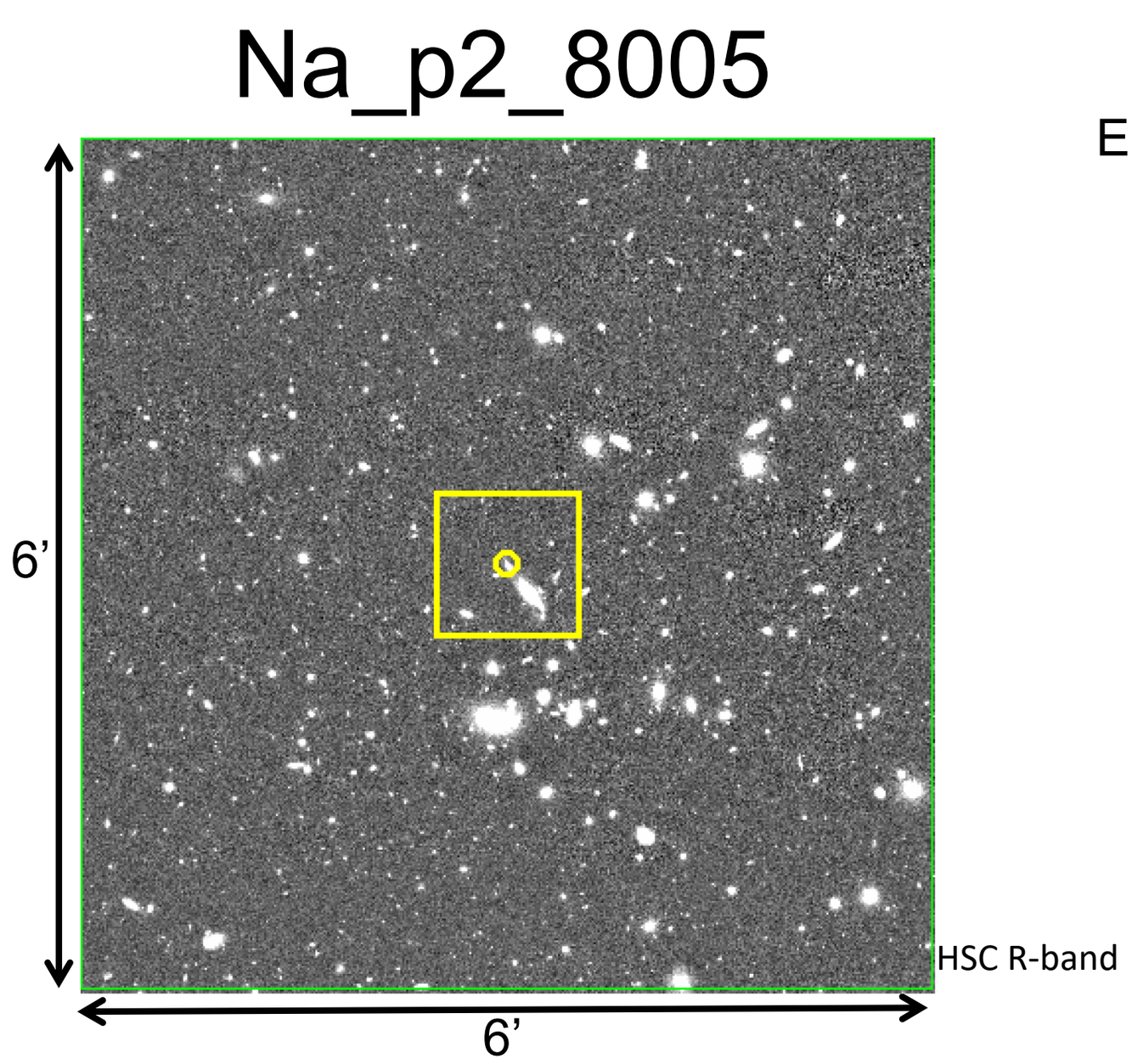


Na_p2_8119 02:25:21.66 -05:48:20.68

star_Na_p2_8119 02:25:19.63 -05:49:00.33 30.28" E 39.64" N

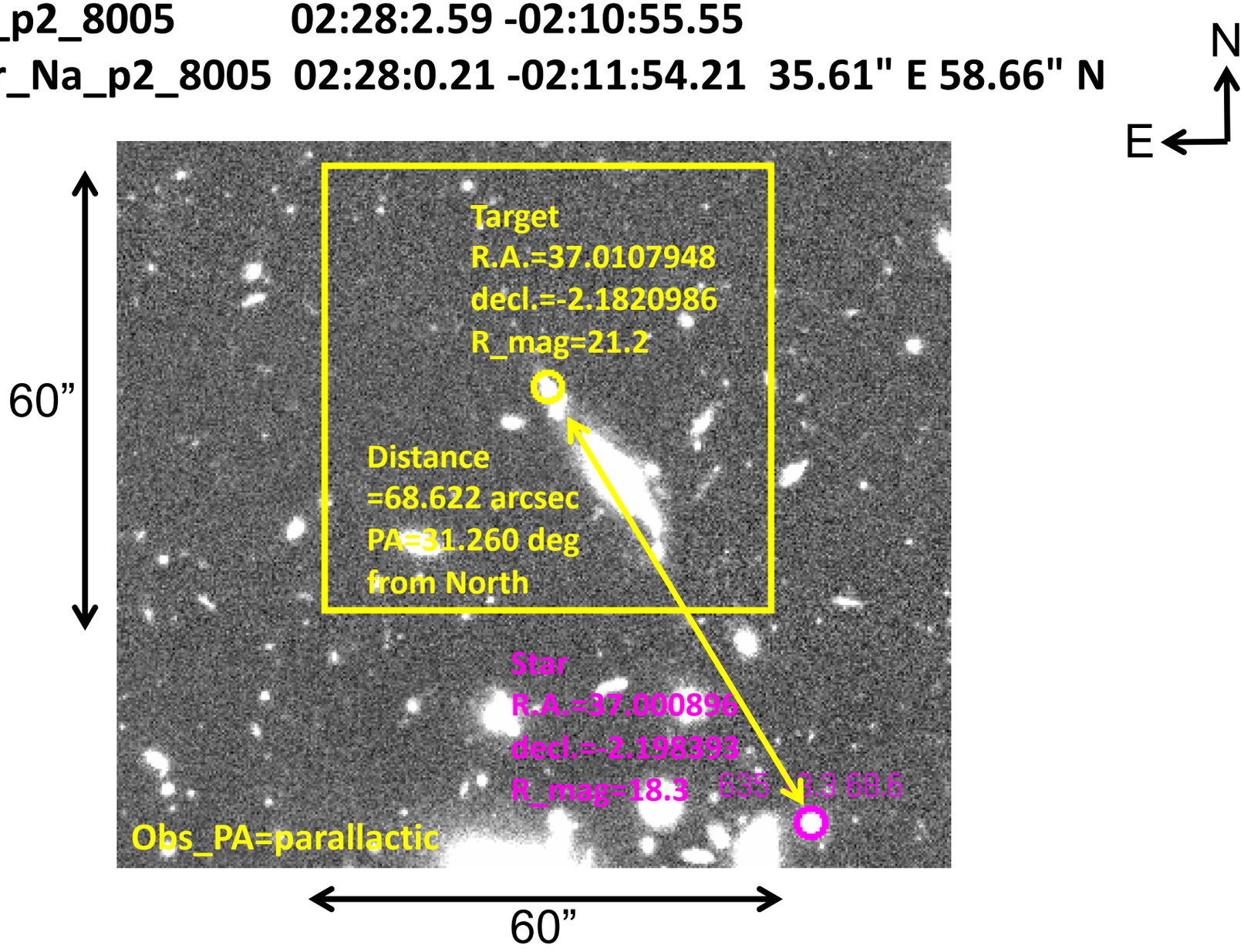


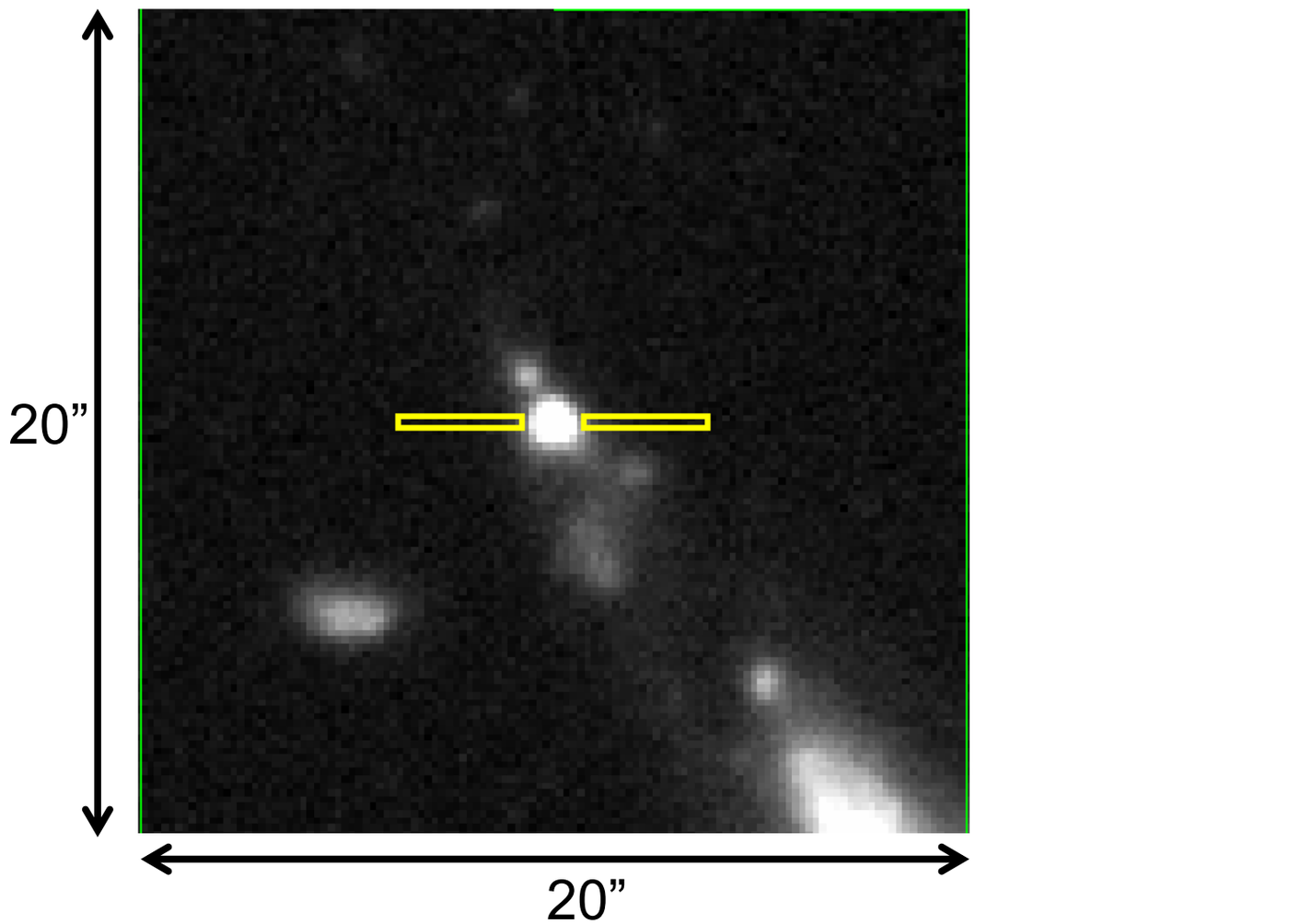

N
E
20”
20”


Na_p2_8005
N
E
6’
6’
HSC R-band

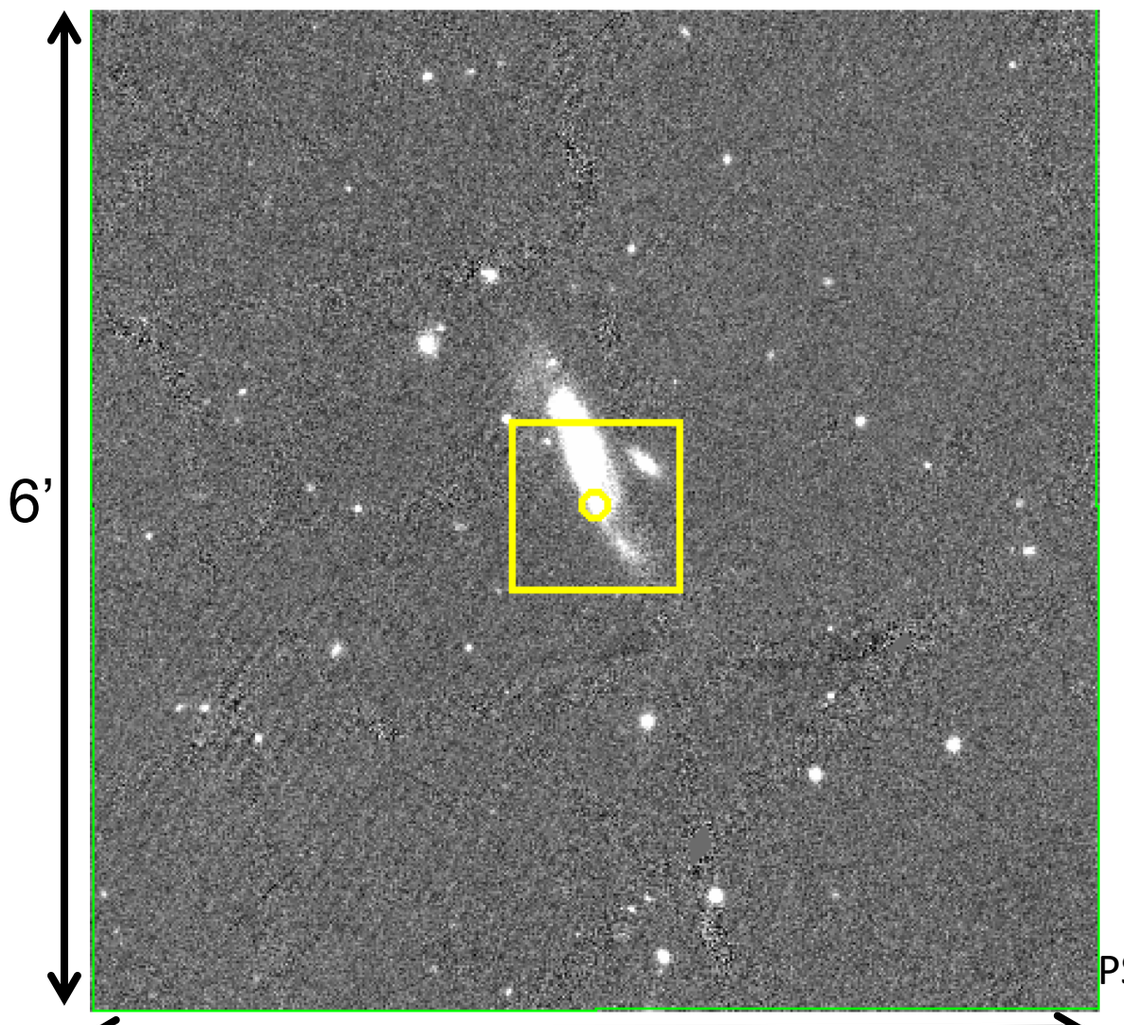
Na_p2_8005 02:28:2.59 -02:10:55.55

star_Na_p2_8005 02:28:0.21 -02:11:54.21 35.61" E 58.66" N



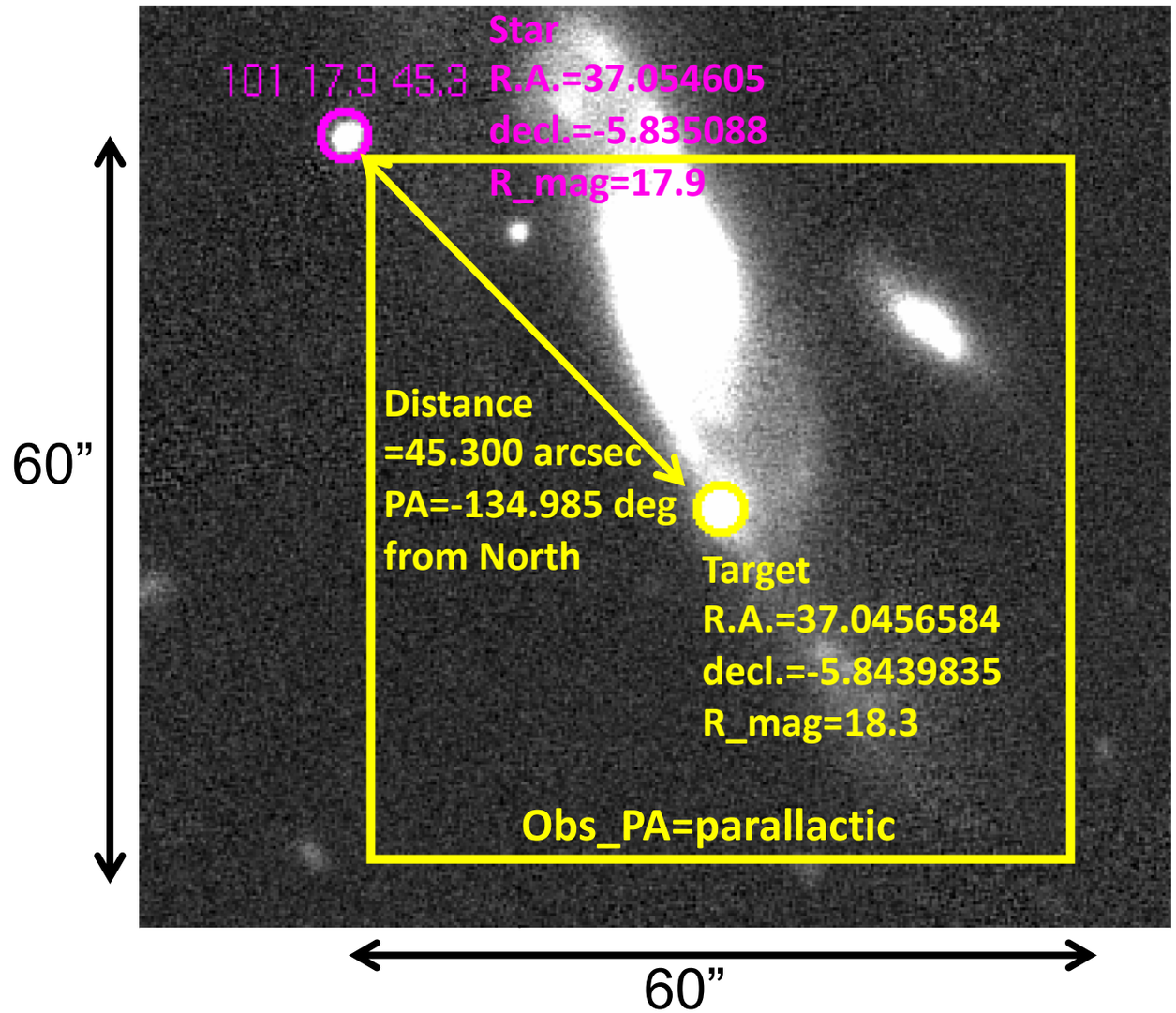

N
E
20”
20”

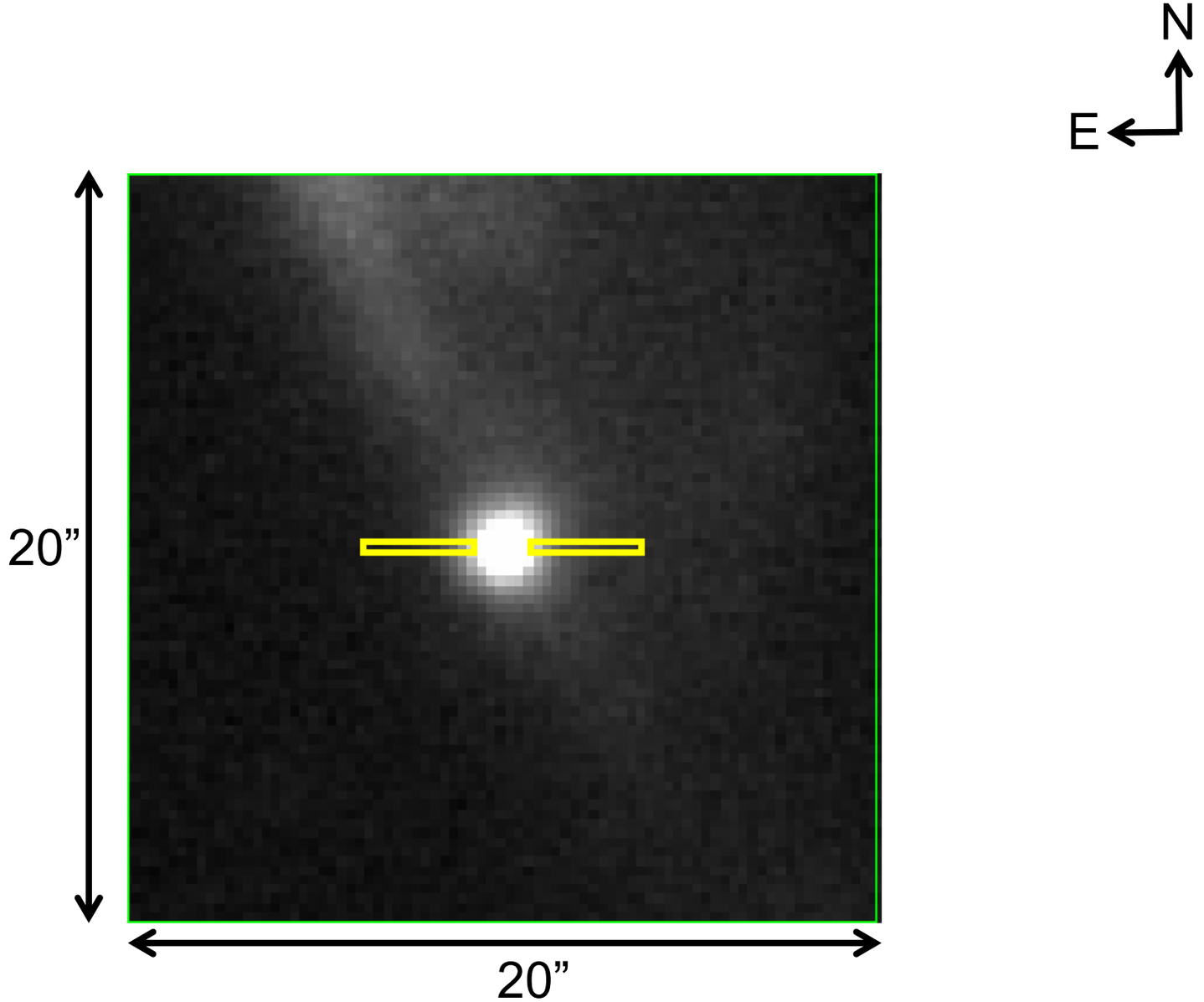
N121



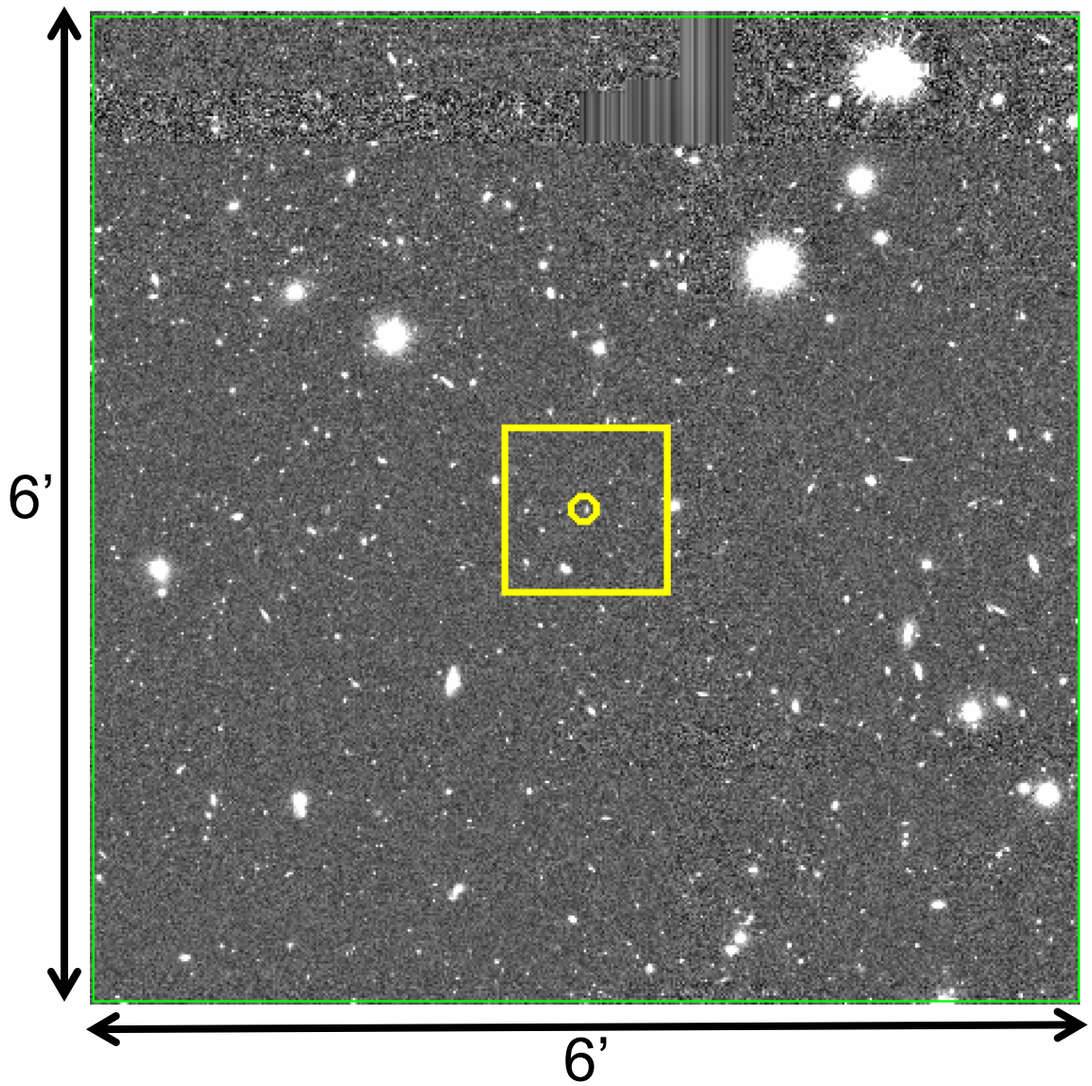
N121 02:28:10.96 -05:50:38.34

star_N121 02:28:13.11 -05:50:06.32 32.04" W 32.02" S



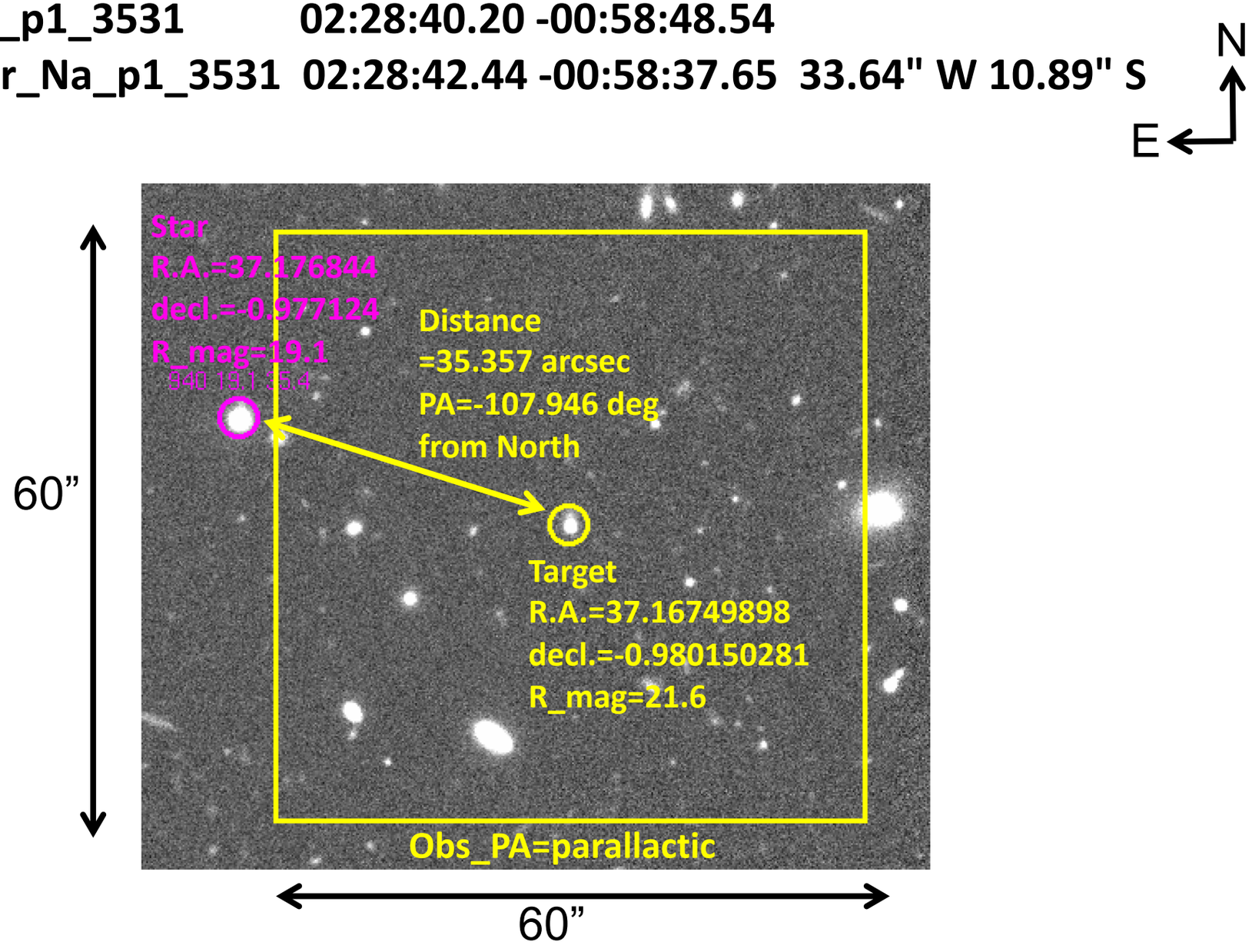

N
E
20”
20”

Na_p1_3531

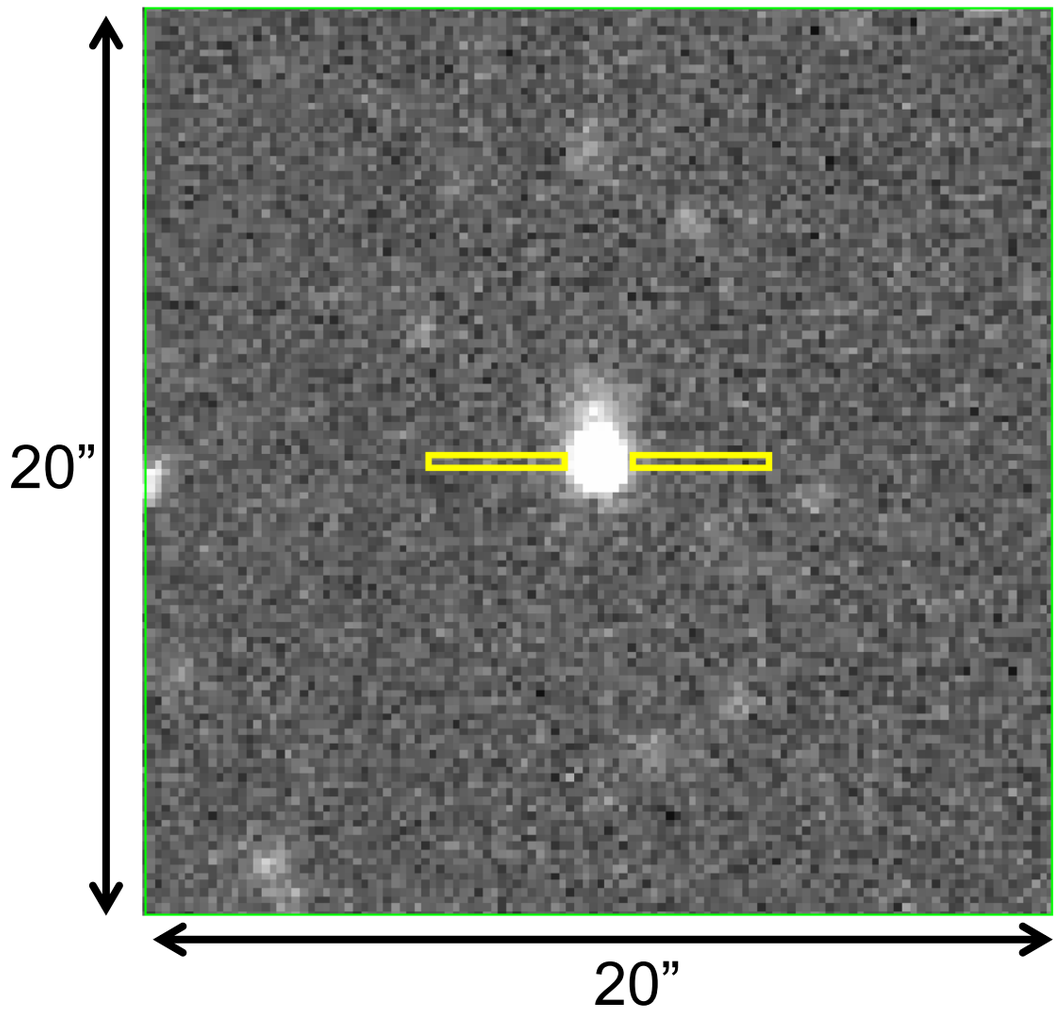


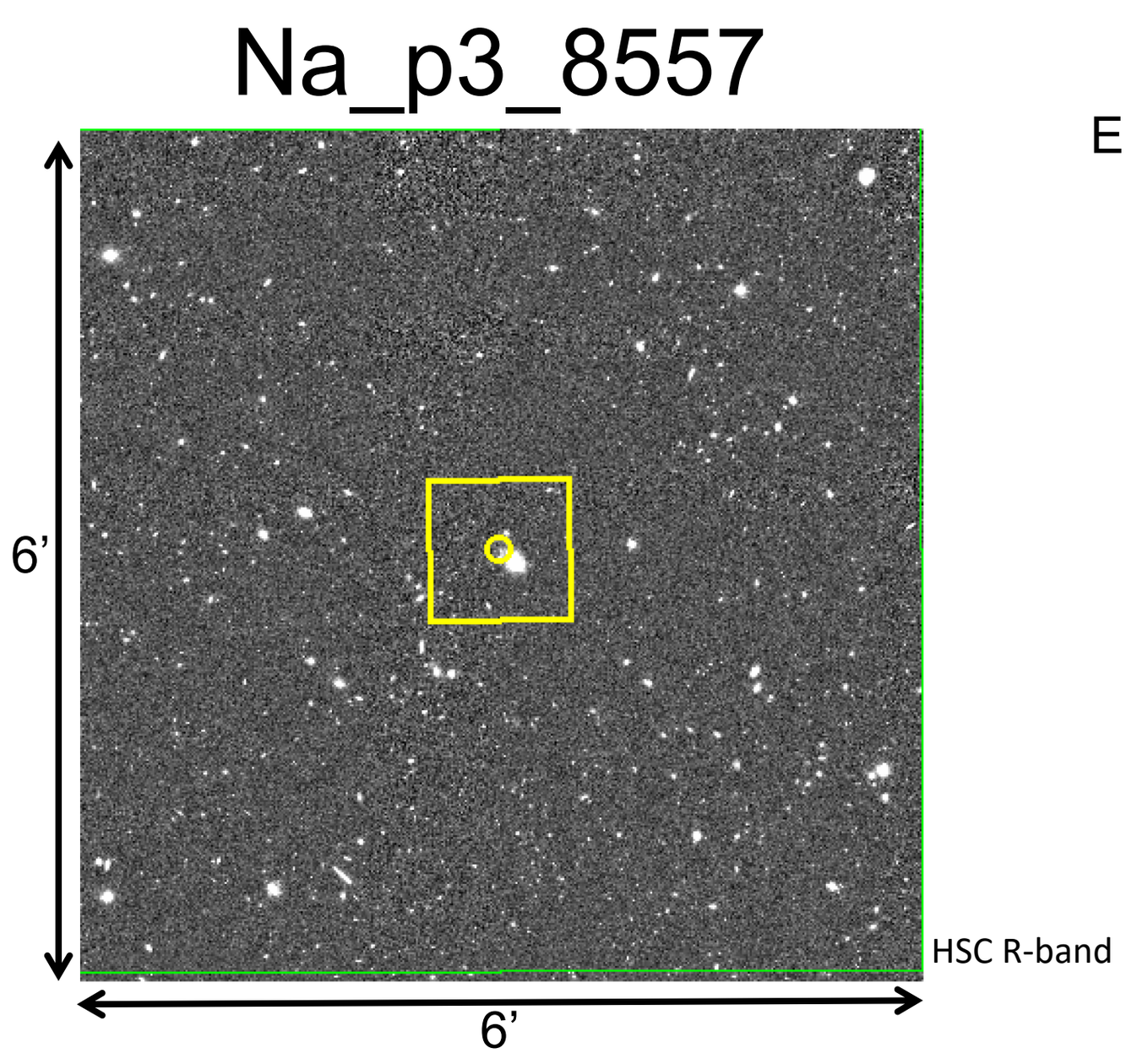
Na_p1_3531 02:28:40.20 -00:58:48.54

star_Na_p1_3531 02:28:42.44 -00:58:37.65 33.64" W 10.89" S

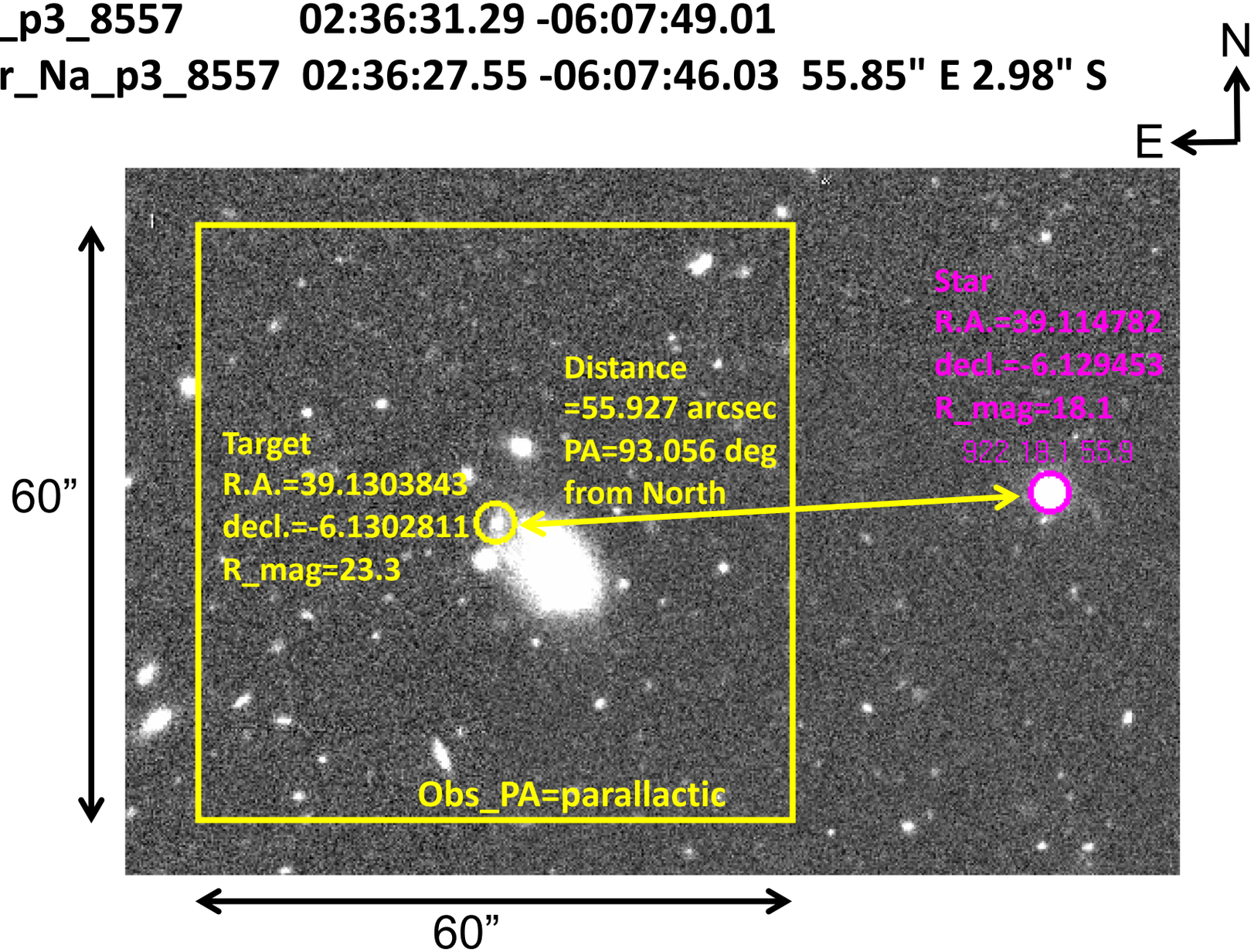


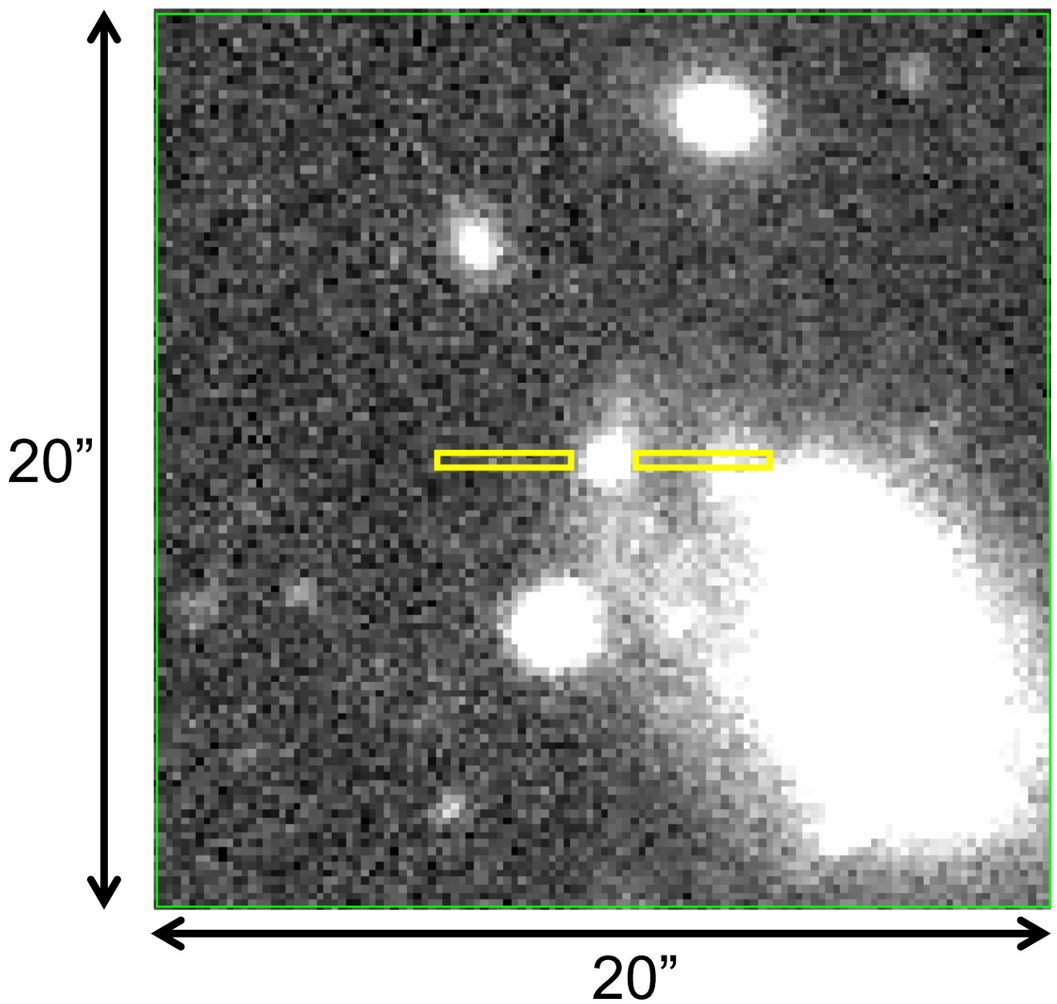
Na_p1_3531

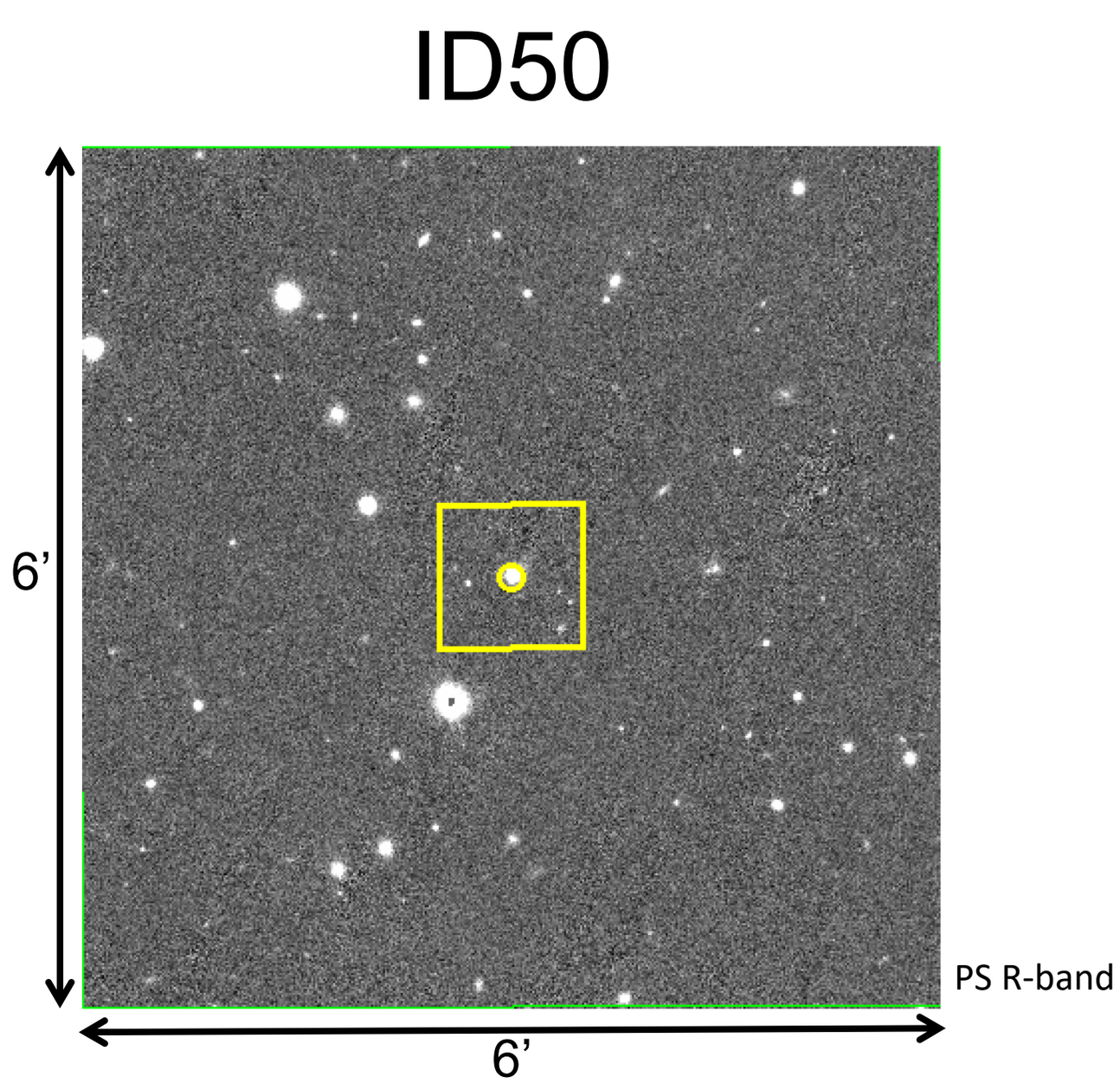



Na_p3_8557
N
E
6’
6’
HSC R-band

Na_p3_8557 02:36:31.29 -06:07:49.01
star_Na_p3_8557 02:36:27.55 -06:07:46.03 55.85" E 2.98" S

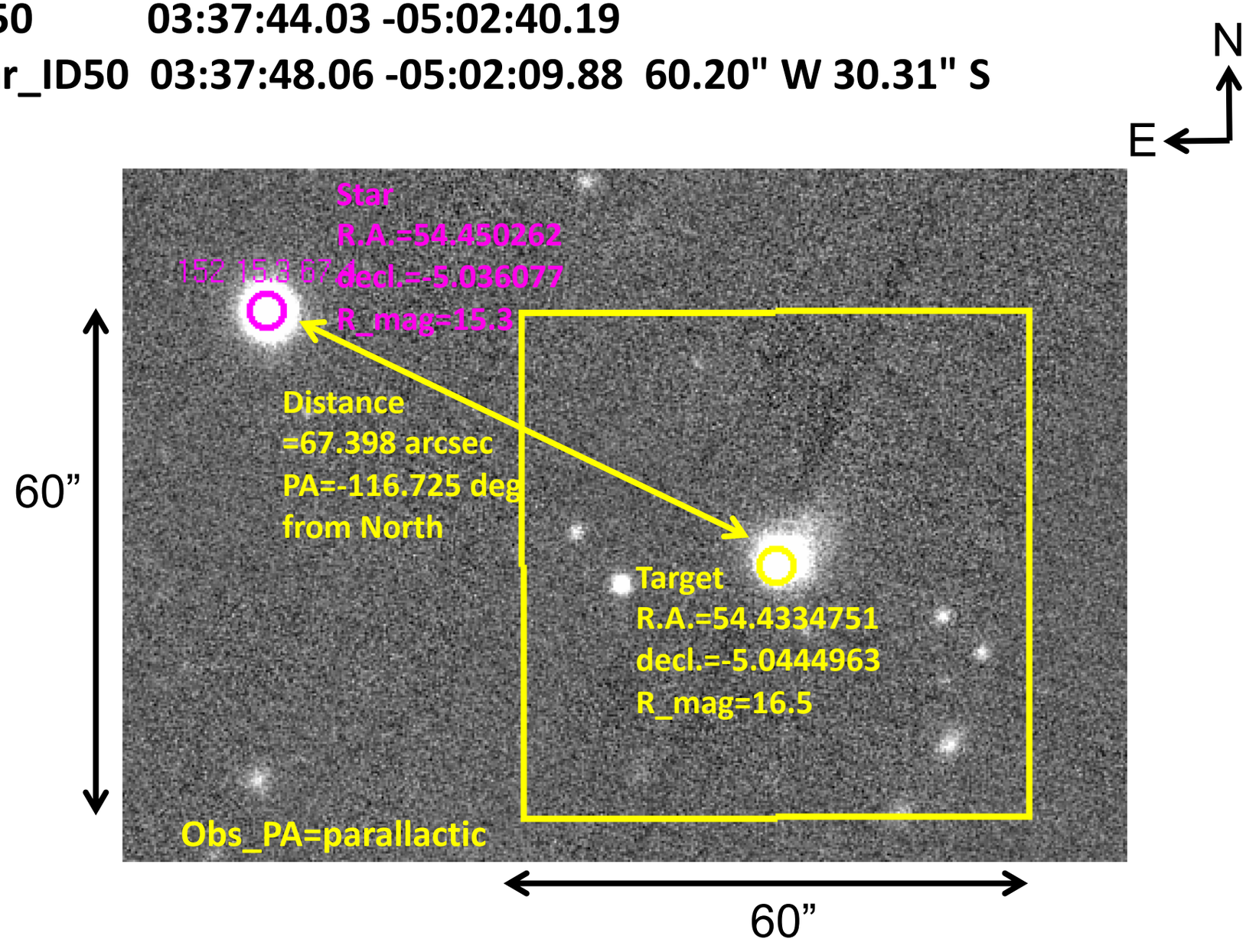


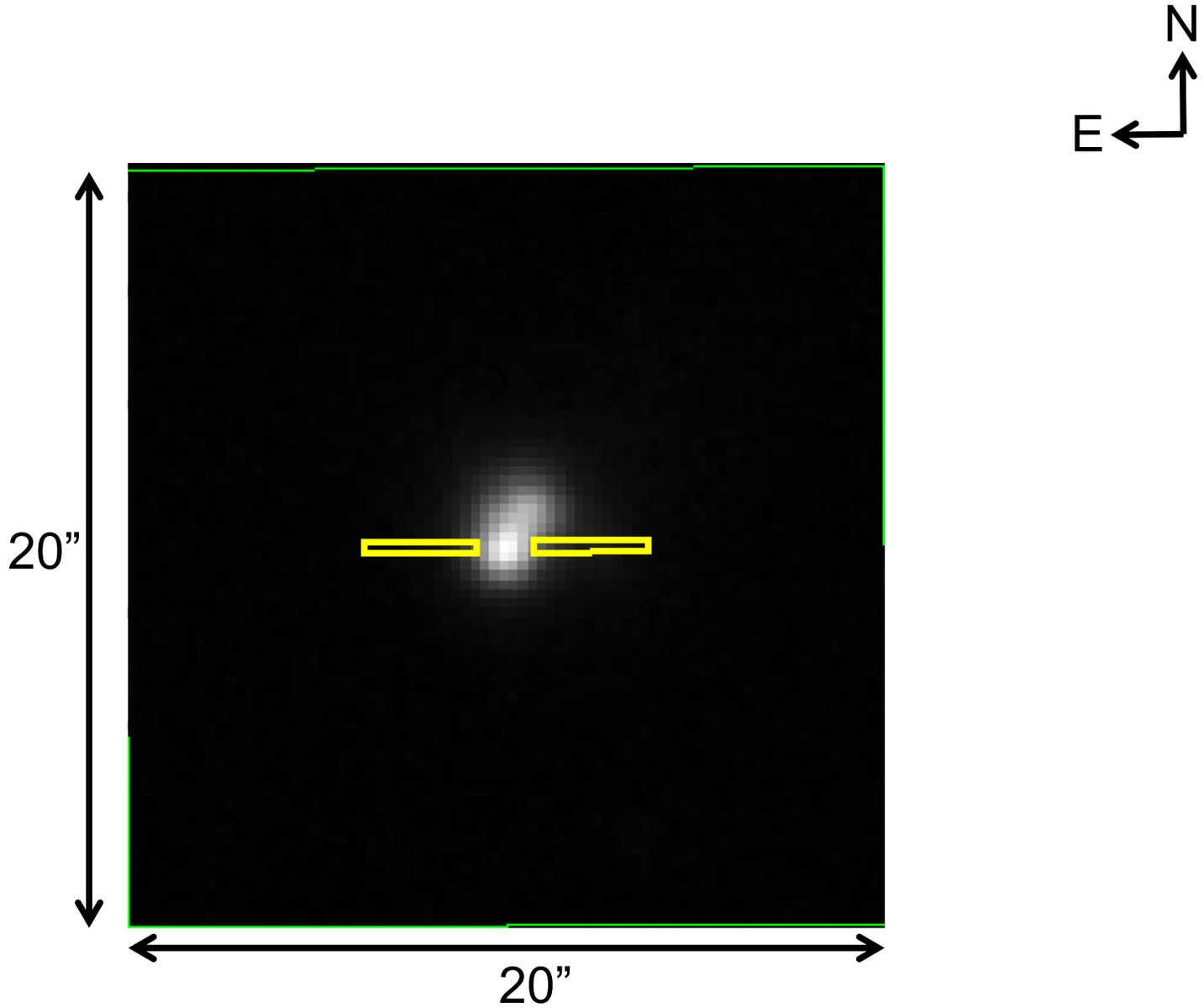

N
E
20”
20”


ID50
N
E
6’
6’
PS R-band

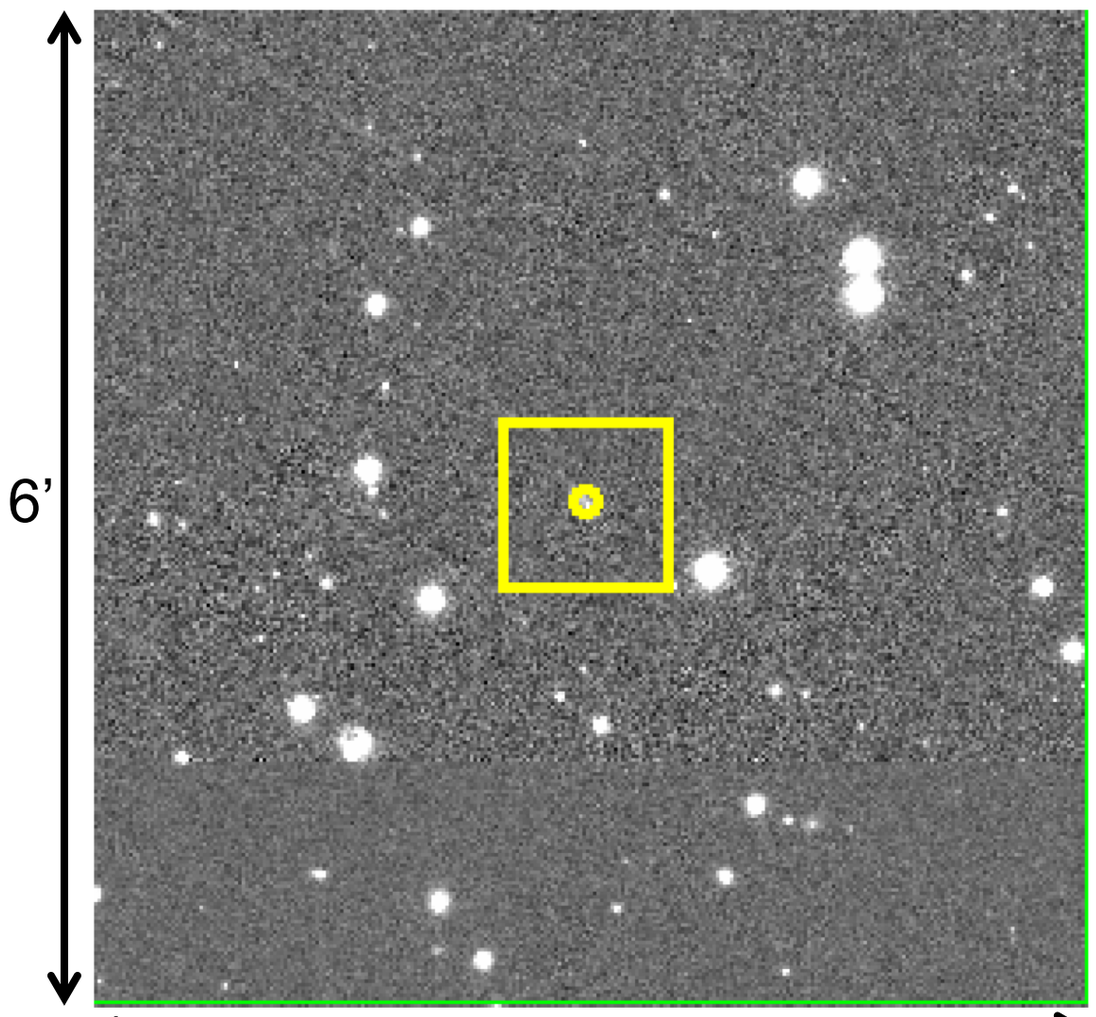
ID50 03:37:44.03 -05:02:40.19

star_ID50 03:37:48.06 -05:02:09.88 60.20" W 30.31" S

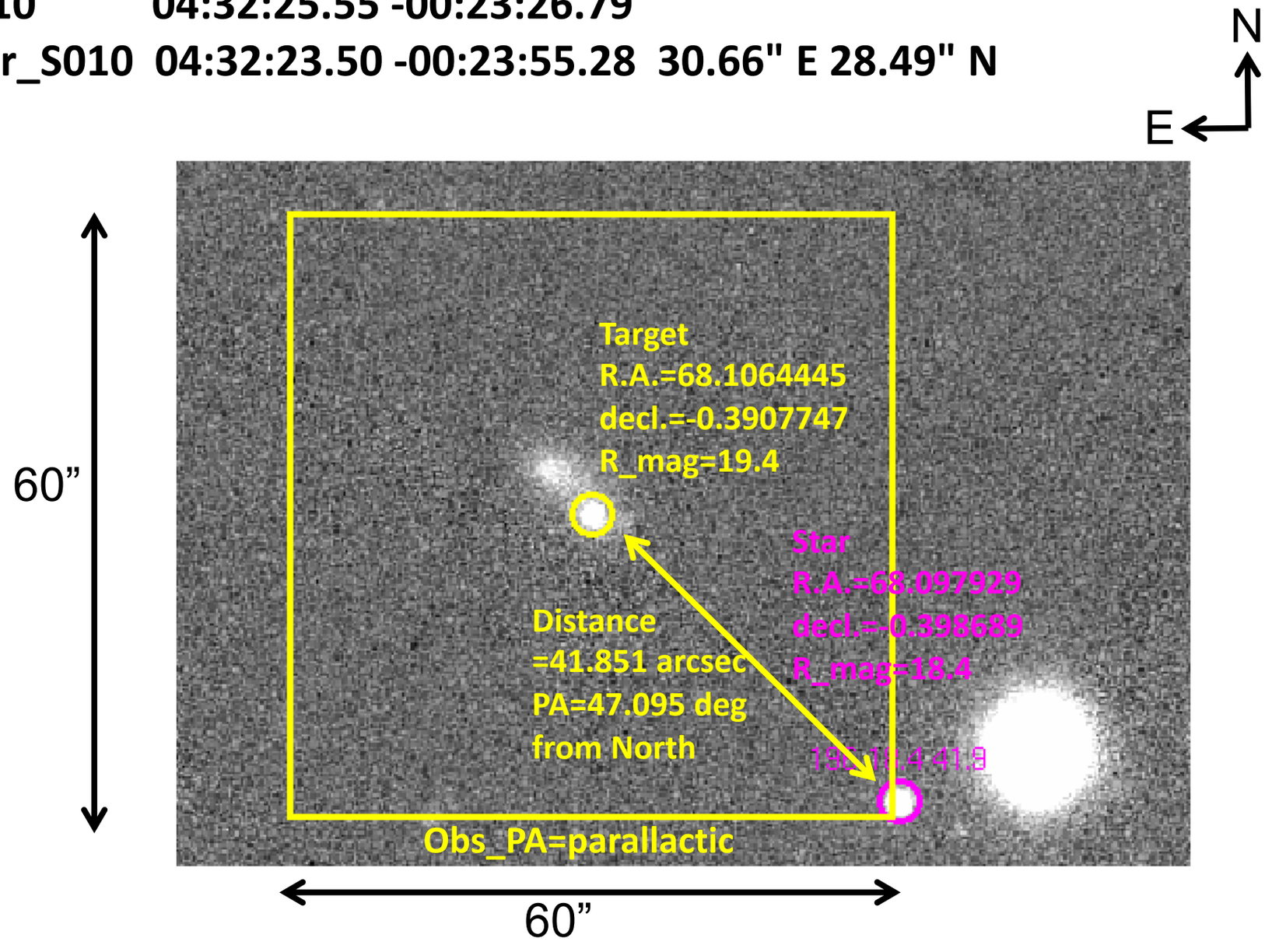


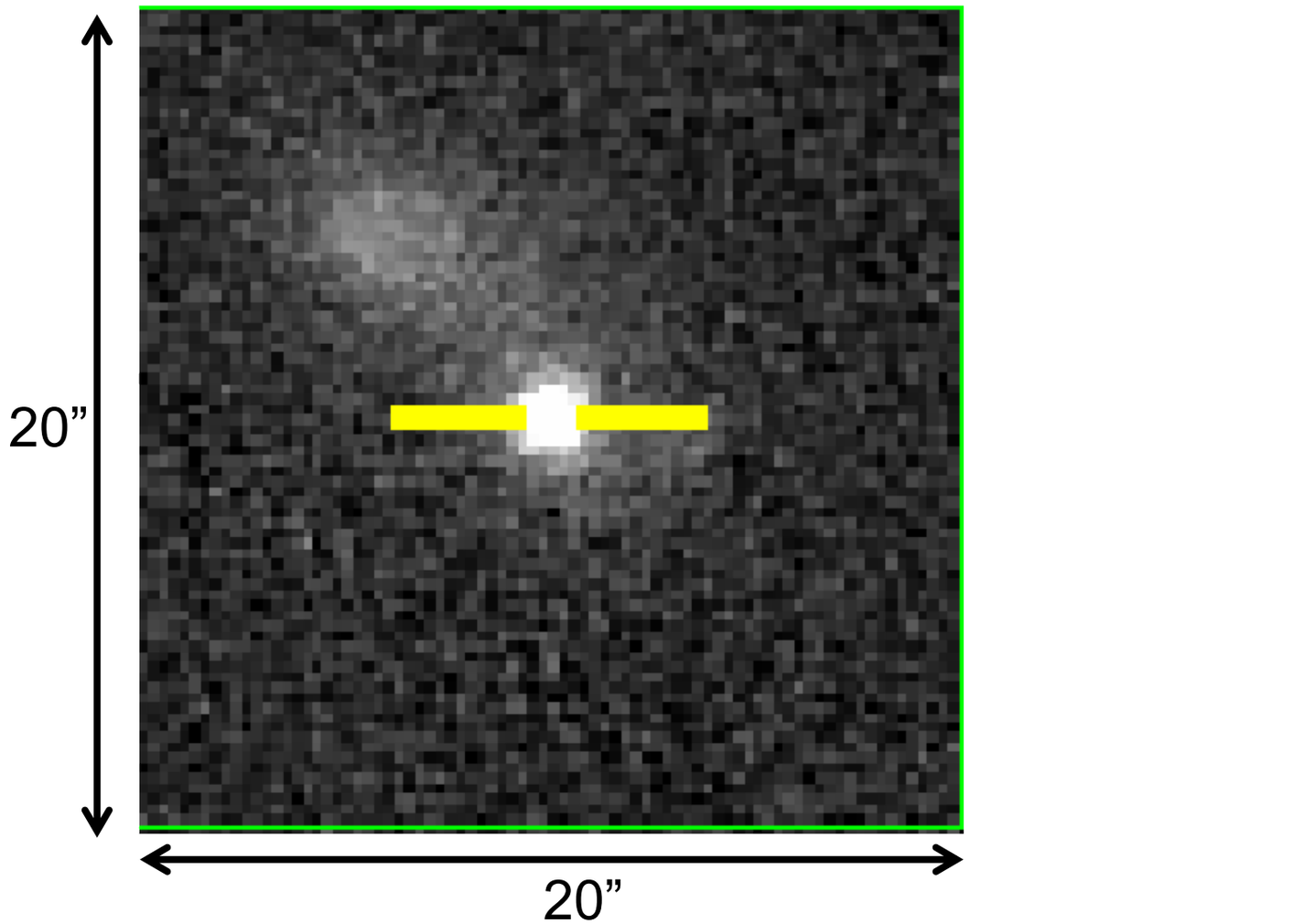

N
E
20”
20”

S010

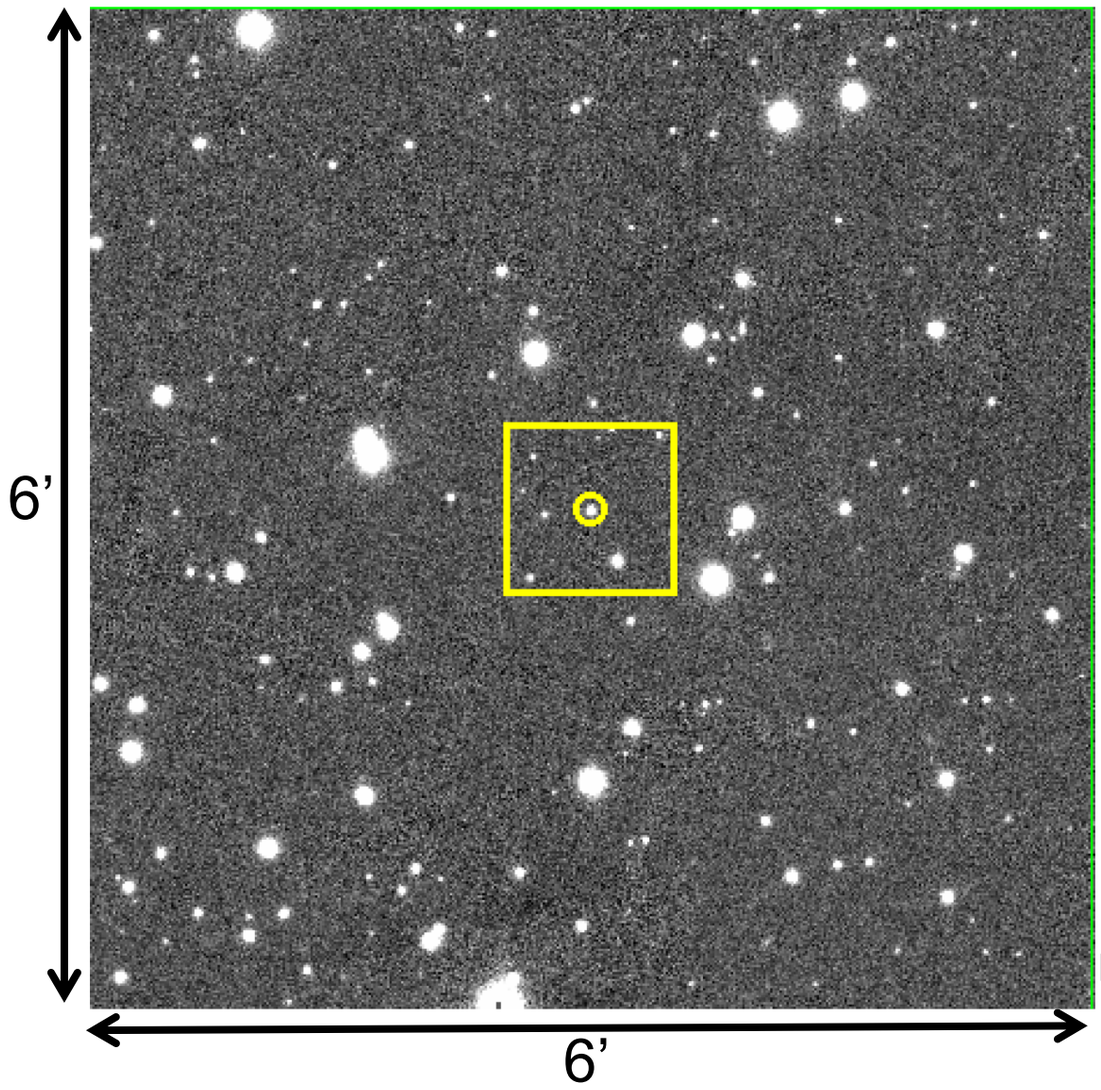


S010 04:32:25.55 -00:23:26.79
star_S010 04:32:23.50 -00:23:55.28 30.66" E 28.49" N

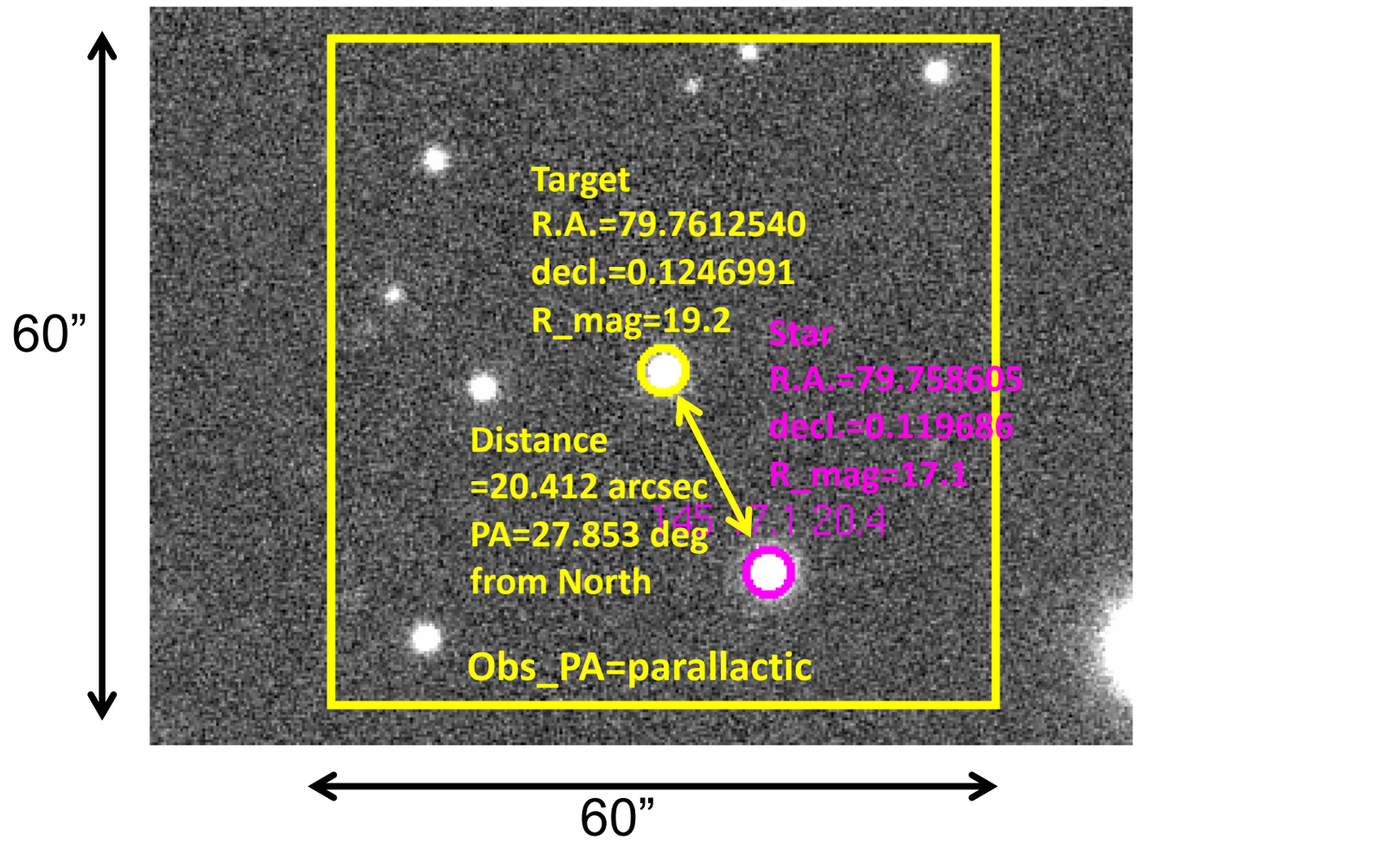


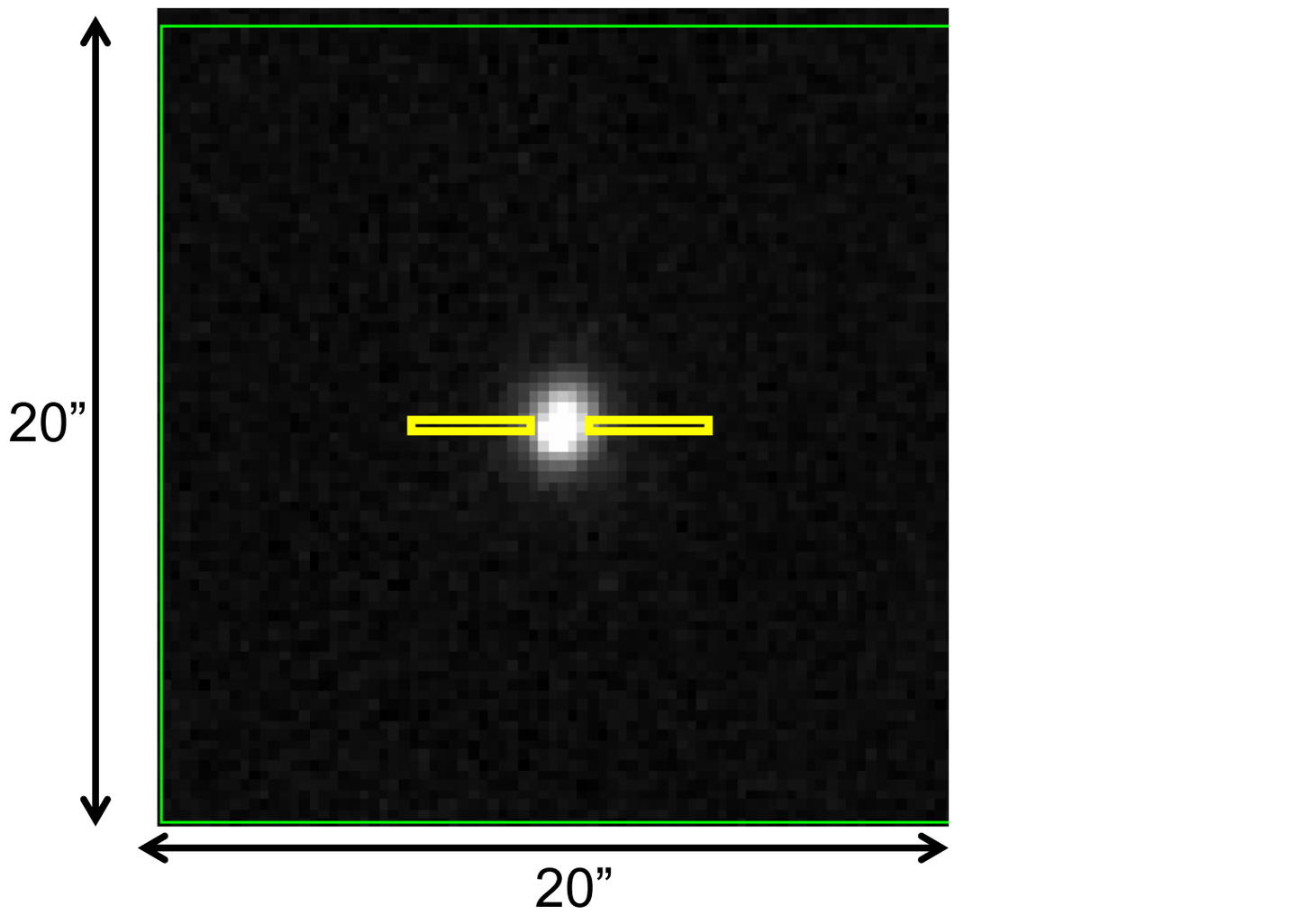

N
E
20”
20”

ID62

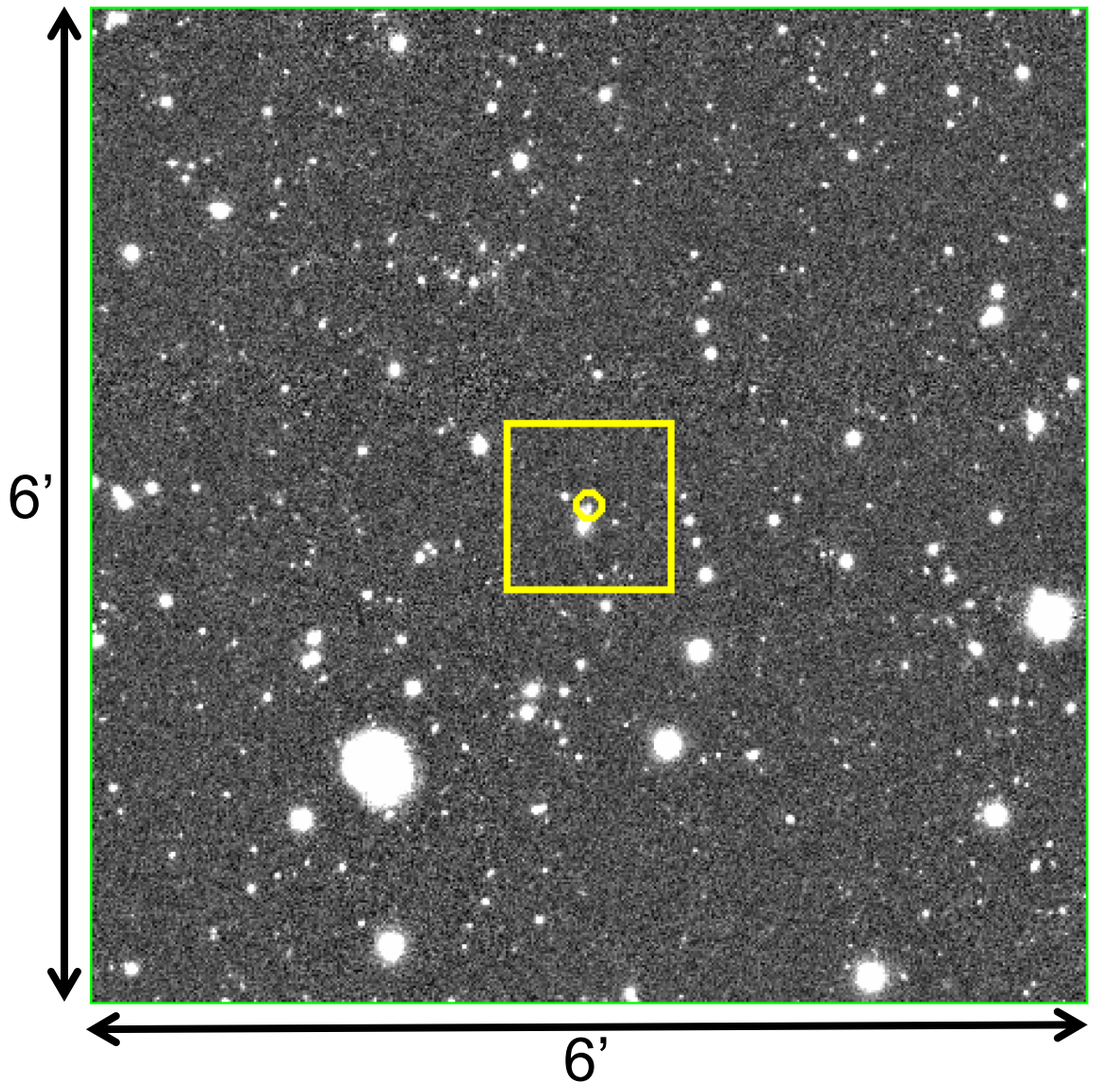


ID62 05:19:2.70 +00:07:28.92
star_ID62 05:19:2.07 +00:07:10.87 9.54" E 18.05" N

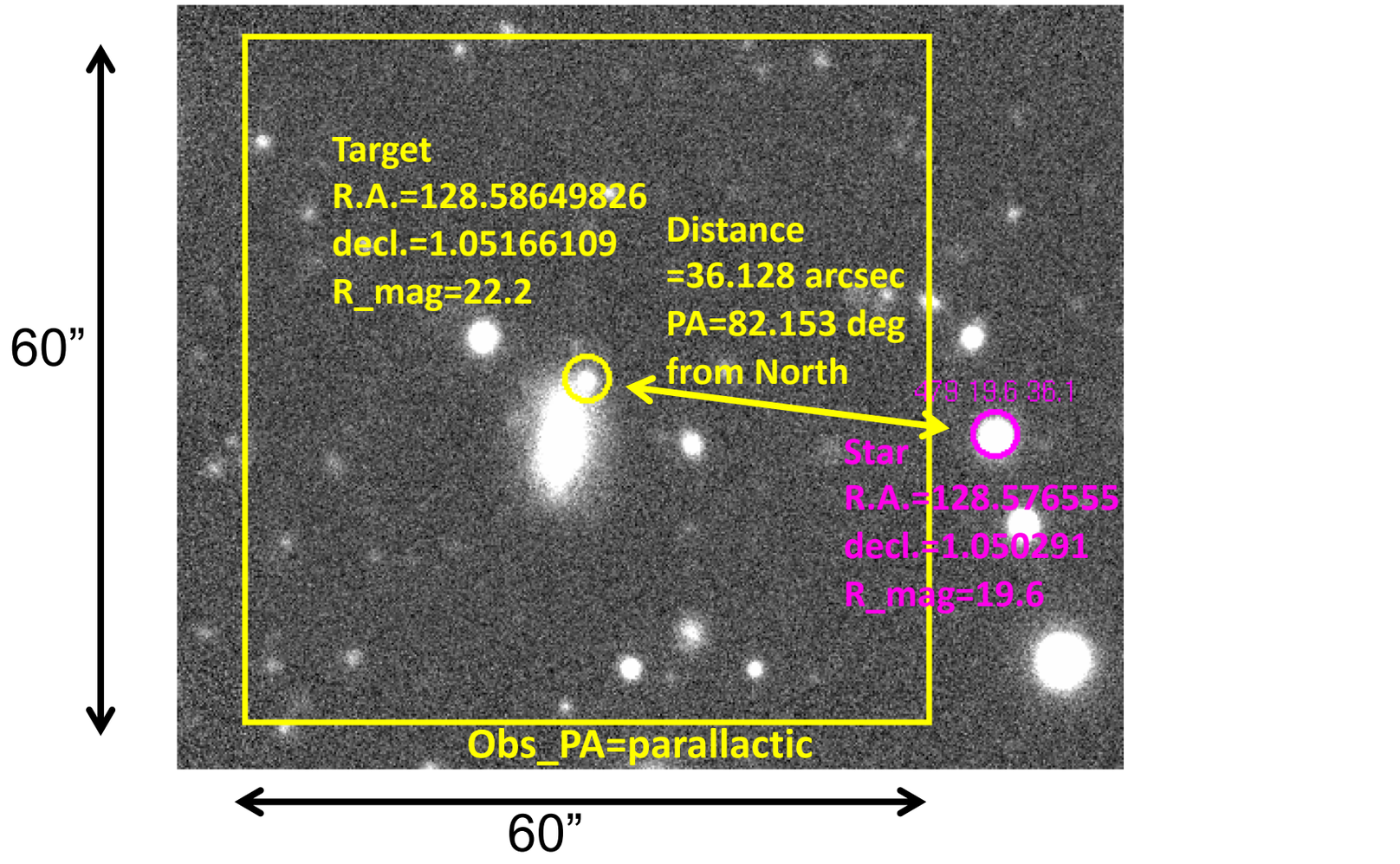


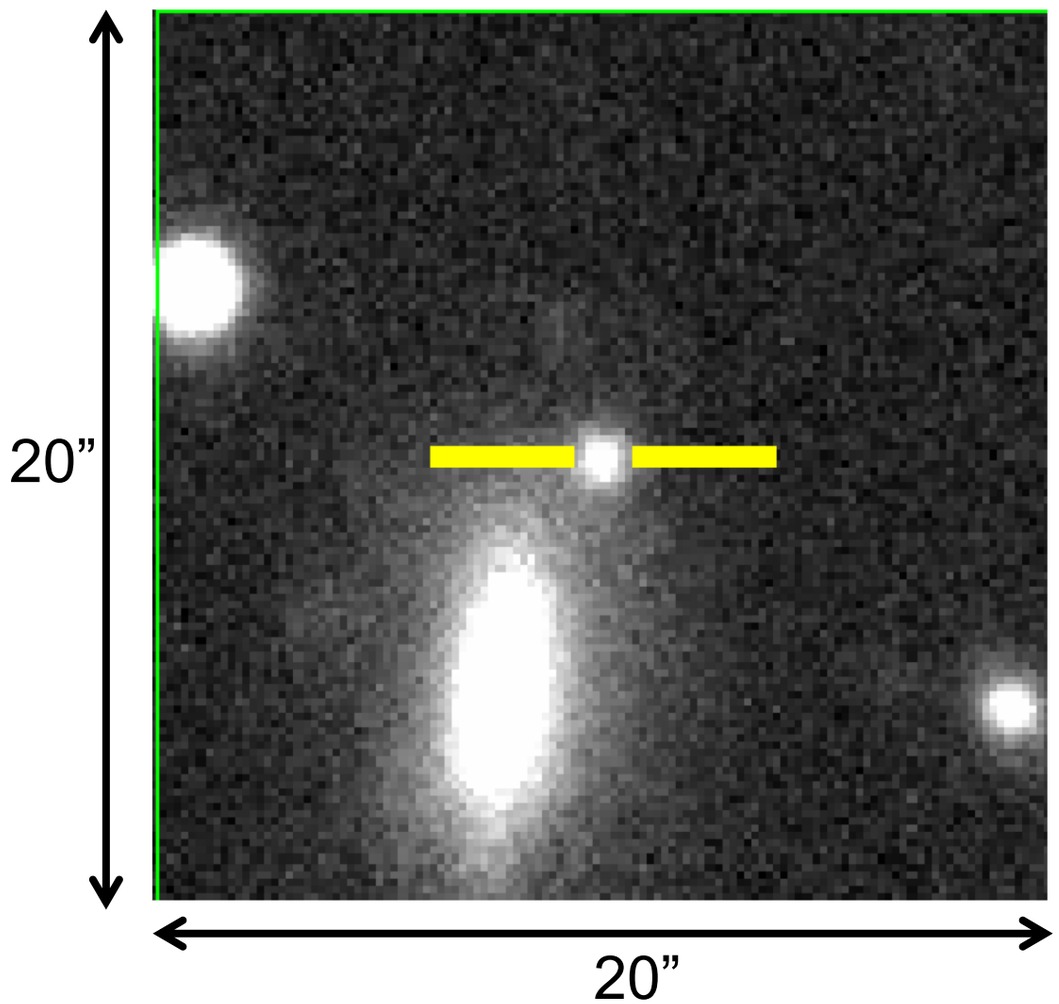

N
E
20”
20”

Na_p2_K08



Na_p2_K08 08:34:20.76 +01:03:5.98
star_Na_p2_K08 08:34:18.37 +01:03:1.05 35.79" E 4.93" N




N
E
20”
20”