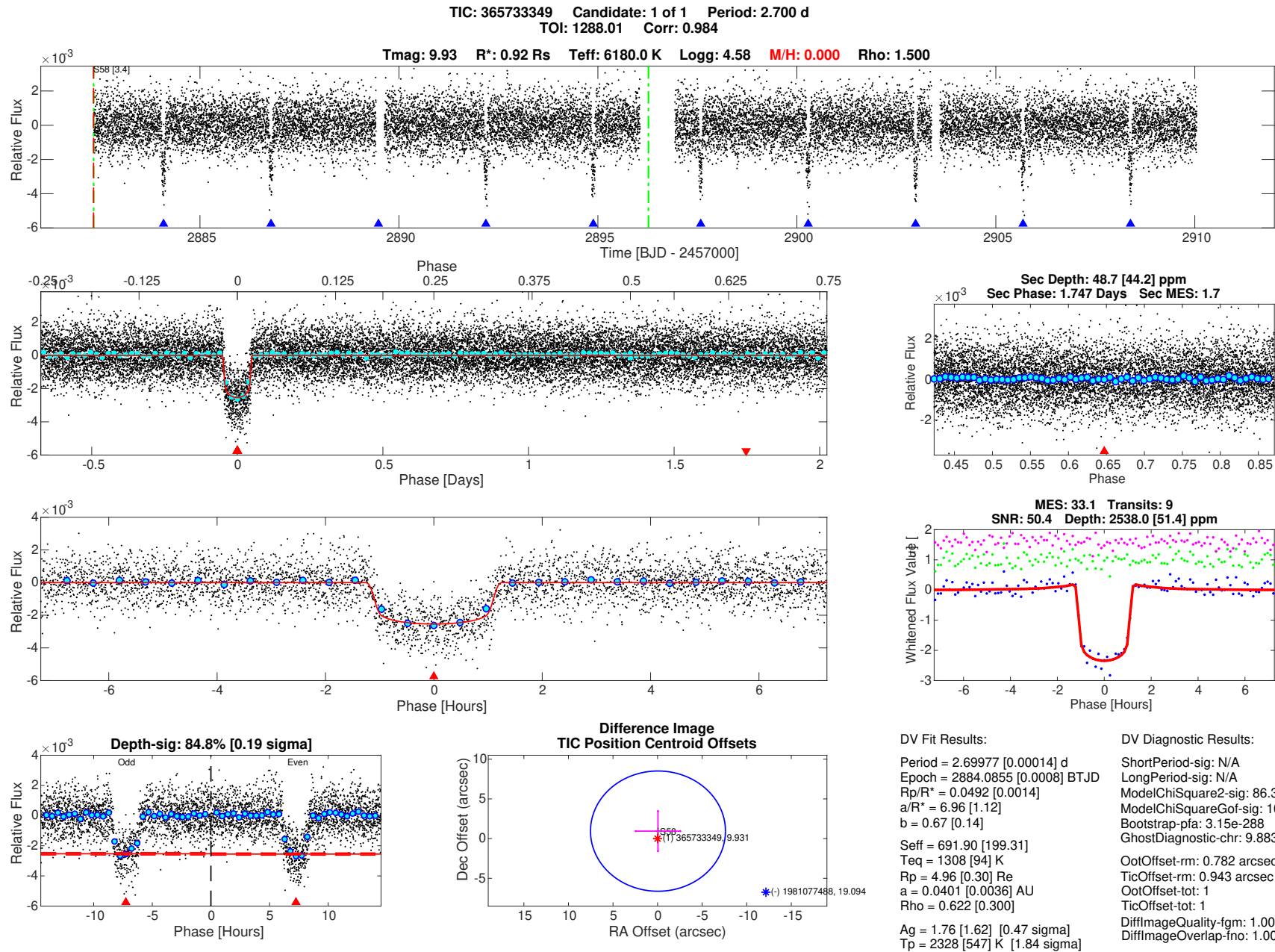
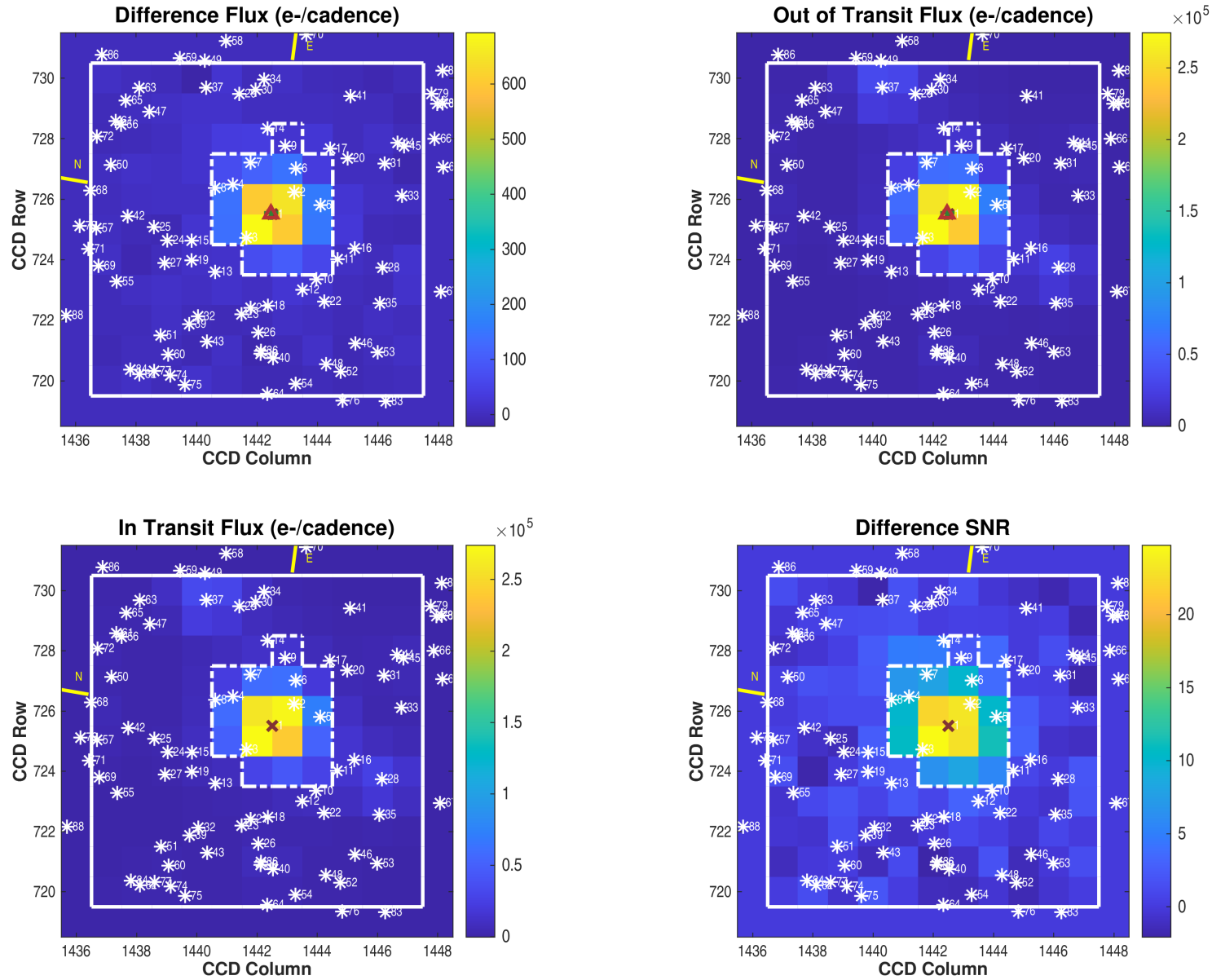
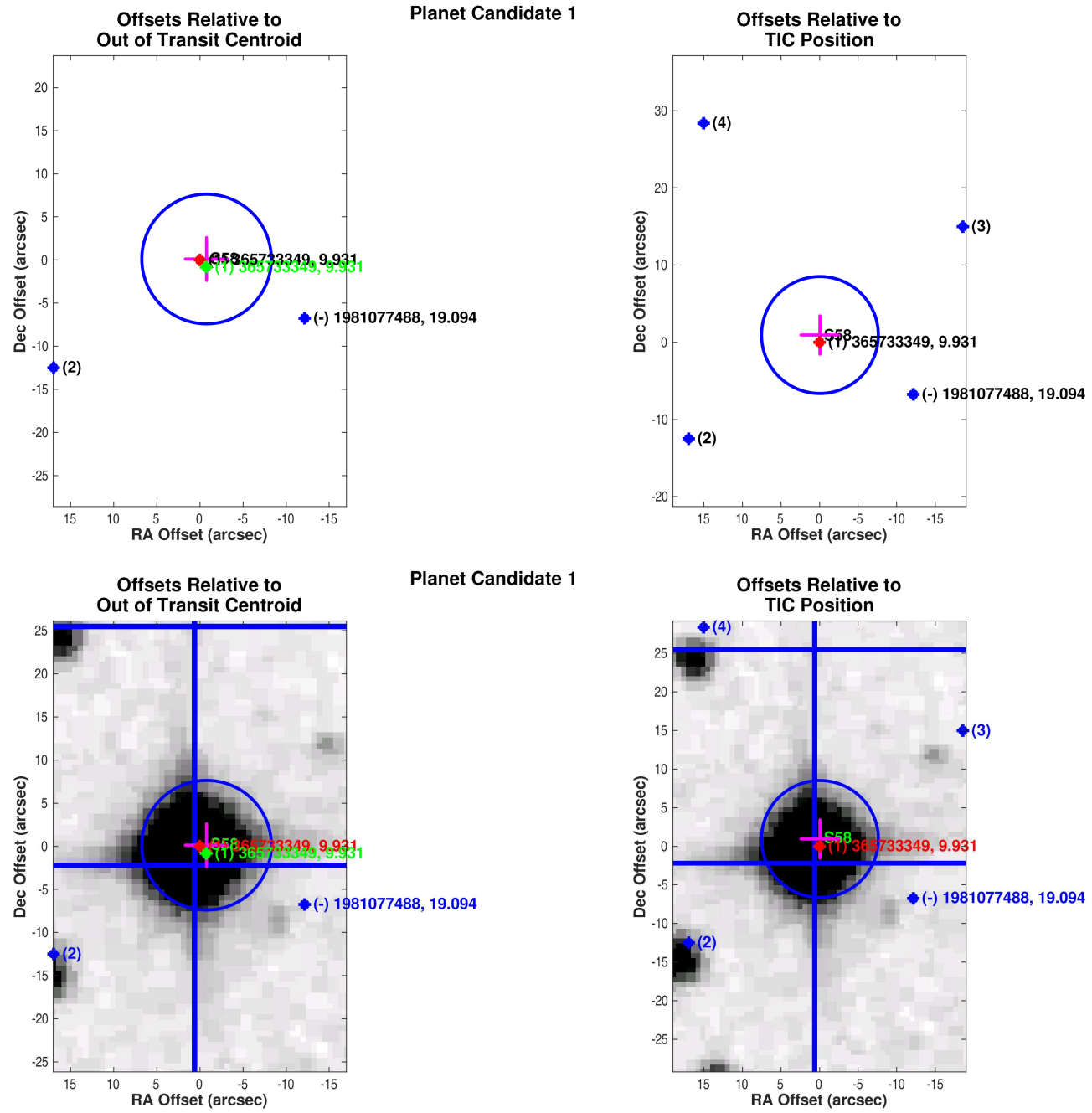


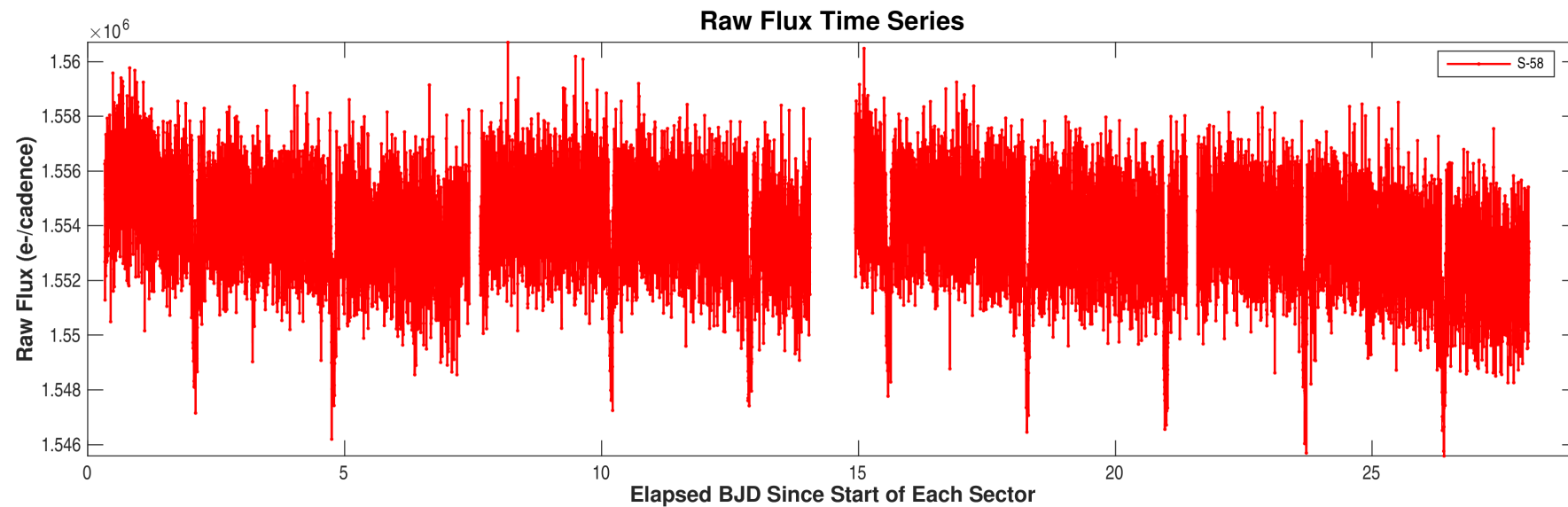


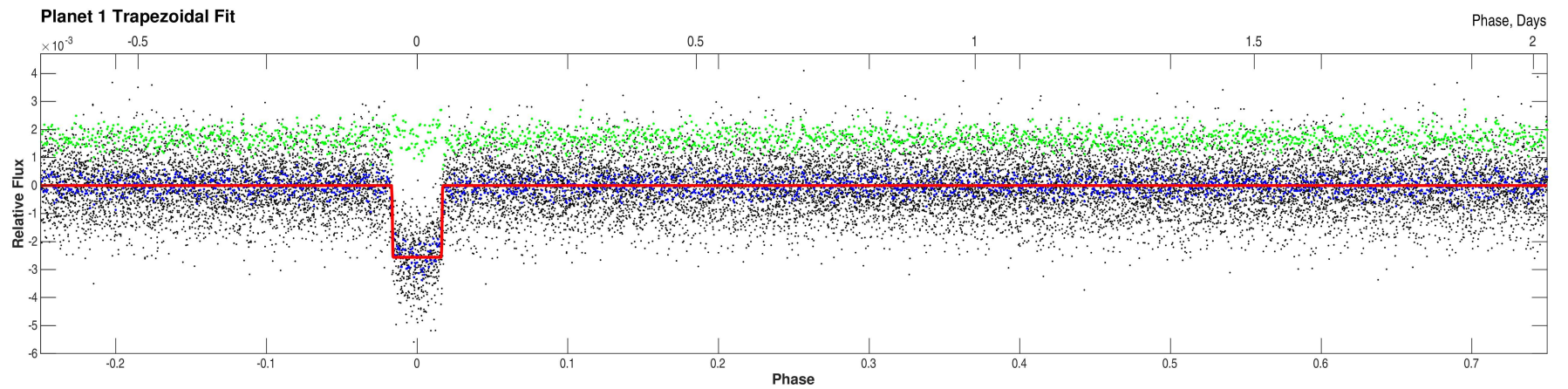
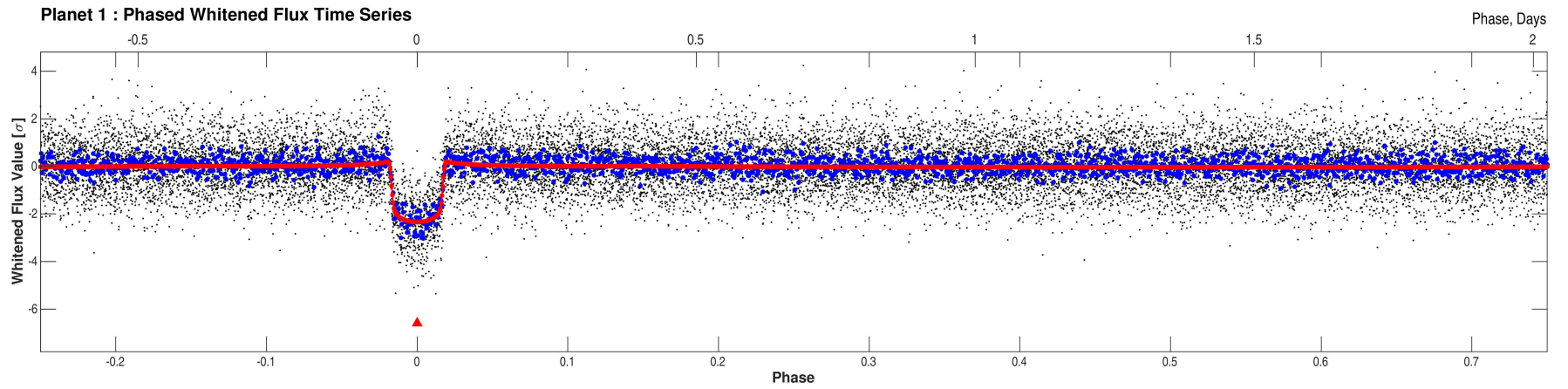
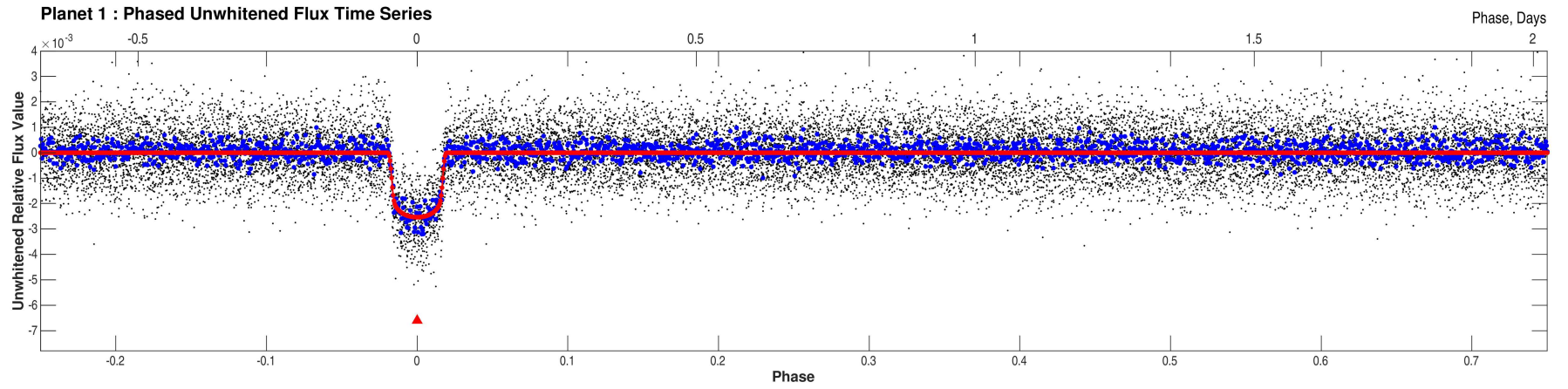
Software Revision: spoc-5.0.77-20221025 -- Cadence Type: TARGET (2.0-min) -- Date Generated: 30-Nov-2022 00:09:10 Z
 This Data Validation Report Summary was produced in the TESS Science Processing Operations Center Pipeline at NASA Ames Research Center

Planet Candidate 1 / Sector 58 / Target Pixel Table 378



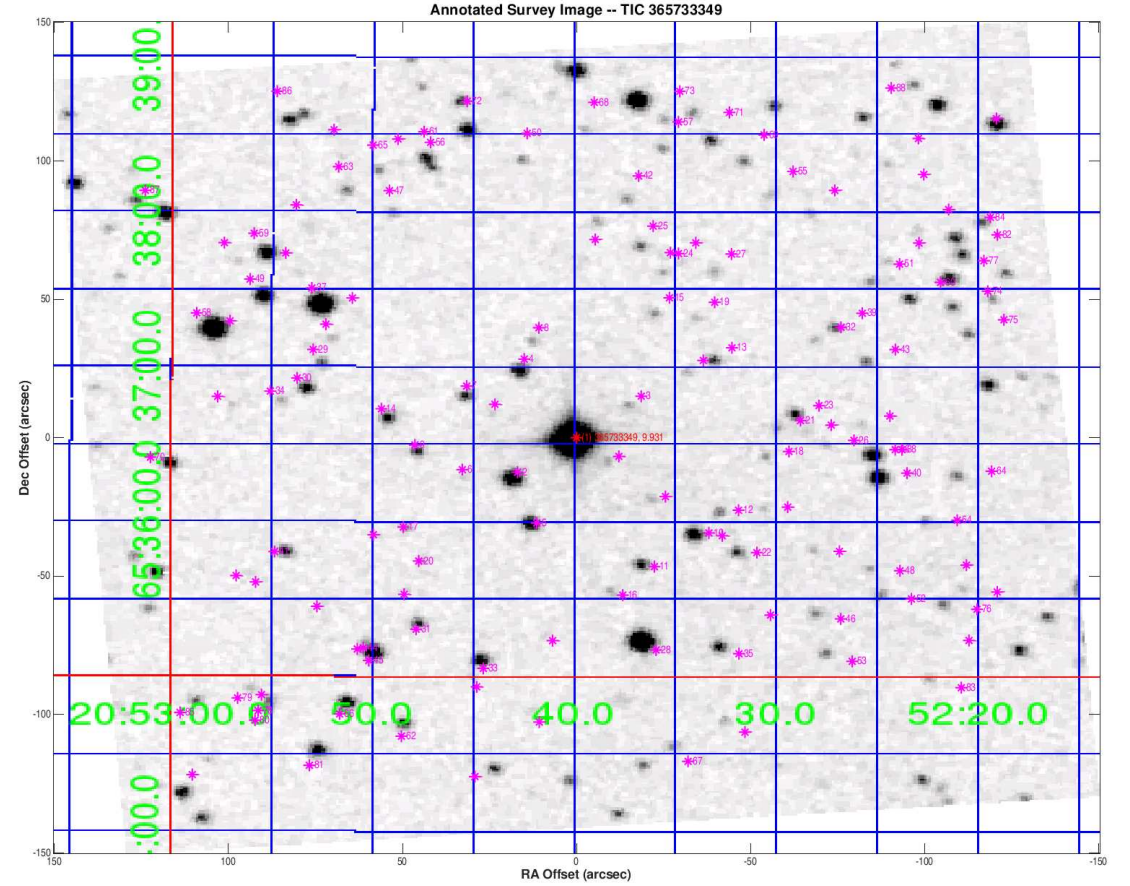






Stellar Distance Table

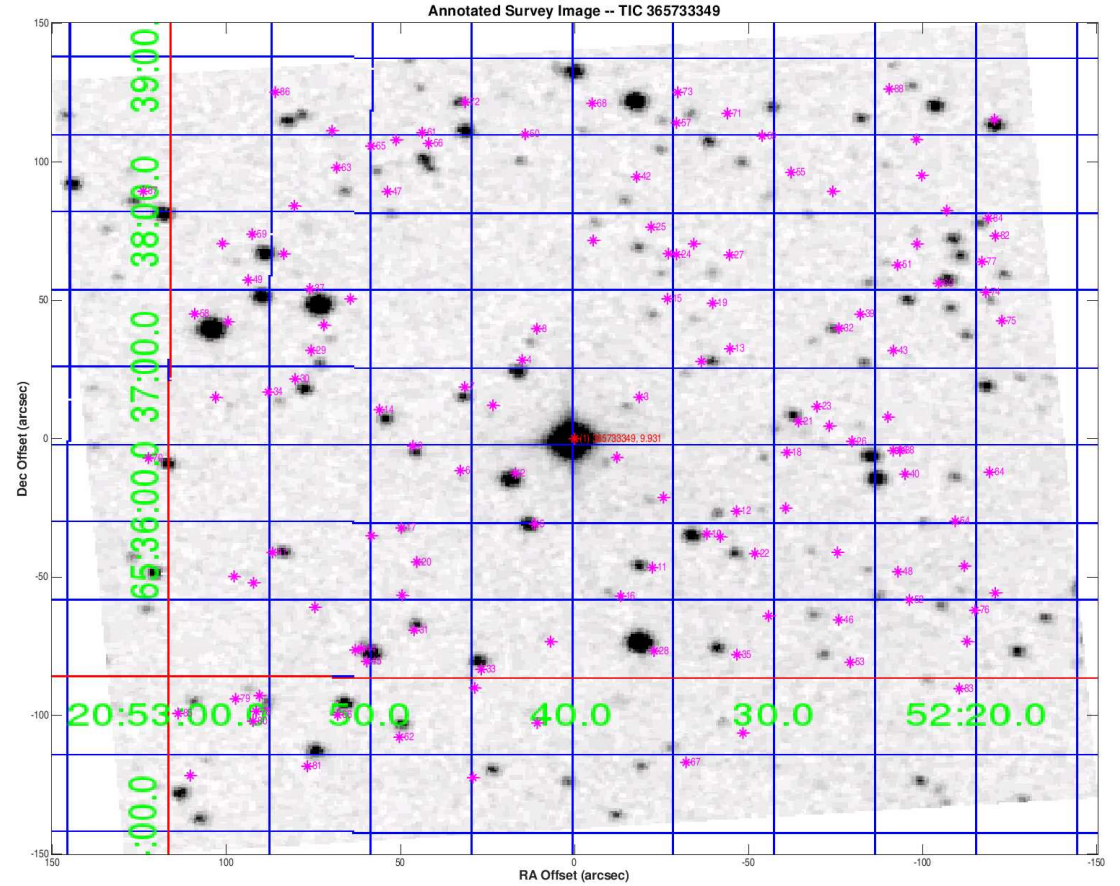
Index	TIC ID	TESS Mag	Distance (arcsec)
1	0000000365733349	9.93	0.00
2	0000000365733341	14.34	21.07
3	0000001981077487	18.42	23.86
4	0000000365733354	15.49	32.11
5	0000000365733337	15.20	32.86
6	0000000365733342	18.68	34.77
7	0000000365733351	16.69	36.67
8	0000001981077489	18.63	41.16
9	0000000365733345	17.08	46.50
10	0000000365733336	15.37	51.27
11	0000000365733332	16.53	51.67
12	0000000365733338	17.77	53.41
13	0000000365733358	16.85	55.20
14	0000000365733350	15.95	57.01
15	0000000365595240	17.97	57.15
16	0000001981077481	18.64	58.40
17	0000001981077484	18.58	59.30
18	0000001981077752	18.44	61.21
19	0000000365733361	18.47	62.98
20	0000001981077483	18.55	63.55
21	0000001981077750	18.46	64.63
22	0000000365595262	17.04	66.38
23	0000000365595249	16.64	70.59
24	0000001981077753	18.58	72.68
25	0000000365733370	17.46	79.53
26	0000000365595253	17.87	79.69
27	0000000365733366	18.25	79.90
28	0000000365733324	12.89	80.03
29	0000000365733356	16.73	82.09
30	0000000365733352	15.95	83.12
31	0000000365733326	16.84	83.14
32	0000000365595245	18.57	85.79
33	0000000365733321	15.80	87.53
34	0000001981077491	18.53	89.56
35	0000000365733323	16.32	90.91
36	0000001981077207	18.08	91.63
37	0000000365733363	12.74	93.31
38	0000000365595254	15.33	93.59
39	0000000365595242	17.08	93.60
40	0000000365595258	14.77	95.79



Distances are corrected for proper motion. This table may not contain all of the objects shown.

Stellar Distance Table – Continued

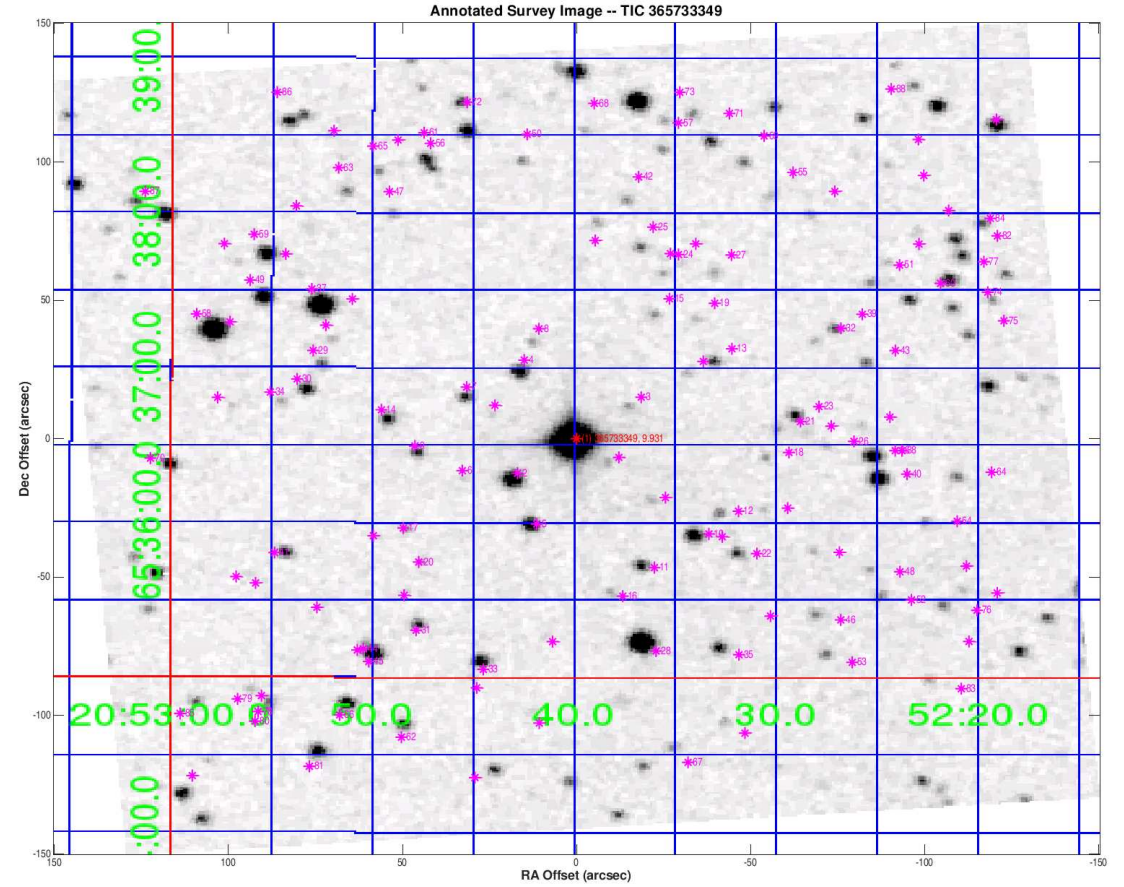
Index	TIC ID	TESS Mag	Distance (arcsec)
41	0000000365733335	16.49	96.01
42	0000000365733376	18.10	96.22
43	0000000365733357	17.55	96.97
44	0000000365733325	18.83	97.53
45	0000000365733322	14.73	100.19
46	0000000365595269	17.82	100.23
47	0000001981077497	18.40	104.19
48	0000001981077208	18.79	104.60
49	0000000365733364	14.69	109.88
50	0000000365733381	17.99	110.85
51	0000001981077758	18.31	112.00
52	0000001981077200	18.03	112.46
53	0000000365595280	17.89	113.12
54	0000000365595261	17.64	113.33
55	0000000365595229	18.59	114.51
56	0000000365733380	17.52	114.64
57	0000001981077765	18.14	117.76
58	0000000365733360	12.80	118.06
59	0000000365733368	14.98	118.45
60	0000000365595238	16.58	118.68
61	0000000365733382	16.47	118.88
62	0000000365733312	16.57	118.99
63	0000001981077498	17.94	119.38
64	0000001981077216	17.79	119.84
65	0000001981077499	18.05	120.77
66	0000000365733316	15.60	120.79
67	0000000365733309	17.24	121.23
68	0000000365733386	18.16	121.25
69	0000000365595225	17.72	121.92
70	0000000365733344	16.02	122.60
71	0000000365733384	16.88	125.43
72	0000000365733387	15.56	125.55
73	0000001981077766	18.76	128.57
74	0000001981077215	17.52	129.43
75	0000000365595243	17.51	129.92
76	0000000365595267	17.59	130.67
77	0000000365595235	16.09	133.32
78	0000001981077460	17.93	134.45
79	0000001981077459	18.82	135.33
80	0000000365733315	17.82	137.63



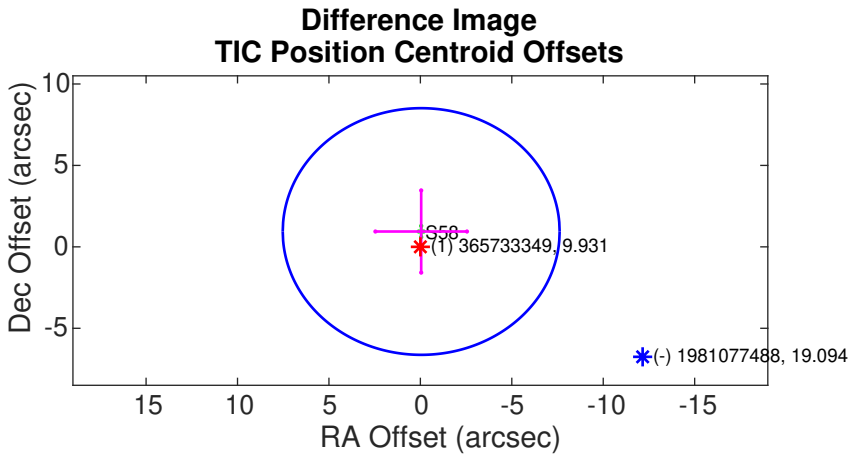
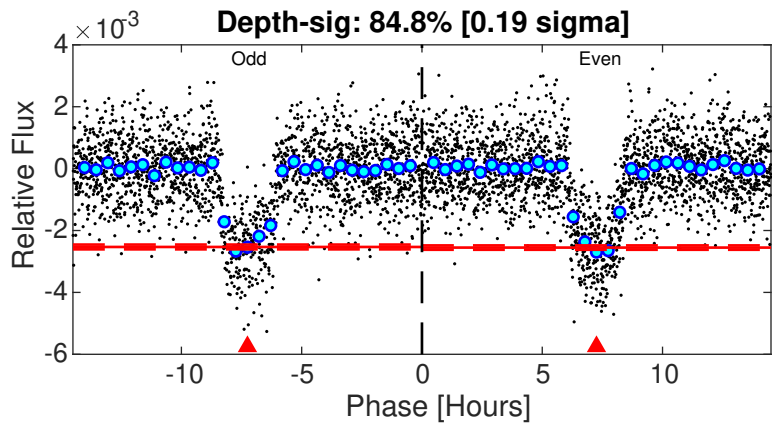
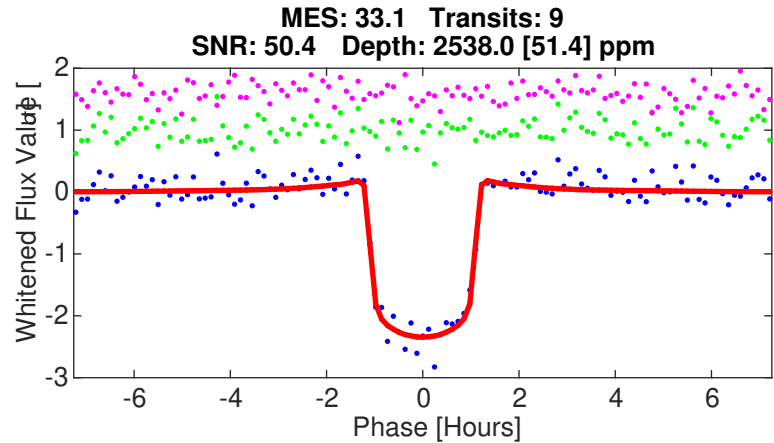
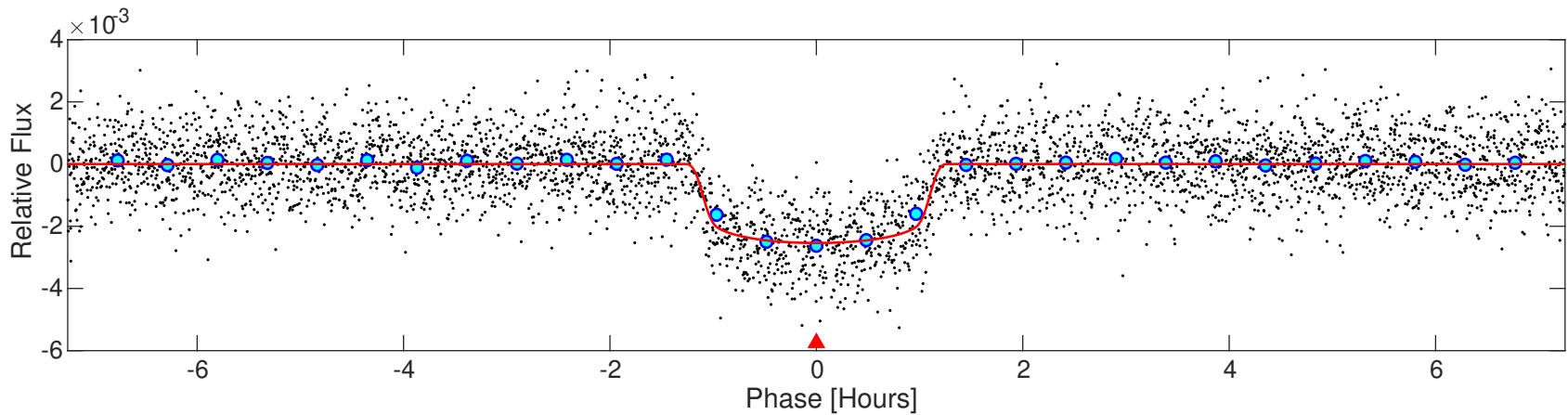
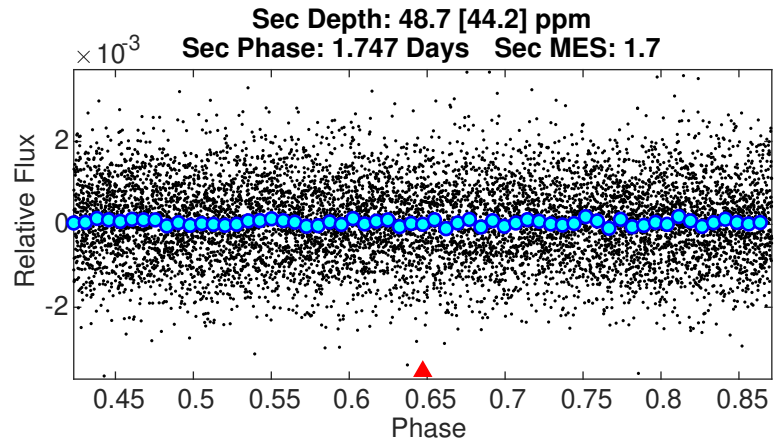
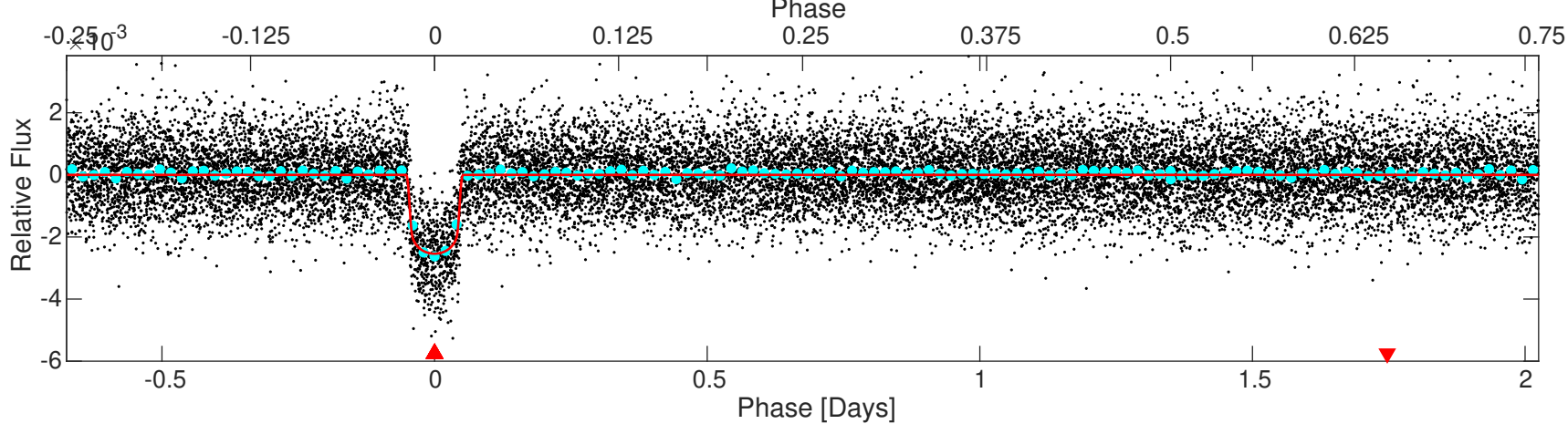
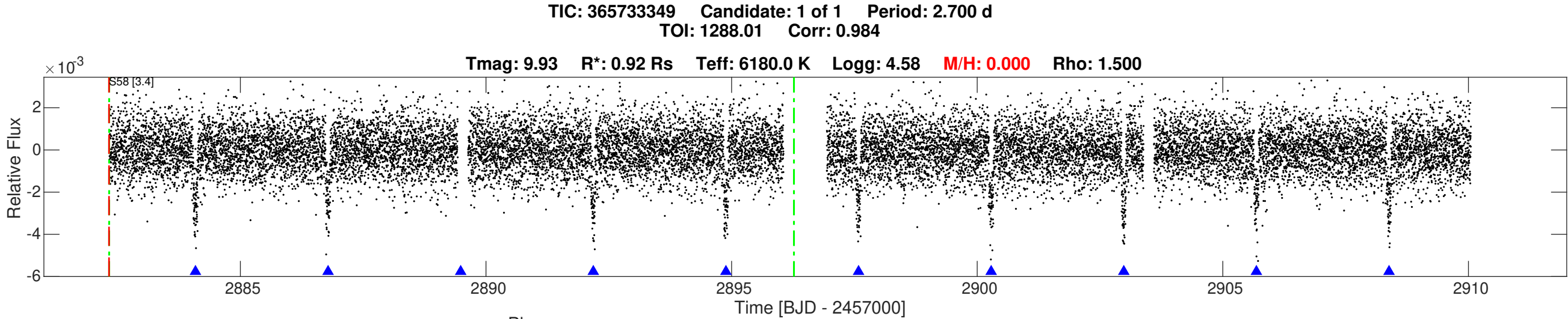
Distances are corrected for proper motion. This table may not contain all of the objects shown.

Stellar Distance Table – Continued

Index	TIC ID	TESS Mag	Distance (arcsec)
81	0000000365733308	15.47	141.06
82	0000000365595234	16.83	141.34
83	0000000365595281	18.23	142.72
84	0000000365595231	16.92	143.05
85	0000000365733317	17.53	151.06
86	0000000365733390	16.56	151.84
87	0000000365733374	14.79	152.74
88	0000000365595221	17.00	155.32



Distances are corrected for proper motion. This table may not contain all of the objects shown.



DV Fit Results:

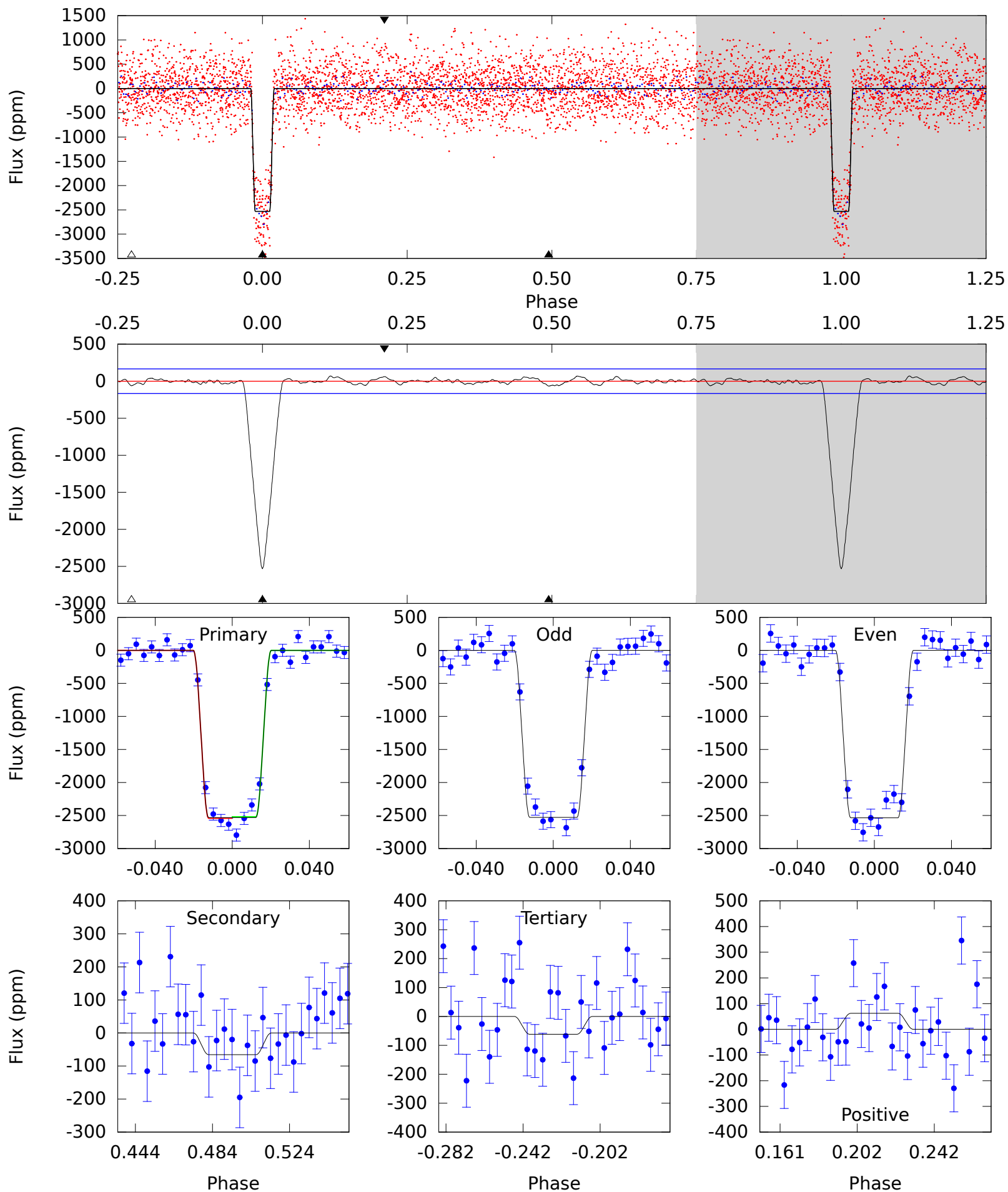
Period = 2.69977 [0.00014] d
Epoch = 2884.0855 [0.0008] BTJD
Rp/R* = 0.0492 [0.0014]
a/R* = 6.96 [1.12]
b = 0.67 [0.14]
Seff = 691.90 [199.31]
Teq = 1308 [94] K
Rp = 4.96 [0.30] Re
a = 0.0401 [0.0036] AU
Rho = 0.622 [0.300]
Ag = 1.76 [1.62] [0.47 sigma]
Tp = 2328 [547] K [1.84 sigma]

DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 86.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.15e-288
GhostDiagnostic-chr: 9.883
OotOffset-rm: 0.782 arcsec [0.31 sigma]
TicOffset-rm: 0.943 arcsec [0.37 sigma]
OotOffset-tot: 1
TicOffset-tot: 1
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

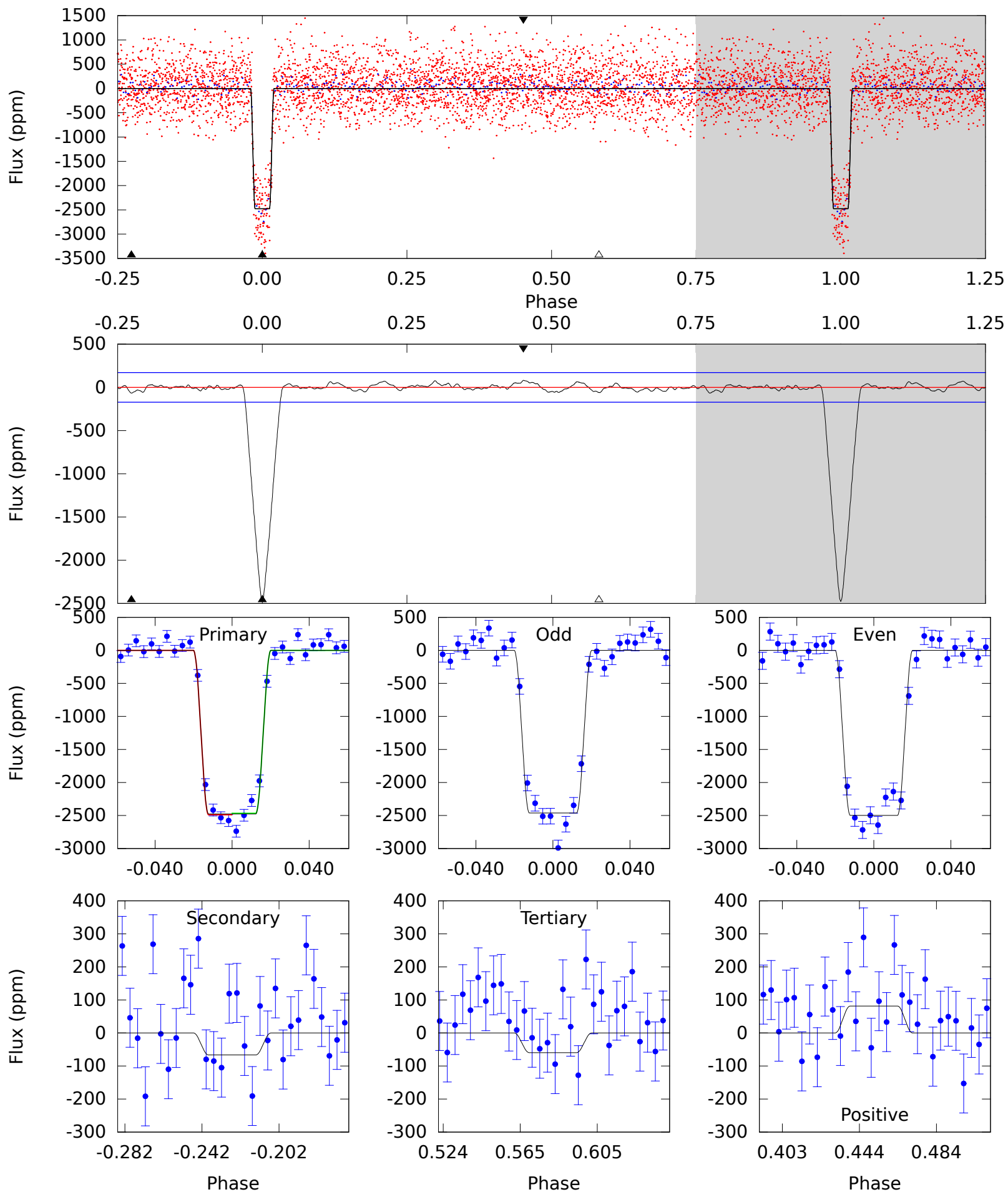
Tier 1 0000000365733349₀1, P = 2.699769 Days, E = 2881.385704 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
72.1	1.87	1.76	1.77	4.75	2.05	0.78	70.4	70.4	0.12	0.10	0.10	1.01	0.03	0.31

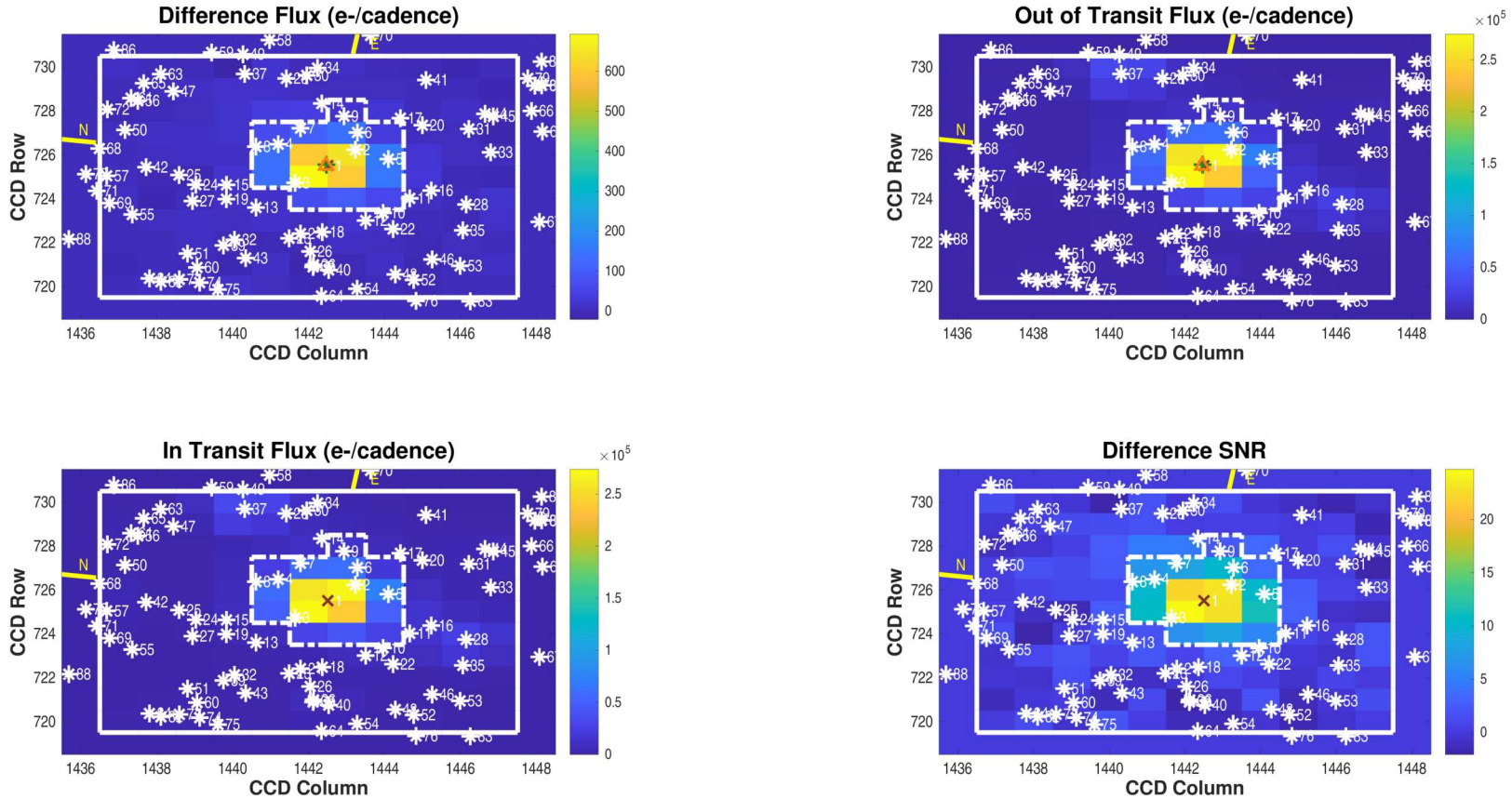


Tier 1 0000000365733349₀1, P = 2.699769 Days, E = 2881.385708 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
68.8	1.85	1.65	2.26	4.75	2.05	0.84	67.1	66.5	0.19	-0.42	0.51	1.01	0.03	0.29



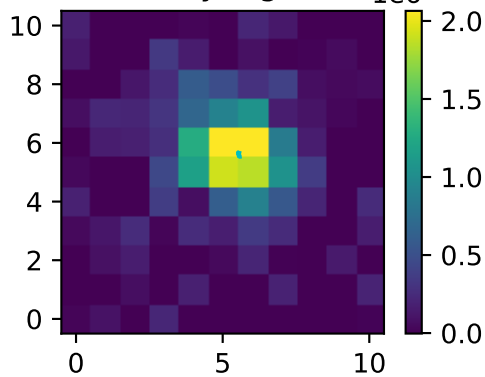
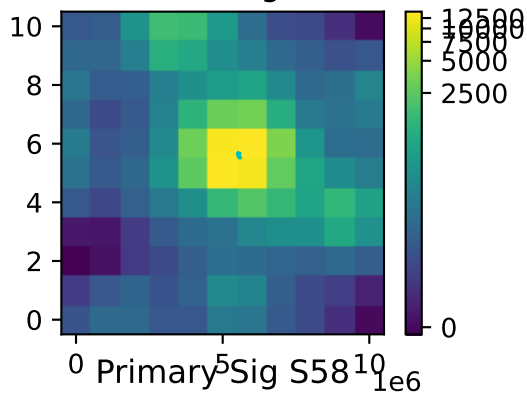
Difference Image
Planet Candidate 1 / Sector 58 / Target Pixel Table 378



Difference image for target 365733349, planet candidate 1, sector 58, target pixel table 378. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from TIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby TIC objects converted to CCD coordinates via motion polynomials; +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. Number of transits = 9; number of valid in-transit cadences = 537; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 1375; number of out-of-transit cadence gaps = 1. Difference image quality metric = 1.00 (good).

Open `./planet-01/difference-image/0000000365733349-01-difference-image-58-378.fig`

Median Image S58



Using TIC: 365733349

Tier 1

Using TIC catalog position 313.166578 65.609079 [J2000.0; epoch 2000.0]

Predicted GAIA position 313.167029 65.608783 [J2000.0; epoch 2015.5]

2MASS J20523998+6536326 From TIC

19 TIC entries within 60.0 arcsec of target 365733349

1981077488 Sep [arcsec]: 13.784 Tmag: 19.09 Teff: 0.0 Logg: 0.00 Rs[Rsun]: 0.00
1981077487 Sep [arcsec]: 22.105 Tmag: 18.42 Teff: 4478.0 Logg: 4.30 Rs[Rsun]: 0.98
365733341 Sep [arcsec]: 23.130 Tmag: 14.34 Teff: 5287.0 Logg: 4.35 Rs[Rsun]: 1.06
365733354 Sep [arcsec]: 31.279 Tmag: 15.49 Teff: 4821.0 Logg: 0.00 Rs[Rsun]: 5.92
1981077486 Sep [arcsec]: 33.421 Tmag: 19.04 Teff: 0.0 Logg: 0.00 Rs[Rsun]: 0.00
365733337 Sep [arcsec]: 34.552 Tmag: 15.20 Teff: 5207.0 Logg: 0.00 Rs[Rsun]: 2.80
365733342 Sep [arcsec]: 36.244 Tmag: 18.68 Teff: 0.0 Logg: 0.00 Rs[Rsun]: 0.00
365733351 Sep [arcsec]: 36.878 Tmag: 16.69 Teff: 4665.0 Logg: 4.51 Rs[Rsun]: 0.79
1981077489 Sep [arcsec]: 40.017 Tmag: 18.63 Teff: 5235.0 Logg: 4.70 Rs[Rsun]: 0.70
1981077751 Sep [arcsec]: 44.089 Tmag: 19.02 Teff: 5749.0 Logg: 0.00 Rs[Rsun]: 0.00
365733345 Sep [arcsec]: 47.594 Tmag: 17.08 Teff: 5023.0 Logg: 4.12 Rs[Rsun]: 1.32
365733336 Sep [arcsec]: 51.780 Tmag: 15.37 Teff: 5044.0 Logg: 0.00 Rs[Rsun]: 2.17
365733332 Sep [arcsec]: 52.433 Tmag: 16.53 Teff: 4891.0 Logg: 0.00 Rs[Rsun]: 1.78
365733338 Sep [arcsec]: 53.394 Tmag: 17.77 Teff: 4921.0 Logg: 4.75 Rs[Rsun]: 0.63
365733358 Sep [arcsec]: 53.398 Tmag: 16.85 Teff: 4815.0 Logg: 4.43 Rs[Rsun]: 0.90
1981076925 Sep [arcsec]: 55.072 Tmag: 19.28 Teff: 0.0 Logg: 0.00 Rs[Rsun]: 0.00
365595240 Sep [arcsec]: 55.259 Tmag: 17.97 Teff: 4323.0 Logg: 4.50 Rs[Rsun]: 0.77
365733350 Sep [arcsec]: 57.244 Tmag: 15.95 Teff: 3833.0 Logg: 4.59 Rs[Rsun]: 0.68
1981077481 Sep [arcsec]: 59.702 Tmag: 18.64 Teff: 4878.0 Logg: 4.47 Rs[Rsun]: 0.86

TIC Hosts TOIs

1288.01

Target Parameters

Catalog	Tmag/Rpmag	Teff	Logg	Rstar	Mstar
TIC	9.93119	6180.0±362.0	4.58±0.11	0.92± 0.0	1.18± 0.20
GAIA DR2	9.881	5354.6±377.0	...	0.96± 0.1	...

Other GAIA G: 10.45 Bp: 10.87 AbsG: 4.92 (Bp-Rp) σ : 0.889 AstroGOF: 6.63 AstroExNoiSig: 0.00

Target Links

[ExoFOP](#)

[Simbad](#)

[Vizier](#)

[MAST TESS Data Holdings](#)

[IRSA Finderchart](#)

[ESO Data Archive Holdings](#)

[TESScut TPF Download](#)

[GAIA DR2 60" Cone Search @MAST](#)

NASA Ames SPOC DV Results Available at MAST

[https://mast.stsci.edu/api/v0/download/file?](https://mast.stsci.edu/api/v0/download/file?uri=mast:HLSP/diamante/0000/0003/6573/3349/hlsp_diamante_tess_lightcurve_tic-0000000365733349_tess_v2_dv.pdf)

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https://mast.stsci.edu/api/v0/download/file?uri=mast:TESS/product/tess2019199201929-s0014-s0016-0000000365733349-00253_dvr.pdf

https://mast.stsci.edu/api/v0/download/file?uri=mast:TESS/product/tess2019199201929-s0014-s0016-0000000365733349-00253_dvm.pdf

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Tier 1

https://mast.stsci.edu/api/v0/download/file?uri=mast:TESS/product/tess2020107065519-s0024-s0024-0000000365733349-01-00333_dvs.pdf
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TESS Observe - Sec Cam Ccd Col Row

365733349 15 2 1 159.17 1390.20
365733349 16 2 1 1351.45 2015.87
365733349 17 3 4 464.39 895.81
365733349 18 3 4 1713.44 386.91
365733349 24 3 3 1004.35 569.42
365733349 56 3 3 803.56 961.27
365733349 57 3 4 57.14 1190.11
365733349 58 3 4 1443.46 725.49