

KIC 003356155

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003356155-01	OBS	No	0.691262	131.769084	21.9	4.843	9.6	10.8	1.85	7454	1.00	29615.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003356155-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

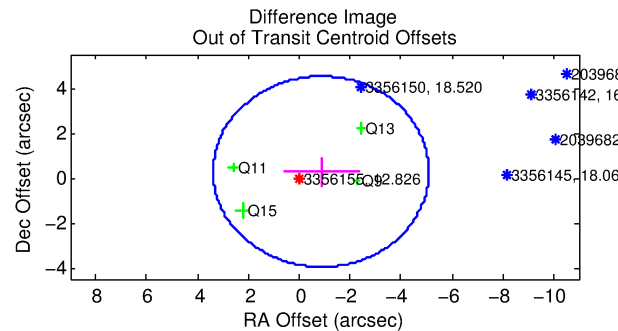
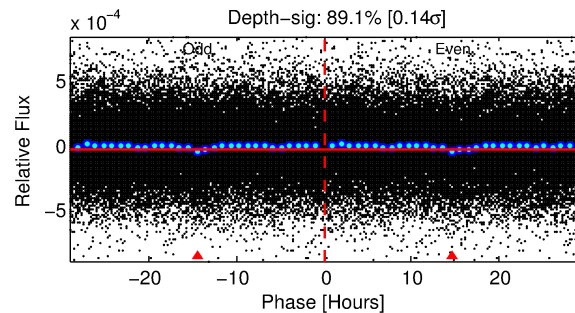
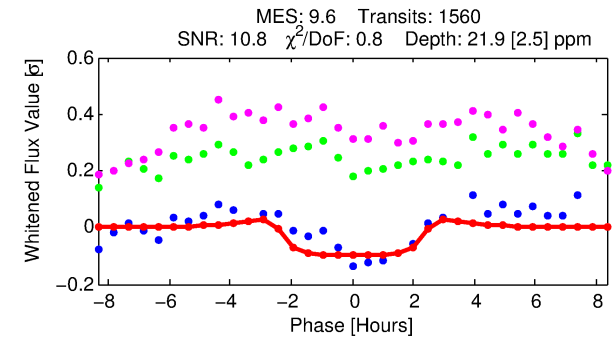
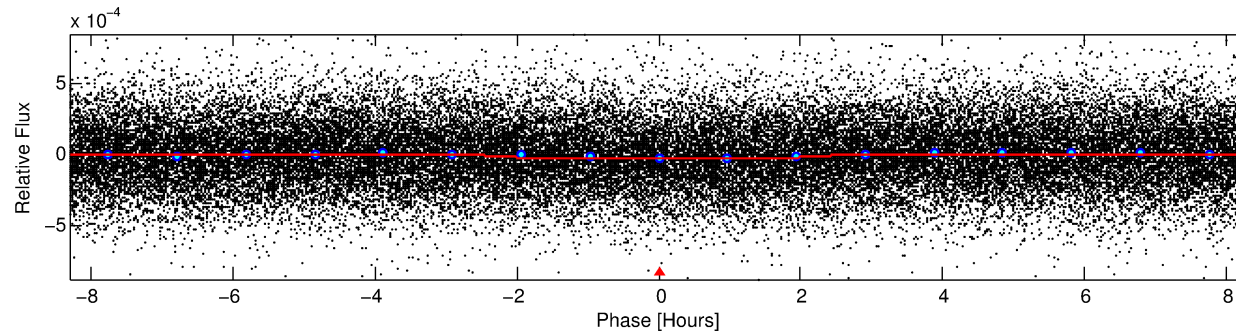
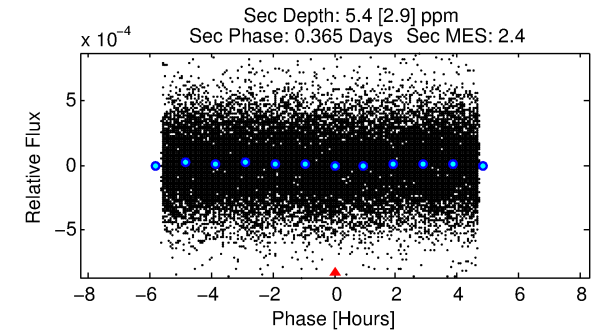
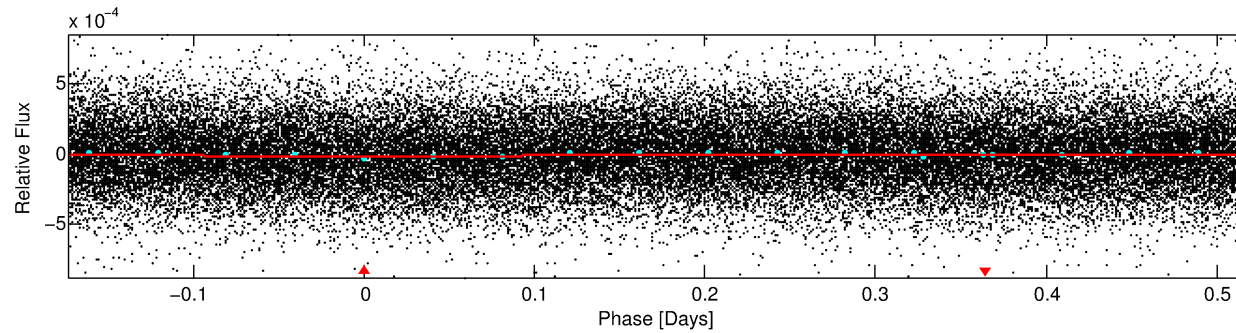
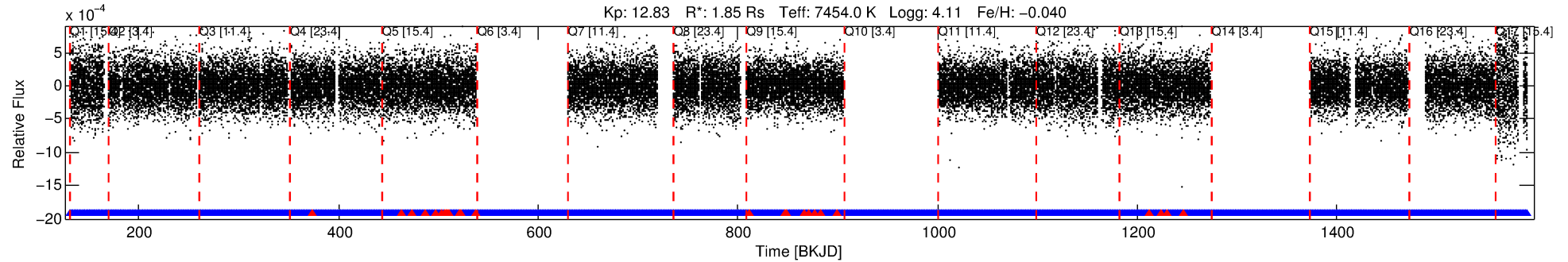
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003356155-01

No Significant Match Found

DV One-Page Summary

KIC: 3356155 Candidate: 1 of 1 Period: 0.691 d



DV Fit Results:

Period = 0.69126 [0.00001] d
Epoch = 131.7691 [0.0043] BKJD
Rp/R* = 0.0050 [0.0030]
a/R* = 1.06 [0.48]
b = 0.90 [0.84]
Seff = 29615.02 [10920.65]
Teq = 3345 [308] K
Rp = 1.00 [0.68] Re
a = 0.0179 [0.0041] AU
Ag = 0.94 [1.29] [-0.05σ]
Teffp = 5088 [1721] K [1.00σ]

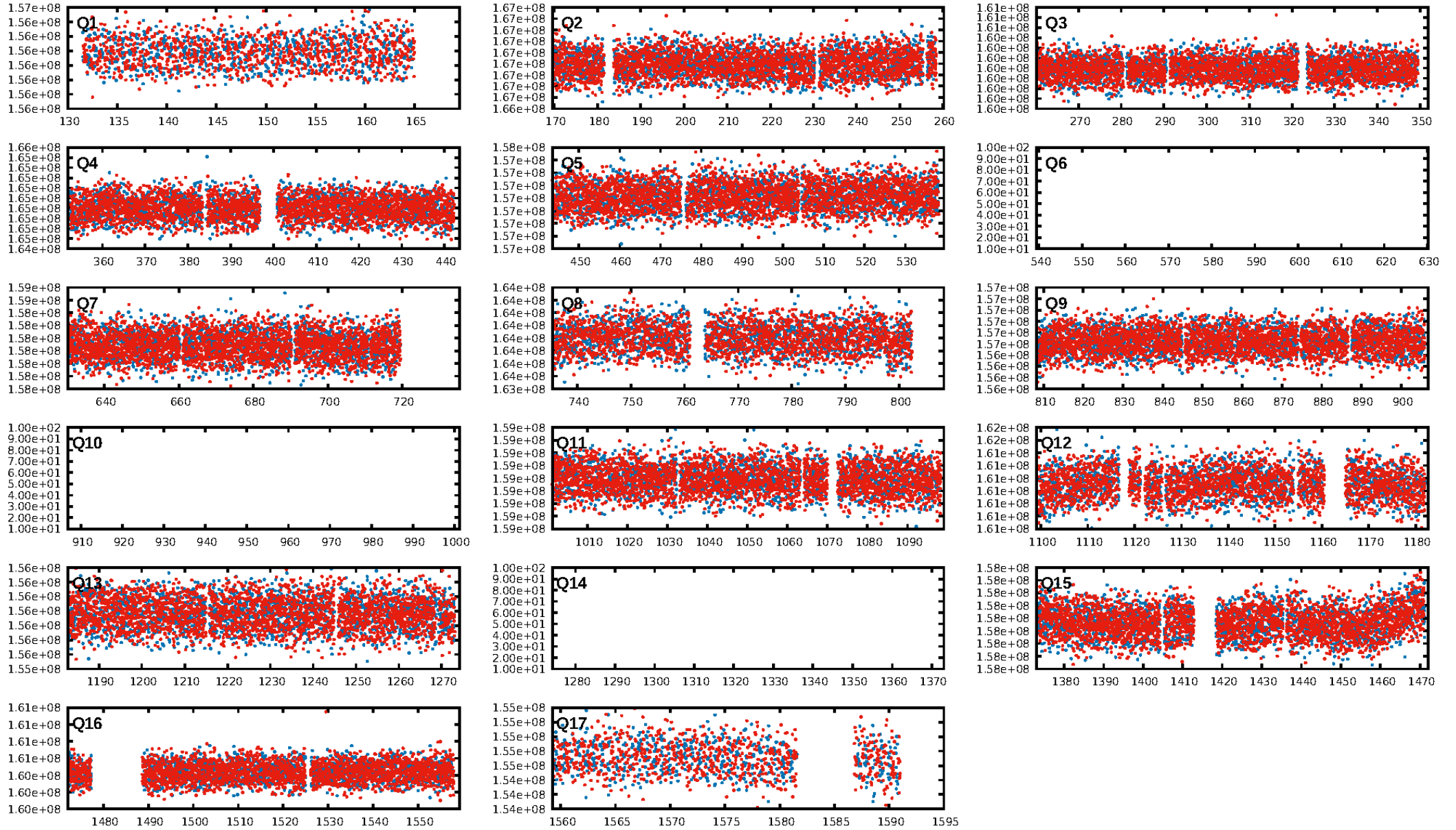
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.63e-12
RollingBand-fgt: 0.98 [1444/1471]
GhostDiagnostic-chr: 10.59
Centroid-sig: 84.7%
Centroid-so: 0.296 arcsec [0.34σ]
OotOffset-rm: 0.903 arcsec [0.64σ]
KicOffset-rm: 0.966 arcsec [0.69σ]
OotOffset-st: 0/2/0/2 [4]
KicOffset-st: 0/2/0/2 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 1.00 [14/14]

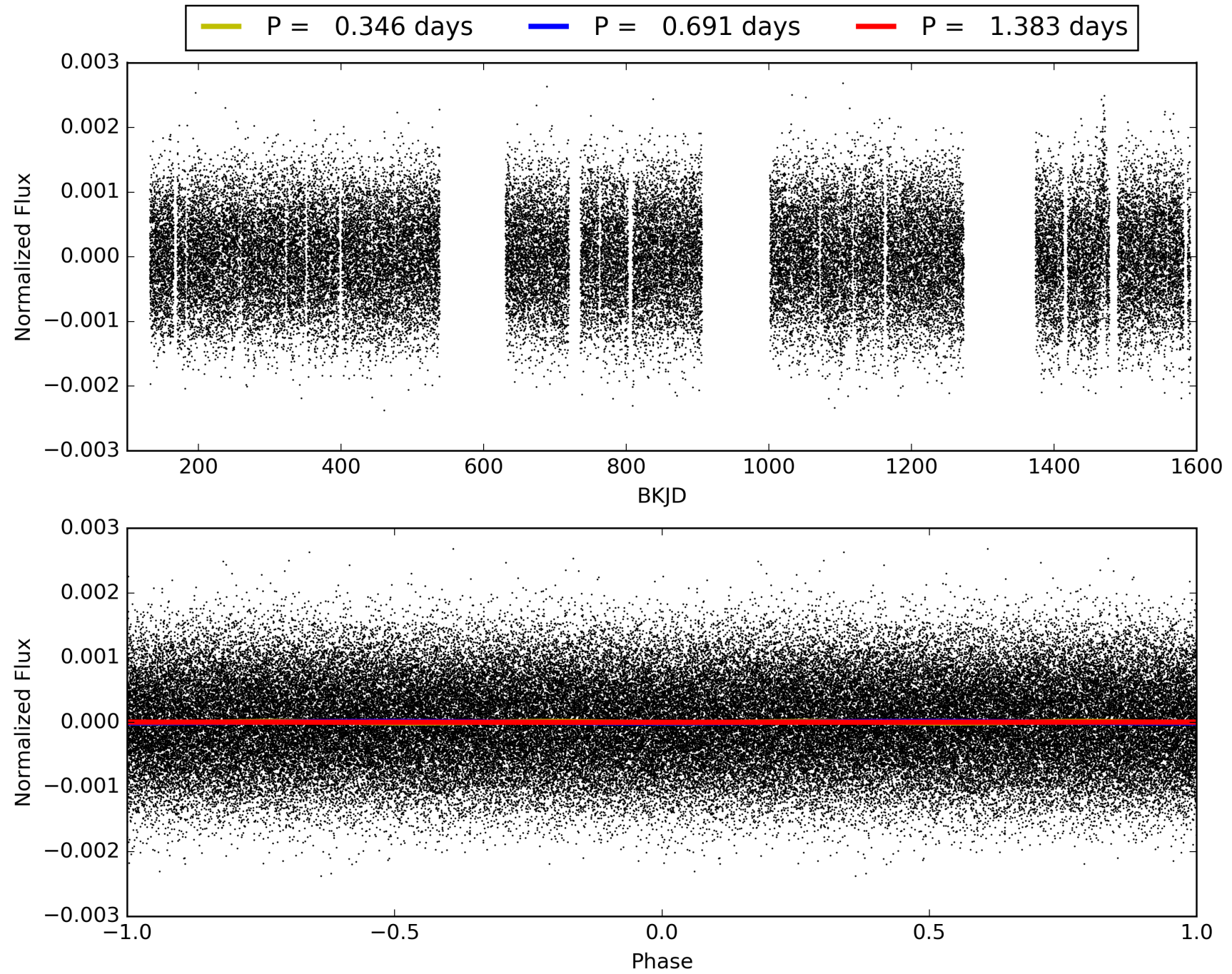
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:51:17 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003356155-01, PDC Light Curves

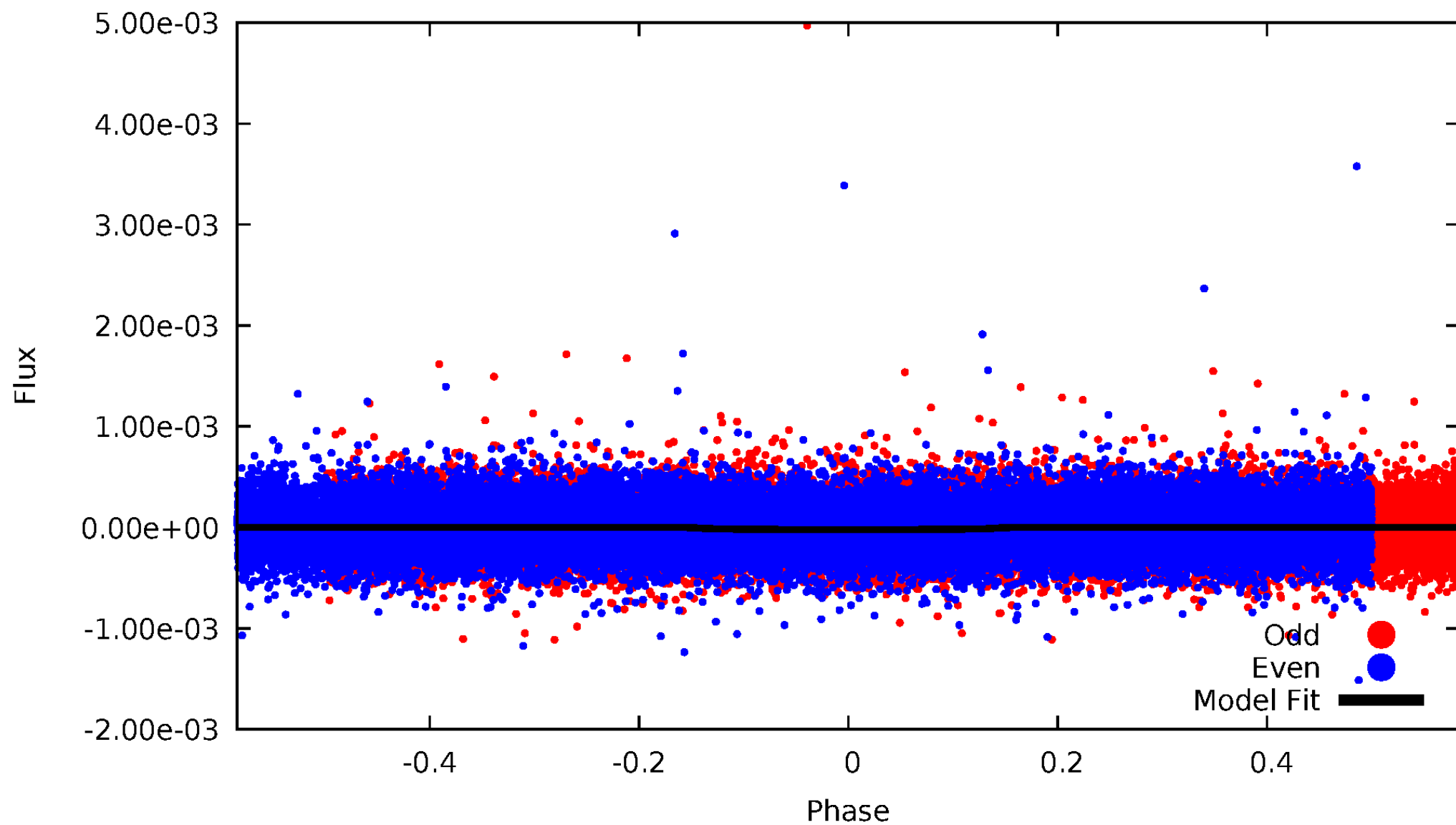


TCE 003356155-01



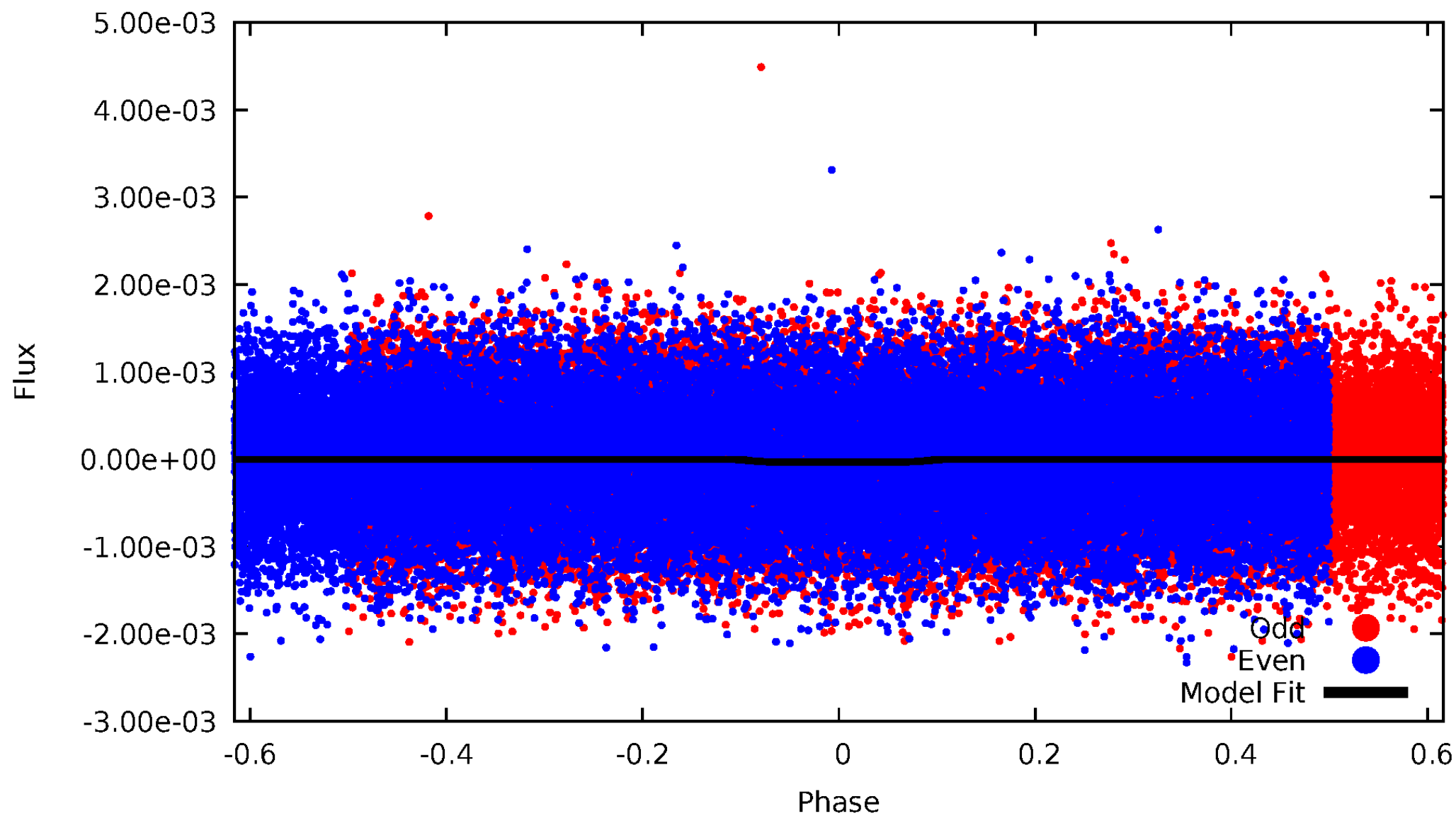
DV Odd/Even

TCE 003356155-01



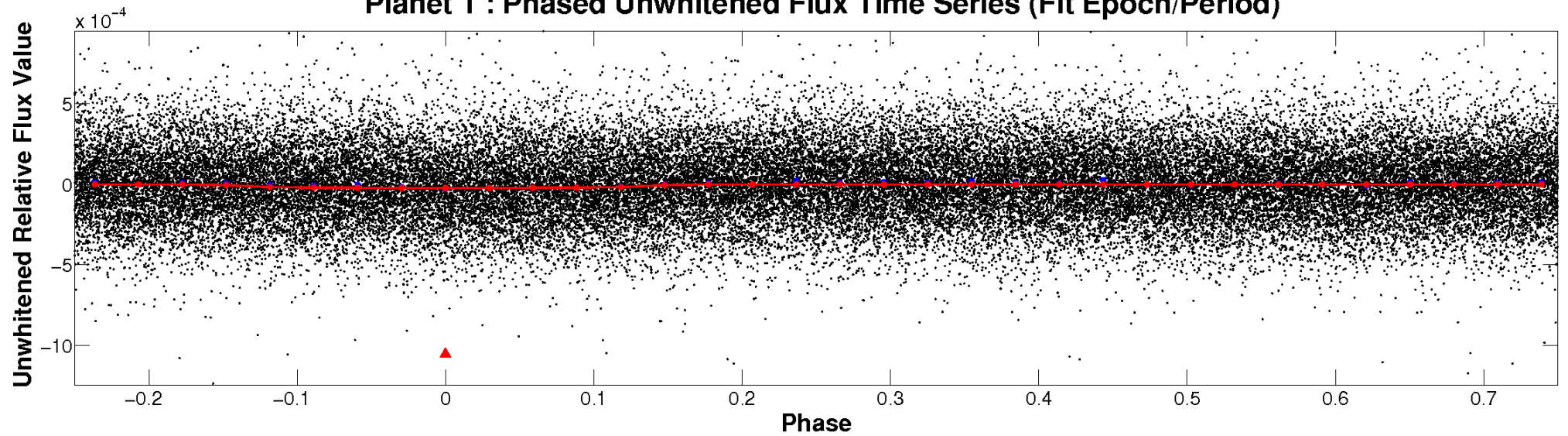
ALT Odd/Even

TCE 003356155-01

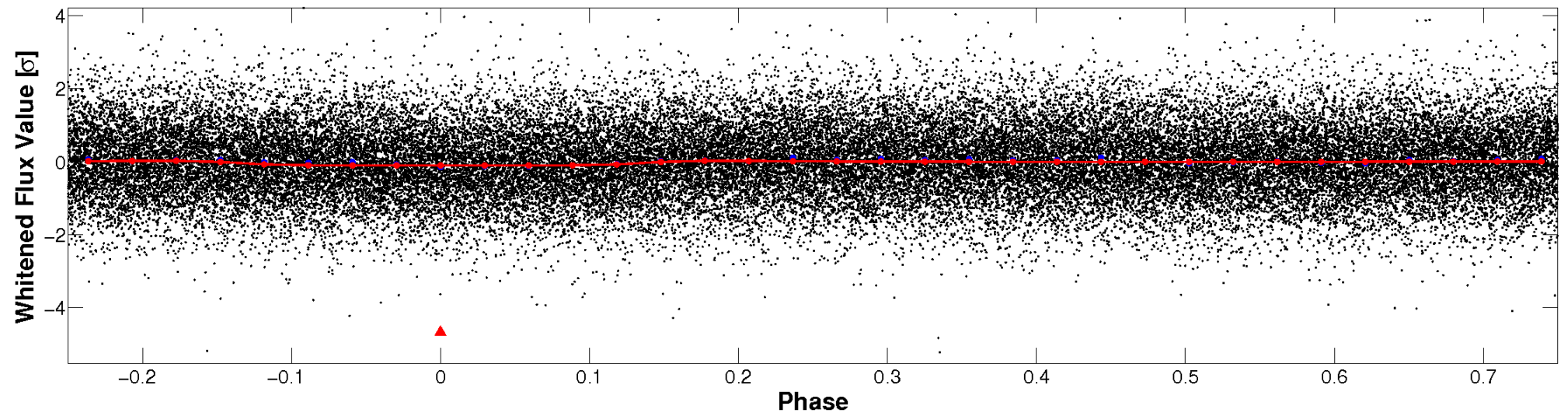


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

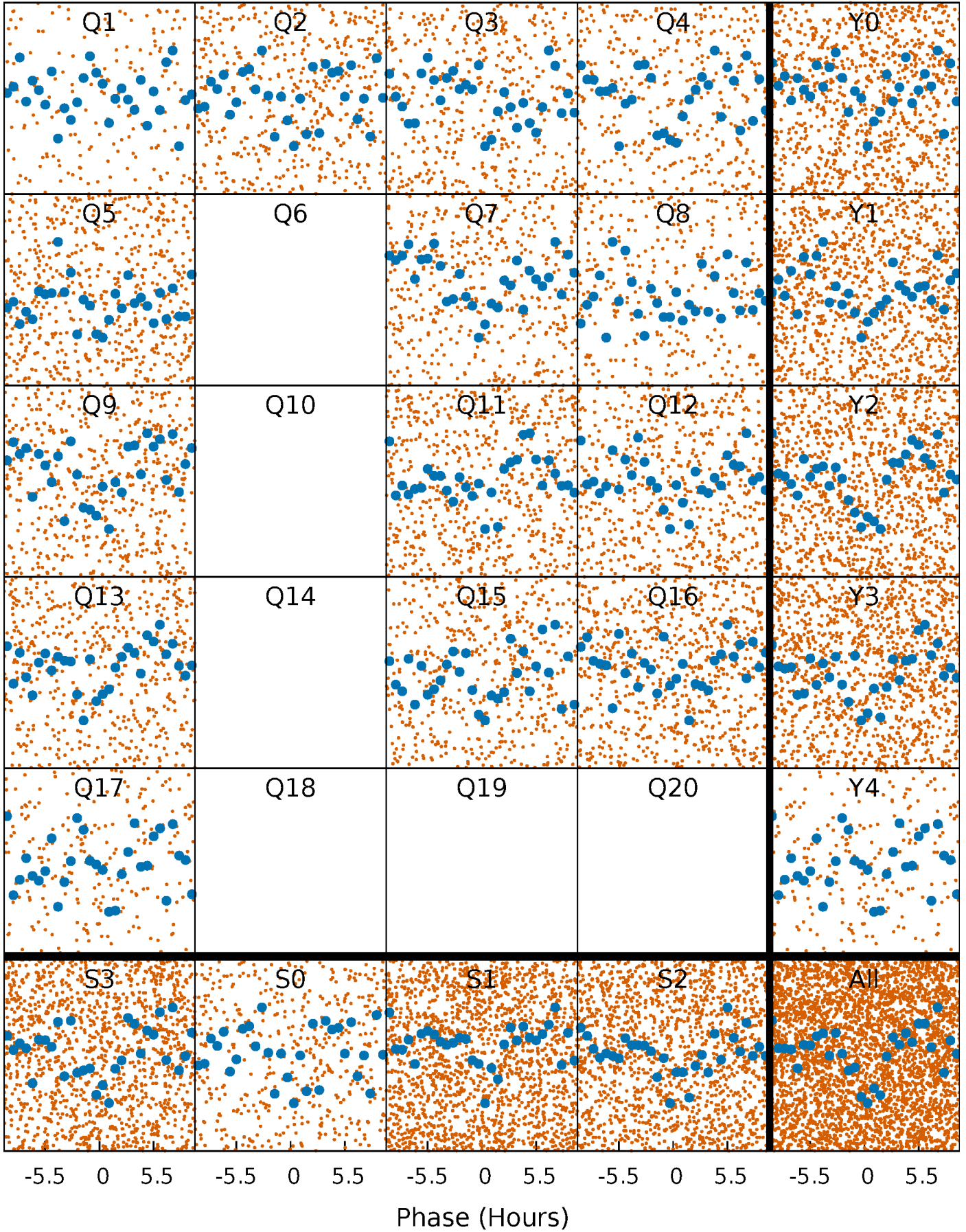


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



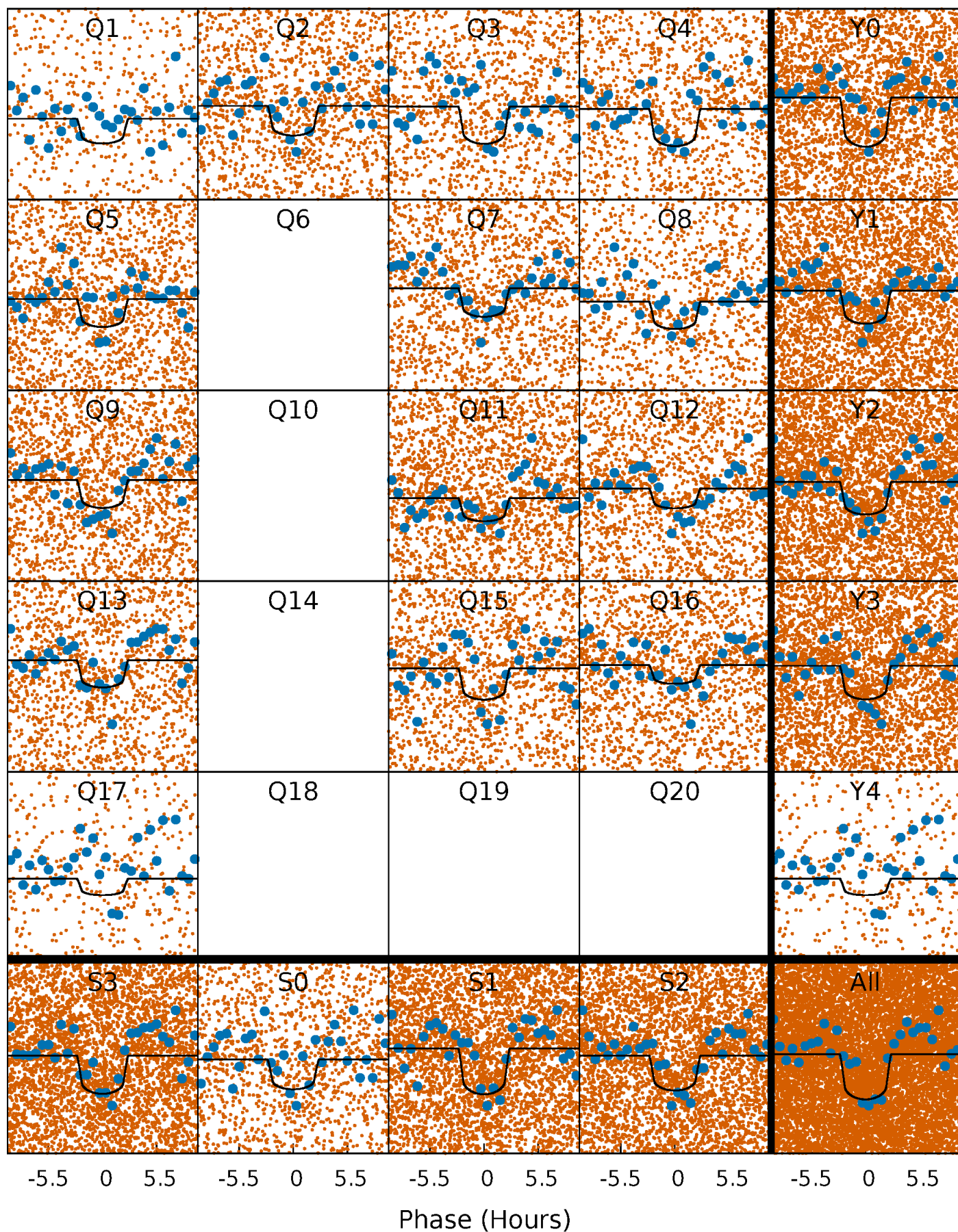
PDC Quarter-Phased Transit Curves

TCE 003356155-01 P= 0.691262 Days $T_0=131.769084$ (BKJD)



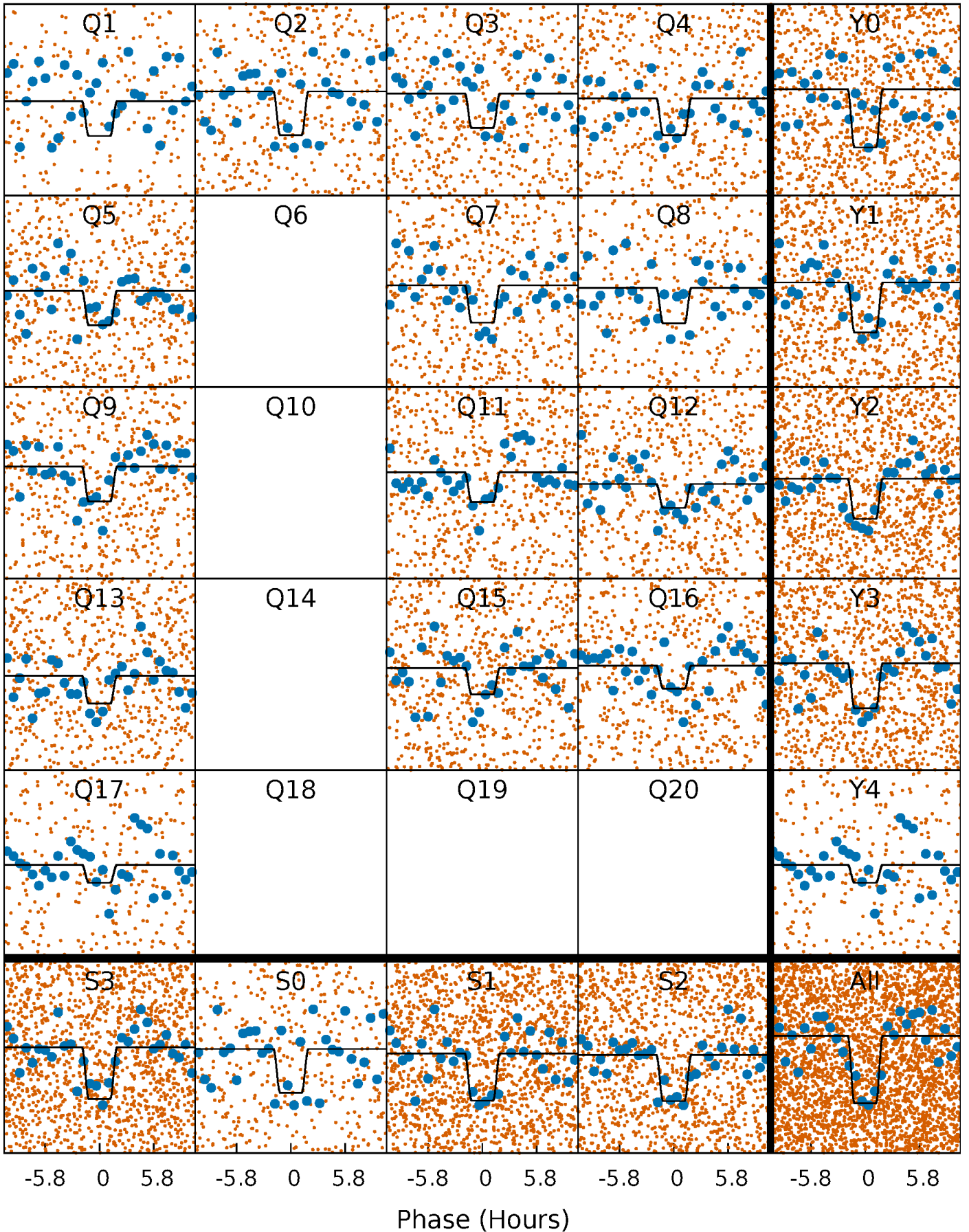
DV Quarter-Phased Transit Curves

TCE 003356155-01 P= 0.691262 Days $T_0=131.769084$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

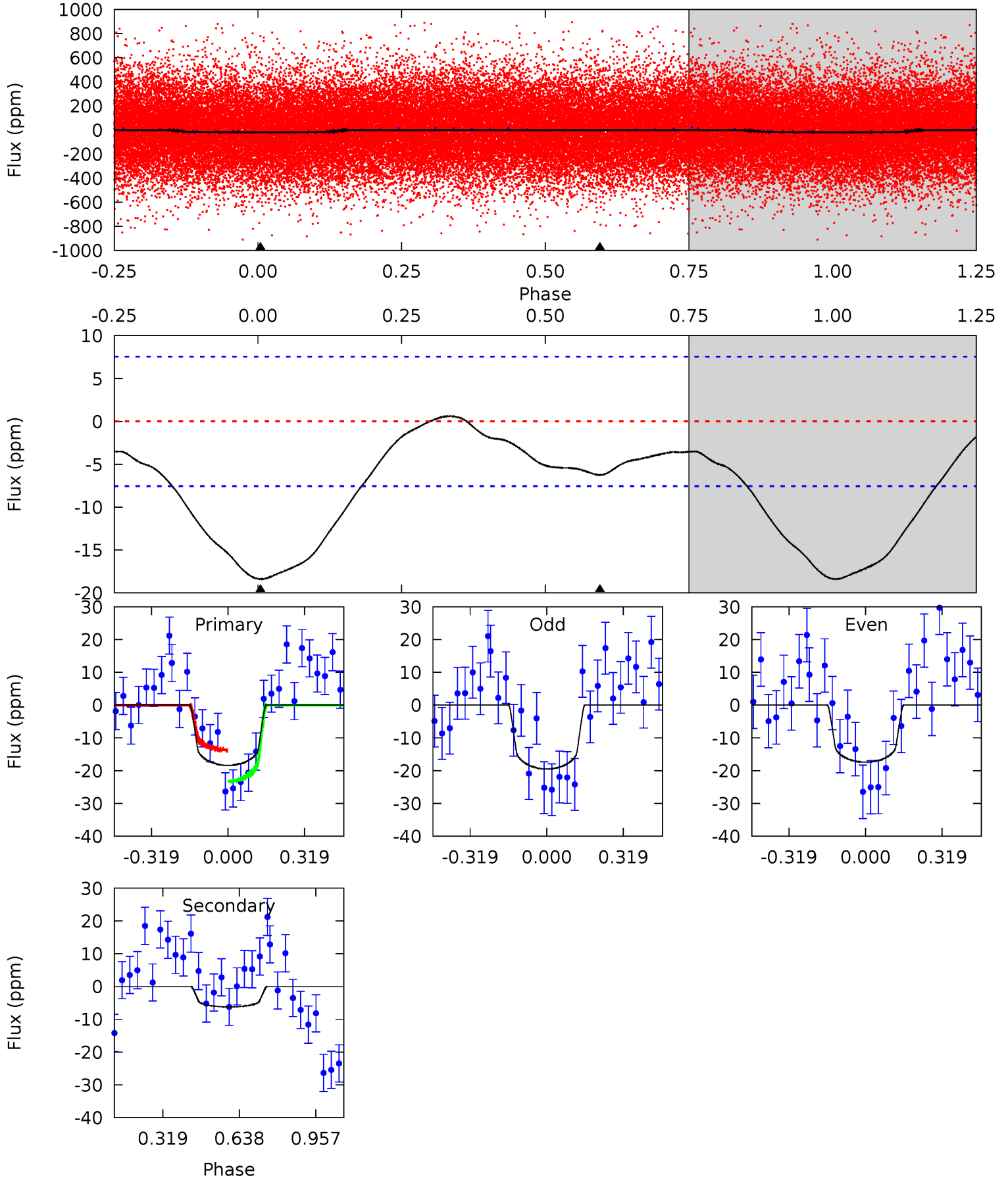
TCE 003356155-01 P= 0.691276 Days $T_0=131.767476$ (BKJD)



DV Model-Shift Uniqueness Test

003356155-01, P = 0.691262 Days, E = 131.077822 Days

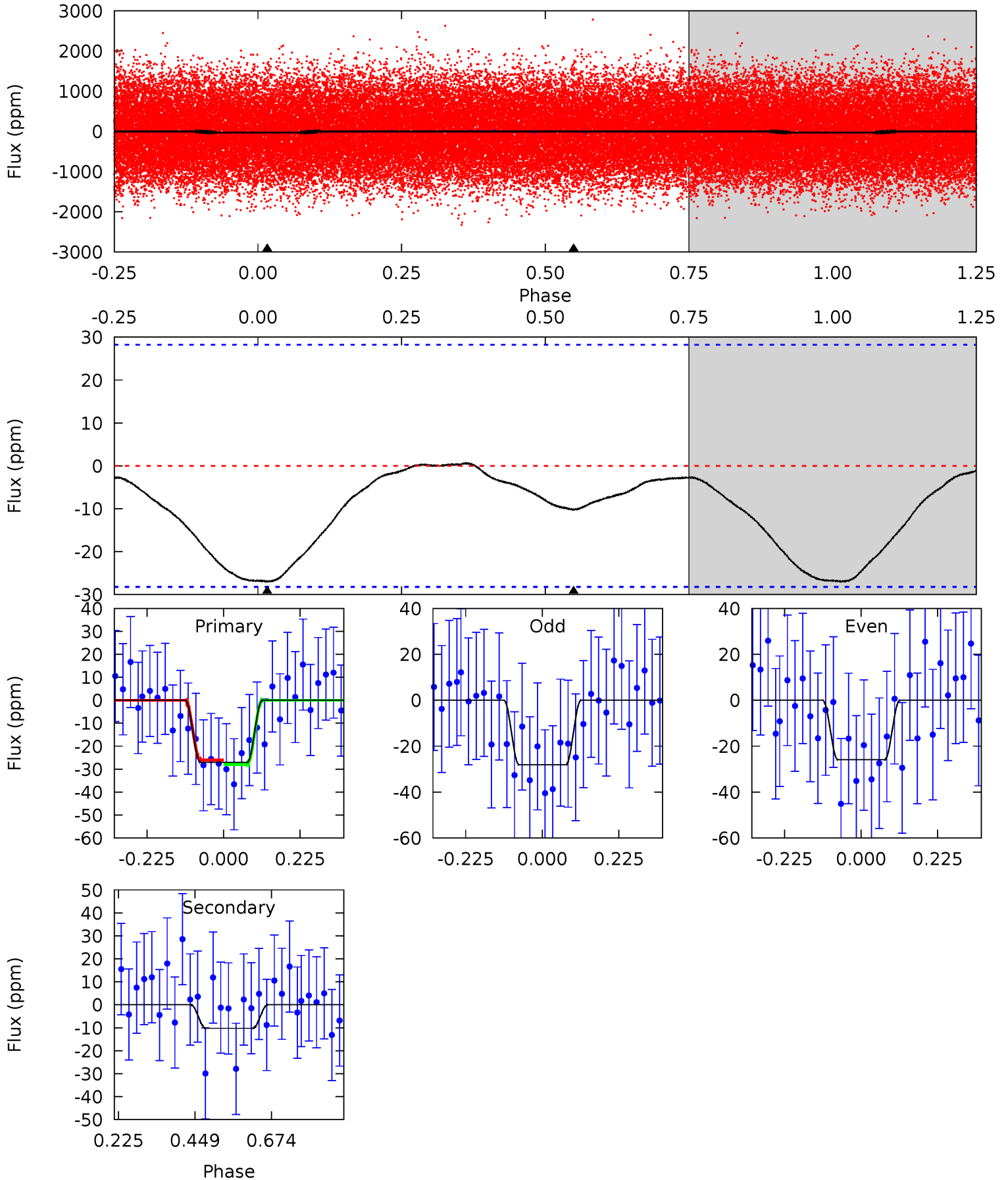
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	3.57	0	0	4.32	1.00	0.44	10.5	10.5	3.57	3.57	0.60	0.99	0.03	2.75



Alt Model-Shift Uniqueness Test

003356155-01, P = 0.691276 Days, E = 131.076200 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.21	1.60	0	0	4.39	1.21	0.25	4.21	4.21	1.60	1.60	0.17	0.97	0.02	0.15



Stellar Parameters For KIC 003356155

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7454^{+233}_{-311}	$4.107^{+0.144}_{-0.176}$	$-0.040^{+0.200}_{-0.350}$	$1.853^{+0.521}_{-0.379}$	$1.602^{+0.200}_{-0.266}$	$0.354^{+0.261}_{-0.174}$
	+3%/-4%	+4%/-4%	+500%/-875%	+28%/-20%	+12%/-17%	+74%/-49%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003356155-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 2	$1.04^{+0.61}_{-0.53}$	4688^{+342}_{-318}	4774^{+2647}_{-1434}	$0.998^{+3.342}_{-0.612}$
Alt.	-10 ± 6	$1.12^{+0.61}_{-0.56}$	4687^{+339}_{-338}	5191^{+2720}_{-2052}	$1.293^{+4.303}_{-0.934}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

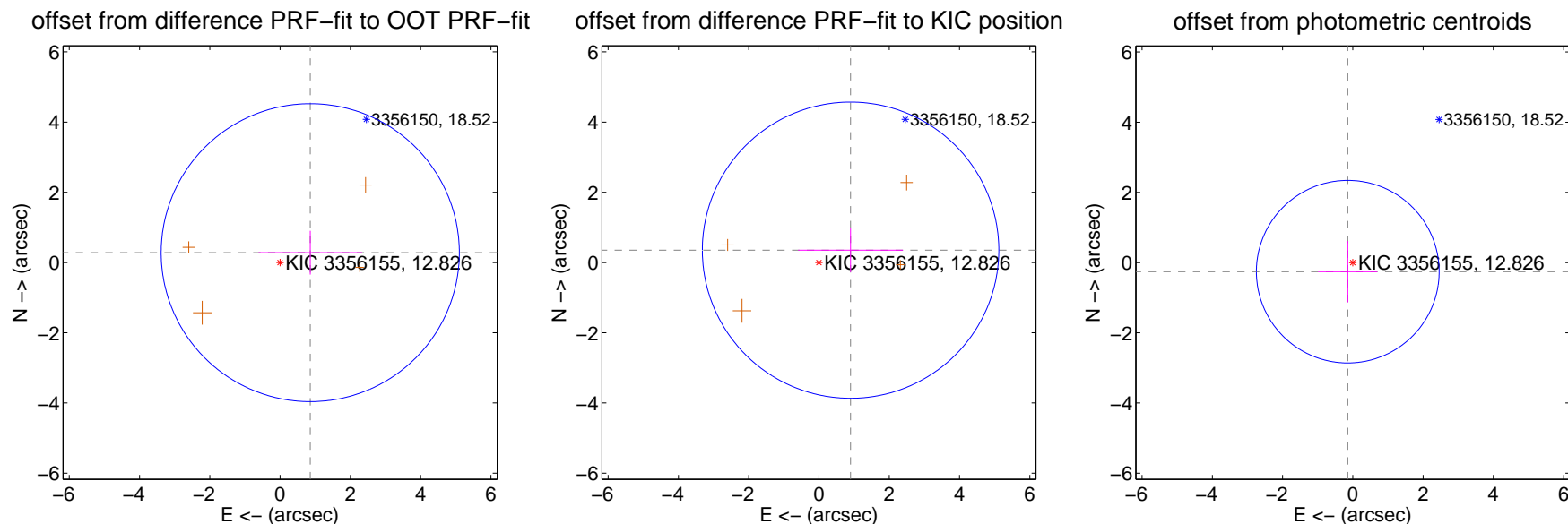
DV Centroid Data

Supplemental centroid analysis for 003356155-01. Kepler magnitude: 12.83. Transit SNR 10.82

There are 0 quarters with good PRF difference image offsets

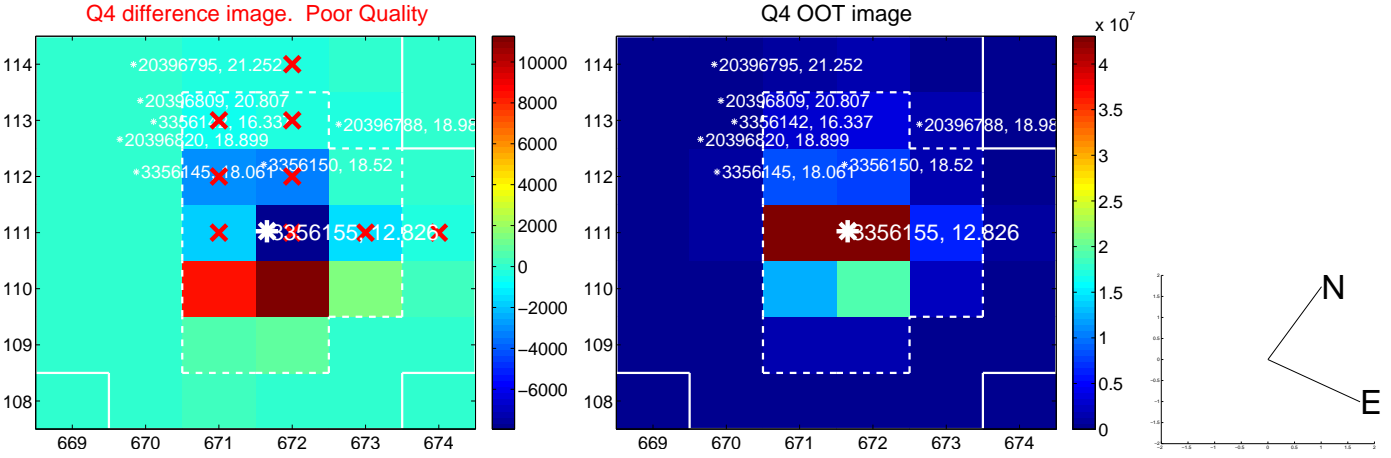
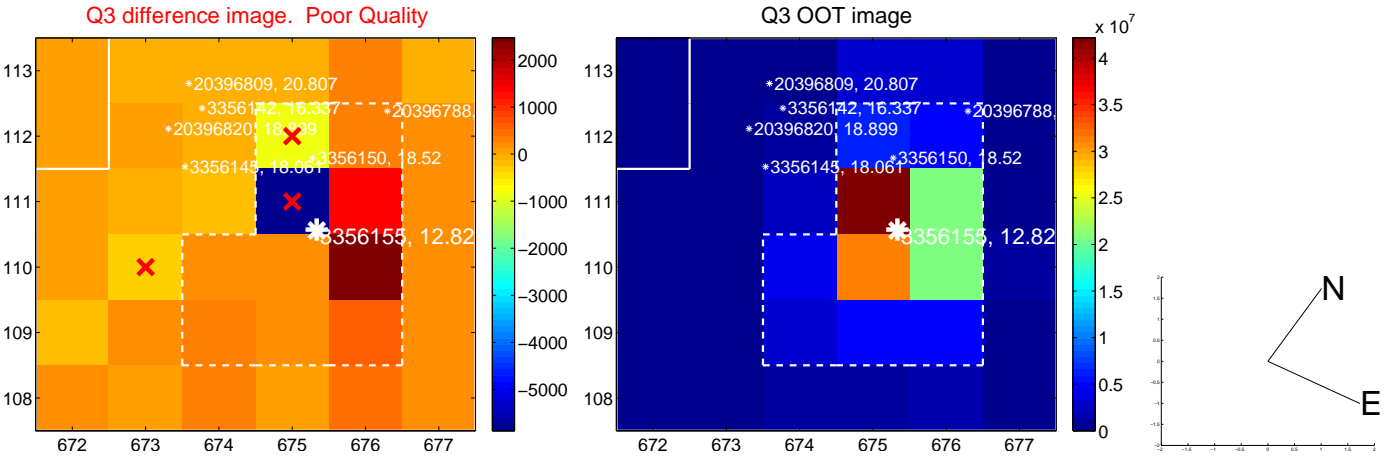
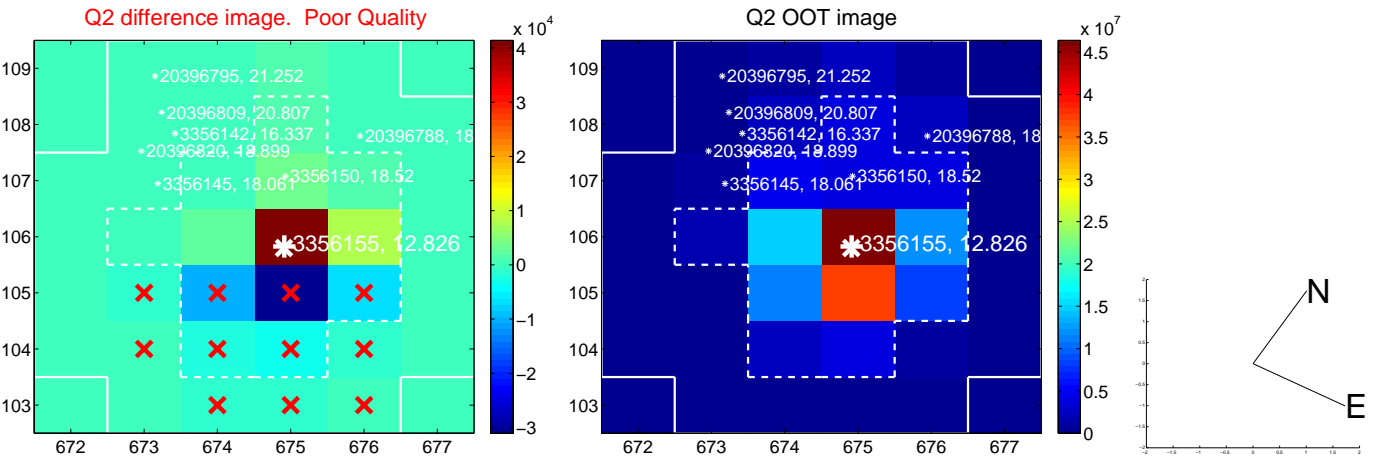
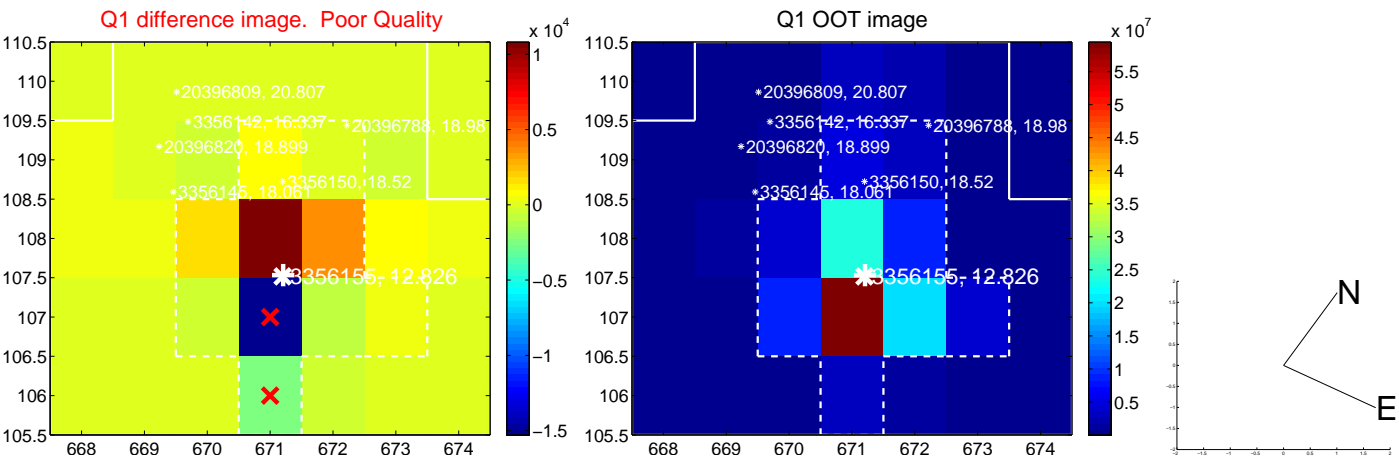
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.903 ± 1.414	0.64	-0.858 ± 1.474	0.281 ± 0.625
PRF-fit source offset from KIC position	0.966 ± 1.406	0.69	-0.899 ± 1.490	0.352 ± 0.626
photometric centroid source offset	0.30 ± 0.87	0.34	0.14 ± 0.84	-0.26 ± 0.87

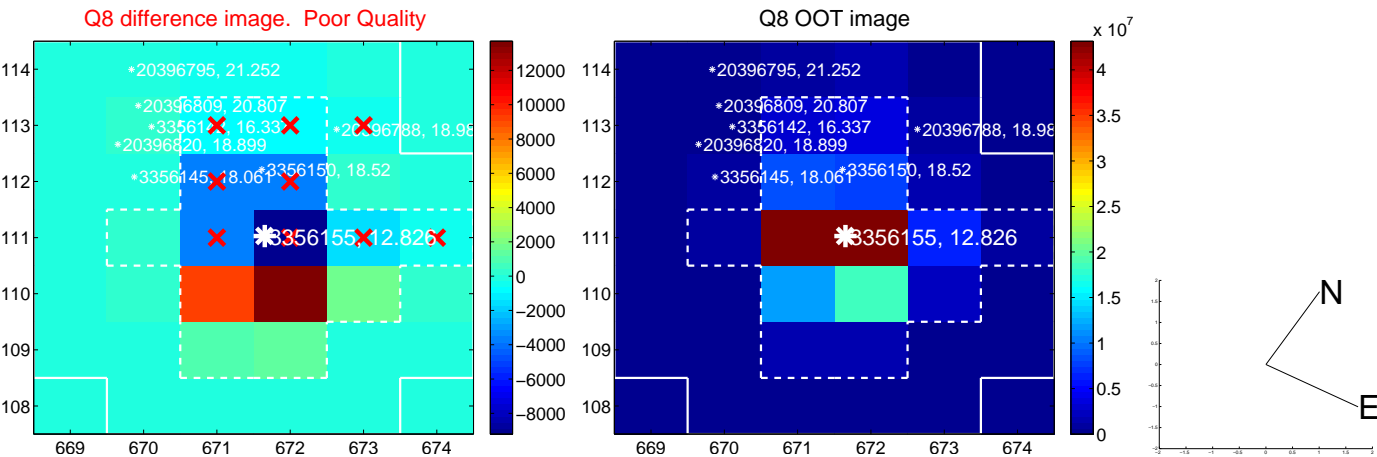
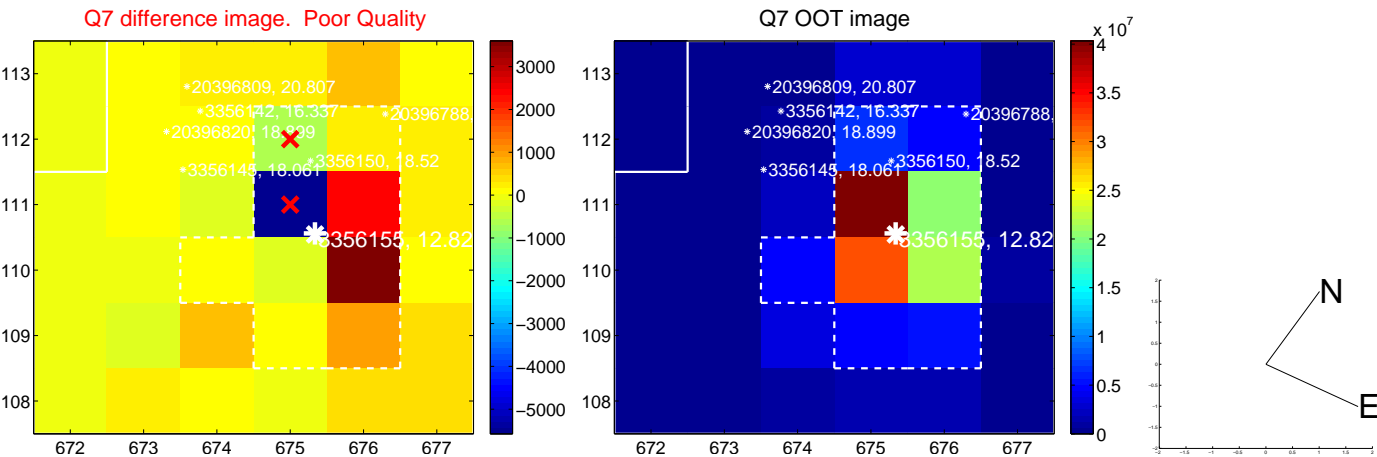
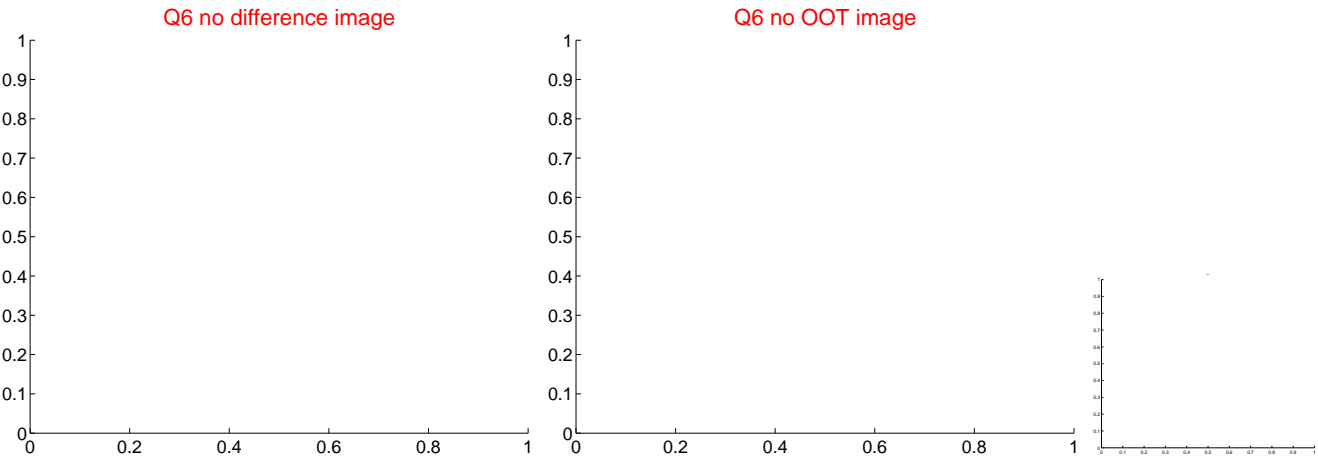
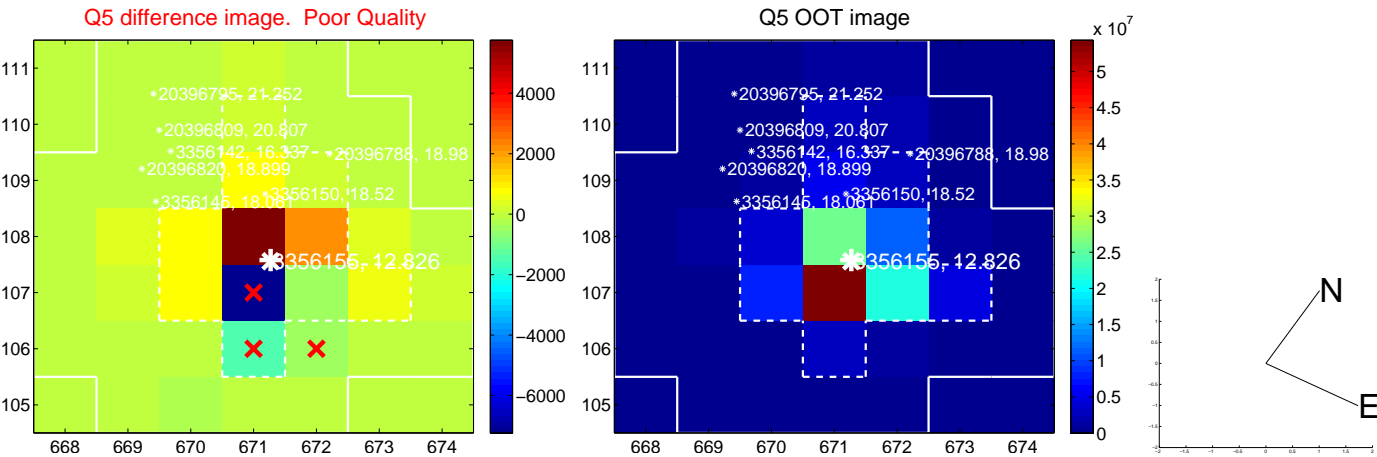


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

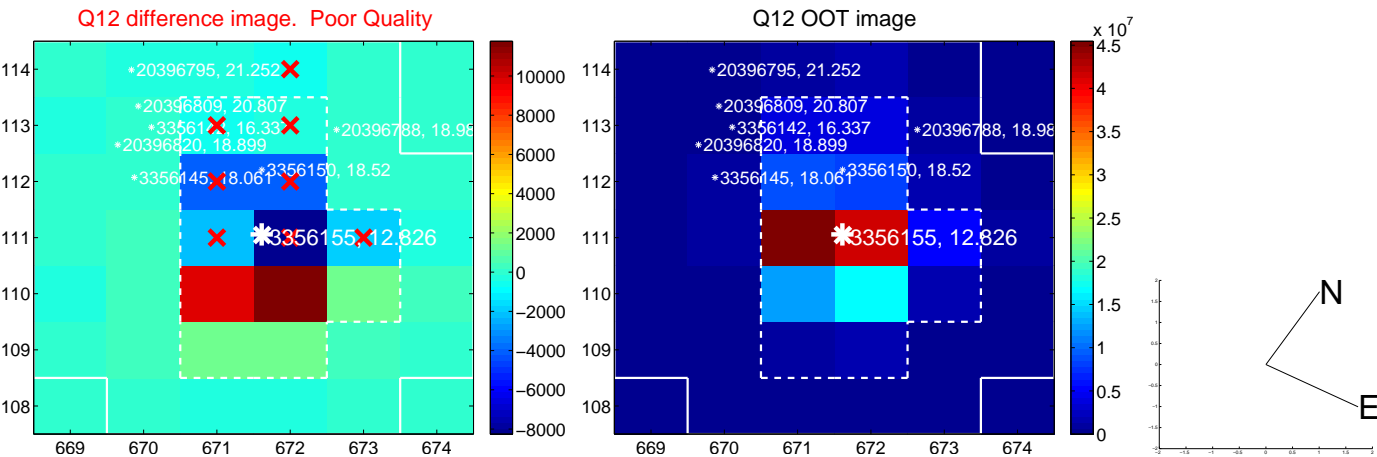
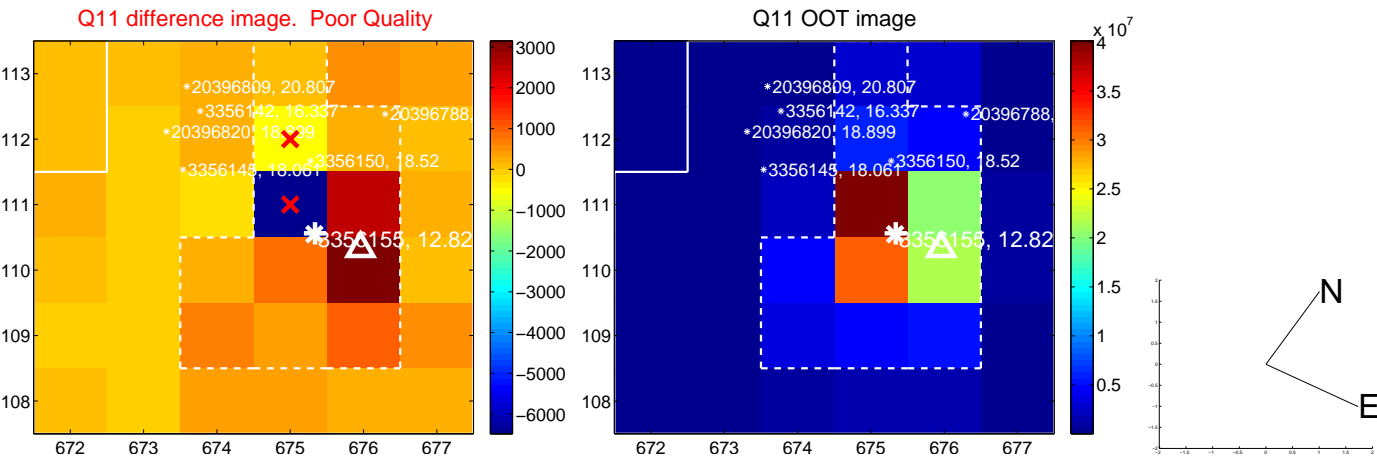
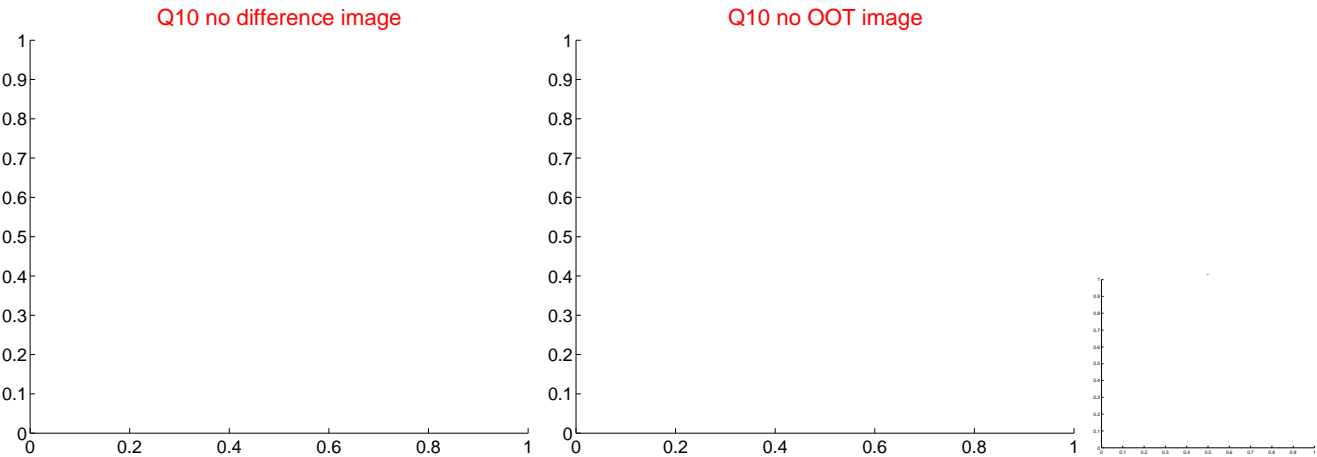
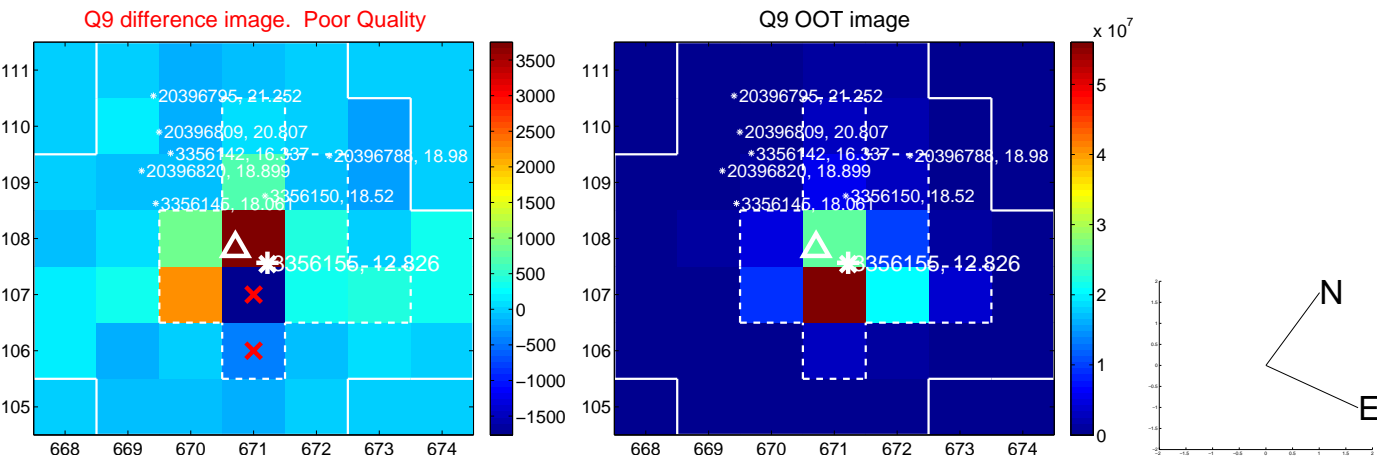
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



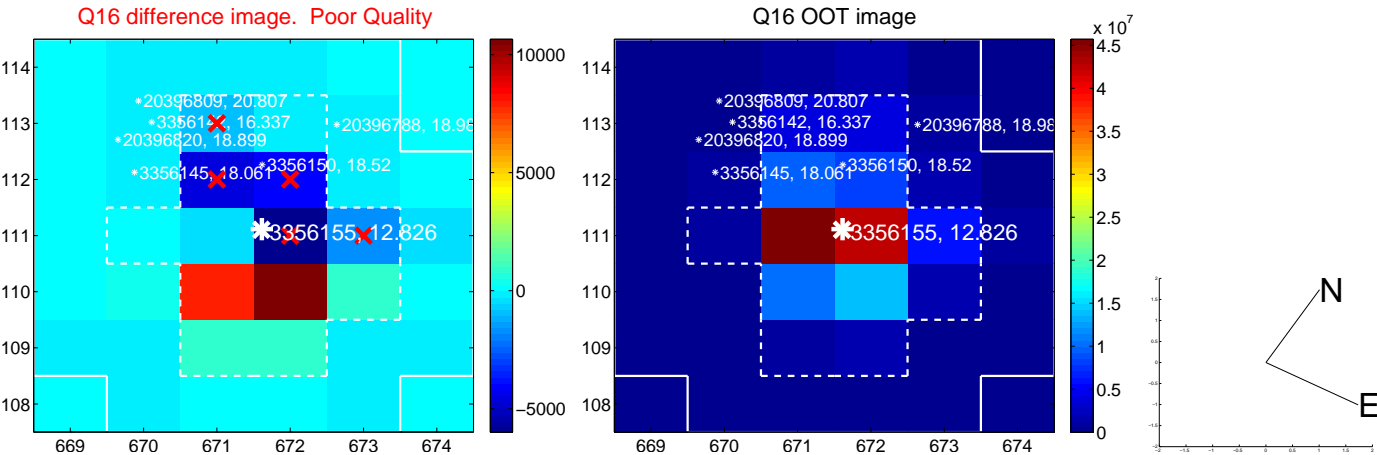
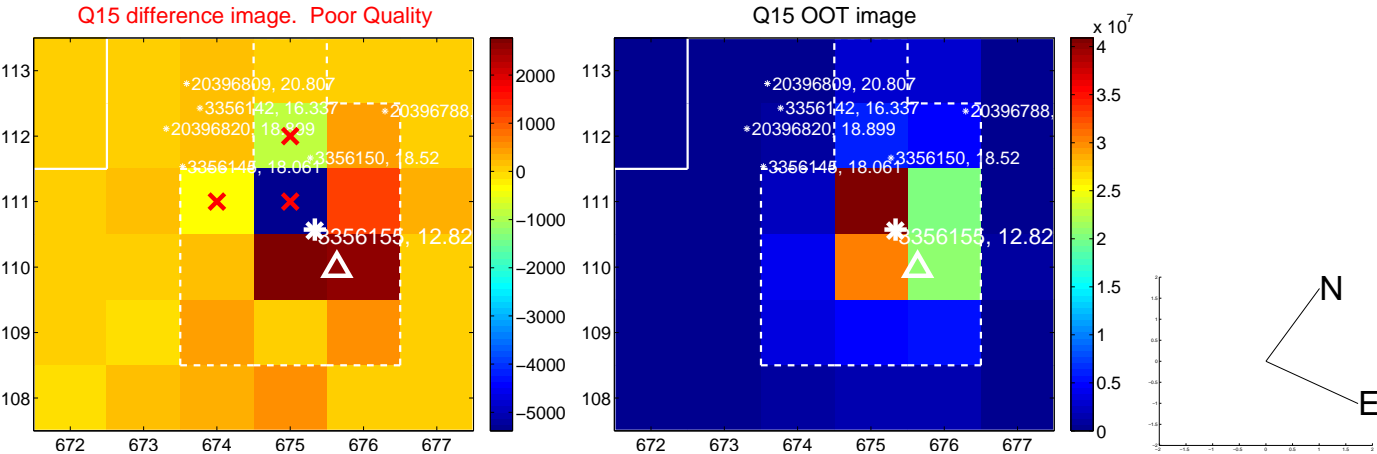
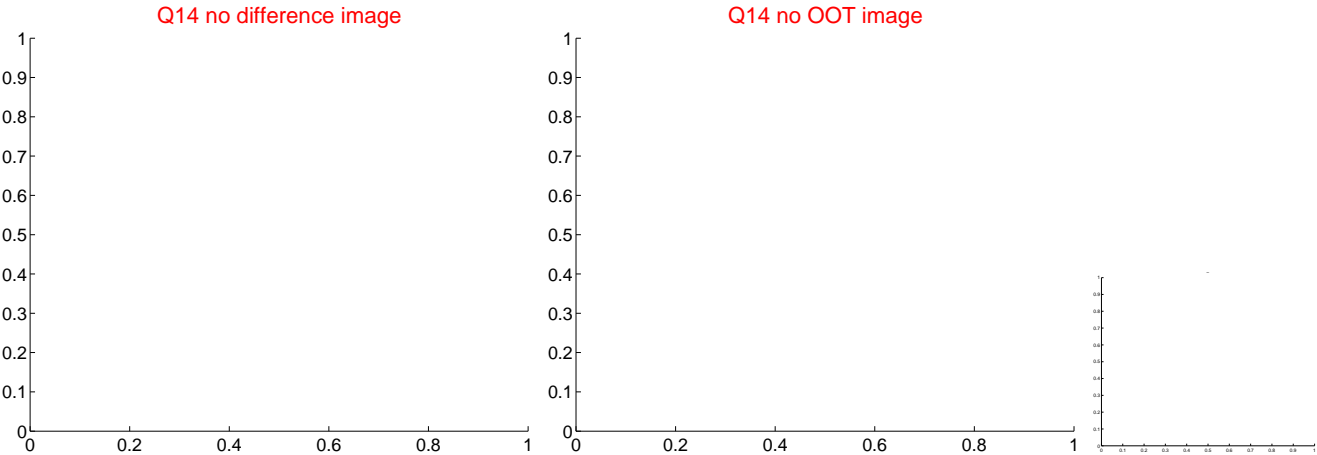
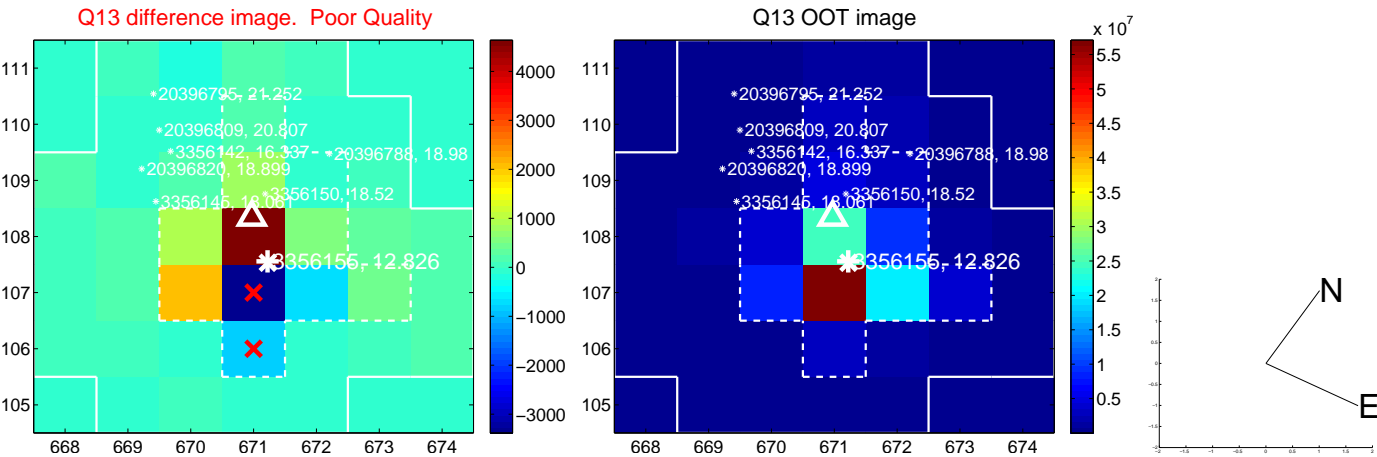
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



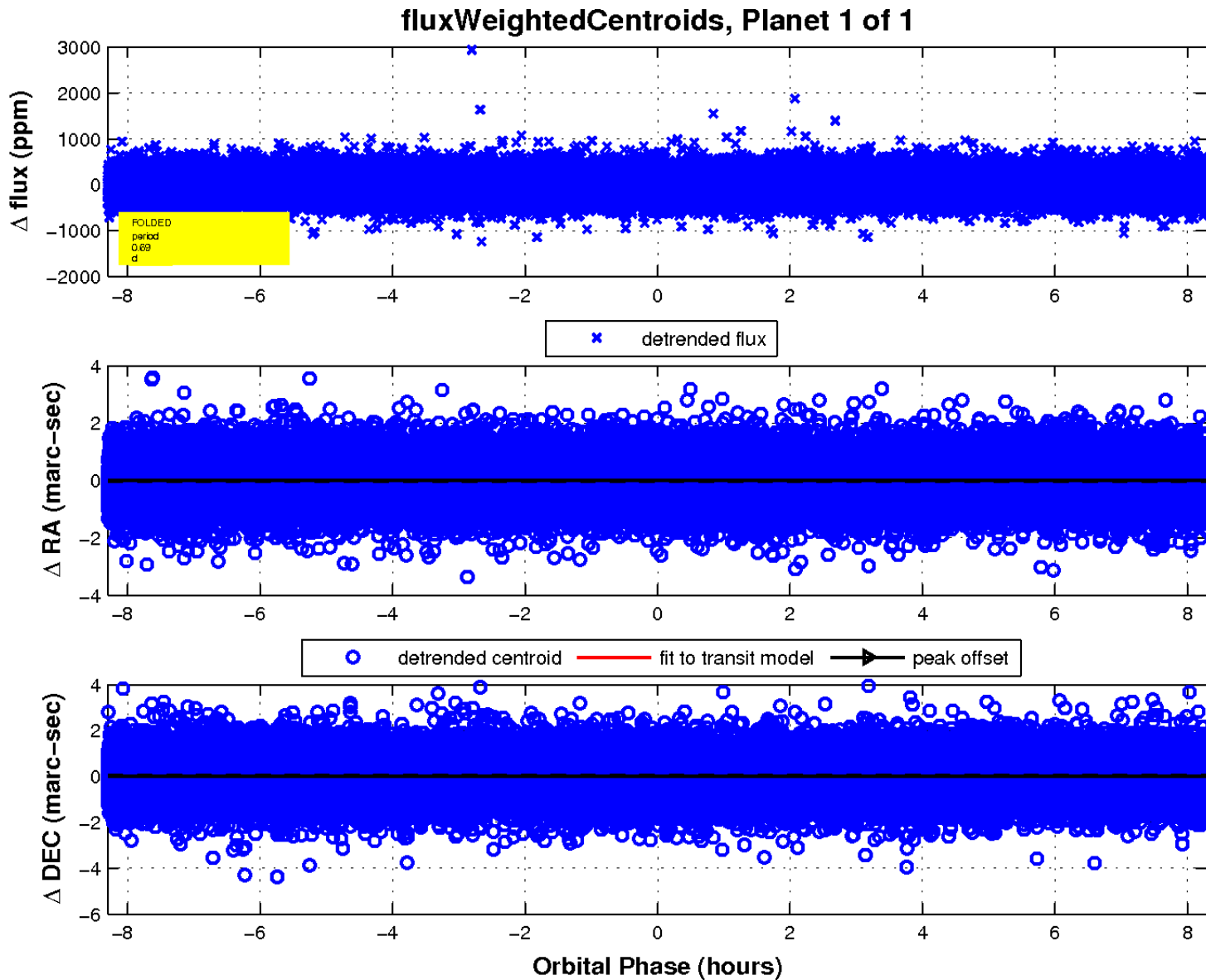
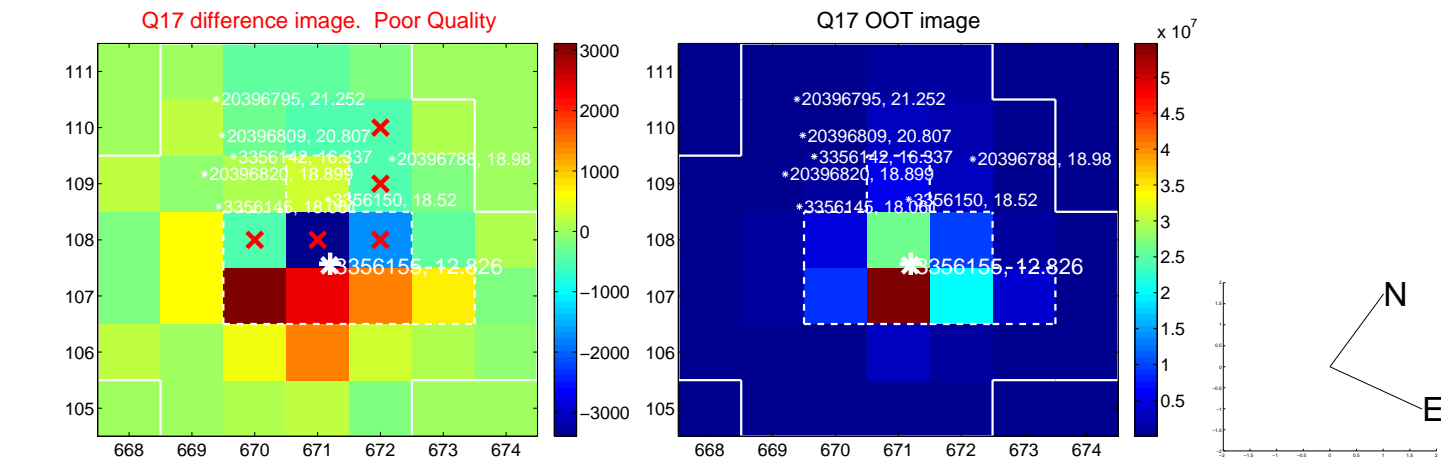
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

