

KIC 003356839

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})
003356839-01	OBS	No	3.075509	134.001996	59.9	9.736	8.0	7.1	1.20	6519	1.05	1196.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003356839-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET

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

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

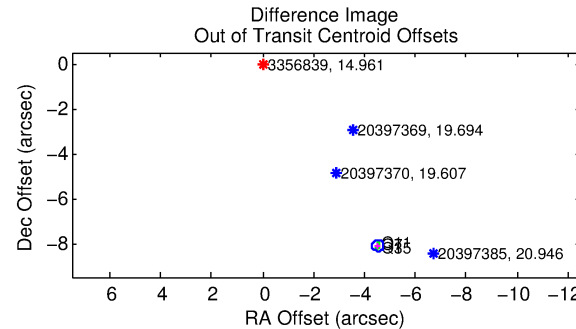
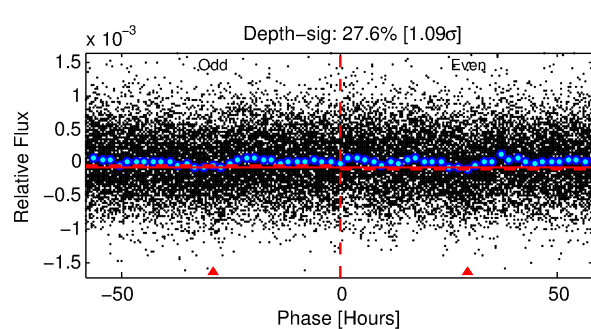
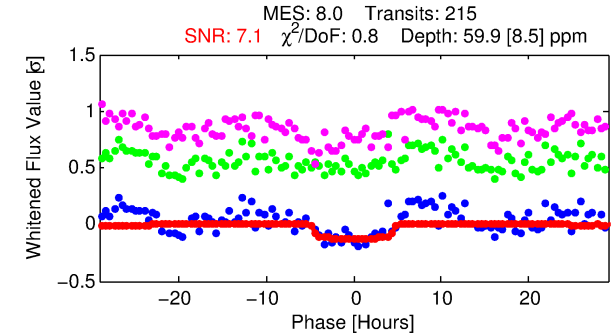
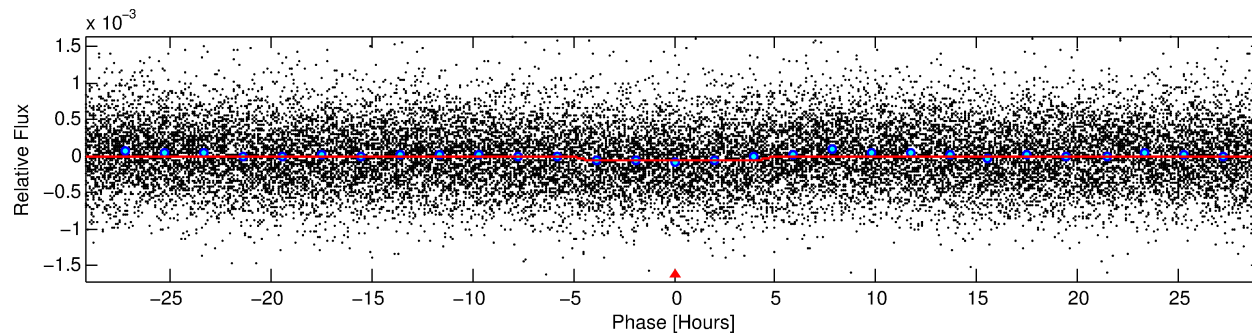
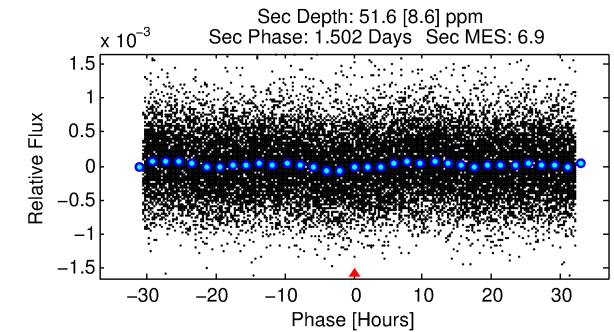
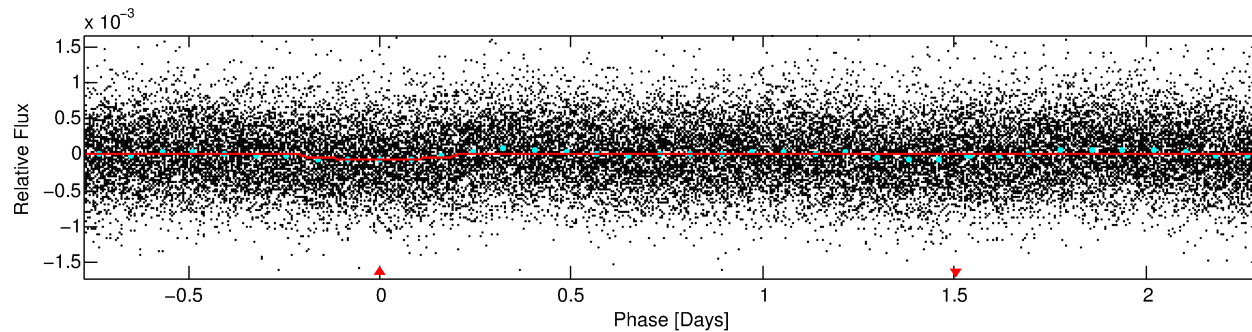
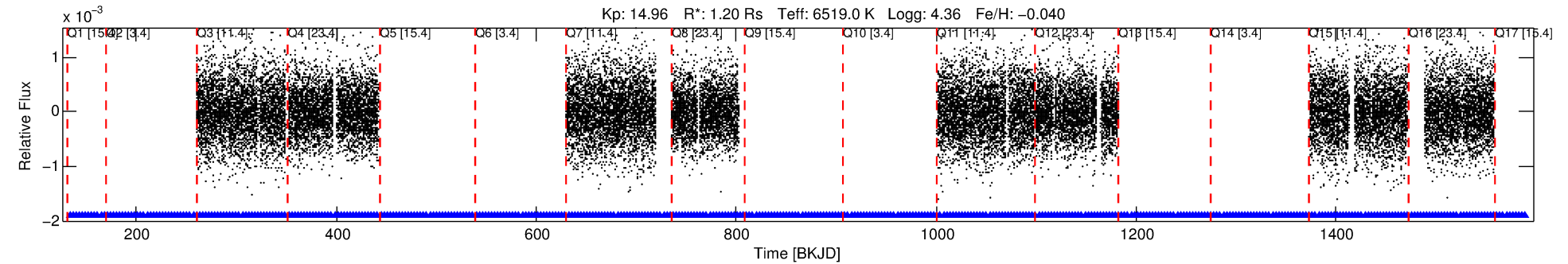
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003356839-01

No Significant Match Found

DV One-Page Summary

KIC: 3356839 Candidate: 1 of 1 Period: 3.076 d



DV Fit Results:

Period = 3.07551 [0.00007] d
Epoch = 134.0020 [0.0142] BKJD
Rp/R* = 0.0080 [0.0039]
a/R* = 1.58 [2.60]
b = 0.85 [0.88]
Seff = 1196.48 [467.78]
Teq = 1500 [147] K
Rp = 1.05 [0.60] Re
a = 0.0442 [0.0111] AU
Ag = 50.01 [52.63] [0.93σ]
Teffp = 6166 [1542] K [3.01σ]

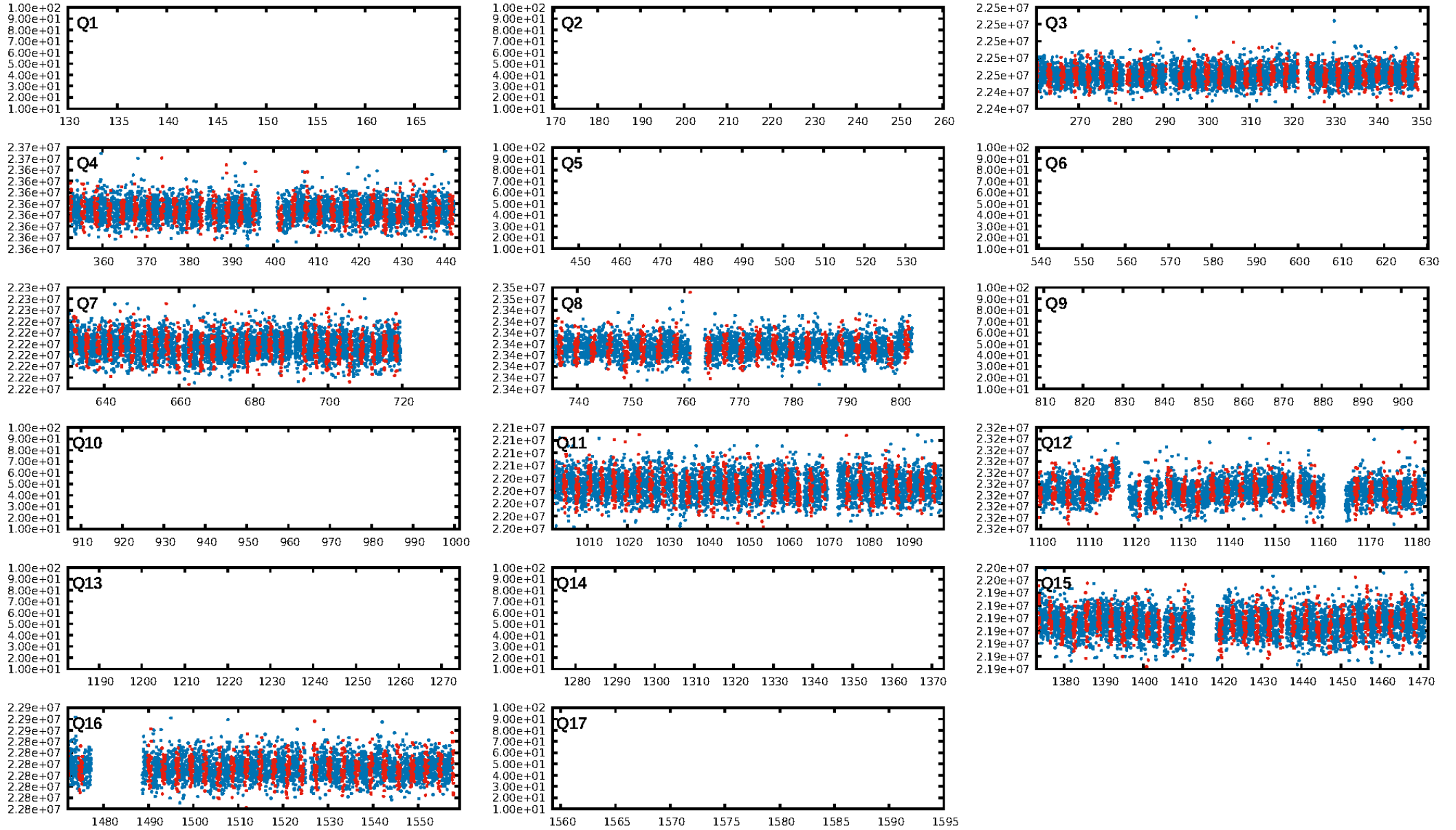
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.07e-14
RollingBand-fgt: 1.00 [215/215]
GhostDiagnostic-chr: 1.264
Centroid-sig: 26.8%
Centroid-so: 2.815 arcsec [1.21σ]
OotOffset-rm: 9.281 arcsec [115.61σ]
KicOffset-rm: 9.341 arcsec [112.70σ]
OotOffset-st: 0/4/0/0 [4]
KicOffset-st: 0/4/0/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [8/8]

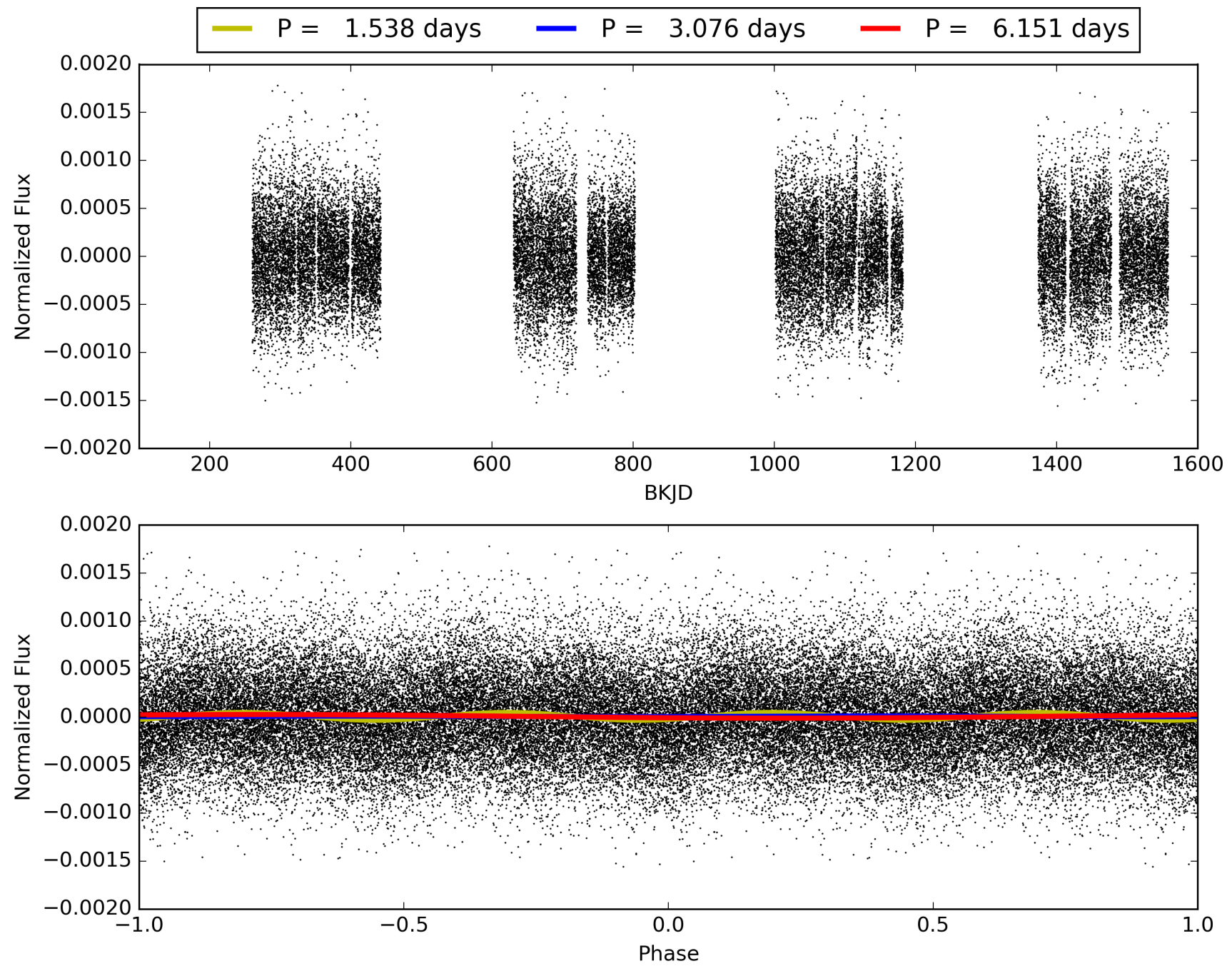
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:50:02 Z

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

TCE 003356839-01, PDC Light Curves

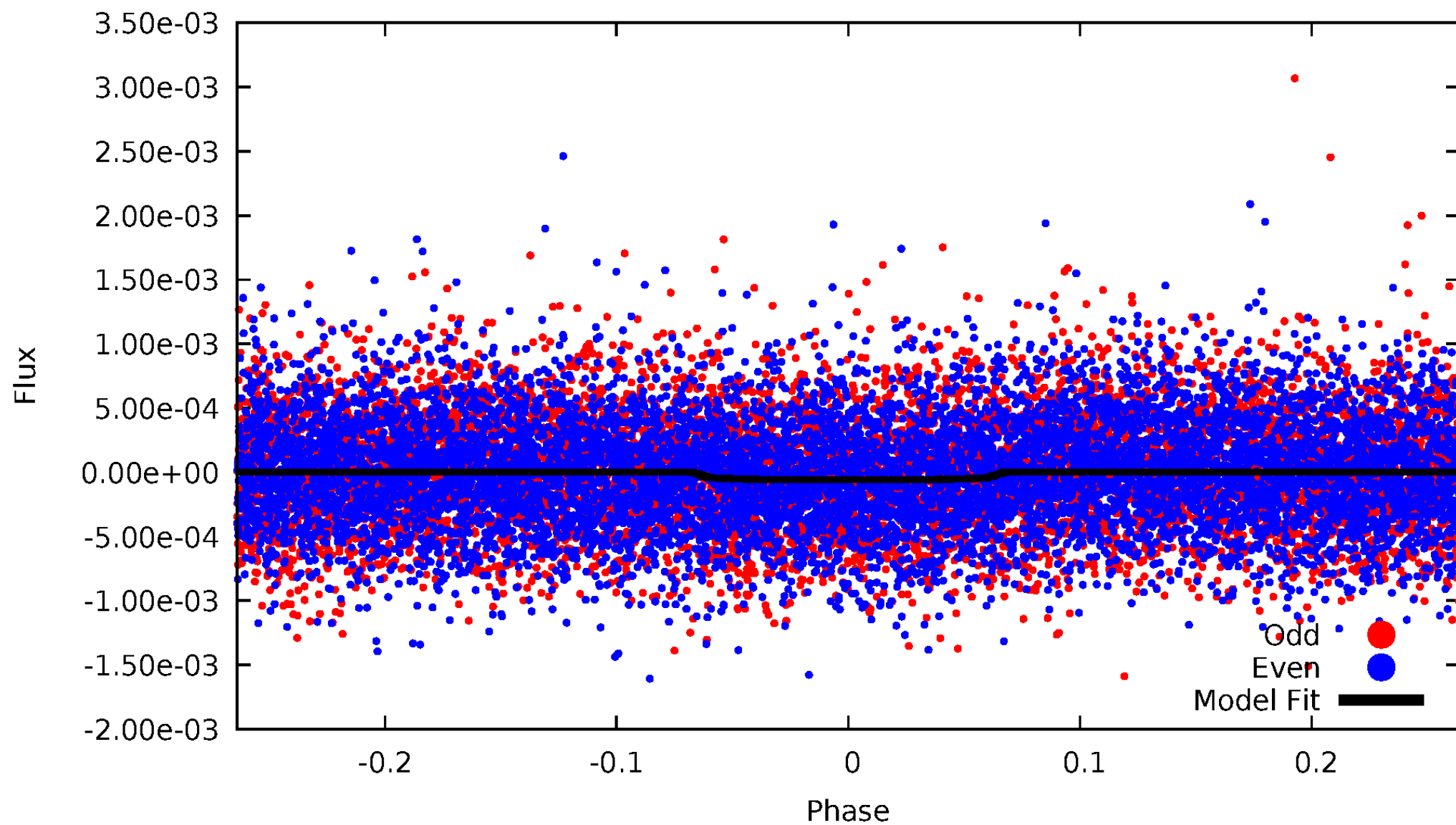


TCE 003356839-01



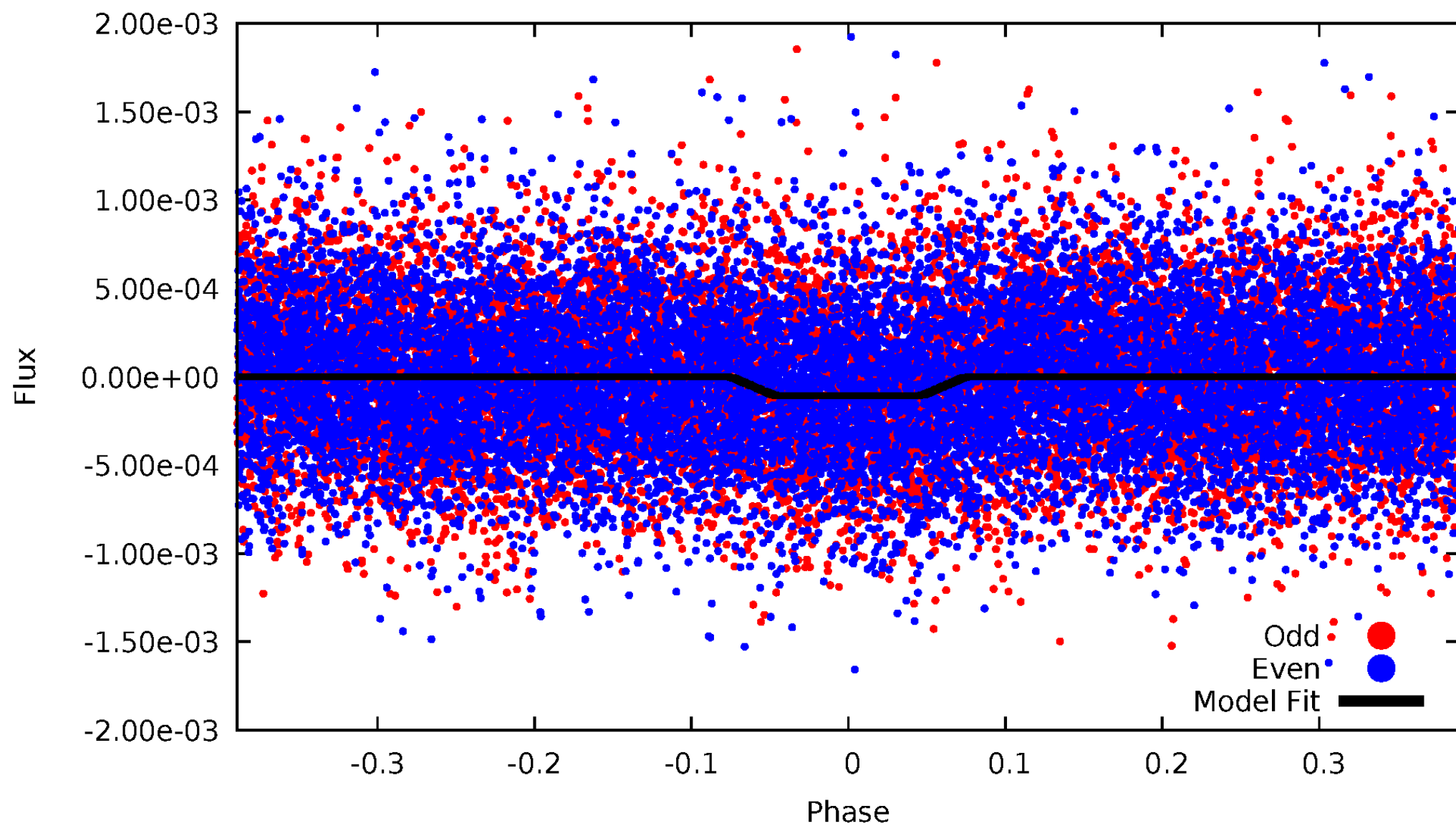
DV Odd/Even

TCE 003356839-01

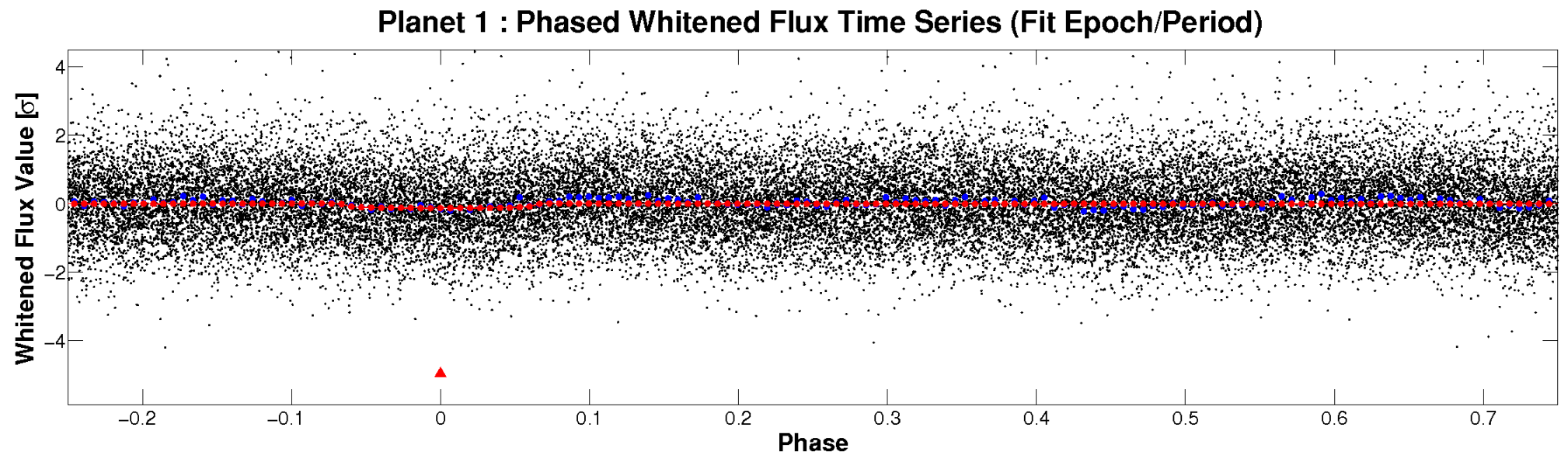
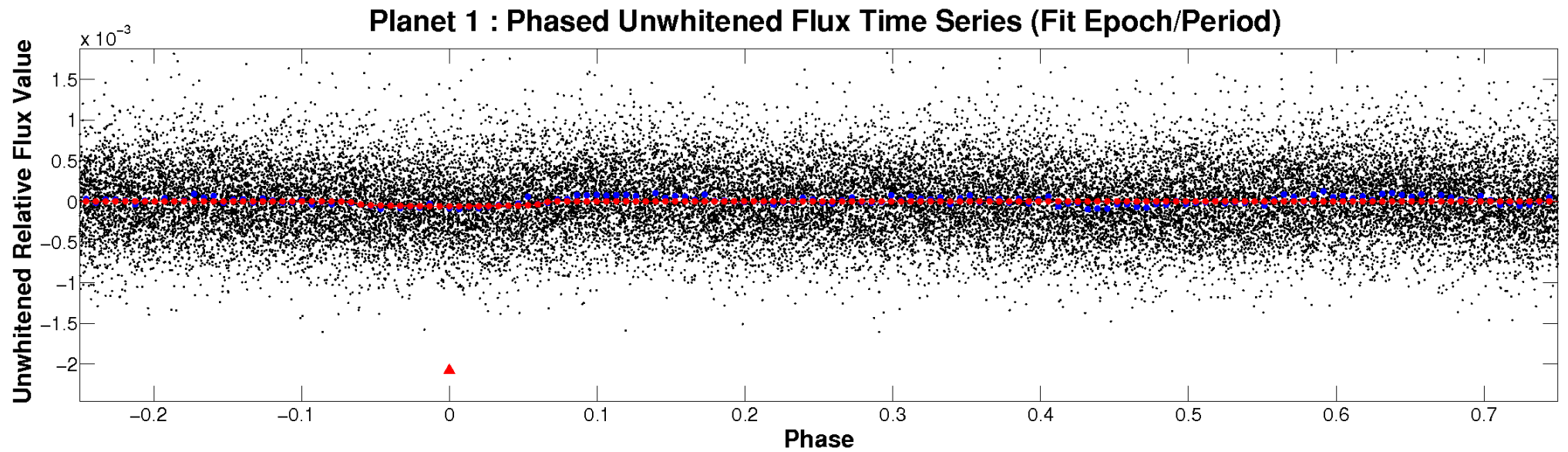


ALT Odd/Even

TCE 003356839-01

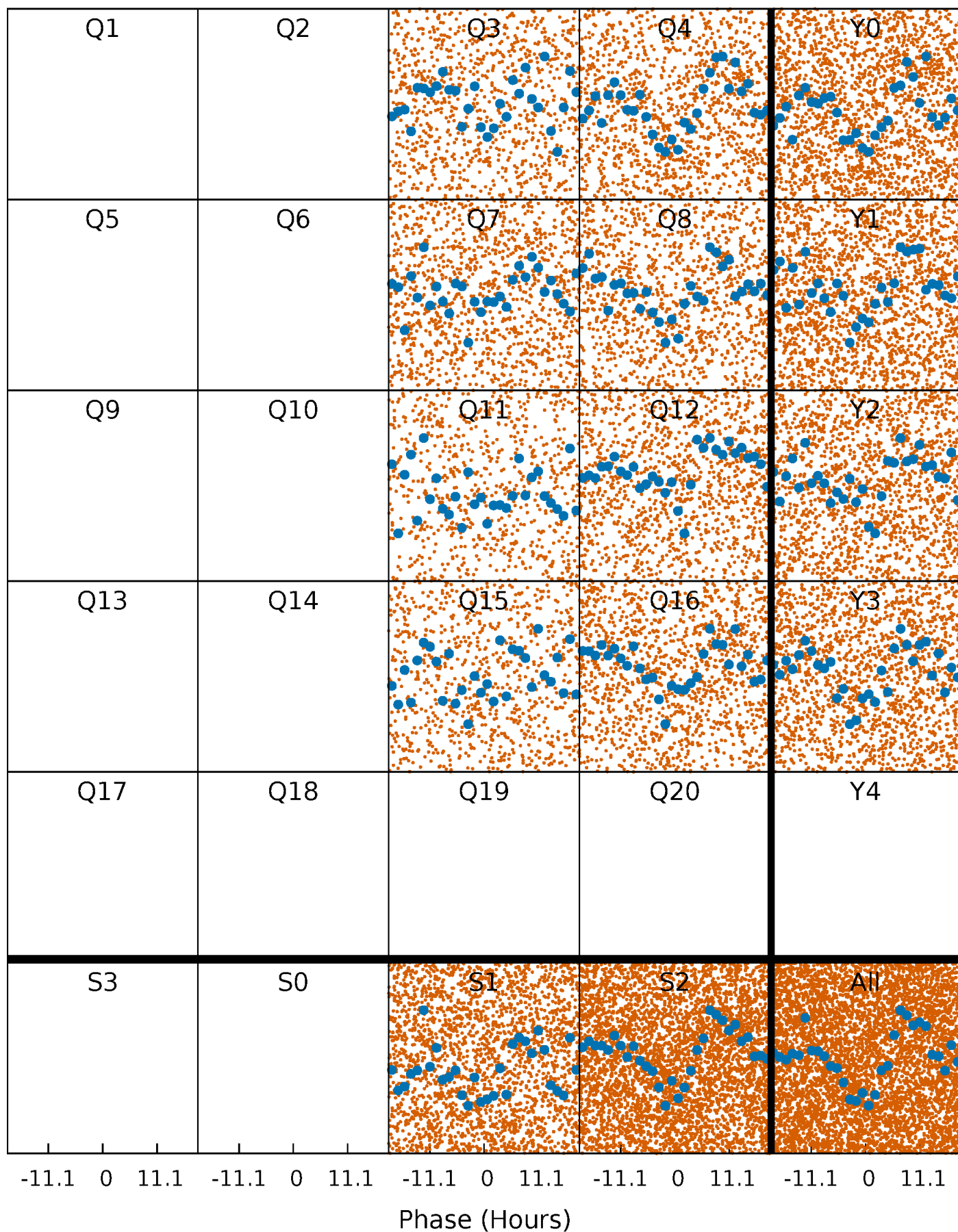


Non-Whitened Vs. Whitened Light Curve



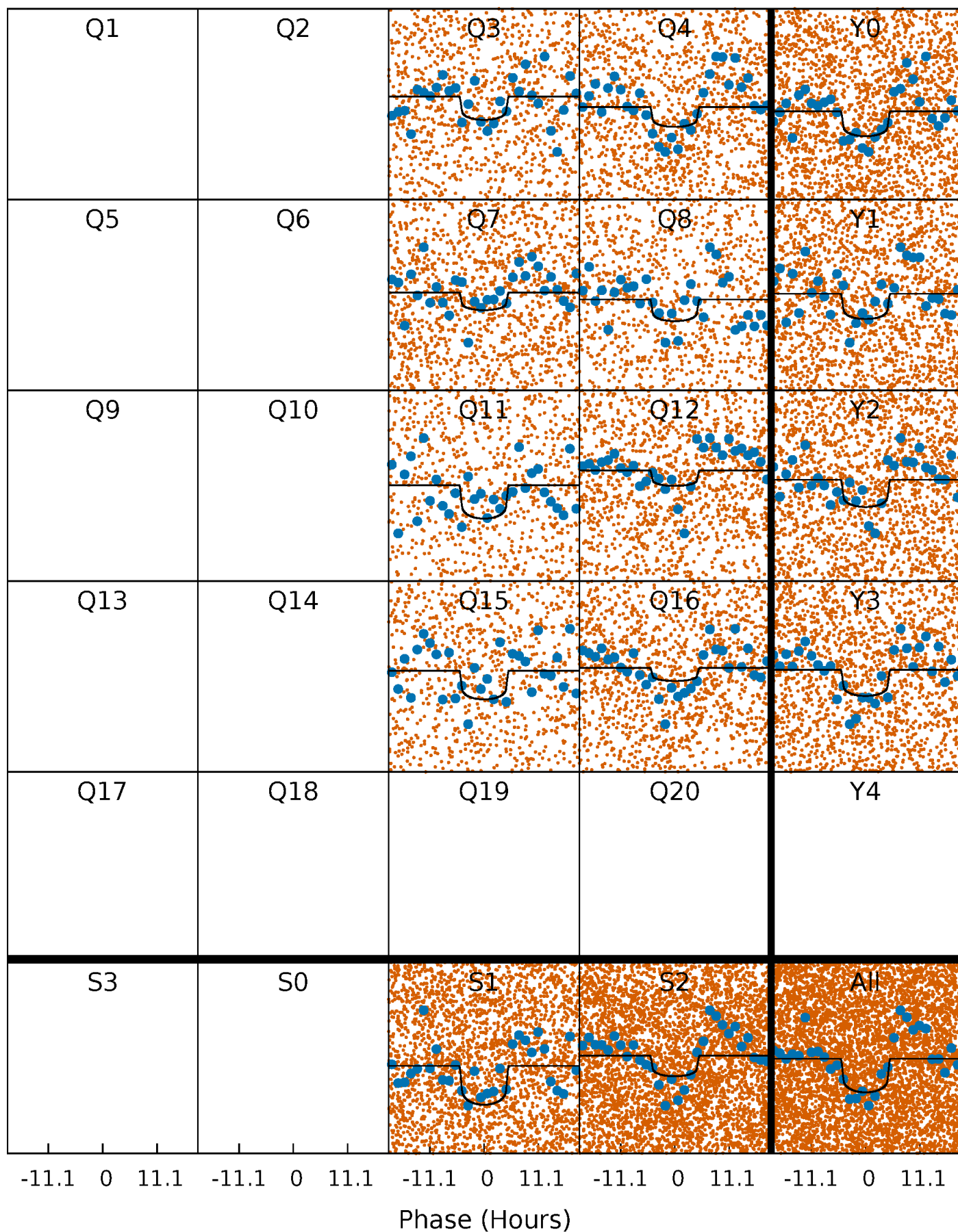
PDC Quarter-Phased Transit Curves

TCE 003356839-01 P= 3.075509 Days $T_0=134.001996$ (BKJD)



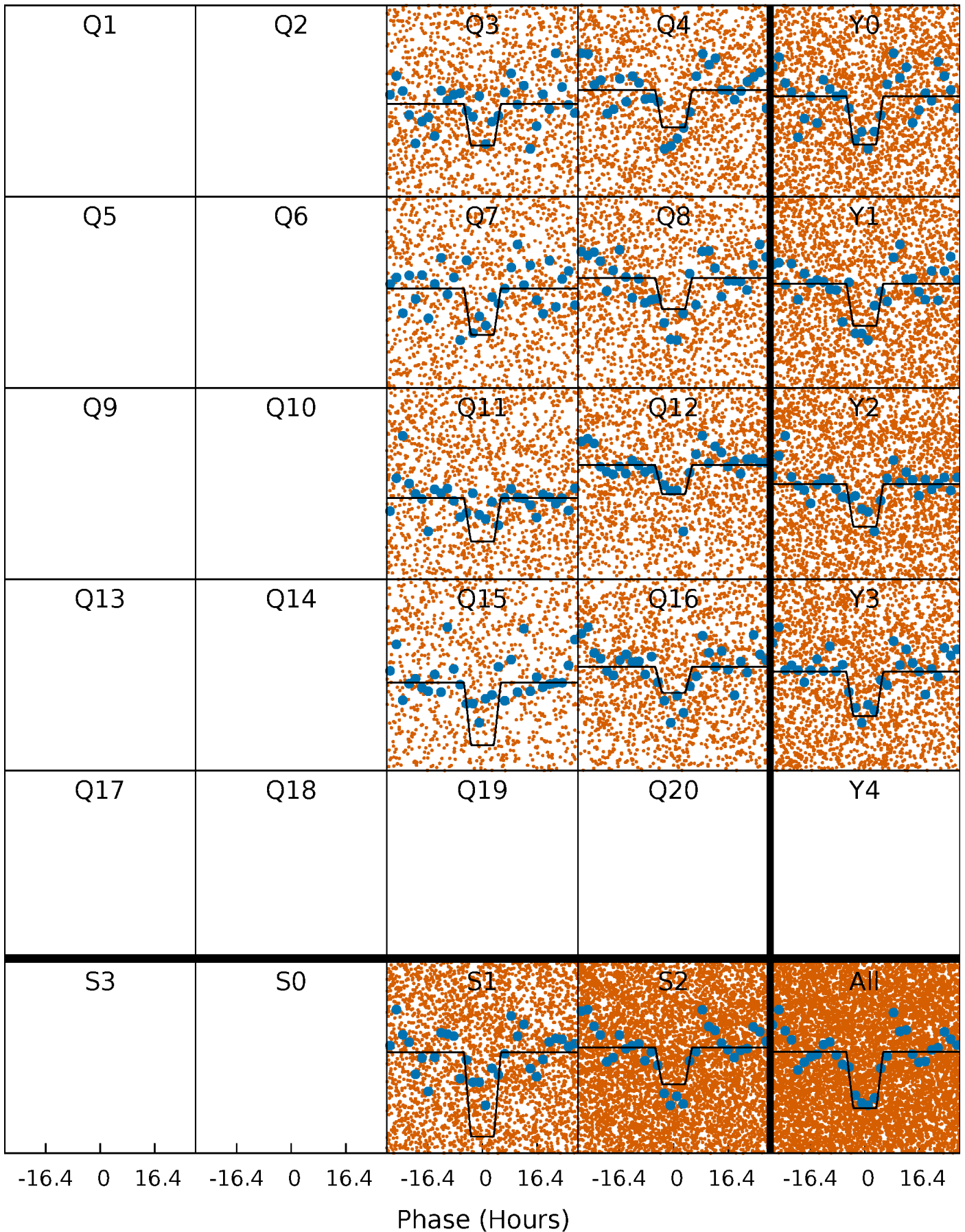
DV Quarter-Phased Transit Curves

TCE 003356839-01 P= 3.075509 Days $T_0=134.001996$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

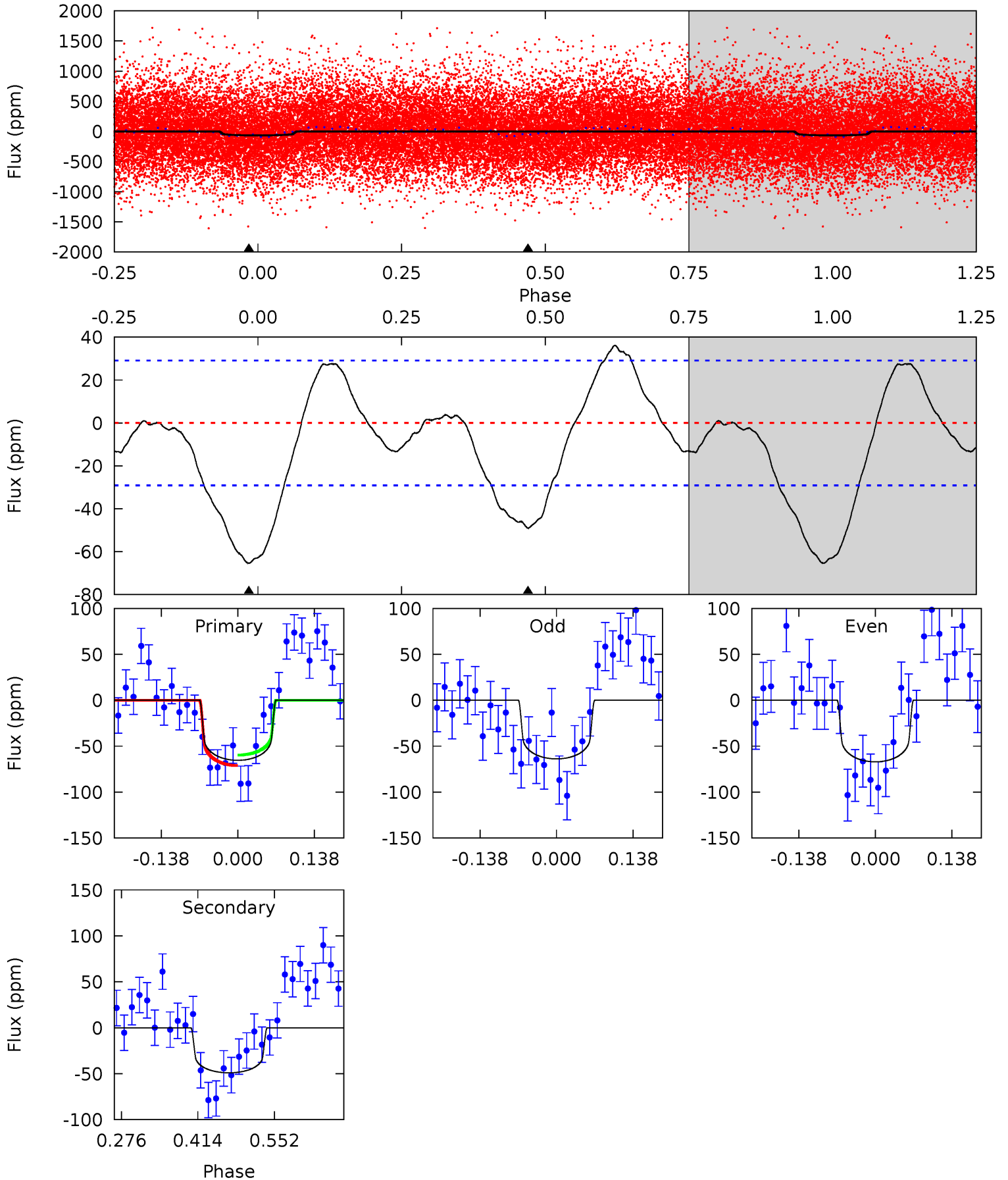
TCE 003356839-01 P= 3.075402 Days $T_0=133.985343$ (BKJD)



DV Model-Shift Uniqueness Test

003356839-01, P = 3.075509 Days, E = 134.001996 Days

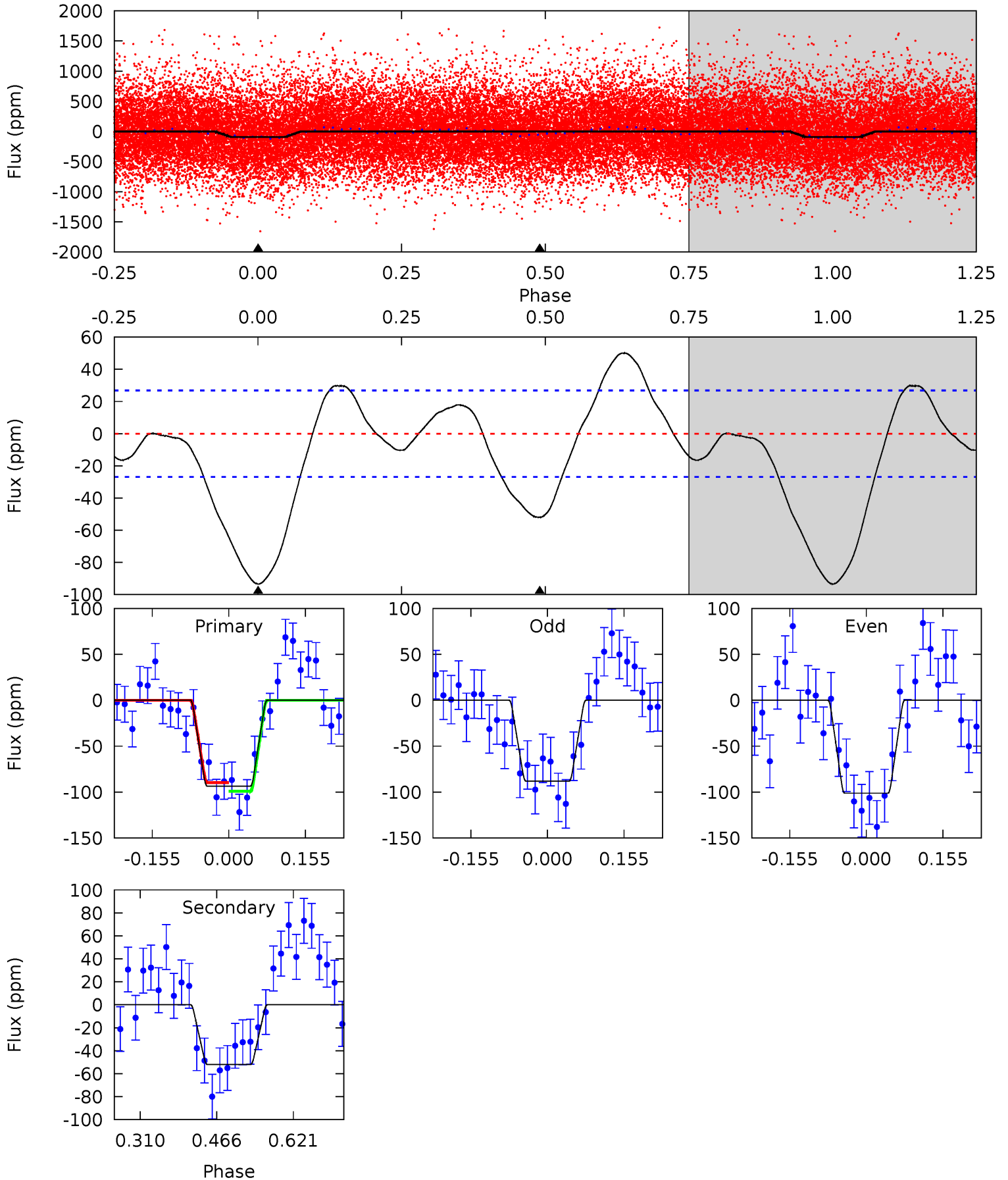
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	7.58	0	0	4.50	1.48	2.23	10.1	10.1	7.58	7.58	0.25	1.03	0.36	0.89



Alt Model-Shift Uniqueness Test

003356839-01, P = 3.075402 Days, E = 133.985343 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.5	8.65	0	0	4.47	1.42	2.62	15.5	15.5	8.65	8.65	1.10	0.85	0.35	0.78



Stellar Parameters For KIC 003356839

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6519^{+179}_{-246}	$4.364^{+0.078}_{-0.195}$	$-0.040^{+0.250}_{-0.350}$	$1.203^{+0.363}_{-0.156}$	$1.222^{+0.181}_{-0.181}$	$0.989^{+0.335}_{-0.484}$
	+3%/-4%	+2%/-4%	+625%/-875%	+30%/-13%	+15%/-15%	+34%/-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 003356839-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-49 ± 6	$1.11^{+0.54}_{-0.55}$	2130^{+147}_{-124}	6057^{+2634}_{-1053}	42^{+130}_{-23}
Alt.	-52 ± 6	$1.44^{+0.56}_{-0.56}$	2125^{+161}_{-107}	5343^{+1482}_{-662}	26^{+43}_{-13}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

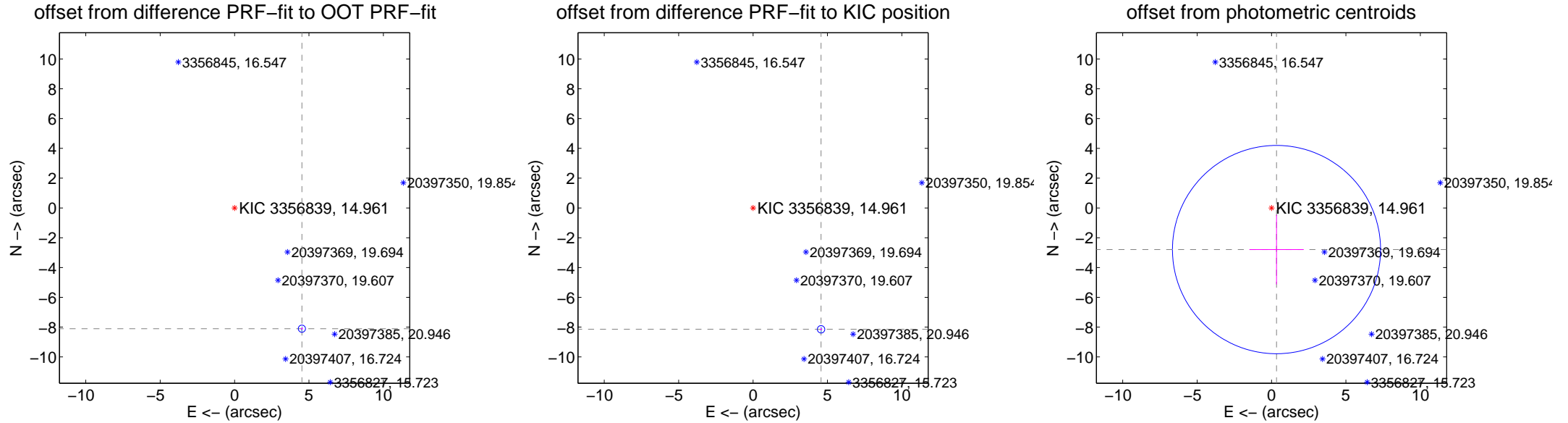
DV Centroid Data

Supplemental centroid analysis for 003356839-01. Kepler magnitude: 14.96. Transit SNR 7.07

There are 4 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

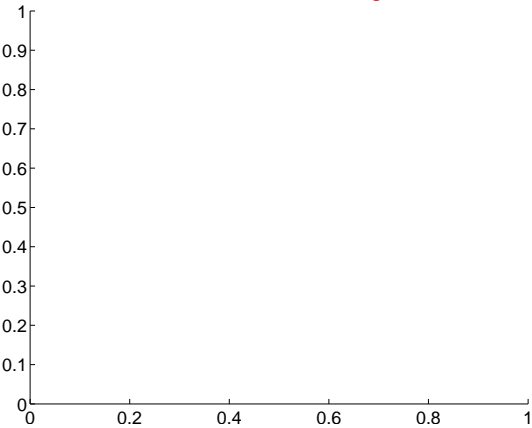
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.281 \pm 0.080	115.61	-4.523 \pm 0.068	-8.105 \pm 0.084
PRF-fit source offset from KIC position	9.341 \pm 0.083	112.70	-4.570 \pm 0.067	-8.147 \pm 0.087
photometric centroid source offset	2.81 \pm 2.33	1.21	-0.34 \pm 1.82	-2.79 \pm 2.34



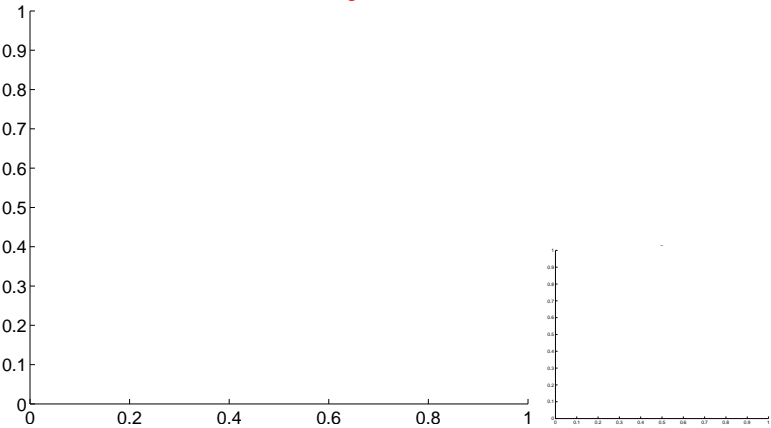
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

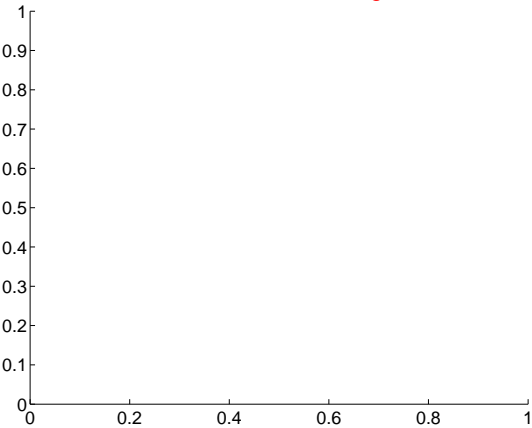
Q1 no difference image



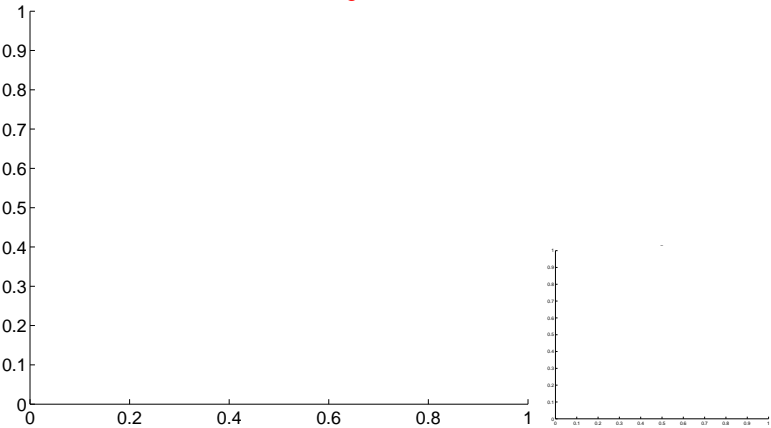
Q1 no OOT image



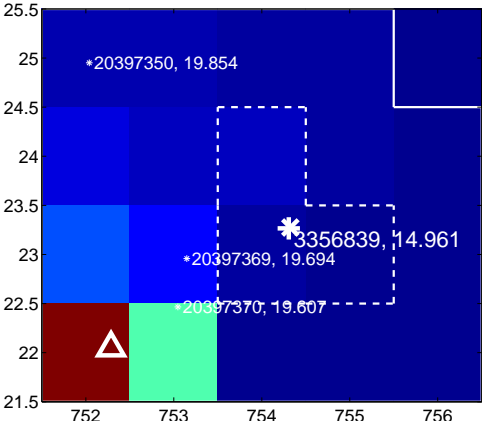
Q2 no difference image



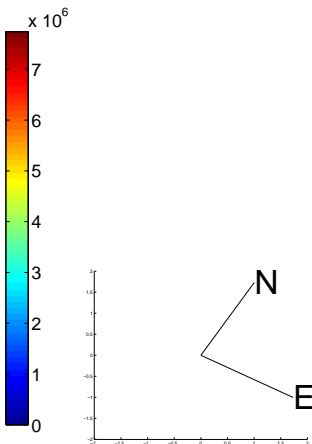
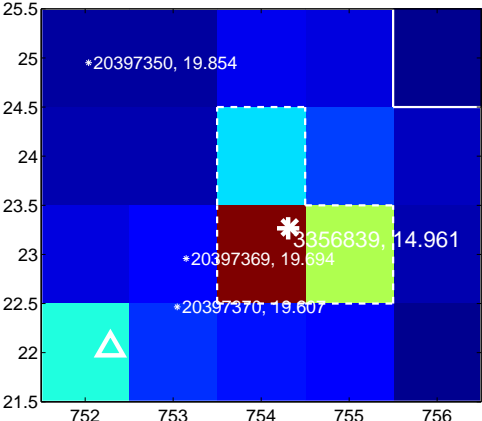
Q2 no OOT image



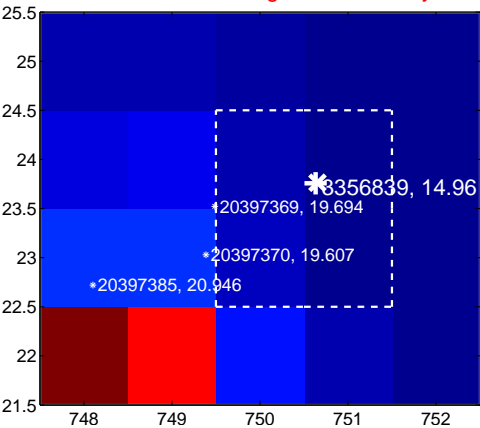
Q3 difference image



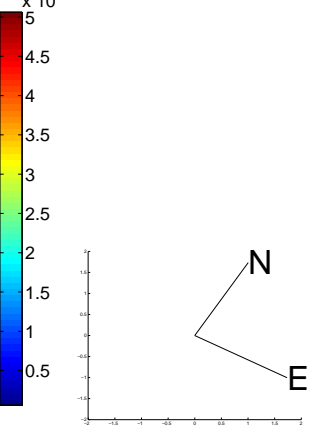
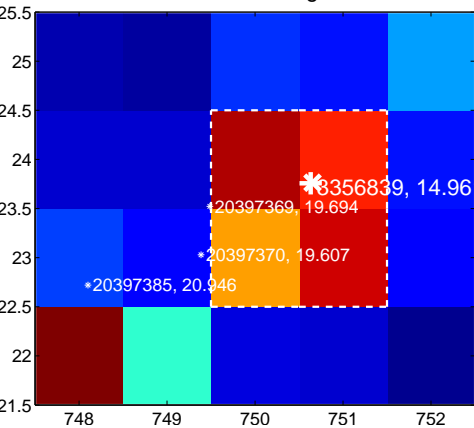
Q3 OOT image



Q4 difference image. Poor Quality

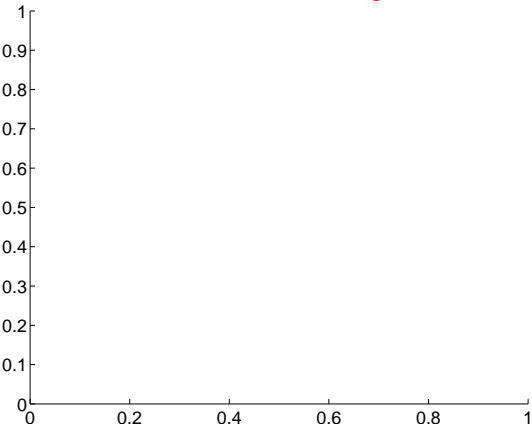


Q4 OOT image

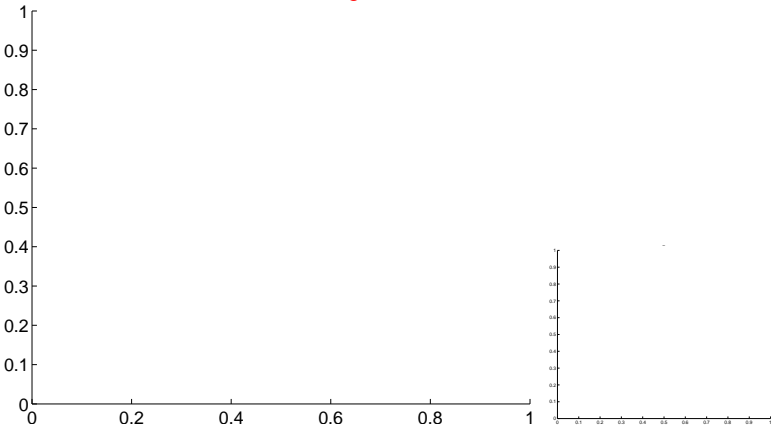


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

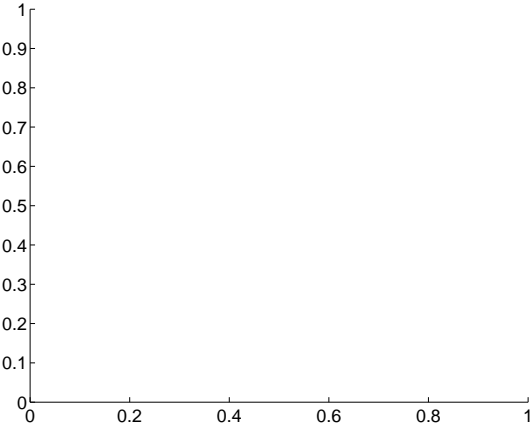
Q5 no difference image



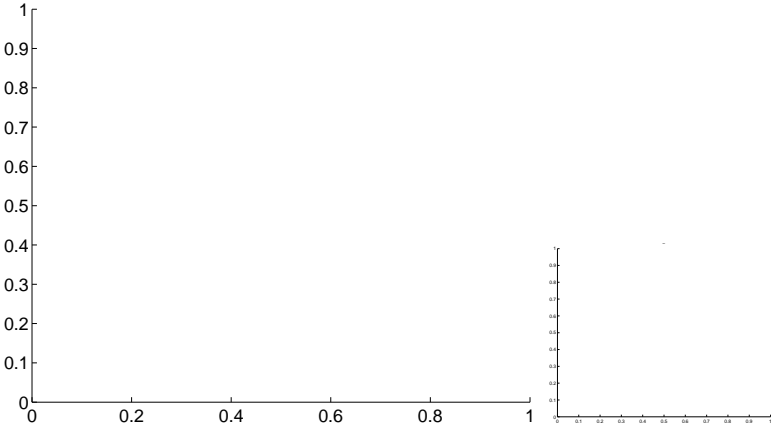
Q5 no OOT image



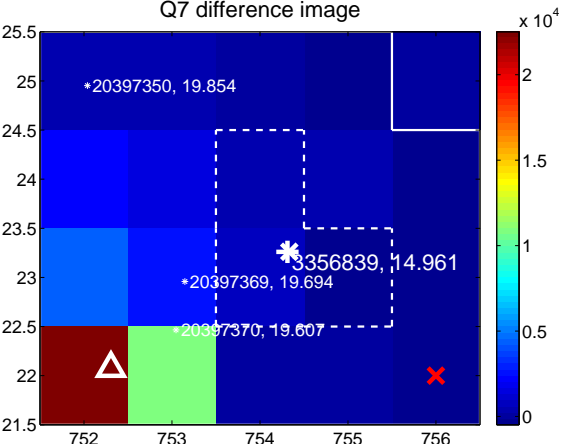
Q6 no difference image



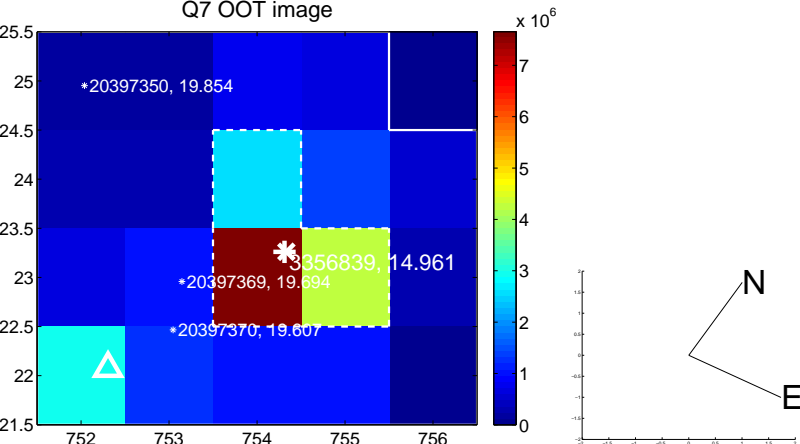
Q6 no OOT image



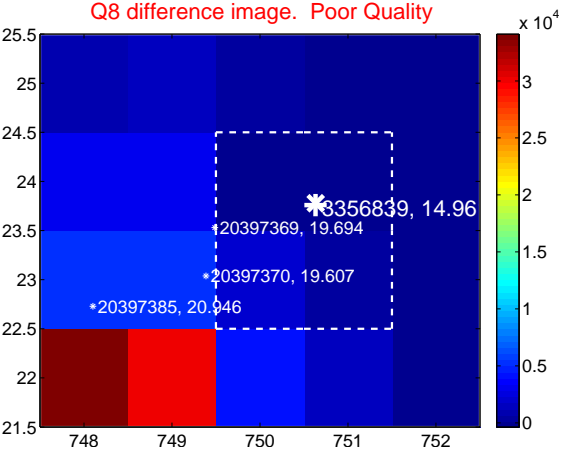
Q7 difference image



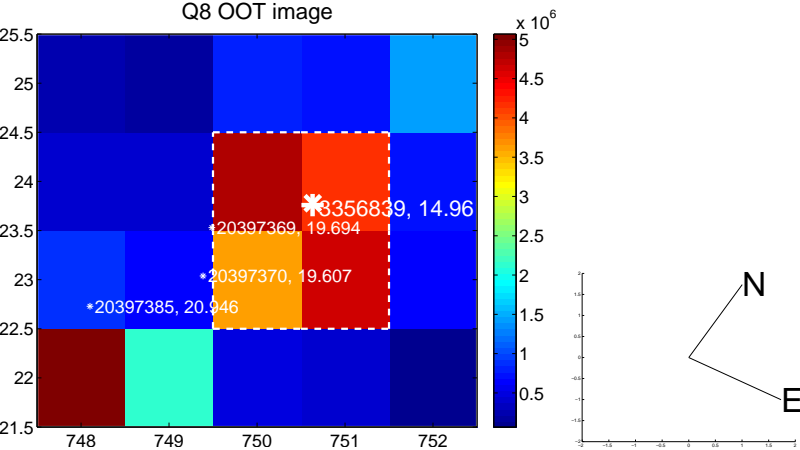
Q7 OOT image



Q8 difference image. Poor Quality



Q8 OOT image

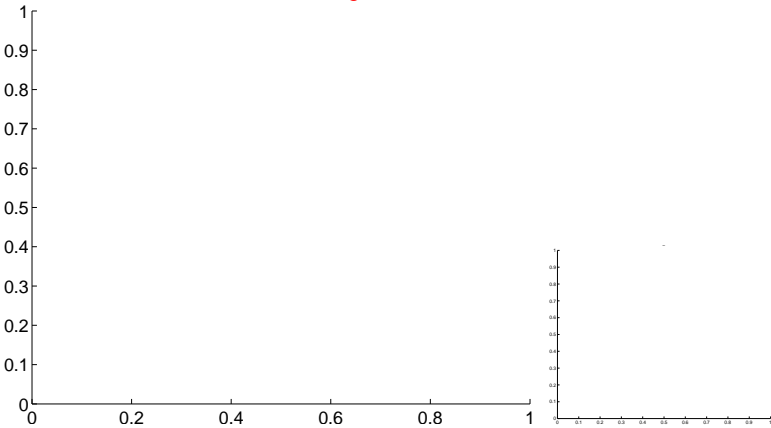


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

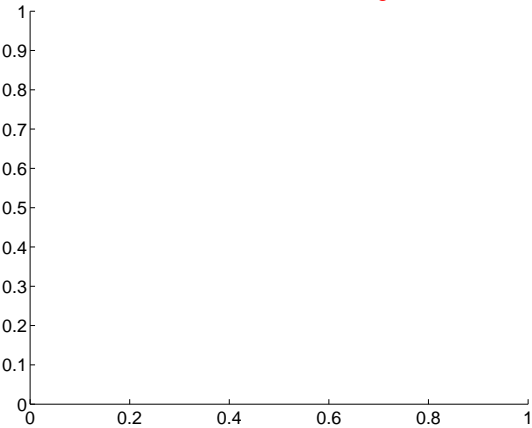
Q9 no difference image



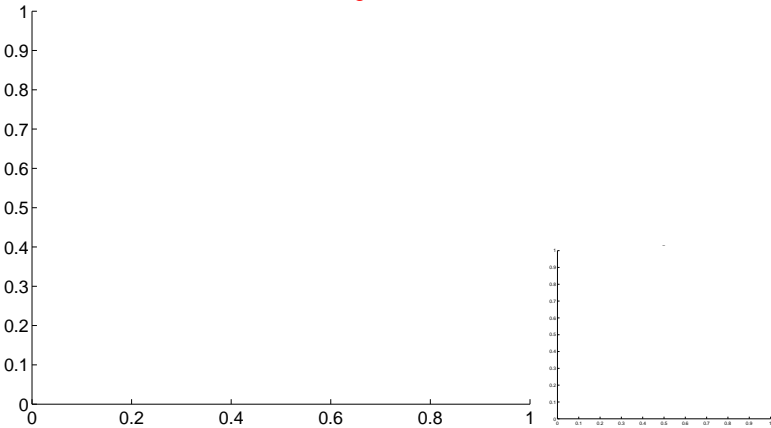
Q9 no OOT image



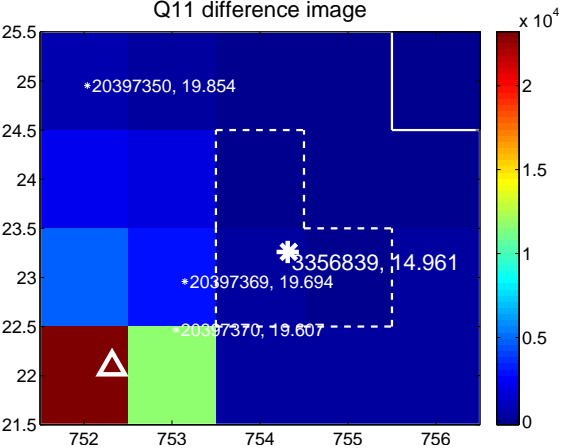
Q10 no difference image



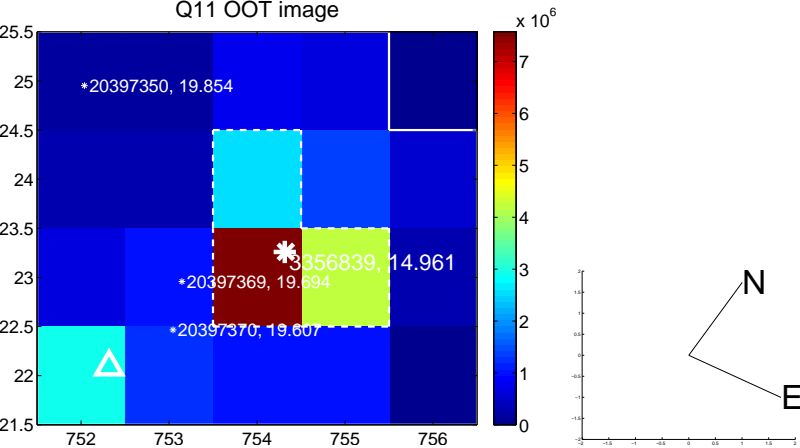
Q10 no OOT image



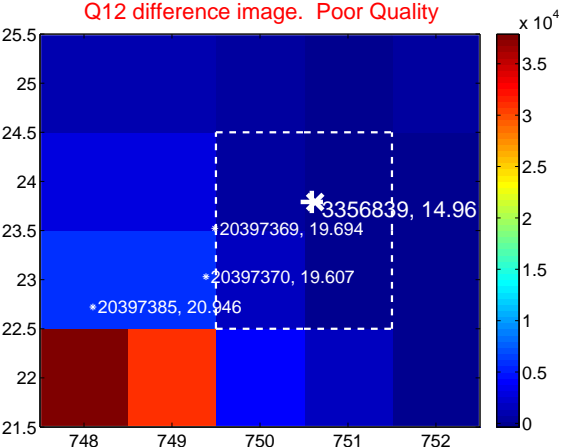
Q11 difference image



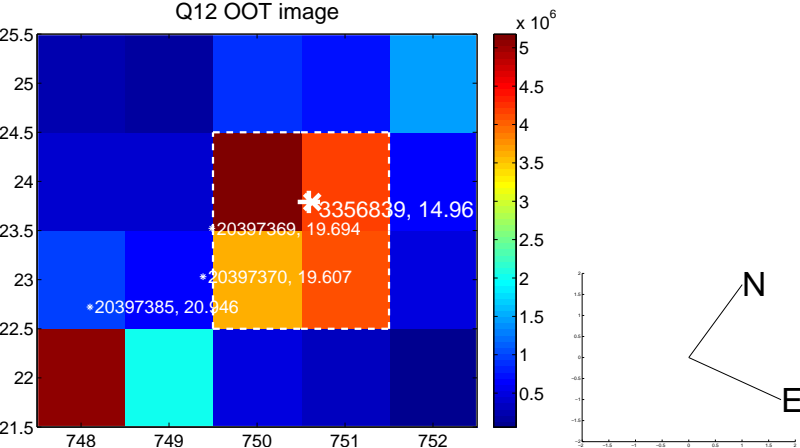
Q11 OOT image



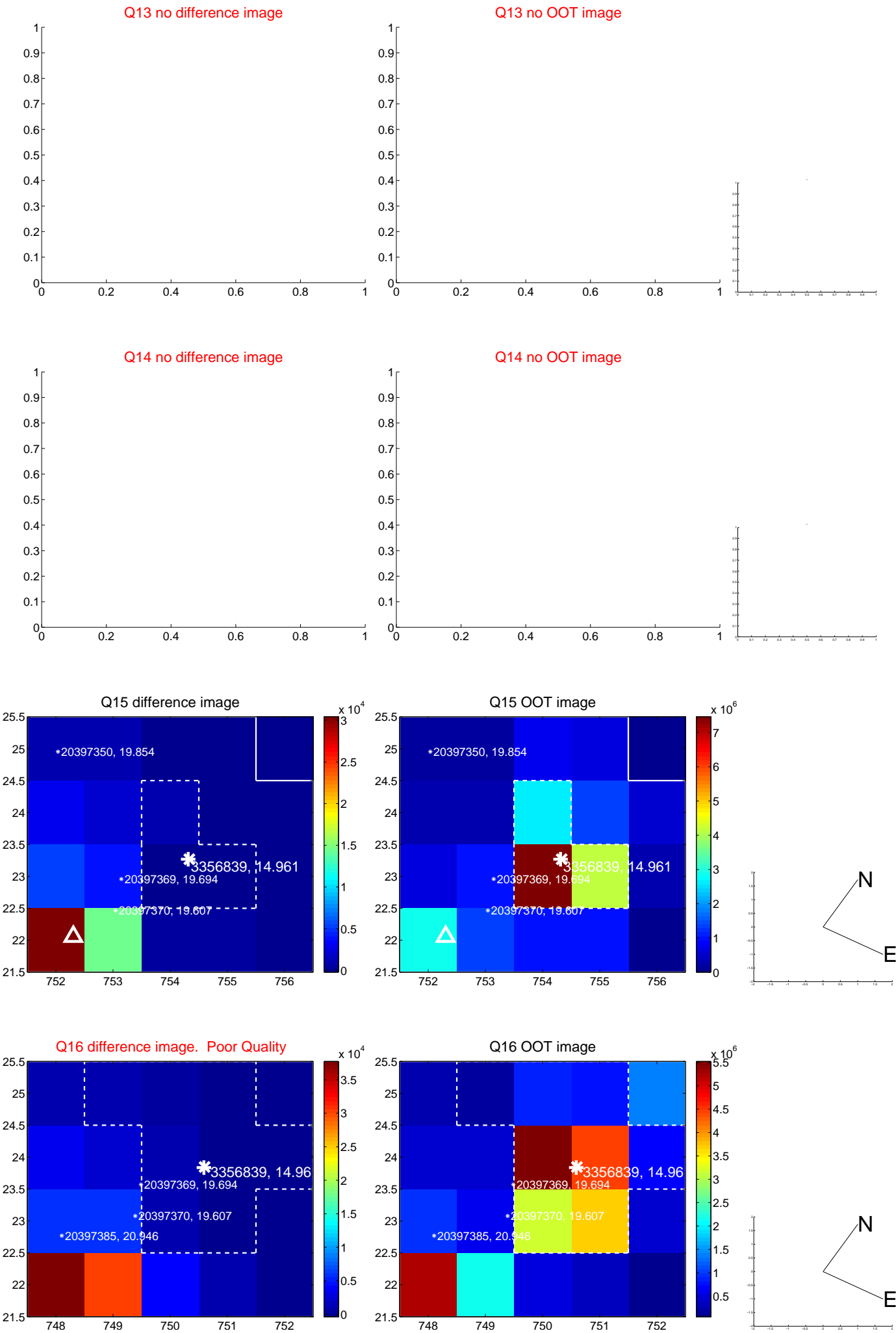
Q12 difference image. Poor Quality



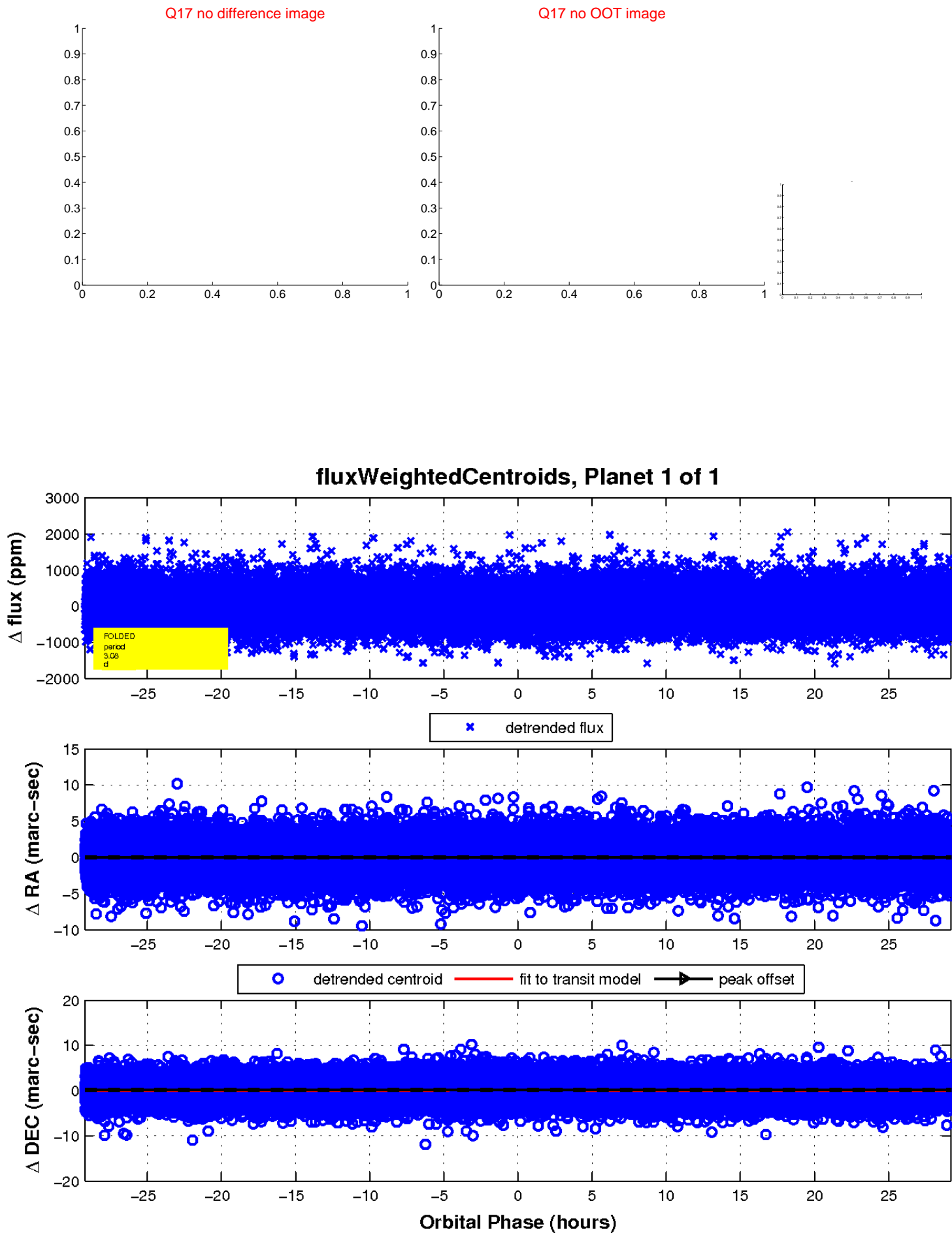
Q12 OOT image



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.



UKIRT Image

Declination

