

KIC 006357290

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})
006357290-01	OBS	3040.01	4.809983	133.006005	295.1	2.092	12.8	13.5	0.93	5988	1.89	318.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006357290-01	OBS	PC	0.88	0	0	0	0	NO_COMMENT

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.

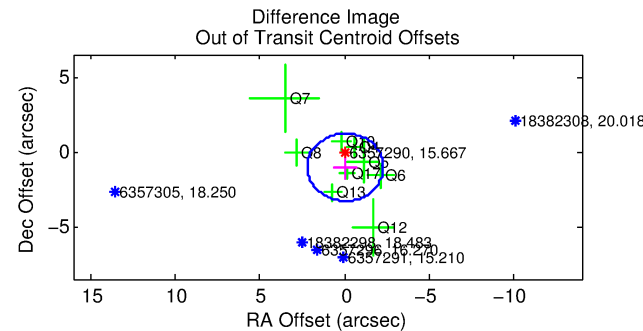
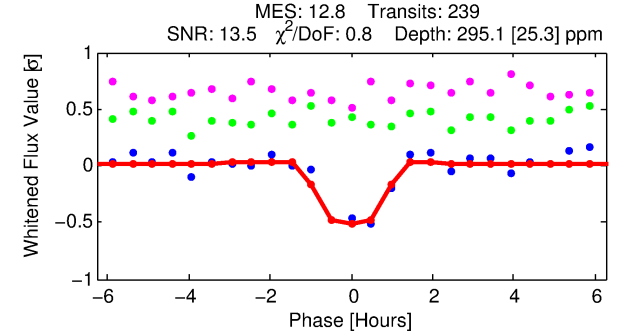
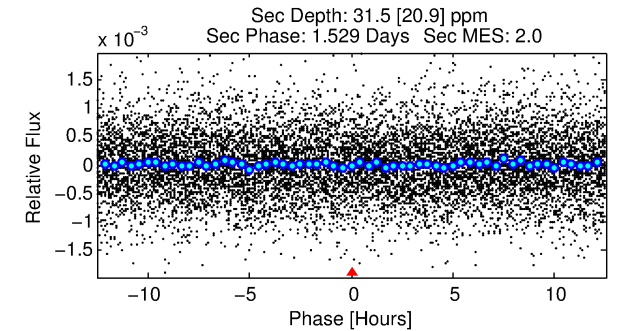
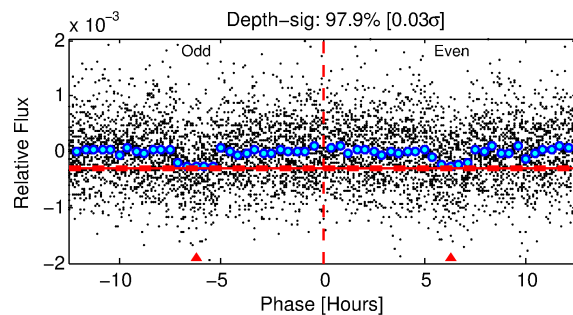
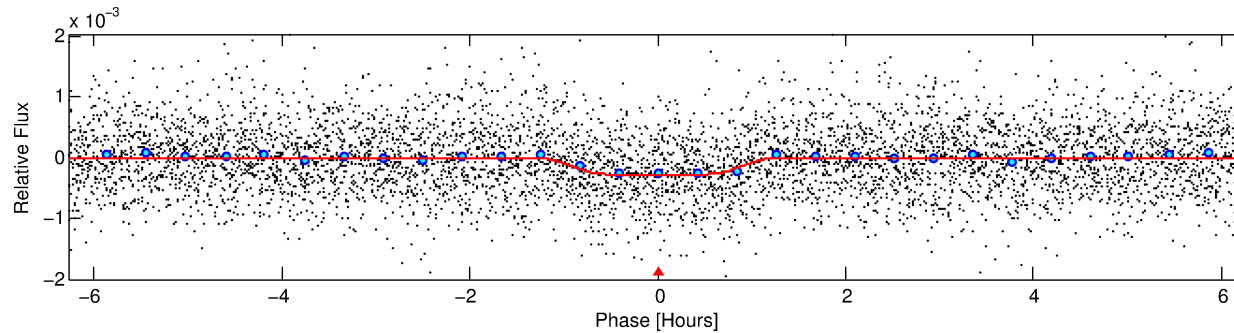
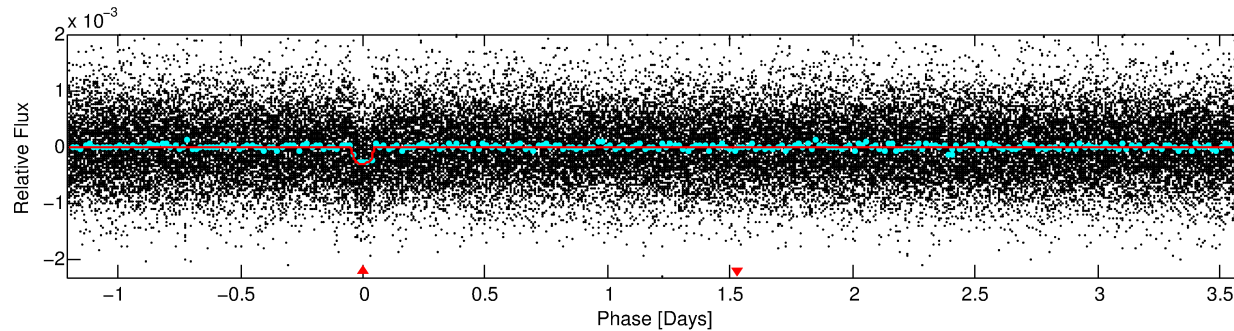
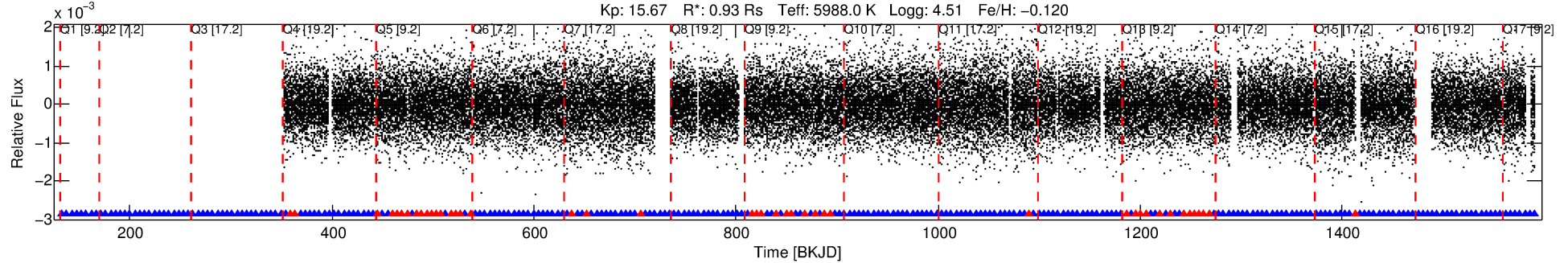
Ephemeris Match Information For 006357290-01

No Significant Match Found

DV One-Page Summary

KIC: 6357290 Candidate: 1 of 1 Period: 4.810 d
KOI: K03040.01 Corr: 0.978

Kp: 15.67 R*: 0.93 Rs Teff: 5988.0 K Logg: 4.51 Fe/H: -0.120



DV Fit Results:

Period = 4.80998 [0.00002] d
Epoch = 133.0060 [0.0031] BKJD
Rp/R* = 0.0186 [0.0078]
a/R* = 8.51 [17.72]
b = 0.90 [0.47]
Seff = 318.22 [114.18]
Teq = 1077 [97] K
Rp = 1.89 [0.94] Re
a = 0.0562 [0.0126] AU
Ag = 15.26 [17.01] [0.84σ]
Teffp = 3291 [886] K [2.48σ]

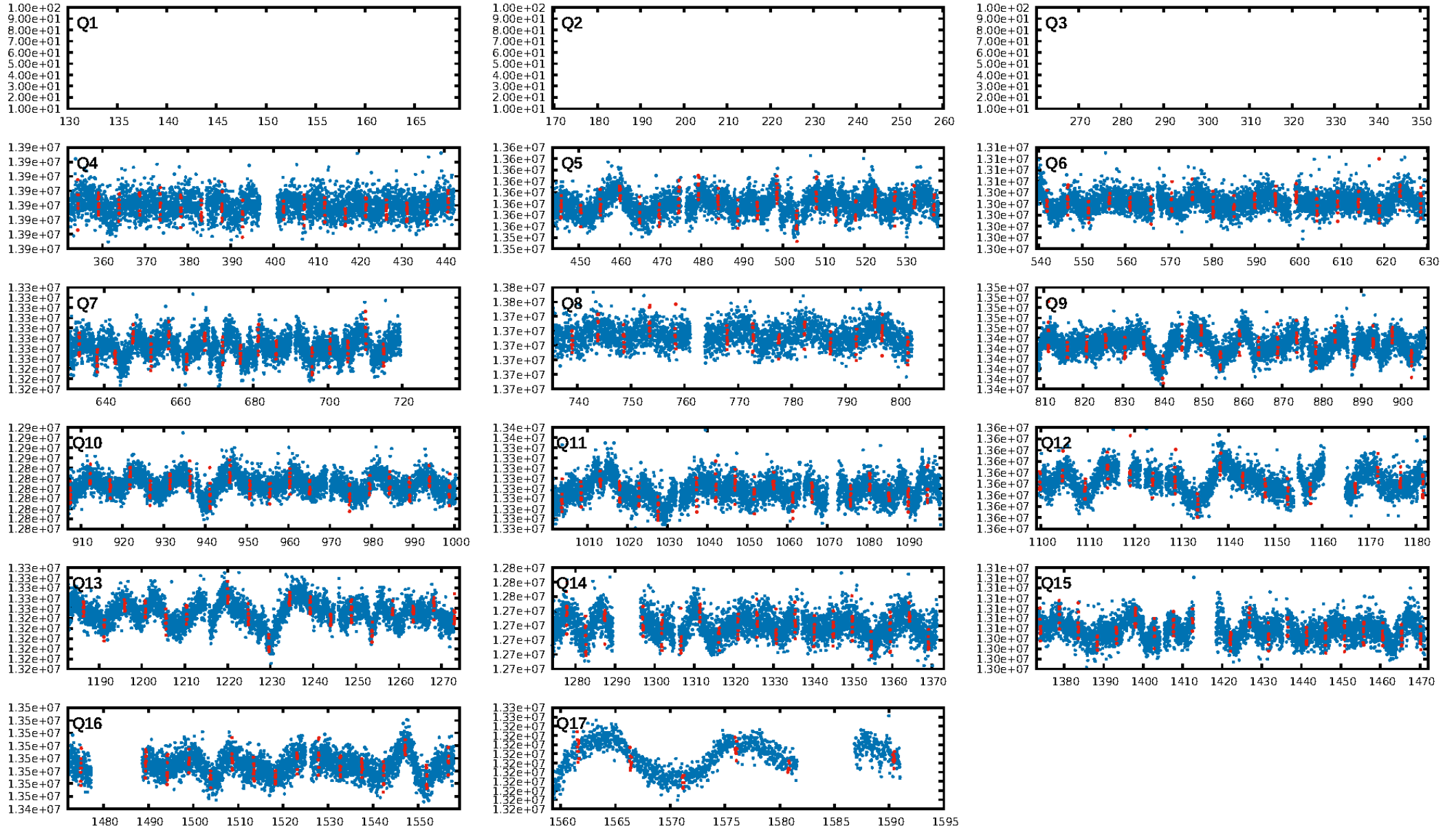
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.52e-35
RollingBand-fgt: 0.81 [189/233]
GhostDiagnostic-chr: 7.456
Centroid-sig: 0.8%
Centroid-so: 0.498 arcsec [0.60σ]
OotOffset-rm: 1.041 arcsec [1.39σ]
OotOffset-st: 2/1/3/3 [9]
KicOffset-rm: 1.361 arcsec [1.86σ]
KicOffset-st: 2/1/3/3 [9]
DiffImageQuality-fgm: 0.67 [6/9]
DiffImageOverlap-fno: 1.00 [14/14]

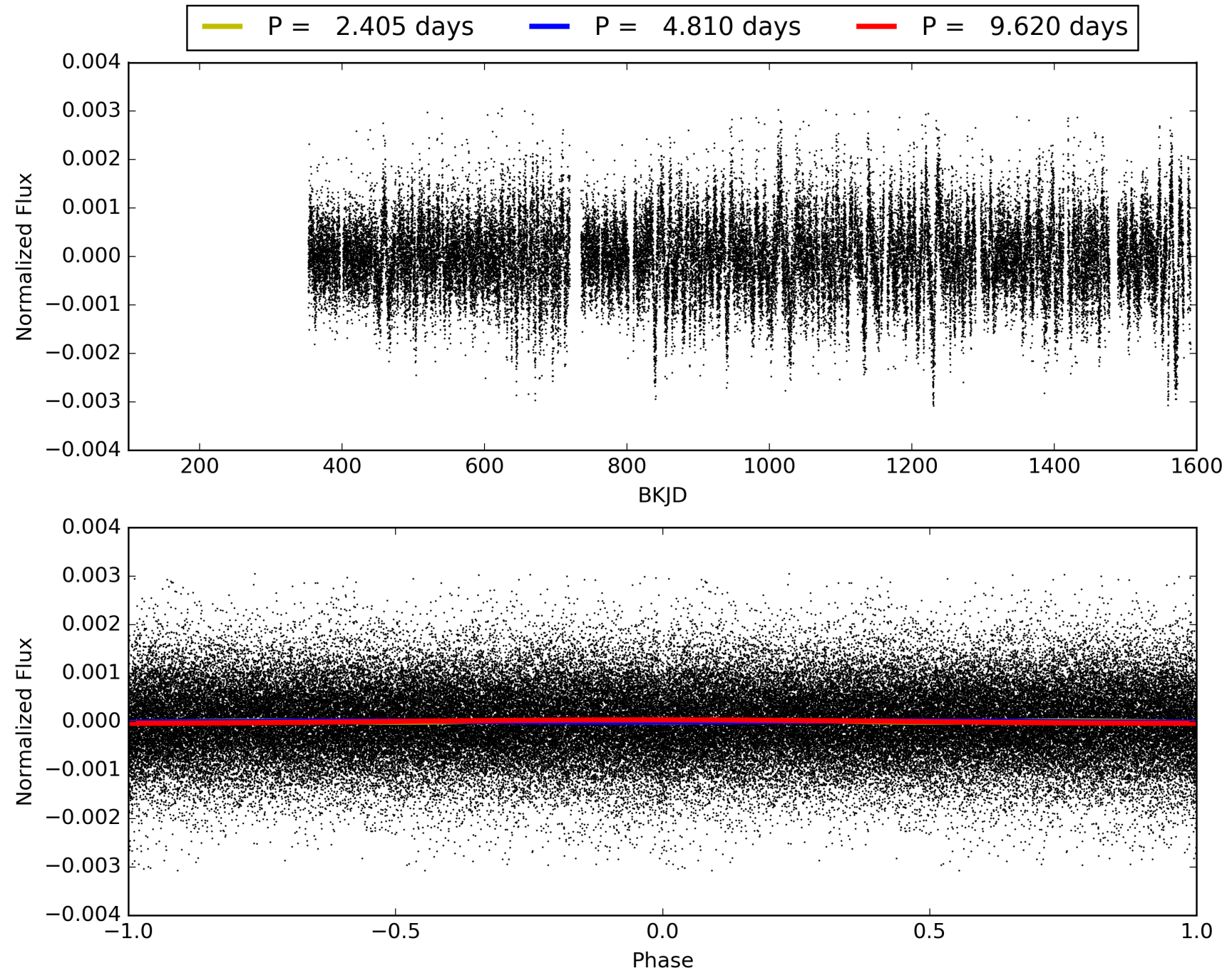
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 15:39:58 Z

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

TCE 006357290-01, PDC Light Curves

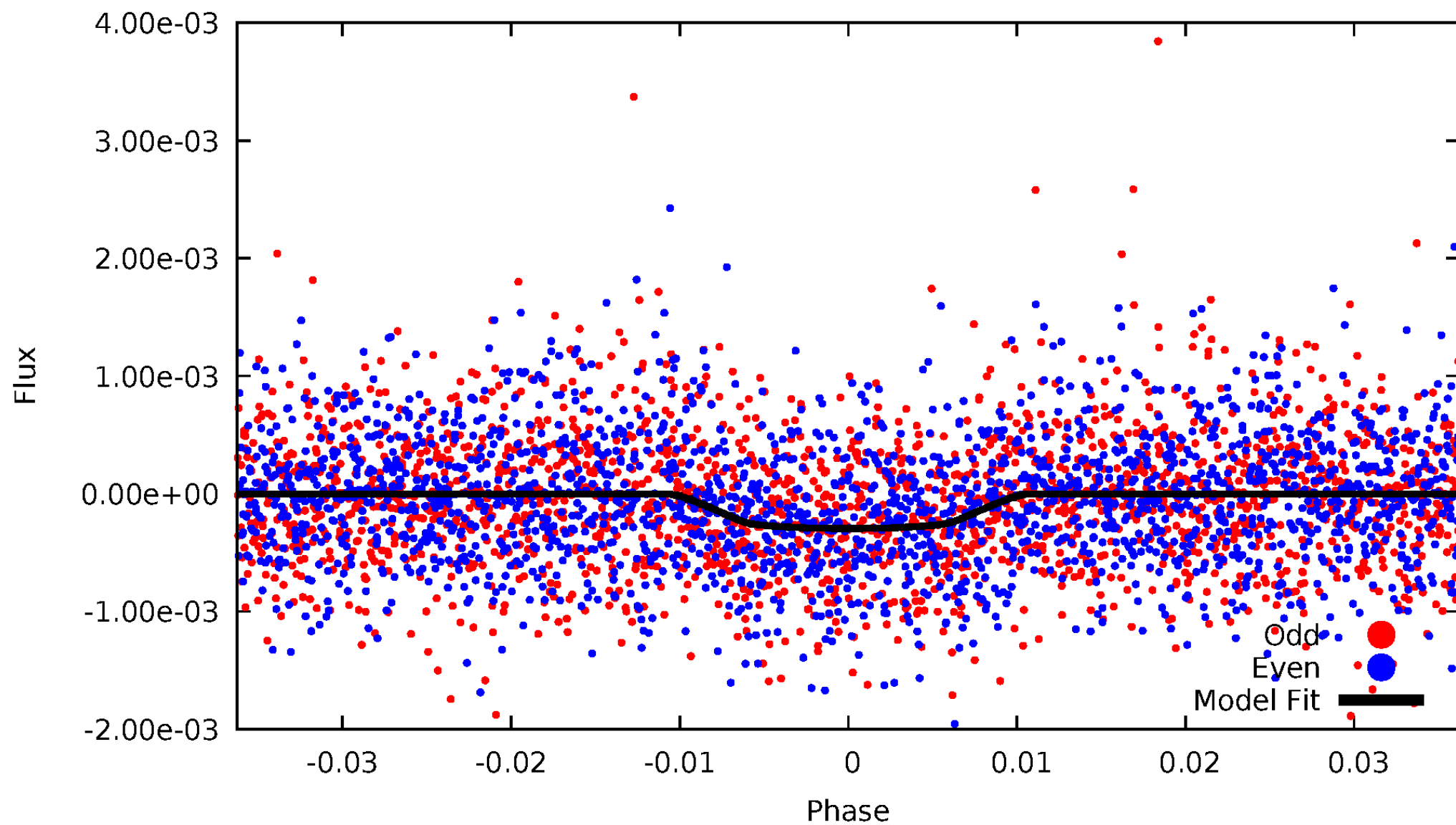


TCE 006357290-01



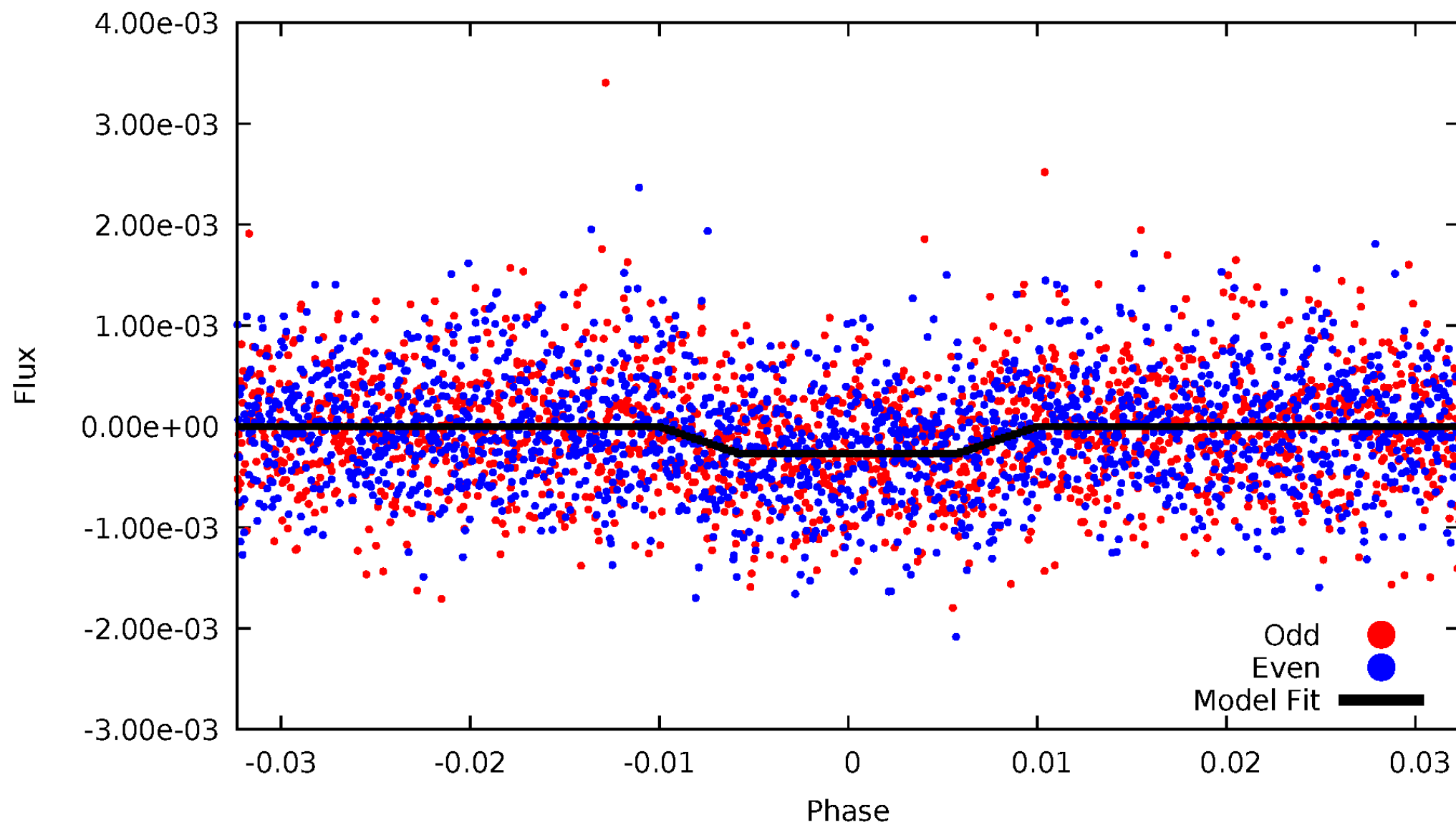
DV Odd/Even

TCE 006357290-01



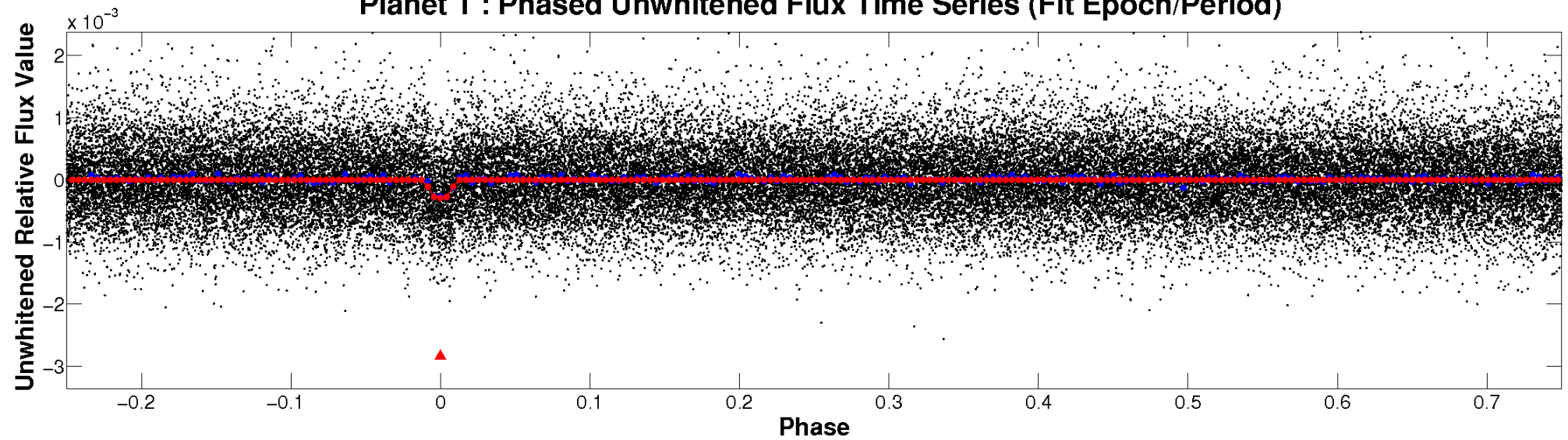
ALT Odd/Even

TCE 006357290-01

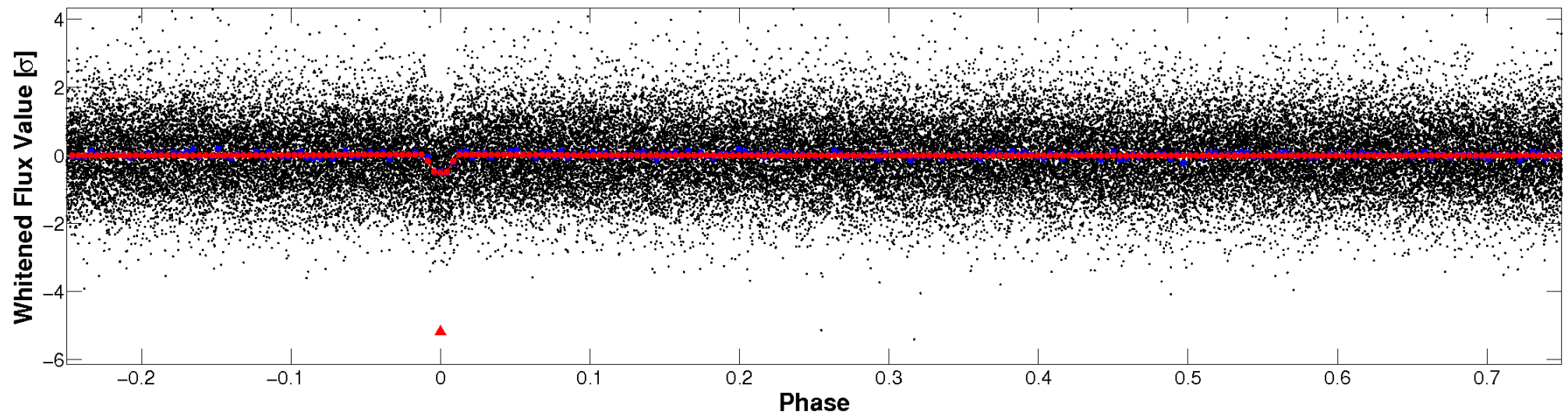


Non-Whitened Vs. Whitened Light Curve

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

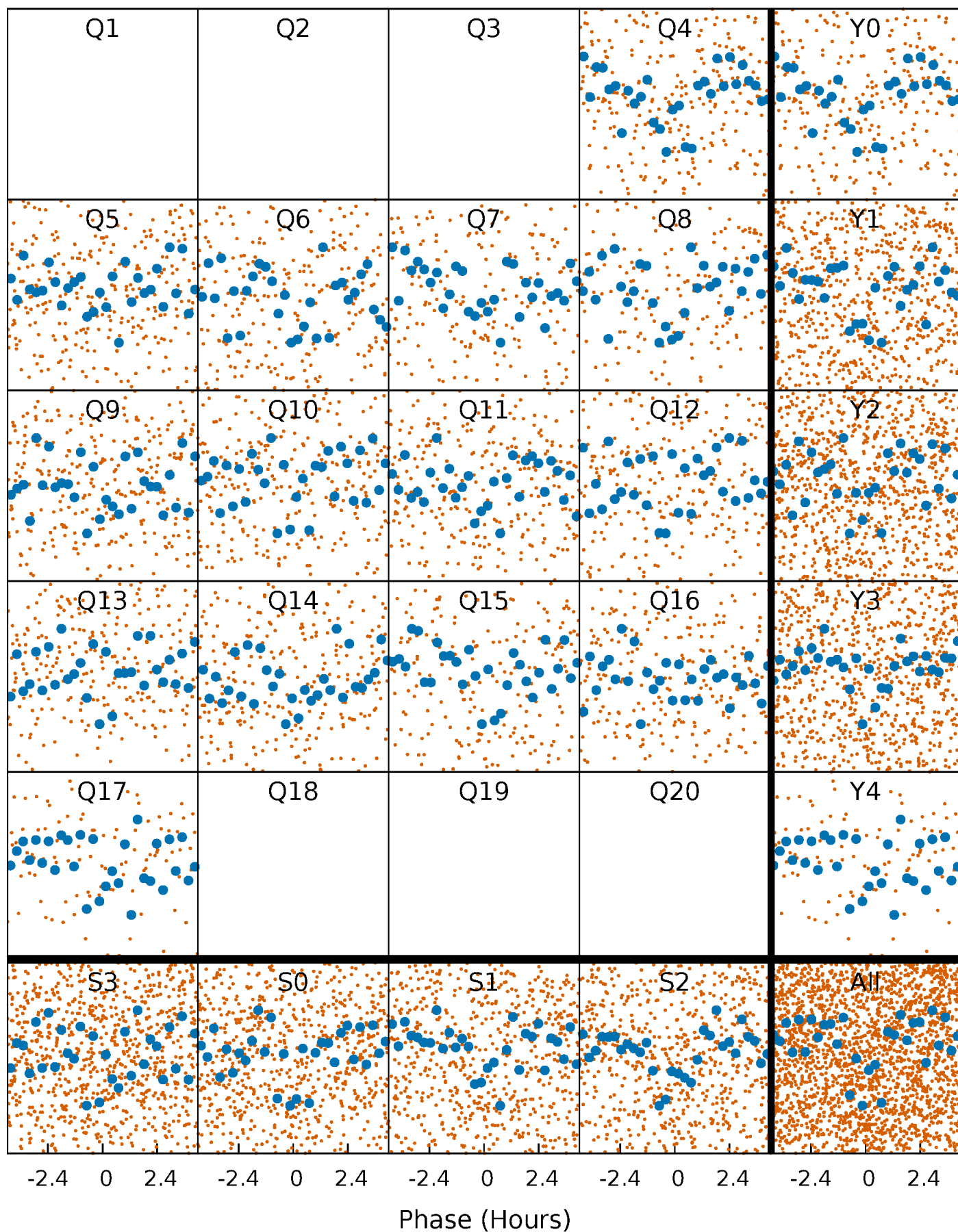


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



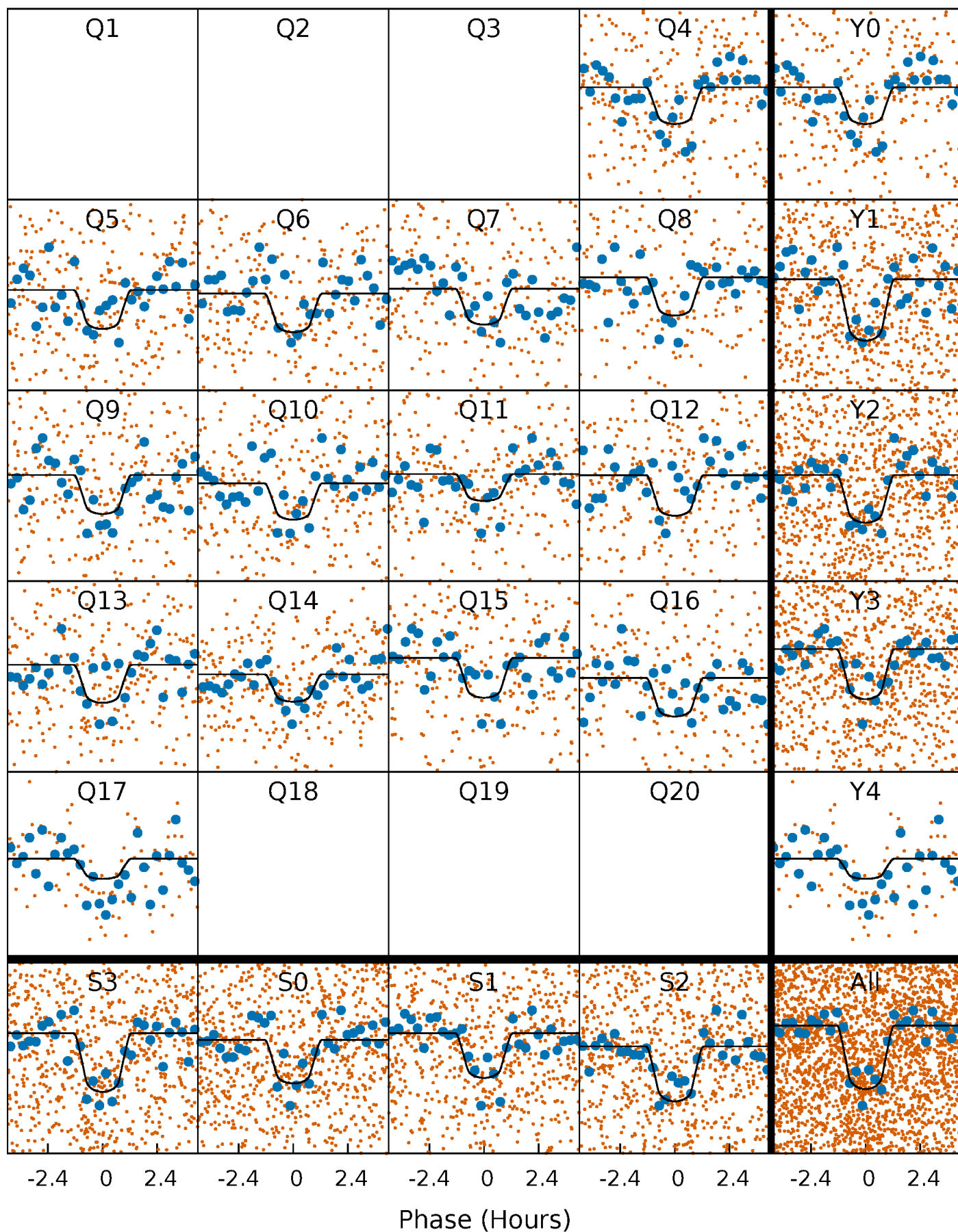
PDC Quarter-Phased Transit Curves

TCE 006357290-01 P= 4.809983 Days $T_0=133.006005$ (BKJD)



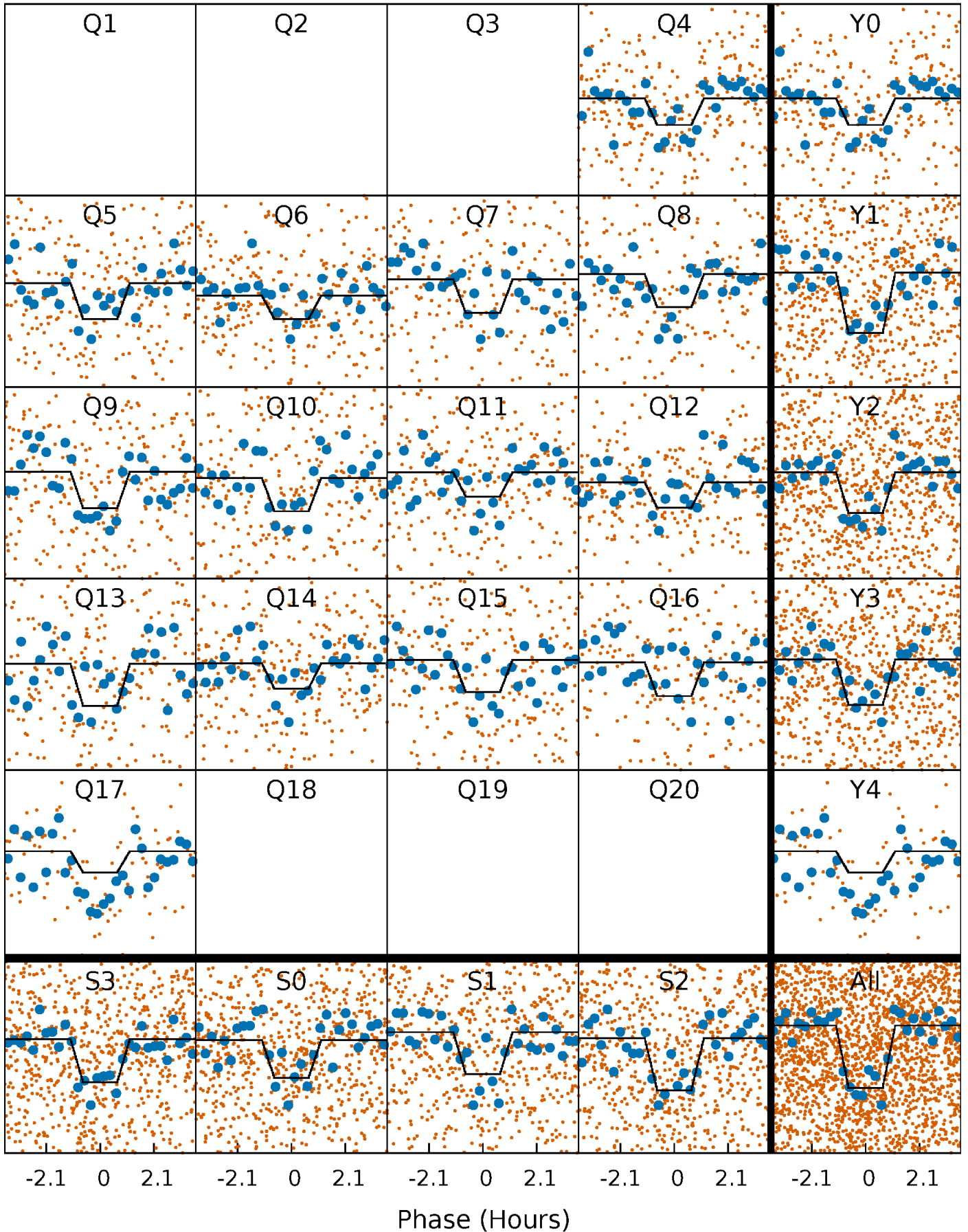
DV Quarter-Phased Transit Curves

TCE 006357290-01 P= 4.809983 Days $T_0=133.006005$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

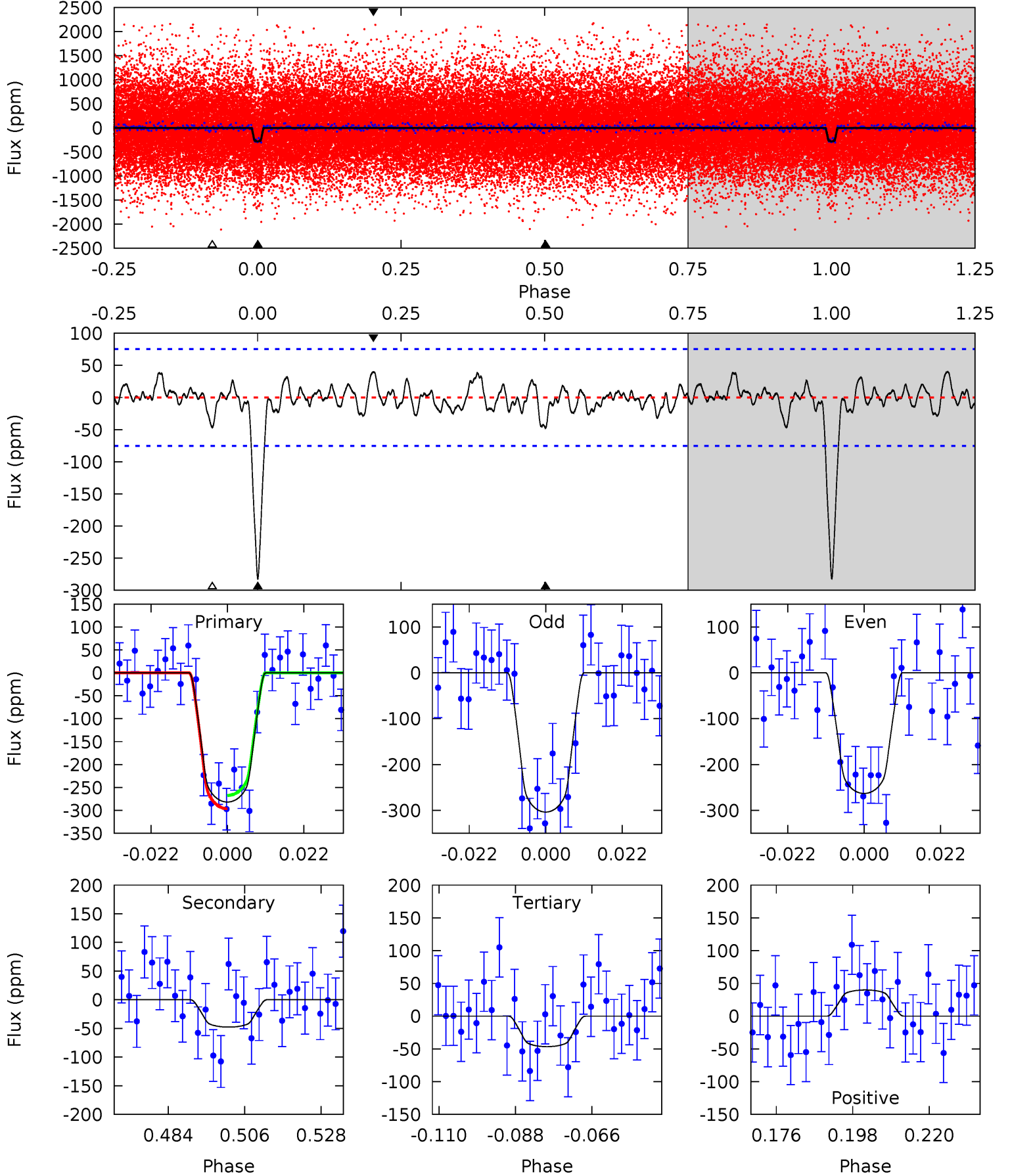
TCE 006357290-01 P= 4.810010 Days $T_0=133.003822$ (BKJD)



DV Model-Shift Uniqueness Test

006357290-01, P = 4.809983 Days, E = 133.006005 Days

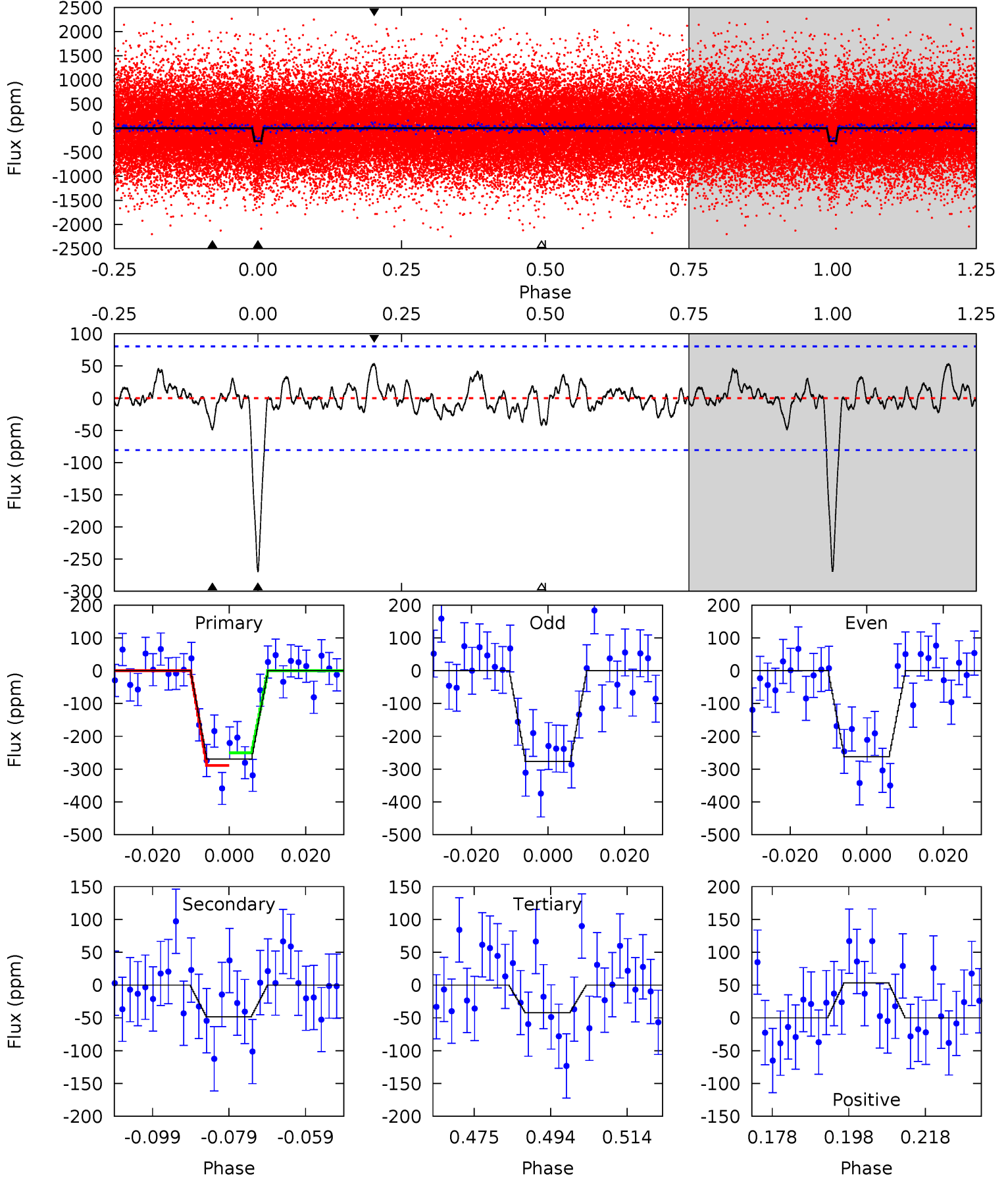
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.2	3.09	3.01	2.58	4.87	2.29	0.98	15.2	15.6	0.07	0.50	1.31	0.95	0.12	0.94



Alt Model-Shift Uniqueness Test

006357290-01, P = 4.810010 Days, E = 133.003822 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.4	2.95	2.55	3.23	4.89	2.33	1.02	13.8	13.1	0.40	-0.28	0.46	0.92	0.16	1.18



Stellar Parameters For KIC 006357290

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5988^{+188}_{-229}	$4.507^{+0.055}_{-0.176}$	$-0.120^{+0.250}_{-0.300}$	$0.934^{+0.252}_{-0.101}$	$1.021^{+0.119}_{-0.132}$	$1.767^{+0.411}_{-0.817}$
	+3%/-4%	+1%/-4%	+208%/-250%	+27%/-11%	+12%/-13%	+23%/-46%
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 006357290-01 / KOI 3040.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-48 ± 15	$1.99^{+0.85}_{-0.85}$	1526^{+104}_{-76}	3914^{+966}_{-477}	20^{+45}_{-11}
Alt.	-49 ± 16	$1.70^{+0.85}_{-0.77}$	1532^{+103}_{-78}	4132^{+1230}_{-578}	27^{+66}_{-16}

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 $A_{\text{obs}} \gg 1.0$

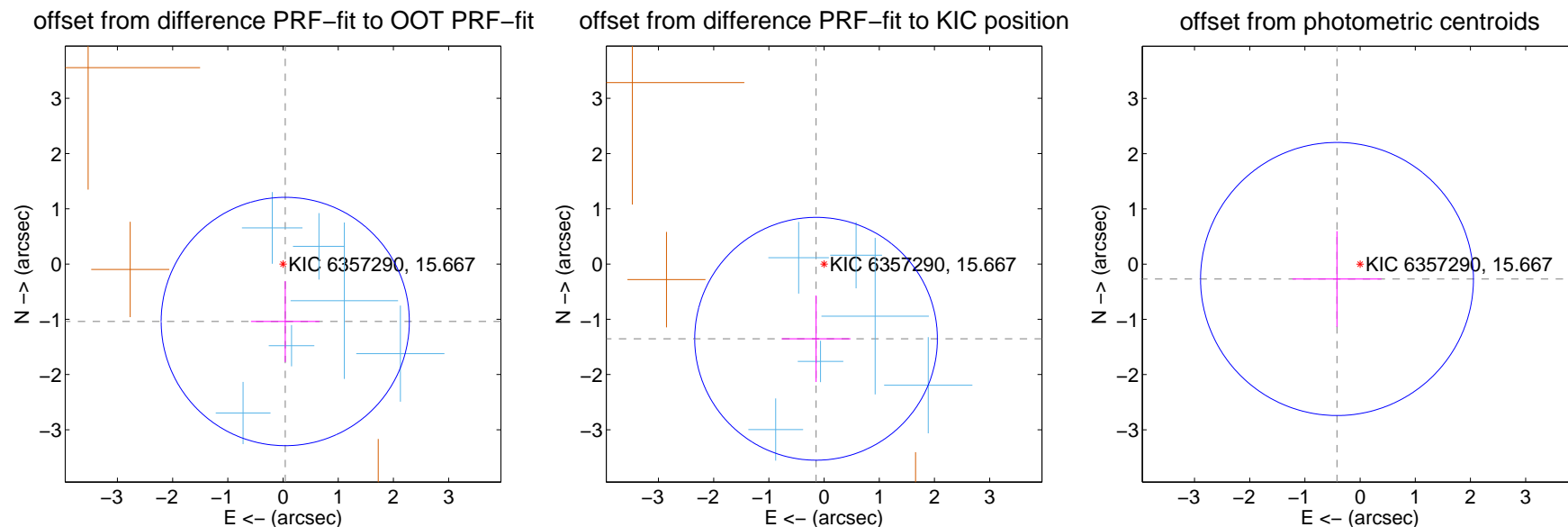
DV Centroid Data

Supplemental centroid analysis for 006357290-01. Kepler magnitude: 15.67. Transit SNR 13.53

There are 6 quarters with good PRF difference image offsets

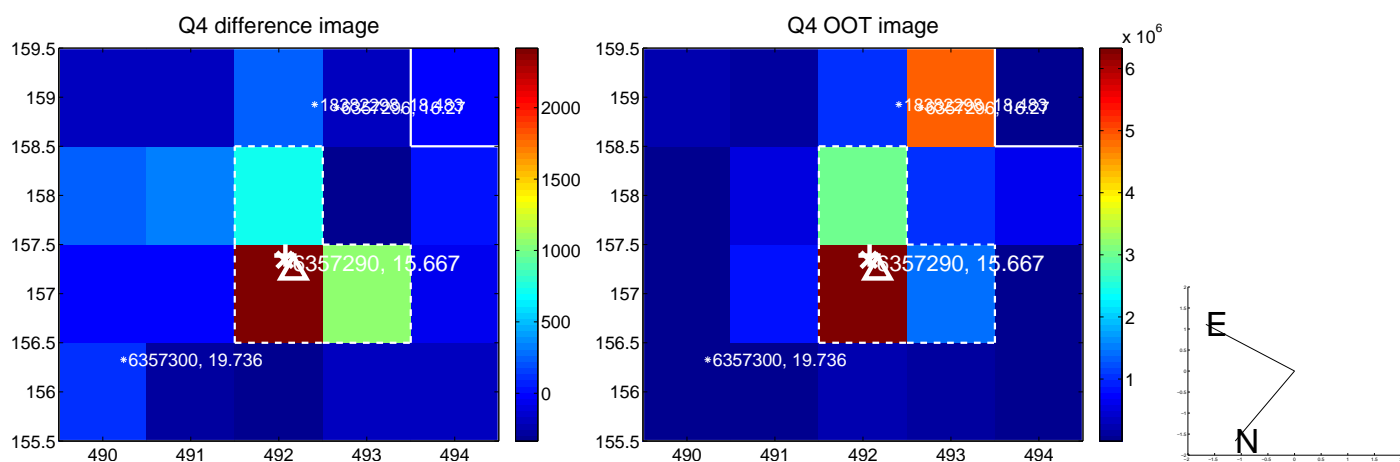
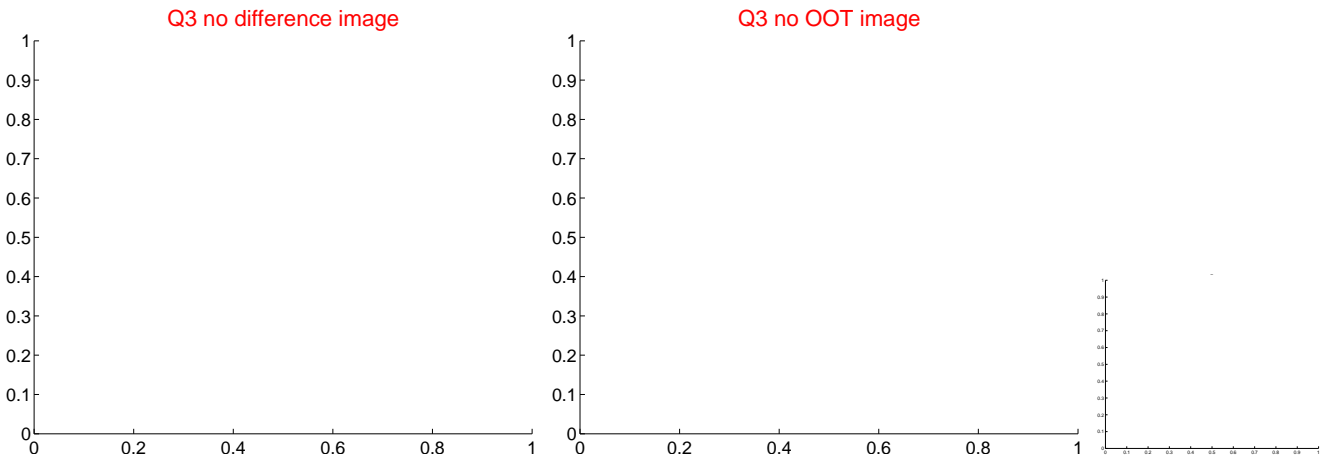
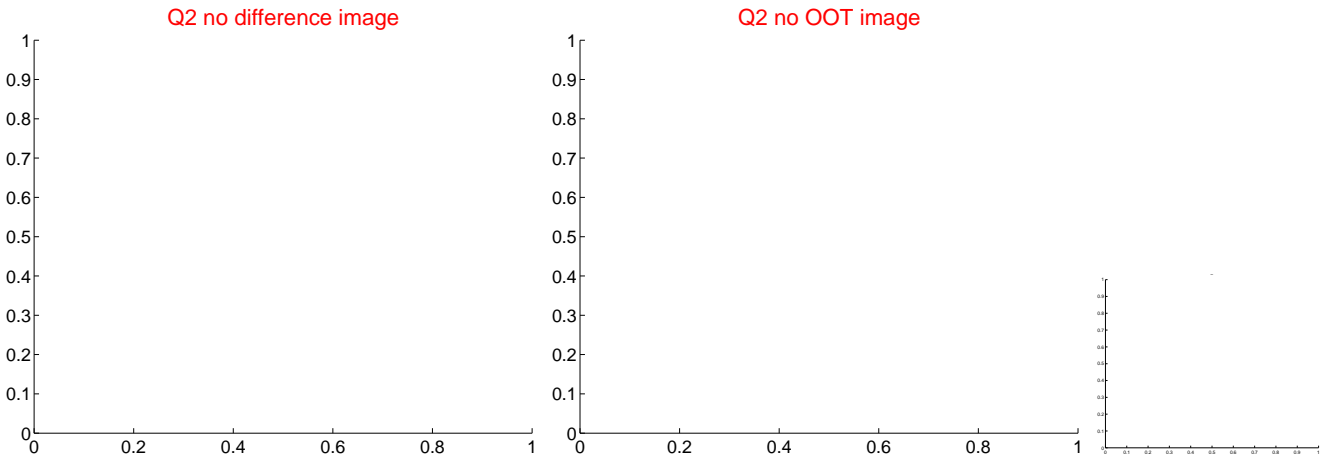
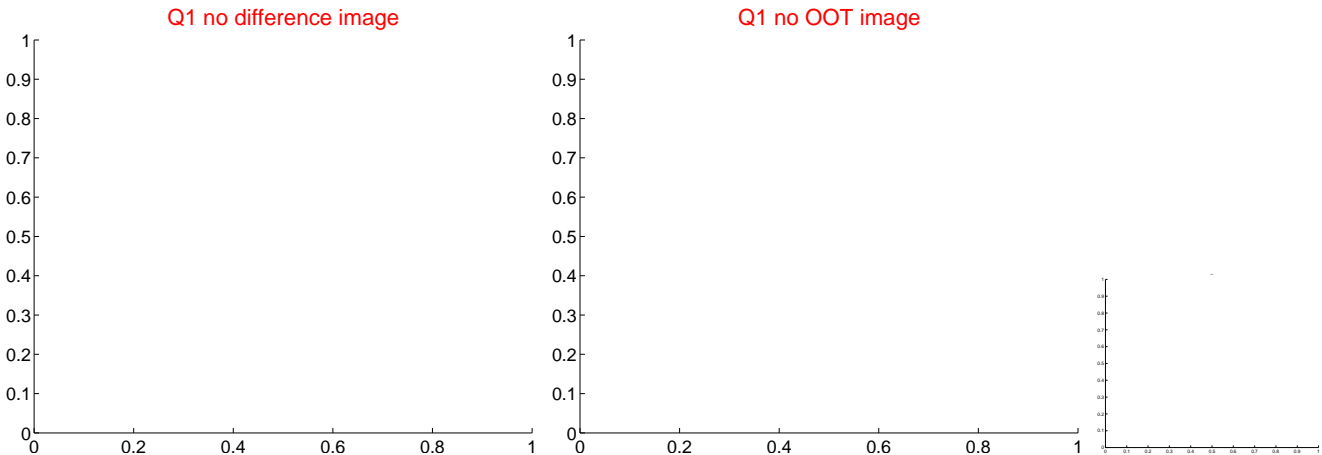
The direct PRF centroid is offset from the target star catalog position by about 0.36 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.041 ± 0.749	1.39	-0.040 ± 0.620	-1.040 ± 0.733
PRF-fit source offset from KIC position	1.361 ± 0.733	1.86	0.145 ± 0.624	-1.353 ± 0.784
photometric centroid source offset	0.50 ± 0.82	0.60	0.42 ± 0.81	-0.27 ± 0.87

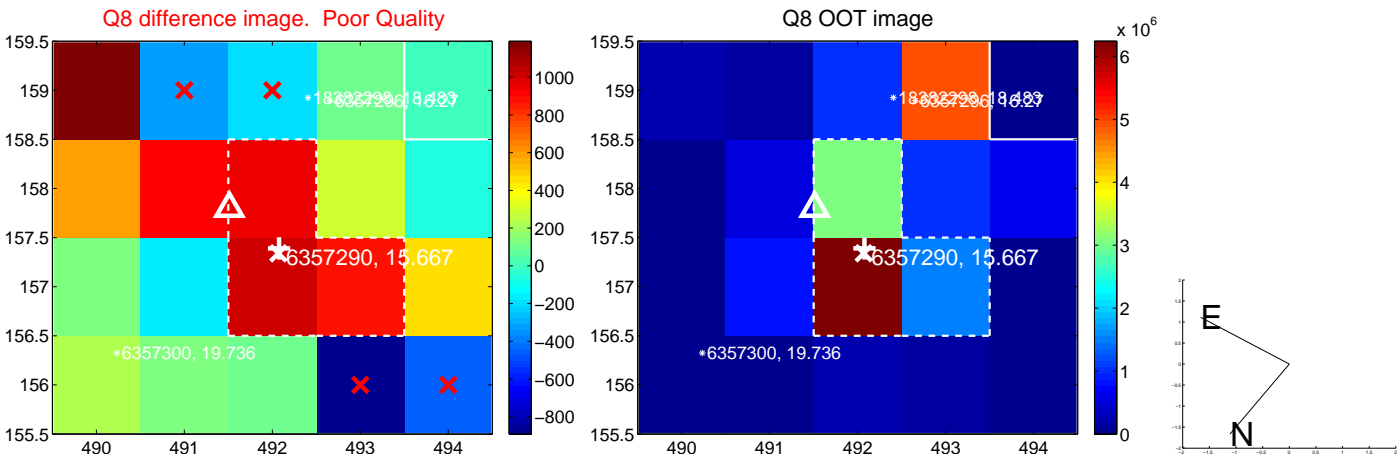
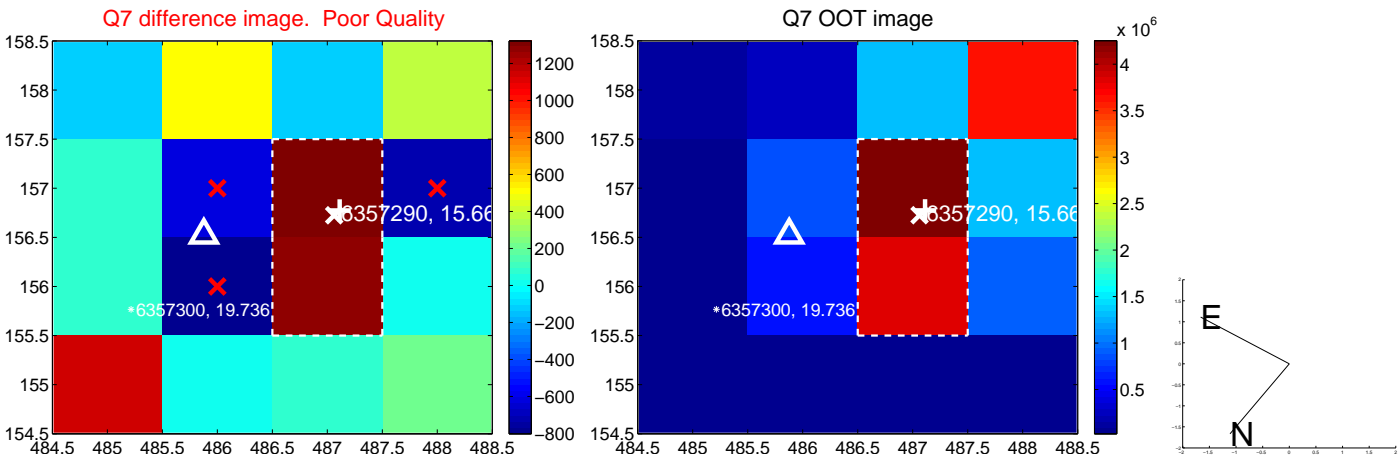
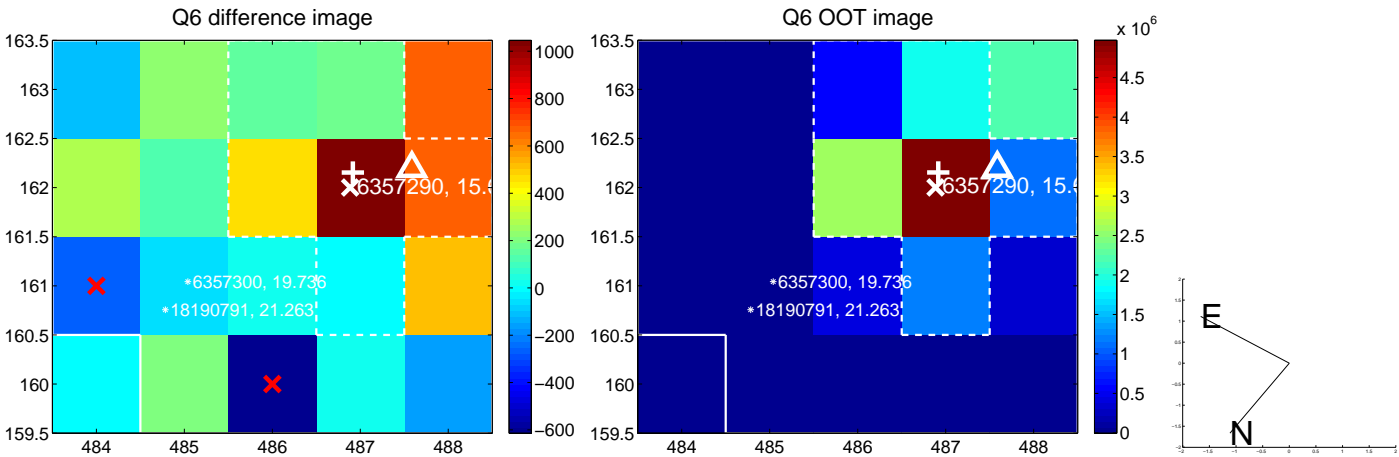
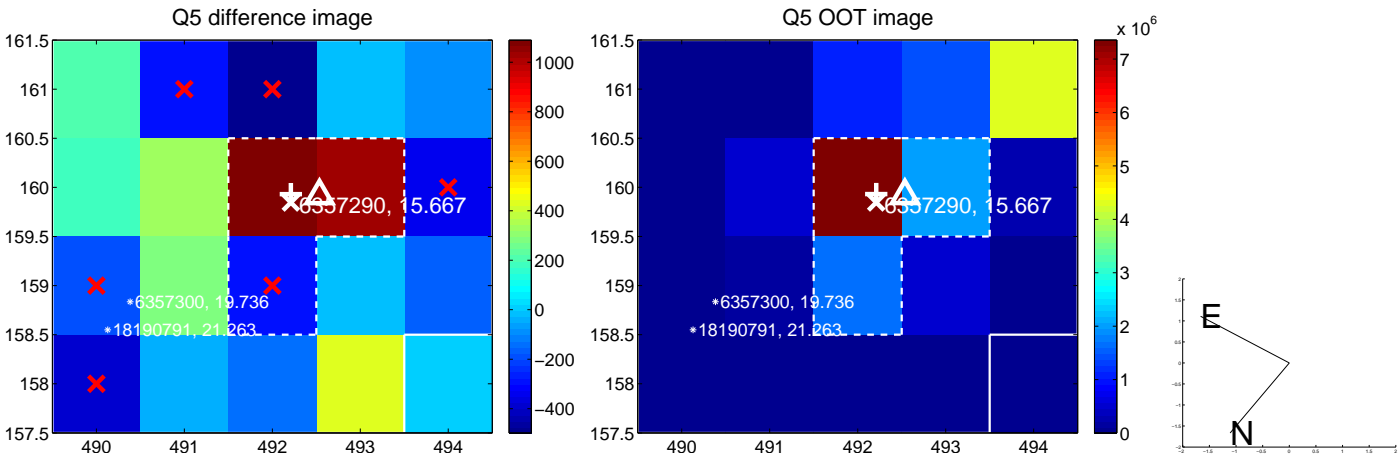


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

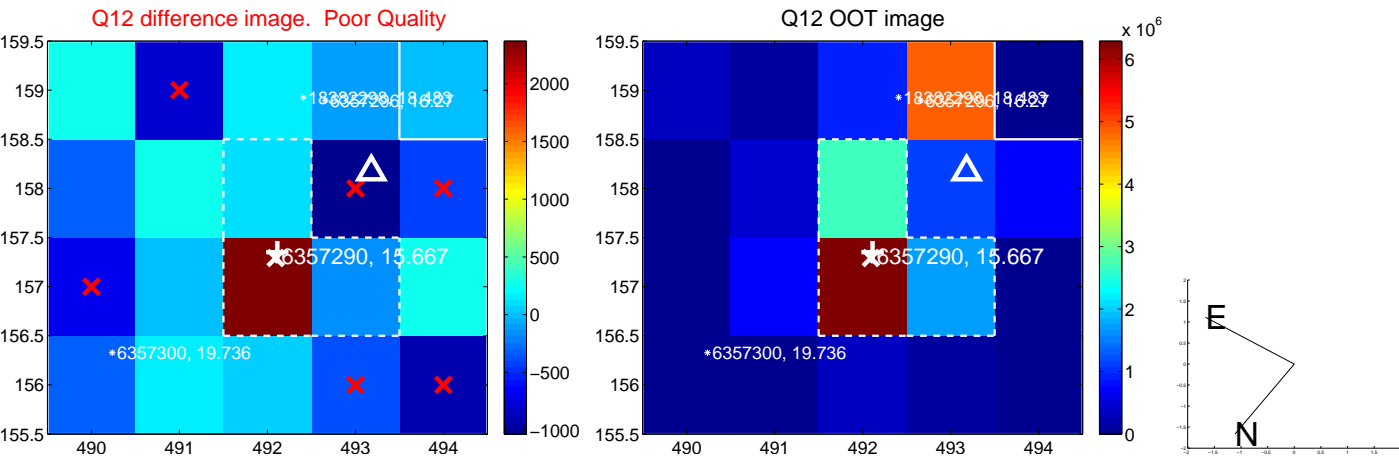
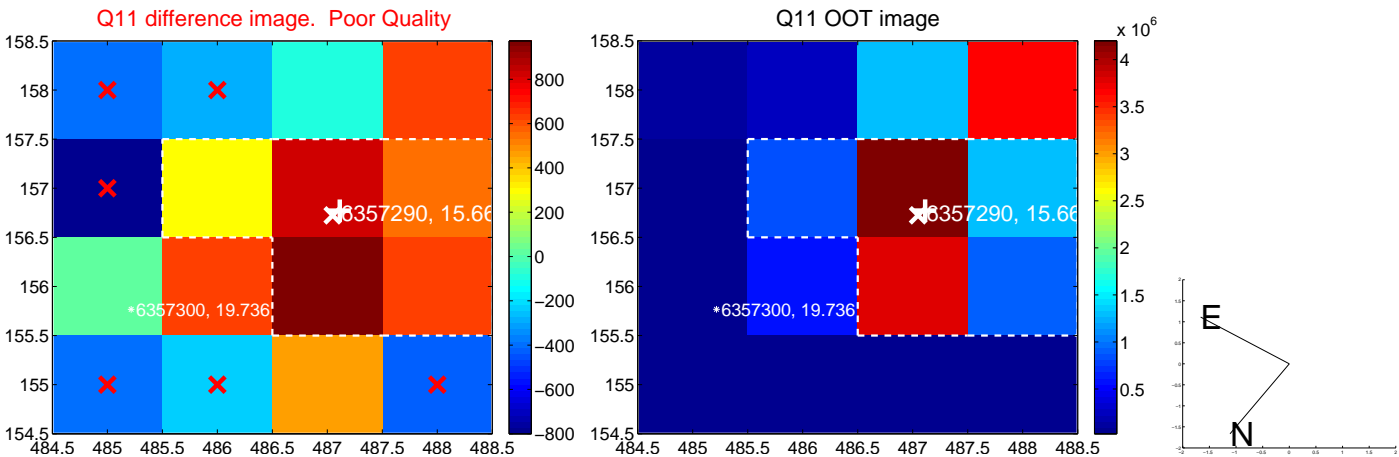
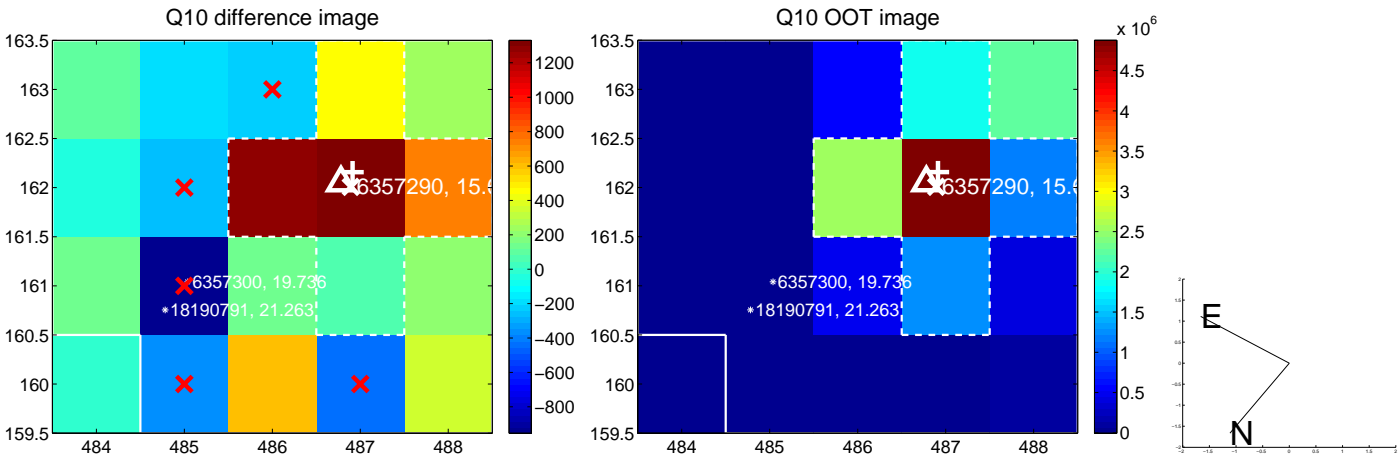
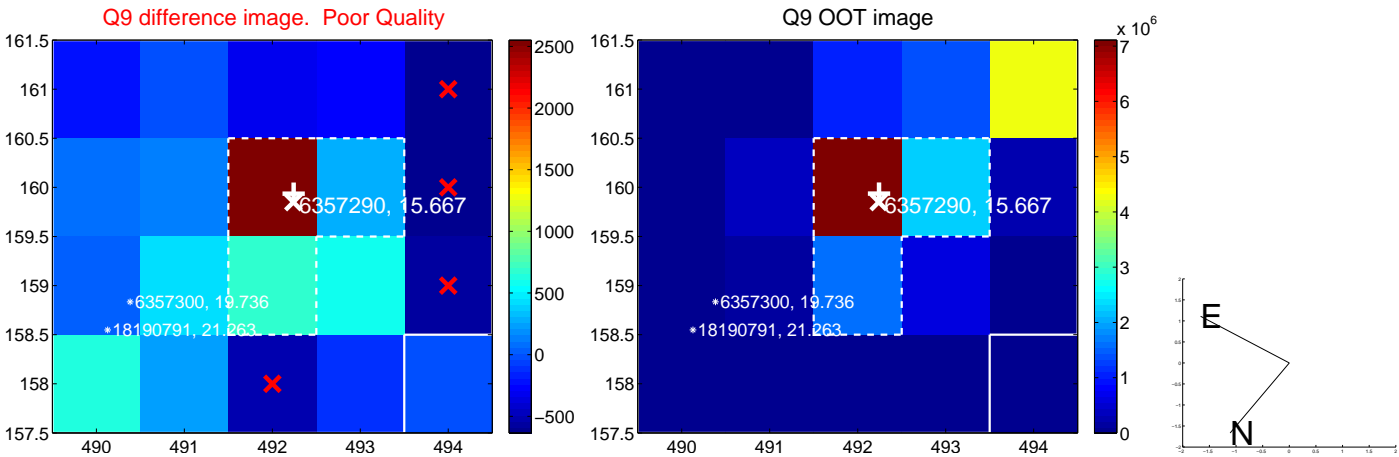
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



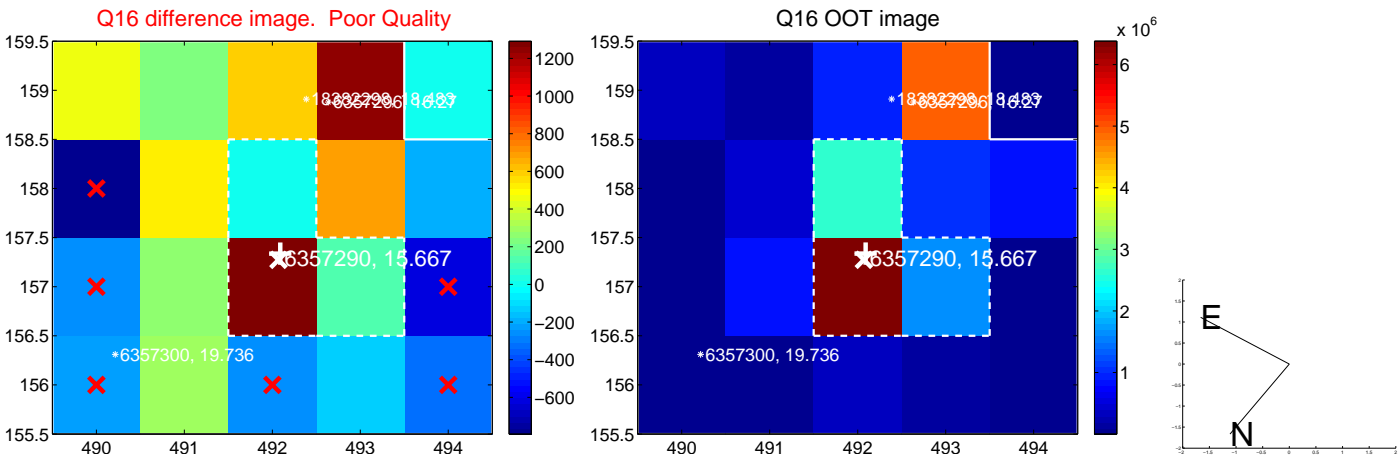
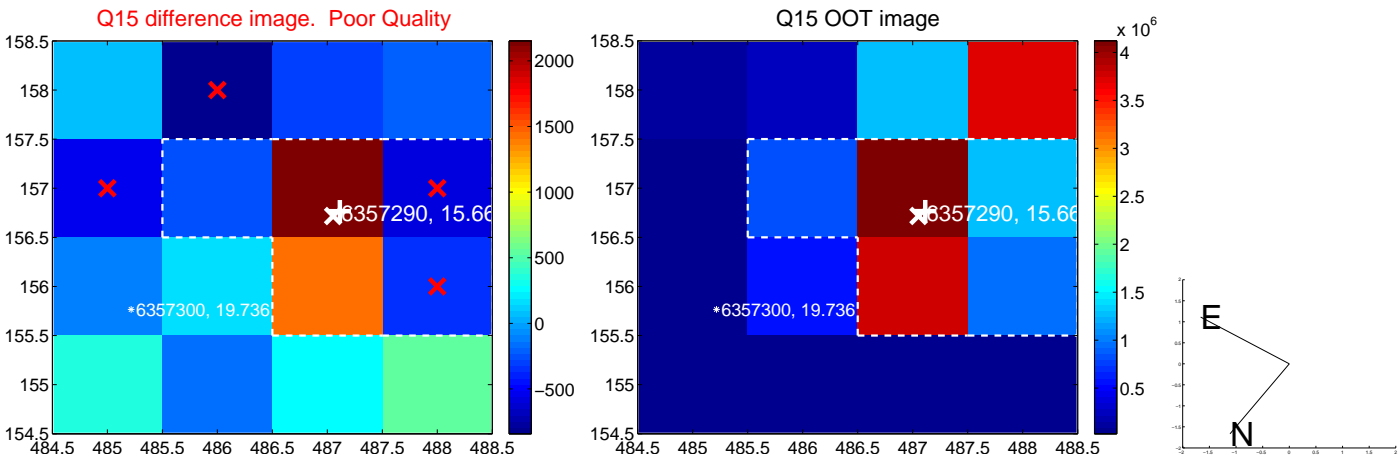
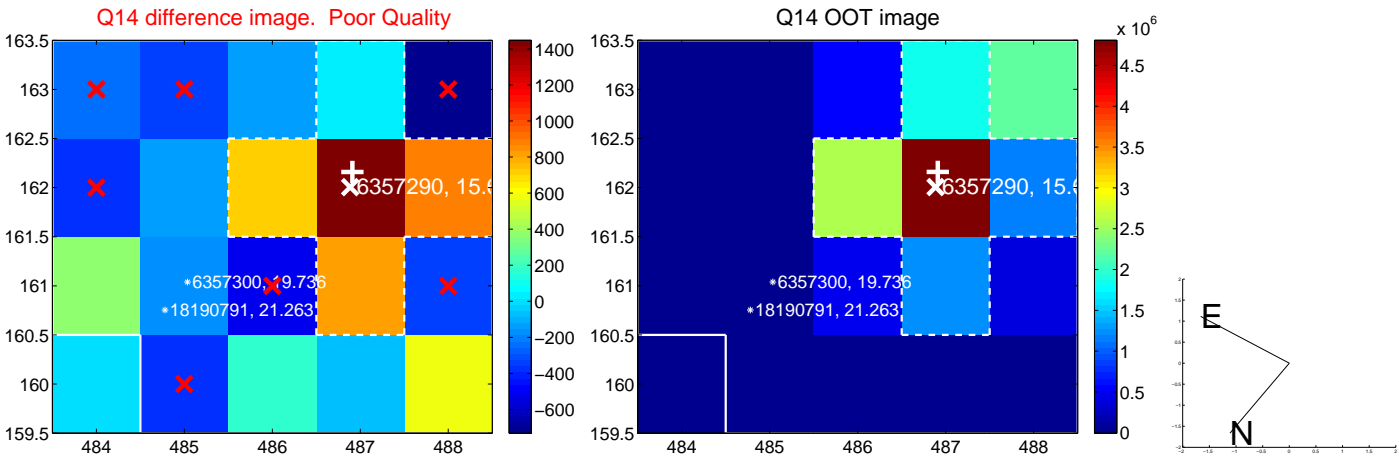
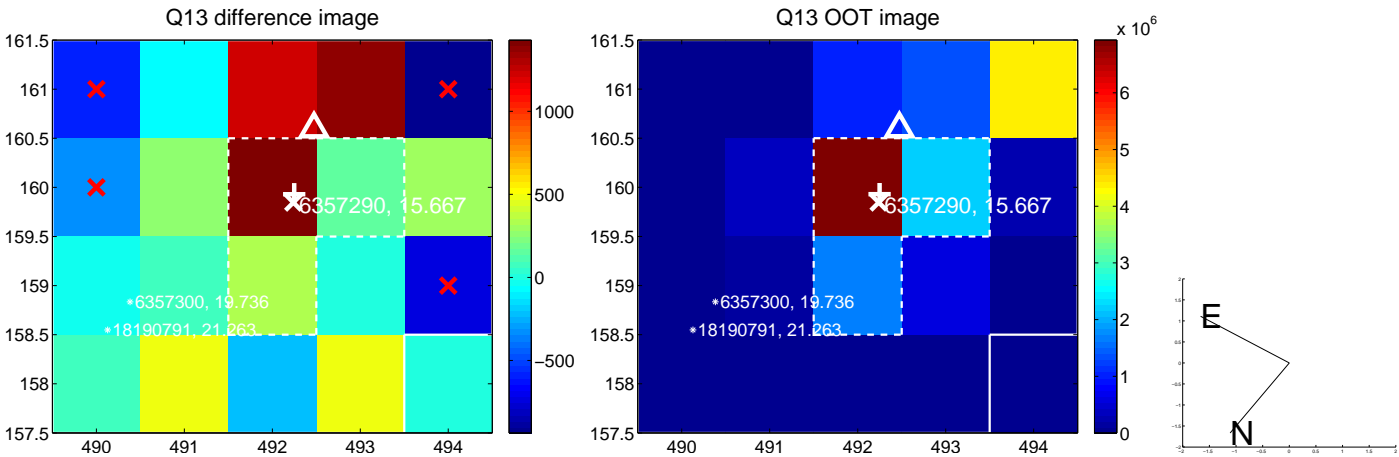
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



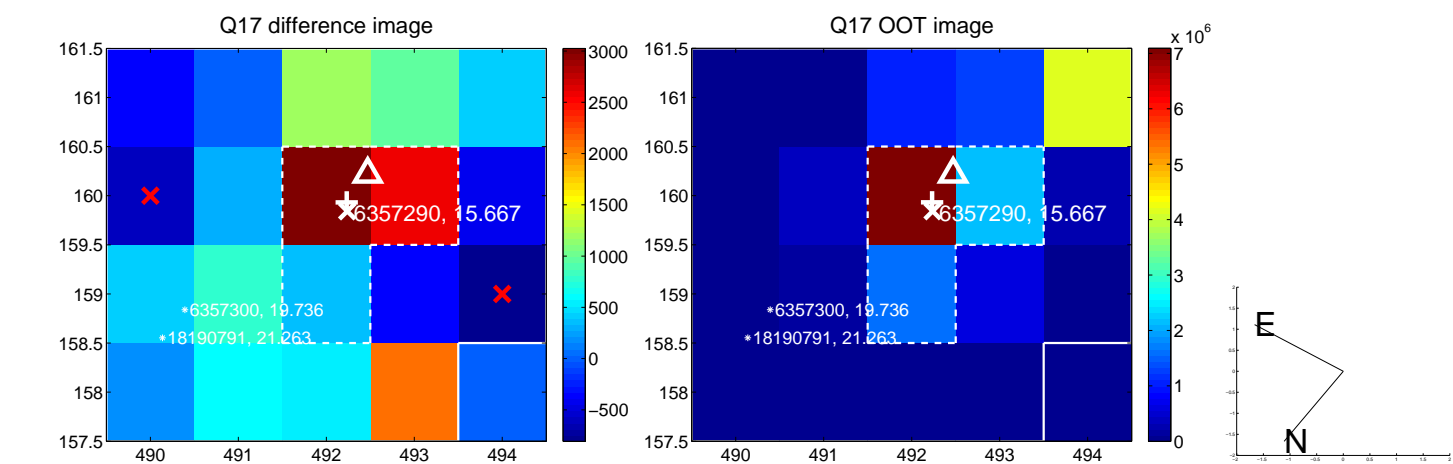
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



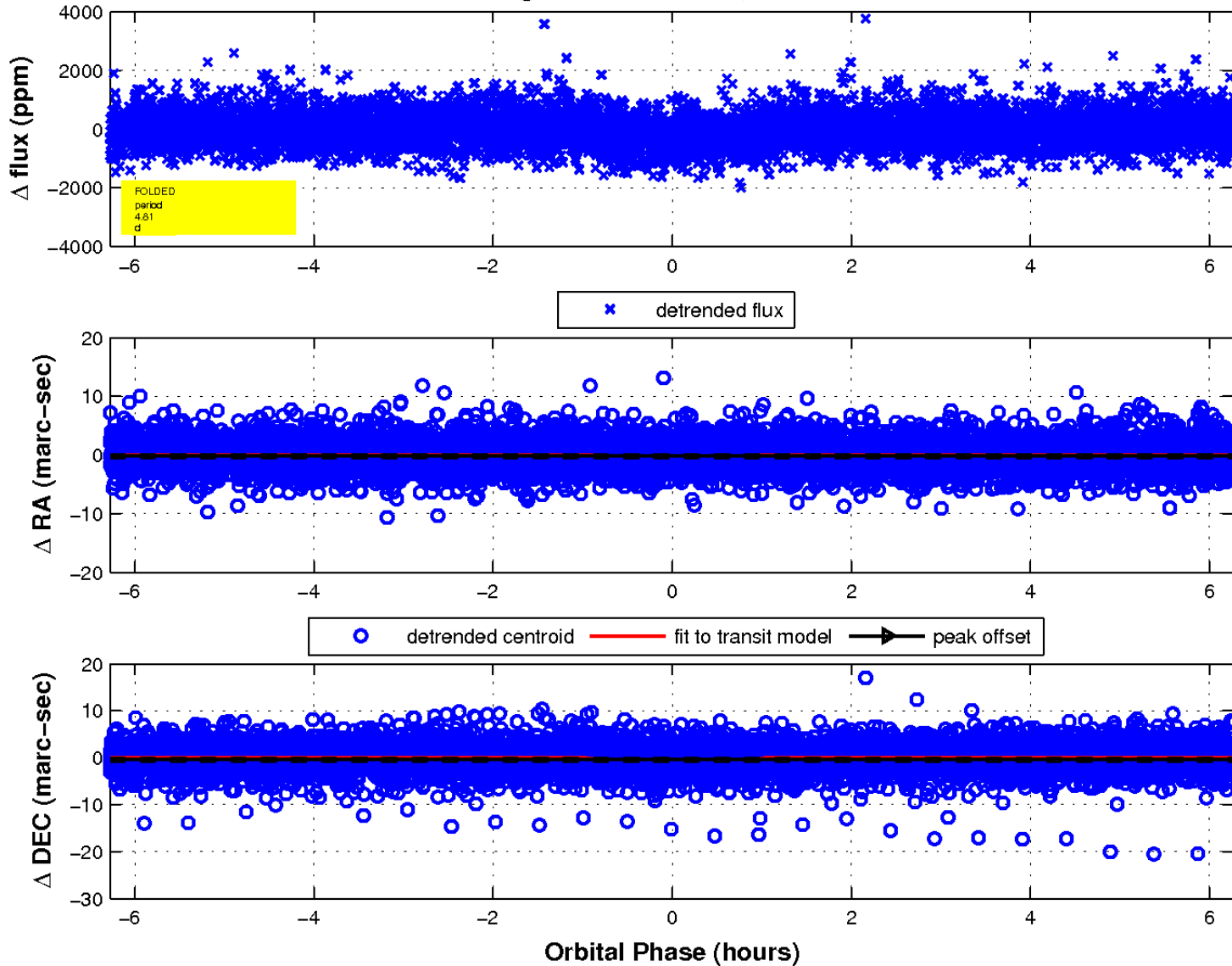
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

