

KIC 010656508

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})
010656508-01	OBS	0211.01	124.035962	136.014735	7689.4	4.877	186.2	173.6	1.28	5822	11.26	6.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010656508-01	OBS	PC	1.00	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.

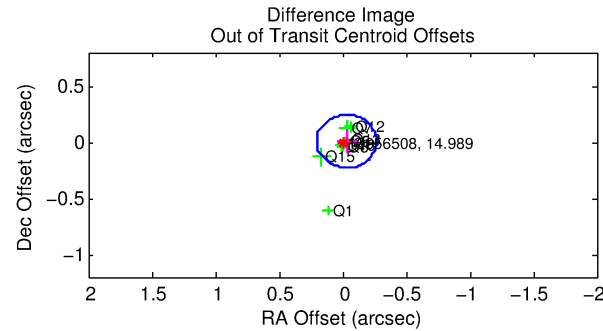
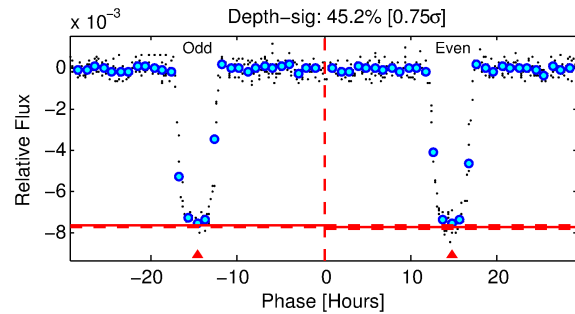
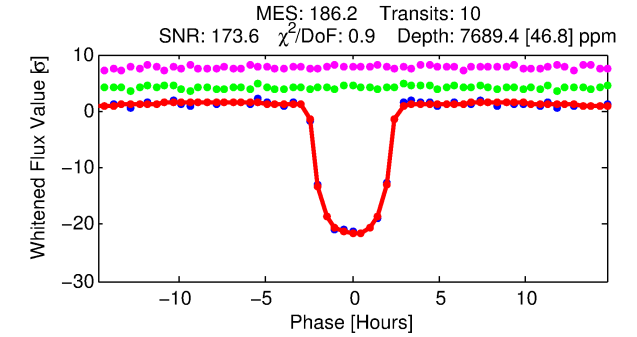
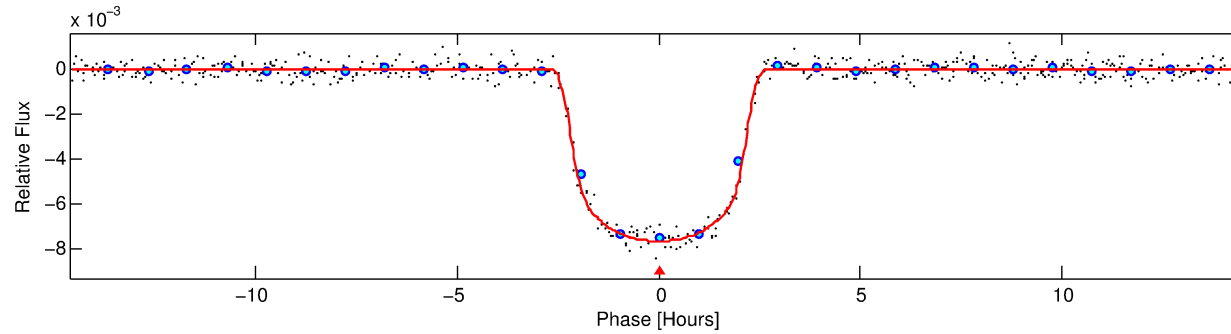
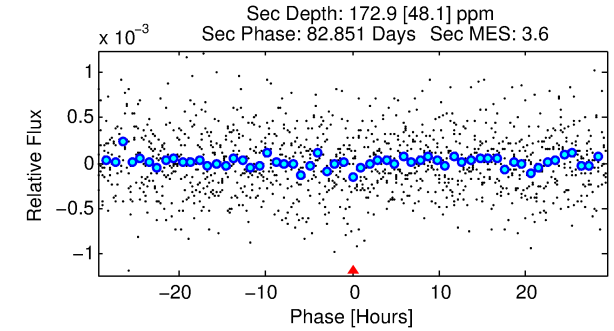
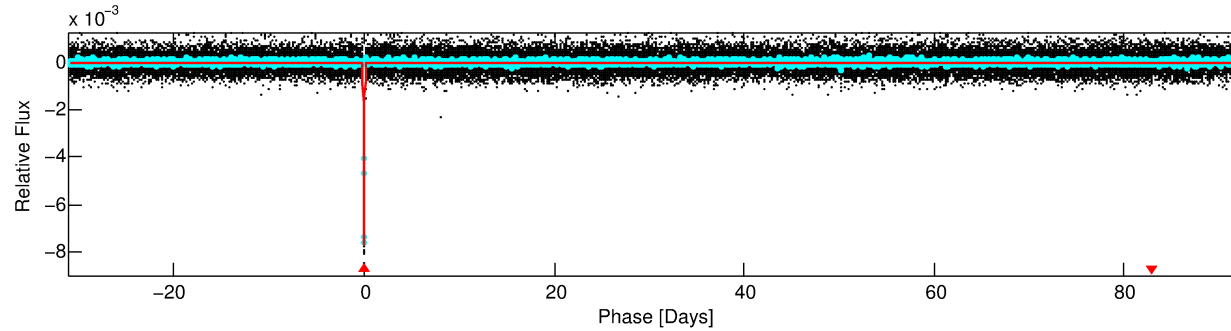
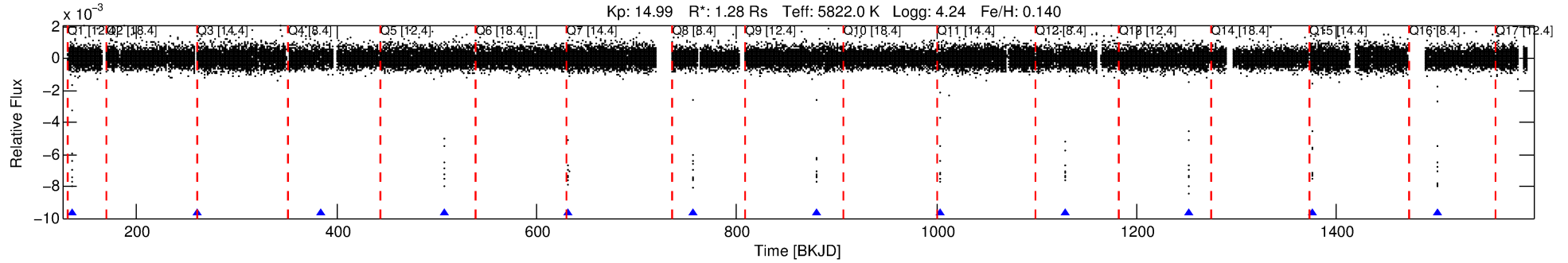
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010656508-01

No Significant Match Found

DV One-Page Summary

KIC: 10656508 Candidate: 1 of 1 Period: 124.036 d
KOI: K00211.01 Corr: 0.997



DV Fit Results:

Period = 124.03596 [0.00010] d
Epoch = 136.0147 [0.0007] BKJD
Rp/R* = 0.0806 [0.0023]
a/R* = 199.59 [24.28]
b = 0.34 [0.33]
Seff = 6.90 [1.73]
Teq = 413 [26] K
Rp = 11.26 [1.85] Re
a = 0.4945 [0.0761] AU
Ag = 183.66 [68.86] [2.65 σ]
Teffp = 2352 [170] K [11.27 σ]

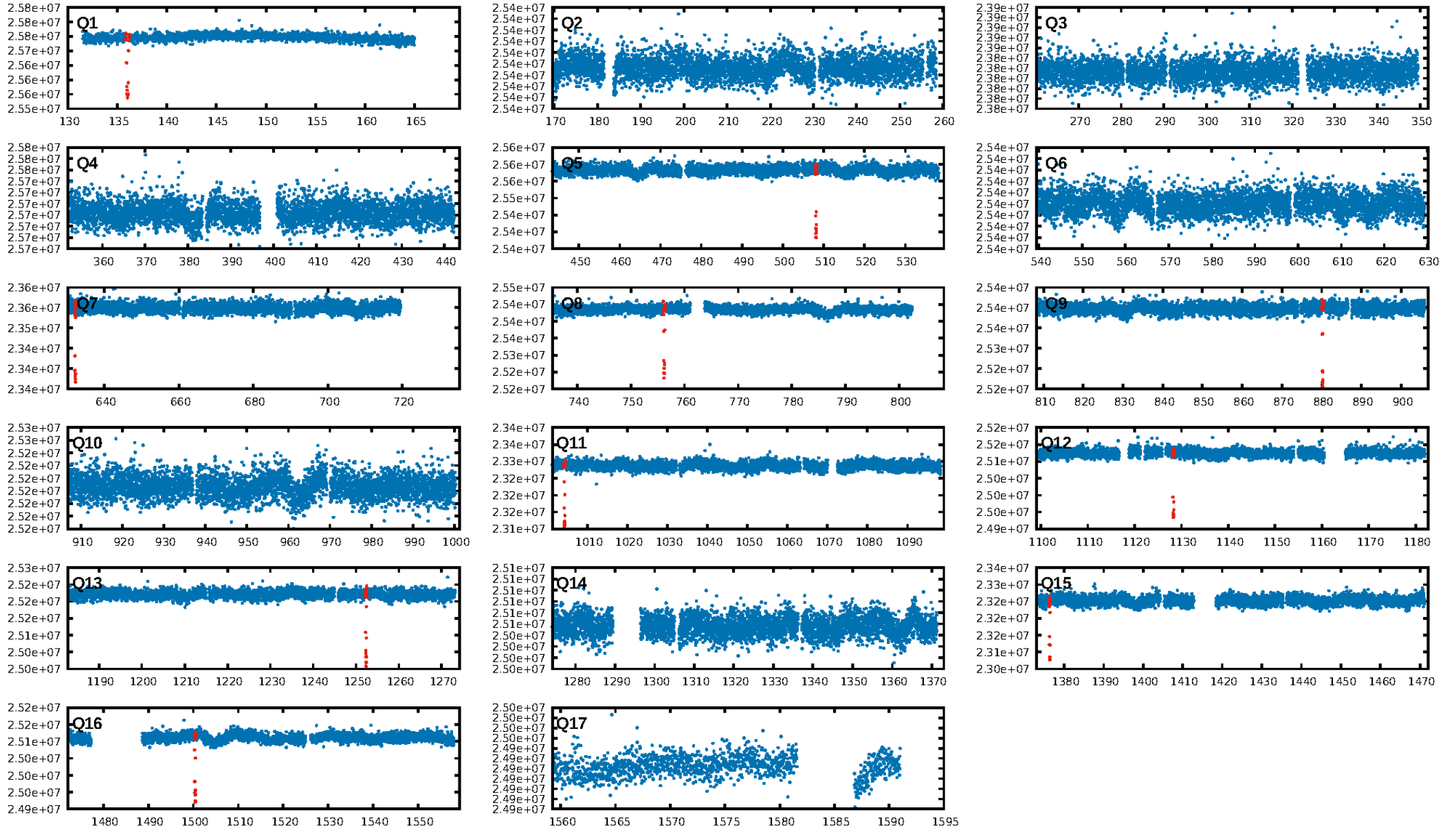
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 91.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: 8.659
Centroid-sig: 0.0%
Centroid-so: 0.278 arcsec [3.30 σ]
OotOffset-rm: 0.032 arcsec [0.41 σ]
KicOffset-rm: 0.130 arcsec [1.70 σ]
OotOffset-st: 0/2/3/4 [9]
KicOffset-st: 0/2/3/4 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [9/9]

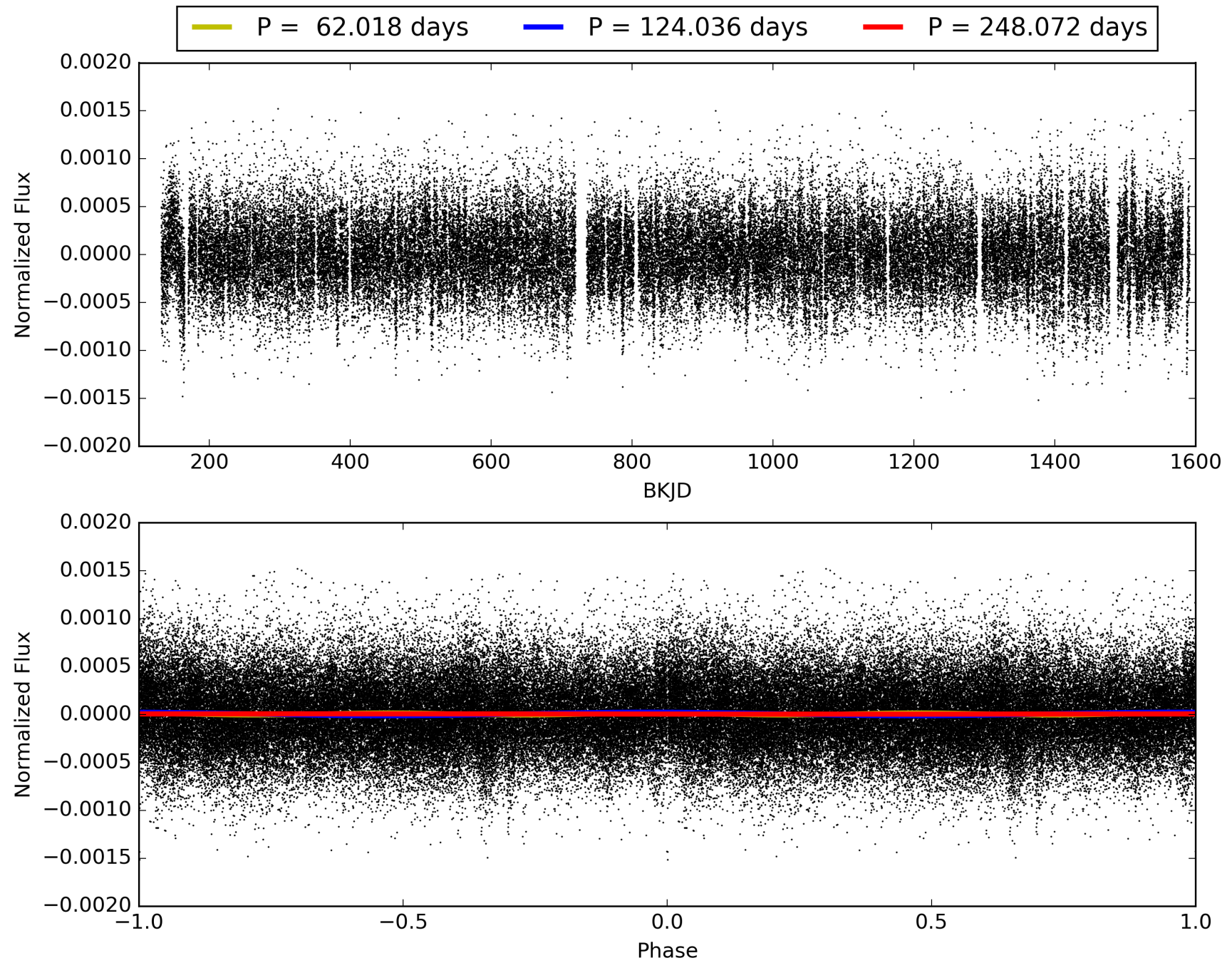
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:48:12 Z

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

TCE 010656508-01, PDC Light Curves

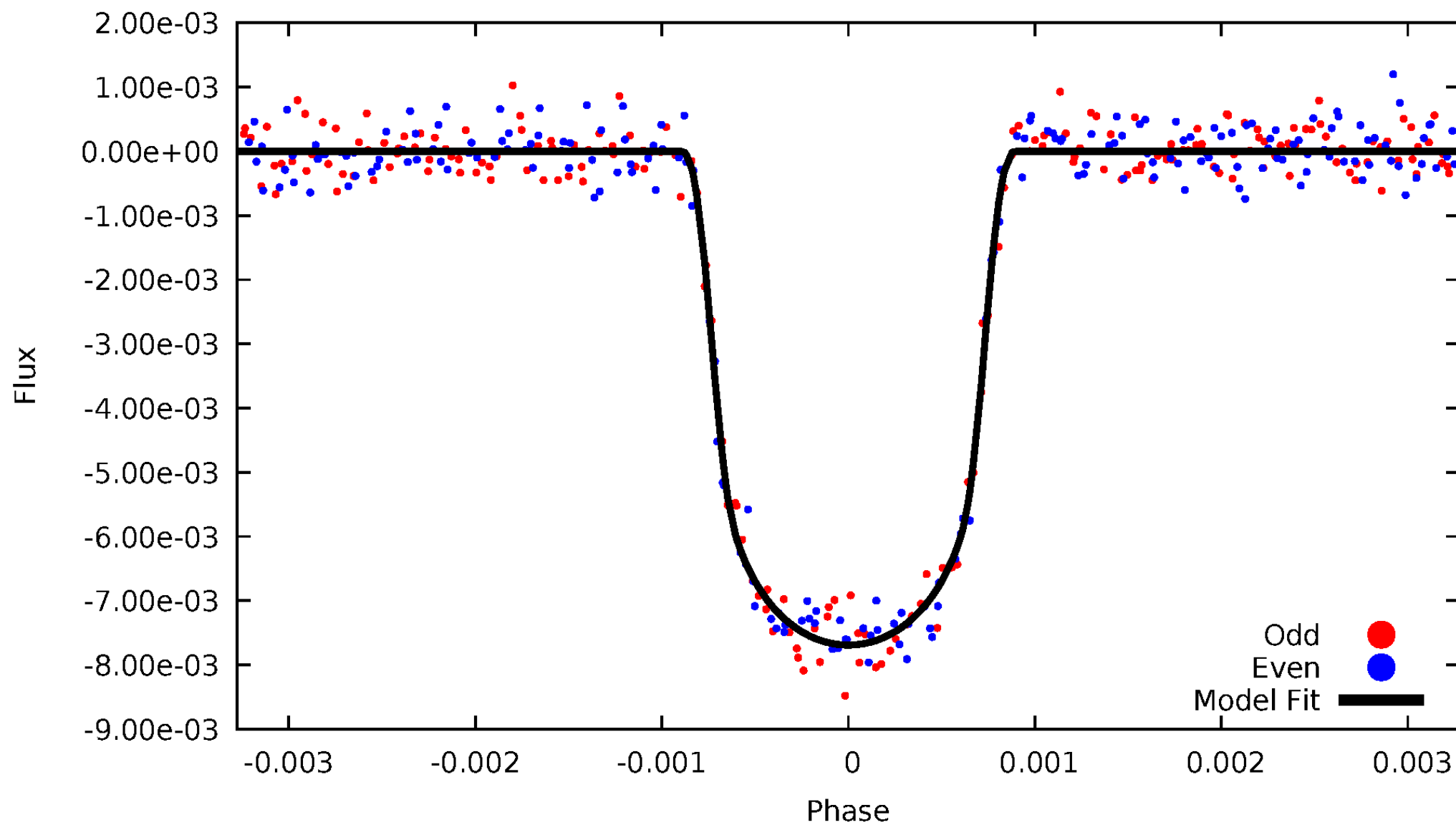


TCE 010656508-01



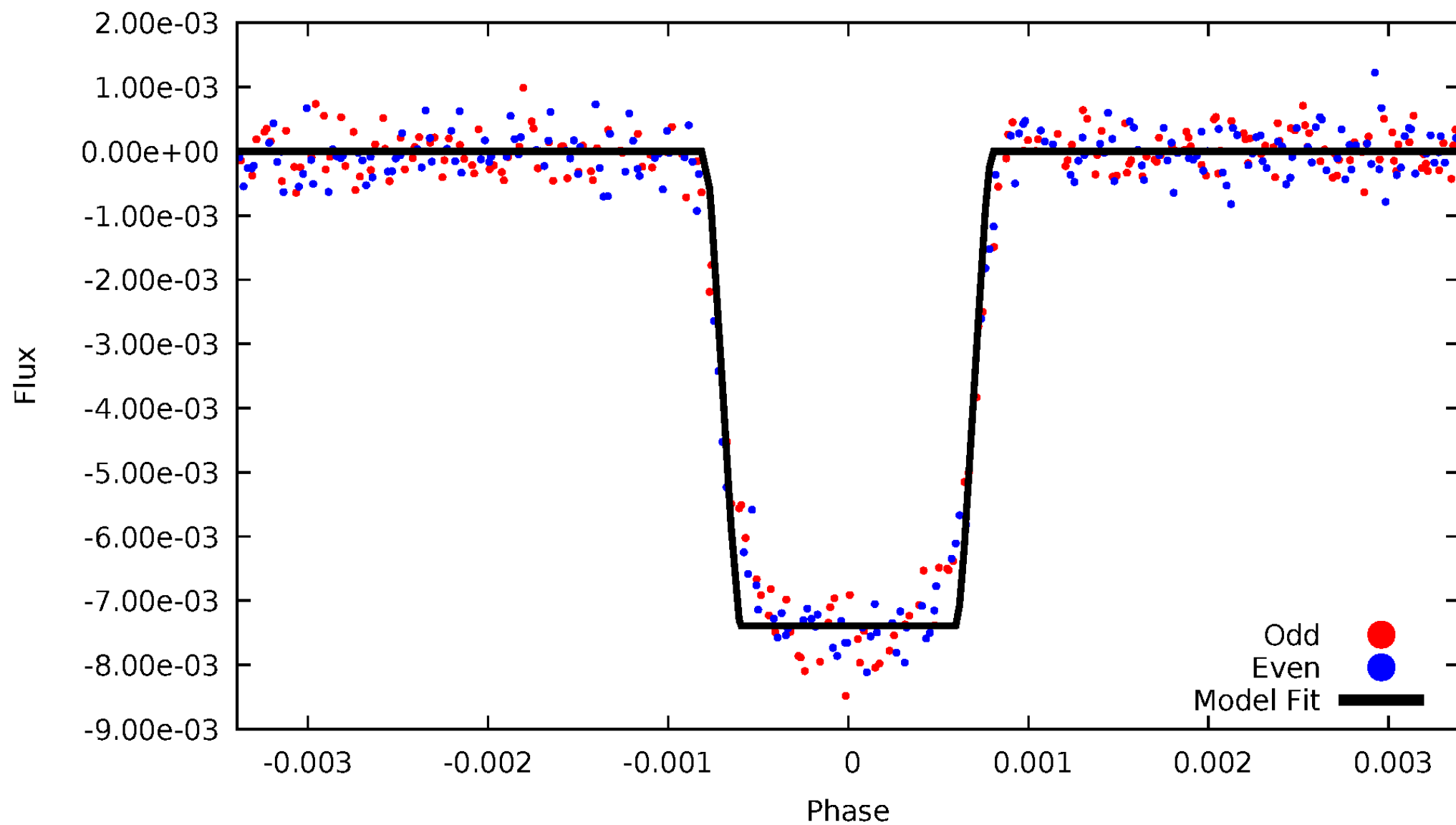
DV Odd/Even

TCE 010656508-01

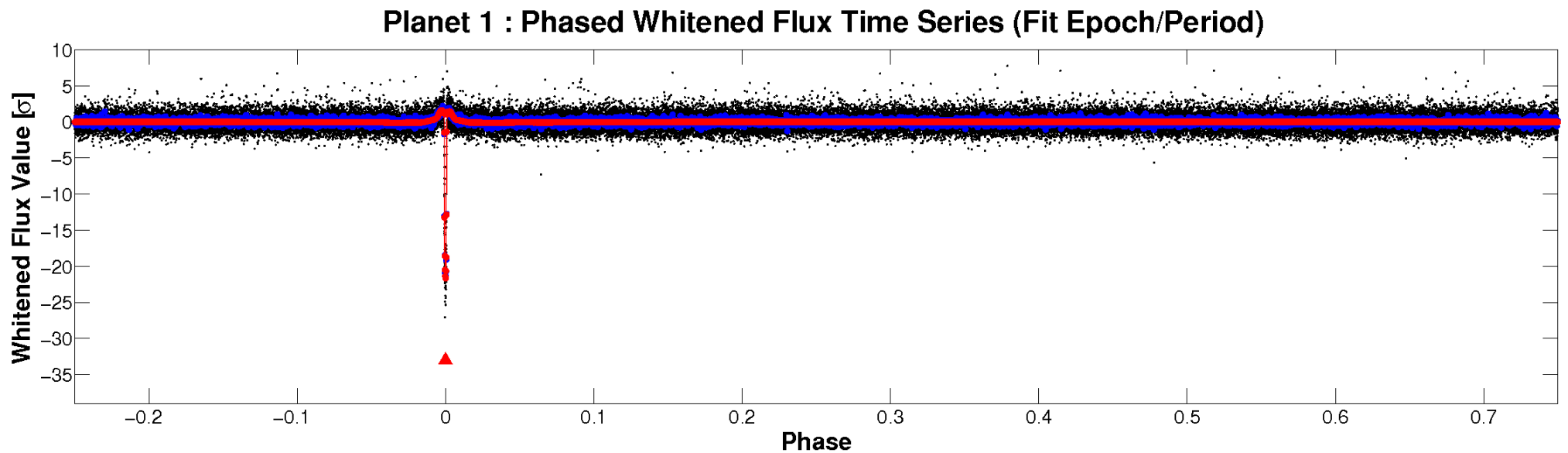
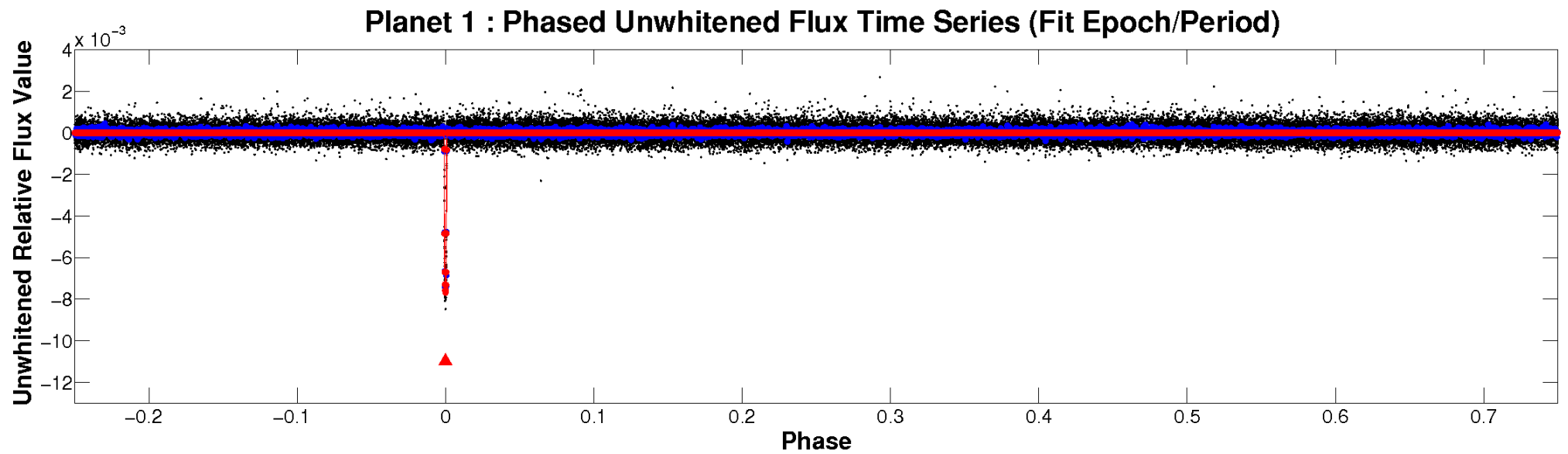


ALT Odd/Even

TCE 010656508-01

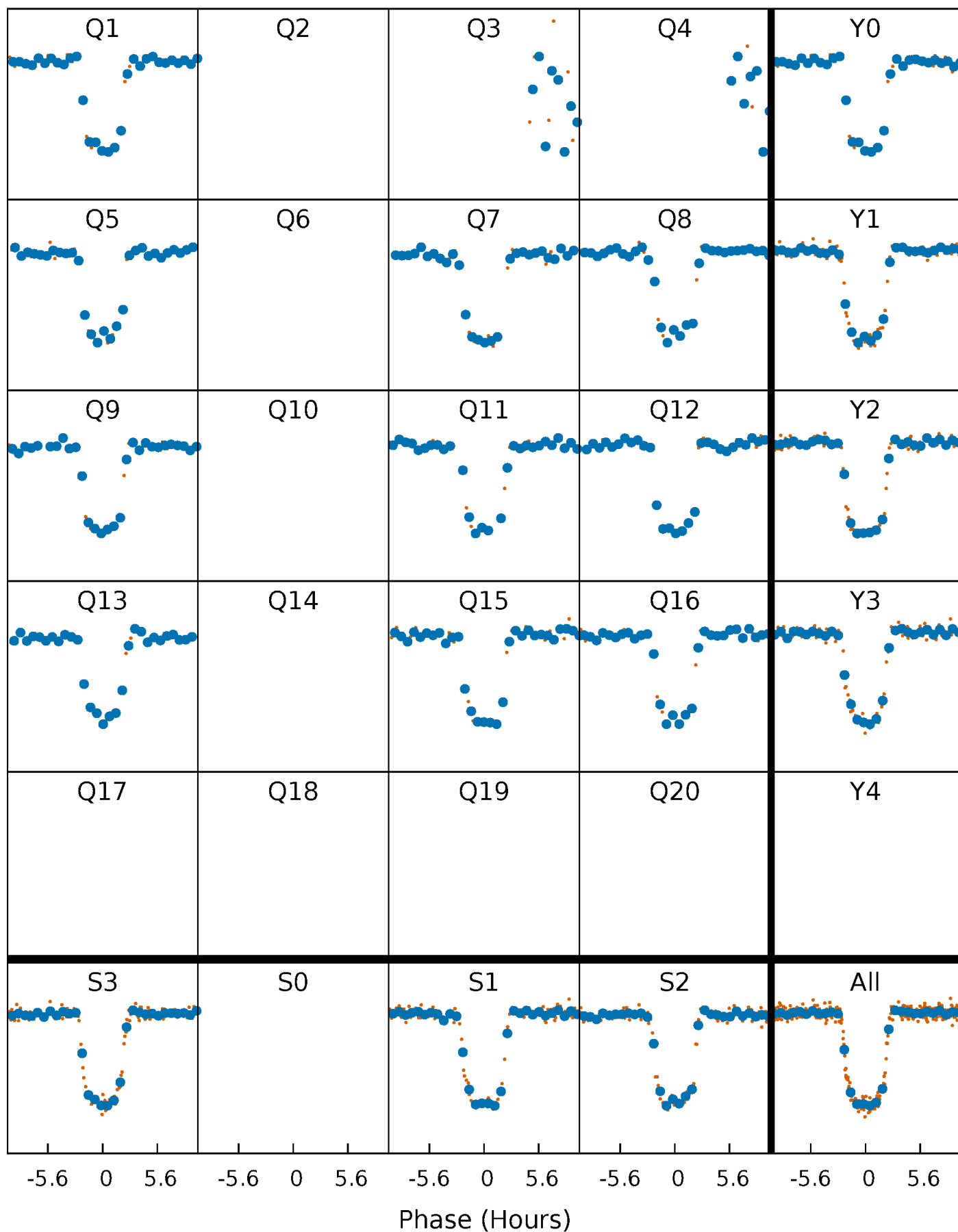


Non-Whitened Vs. Whitened Light Curve



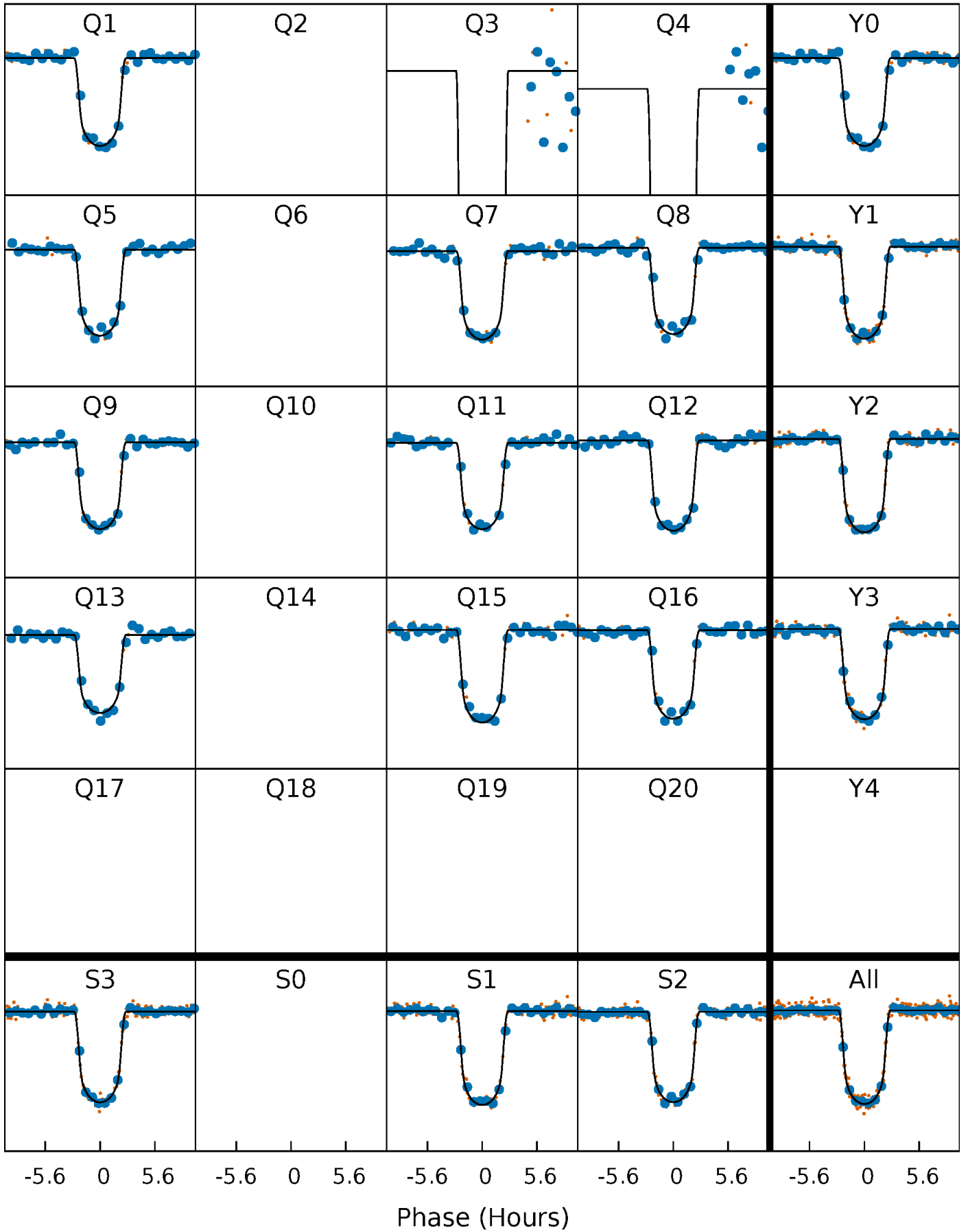
PDC Quarter-Phased Transit Curves

TCE 010656508-01 P=124.035962 Days $T_0=136.014735$ (BKJD)



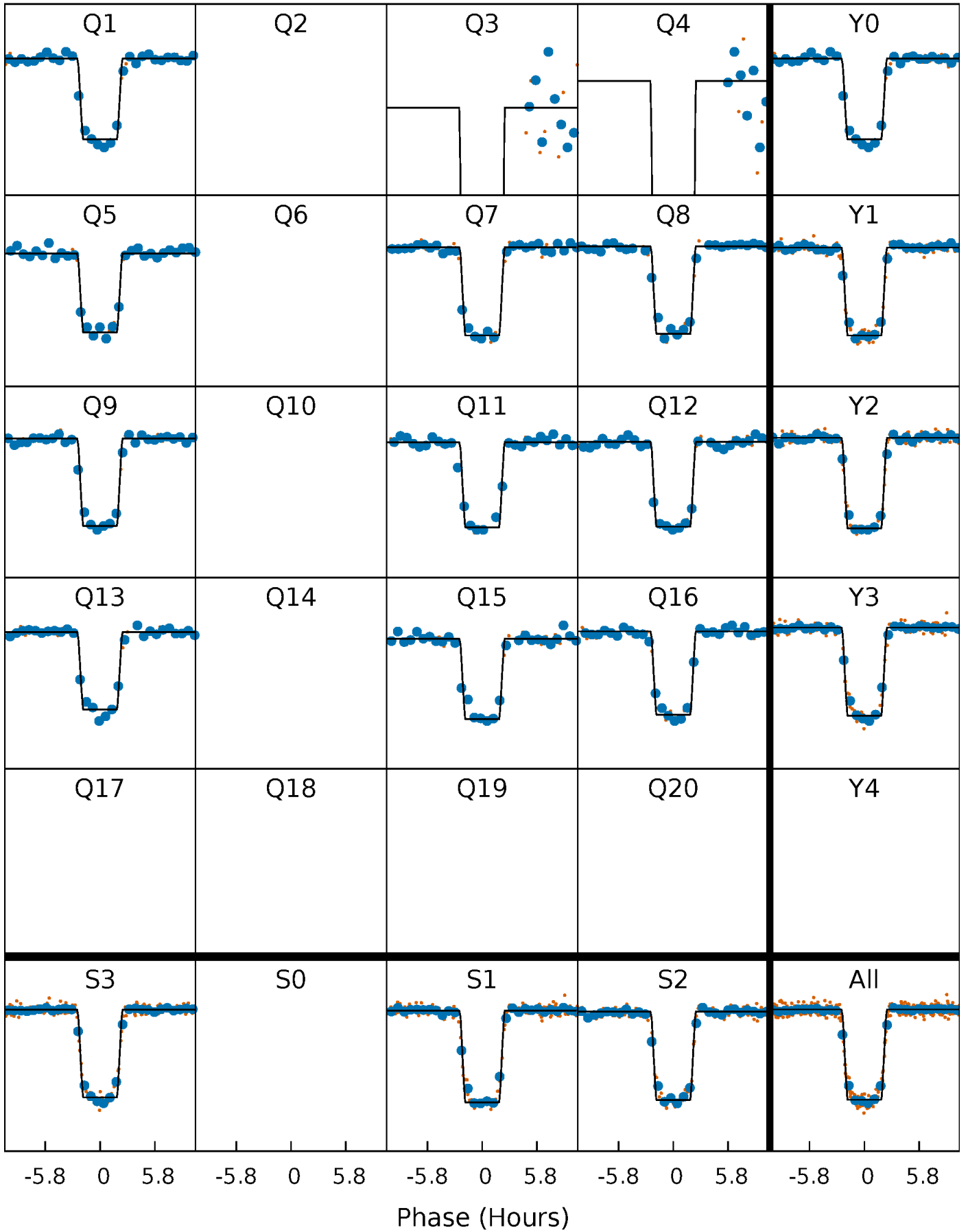
DV Quarter-Phased Transit Curves

TCE 010656508-01 P=124.035962 Days $T_0=136.014735$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

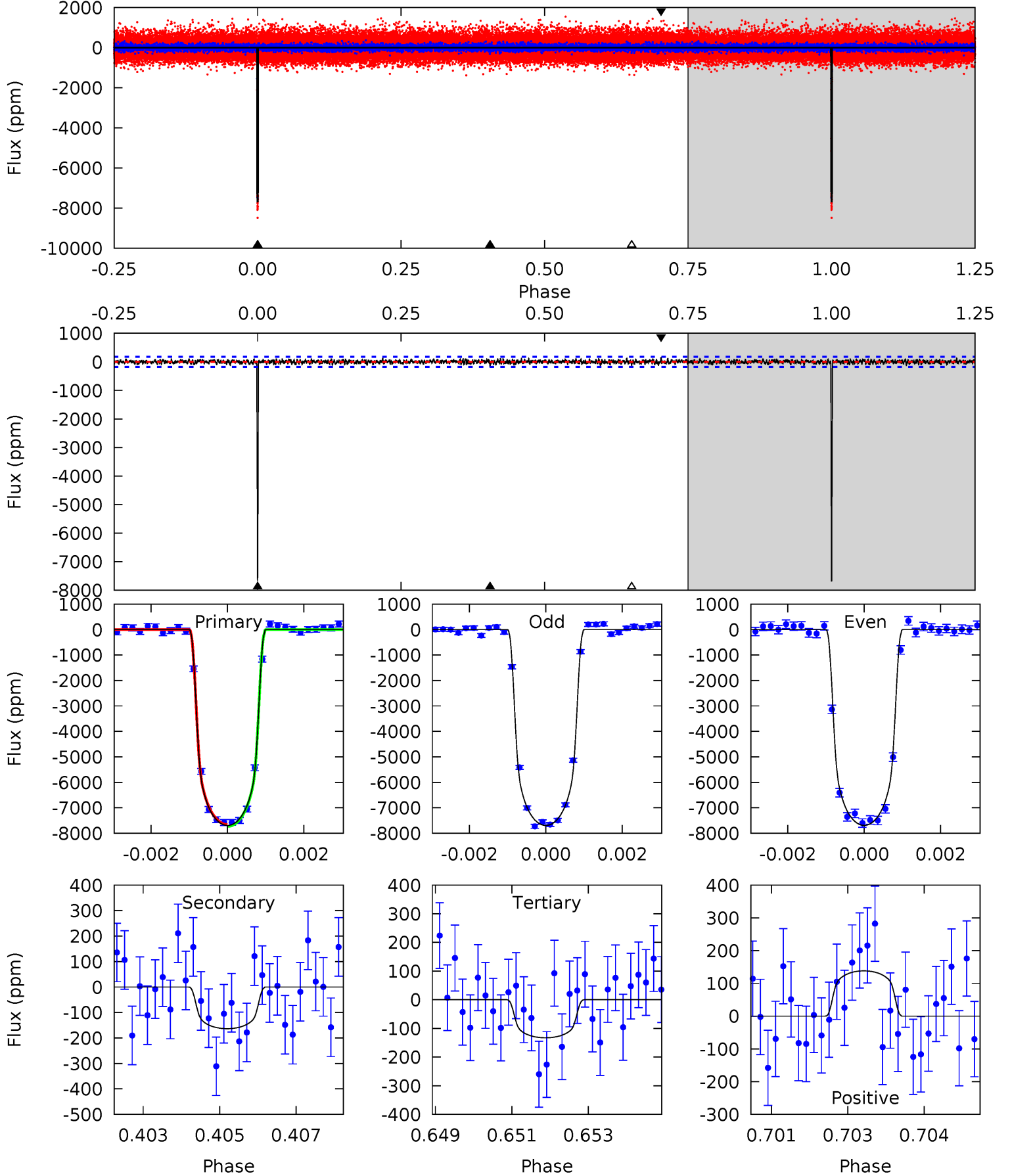
TCE 010656508-01 P=124.035839 Days $T_0=136.015572$ (BKJD)



DV Model-Shift Uniqueness Test

010656508-01, $P = 124.035962$ Days, $E = 11.978773$ Days

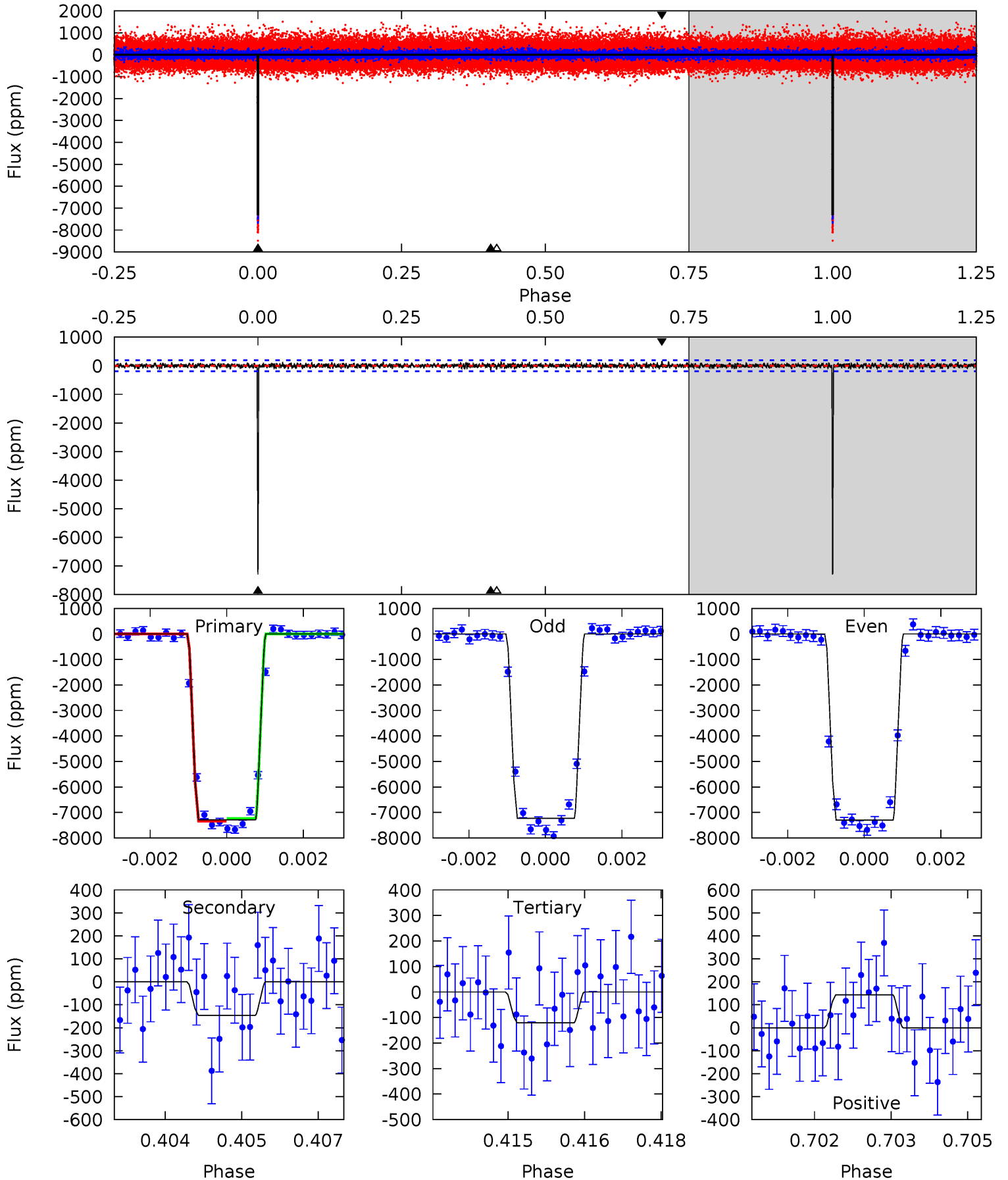
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
234.1	4.98	4.04	4.21	5.35	3.12	1.22	230.0	229.9	0.94	0.77	0.06	1.00	0.02	1.06



Alt Model-Shift Uniqueness Test

010656508-01, $P = 124.035839$ Days, $E = 11.979733$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
206.3	4.13	3.41	4.06	5.37	3.16	1.05	202.9	202.2	0.72	0.07	0.97	1.00	0.02	1.57



Stellar Parameters For KIC 010656508

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5822^{+79}_{-79}	$4.244^{+0.143}_{-0.104}$	$0.140^{+0.150}_{-0.150}$	$1.280^{+0.207}_{-0.207}$	$1.047^{+0.086}_{-0.062}$	$0.704^{+0.458}_{-0.239}$
	+1%/-1%	+3%/-2%	+107%/-107%	+16%/-16%	+8%/-6%	+65%/-34%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 010656508-01 / KOI 0211.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-164 ± 33	$11.27^{+1.00}_{-1.04}$	576^{+25}_{-24}	2994^{+84}_{-95}	176^{+51}_{-44}
Alt.	-146 ± 35	$11.89^{+1.14}_{-1.03}$	575^{+23}_{-26}	2895^{+92}_{-116}	140^{+45}_{-40}

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 $A_{obs} \gg 1.0$

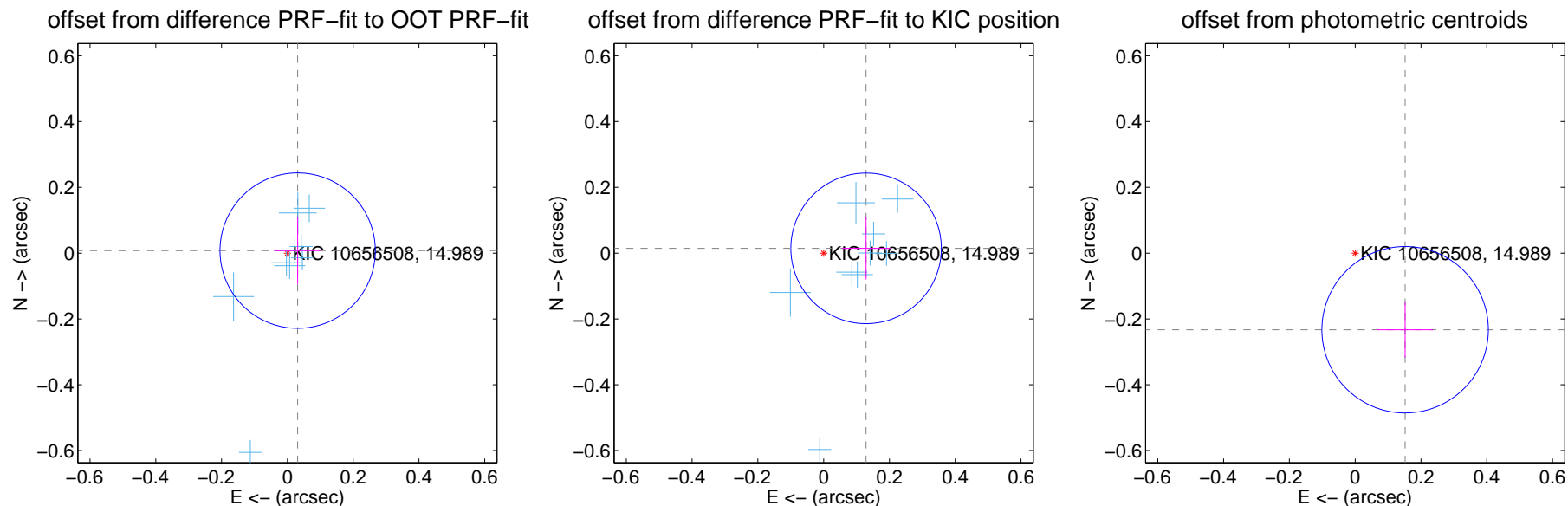
DV Centroid Data

Supplemental centroid analysis for 010656508-01. Kepler magnitude: 14.99. Transit SNR 173.57

There are 9 quarters with good PRF difference image offsets

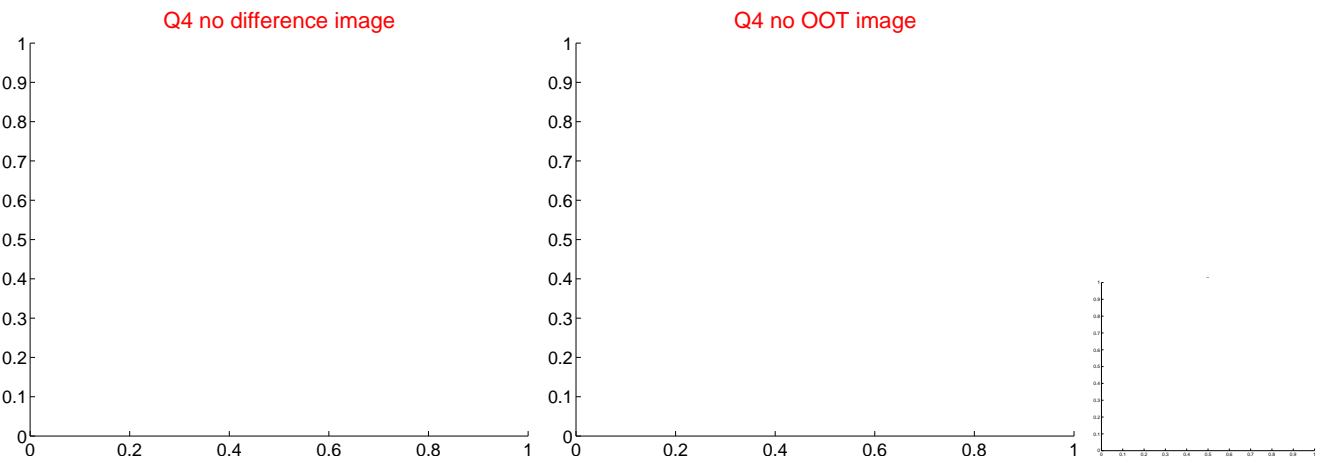
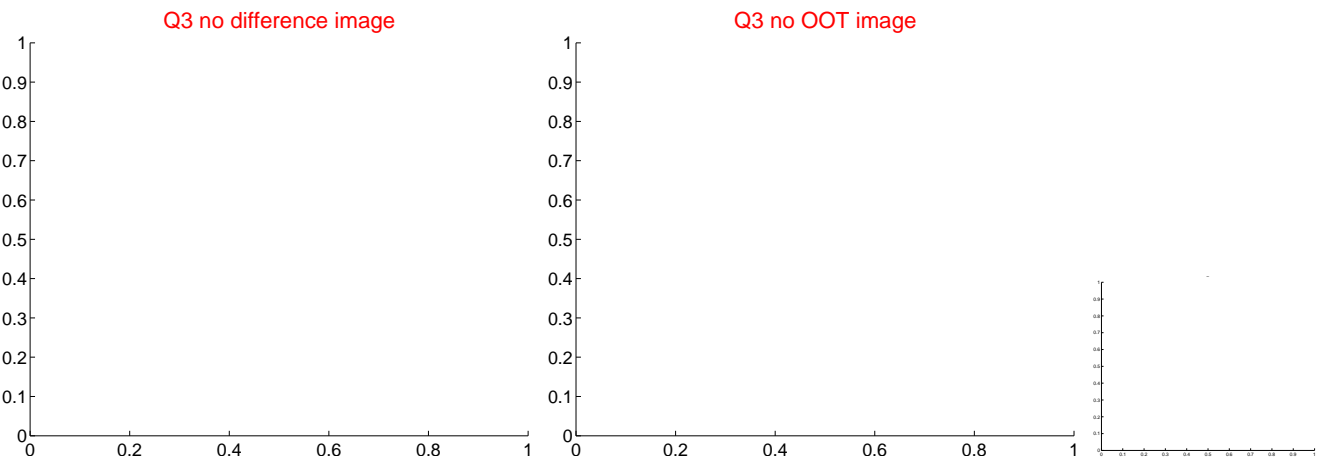
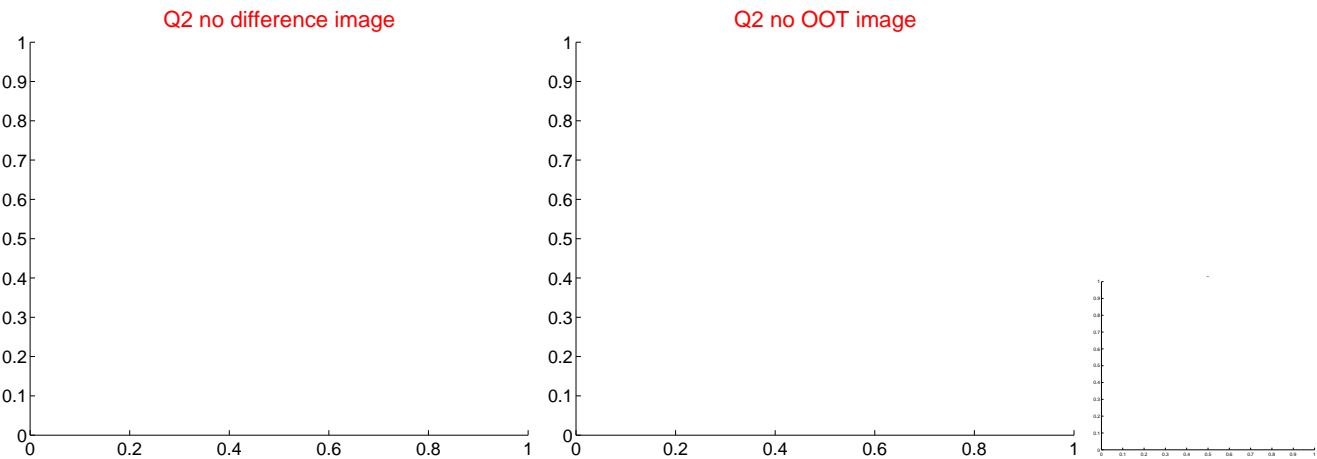
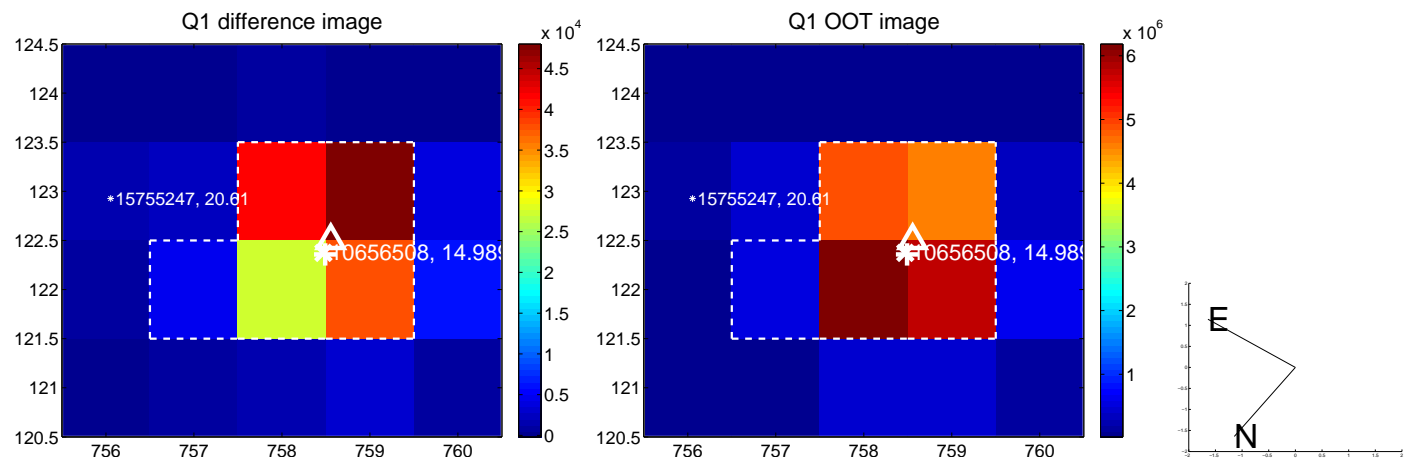
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.032 ± 0.079	0.41	-0.031 ± 0.072	0.008 ± 0.101
PRF-fit source offset from KIC position	0.130 ± 0.076	1.70	-0.129 ± 0.074	0.015 ± 0.095
photometric centroid source offset	0.28 ± 0.08	3.30	-0.15 ± 0.08	-0.23 ± 0.08

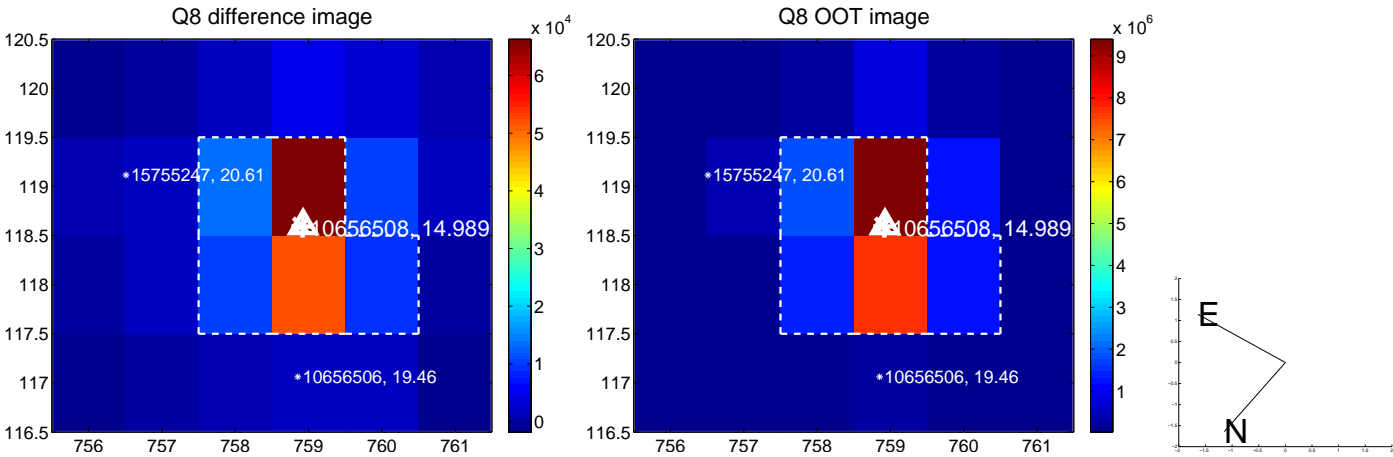
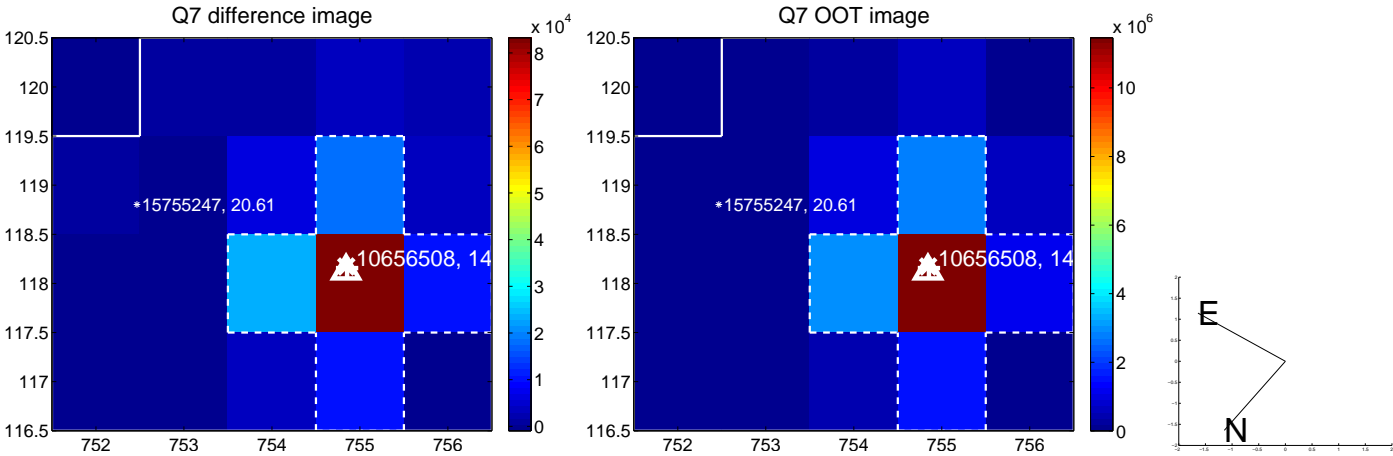
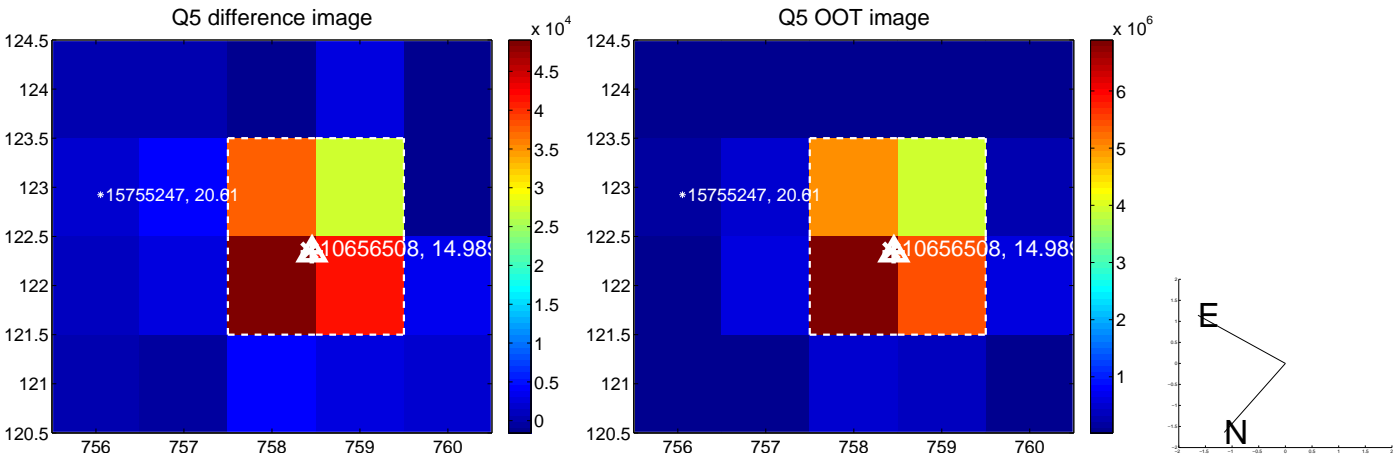


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

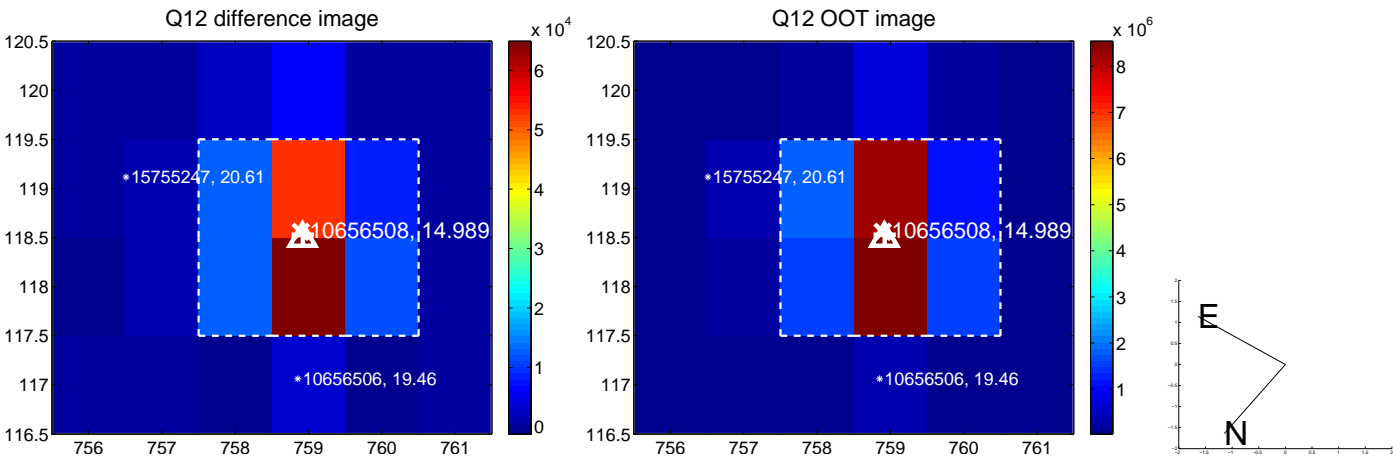
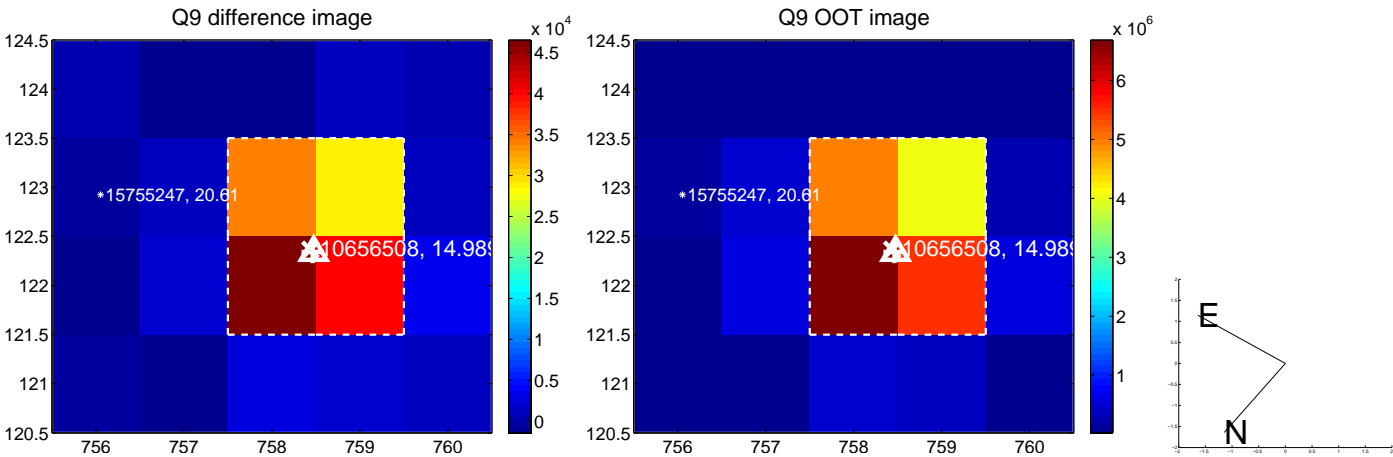
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



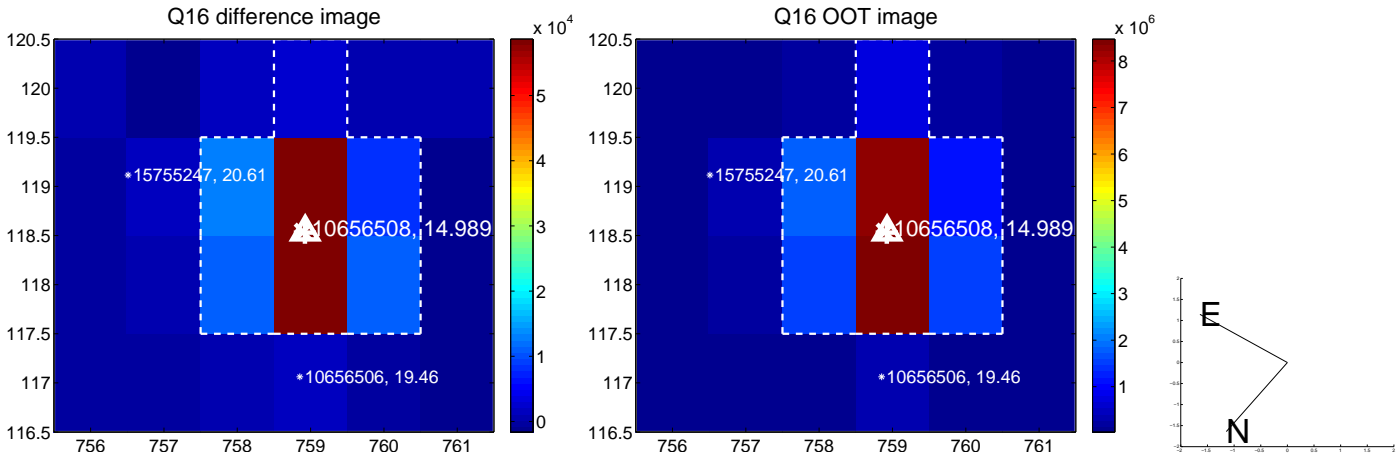
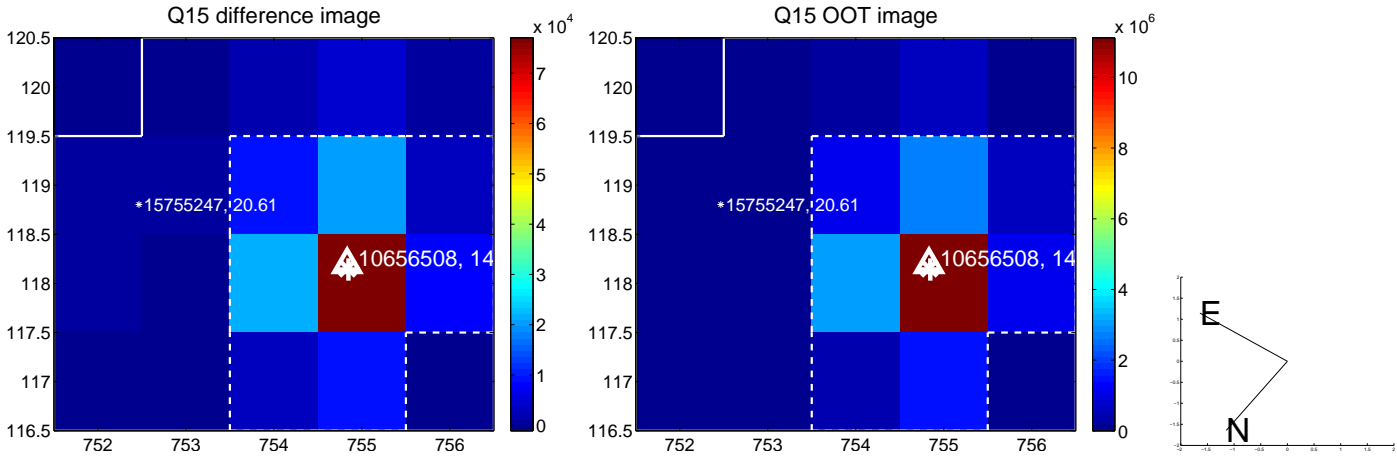
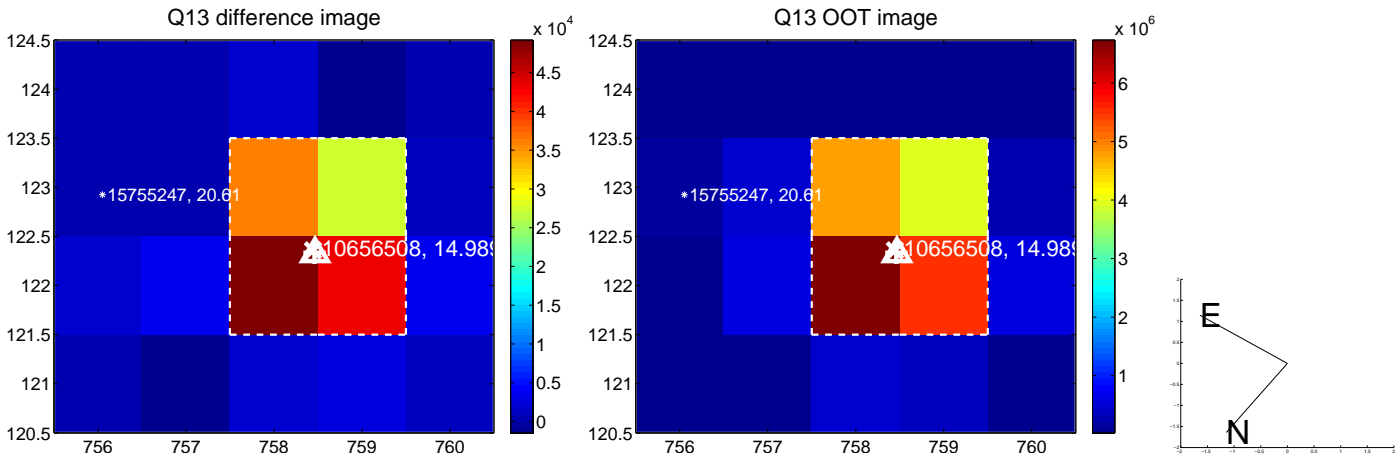
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



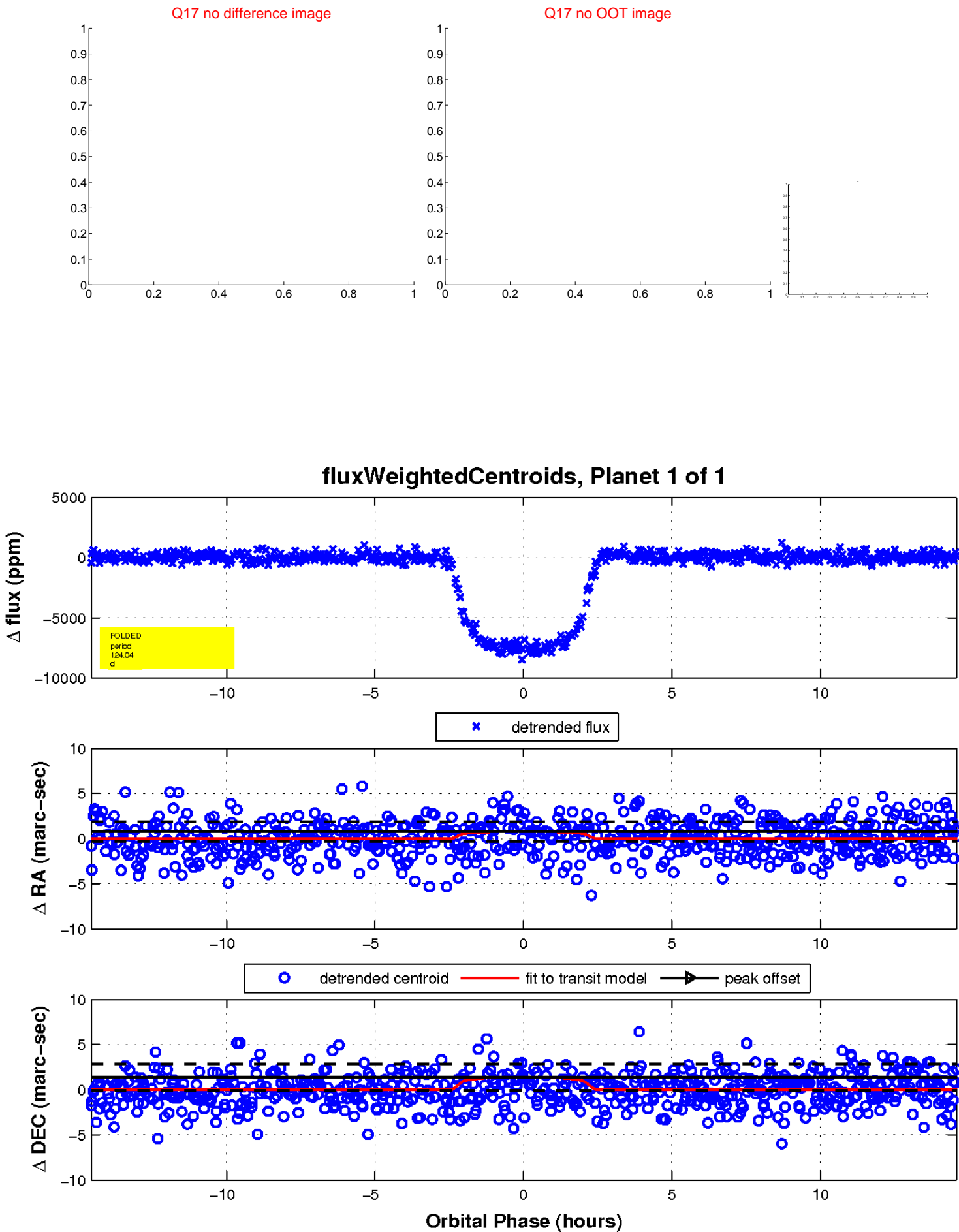
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

