

KIC 005168498

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})
005168498-01	OBS	7719.01	219.786231	239.824079	250.3	21.040	7.6	8.3	2.38	5127	4.24	7.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005168498-01	OBS	FP	0.08	1	0	0	0	MOD_NONUNIQ_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.

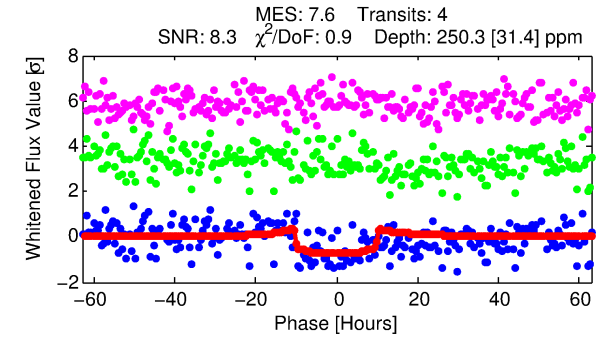
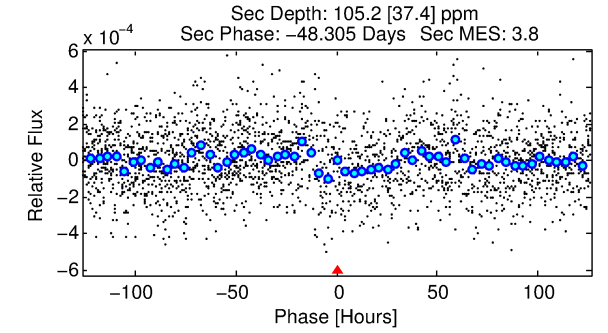
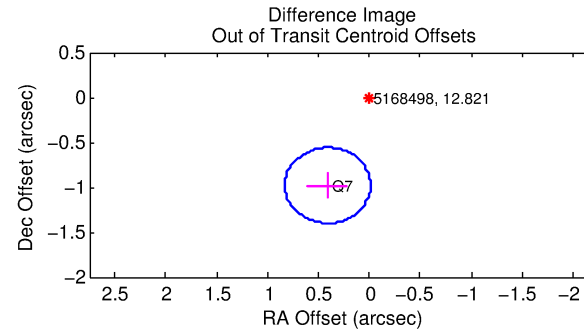
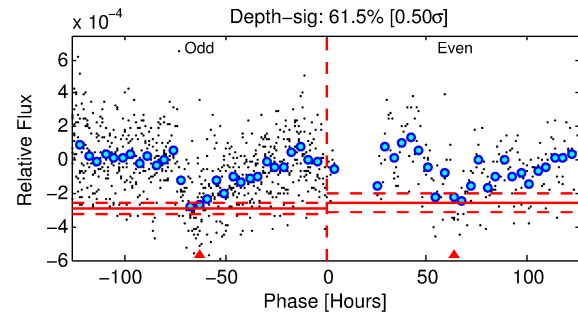
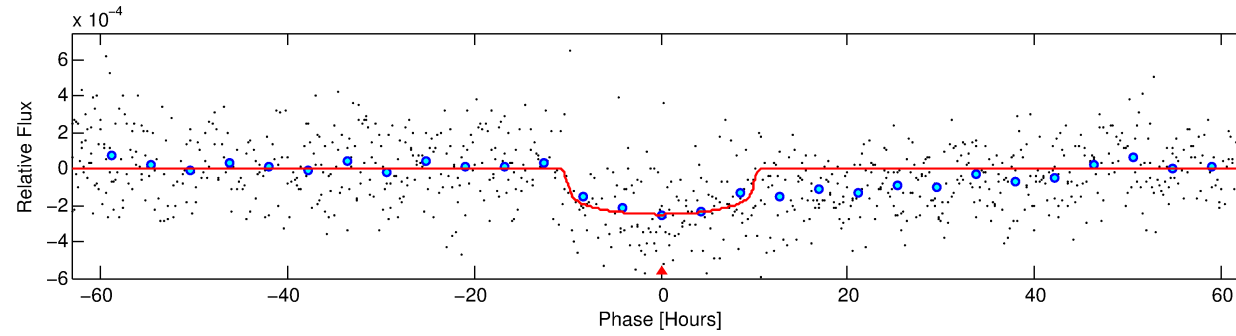
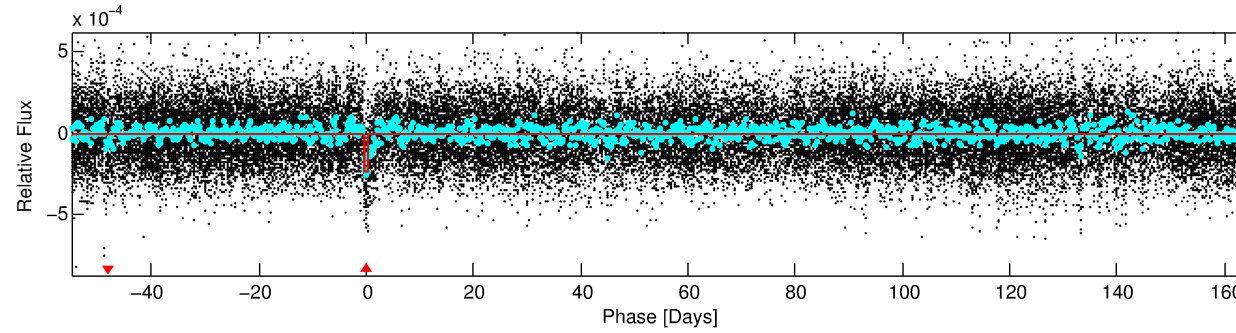
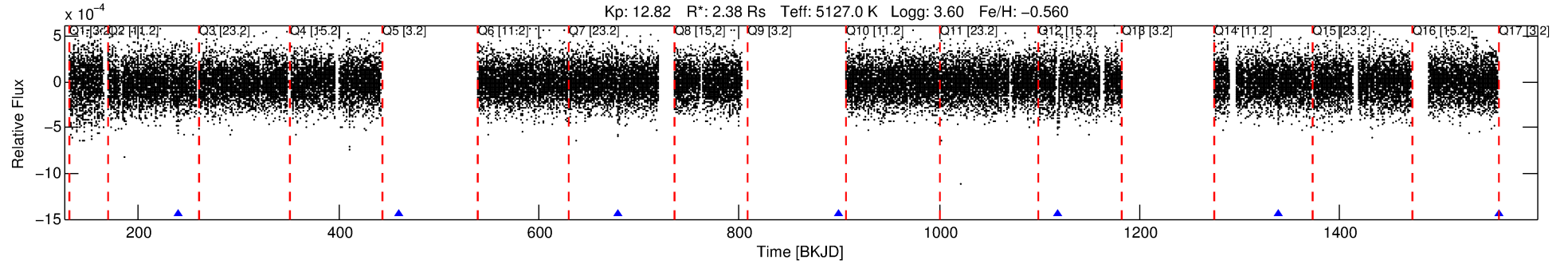
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005168498-01

No Significant Match Found

DV One-Page Summary

KIC: 5168498 Candidate: 1 of 1 Period: 219.786 d



DV Fit Results:

Period = 219.78623 [0.00664] d
Epoch = 239.8241 [0.0225] BKJD
Rp/R* = 0.0163 [0.0025]
a/R* = 48.22 [27.69]
b = 0.82 [0.24]
Seff = 7.84 [12.70]
Teq = 427 [173] K
Rp = 4.23 [3.16] Re
a = 0.6690 [0.6101] AU
Ag = 1444.11 [2433.50] [0.59 σ]
Teffp = 4066 [491] K [7.00 σ]

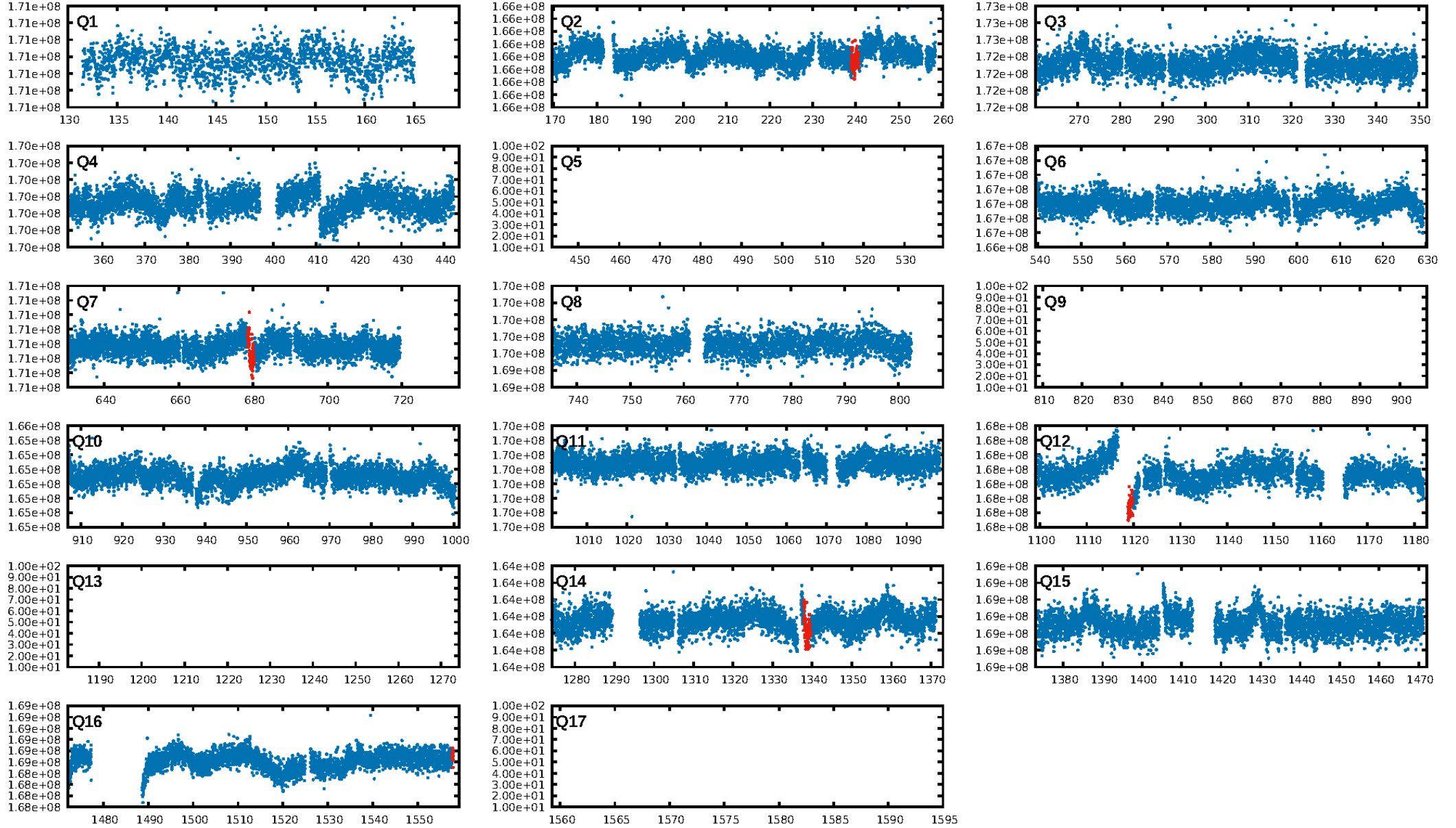
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 17.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.22e-15
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.682
Centroid-sig: 0.0%
Centroid-so: 2.438 arcsec [1.49 σ]
OotOffset-rm: 1.062 arcsec [7.57 σ]
KicOffset-rm: 4.918 arcsec [36.38 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

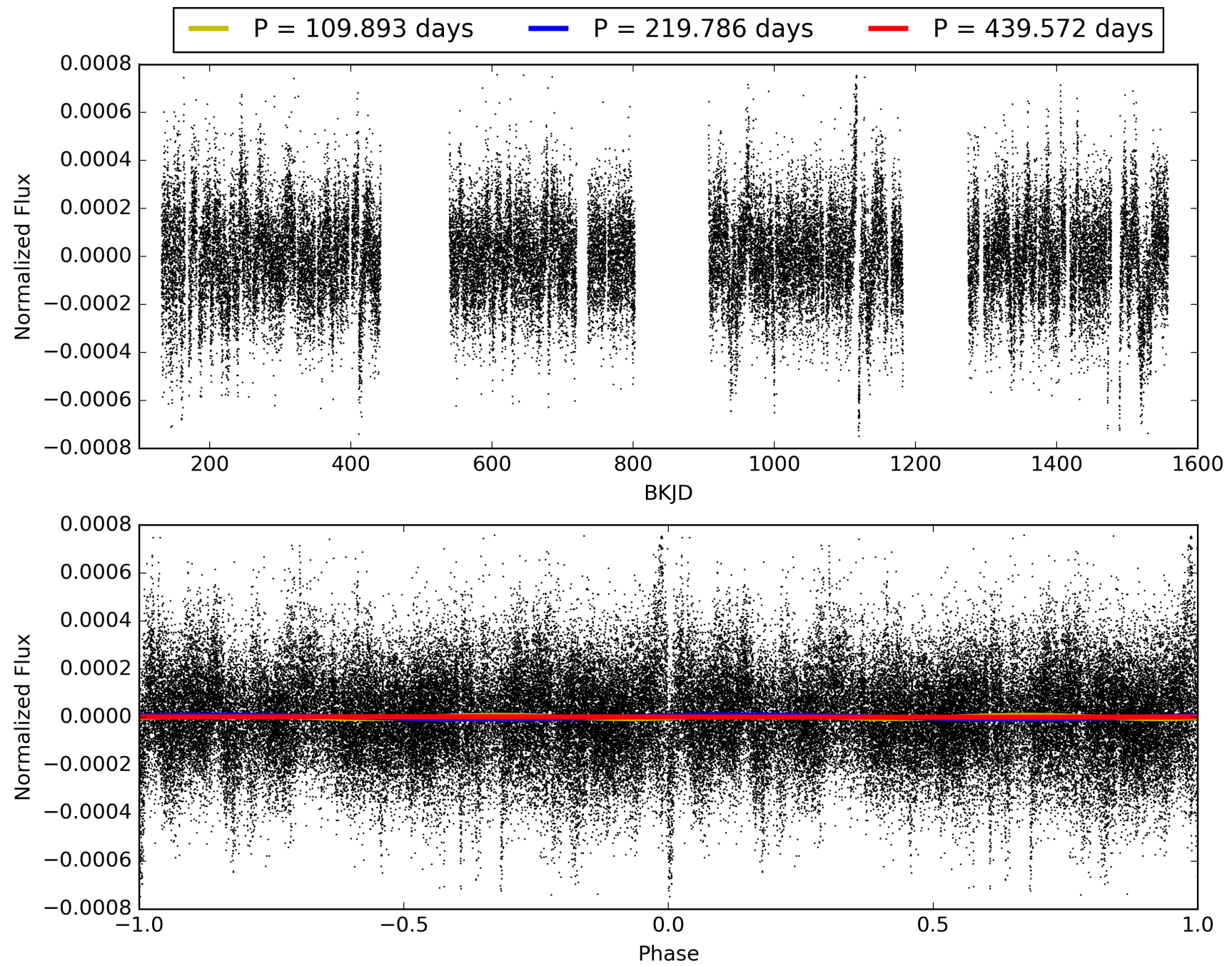
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:37:48 Z

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

TCE 005168498-01, PDC Light Curves

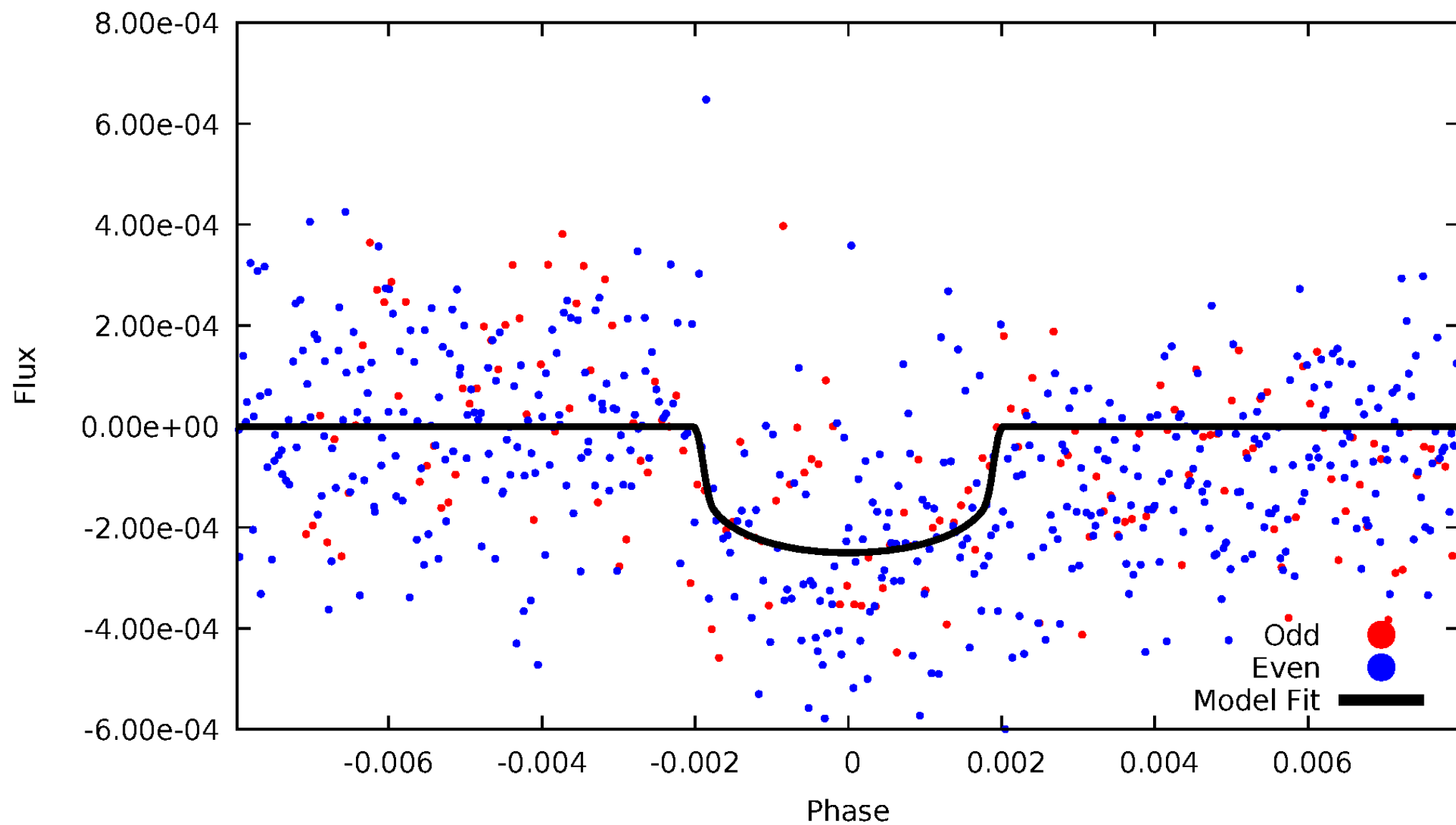


TCE 005168498-01



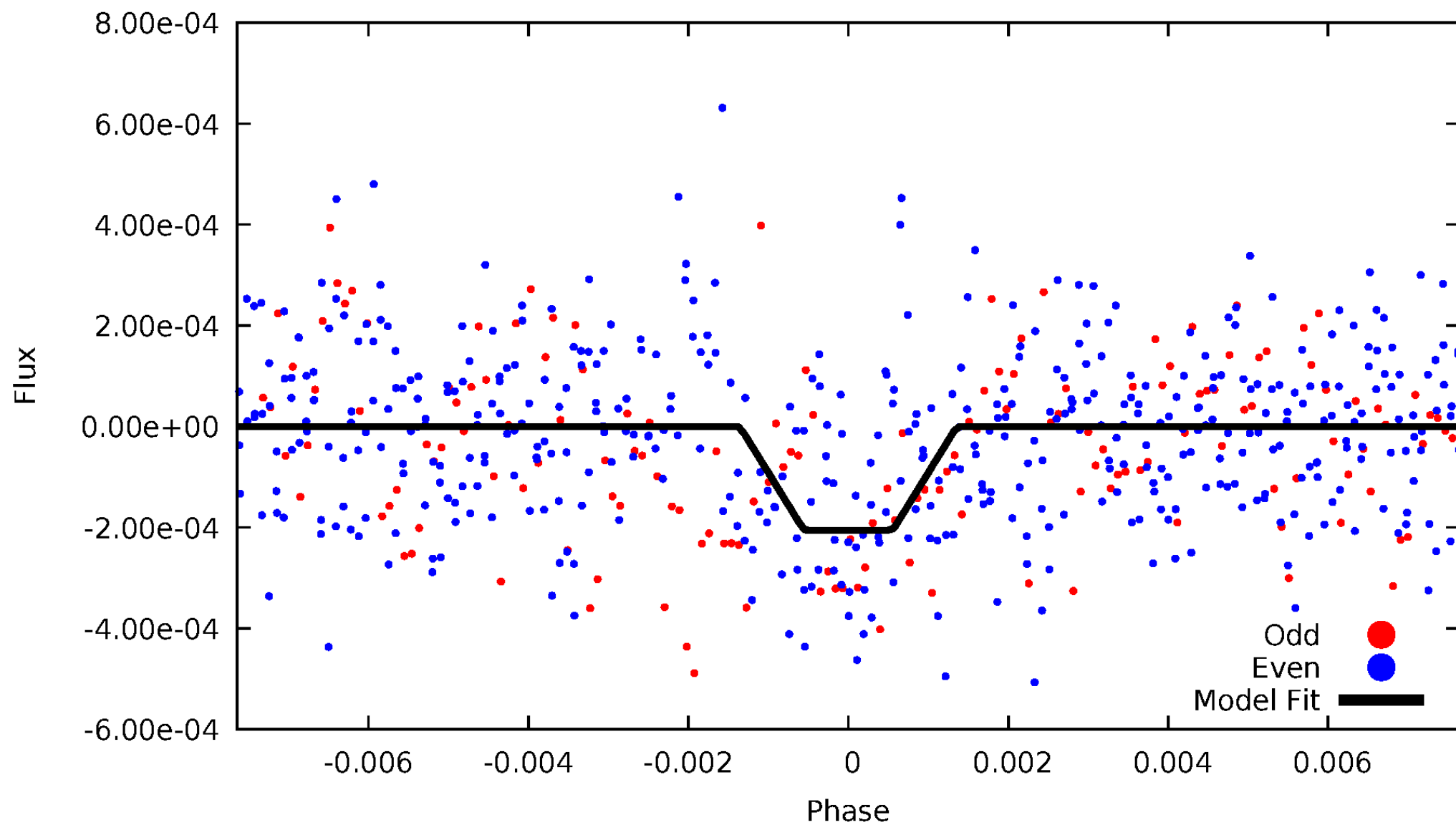
DV Odd/Even

TCE 005168498-01

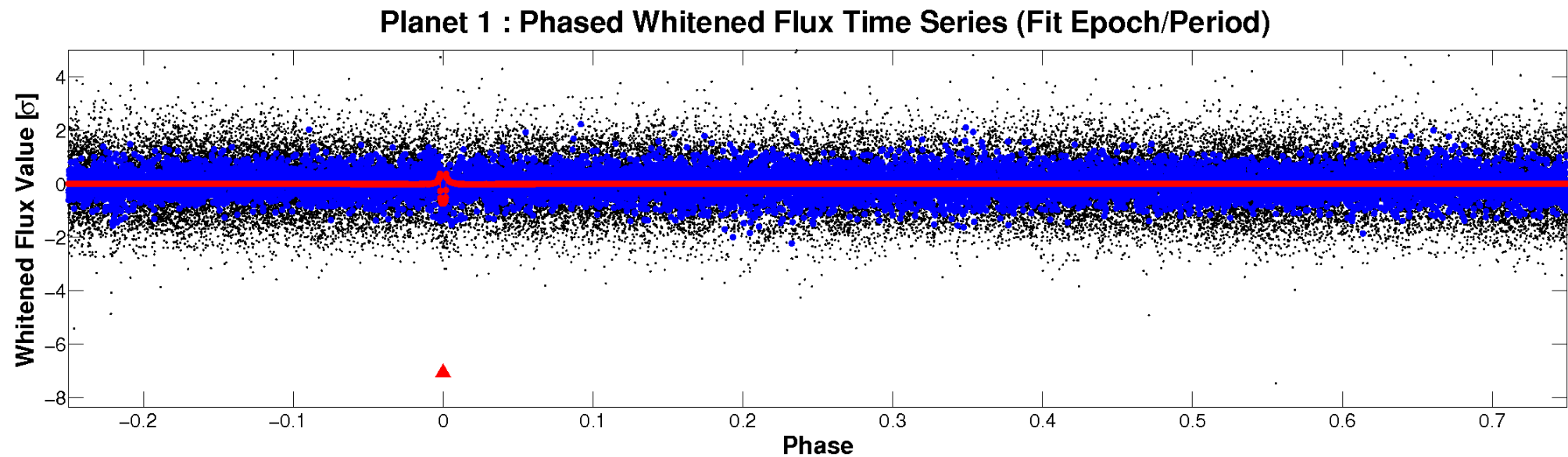
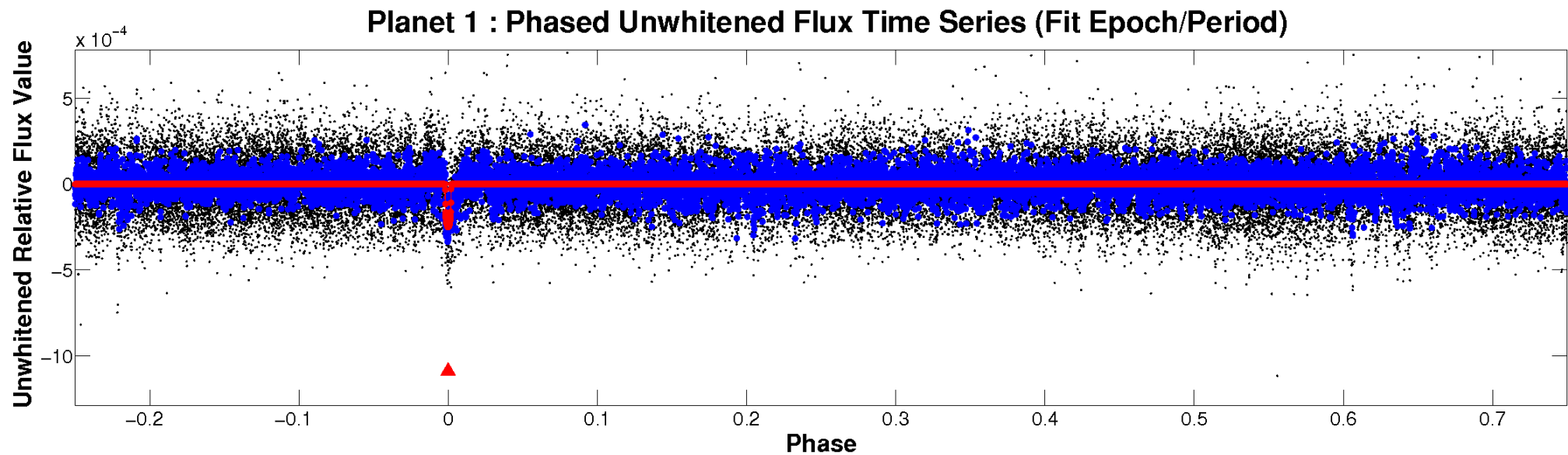


ALT Odd/Even

TCE 005168498-01



Non-Whitened Vs. Whitened Light Curve



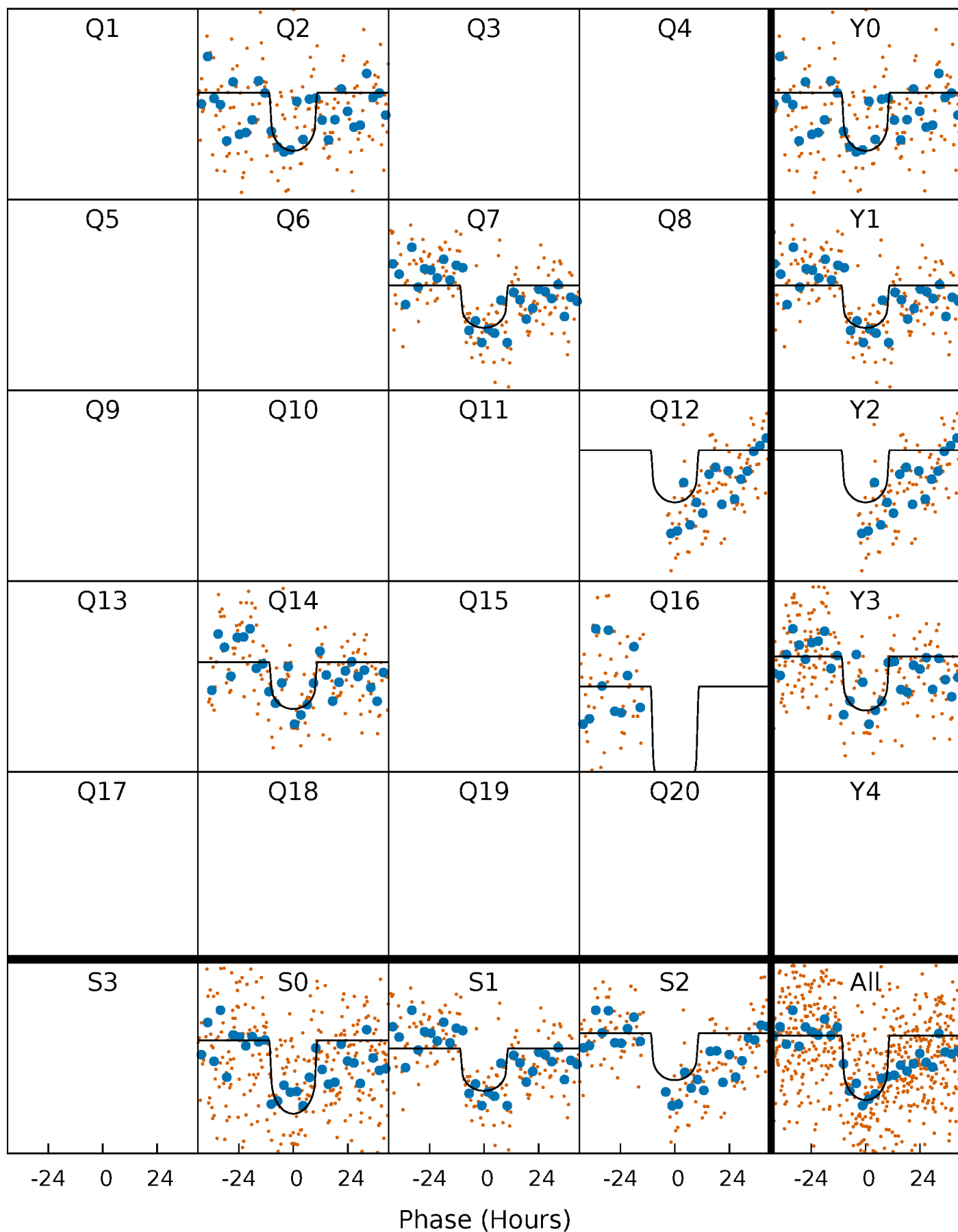
PDC Quarter-Phased Transit Curves

TCE 005168498-01 P=219.786231 Days $T_0=239.824079$ (BKJD)



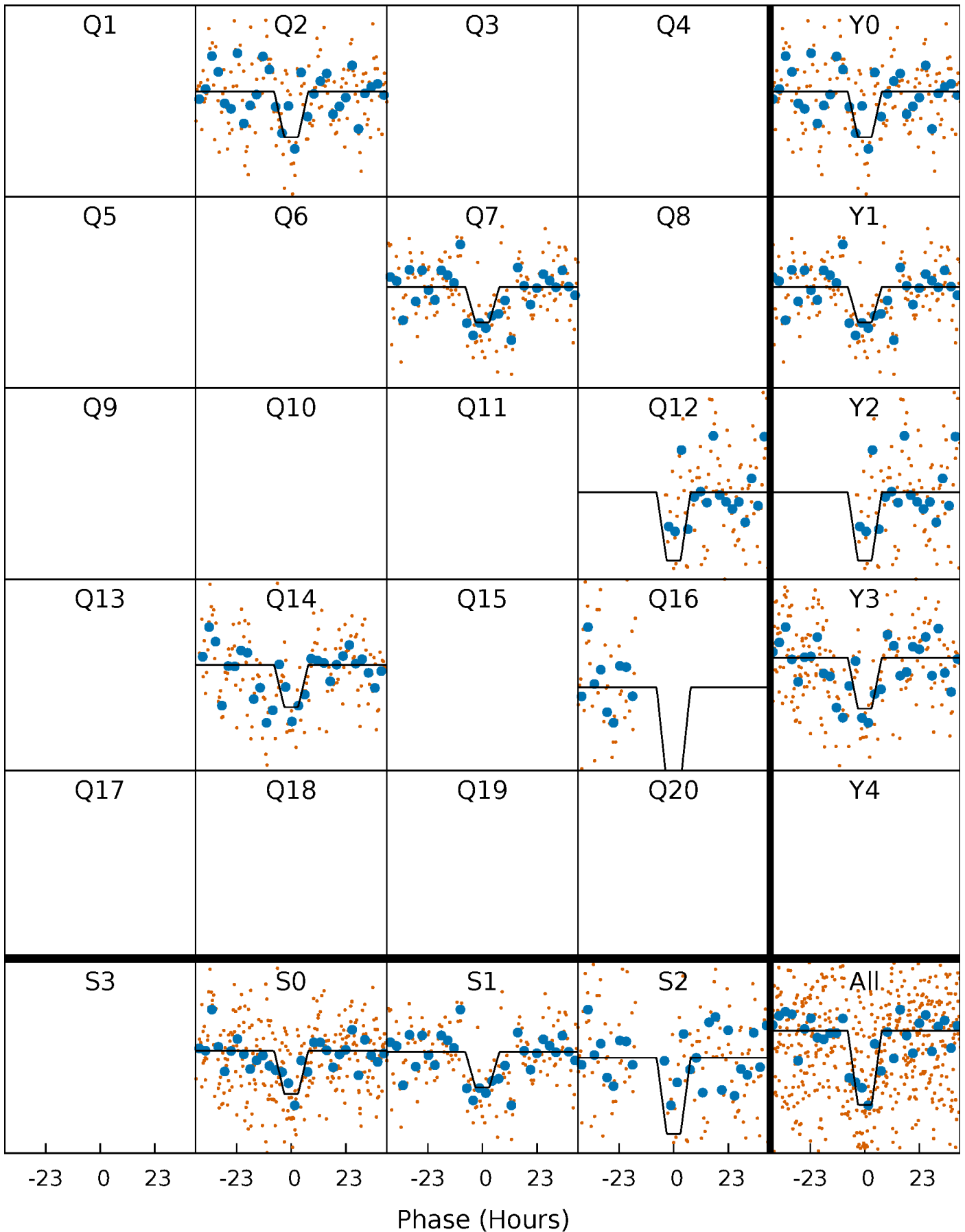
DV Quarter-Phased Transit Curves

TCE 005168498-01 P=219.786231 Days $T_0=239.824079$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

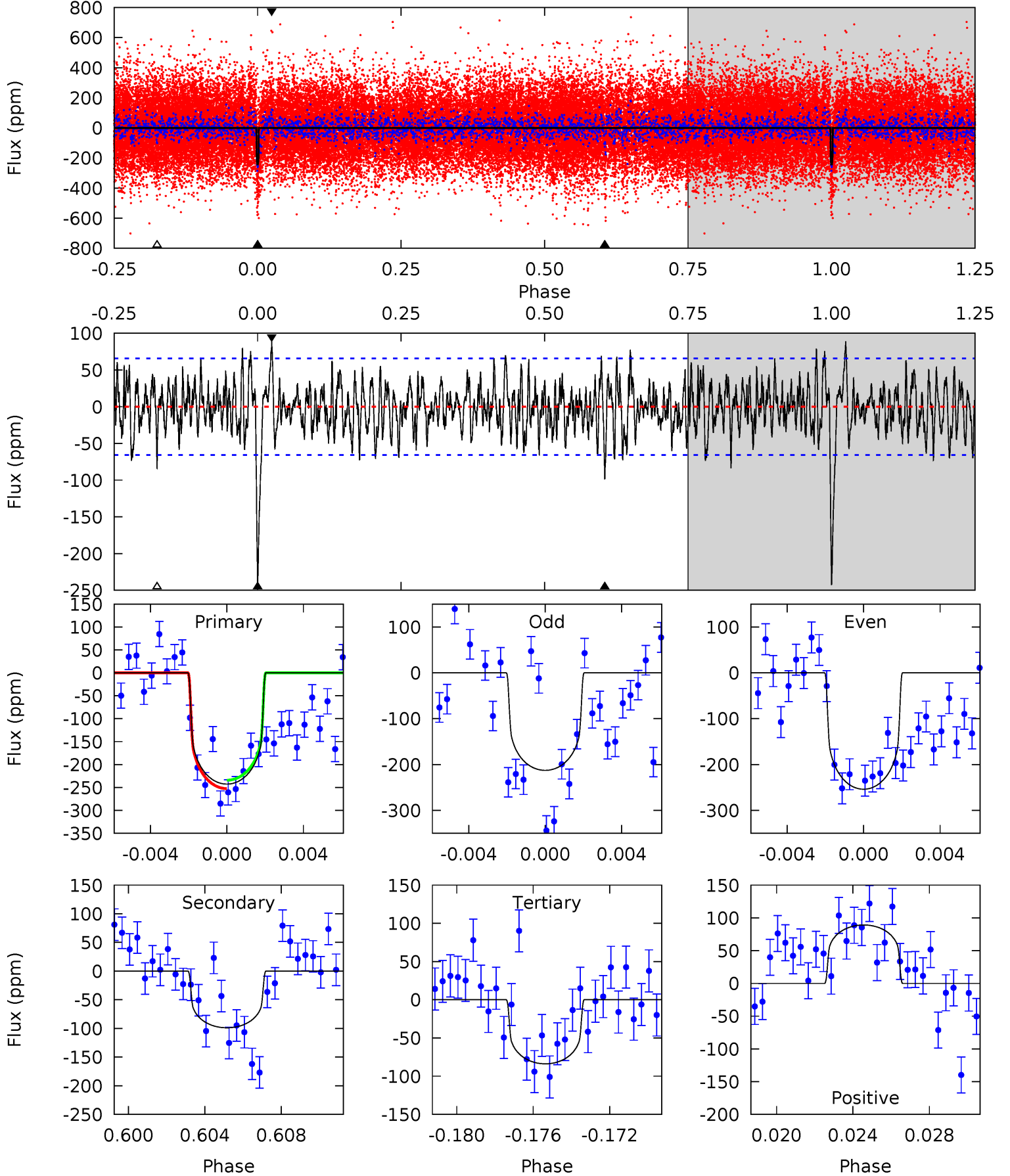
TCE 005168498-01 P=219.824239 Days $T_0=239.686363$ (BKJD)



DV Model-Shift Uniqueness Test

005168498-01, $P = 219.786231$ Days, $E = 20.037848$ Days

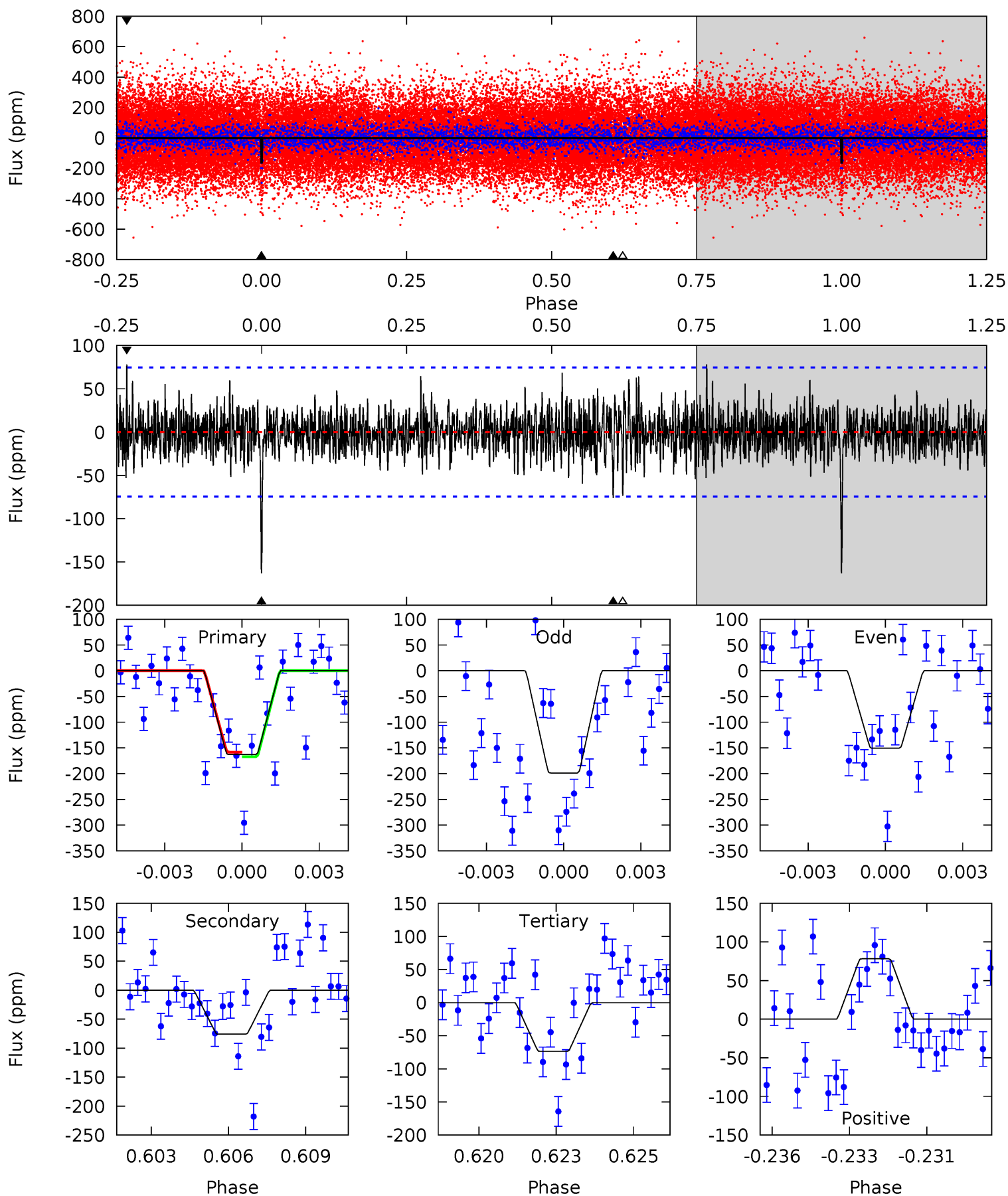
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	7.82	6.63	7.05	5.20	2.88	2.18	12.6	12.1	1.20	0.78	1.46	1.07	0.27	0.72



Alt Model-Shift Uniqueness Test

005168498-01, P = 219.824239 Days, E = 19.862124 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	5.37	5.20	5.52	5.27	2.99	1.36	6.30	5.98	0.17	-0.15	1.53	0.98	0.32	0.31



Stellar Parameters For KIC 005168498

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5127^{+128}_{-116}	$3.602^{+1.005}_{-0.335}$	$-0.560^{+0.300}_{-0.250}$	$2.380^{+1.421}_{-1.737}$	$0.825^{+0.275}_{-0.148}$	$0.086^{+3.185}_{-0.061}$
	+2%/-2%	+28%/-9%	+54%/-45%	+60%/-73%	+33%/-18%	+3693%/-71%
Source	PHO1	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 005168498-01 / KOI 7719.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-99 ± 13	$4.11^{+1.71}_{-1.68}$	591^{+89}_{-132}	4209^{+312}_{-240}	1504^{+2768}_{-750}
Alt.	-76 ± 14	$3.52^{+1.54}_{-1.36}$	581^{+97}_{-110}	4236^{+339}_{-317}	1517^{+2757}_{-778}

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

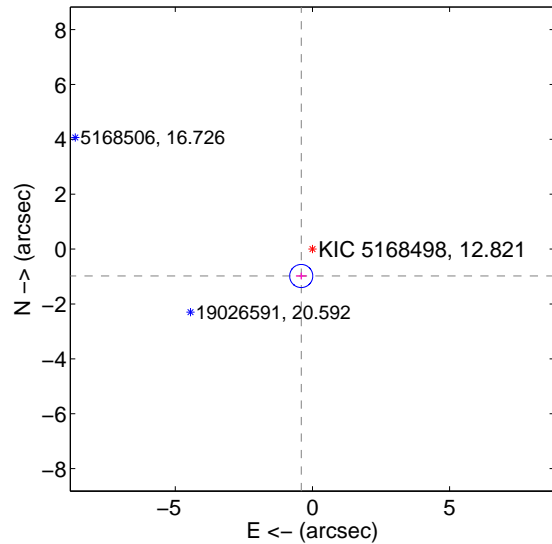
Supplemental centroid analysis for 005168498-01. Kepler magnitude: 12.82. Transit SNR 8.33

There are 0 quarters with good PRF difference image offsets

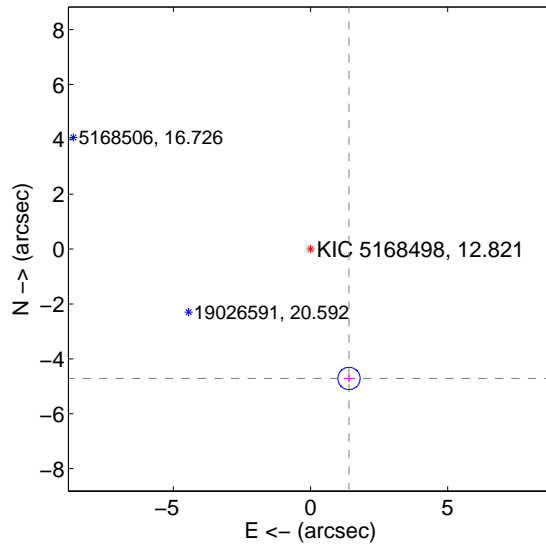
The OOT PRF centroid is offset from the target star catalog position by about 4.15 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.062 ± 0.140	7.57	0.409 ± 0.194	-0.981 ± 0.129
PRF-fit source offset from KIC position	4.918 ± 0.135	36.38	-1.402 ± 0.194	-4.714 ± 0.129
photometric centroid source offset	2.44 ± 1.64	1.49	0.53 ± 1.07	-2.38 ± 1.66

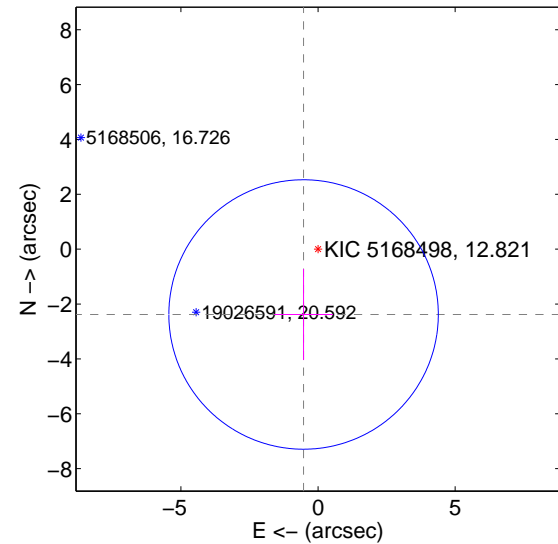
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

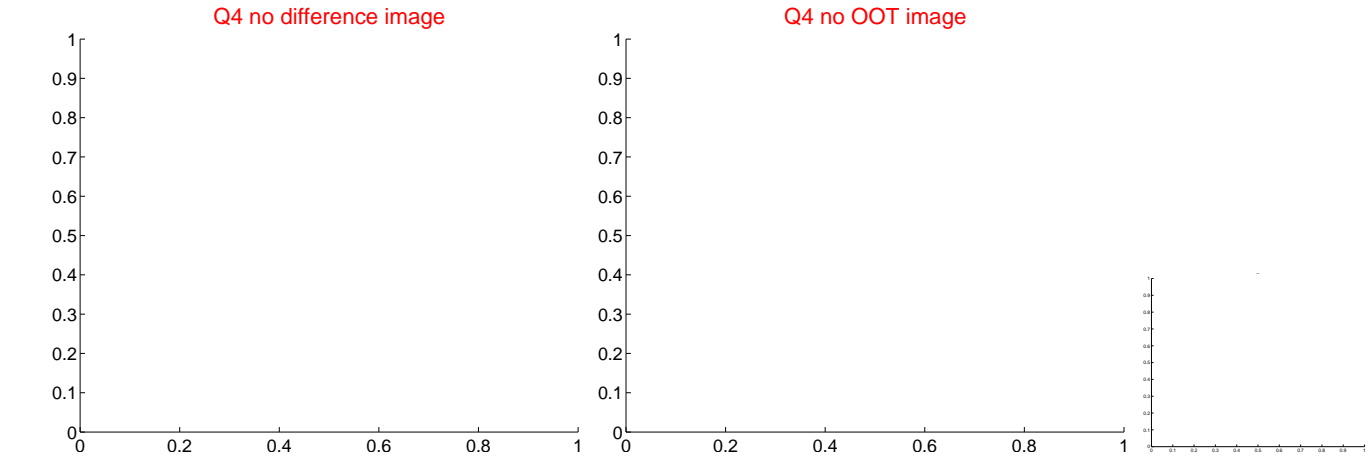
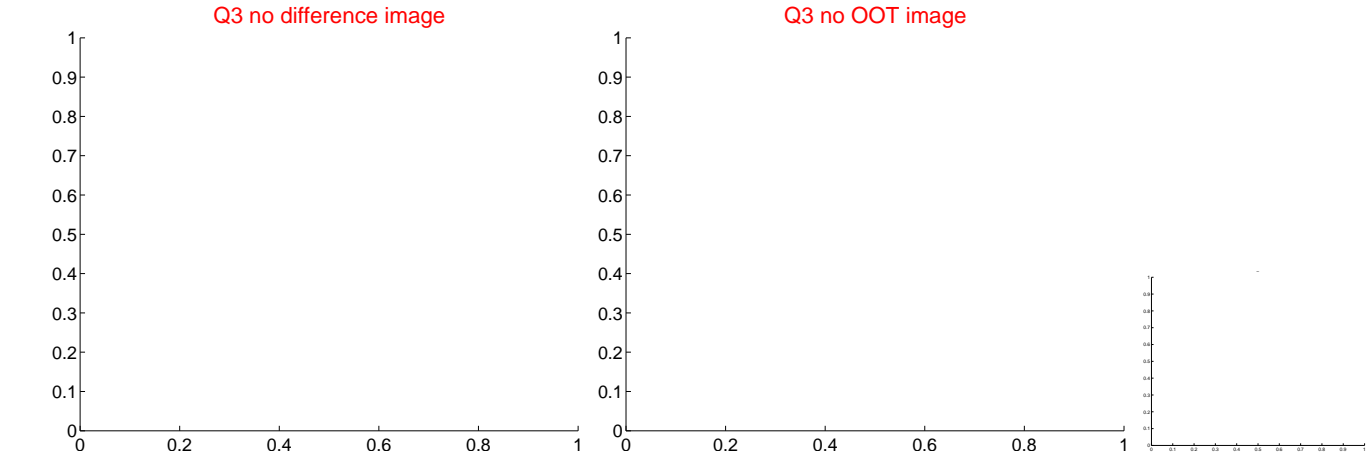
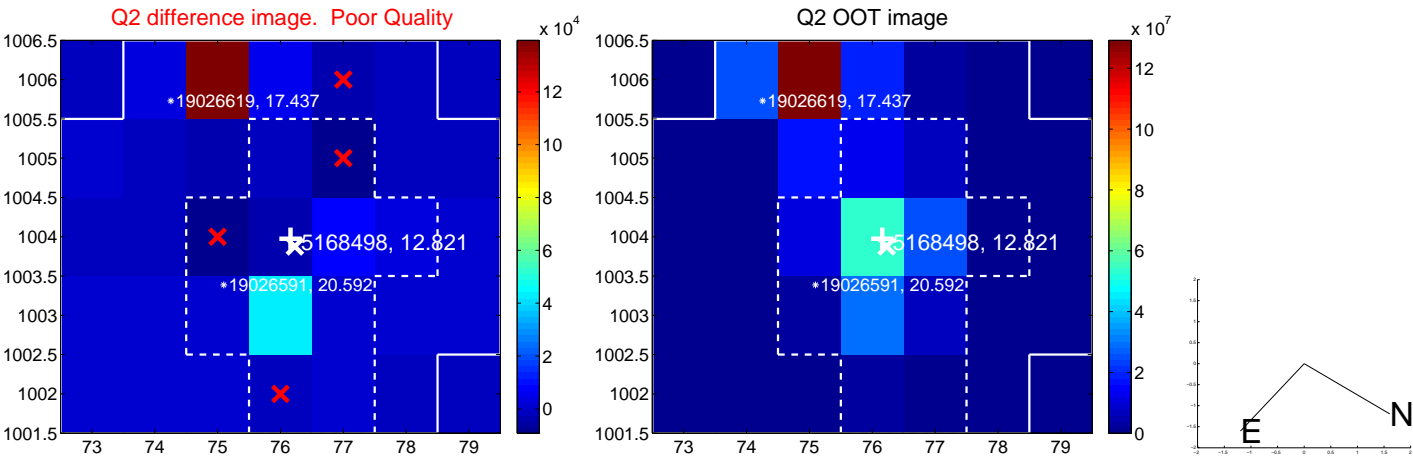
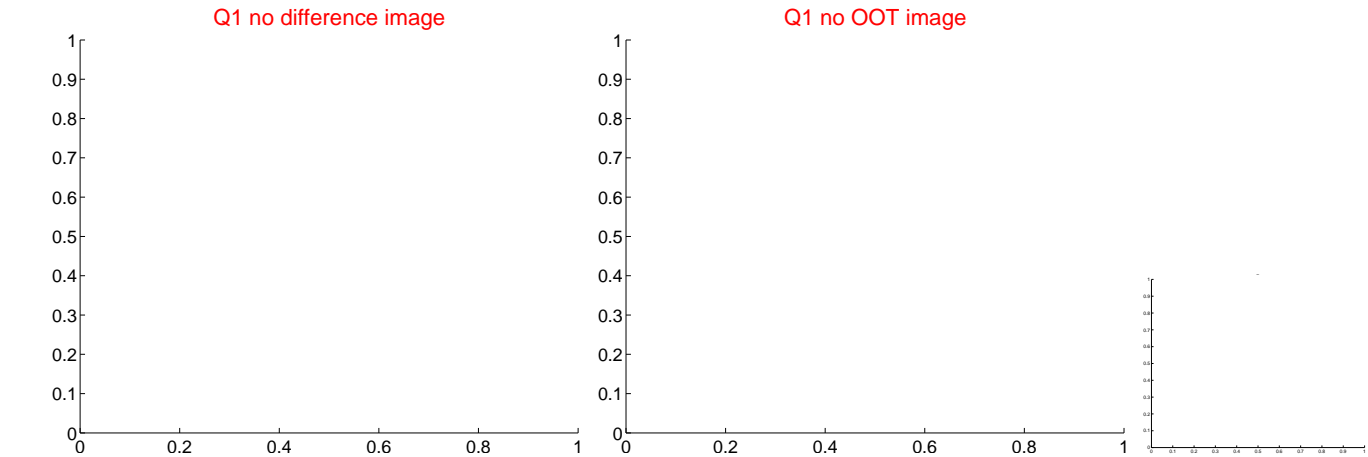


offset from photometric centroids



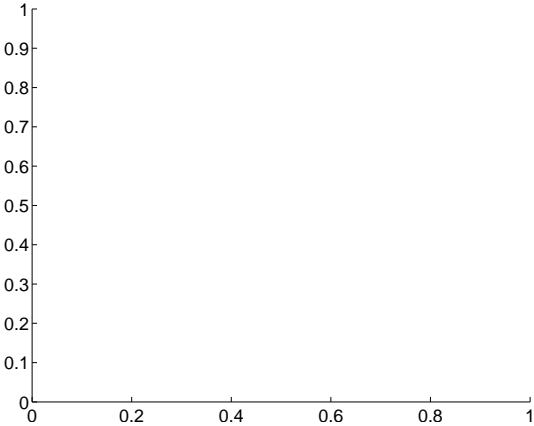
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

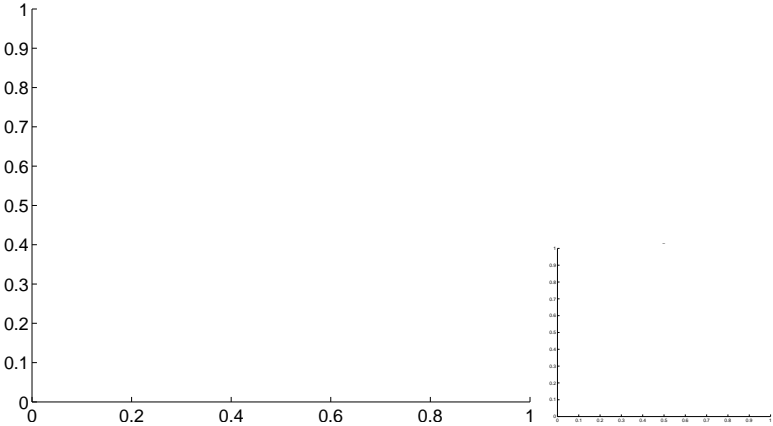


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

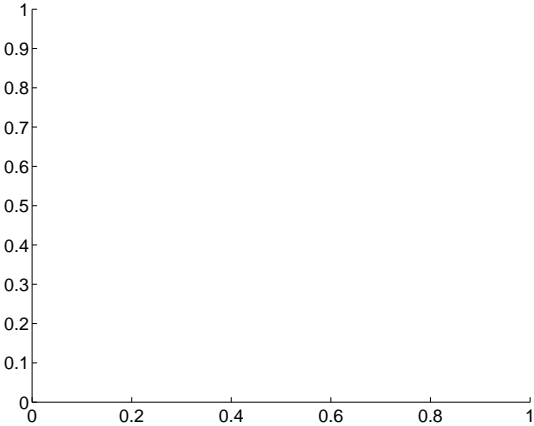
Q5 no difference image



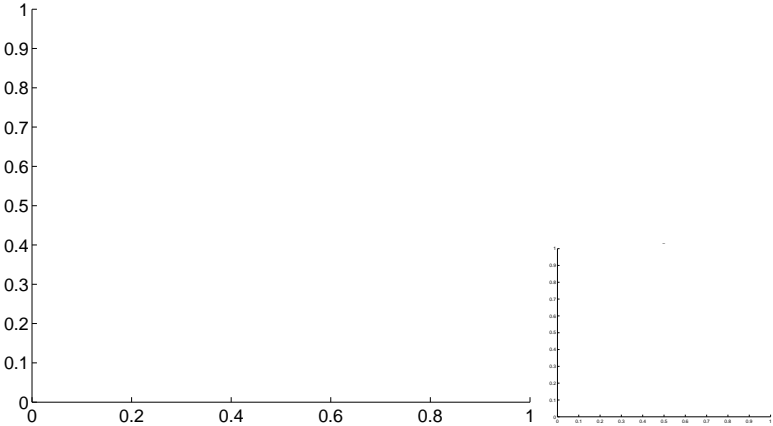
Q5 no OOT image



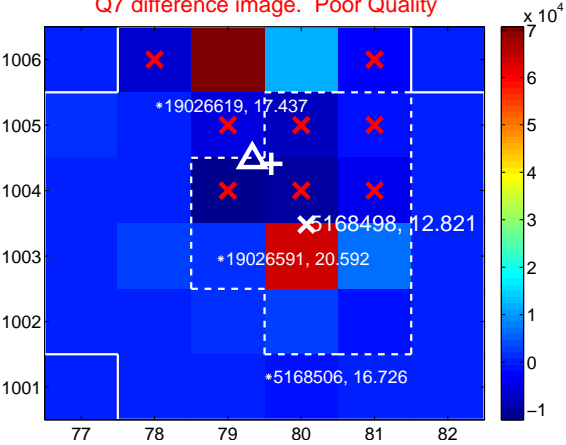
Q6 no difference image



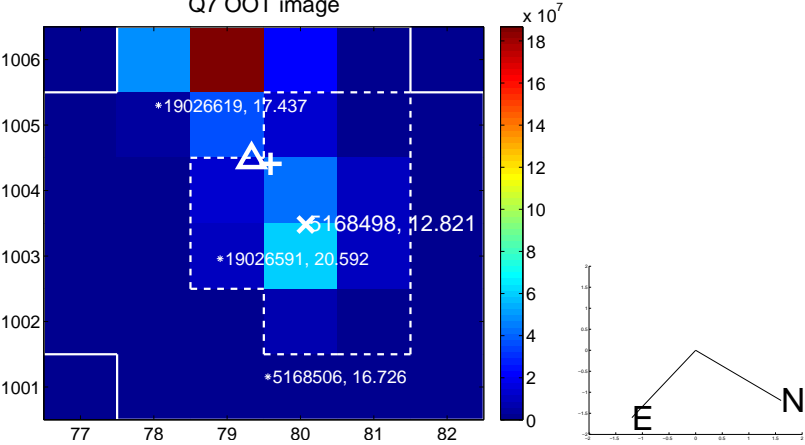
Q6 no OOT image



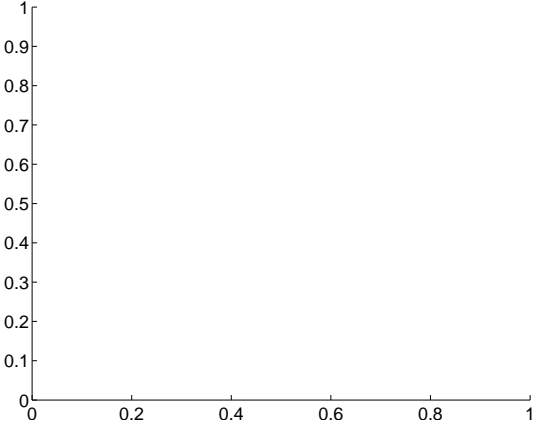
Q7 difference image. Poor Quality



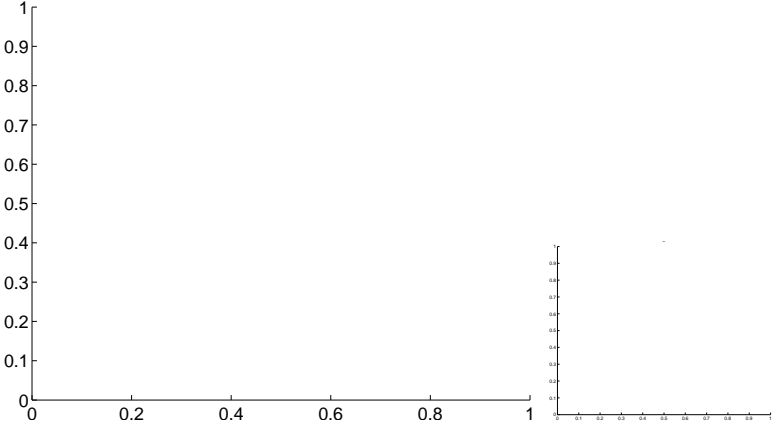
Q7 OOT image



Q8 no difference image



Q8 no OOT image



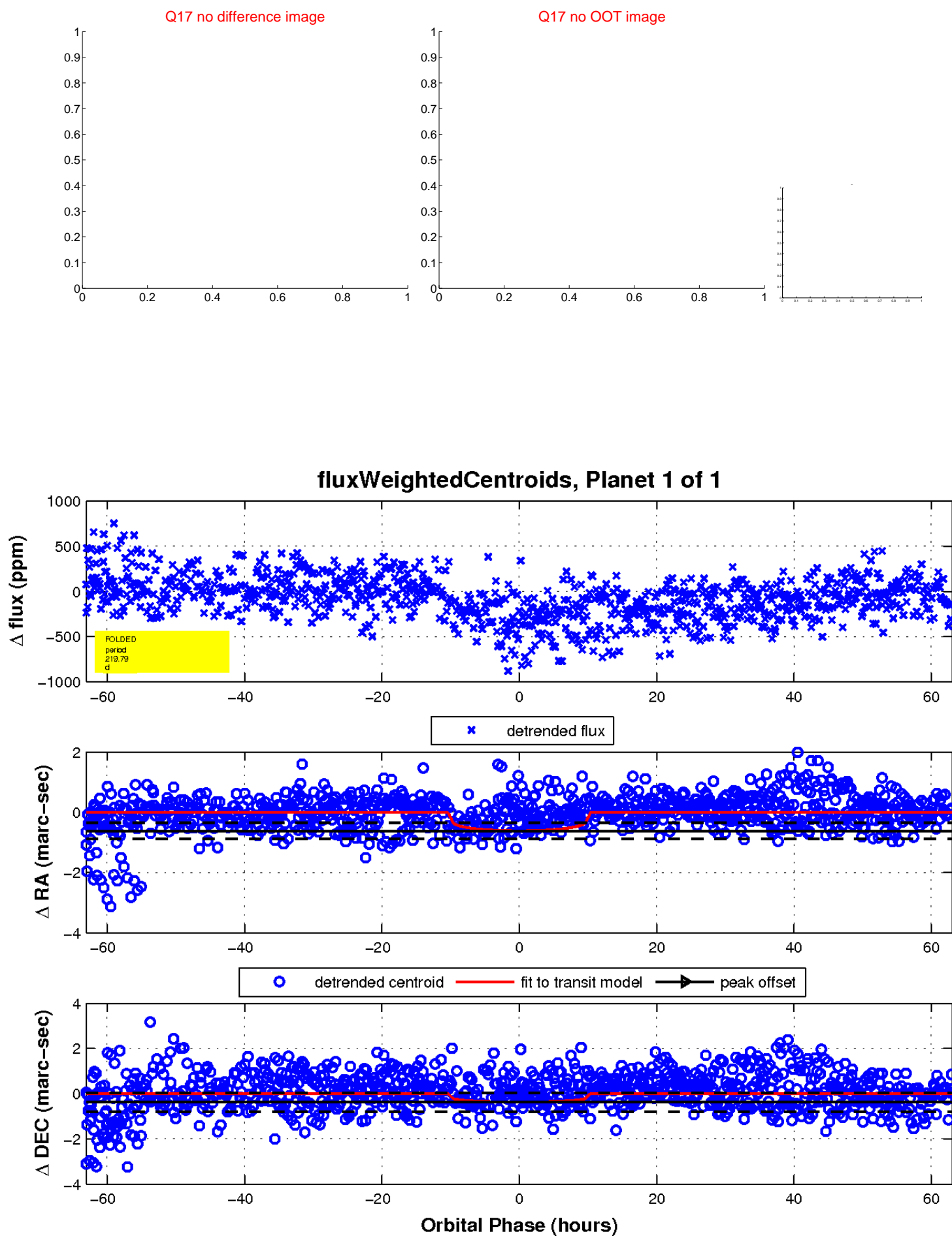
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

