

KIC 005468555

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})
005468555-01	OBS	8255.01	539.215006	439.501173	319.7	3.704	7.3	7.2	1.17	6469	2.38	1.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005468555-01	OBS	FP	0.11	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.

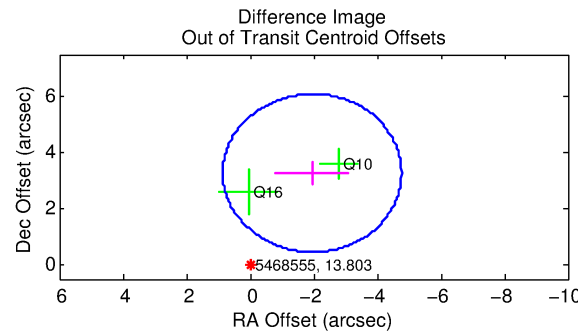
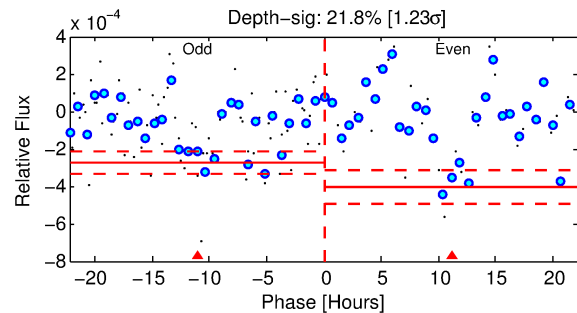
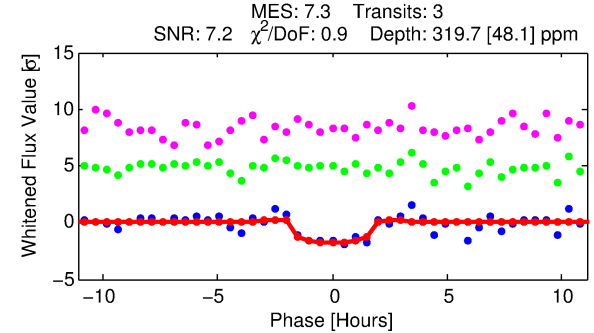
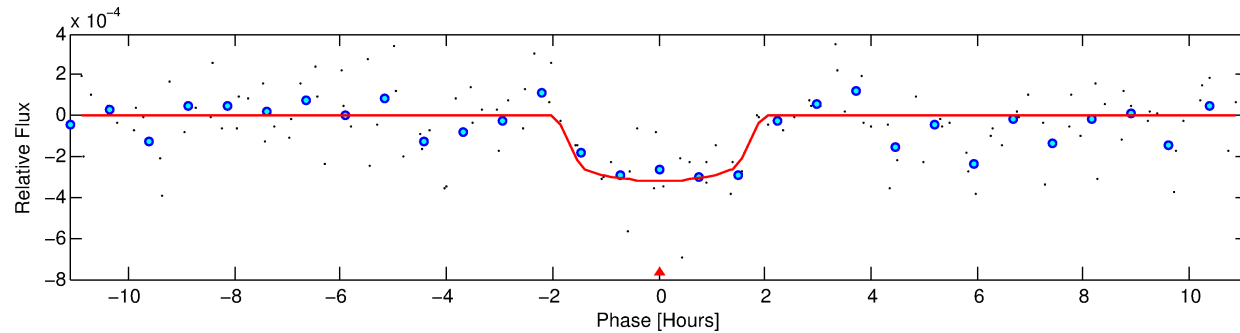
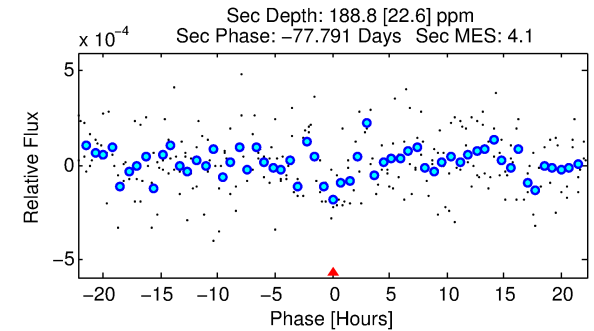
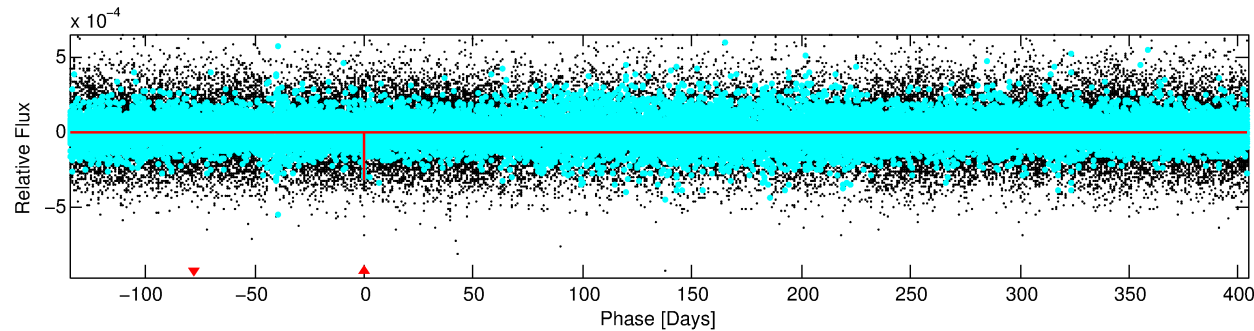
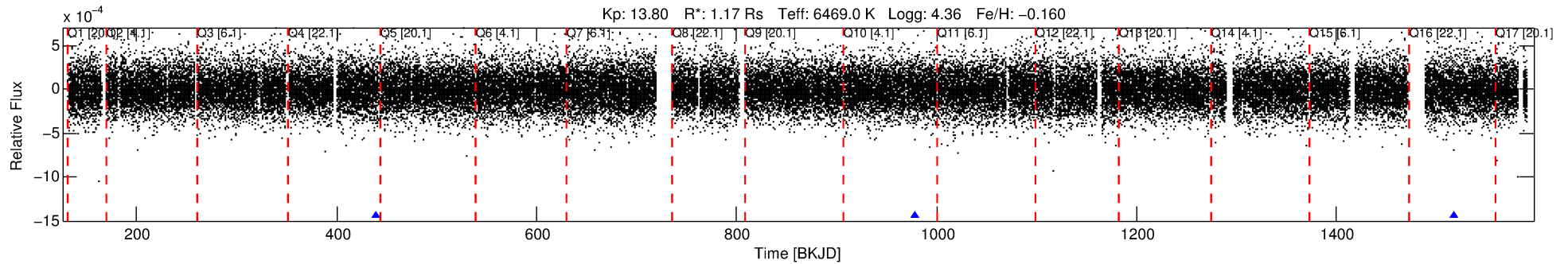
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005468555-01

No Significant Match Found

DV One-Page Summary

KIC: 5468555 Candidate: 1 of 1 Period: 539.215 d



DV Fit Results:

Period = 539.21501 [0.00747] d
Epoch = 439.5012 [0.0083] BKJD
Rp/R* = 0.0186 [0.0146]
a/R* = 616.97 [2681.56]
b = 0.85 [1.38]
Seff = 1.17 [0.47]
Teq = 265 [27] K
Rp = 2.37 [2.03] Re
a = 1.3559 [0.3640] AU
Ag = 33864.15 [55007.98] [0.62σ]
Teffp = 5562 [2204] K [2.40σ]

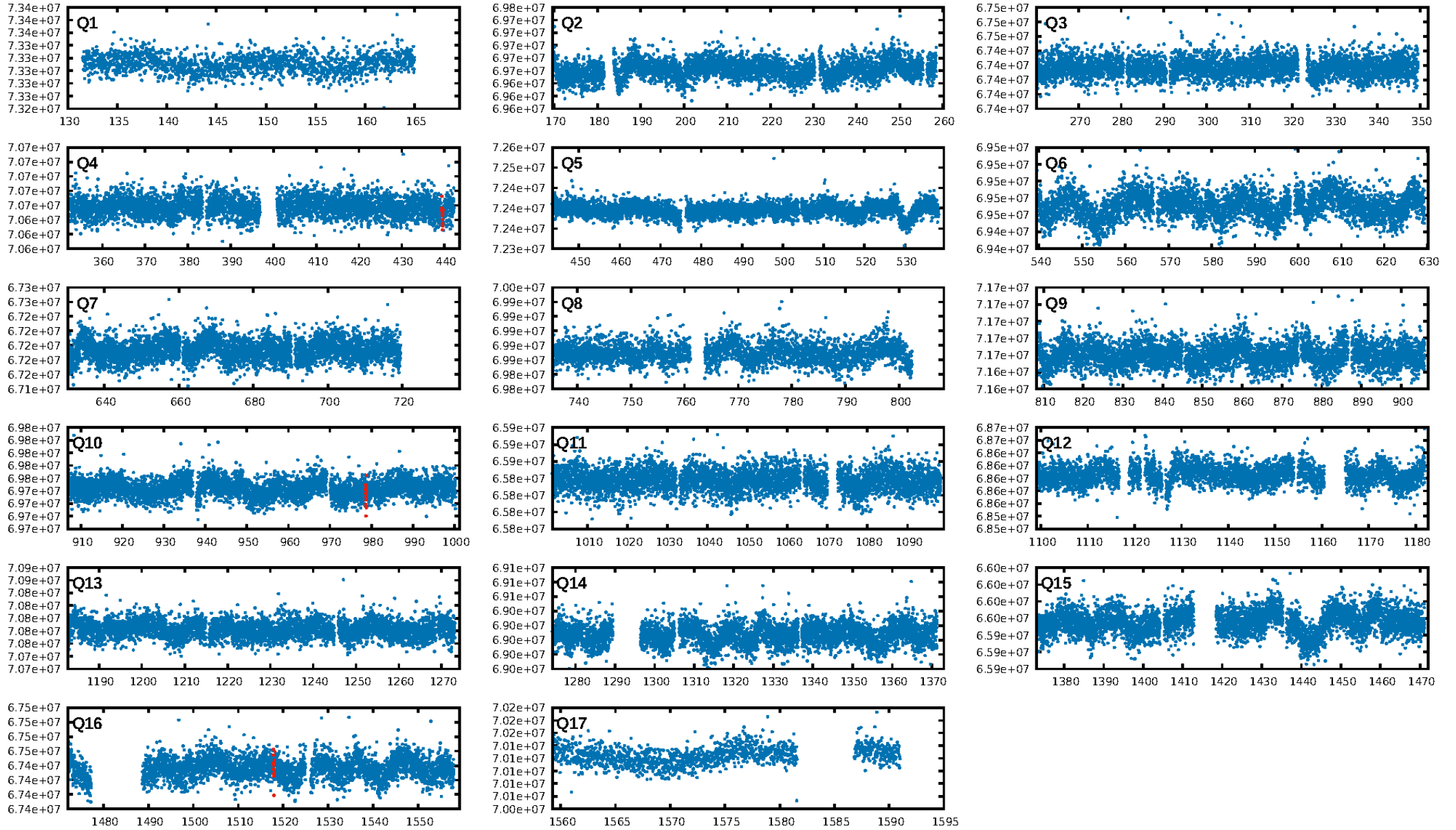
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 36.6%
ModelChiSquareGof-sig: 97.9%
Bootstrap-pfa: 8.39e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.734
Centroid-sig: 1.3%
Centroid-so: 3.287 arcsec [1.77σ]
OotOffset-rm: 3.809 arcsec [4.06σ]
KicOffset-rm: 3.718 arcsec [4.27σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

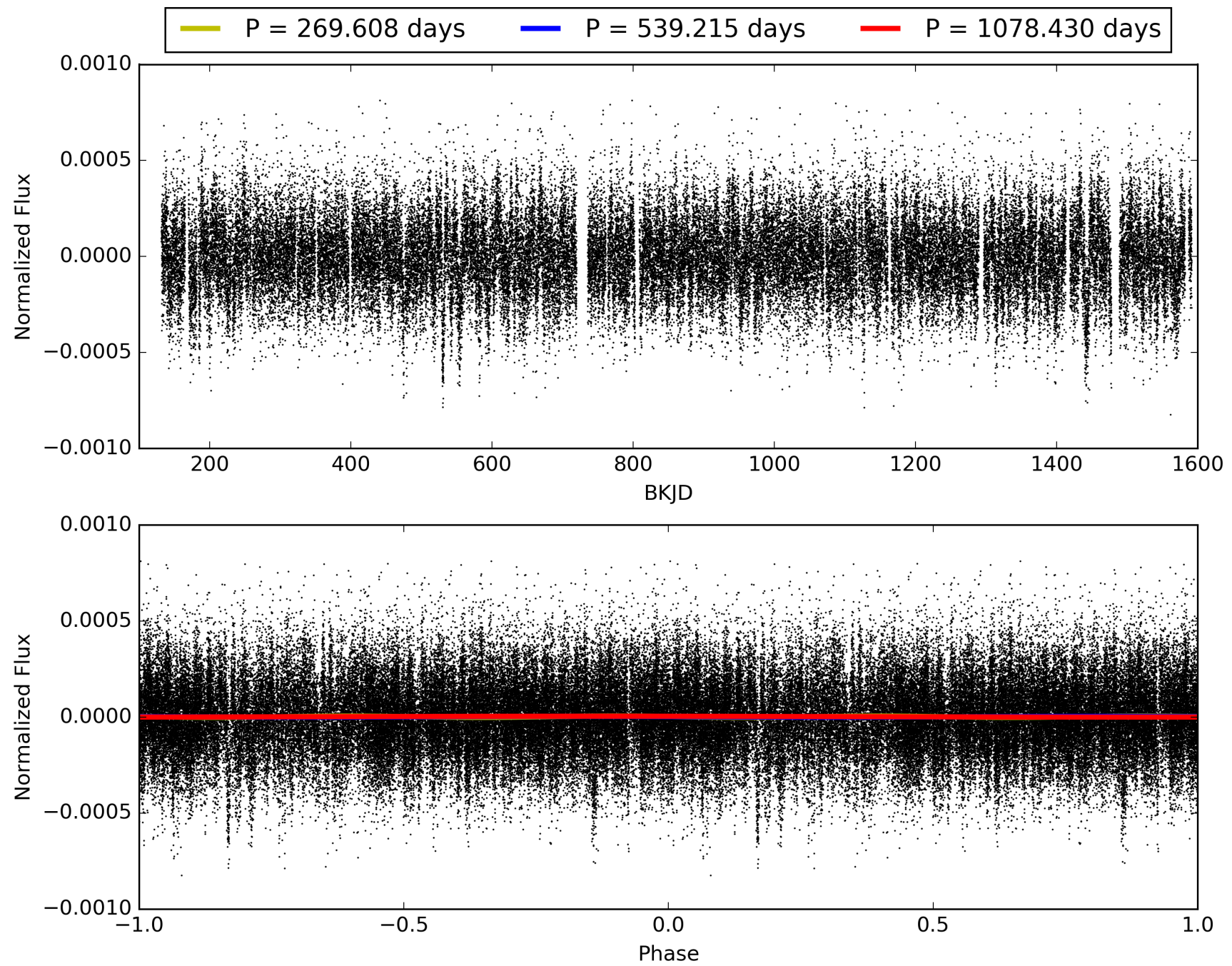
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:40:02 Z

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

TCE 005468555-01, PDC Light Curves

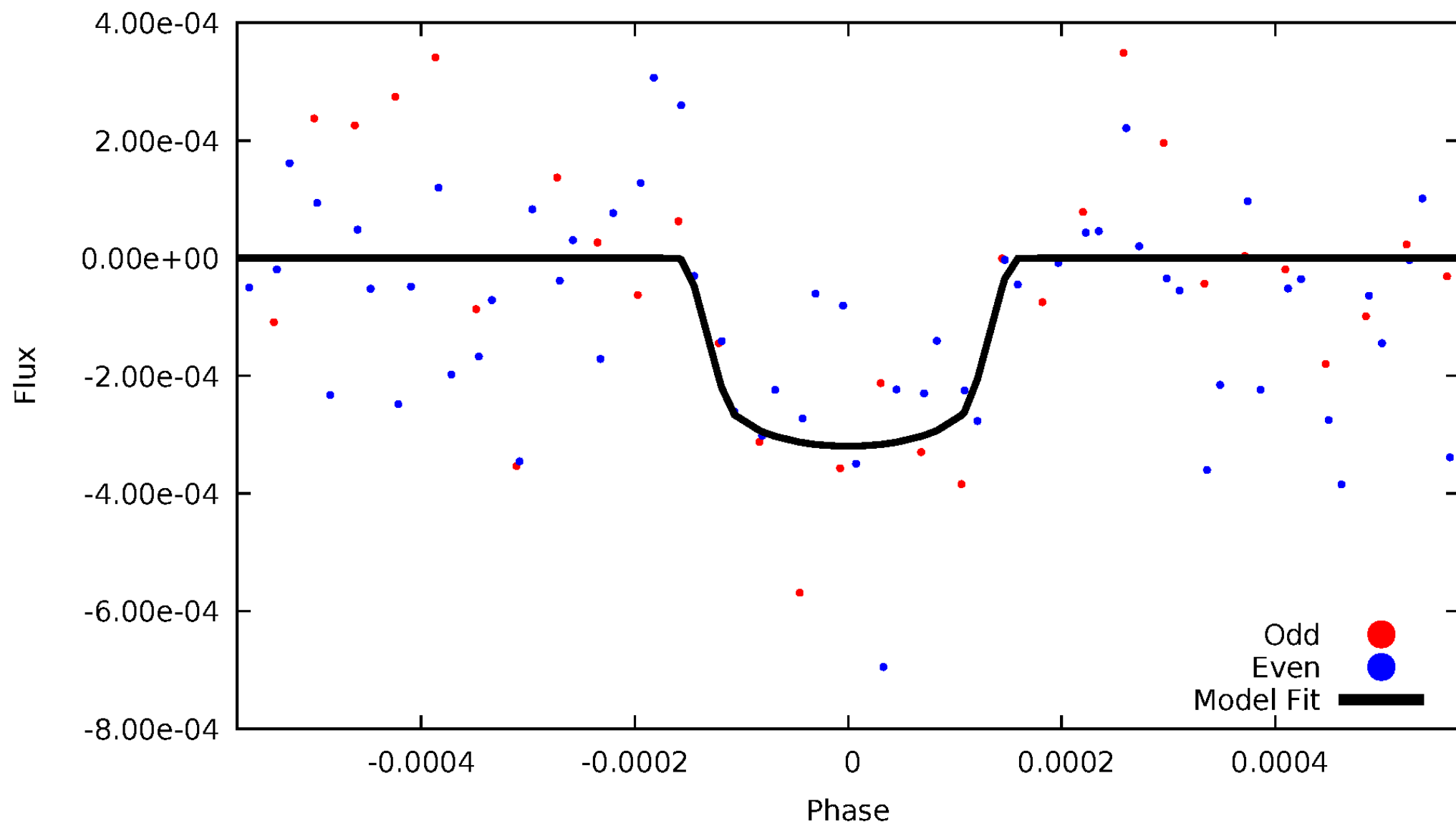


TCE 005468555-01



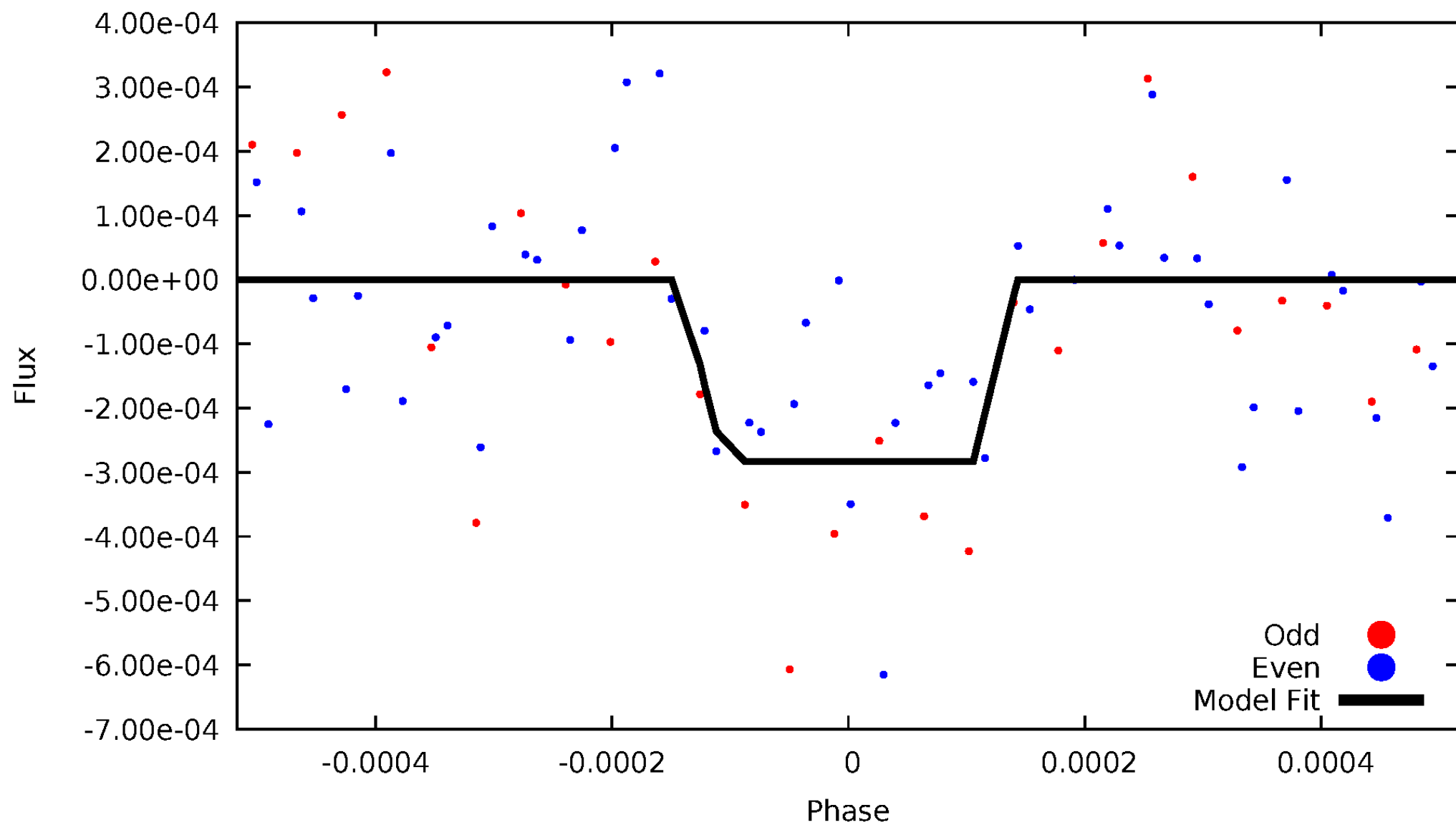
DV Odd/Even

TCE 005468555-01



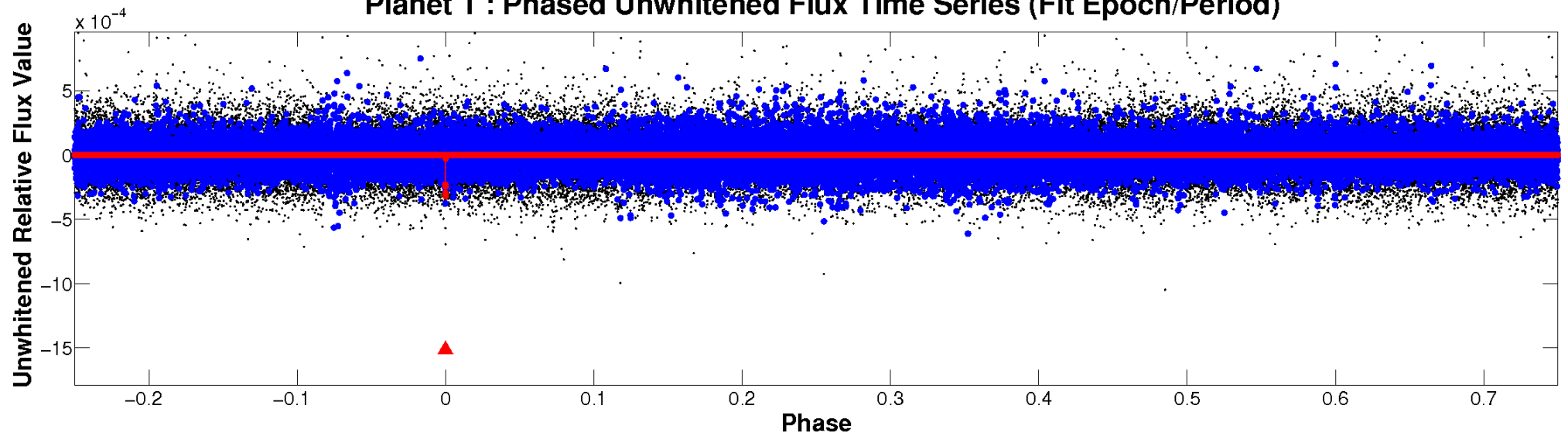
ALT Odd/Even

TCE 005468555-01

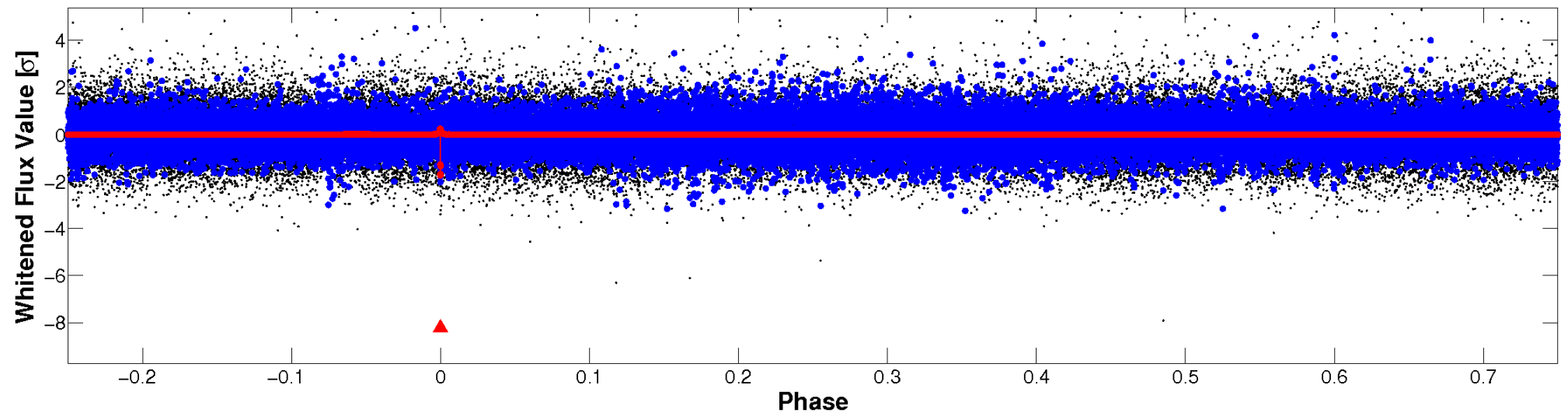


Non-Whitened Vs. Whitened Light Curve

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

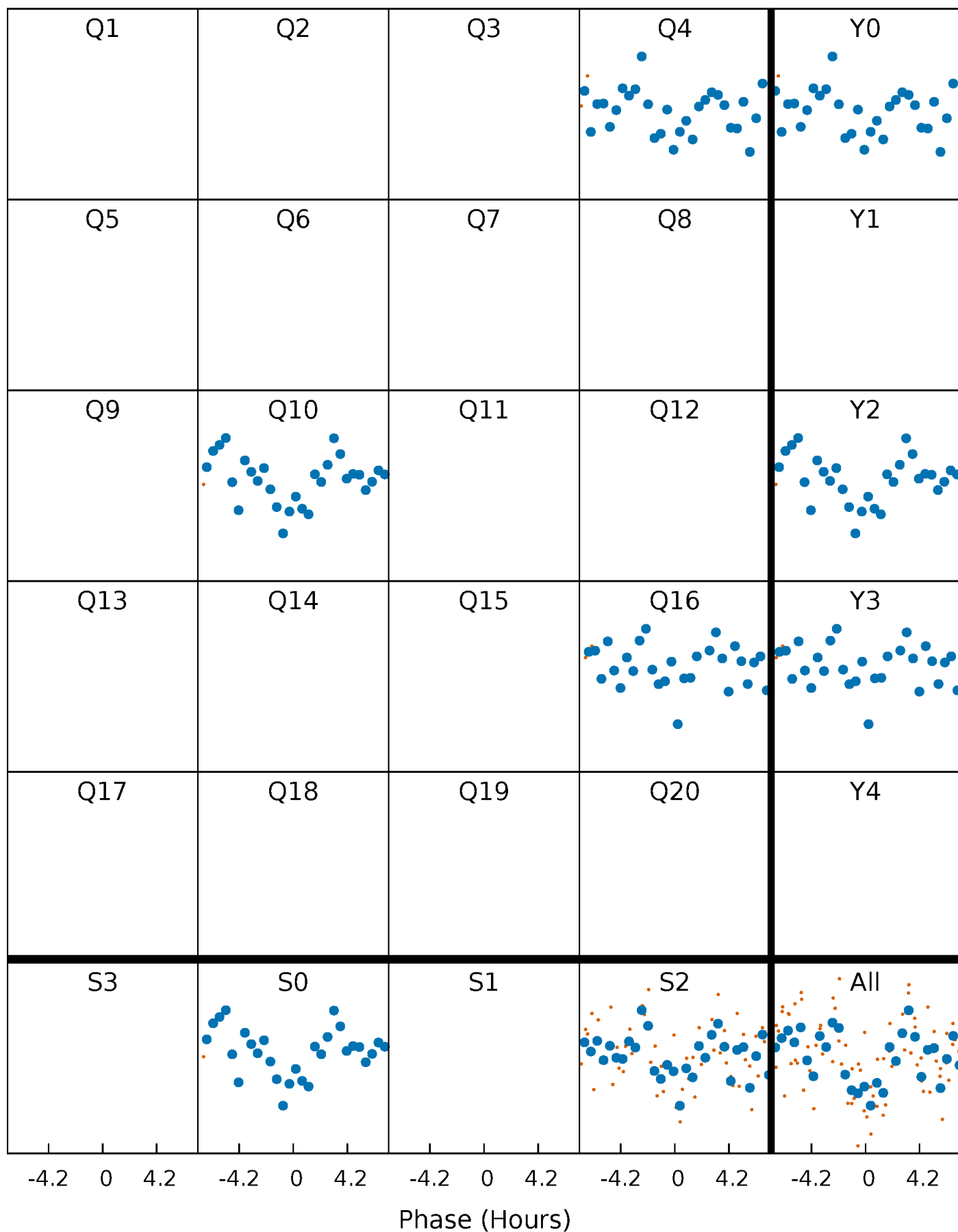


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



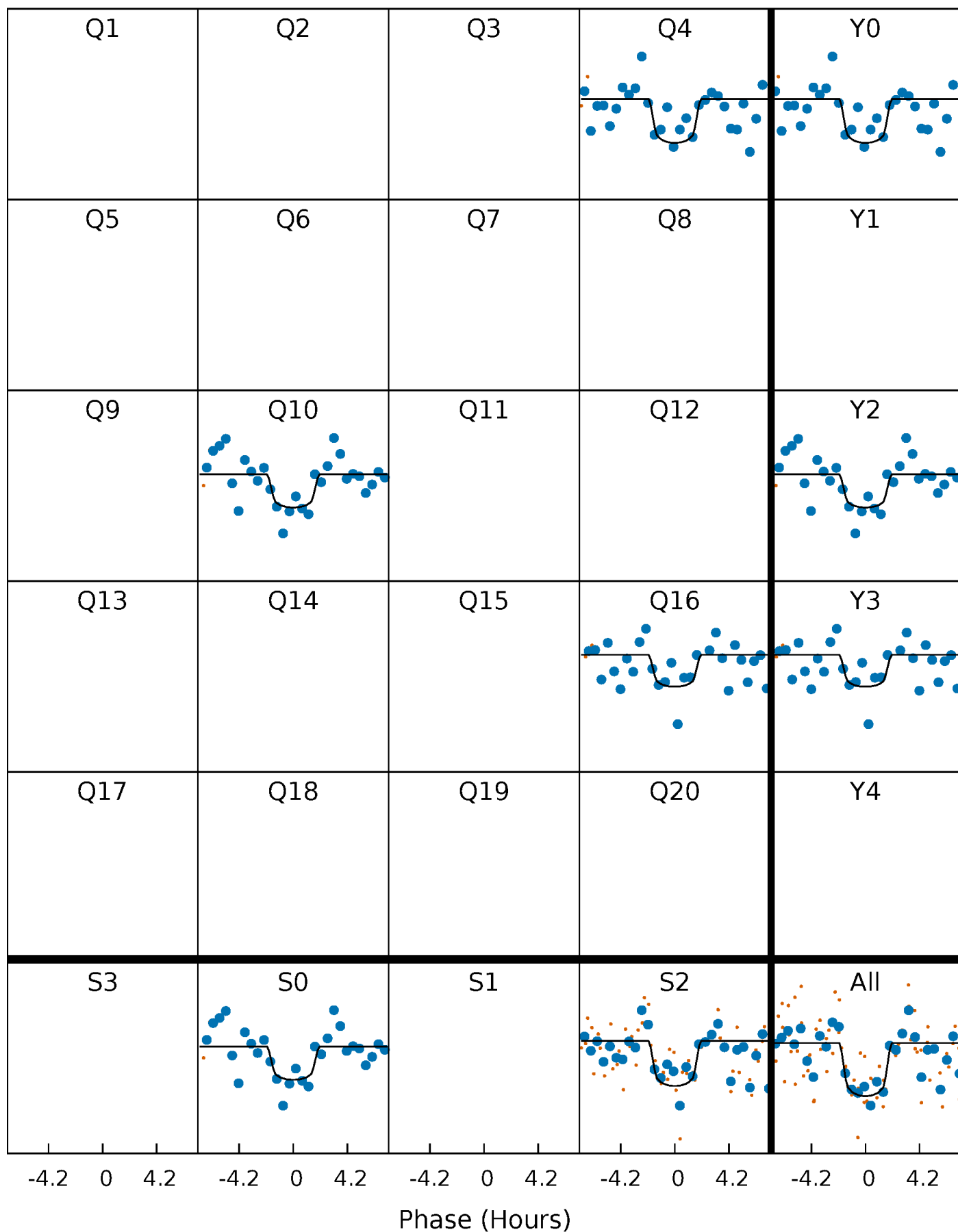
PDC Quarter-Phased Transit Curves

TCE 005468555-01 P=539.215006 Days $T_0=439.501173$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005468555-01 P=539.215006 Days $T_0=439.501173$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

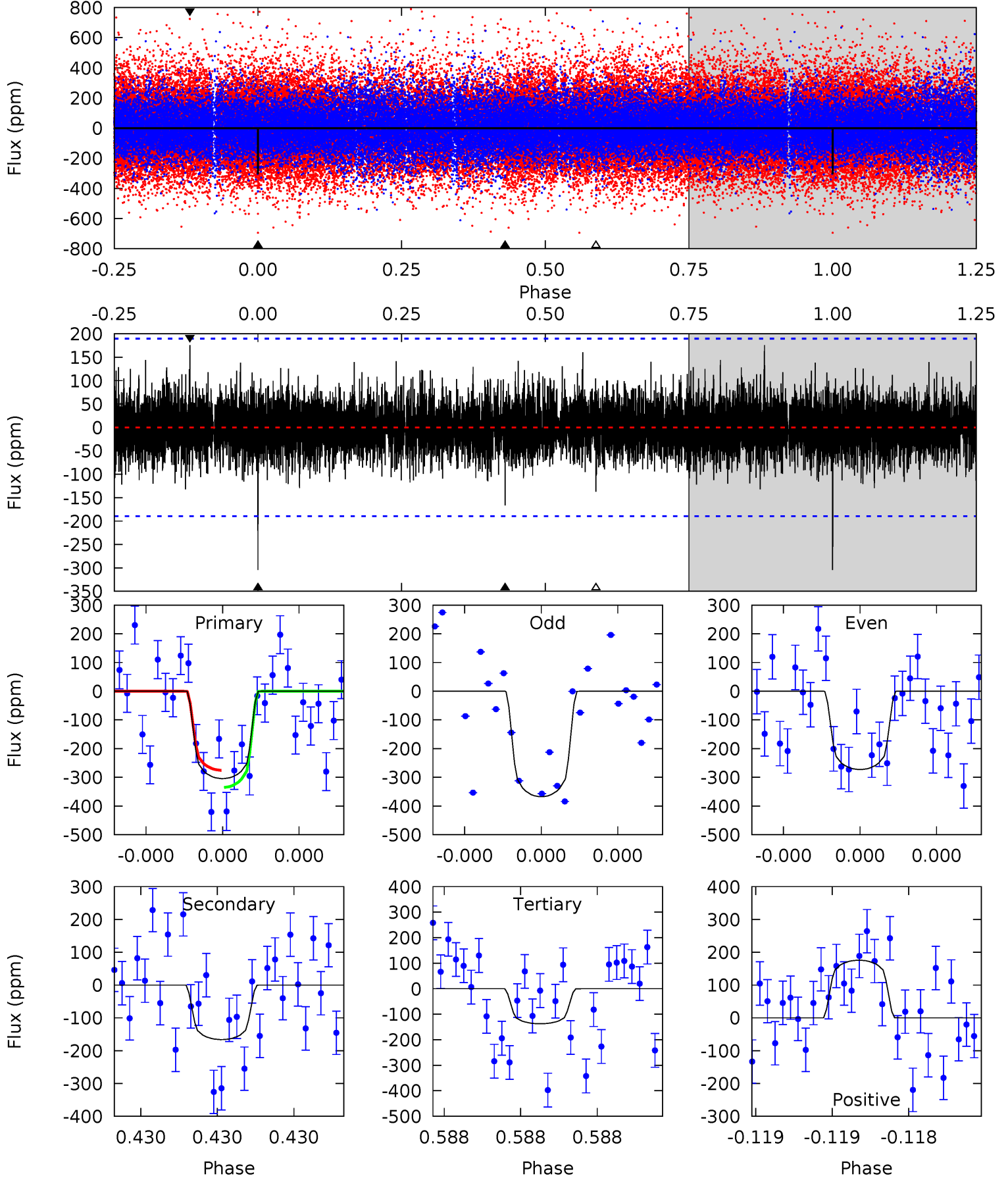
TCE 005468555-01 P=539.214404 Days $T_0=439.504033$ (BKJD)



DV Model-Shift Uniqueness Test

005468555-01, P = 539.215006 Days, E = 439.501173 Days

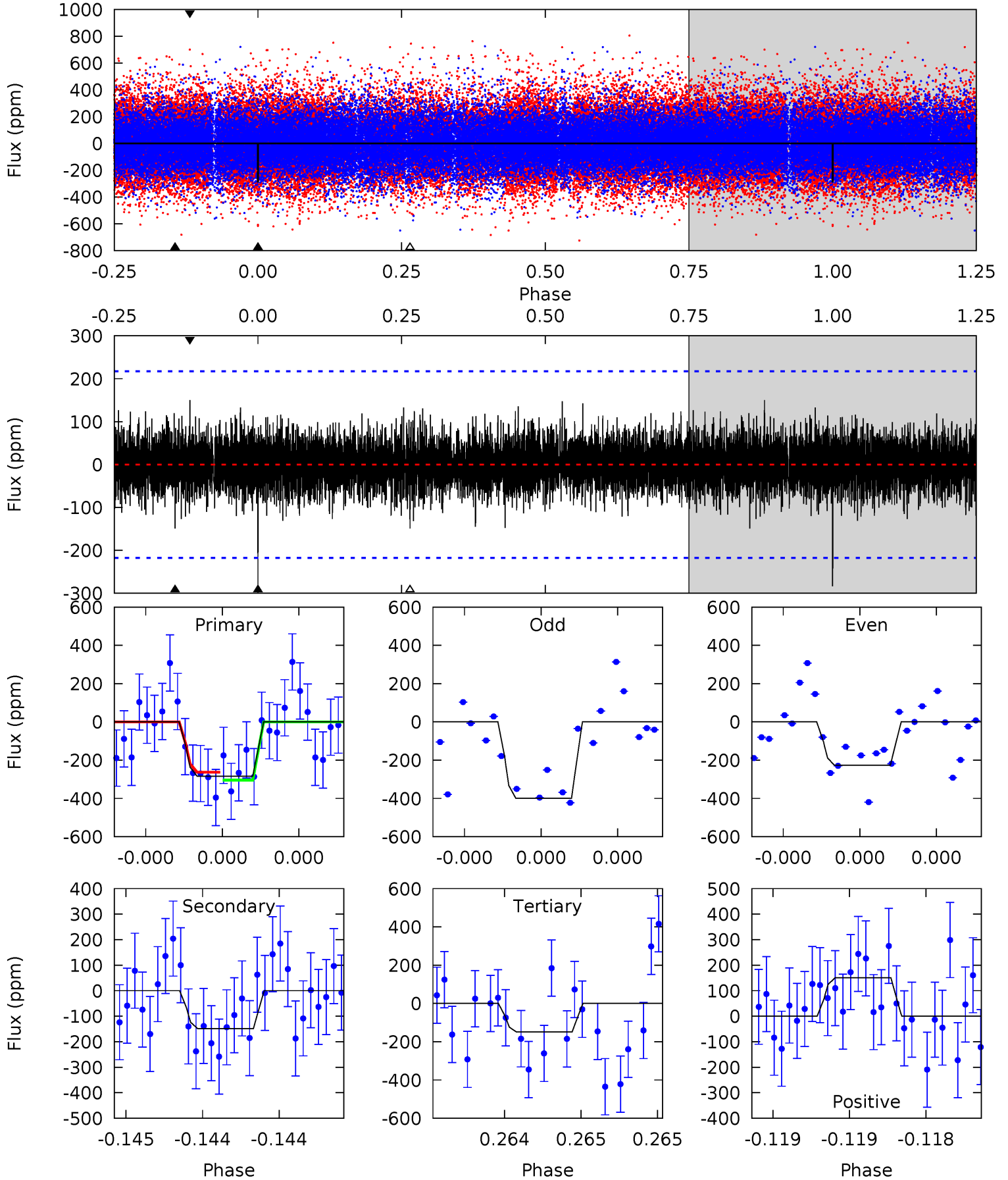
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.05	4.94	4.09	5.22	5.64	3.58	1.14	4.97	3.83	0.86	-0.28	1.30	0.98	0.37	0.88



Alt Model-Shift Uniqueness Test

005468555-01, P = 539.214404 Days, E = 439.504033 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.42	3.88	3.88	3.93	5.68	3.65	1.00	3.53	3.49	0.00	-0.04	2.06	1.22	0.35	0.55



Stellar Parameters For KIC 005468555

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6469^{+155}_{-214}	$4.359^{+0.072}_{-0.203}$	$-0.160^{+0.250}_{-0.300}$	$1.171^{+0.384}_{-0.165}$	$1.143^{+0.177}_{-0.145}$	$1.002^{+0.381}_{-0.528}$
	+2%/-3%	+2%/-5%	+156%/-188%	+33%/-14%	+15%/-13%	+38%/-53%
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 005468555-01 / KOI 8255.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-166 ± 34	$2.74^{+1.95}_{-1.60}$	376^{+31}_{-19}	5181^{+3140}_{-1057}	$22904^{+110502}_{-15756}$
Alt.	-149 ± 38	$2.52^{+2.09}_{-1.57}$	376^{+29}_{-19}	5176^{+3477}_{-1052}	$23235^{+129655}_{-16229}$

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 $A_{obs} \gg 1.0$

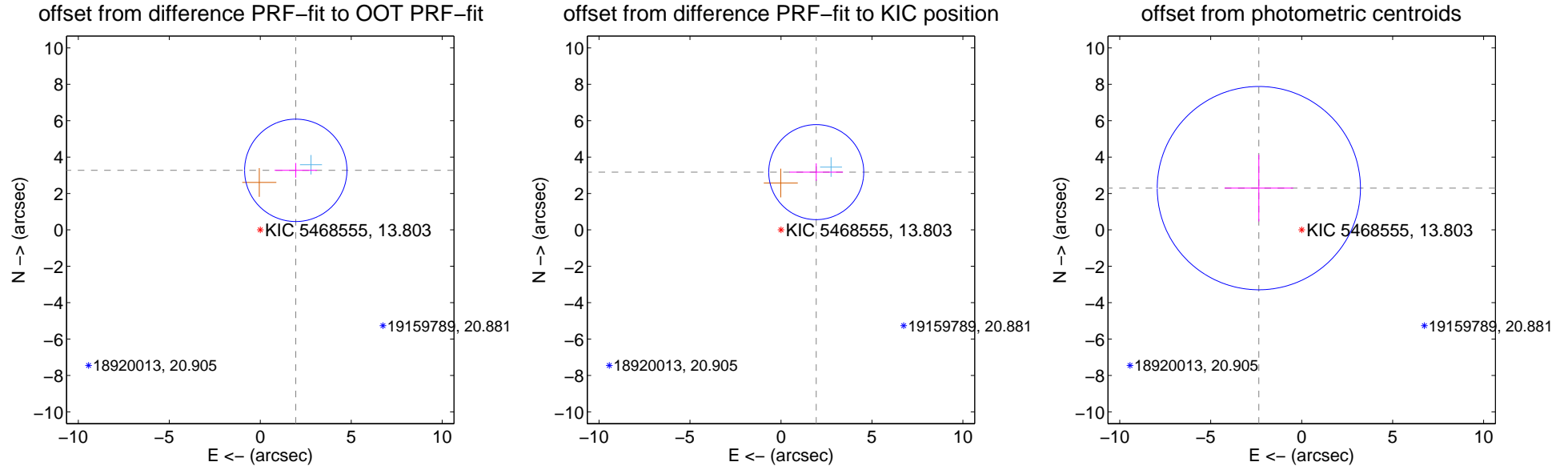
DV Centroid Data

Supplemental centroid analysis for 005468555-01. Kepler magnitude: 13.80. Transit SNR 7.22

There are 1 quarters with good PRF difference image offsets

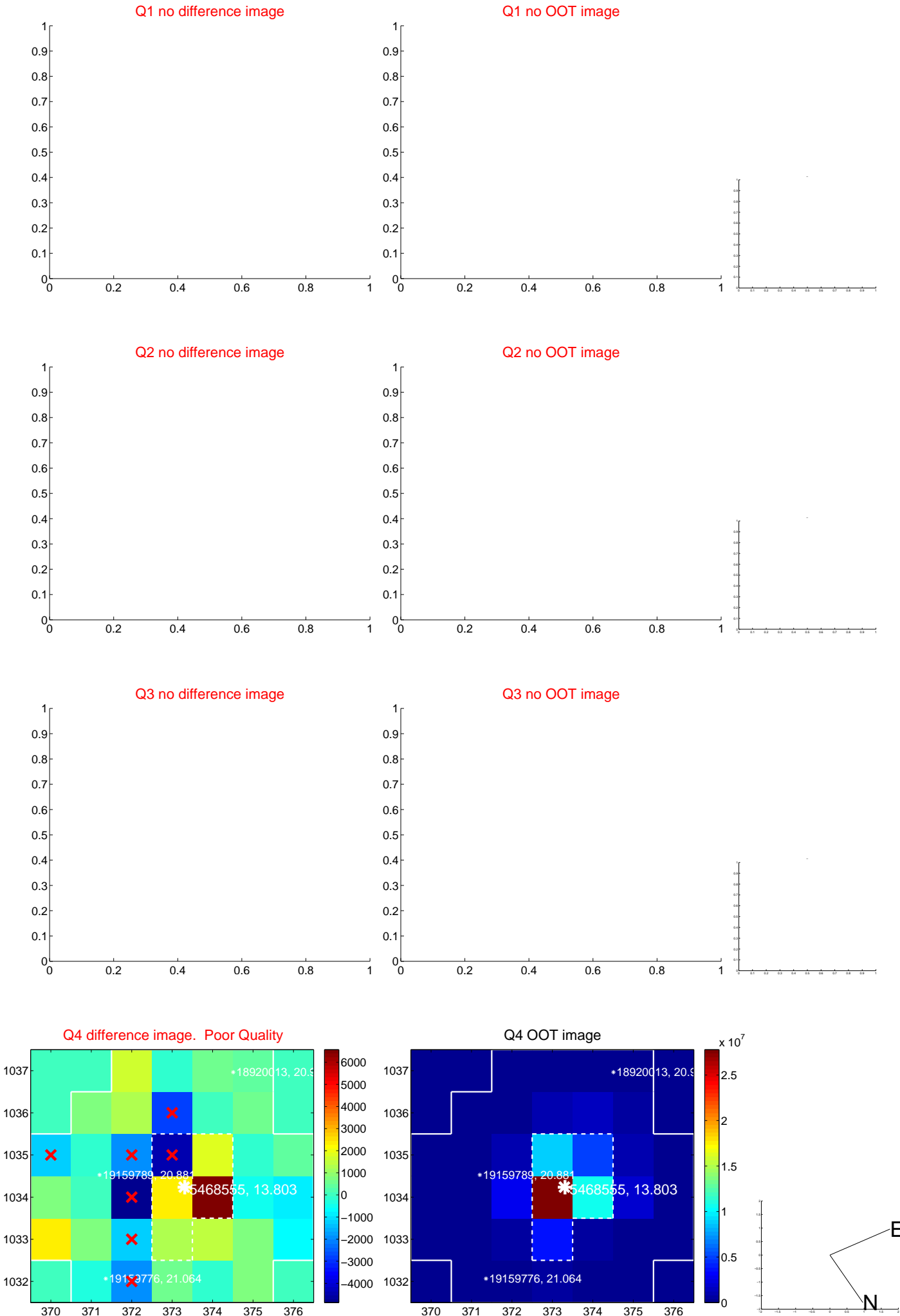
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.809 ± 0.937	4.06	-1.952 ± 1.162	3.271 ± 0.402
PRF-fit source offset from KIC position	3.718 ± 0.870	4.27	-1.939 ± 1.472	3.173 ± 0.481
photometric centroid source offset	3.29 ± 1.86	1.77	2.35 ± 1.89	2.29 ± 1.83



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.



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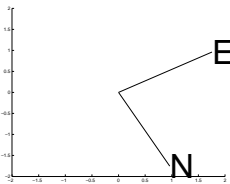
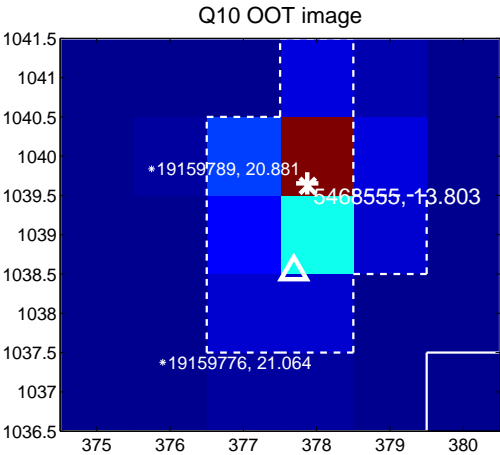
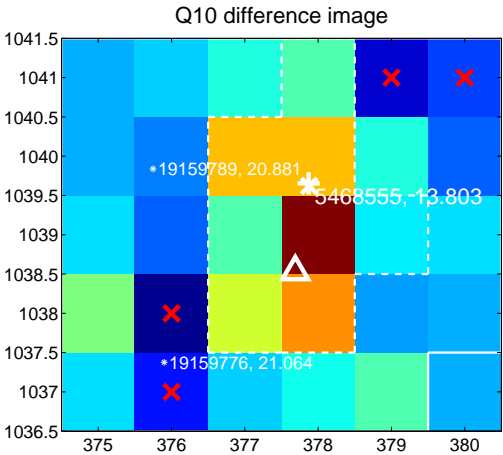


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

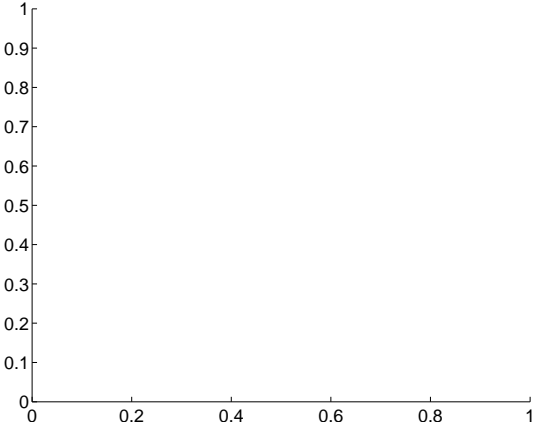
Q9 no difference image



Q9 no OOT image



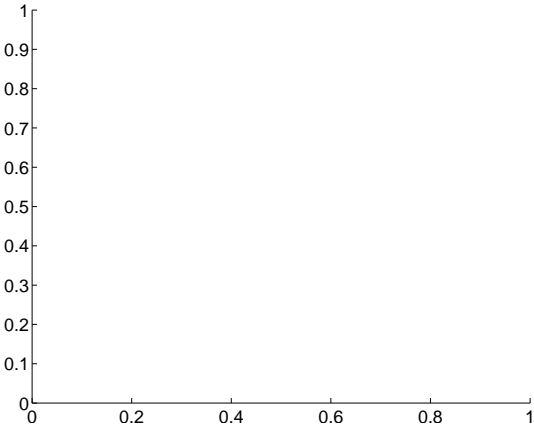
Q11 no difference image



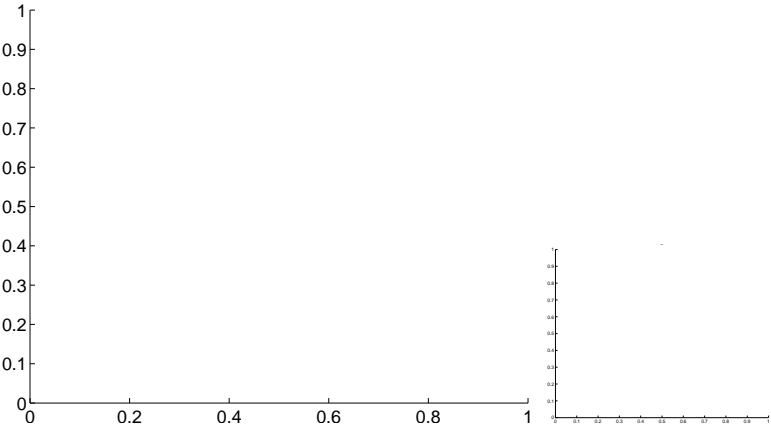
Q11 no OOT image



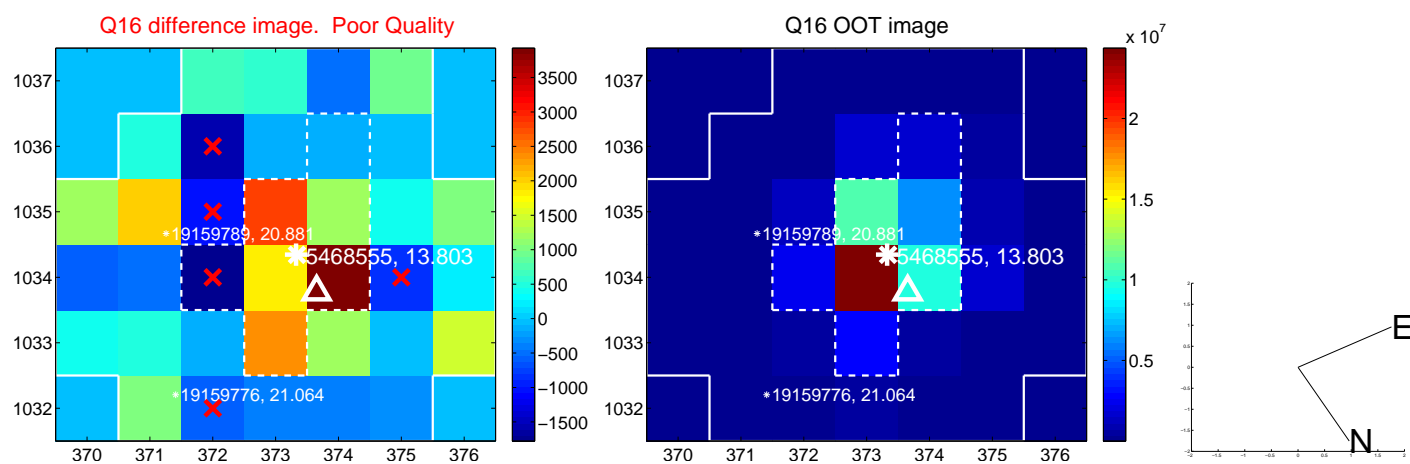
Q12 no difference image



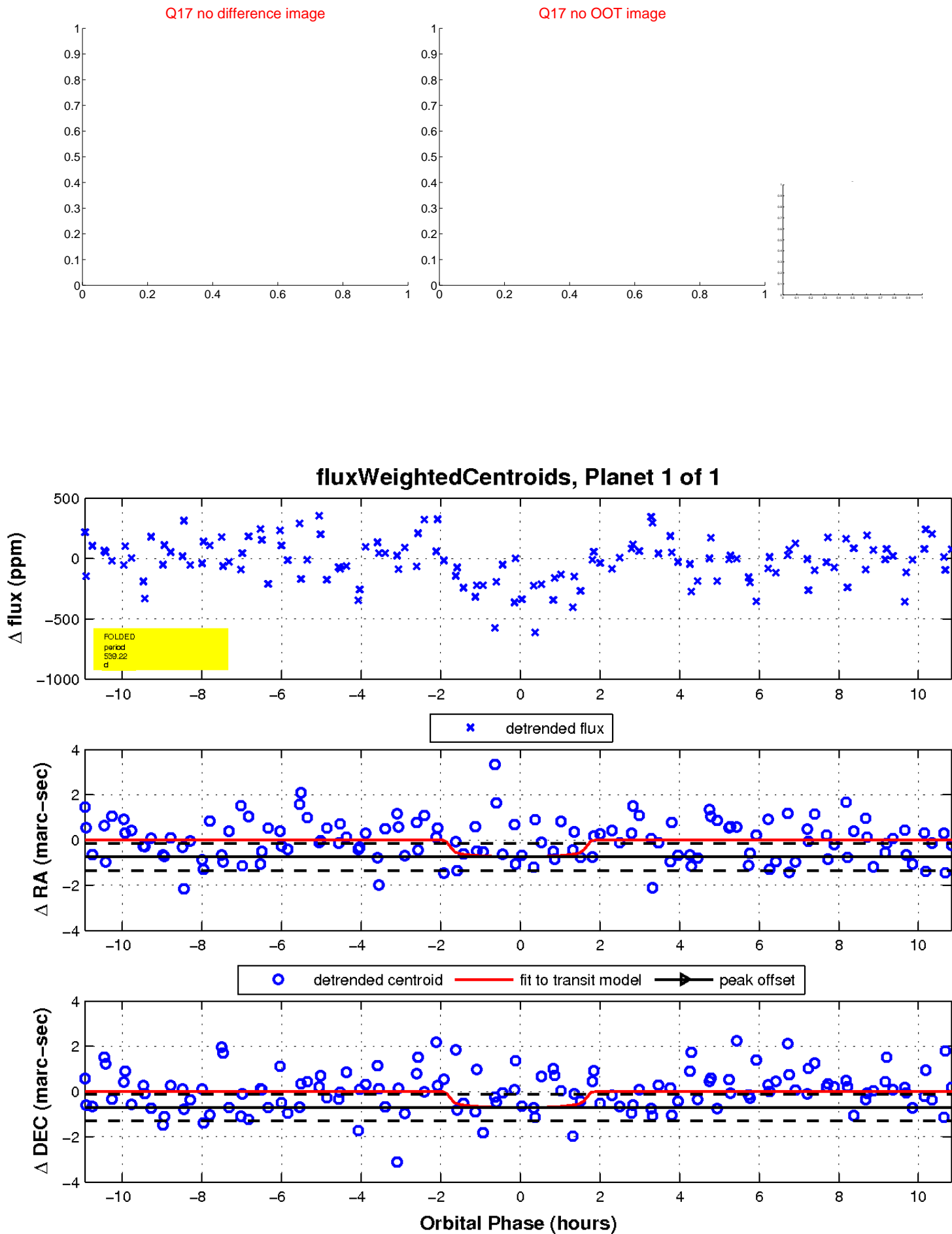
Q12 no OOT image



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.



UKIRT Image

Declination

