

KIC 011251134

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})
011251134-01	OBS	No	507.174685	424.667081	1321.4	5.554	10.6	5.7	0.74	4907	2.84	0.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011251134-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS—HALO_GHOST

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

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

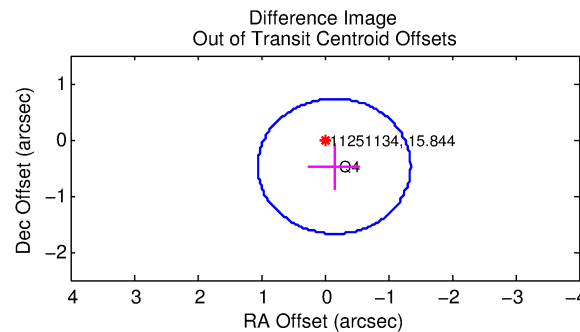
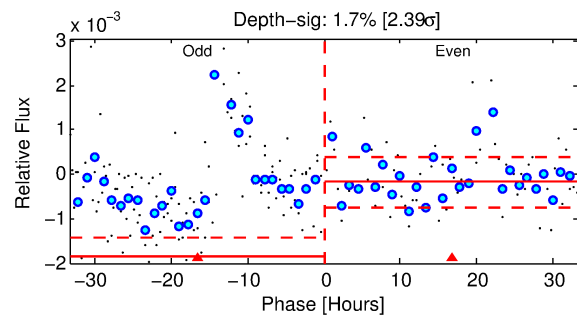
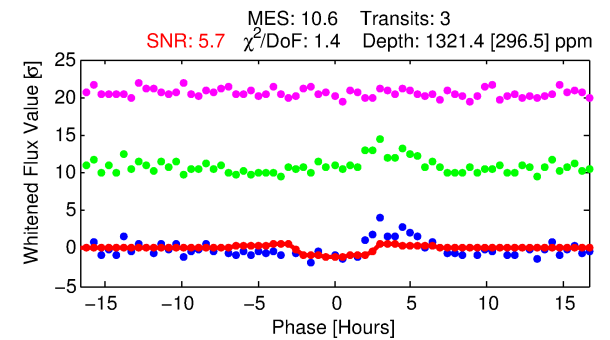
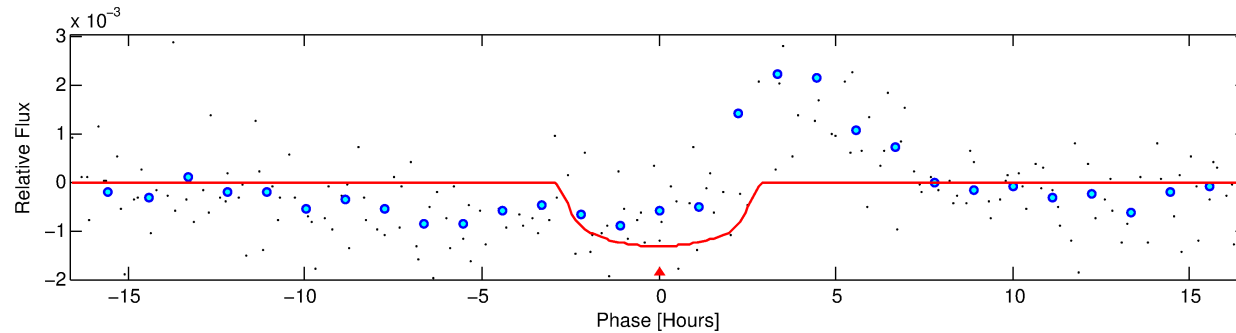
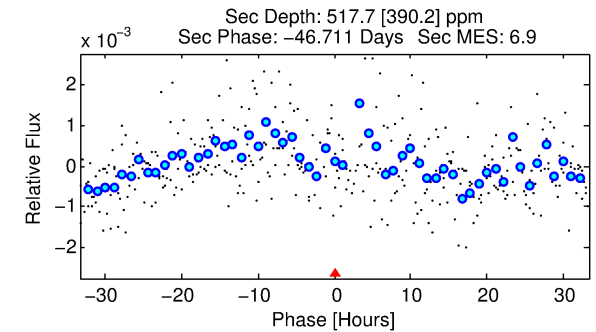
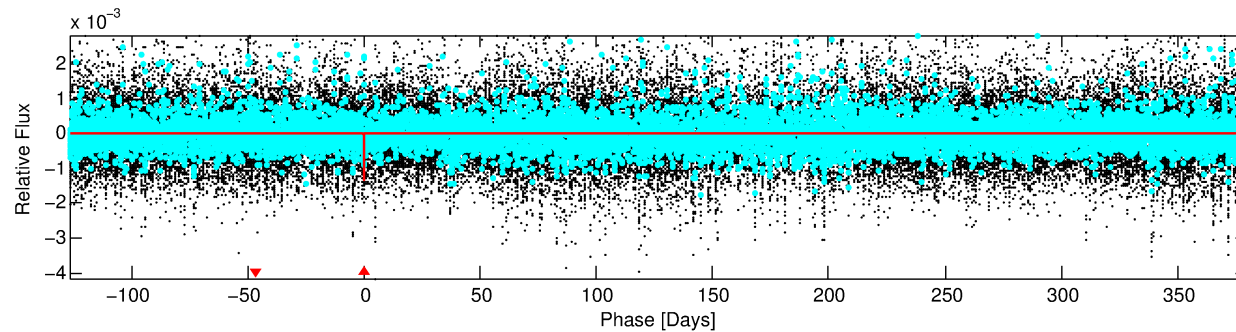
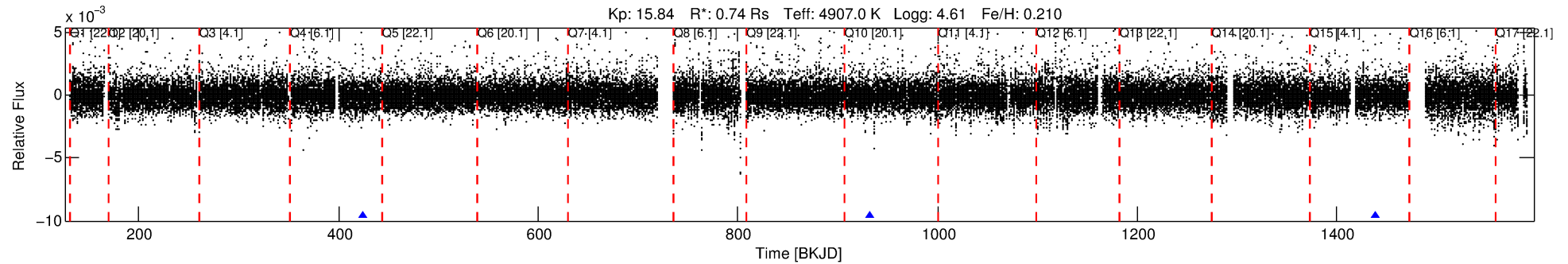
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011251134-01

No Significant Match Found

DV One-Page Summary

KIC: 11251134 Candidate: 1 of 1 Period: 507.175 d



DV Fit Results:

Period = 507.17469 [0.01099] d
Epoch = 424.6671 [0.0158] BKJD
Rp/R* = 0.0350 [0.0422]
a/R* = 554.03 [2163.43]
b = 0.66 [3.36]
Seff = 0.21 [0.04]
Teq = 173 [8] K
Rp = 2.84 [3.43] Re
a = 1.1661 [0.1016] AU
Ag = 48102.99 [121438.02] [0.40] σ
Teffp = 3954 [2495] K [1.52] σ

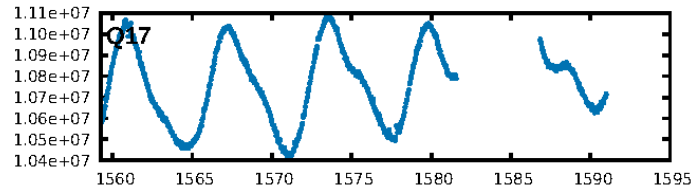
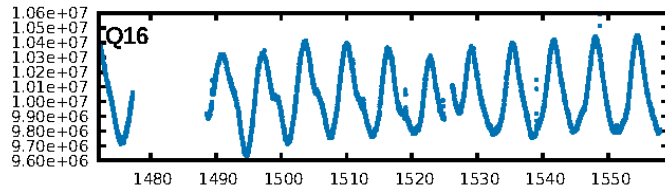
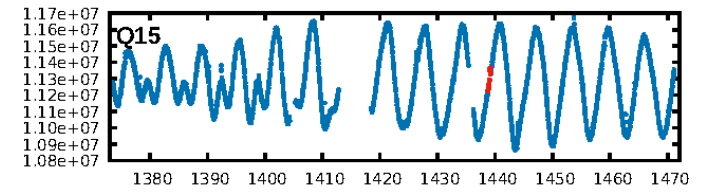
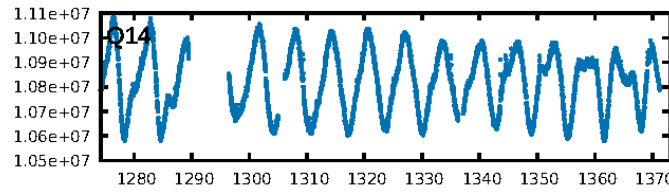
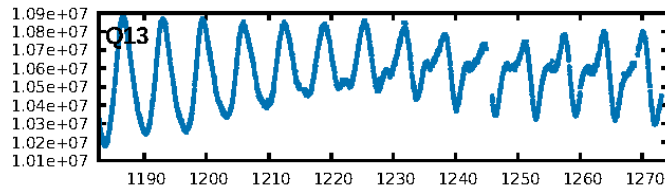
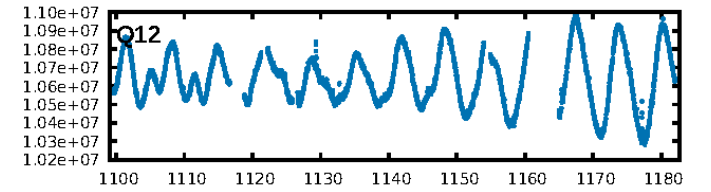
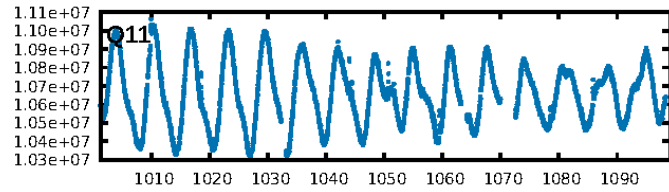
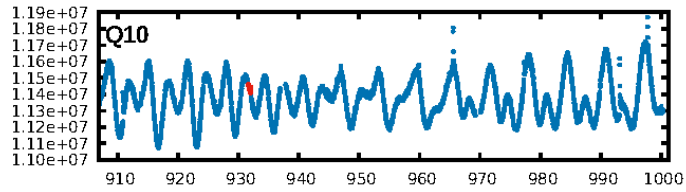
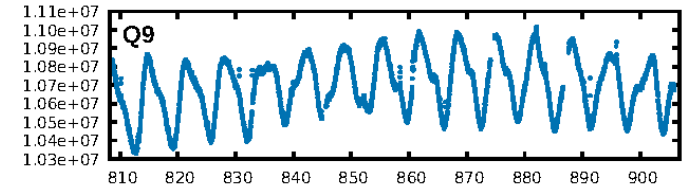
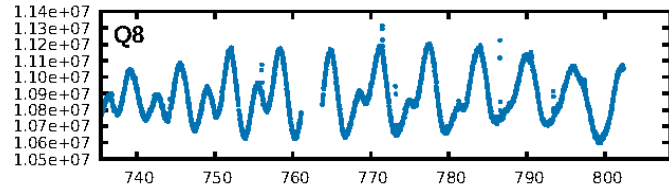
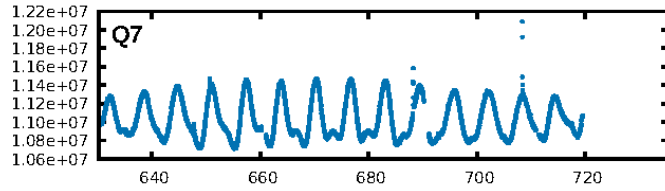
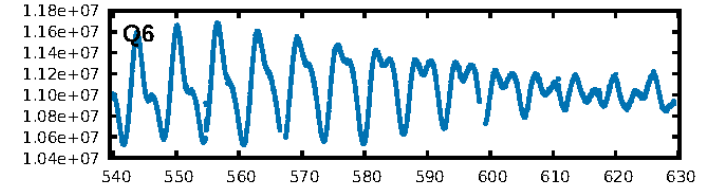
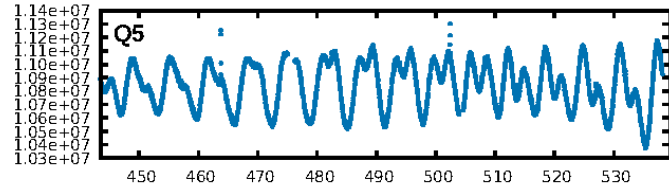
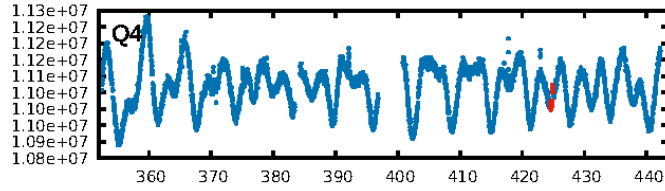
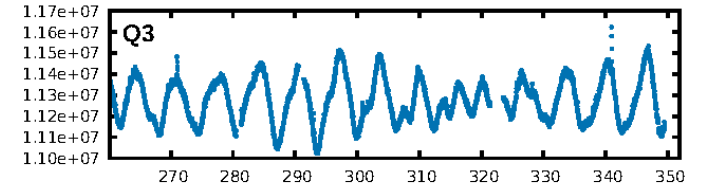
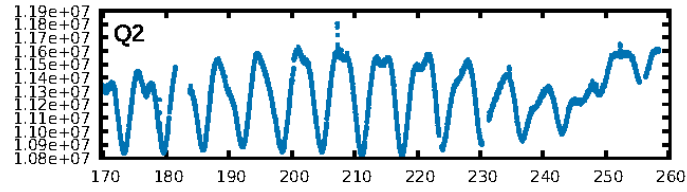
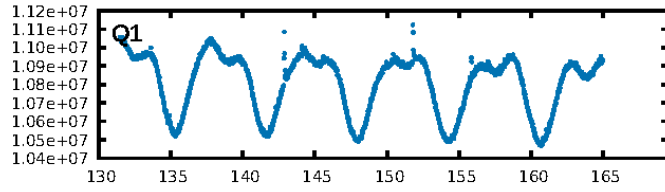
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.3%
ModelChiSquareGof-sig: 75.3%
Bootstrap-pfa: 4.87e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.1097
Centroid-sig: 69.7%
Centroid-so: 0.943 arcsec [0.76] σ
OotOffset-rm: 0.498 arcsec [1.24] σ
OotOffset-st: 0/0/1/0 [1]
KicOffset-rm: 0.100 arcsec [0.25] σ
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

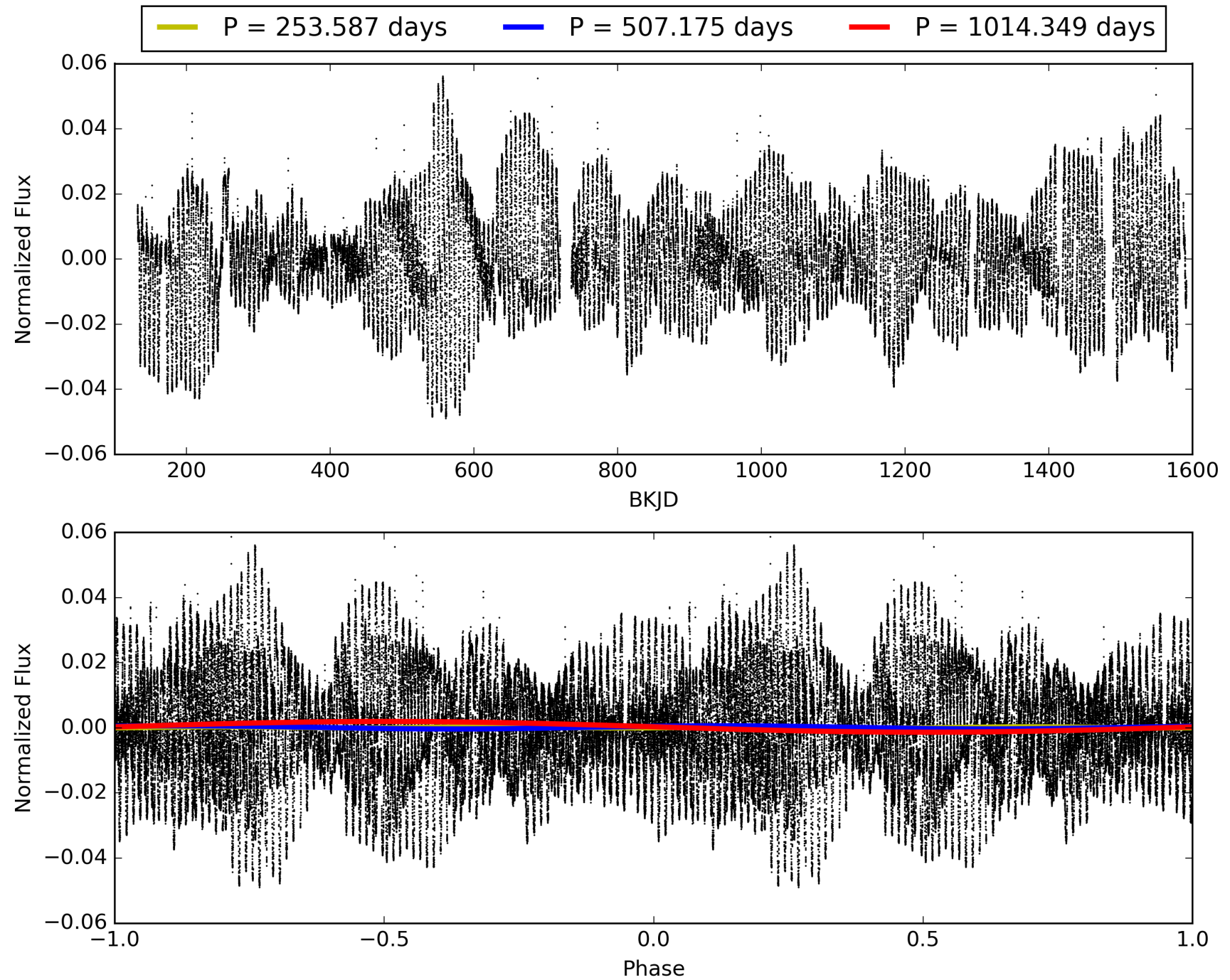
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:56:24 Z

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

TCE 011251134-01, PDC Light Curves

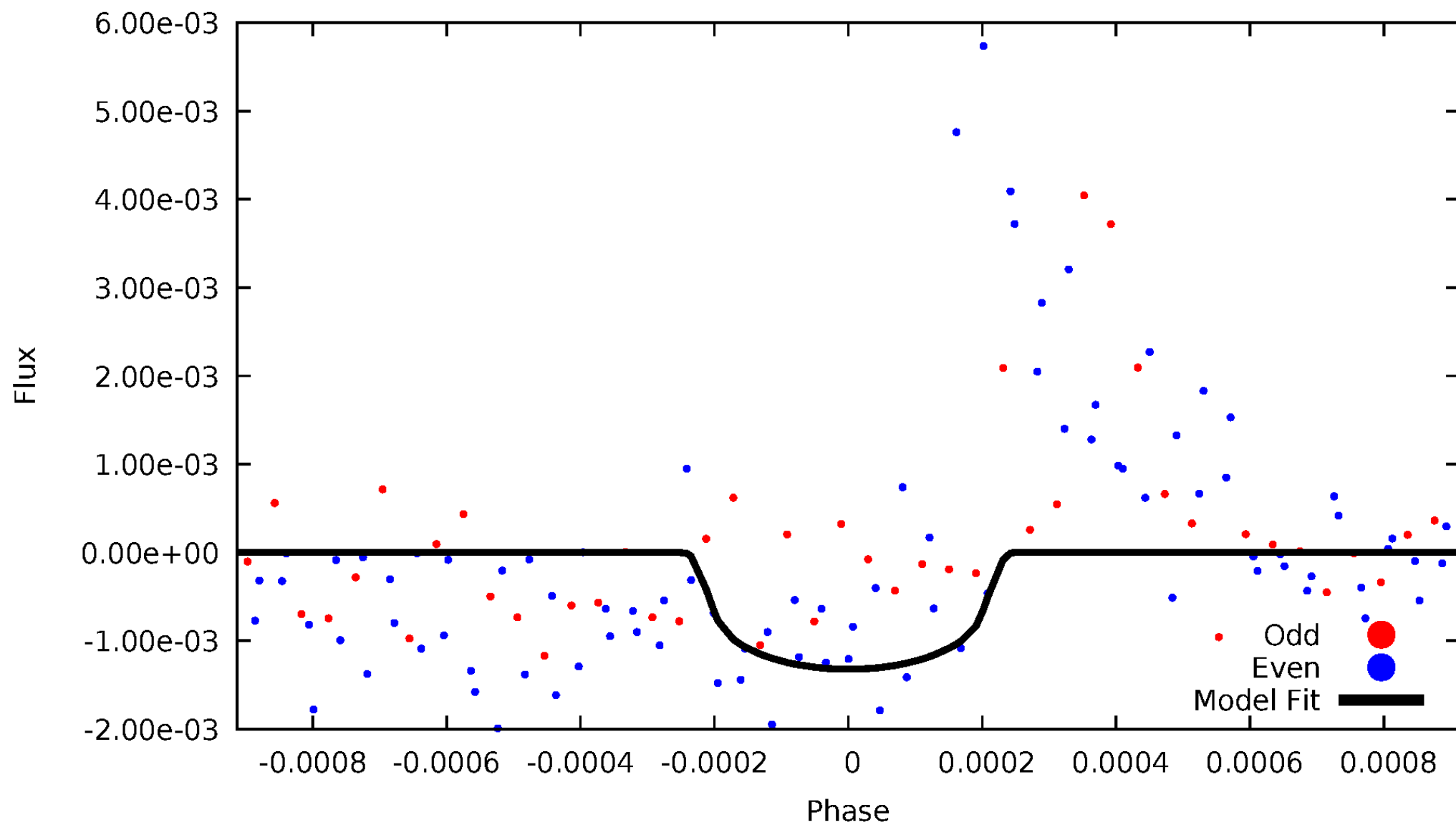


TCE 011251134-01



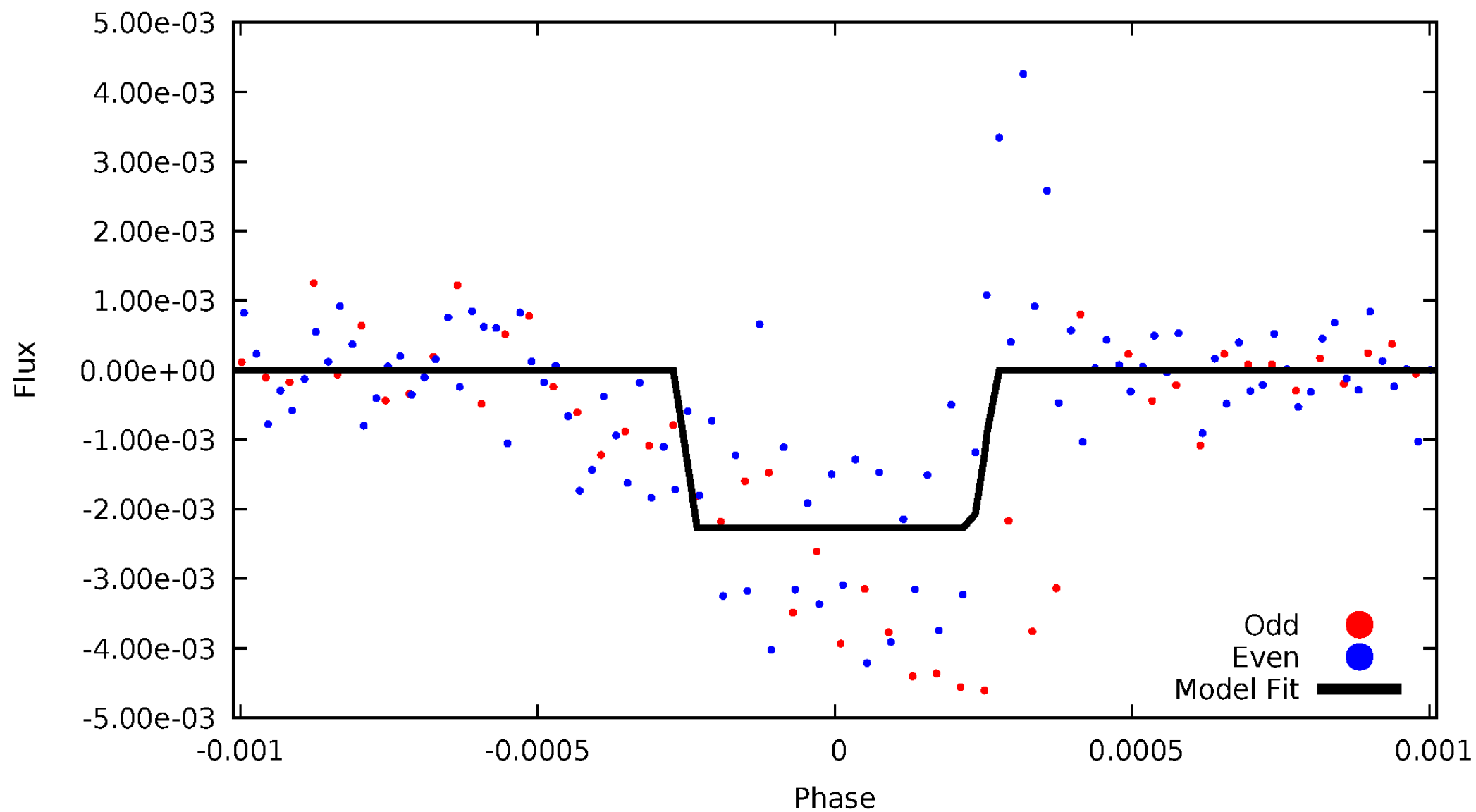
DV Odd/Even

TCE 011251134-01



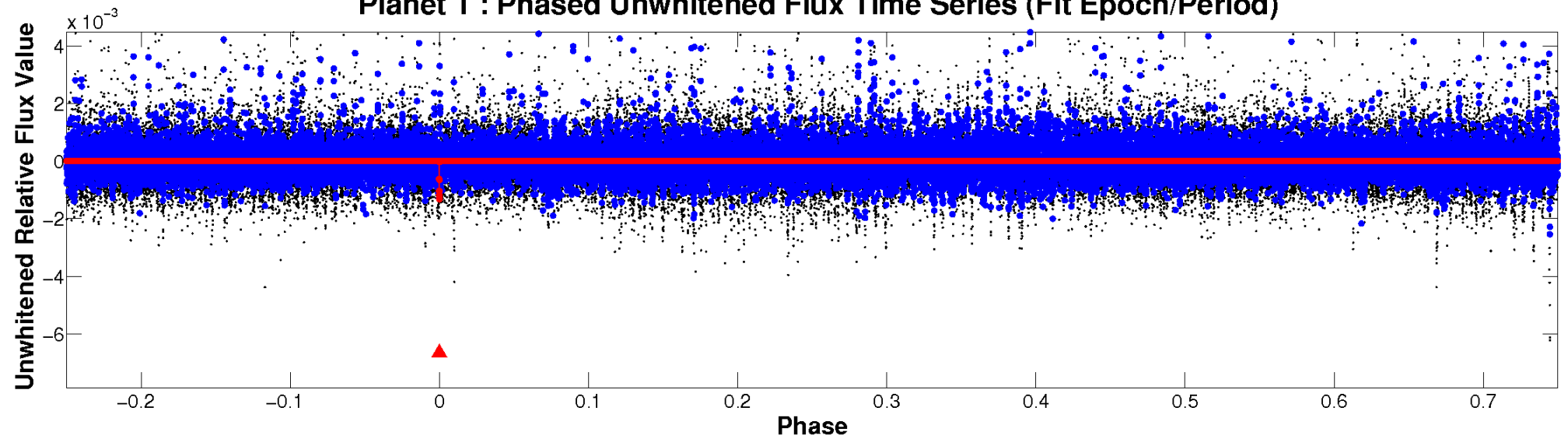
ALT Odd/Even

TCE 011251134-01

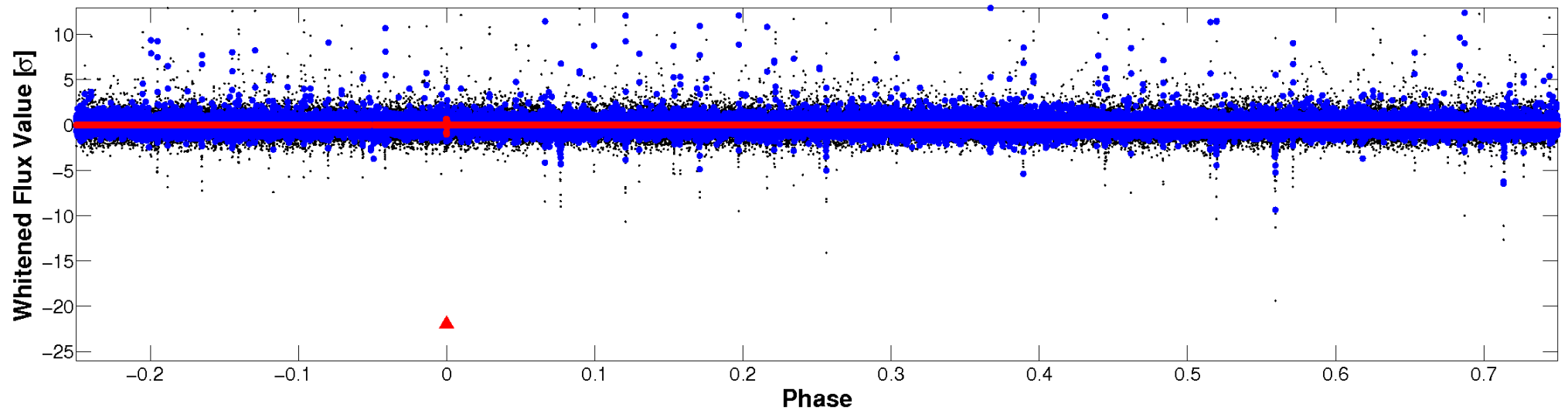


Non-Whitened Vs. Whitened Light Curve

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

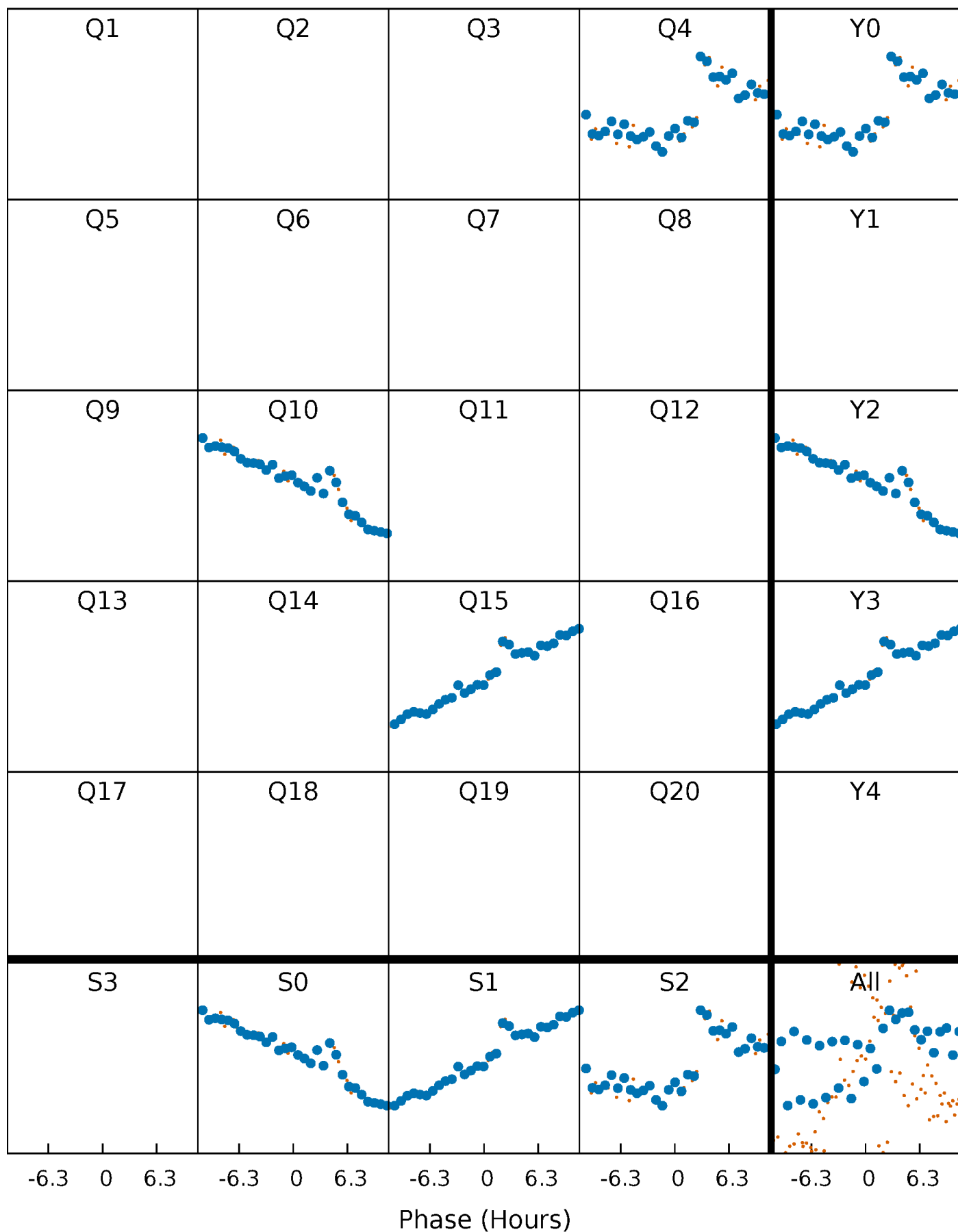


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



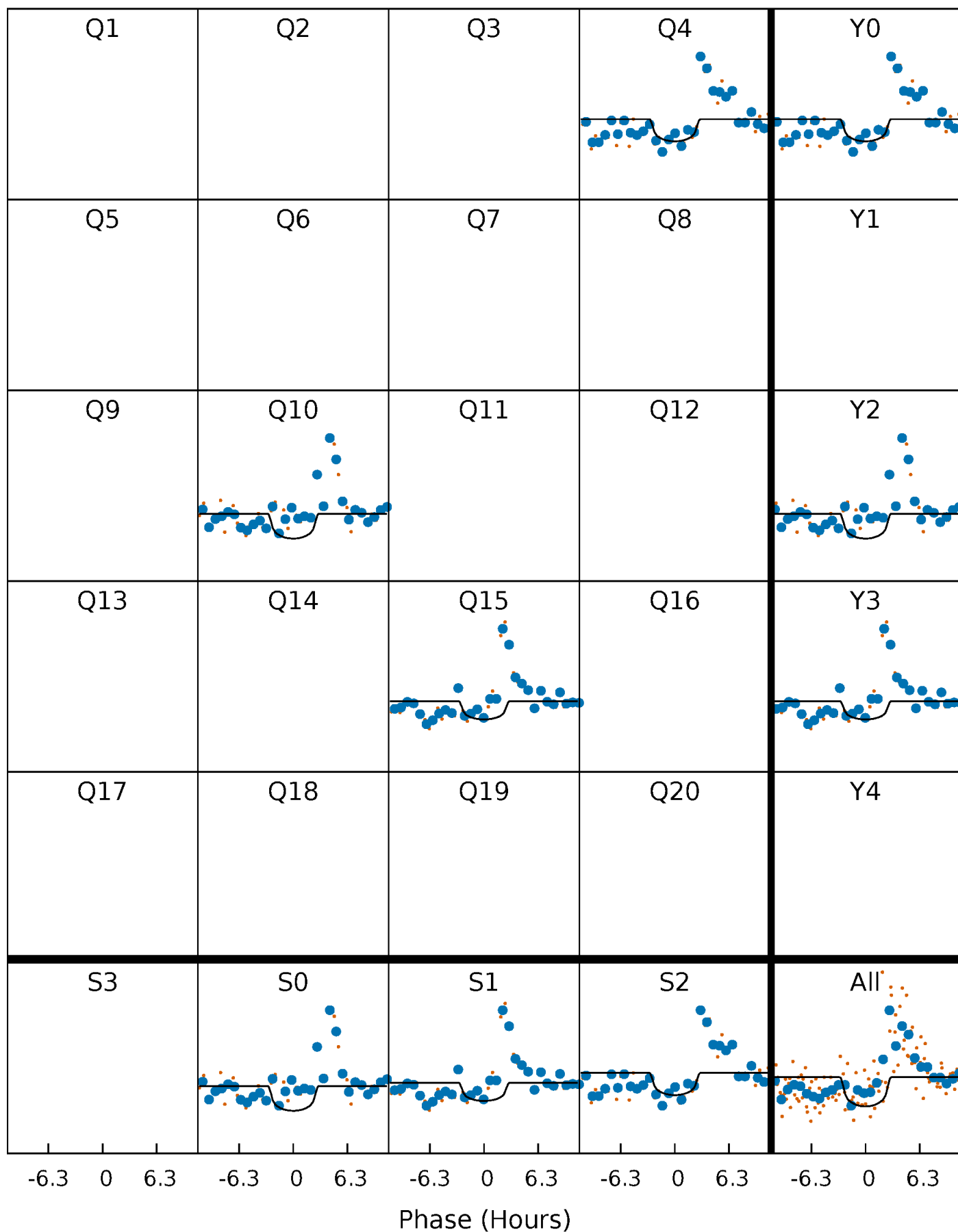
PDC Quarter-Phased Transit Curves

TCE 011251134-01 P=507.174686 Days $T_0=424.667081$ (BKJD)



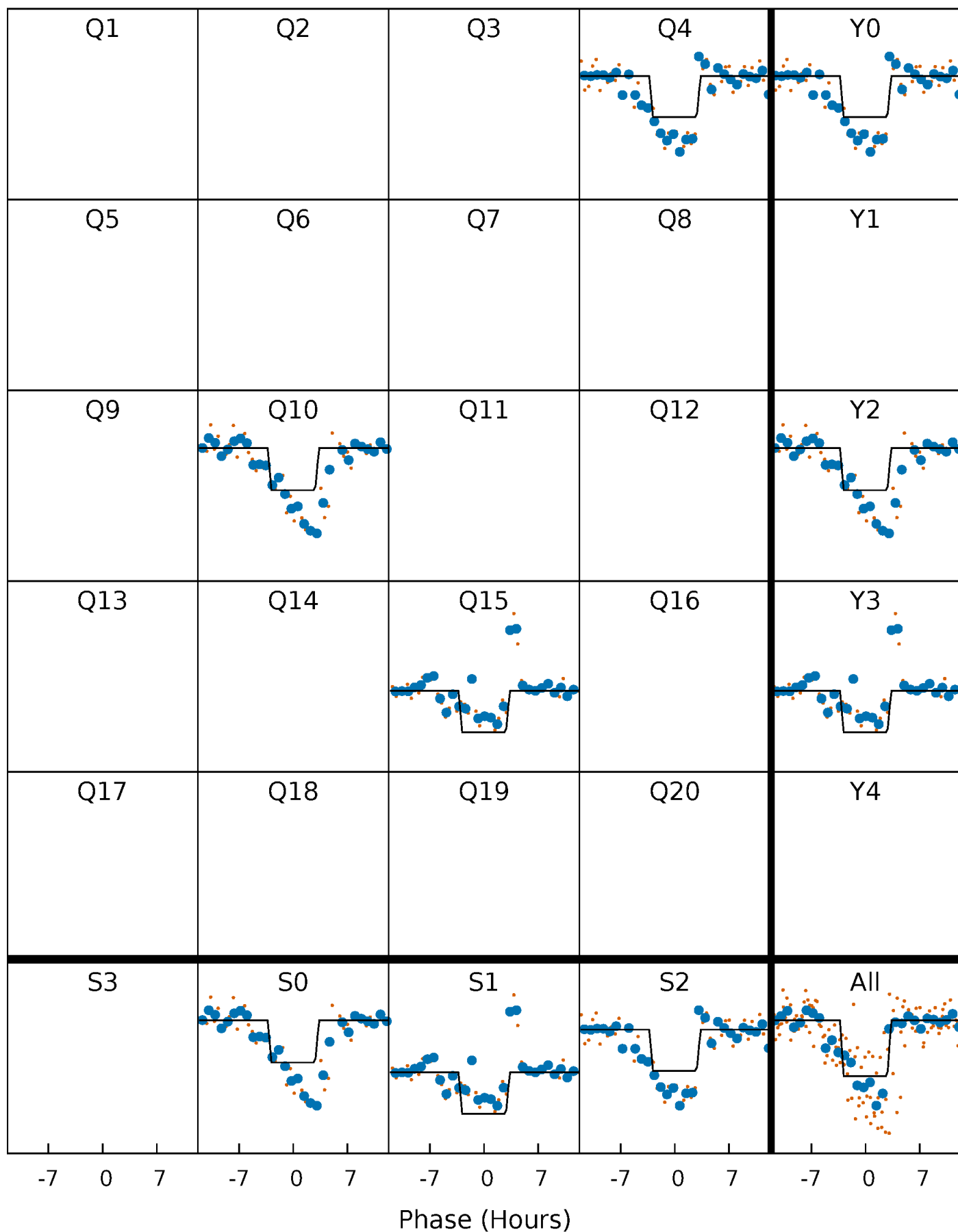
DV Quarter-Phased Transit Curves

TCE 011251134-01 P=507.174686 Days $T_0=424.667081$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

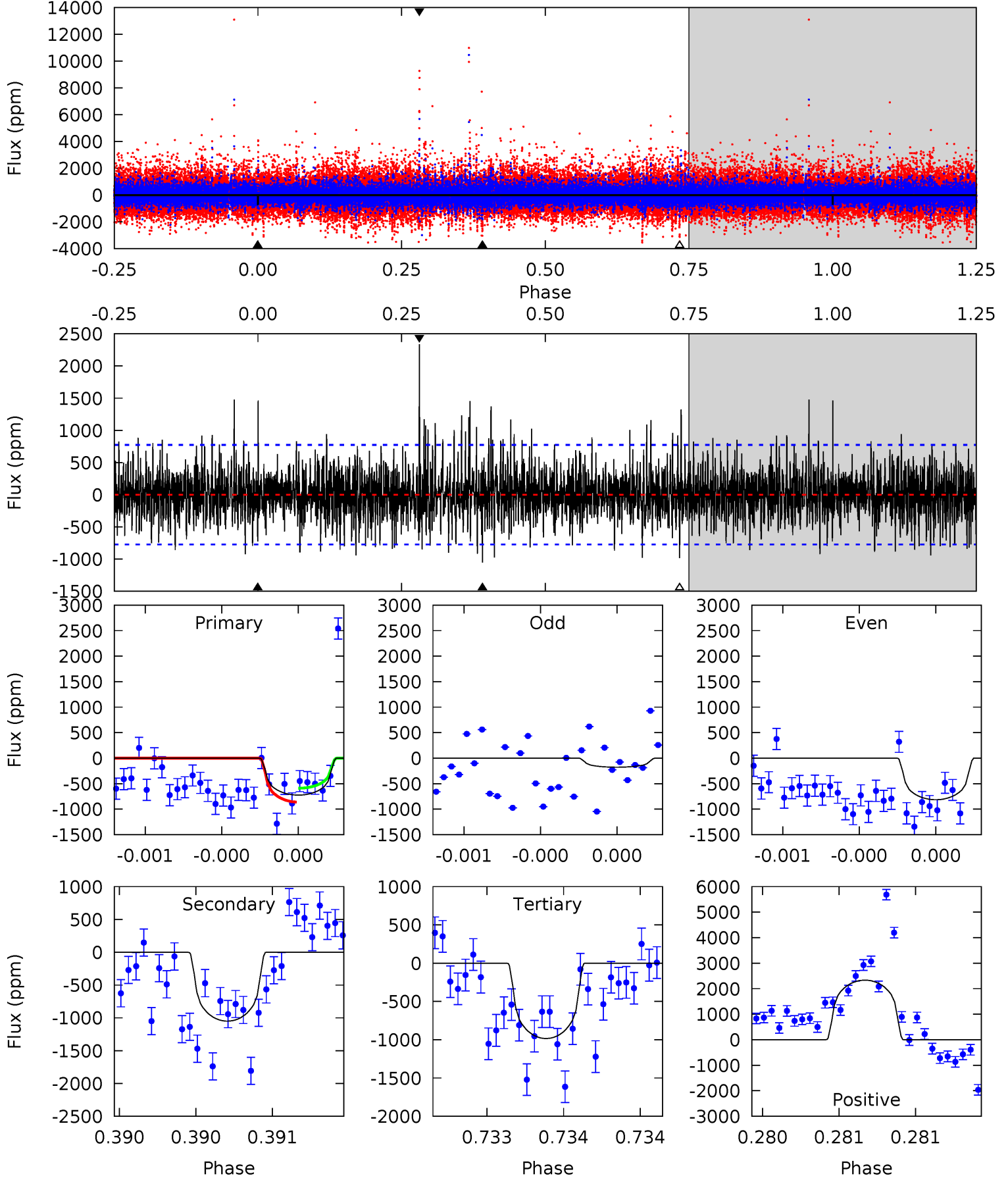
TCE 011251134-01 P=507.147337 Days $T_0=424.663582$ (BKJD)



DV Model-Shift Uniqueness Test

011251134-01, P = 507.174686 Days, E = 424.667081 Days

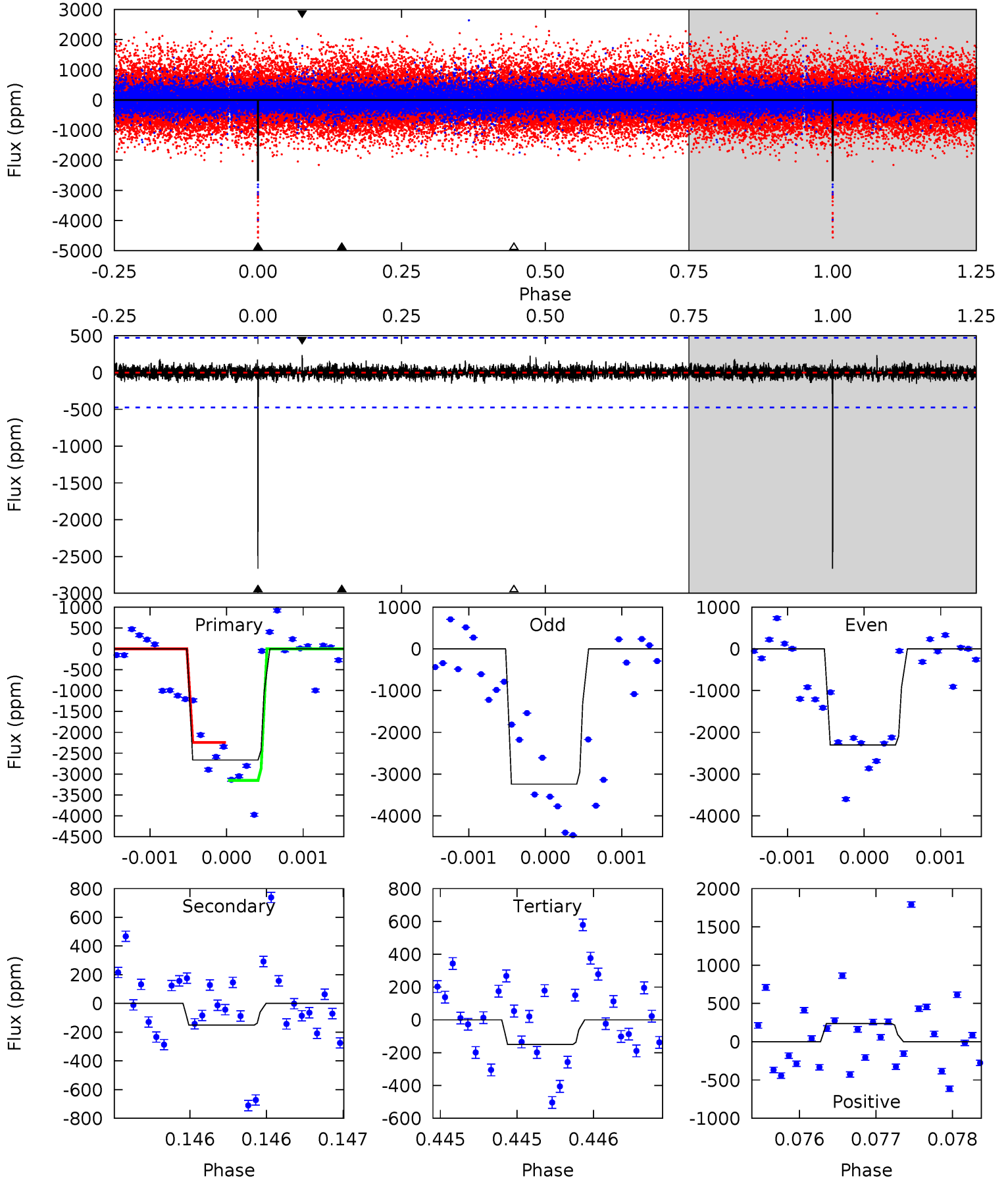
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.22	7.57	7.10	16.8	5.58	3.49	2.11	-1.88	-11.6	0.48	-9.27	1.65	2.42	0.69	0.98



Alt Model-Shift Uniqueness Test

011251134-01, P = 507.147337 Days, E = 424.663582 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.3	1.78	1.76	2.79	5.57	3.47	0.48	29.5	28.5	0.01	-1.01	5.33	0.79	0.08	5.29



Stellar Parameters For KIC 011251134

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4907^{+145}_{-145}	$4.612^{+0.023}_{-0.072}$	$0.210^{+0.200}_{-0.300}$	$0.742^{+0.075}_{-0.043}$	$0.846^{+0.036}_{-0.083}$	$2.921^{+0.302}_{-0.703}$
	+3%/-3%	+0%/-2%	+95%/-143%	+10%/-6%	+4%/-10%	+10%/-24%
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 011251134-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1050 ± 139	$3.65^{+3.04}_{-2.32}$	244^{+9}_{-8}	4374^{+2578}_{-869}	$60978^{+408465}_{-43601}$
Alt.	-151 ± 85	$4.43^{+3.33}_{-2.71}$	244^{+9}_{-9}	2927^{+1093}_{-454}	5120^{+32542}_{-3830}

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 $A_{obs} \gg 1.0$

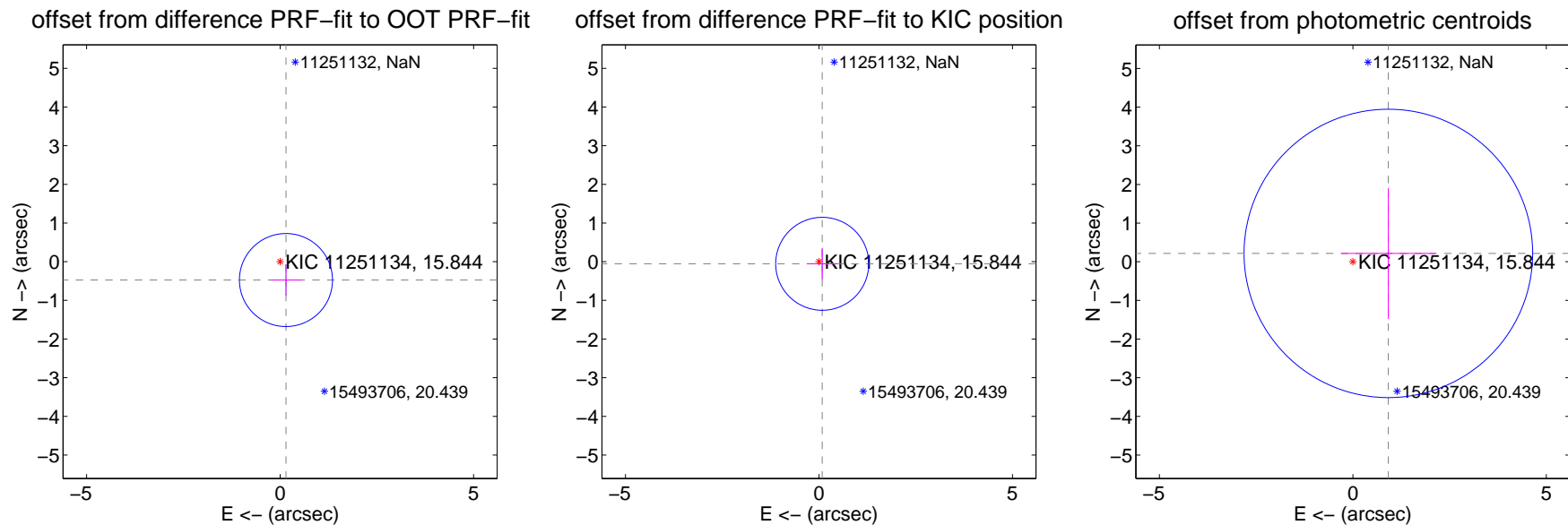
DV Centroid Data

Supplemental centroid analysis for 011251134-01. Kepler magnitude: 15.84. Transit SNR 5.68

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.43 arcsec

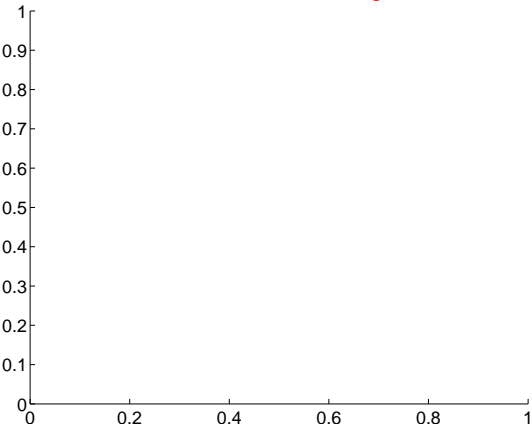
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.498 ± 0.401	1.24	-0.151 ± 0.401	-0.474 ± 0.401
PRF-fit source offset from KIC position	0.100 ± 0.401	0.25	-0.083 ± 0.401	-0.055 ± 0.401
photometric centroid source offset	0.94 ± 1.24	0.76	-0.92 ± 1.21	0.22 ± 1.69



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.

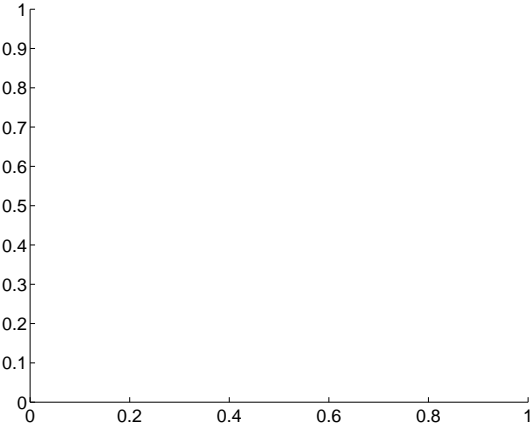
Q1 no difference image



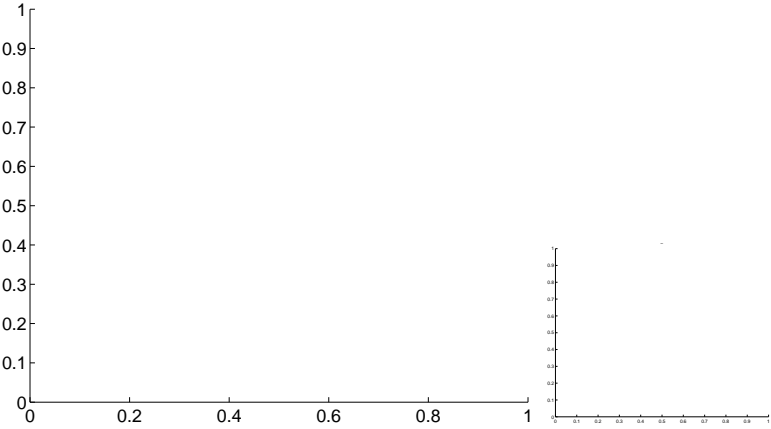
Q1 no OOT image



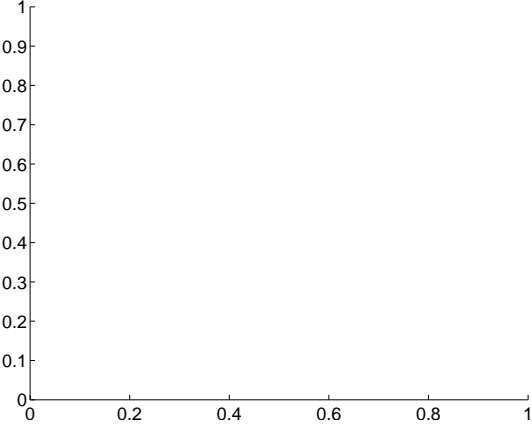
Q2 no difference image



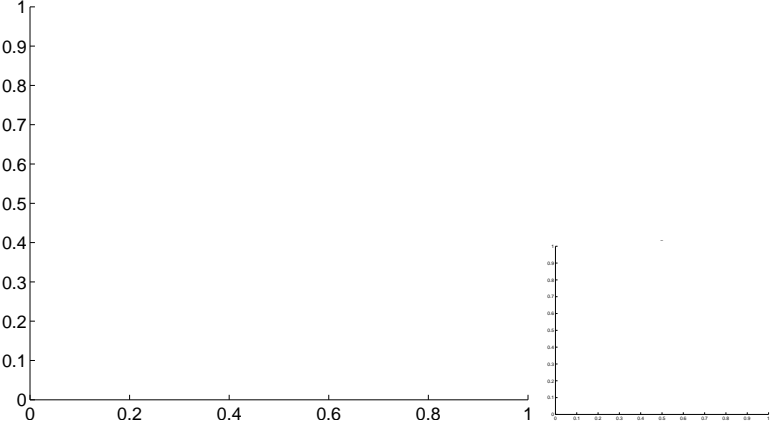
Q2 no OOT image



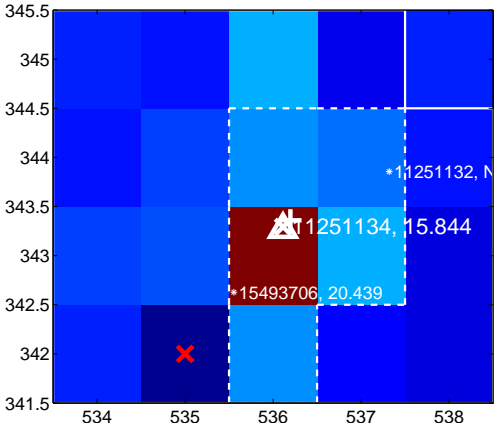
Q3 no difference image



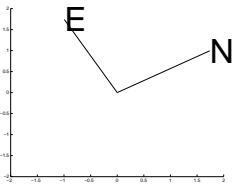
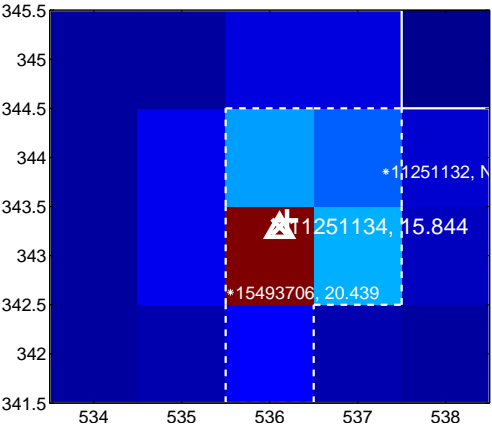
Q3 no OOT image



Q4 difference image



Q4 OOT image

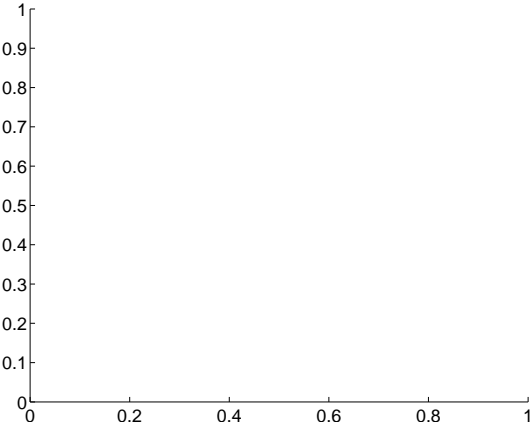


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

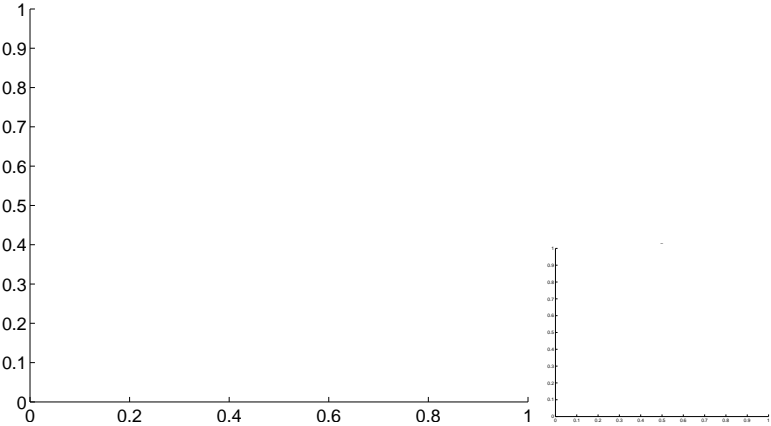


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

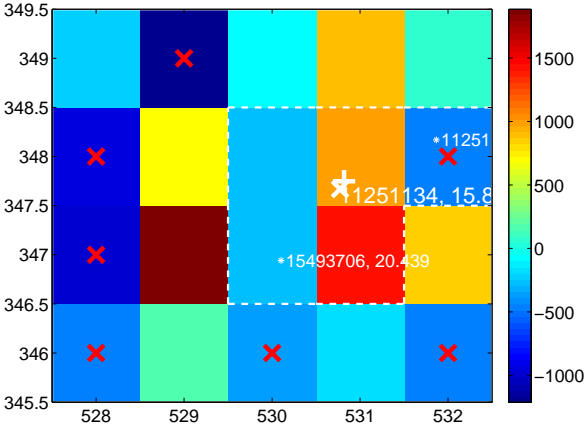
Q9 no difference image



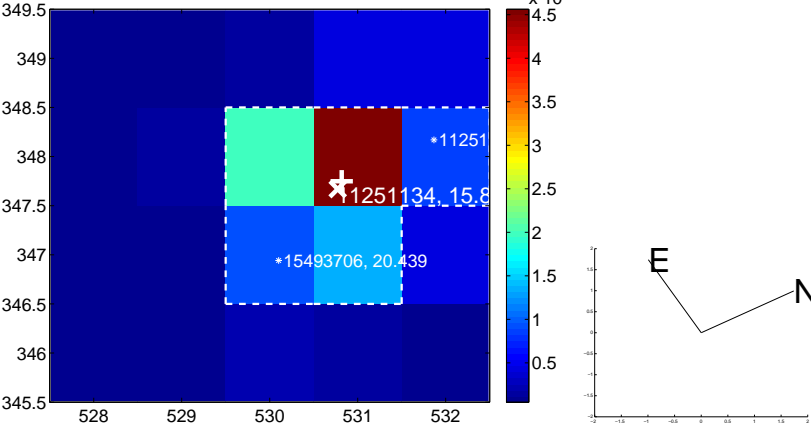
Q9 no OOT image



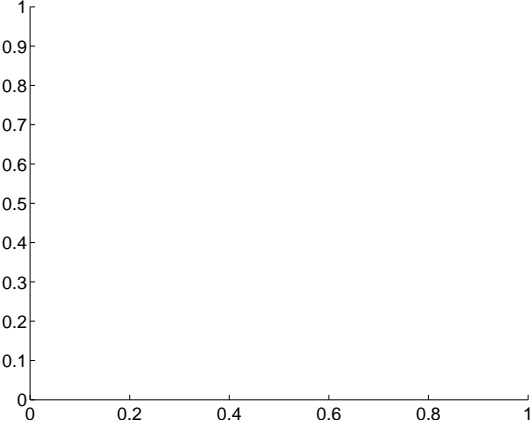
Q10 difference image. Poor Quality



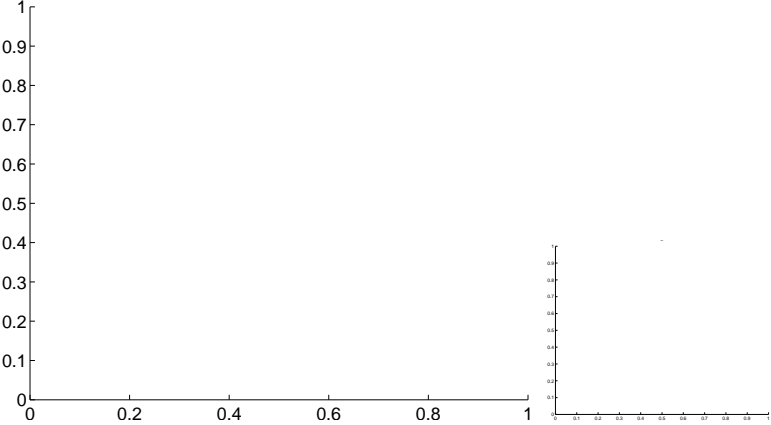
Q10 OOT image



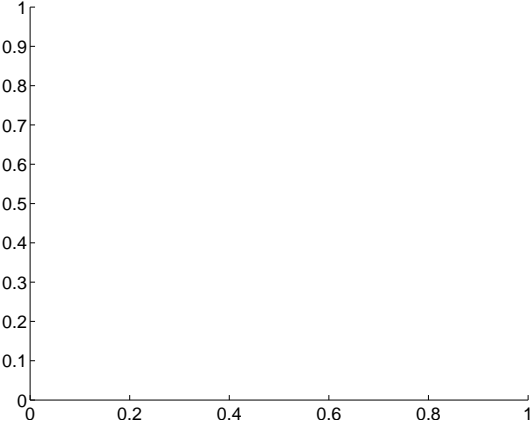
Q11 no difference image



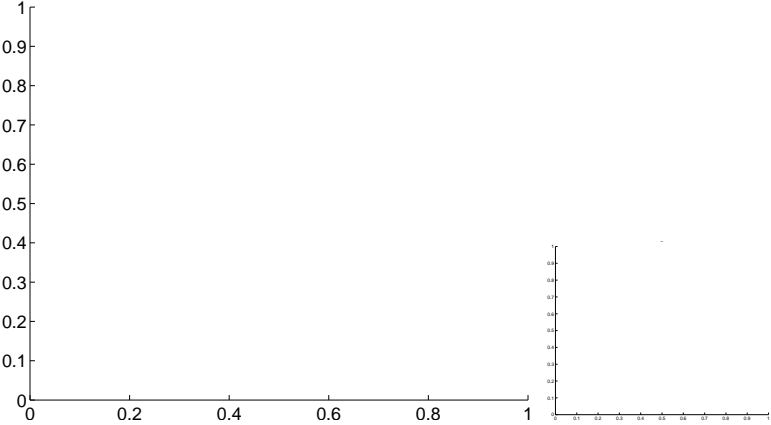
Q11 no OOT image



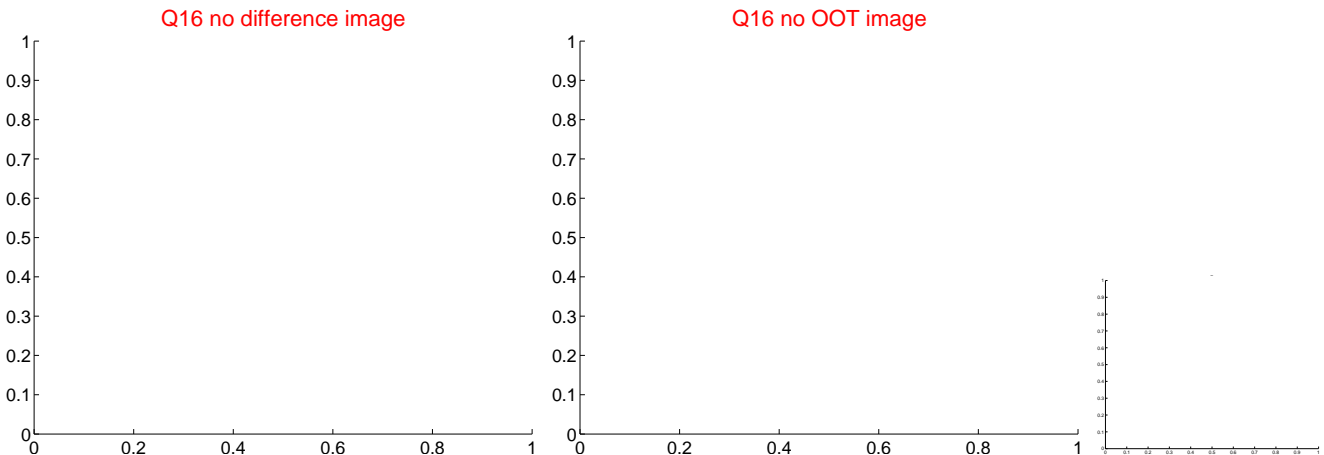
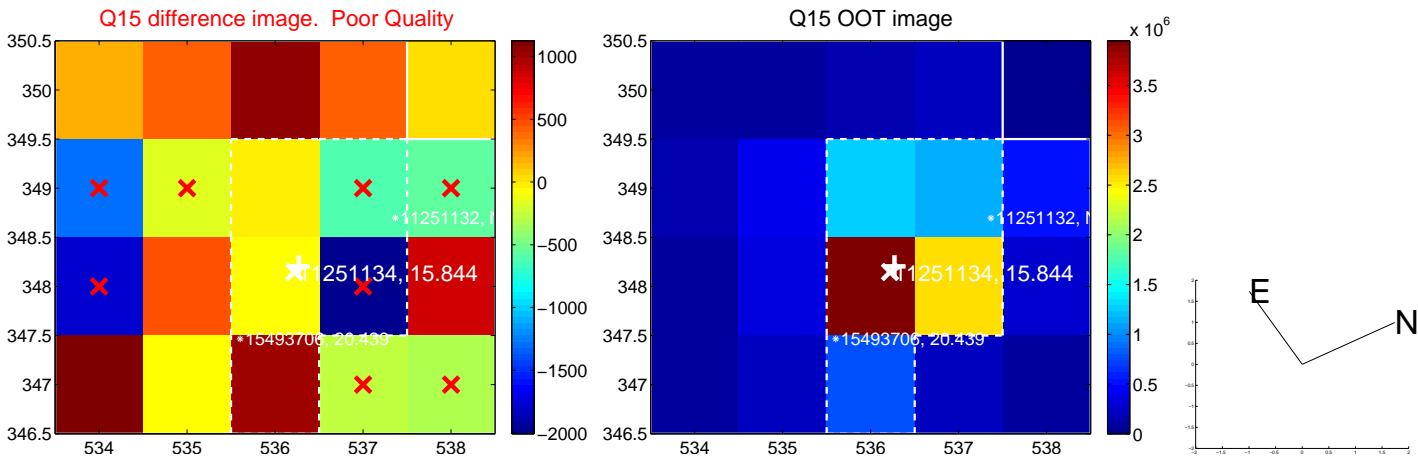
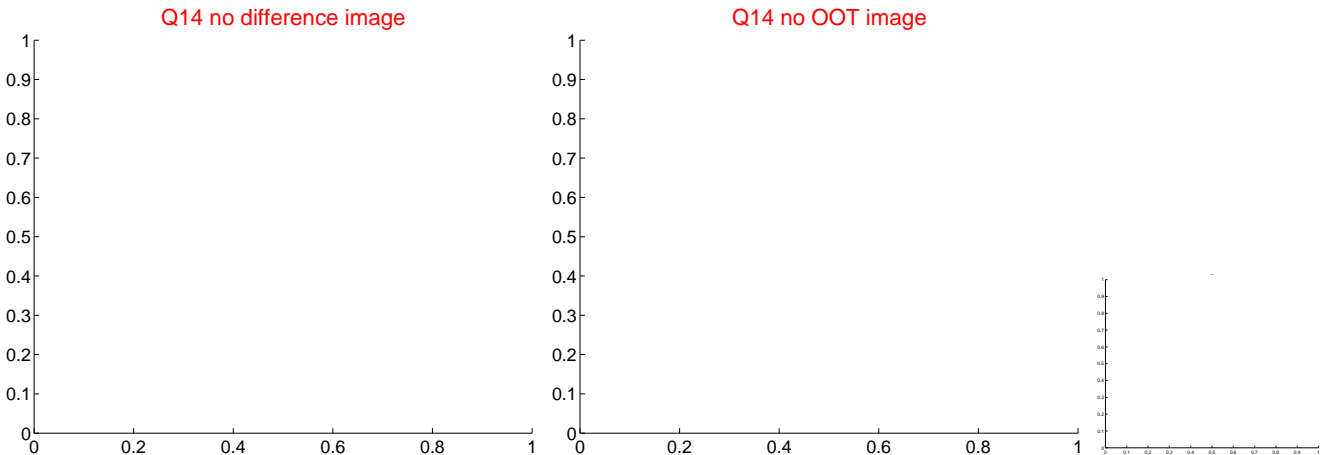
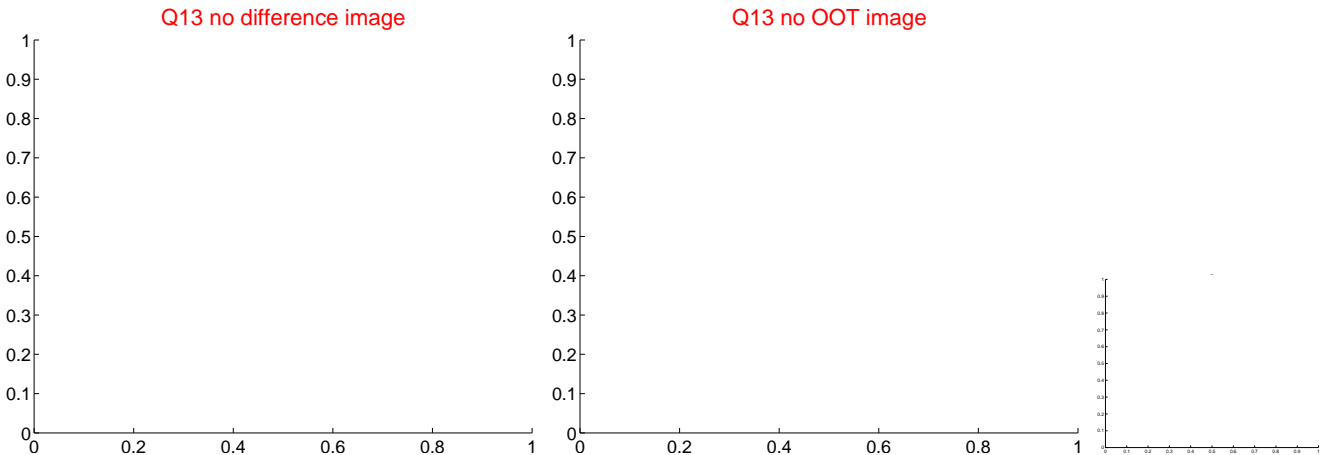
Q12 no difference image



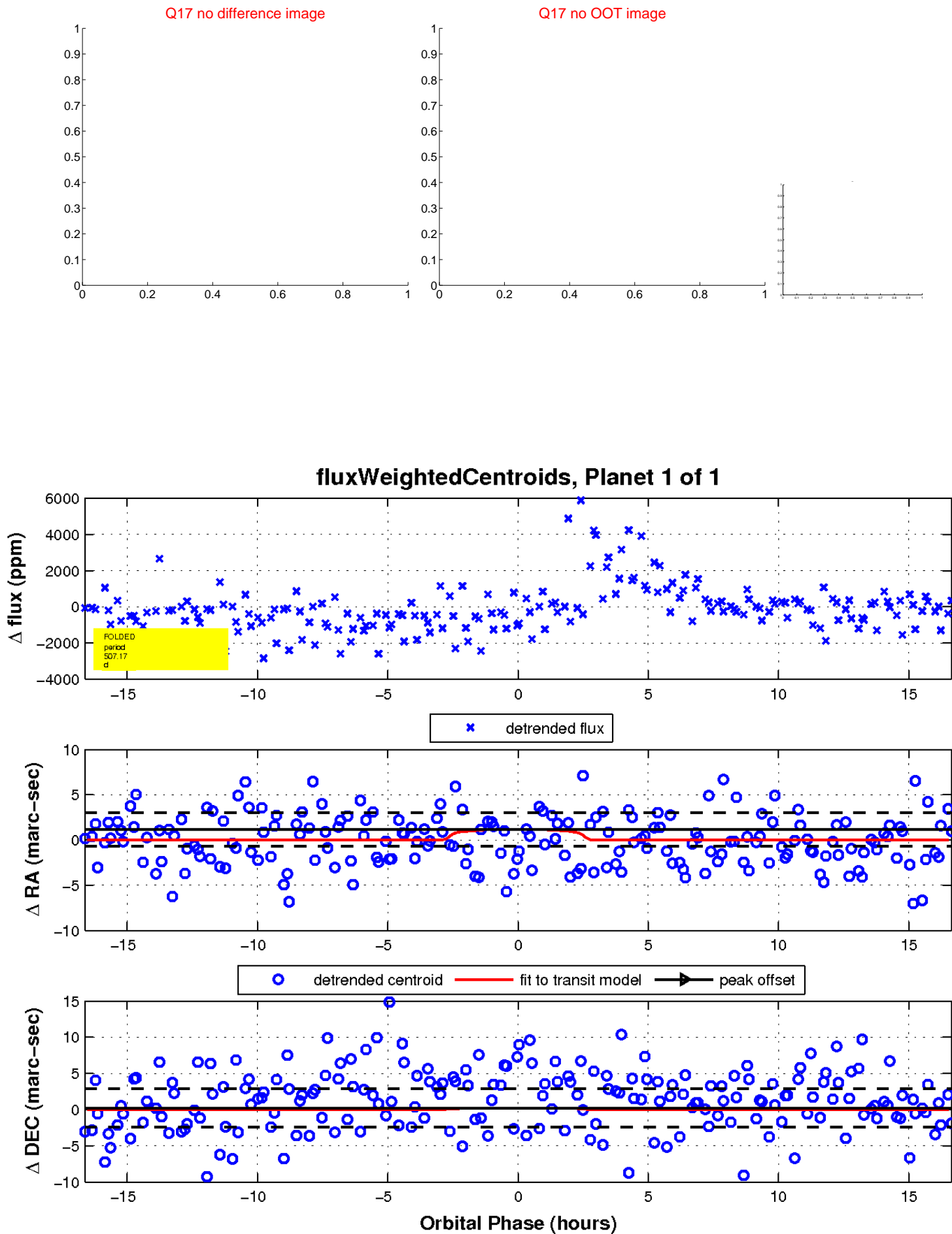
Q12 no OOT image



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

