

KIC 007947607

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})
007947607-01	OBS	No	499.986698	387.880508	1335.3	5.981	10.4	8.1	0.72	4987	2.74	0.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007947607-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—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.

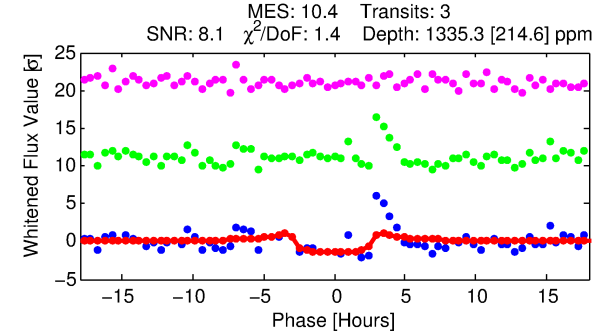
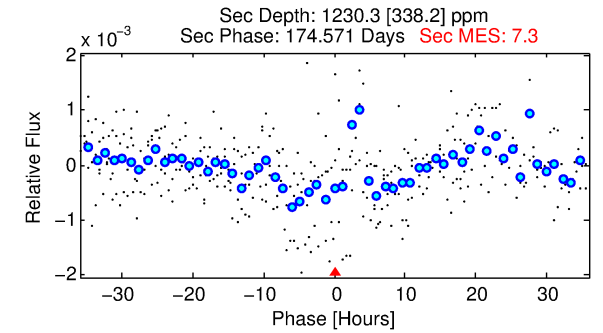
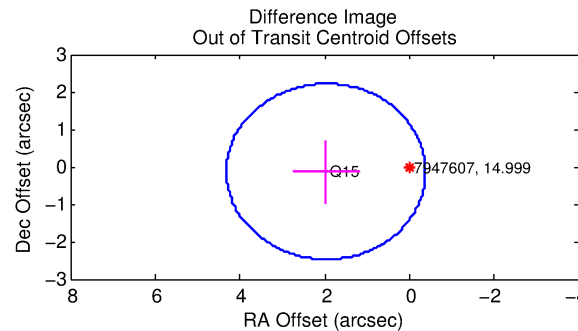
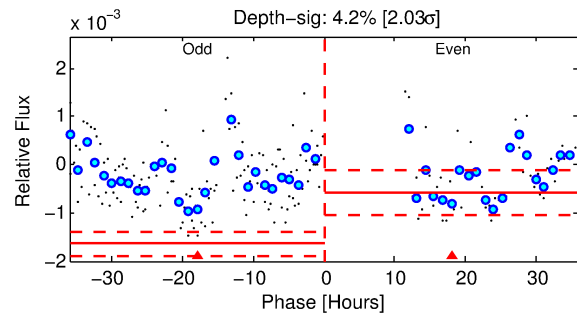
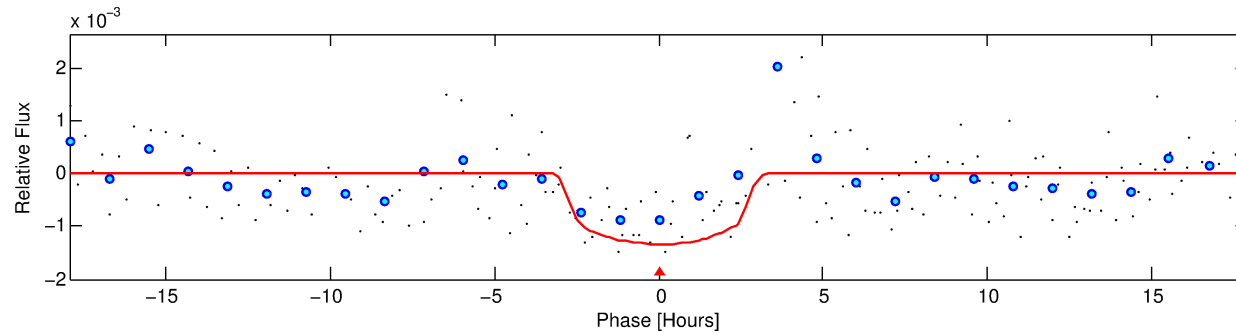
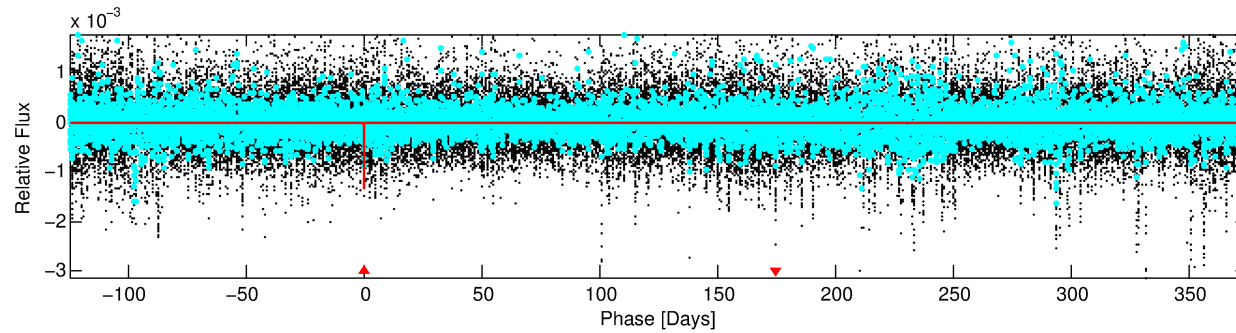
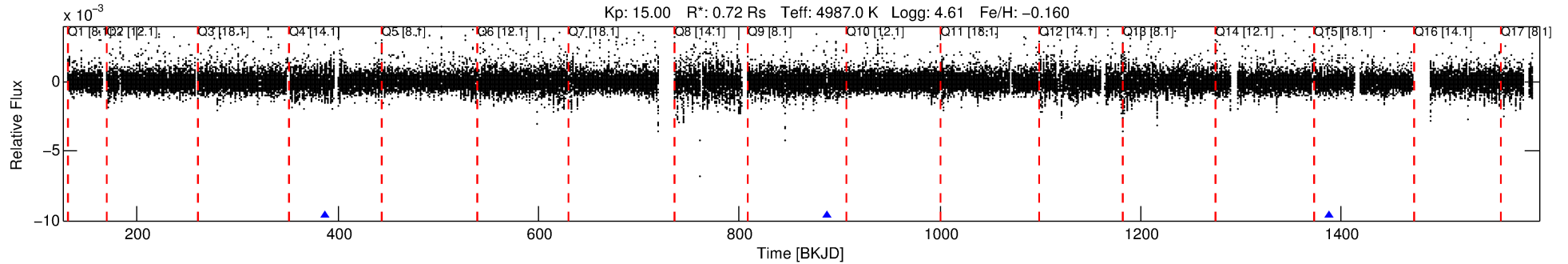
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007947607-01

No Significant Match Found

DV One-Page Summary

KIC: 7947607 Candidate: 1 of 1 Period: 499.987 d



DV Fit Results:

Period = 499.98670 [0.00682] d
Epoch = 387.8805 [0.0088] BKJD
Rp/R* = 0.0350 [0.0276]
a/R* = 516.54 [1387.51]
b = 0.65 [2.47]
Seff = 0.23 [0.04]
Teq = 176 [7] K
Rp = 2.74 [2.18] Re
a = 1.1238 [0.0961] AU
Ag = 113711.88 [182240.25] [0.62 σ]
Teffp = 4989 [2000] K [2.41 σ]

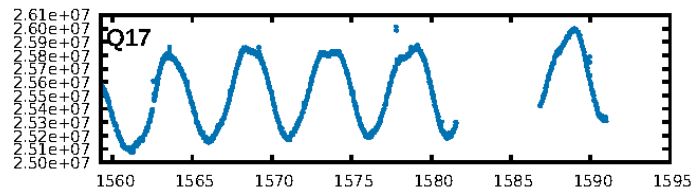
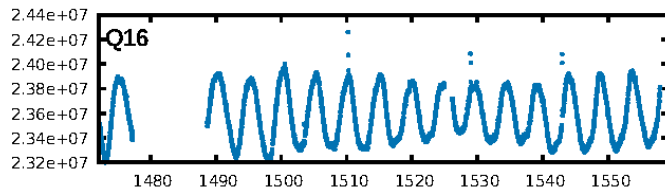
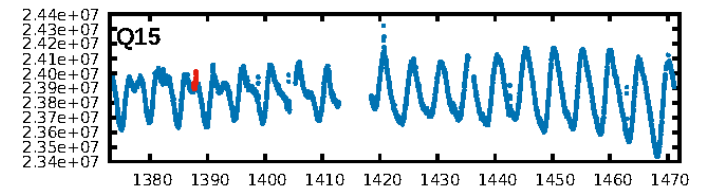
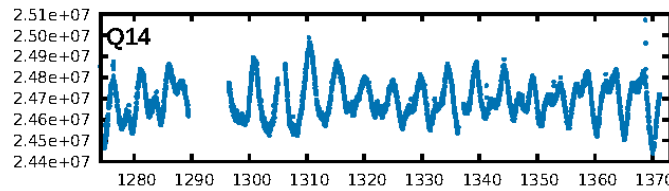
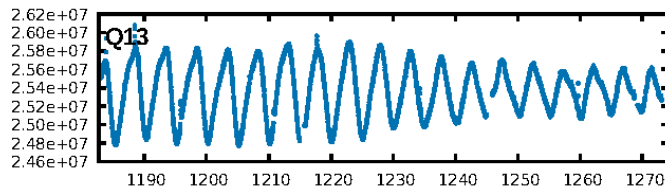
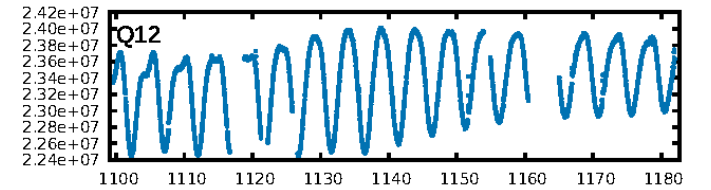
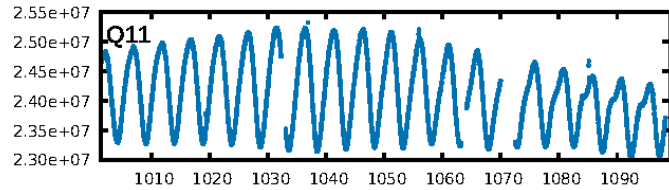
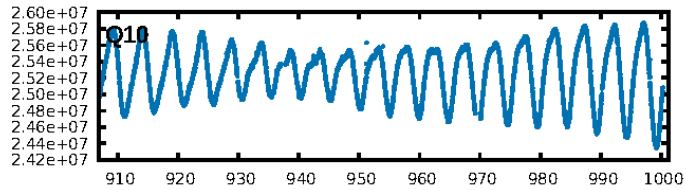
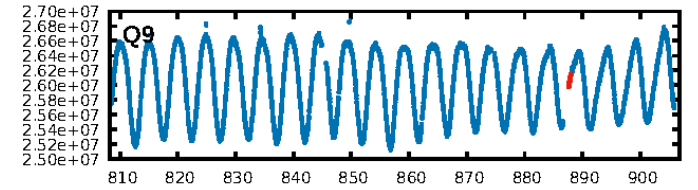
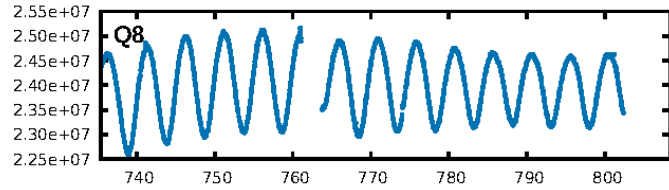
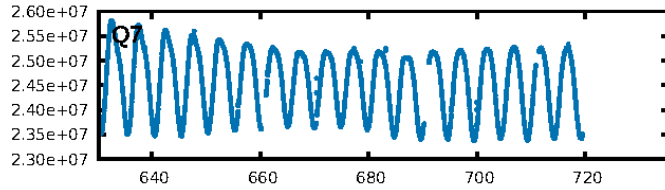
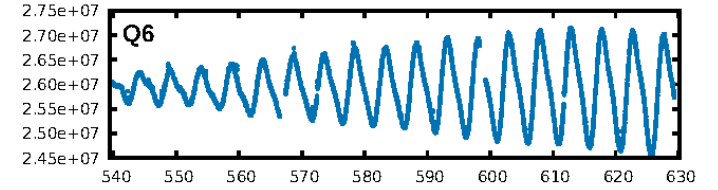
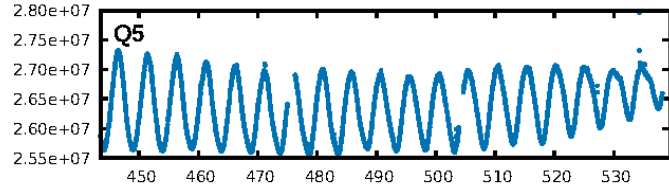
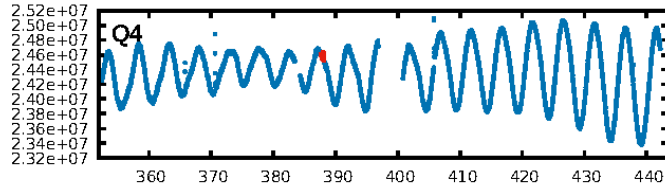
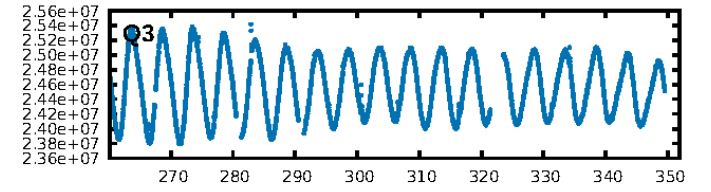
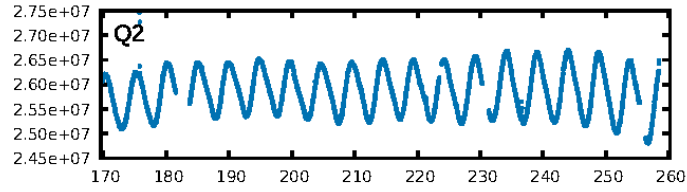
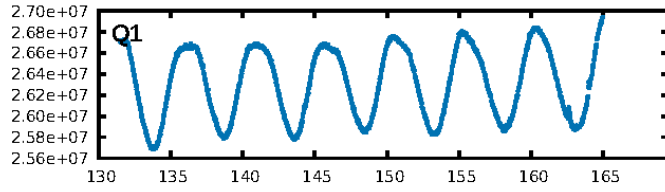
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 25.0%
ModelChiSquareGof-sig: 93.8%
Bootstrap-pfa: 1.70e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 7.108
Centroid-sig: 0.7%
Centroid-so: 1.157 arcsec [1.77 σ]
OotOffset-rm: 1.972 arcsec [2.52 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-rm: 1.898 arcsec [2.43 σ]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

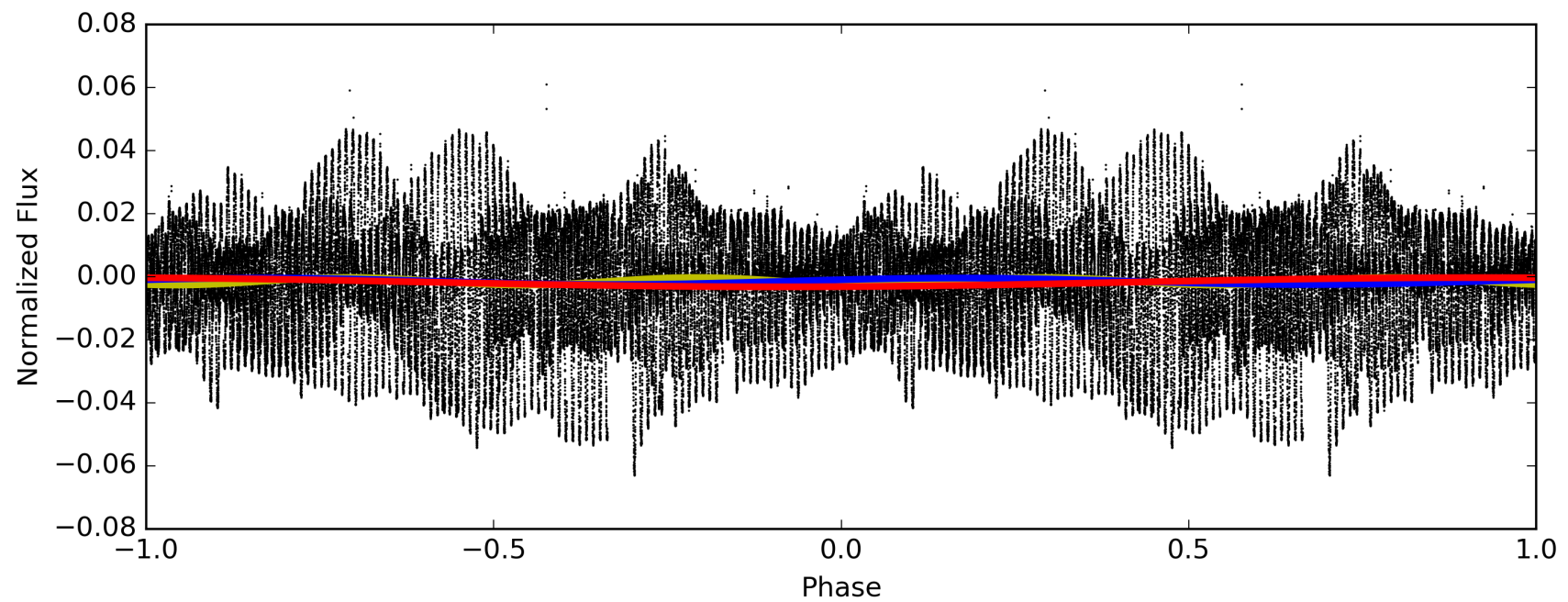
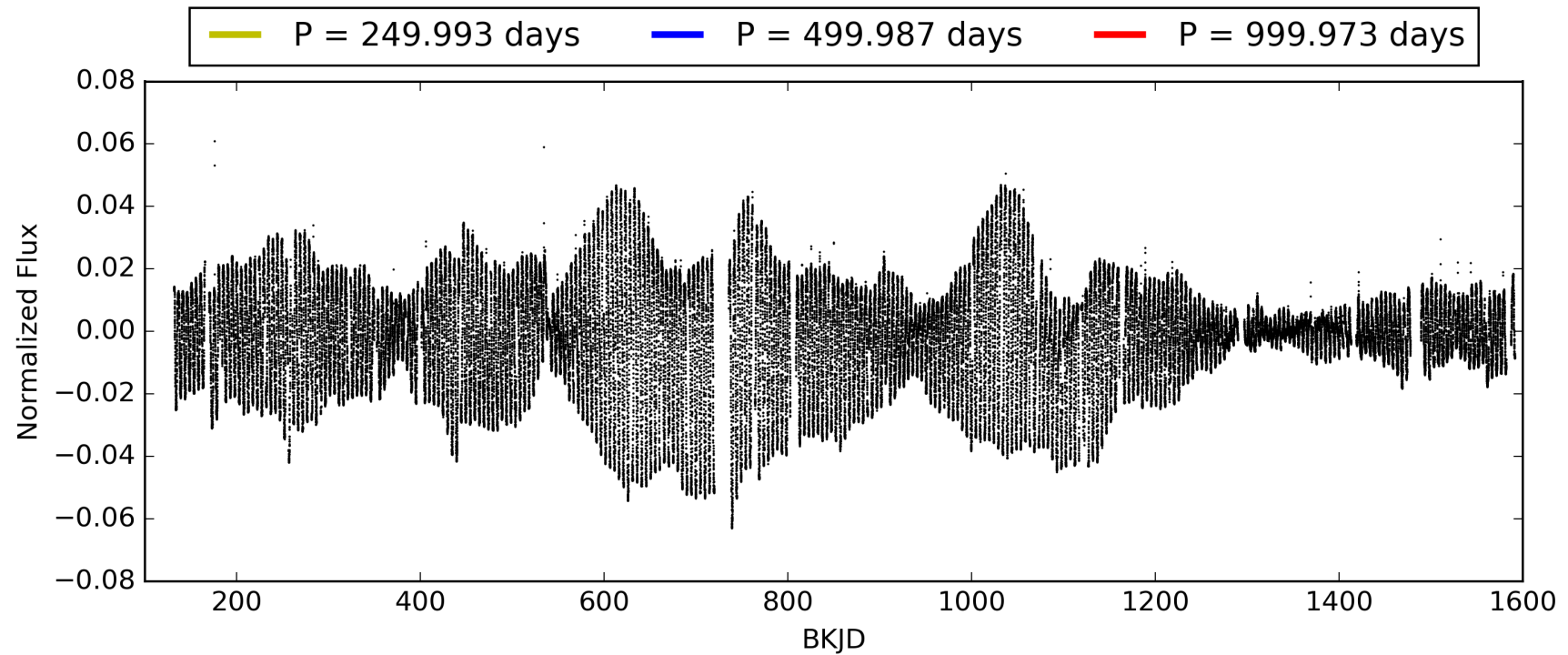
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 03:09:45 Z

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

TCE 007947607-01, PDC Light Curves

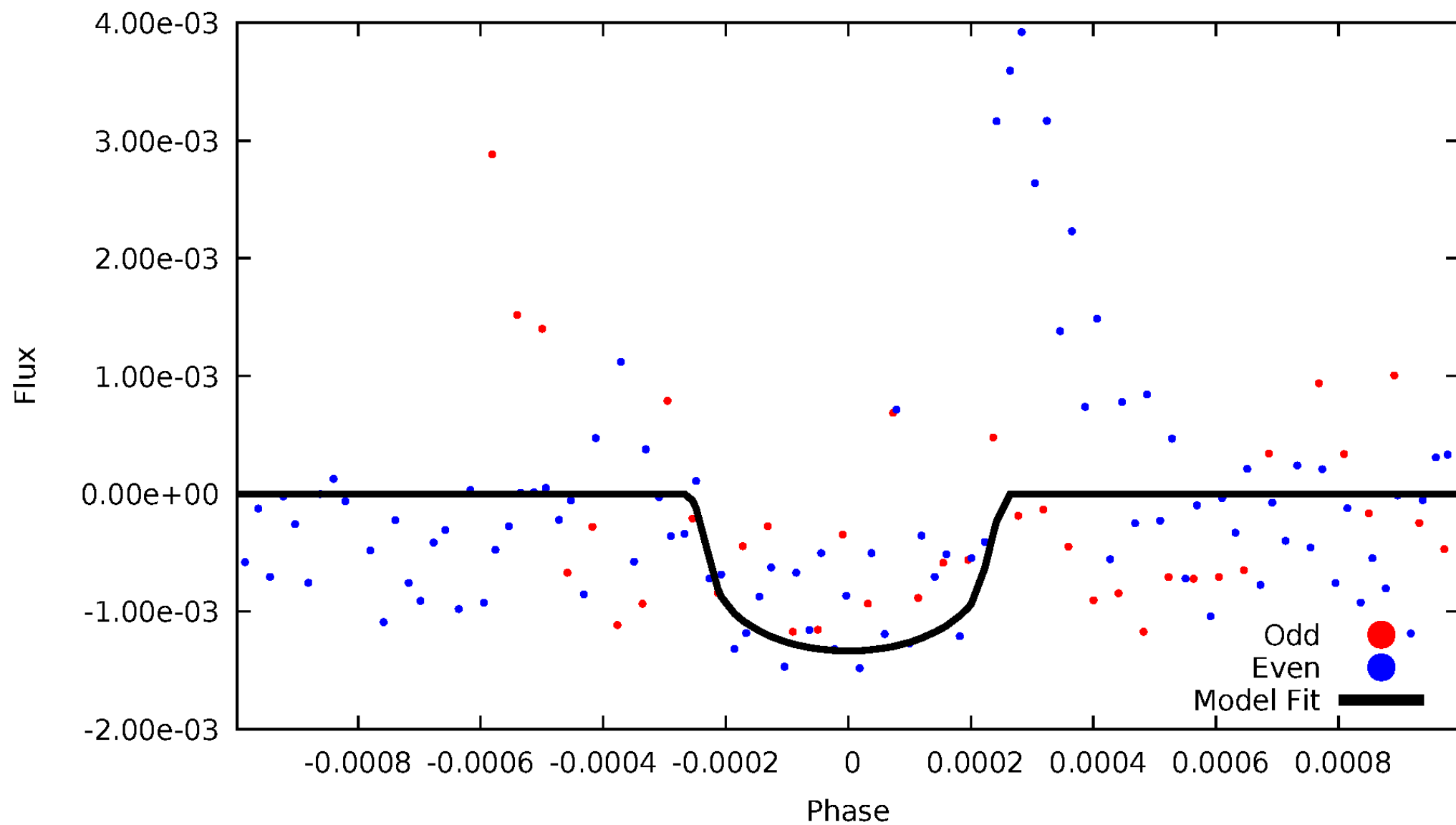


TCE 007947607-01



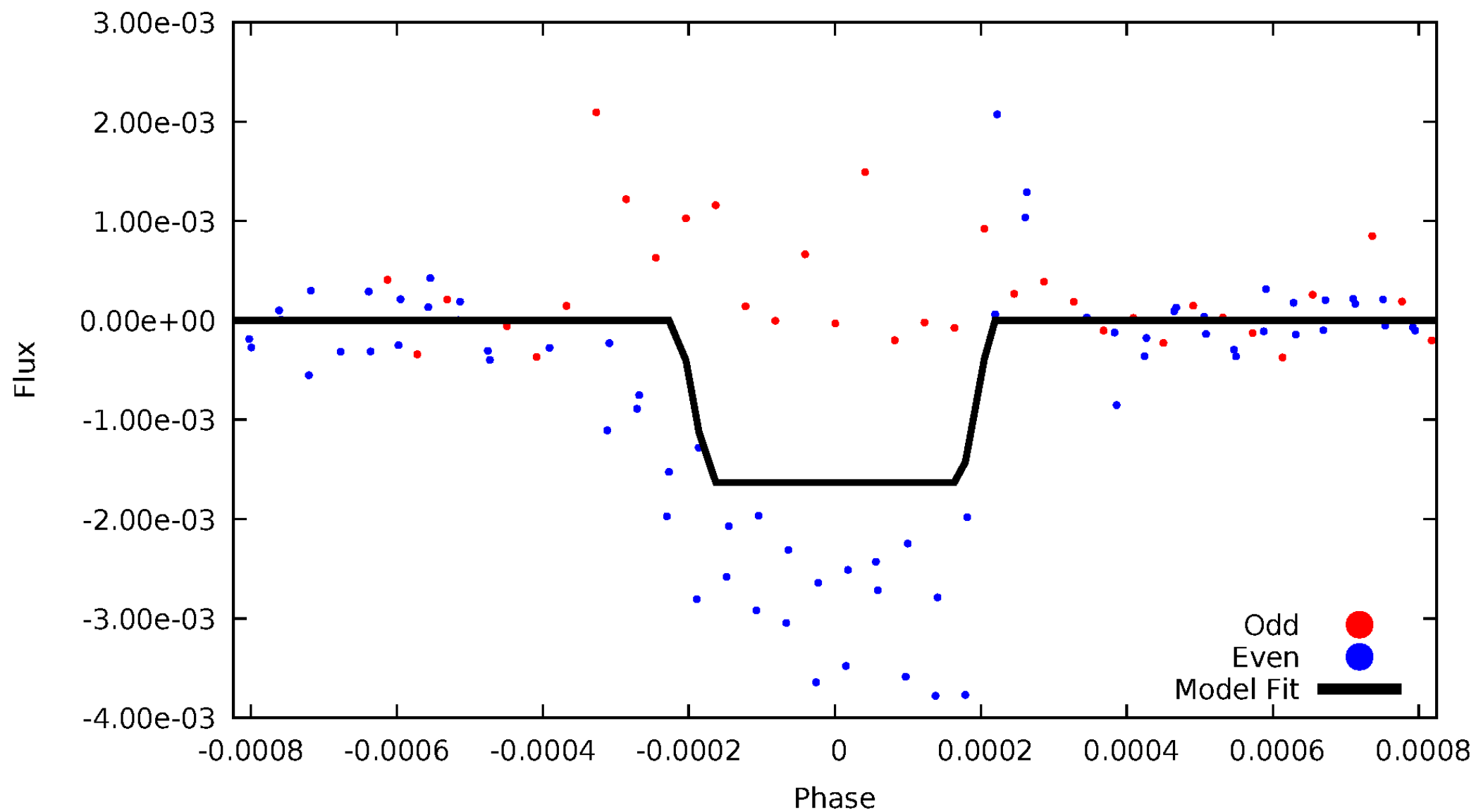
DV Odd/Even

TCE 007947607-01



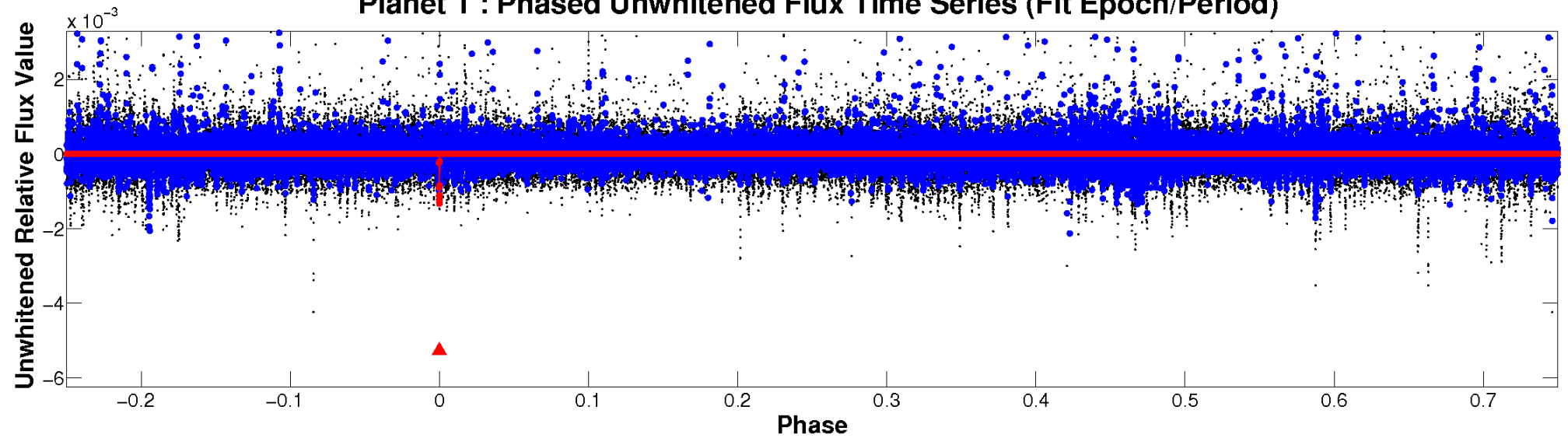
ALT Odd/Even

TCE 007947607-01

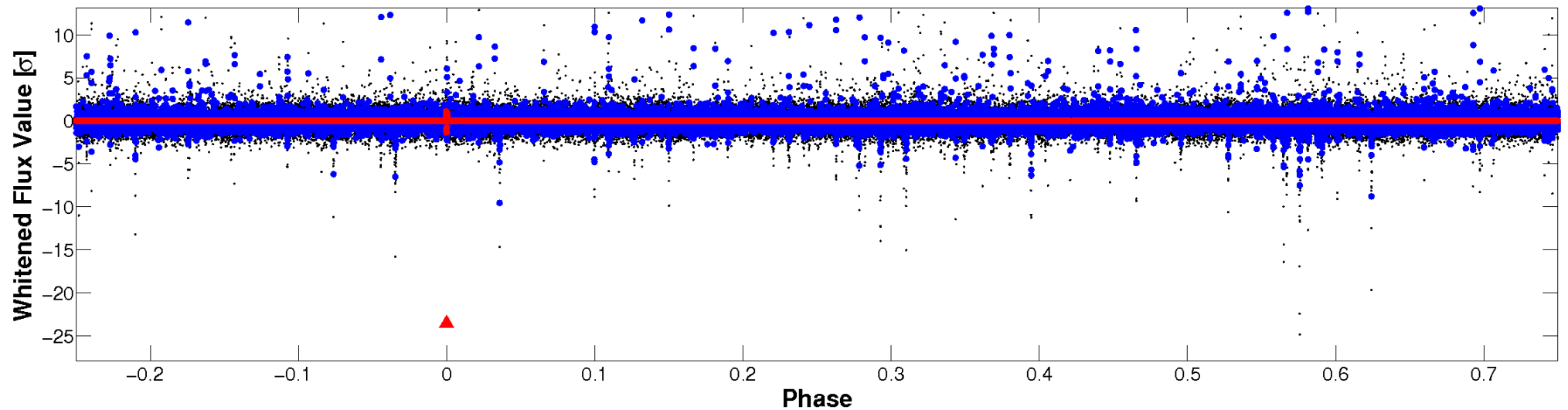


Non-Whitened Vs. Whitened Light Curve

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

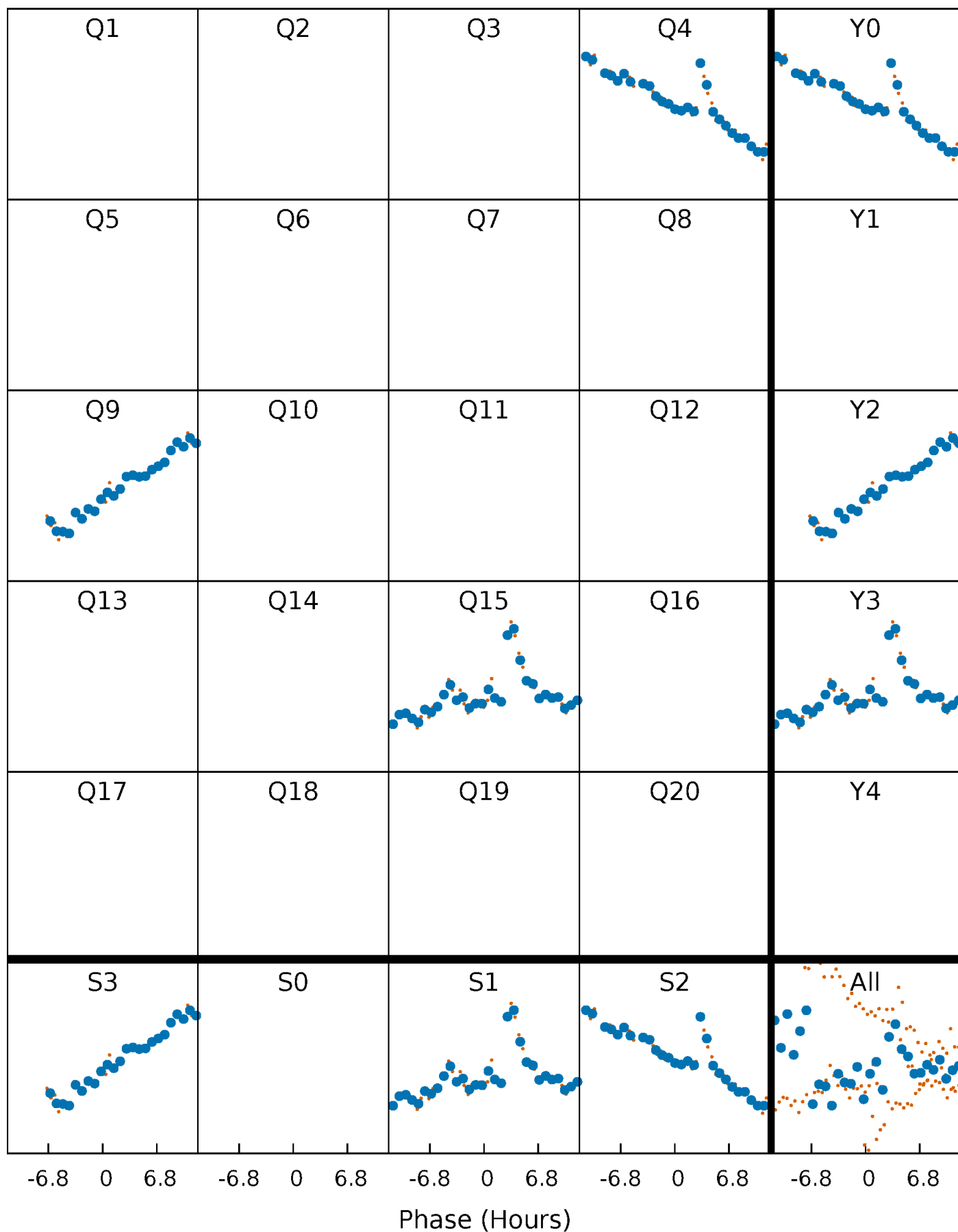


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



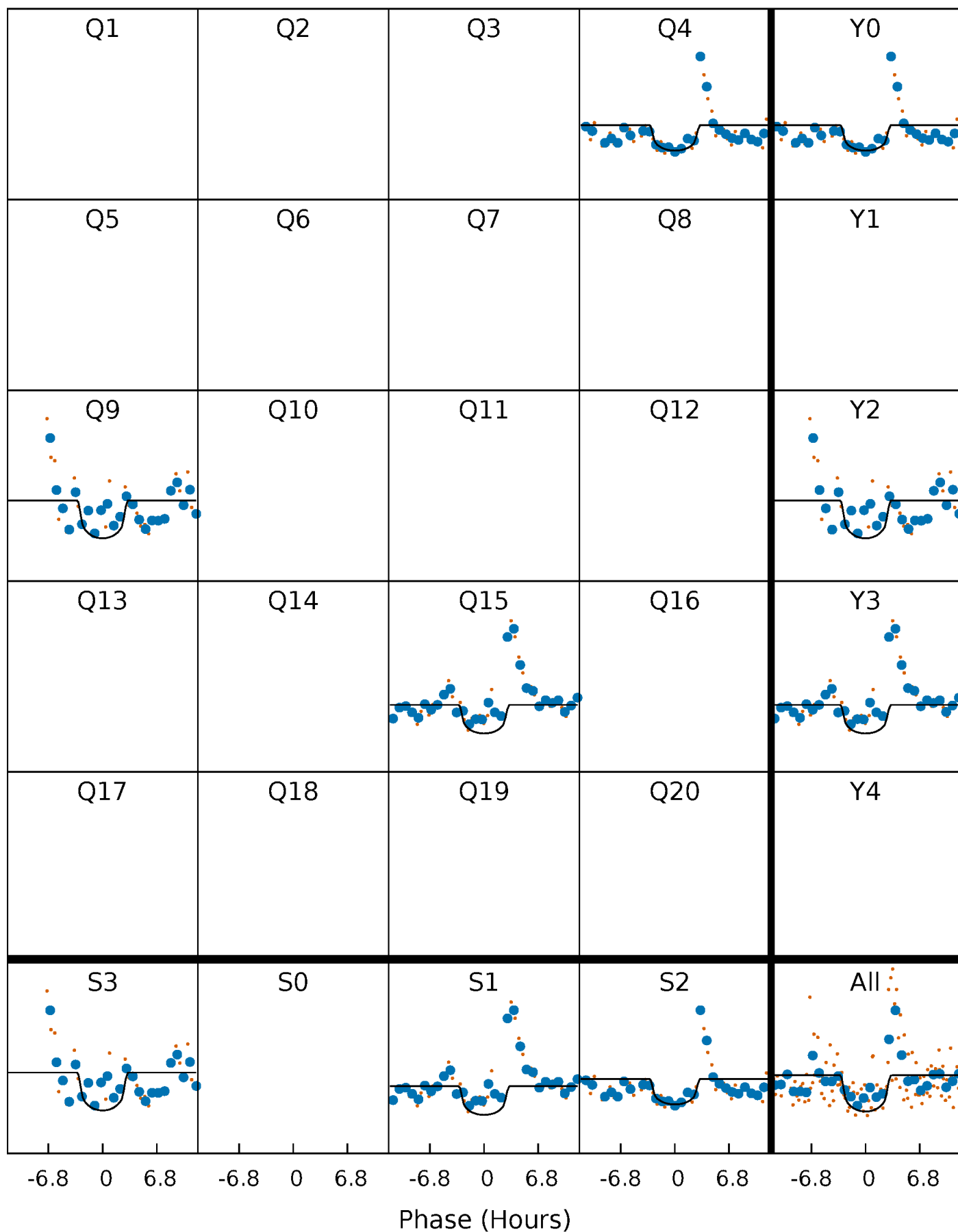
PDC Quarter-Phased Transit Curves

TCE 007947607-01 P=499.986698 Days $T_0=387.880508$ (BKJD)



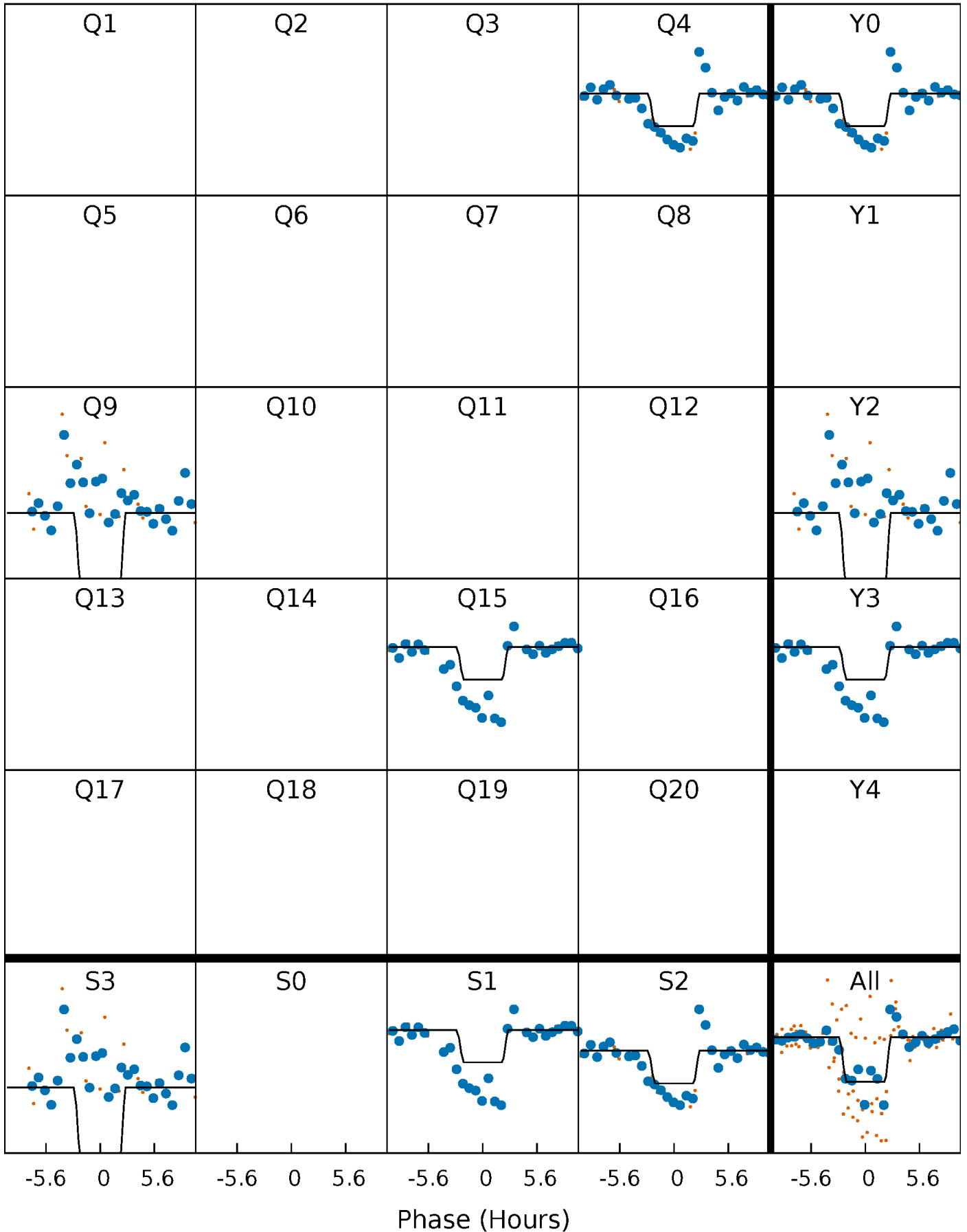
DV Quarter-Phased Transit Curves

TCE 007947607-01 P=499.986698 Days $T_0=387.880508$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

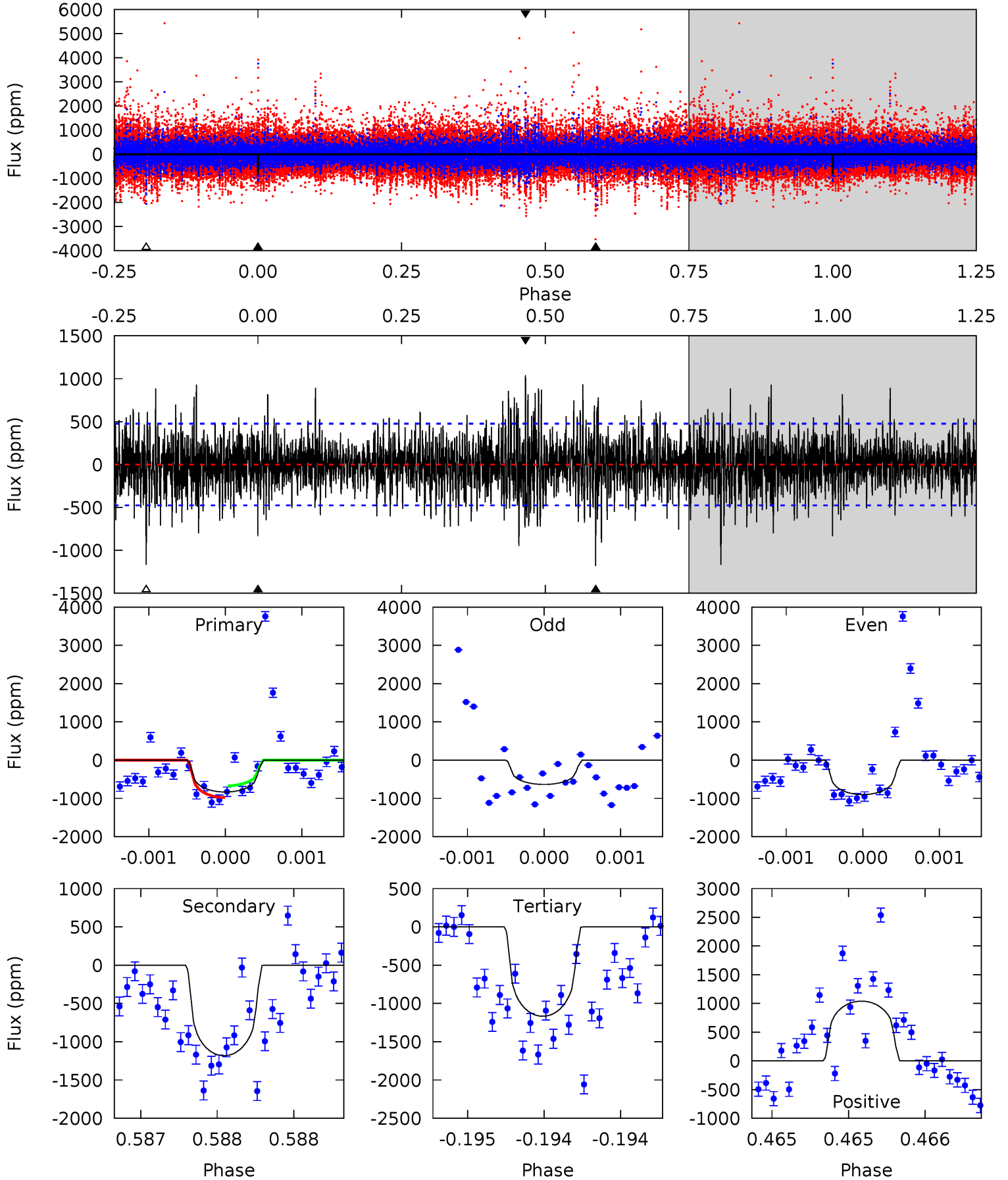
TCE 007947607-01 P=499.981968 Days $T_0=387.901179$ (BKJD)



DV Model-Shift Uniqueness Test

007947607-01, P = 499.986698 Days, E = 387.880508 Days

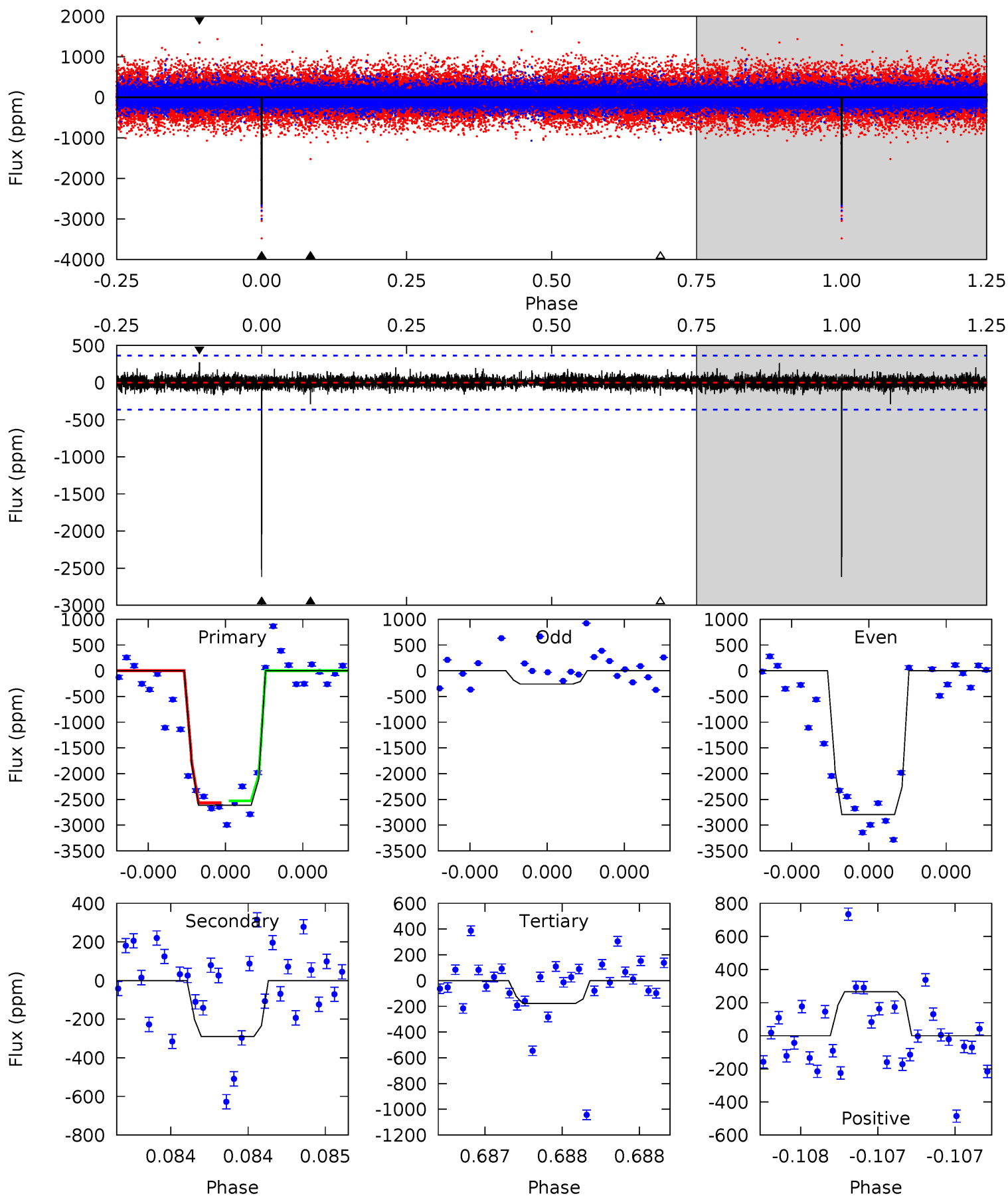
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.74	13.8	13.6	12.2	5.56	3.46	2.76	-3.90	-2.41	0.18	1.66	1.18	1.28	0.47	1.81



Alt Model-Shift Uniqueness Test

007947607-01, P = 499.981968 Days, E = 387.901179 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.2	4.46	2.73	4.09	5.60	3.52	0.63	37.5	36.1	1.73	0.37	24.2	0.74	0.09	0.28



Stellar Parameters For KIC 007947607

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4987^{+136}_{-151}	$4.606^{+0.036}_{-0.059}$	$-0.160^{+0.300}_{-0.300}$	$0.717^{+0.078}_{-0.058}$	$0.758^{+0.071}_{-0.071}$	$2.897^{+0.557}_{-0.605}$
	+3%/-3%	+1%/-1%	+188%/-188%	+11%/-8%	+9%/-9%	+19%/-21%
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 007947607-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1183 ± 86	$3.05^{+2.19}_{-1.83}$	246^{+9}_{-9}	4765^{+2689}_{-885}	$88648^{+450103}_{-59188}$
Alt.	-290 ± 65	$3.40^{+2.04}_{-1.83}$	247^{+9}_{-9}	3530^{+1123}_{-473}	16972^{+62591}_{-10387}

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

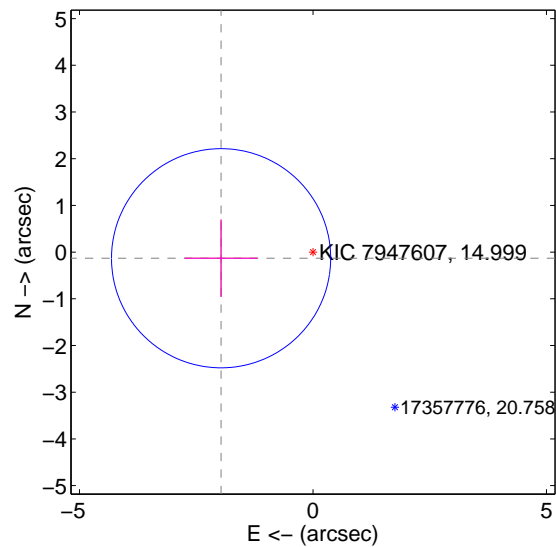
Supplemental centroid analysis for 007947607-01. Kepler magnitude: 15.00. Transit SNR 8.06

There are 0 quarters with good PRF difference image offsets

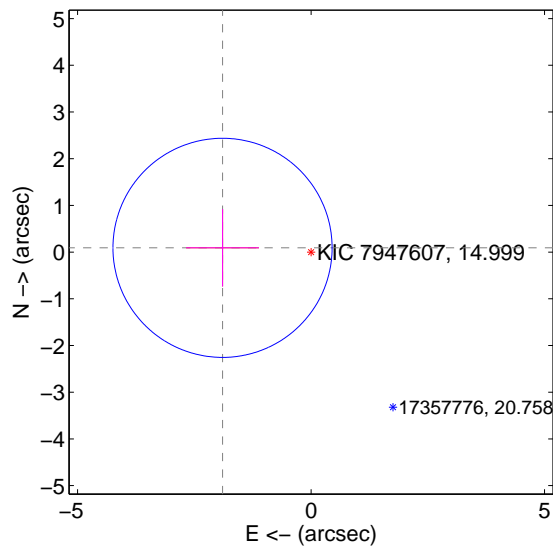
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.972 ± 0.782	2.52	1.968 ± 0.782	-0.132 ± 0.829
PRF-fit source offset from KIC position	1.898 ± 0.782	2.43	1.896 ± 0.782	0.091 ± 0.829
photometric centroid source offset	1.16 ± 0.65	1.77	-0.97 ± 0.64	-0.63 ± 0.69

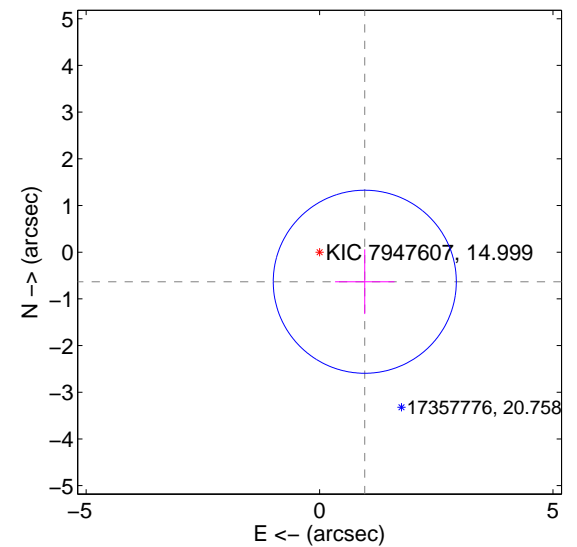
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

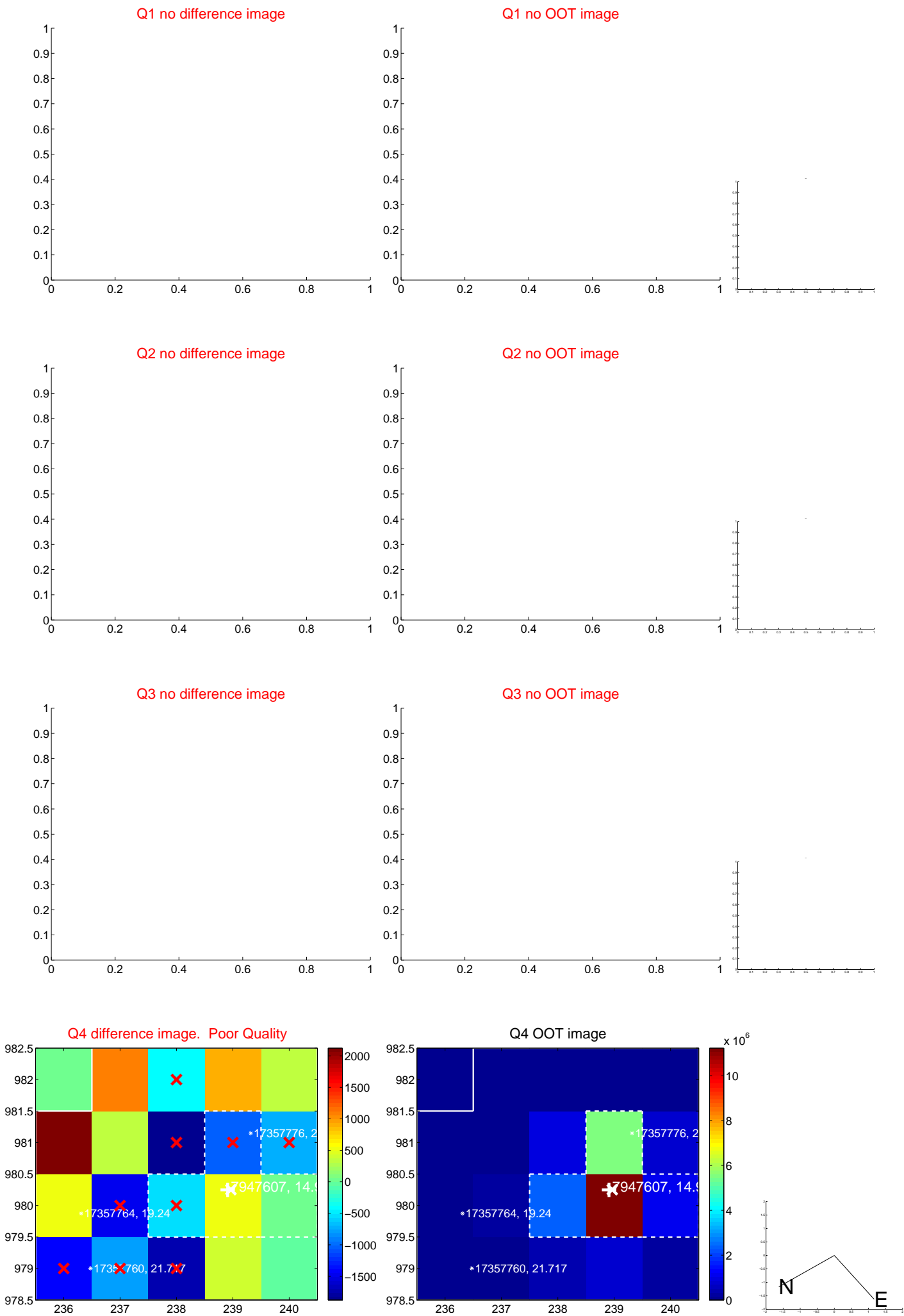


offset from photometric centroids



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.



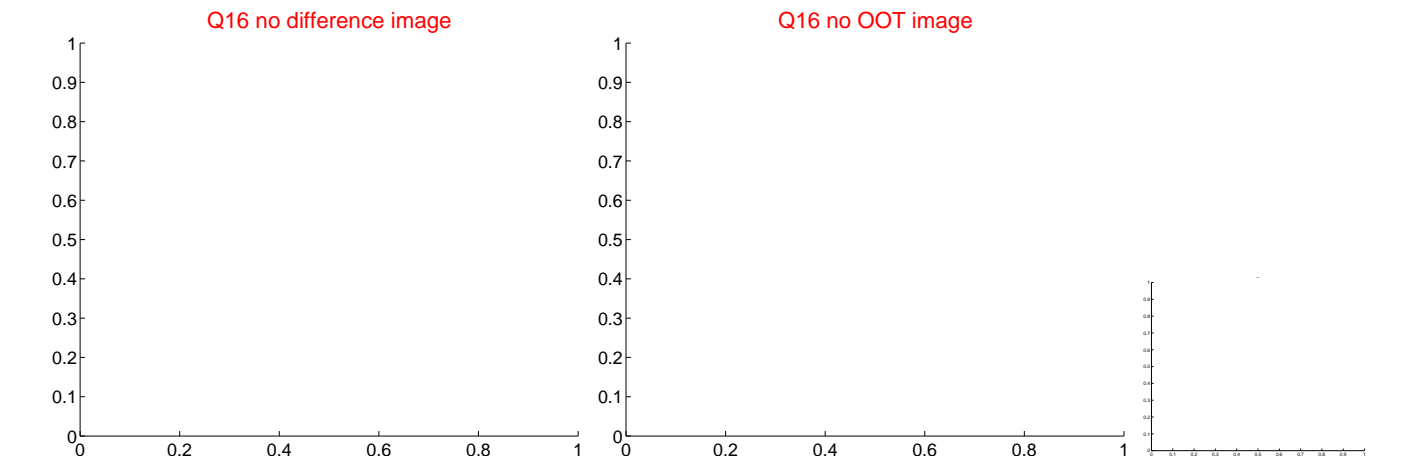
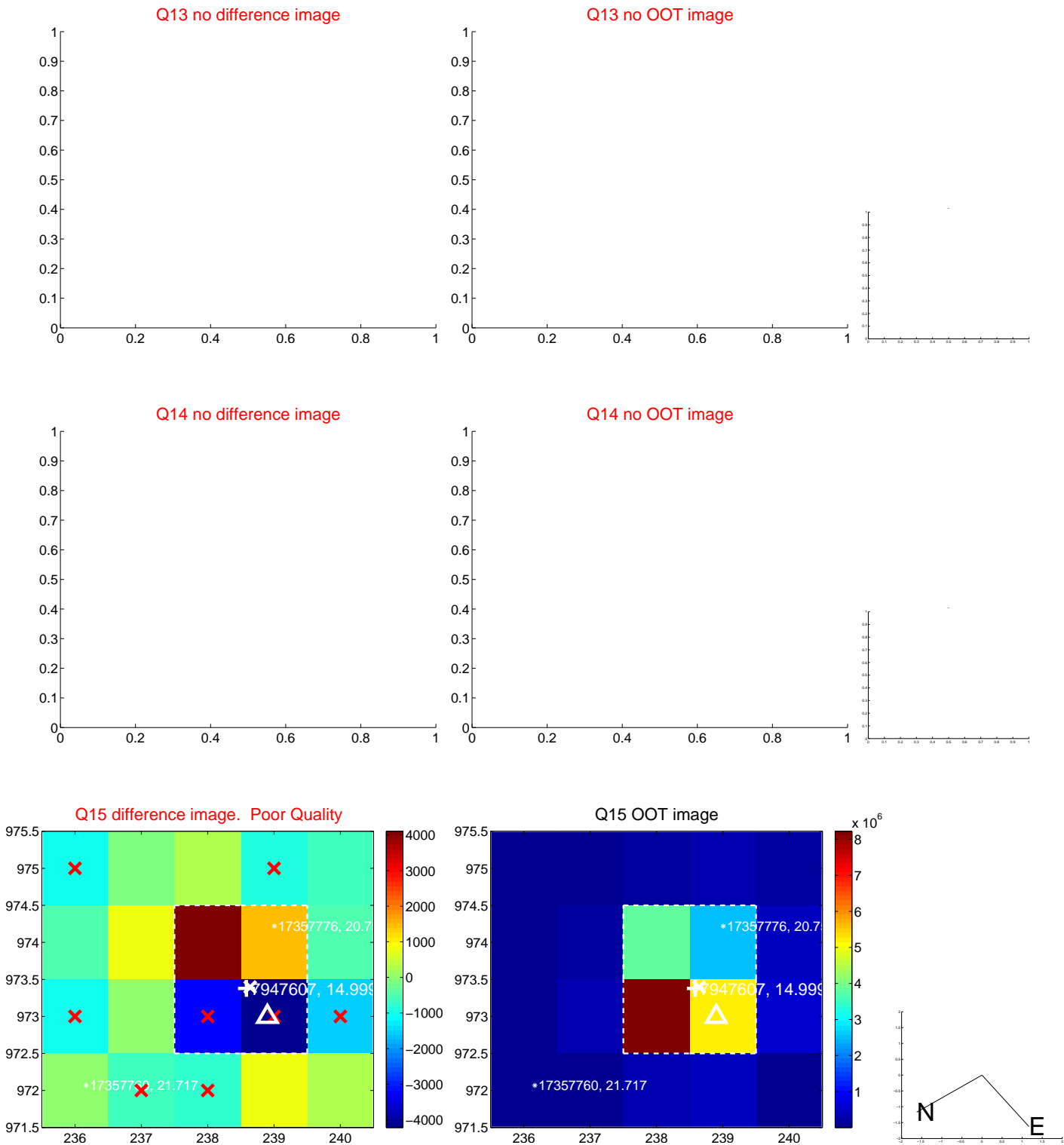
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



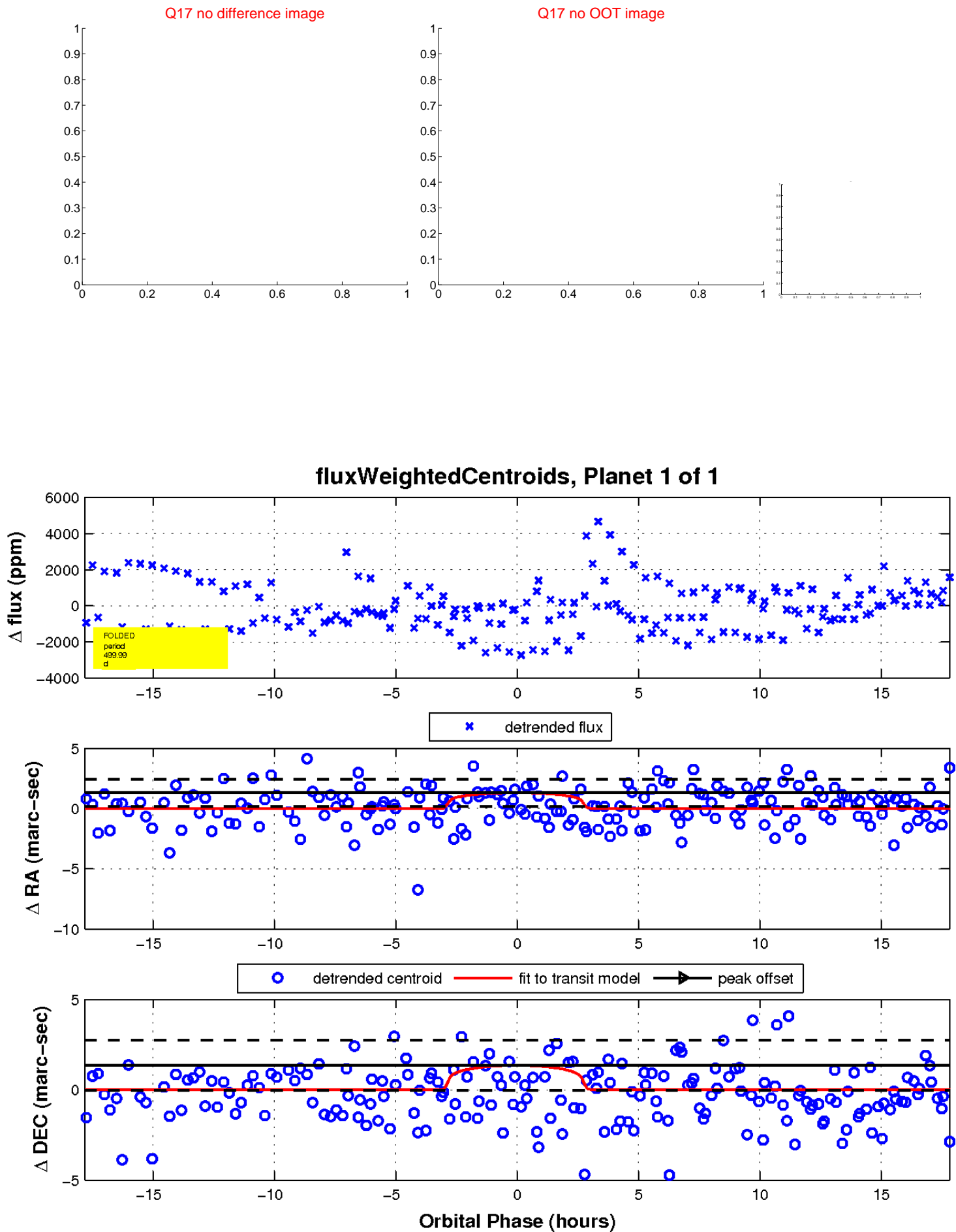
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

