

KIC 007049035

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})
007049035-01	OBS	No	642.736838	227.047939	1248.9	5.506	13.6	6.9	0.58	4869	2.03	0.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007049035-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_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.

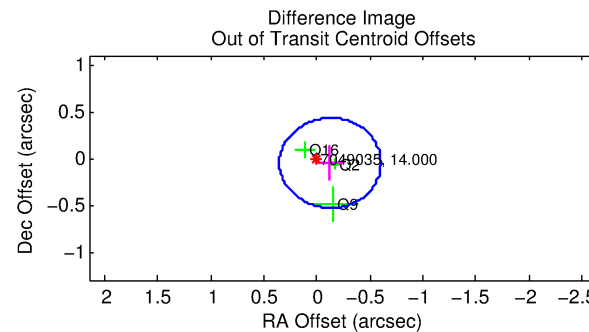
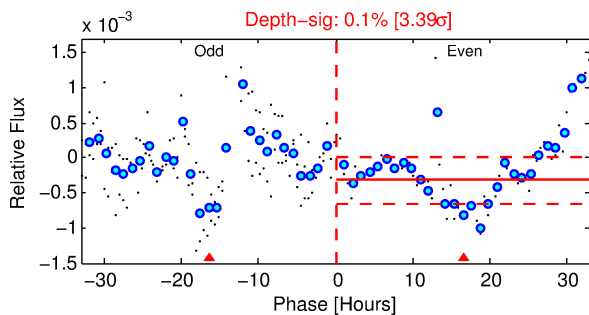
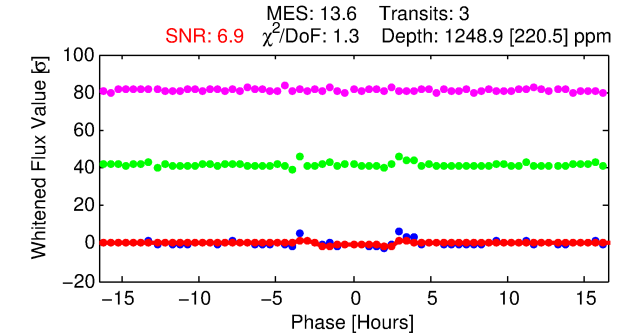
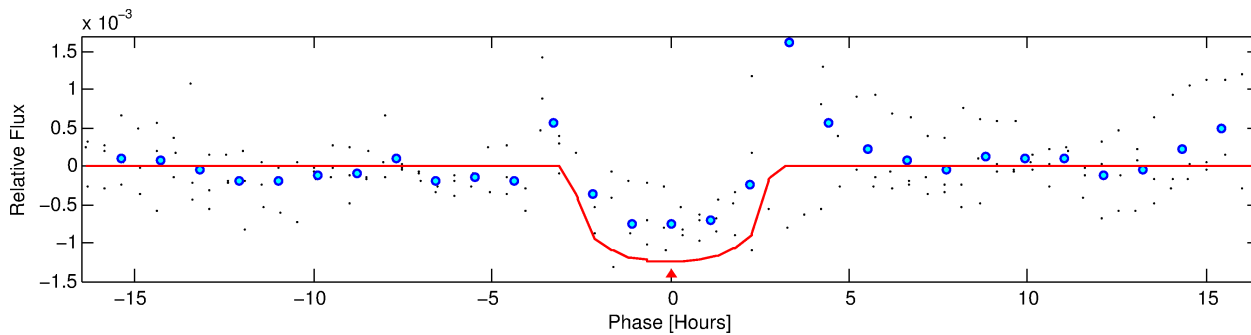
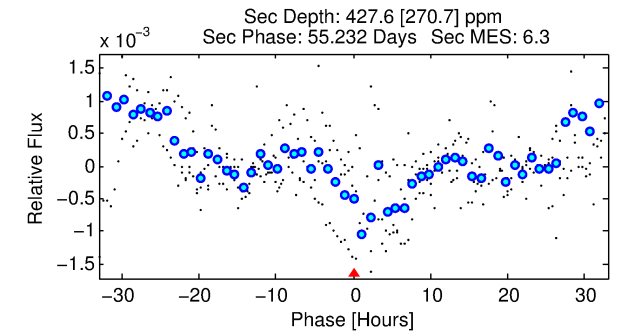
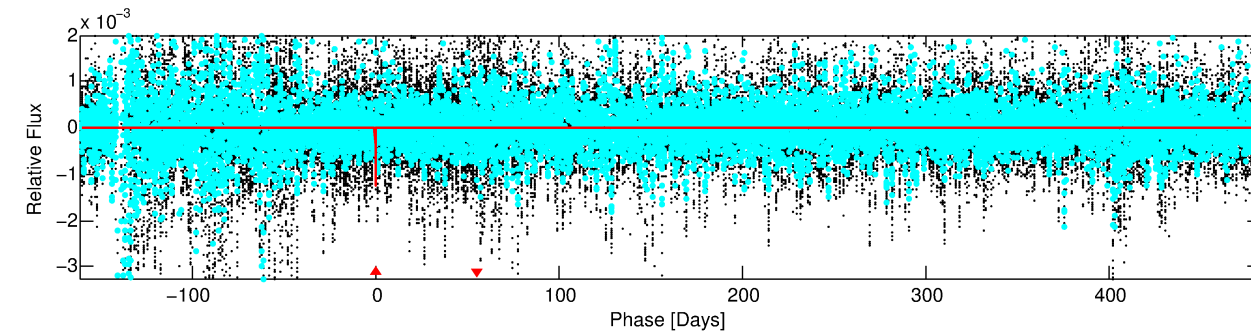
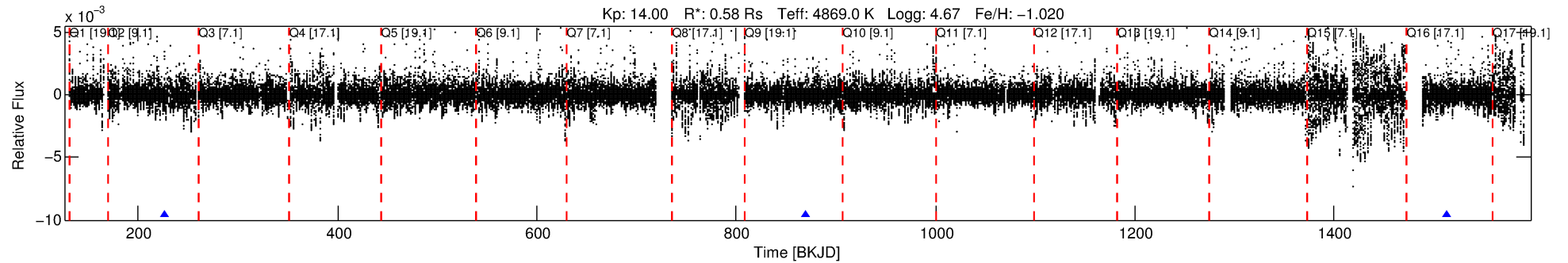
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007049035-01

No Significant Match Found

DV One-Page Summary

KIC: 7049035 Candidate: 1 of 1 Period: 642.737 d



DV Fit Results:

Period = 642.73684 [0.00456] d
Epoch = 227.0479 [0.0062] BKJD
Rp/R* = 0.0321 [0.0631]
a/R* = 872.47 [6610.25]
b = 0.33 [20.78]
Seff = 0.11 [0.02]
Teq = 148 [6] K
Rp = 2.03 [3.98] Re
a = 1.2134 [0.0751] AU
Ag = 84324.04 [335739.34] [0.25σ]
Teffp = 3906 [3889] K [0.97σ]

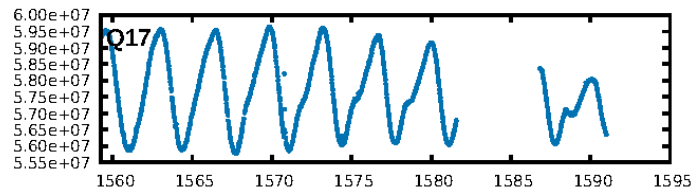
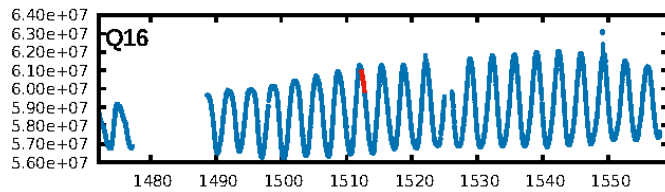
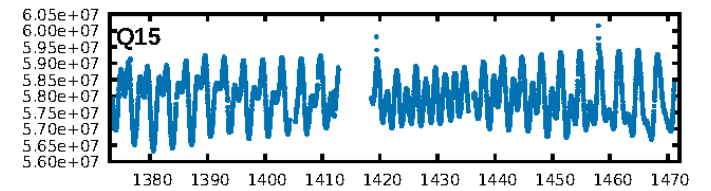
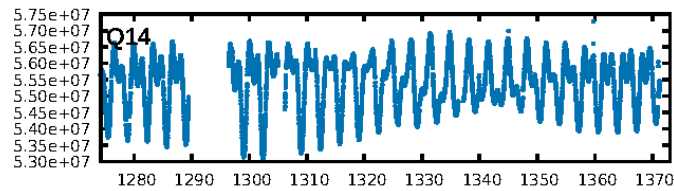
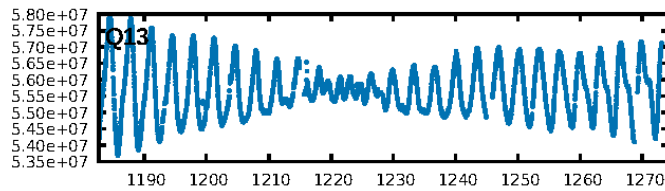
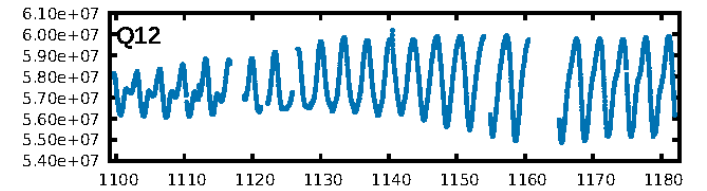
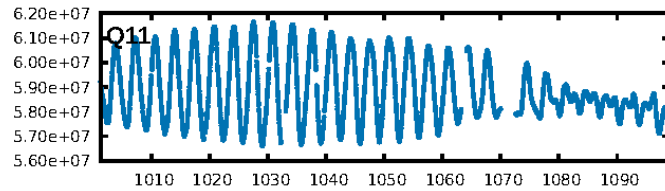
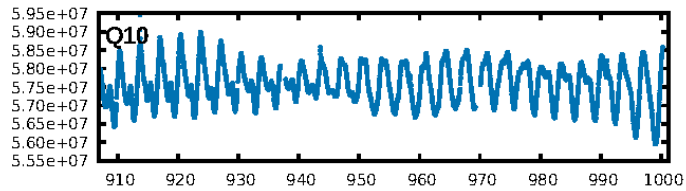
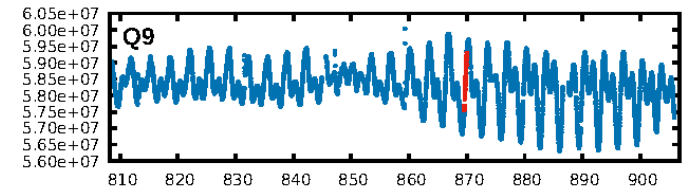
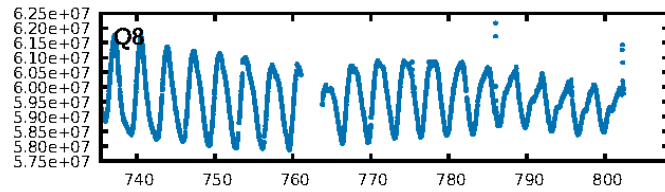
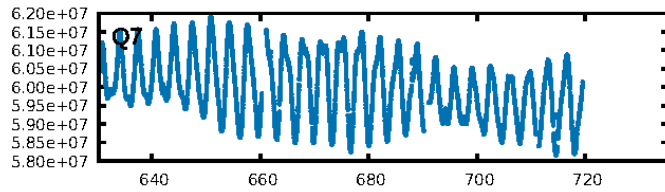
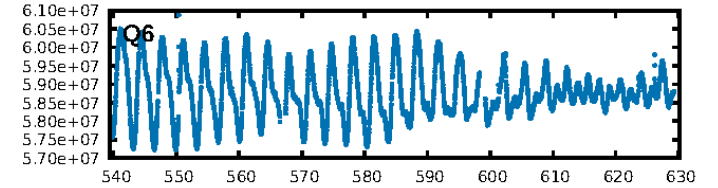
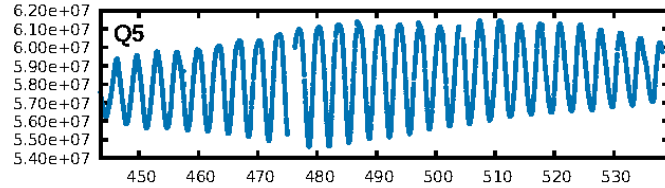
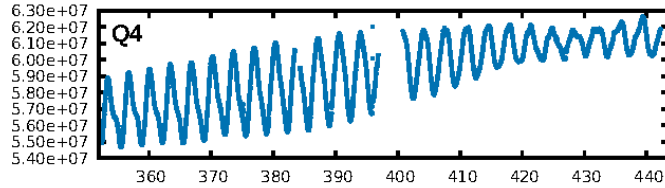
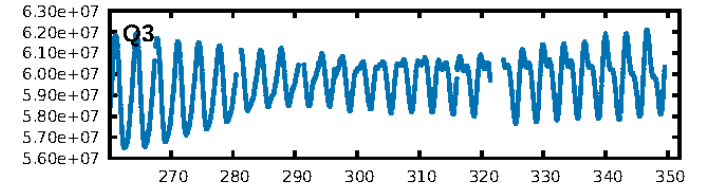
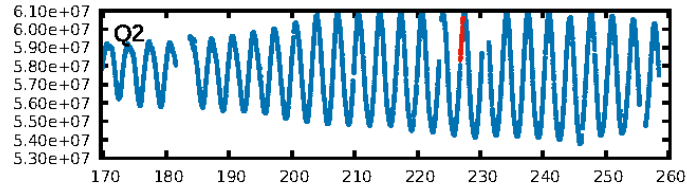
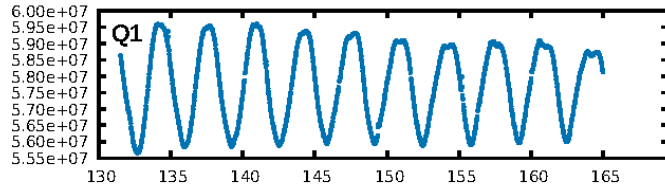
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 10.6%
ModelChiSquareGof-sig: 58.8%
Bootstrap-pfa: 6.21e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.082
Centroid-sig: 92.6%
Centroid-so: 0.143 arcsec [0.29σ]
OotOffset-rm: 0.134 arcsec [0.84σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-rm: 0.066 arcsec [0.43σ]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

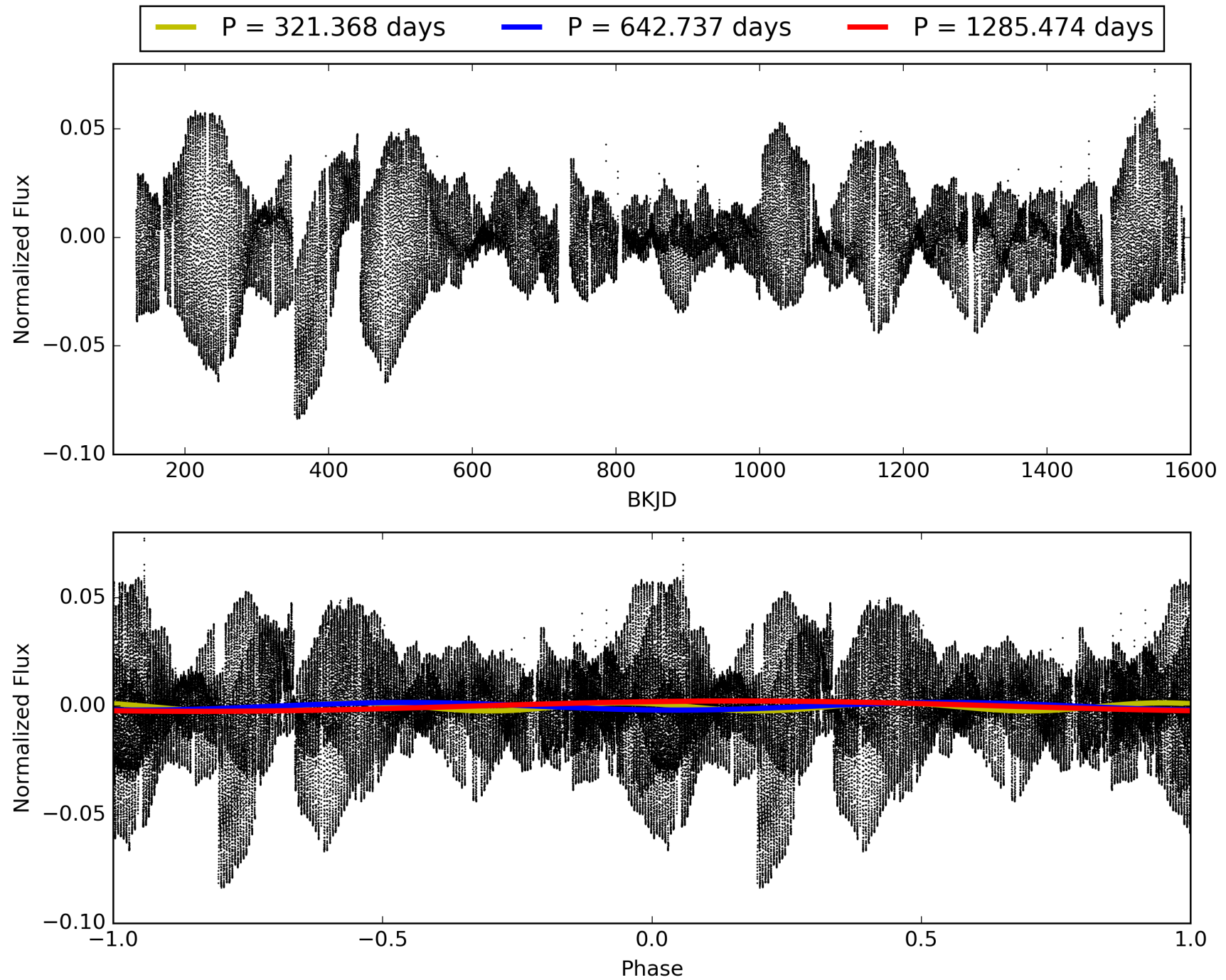
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 23:35:11 Z

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

TCE 007049035-01, PDC Light Curves

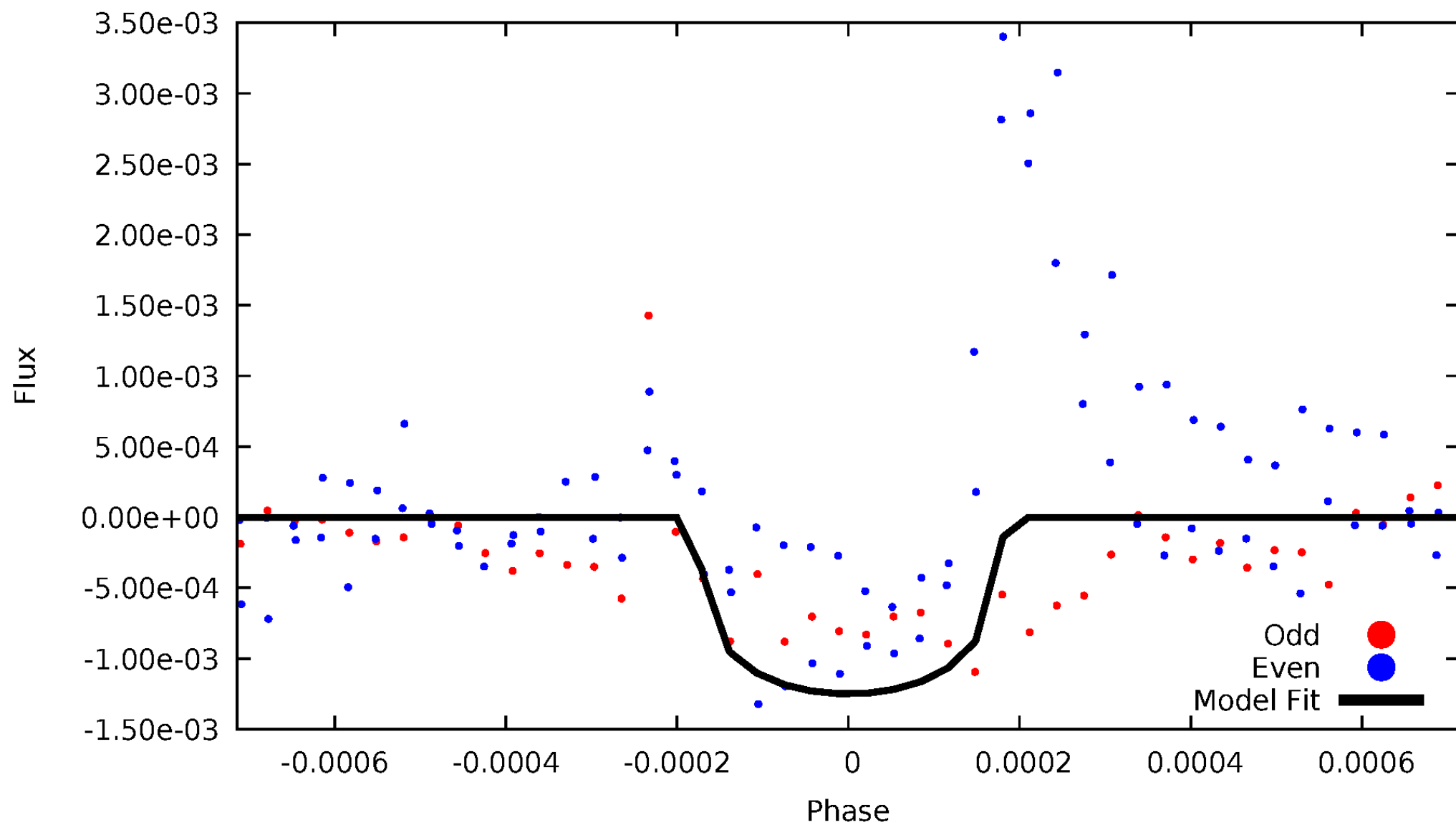


TCE 007049035-01



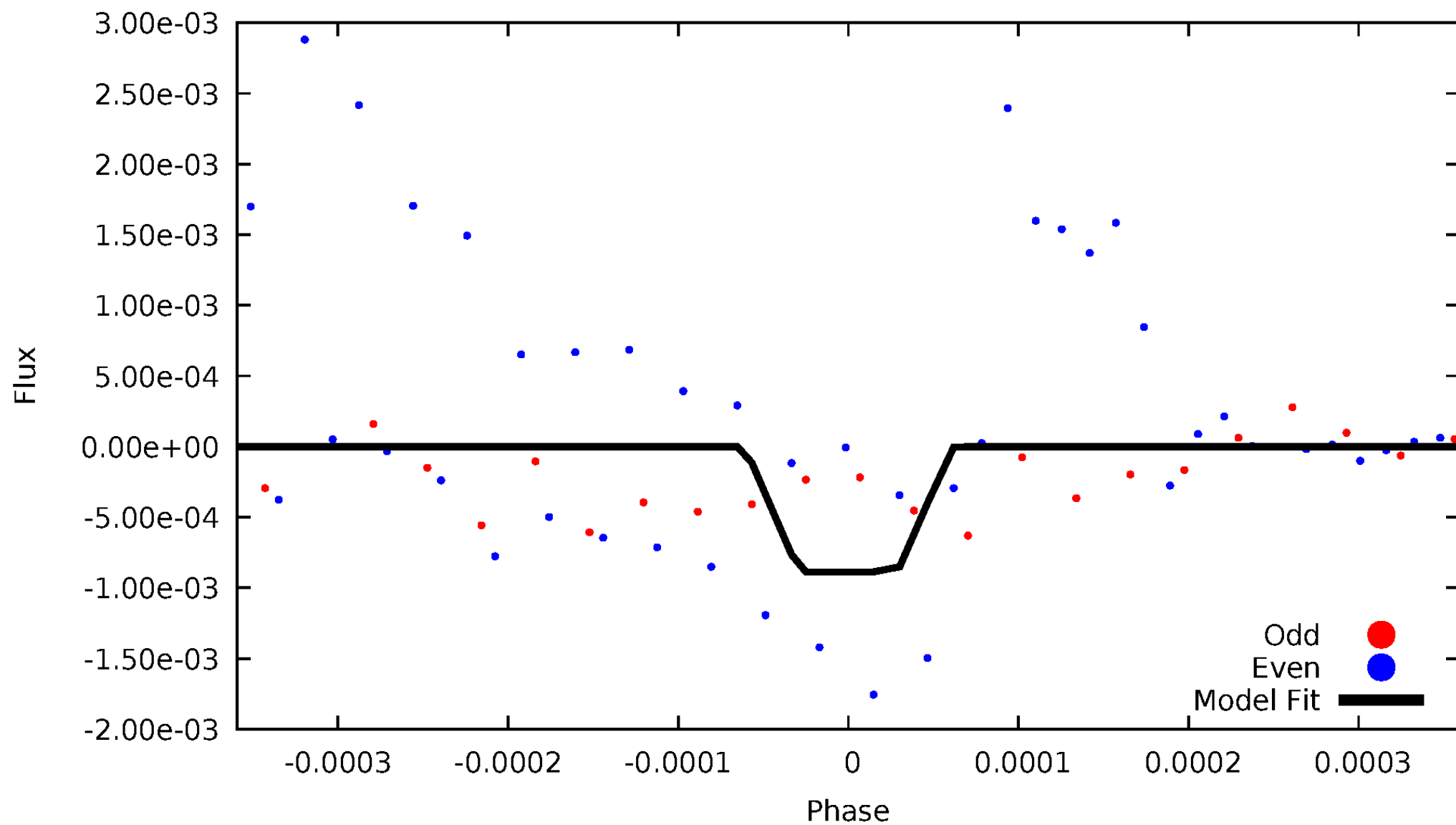
DV Odd/Even

TCE 007049035-01

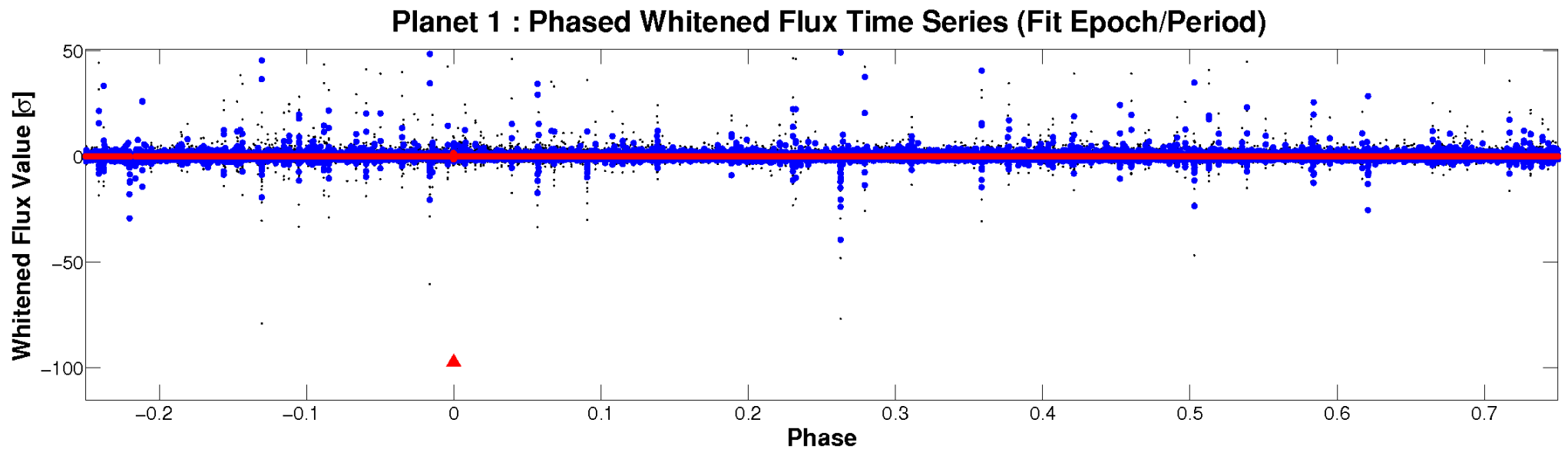
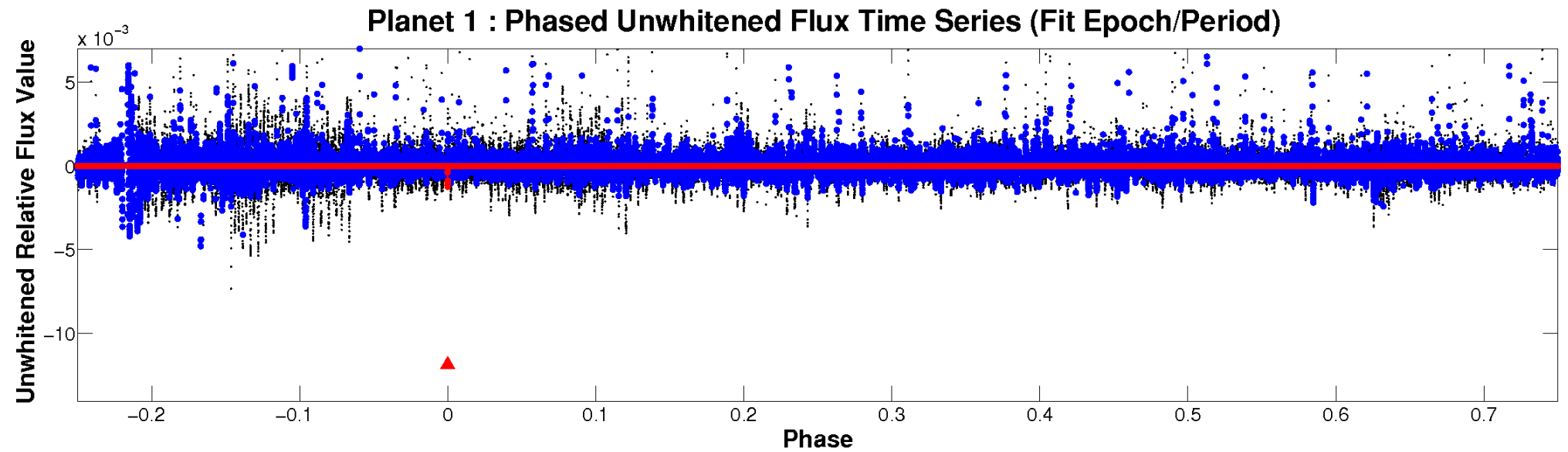


ALT Odd/Even

TCE 007049035-01

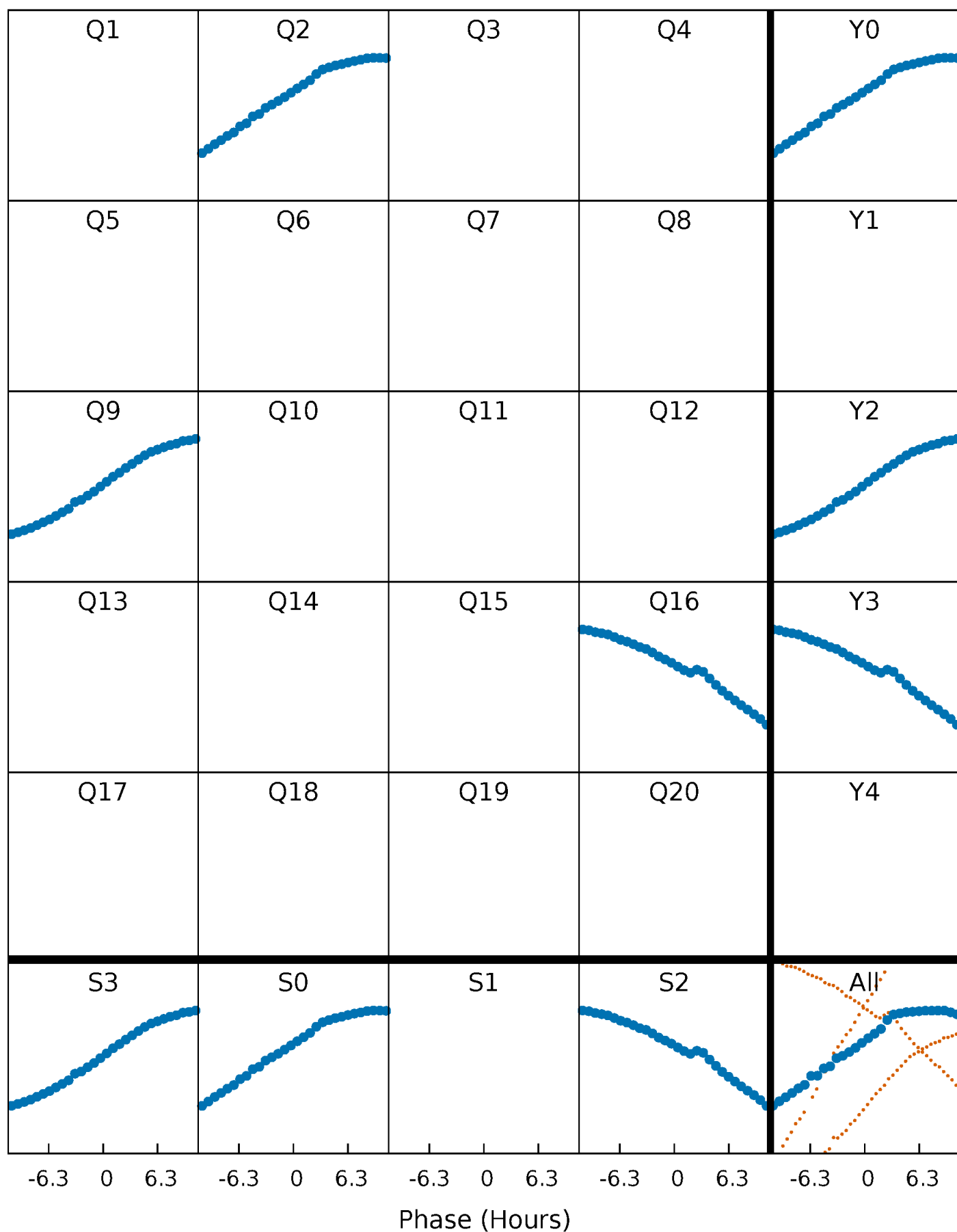


Non-Whitened Vs. Whitened Light Curve



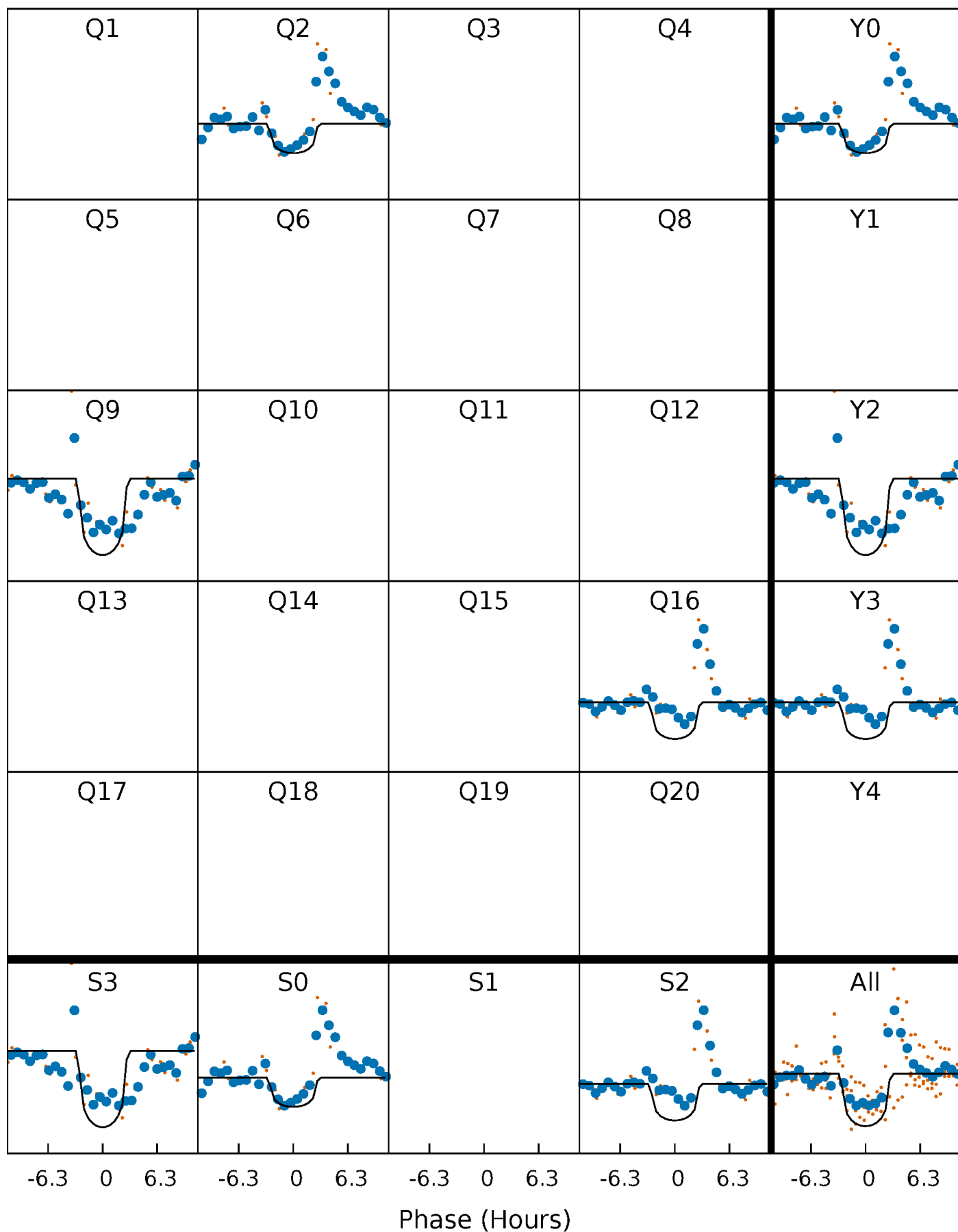
PDC Quarter-Phased Transit Curves

TCE 007049035-01 P=642.736838 Days $T_0=227.047938$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007049035-01 P=642.736838 Days $T_0=227.047938$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

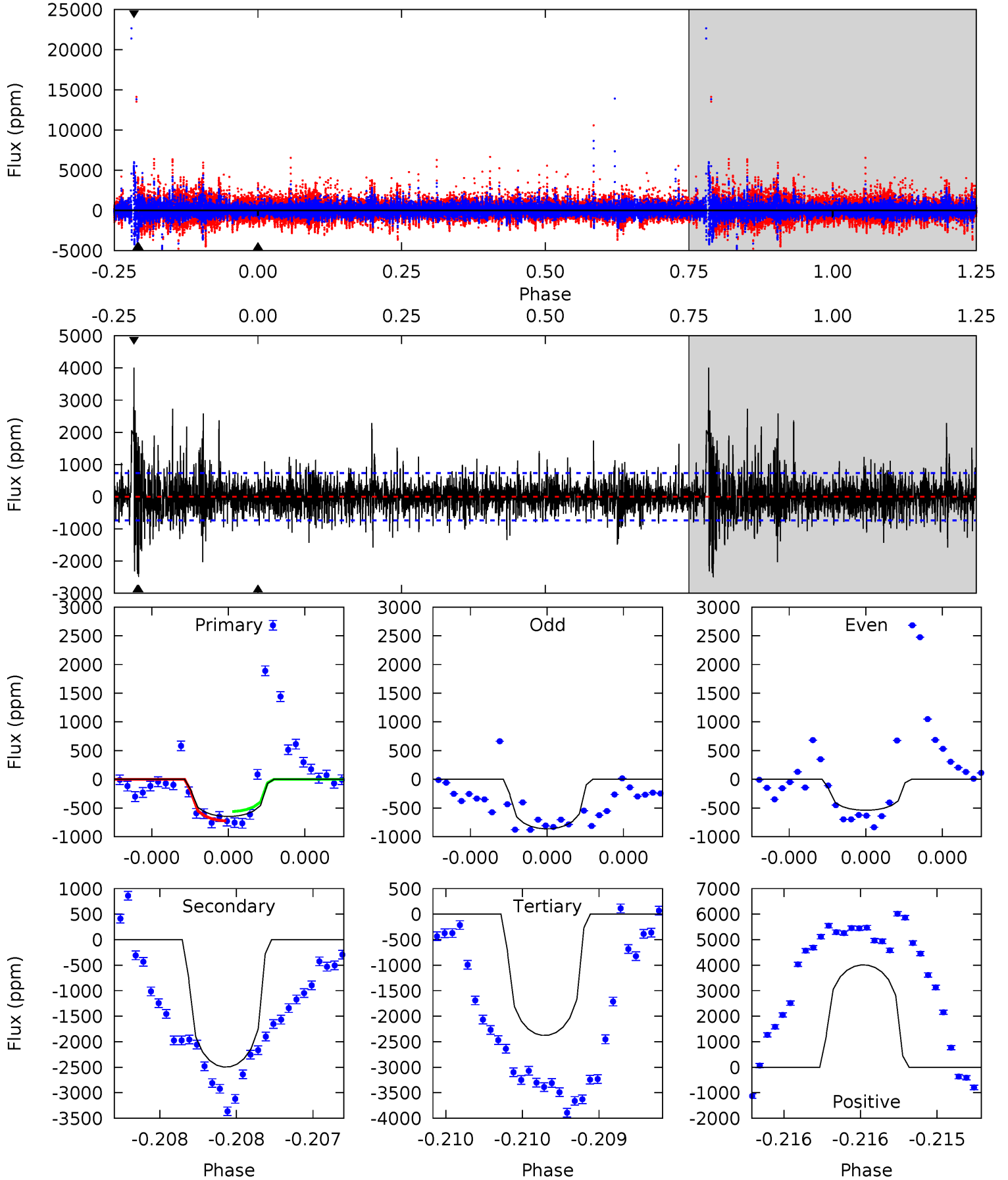
TCE 007049035-01 P=642.730819 Days $T_0=227.103937$ (BKJD)



DV Model-Shift Uniqueness Test

007049035-01, P = 642.736838 Days, E = 227.047938 Days

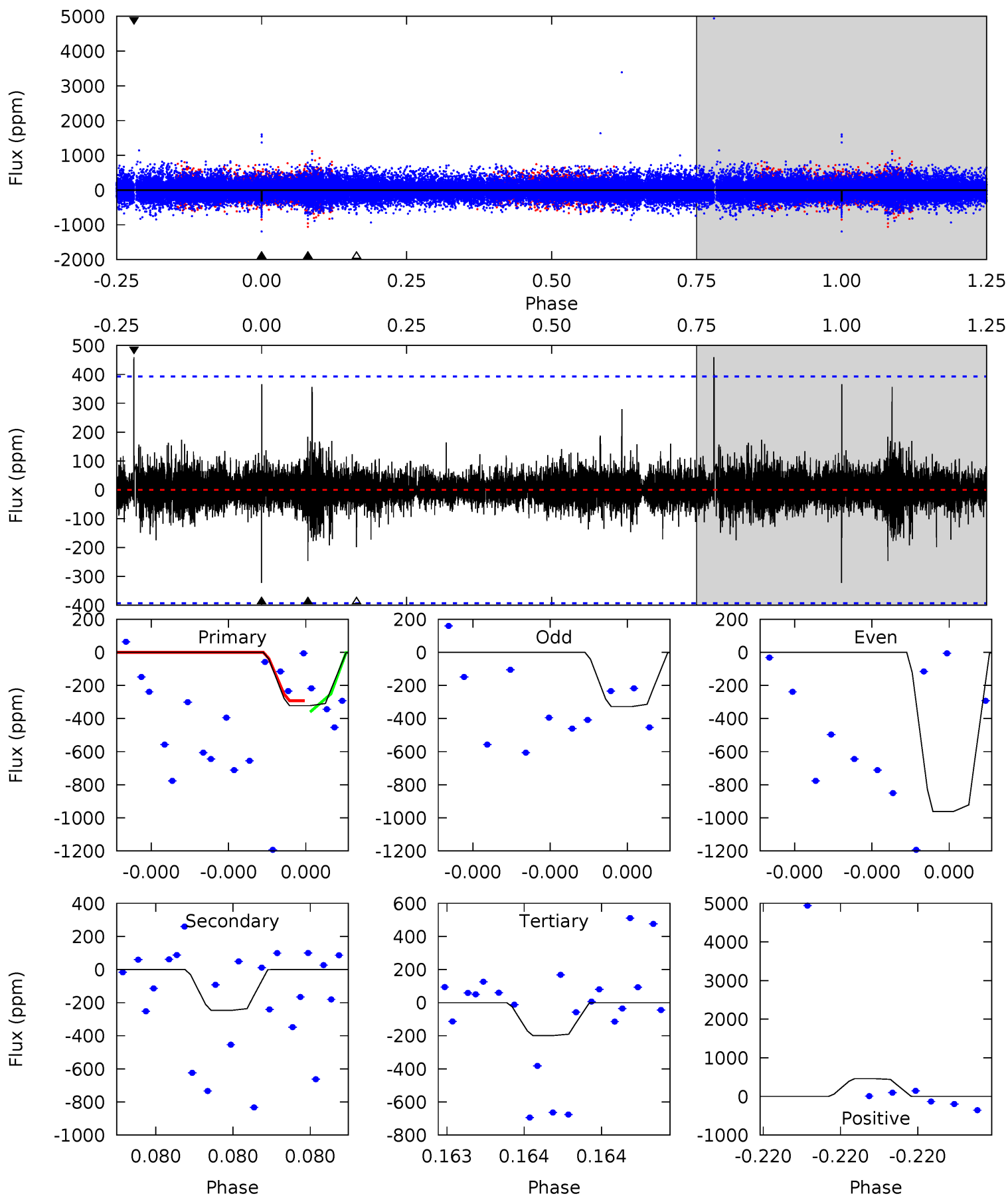
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.97	19.2	18.2	30.8	5.63	3.57	3.23	-13.3	-25.8	0.92	-11.6	0.94	0.78	0.62	0.63



Alt Model-Shift Uniqueness Test

007049035-01, P = 642.730819 Days, E = 227.103937 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.78	3.65	2.94	6.81	5.82	3.85	0.49	1.84	-2.03	0.71	-3.16	4.70	2.37	0.59	0.45



Stellar Parameters For KIC 007049035

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4869^{+145}_{-145}	$4.675^{+0.052}_{-0.032}$	$-1.020^{+0.300}_{-0.300}$	$0.578^{+0.041}_{-0.037}$	$0.577^{+0.049}_{-0.021}$	$4.203^{+0.894}_{-0.566}$
	+3%/-3%	+1%/-1%	+29%/-29%	+7%/-6%	+8%/-4%	+21%/-13%
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 007049035-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2496 ± 130	$3.70^{+3.03}_{-2.35}$	206^{+7}_{-7}	4542^{+2727}_{-889}	$149124^{+954353}_{-103585}$
Alt.	-246 ± 67	$3.41^{+3.56}_{-2.15}$	206^{+7}_{-7}	3133^{+1290}_{-528}	$15945^{+109939}_{-11764}$

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

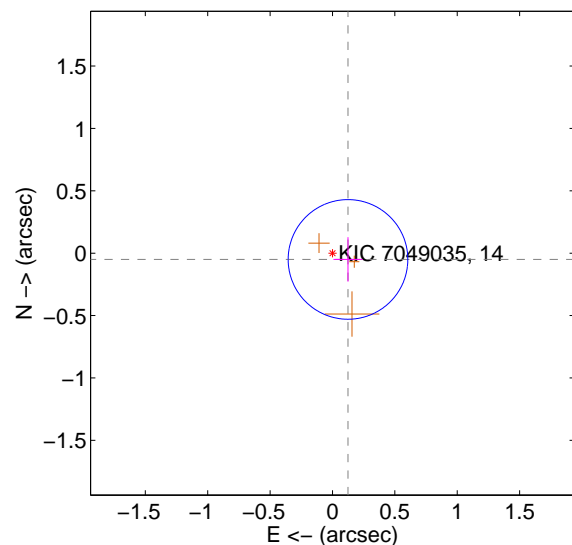
Supplemental centroid analysis for 007049035-01. Kepler magnitude: 14.00. Transit SNR 6.90

There are 0 quarters with good PRF difference image offsets

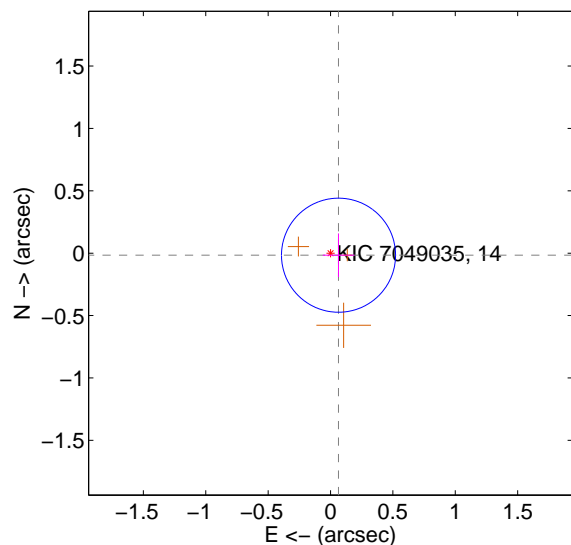
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.134 ± 0.160	0.84	-0.124 ± 0.116	-0.050 ± 0.178
PRF-fit source offset from KIC position	0.066 ± 0.152	0.43	-0.064 ± 0.127	-0.016 ± 0.175
photometric centroid source offset	0.14 ± 0.49	0.29	-0.03 ± 0.44	-0.14 ± 0.49

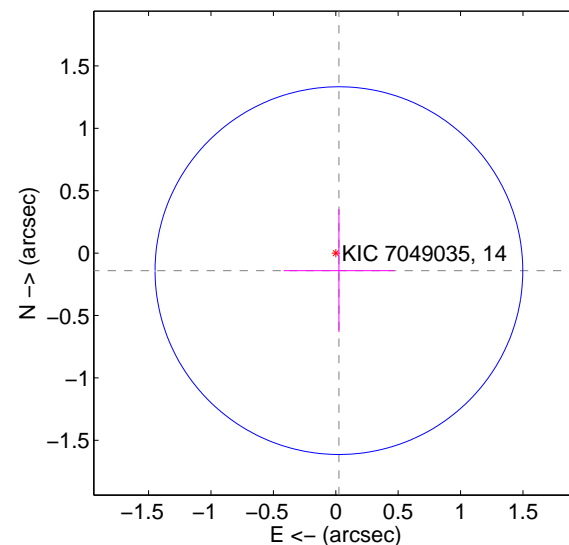
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

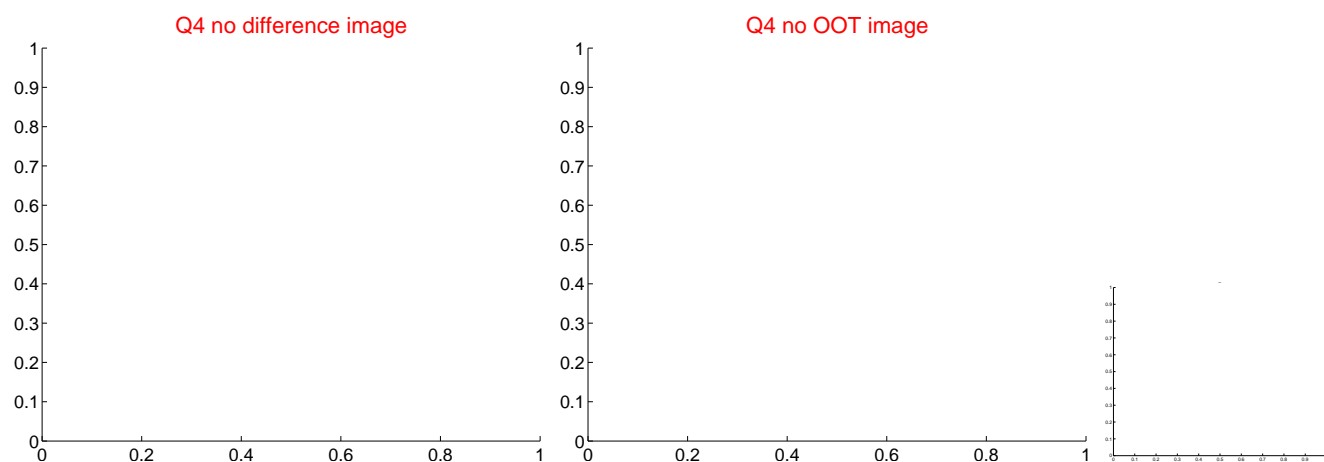
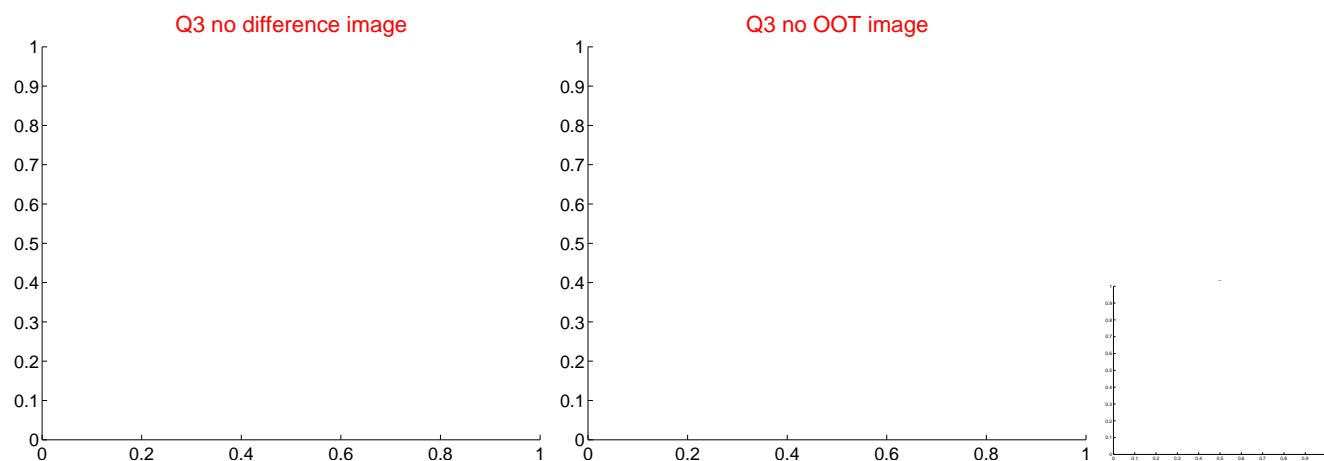
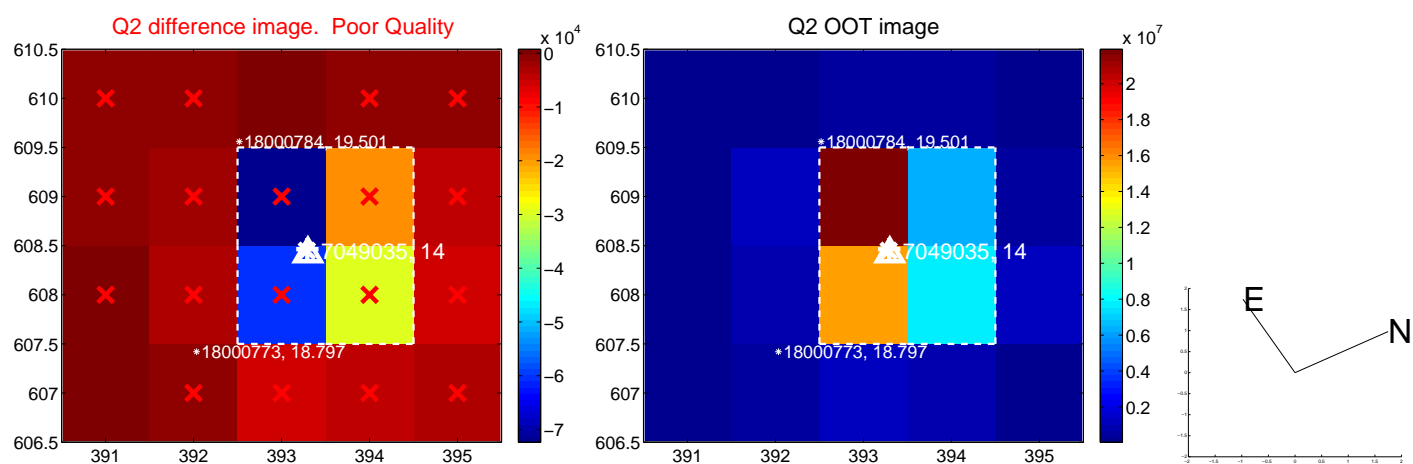
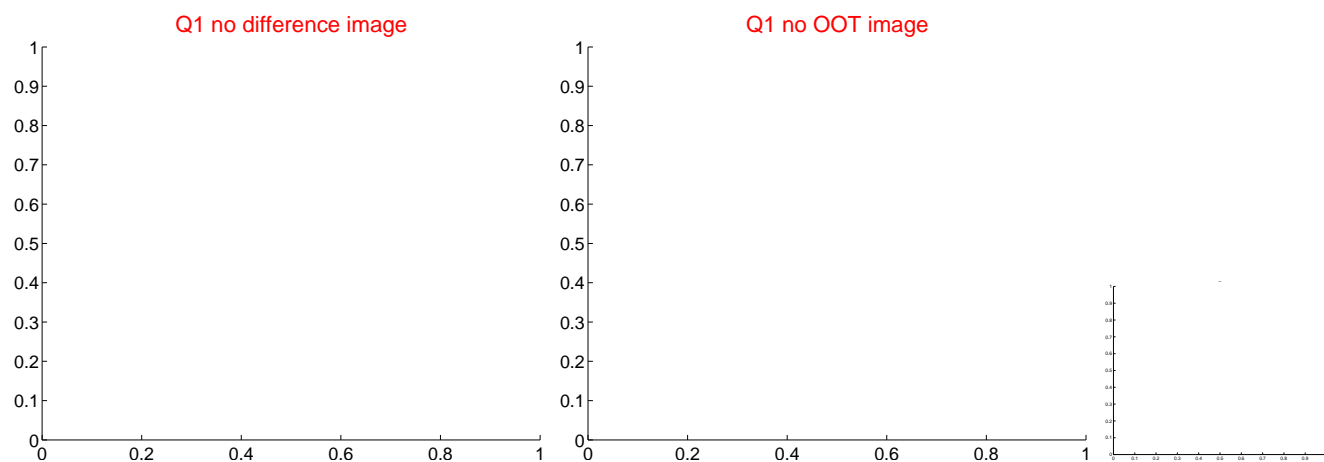


offset from photometric centroids



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.

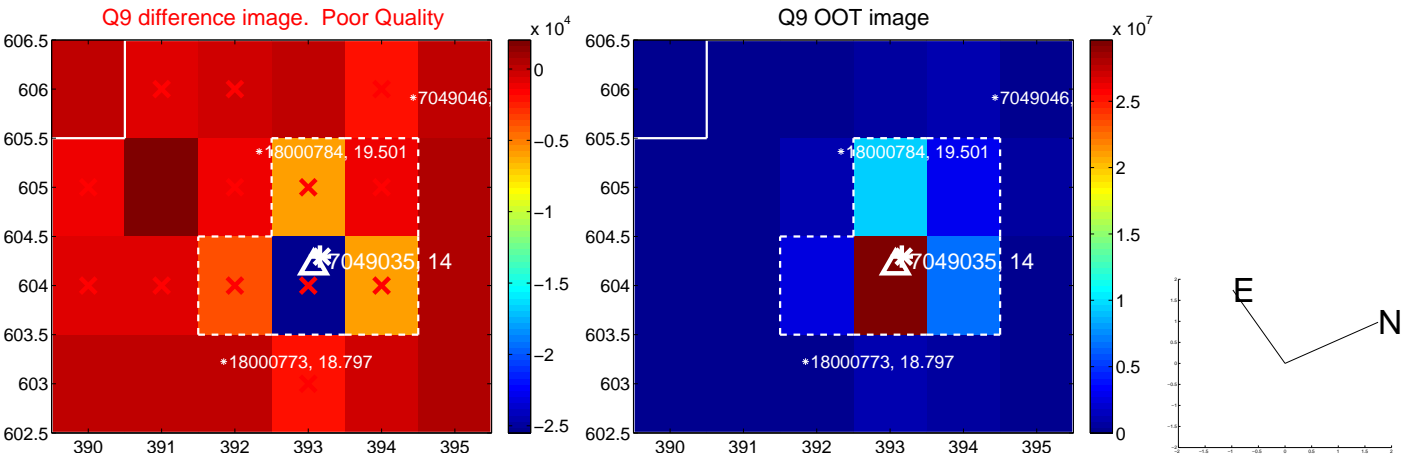
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



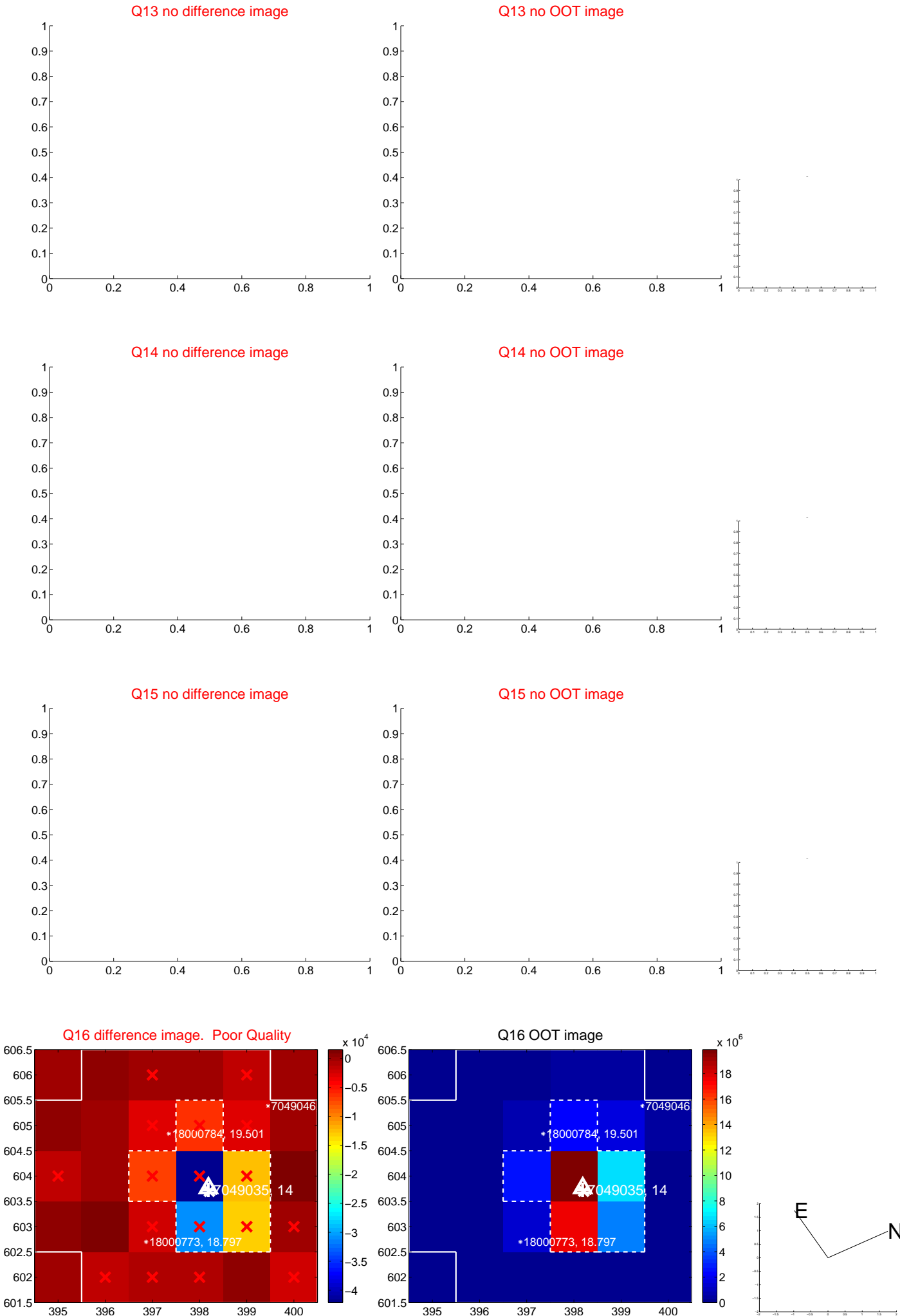
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



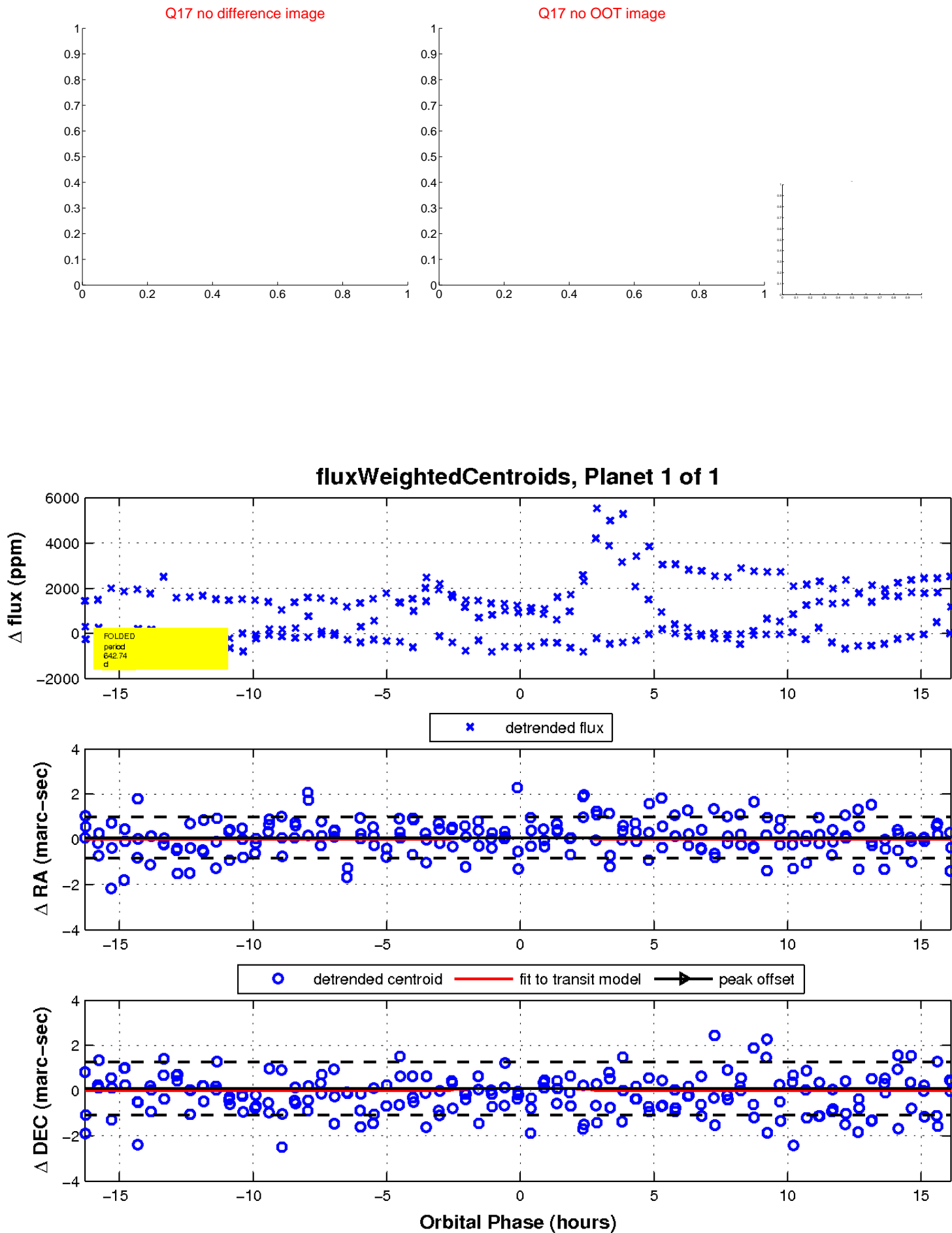
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

