

KIC 007618641

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})
007618641-01	OBS	No	367.191932	237.970946	1520.5	16.455	9.5	10.3	0.91	5778	3.84	0.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007618641-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

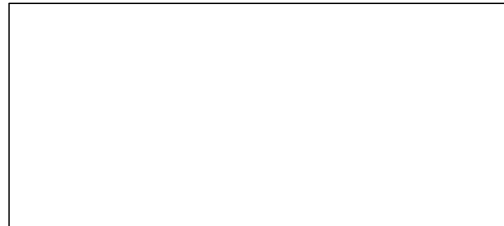
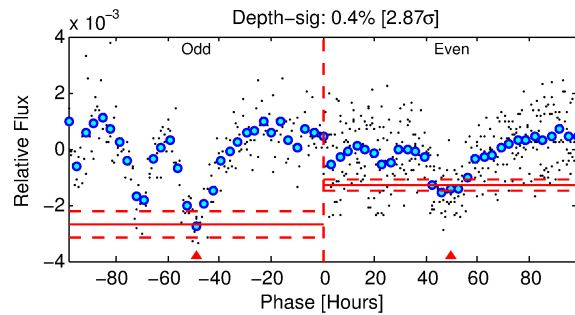
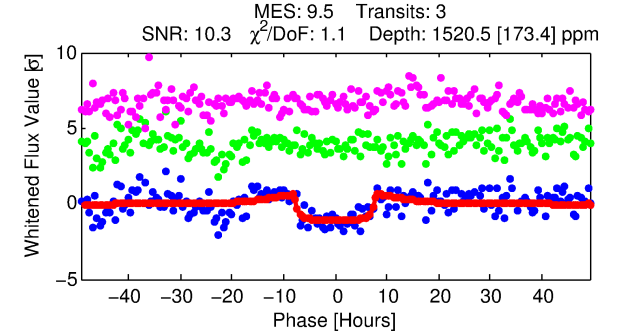
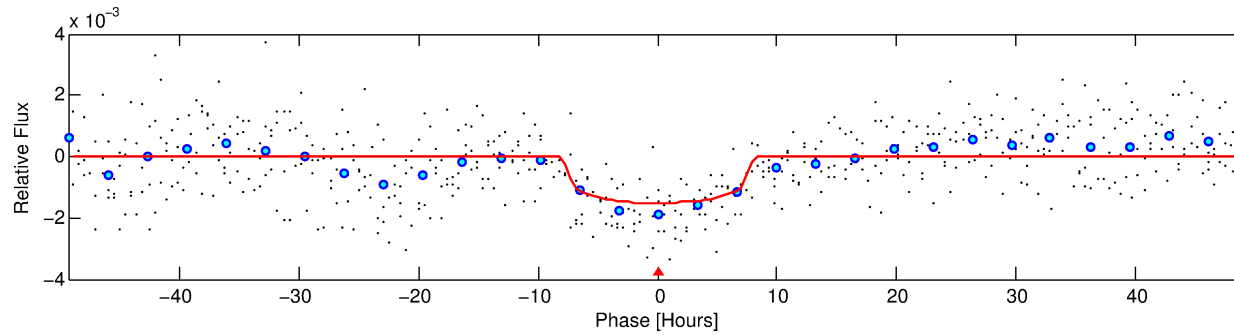
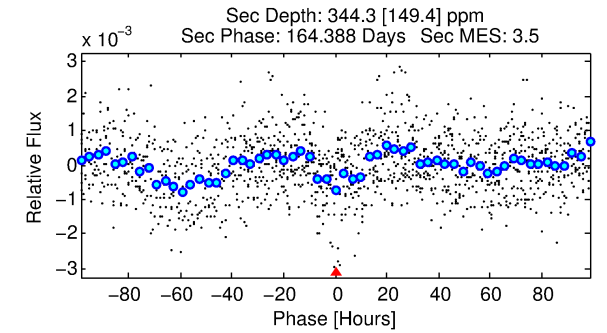
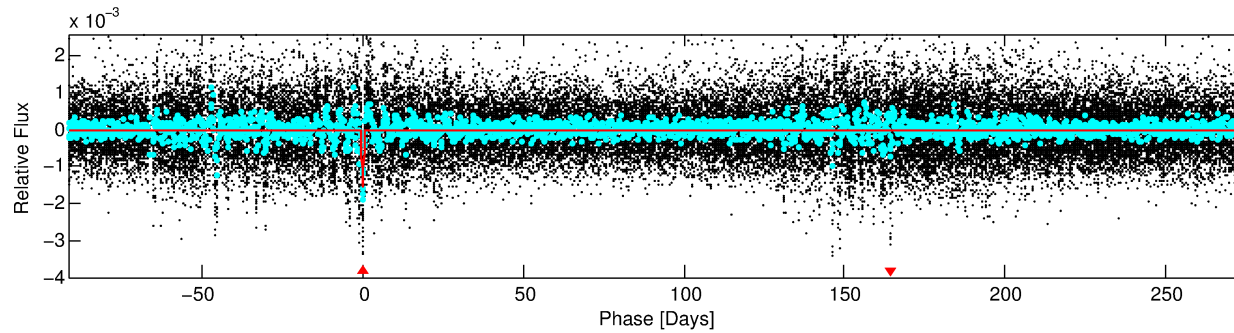
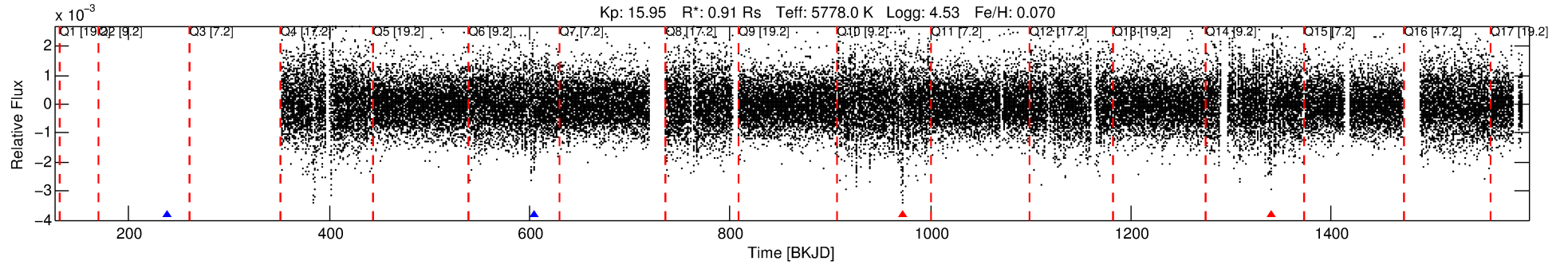
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007618641-01

No Significant Match Found

DV One-Page Summary

KIC: 7618641 Candidate: 1 of 1 Period: 367.192 d



DV Fit Results:

Period = 367.19193 [0.01342] d
Epoch = 237.9709 [0.0293] BKJD
Rp/R* = 0.0386 [0.0057]
a/R* = 125.11 [70.97]
b = 0.73 [0.36]
Seff = 0.81 [0.30]
Teq = 242 [23] K
Rp = 3.84 [1.16] Re
a = 1.0131 [0.2348] AU
Ag = 13205.37 [8325.69] [1.59σ]
Teffp = 4006 [544] K [6.91σ]

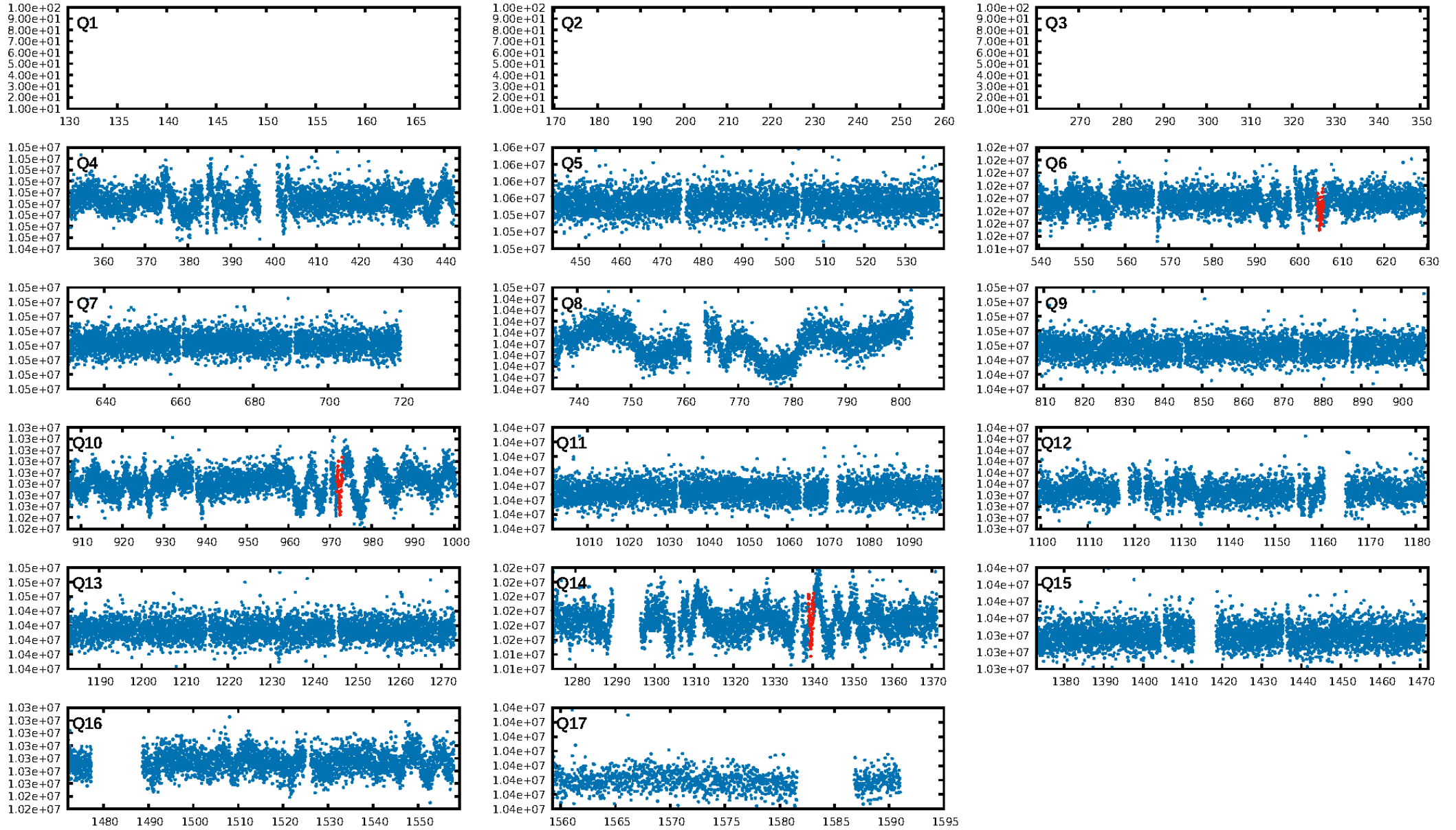
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.6%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 5.55e-10
RollingBand-fgt: 0.33 [1/3]
GhostDiagnostic-chr: 3.406
Centroid-sig: 52.2%
Centroid-so: 1.581 arcsec [0.80σ]
OotOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-rm: N/A
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [3/3]

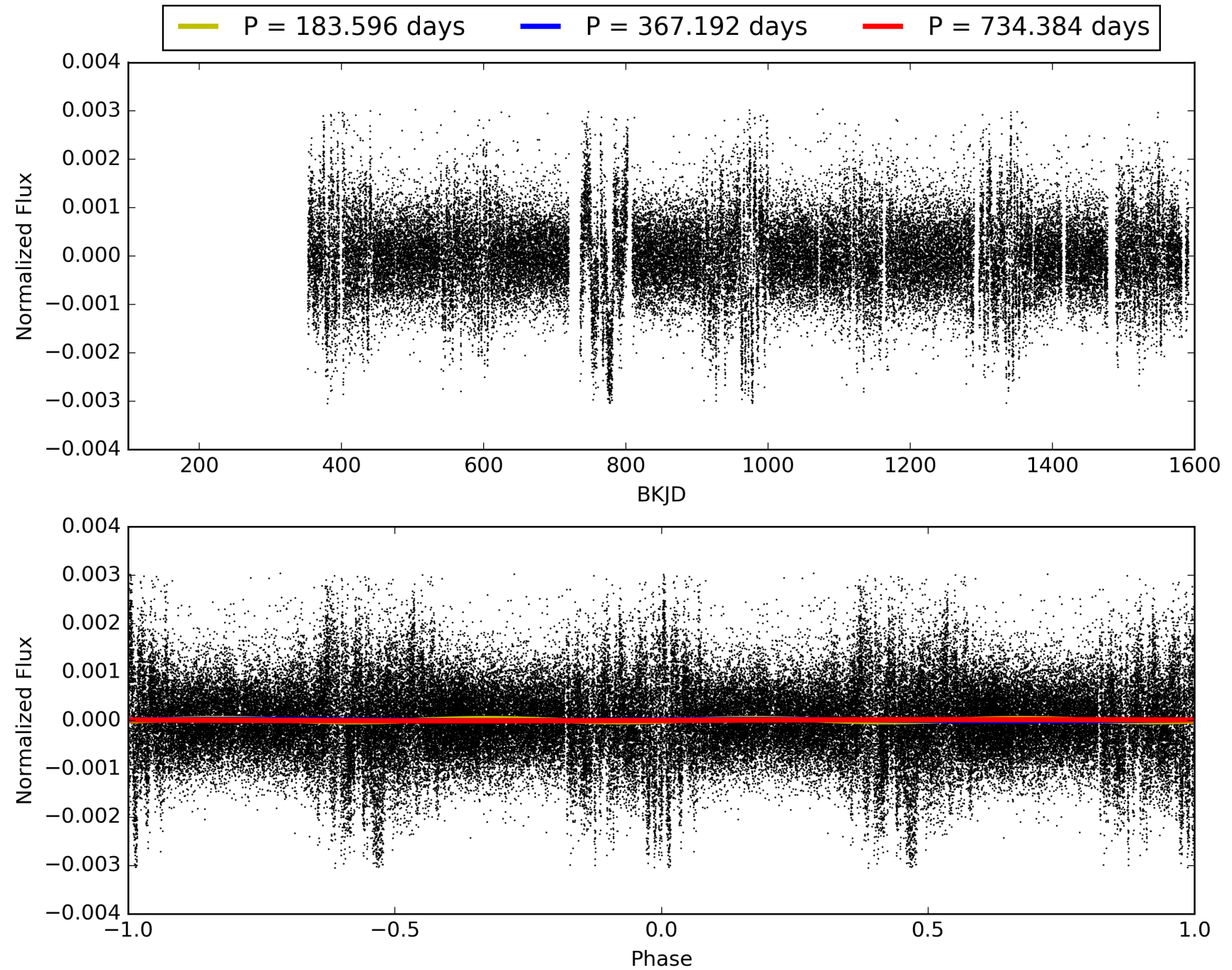
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:35:20 Z

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

TCE 007618641-01, PDC Light Curves

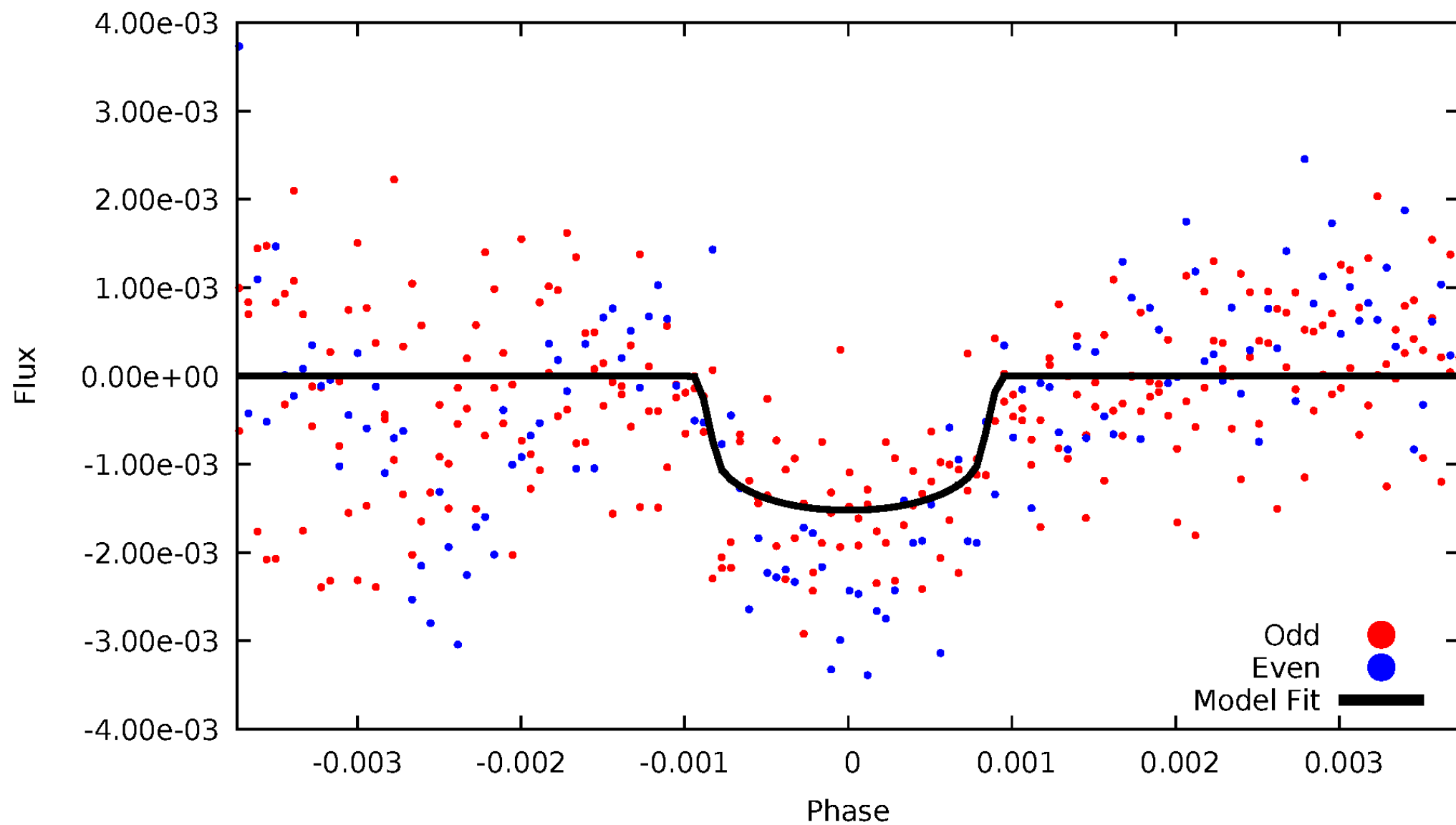


TCE 007618641-01



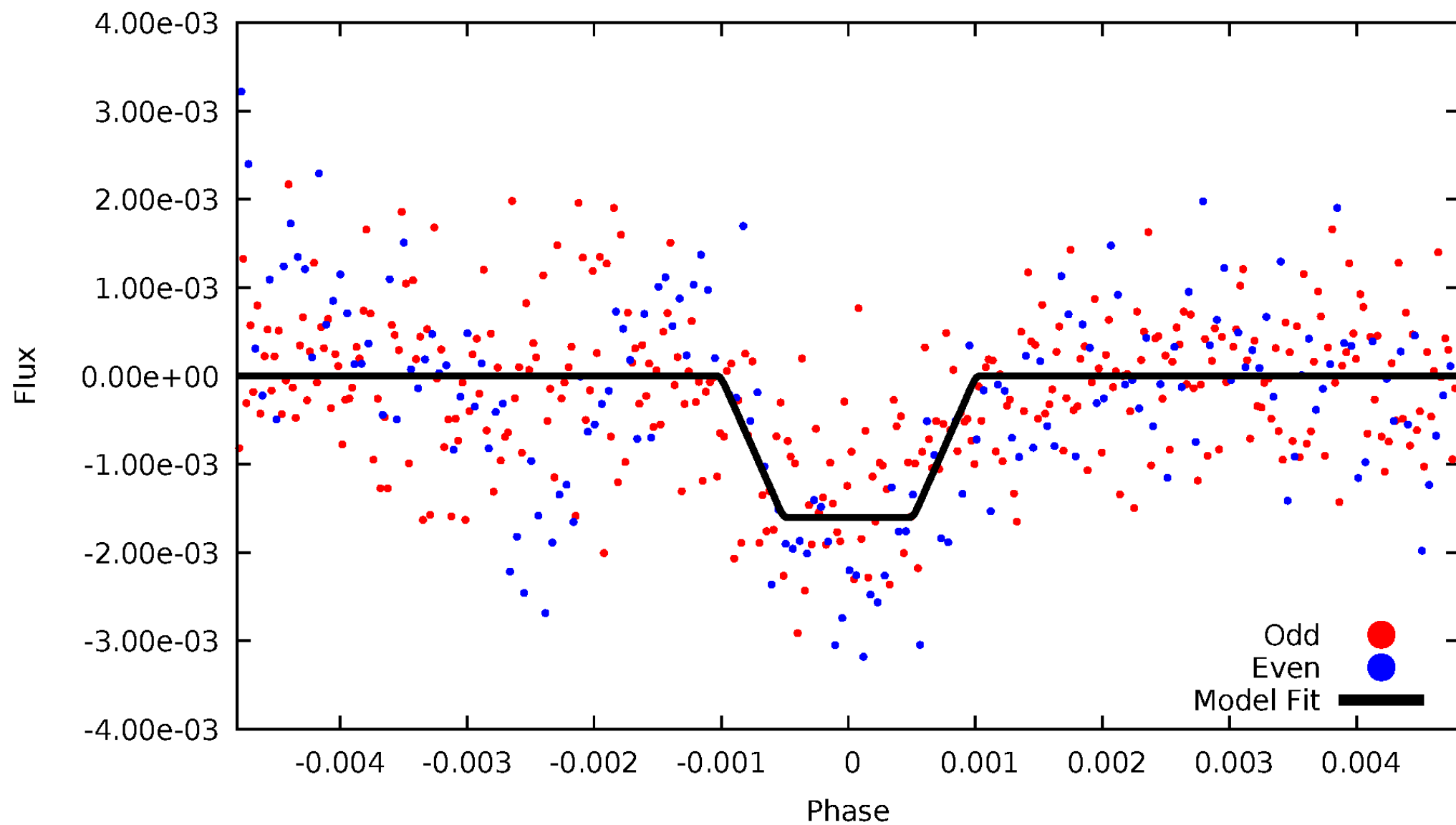
DV Odd/Even

TCE 007618641-01



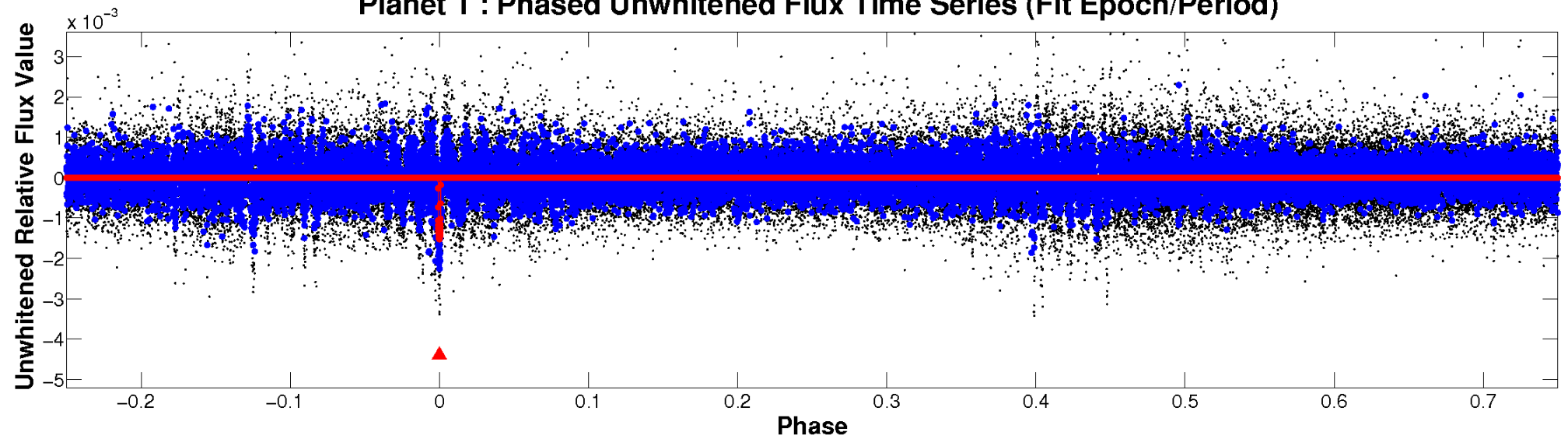
ALT Odd/Even

TCE 007618641-01

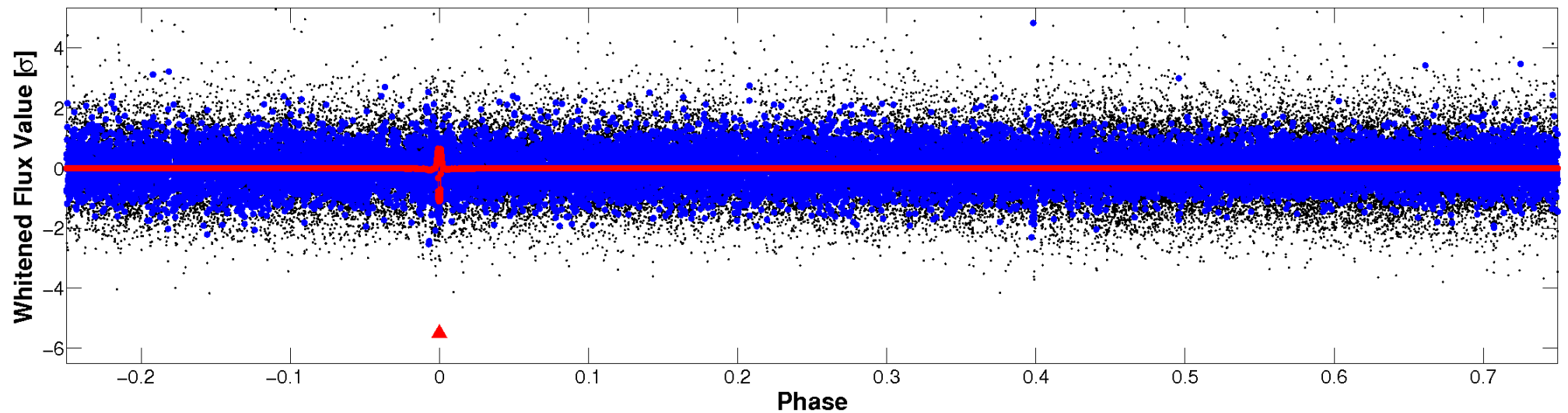


Non-Whitened Vs. Whitened Light Curve

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

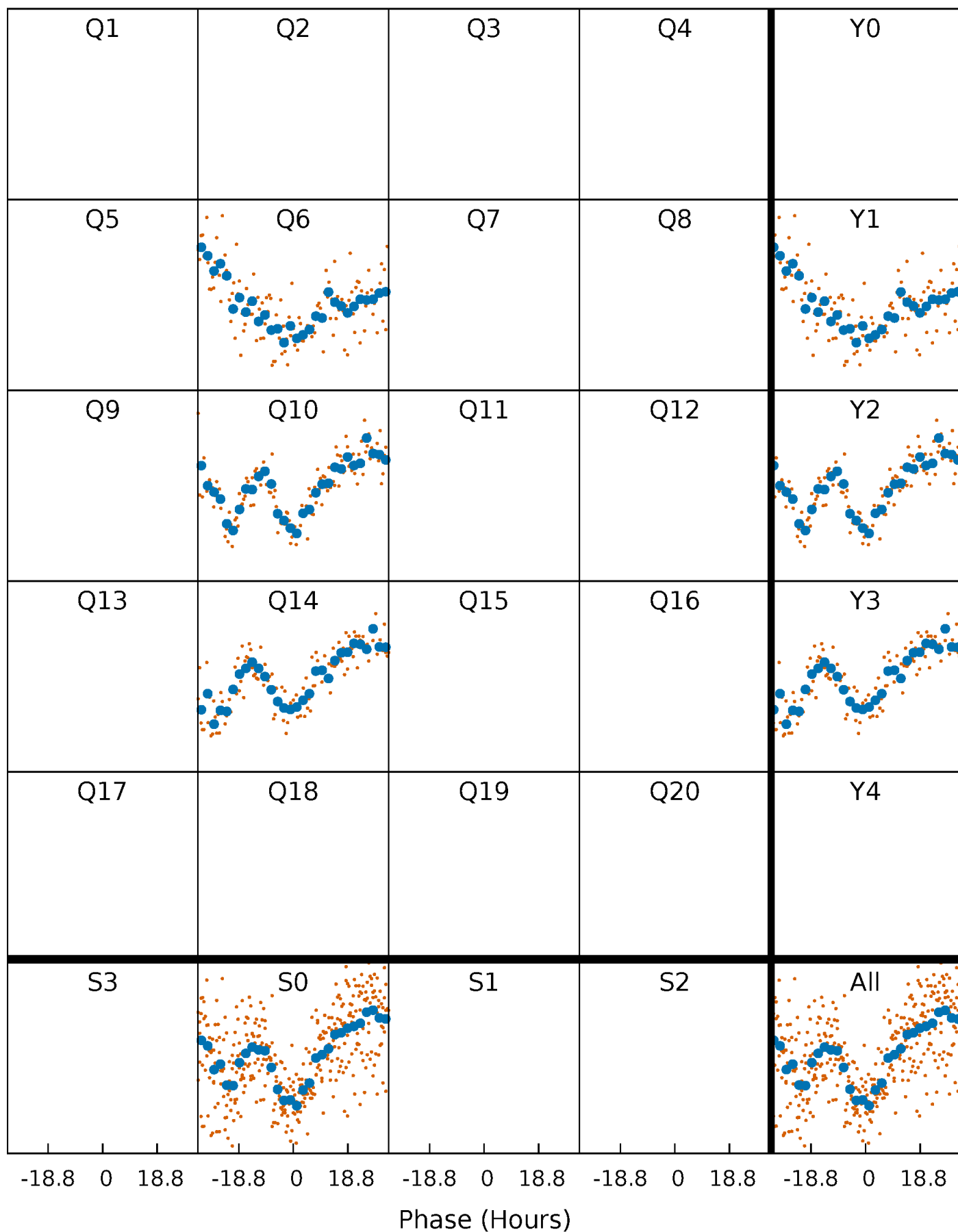


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



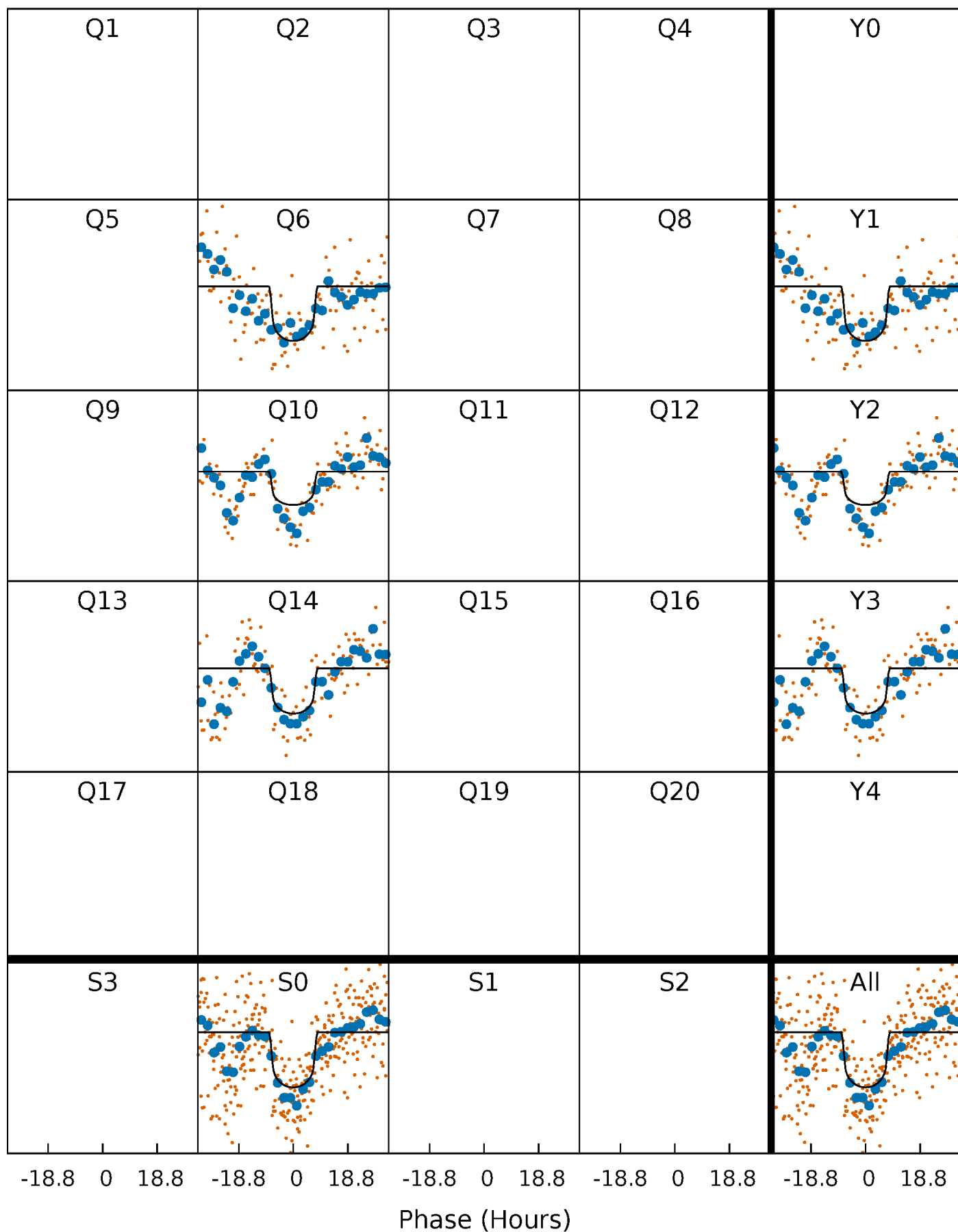
PDC Quarter-Phased Transit Curves

TCE 007618641-01 P=367.191932 Days $T_0=237.970946$ (BKJD)



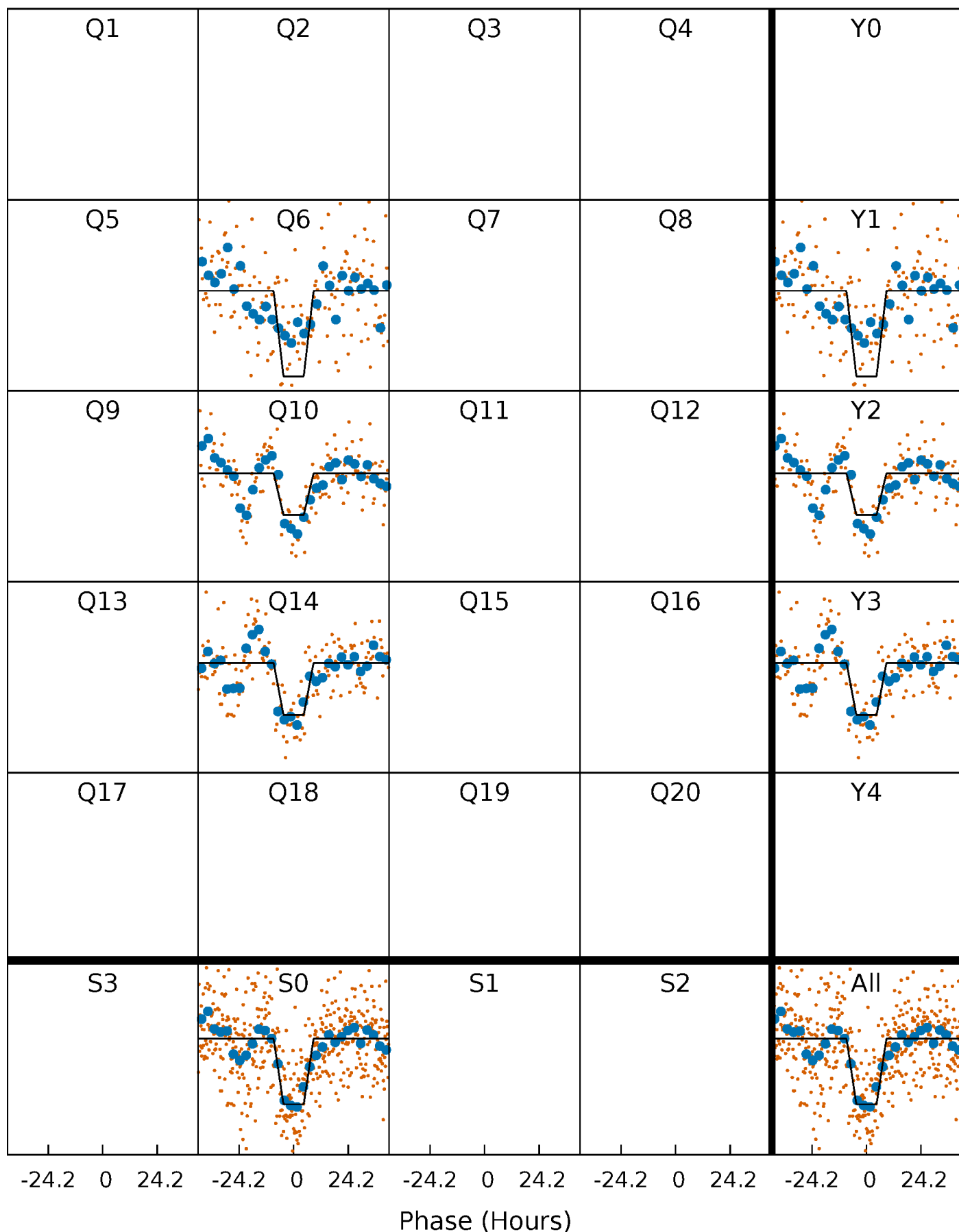
DV Quarter-Phased Transit Curves

TCE 007618641-01 P=367.191932 Days $T_0=237.970946$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

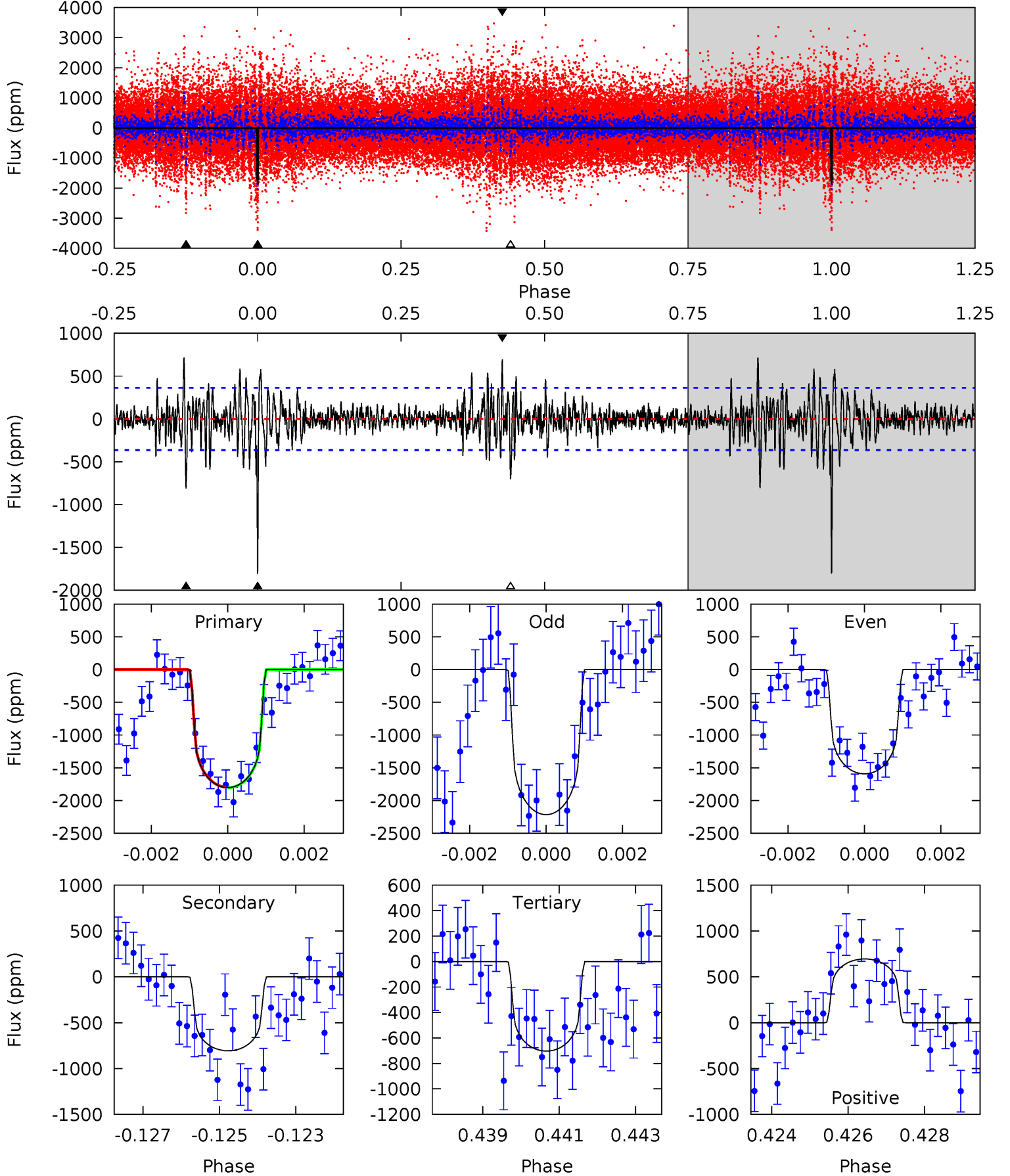
TCE 007618641-01 P=367.238751 Days $T_0=237.876708$ (BKJD)



DV Model-Shift Uniqueness Test

007618641-01, P = 367.191932 Days, E = 237.970946 Days

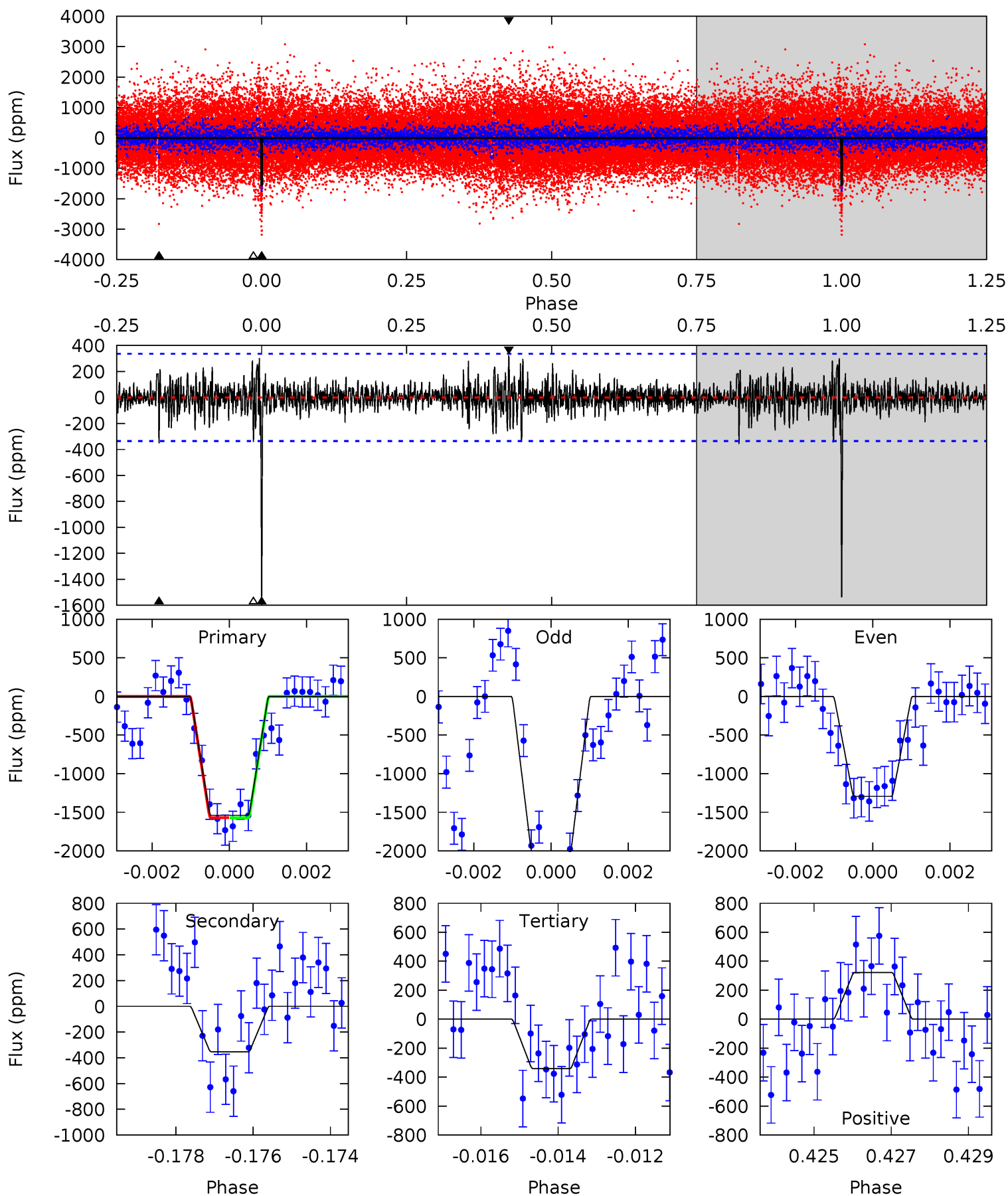
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.5	11.8	10.3	10.2	5.34	3.11	2.23	16.1	16.3	1.52	1.64	4.28	1.01	0.28	0.06



Alt Model-Shift Uniqueness Test

007618641-01, P = 367.238751 Days, E = 237.876708 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.4	5.59	5.40	5.11	5.33	3.09	1.20	19.0	19.3	0.19	0.49	5.44	0.90	0.17	0.01



Stellar Parameters For KIC 007618641

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5778^{+161}_{-202}	$4.531^{+0.035}_{-0.196}$	$0.070^{+0.250}_{-0.300}$	$0.911^{+0.241}_{-0.086}$	$1.028^{+0.099}_{-0.136}$	$1.914^{+0.355}_{-0.944}$
	+3%/-3%	+1%/-4%	+357%/-429%	+26%/-9%	+10%/-13%	+19%/-49%
Source	KIC0	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 007618641-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-807 ± 68	$4.01^{+0.80}_{-0.68}$	347^{+22}_{-16}	5033^{+424}_{-343}	27143^{+12781}_{-7858}
Alt.	-353 ± 63	$4.20^{+0.84}_{-0.72}$	347^{+23}_{-17}	4201^{+313}_{-268}	10765^{+5462}_{-3415}

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

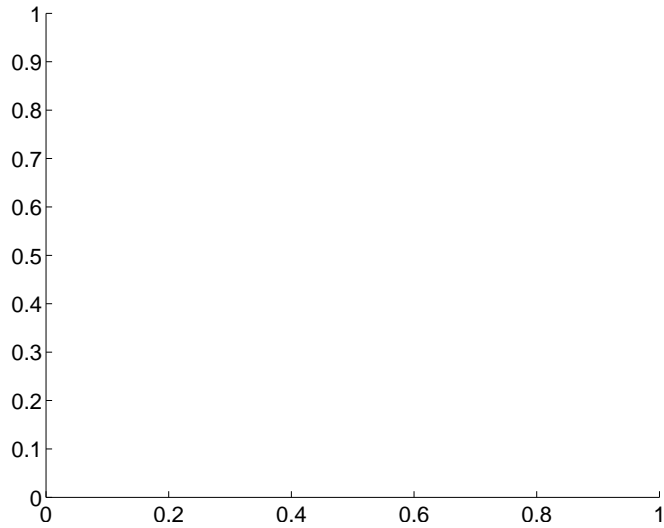
Supplemental centroid analysis for 007618641-01. Kepler magnitude: 15.95. Transit SNR 10.26

There are 0 quarters with good PRF difference image offsets

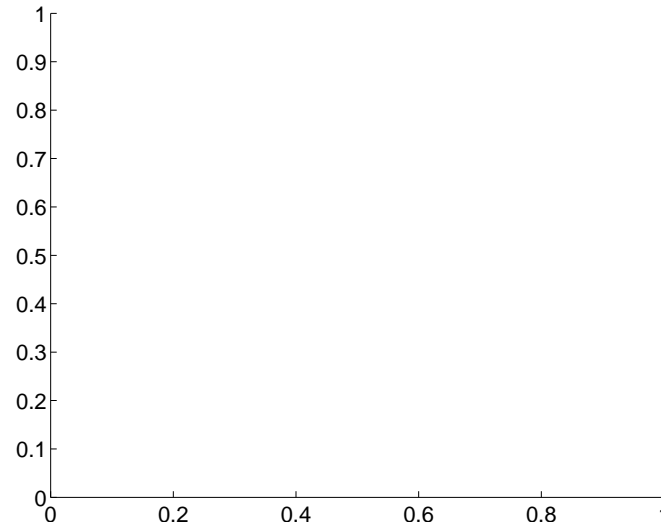
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.58 ± 1.97	0.80	-1.51 ± 1.93	-0.48 ± 2.31

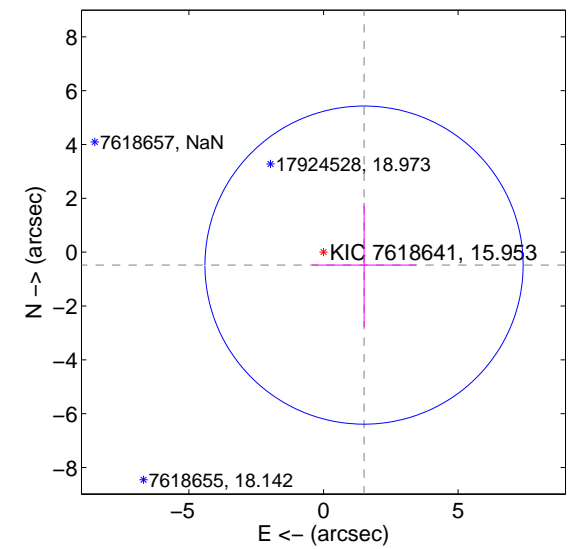
There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC



offset from photometric centroids

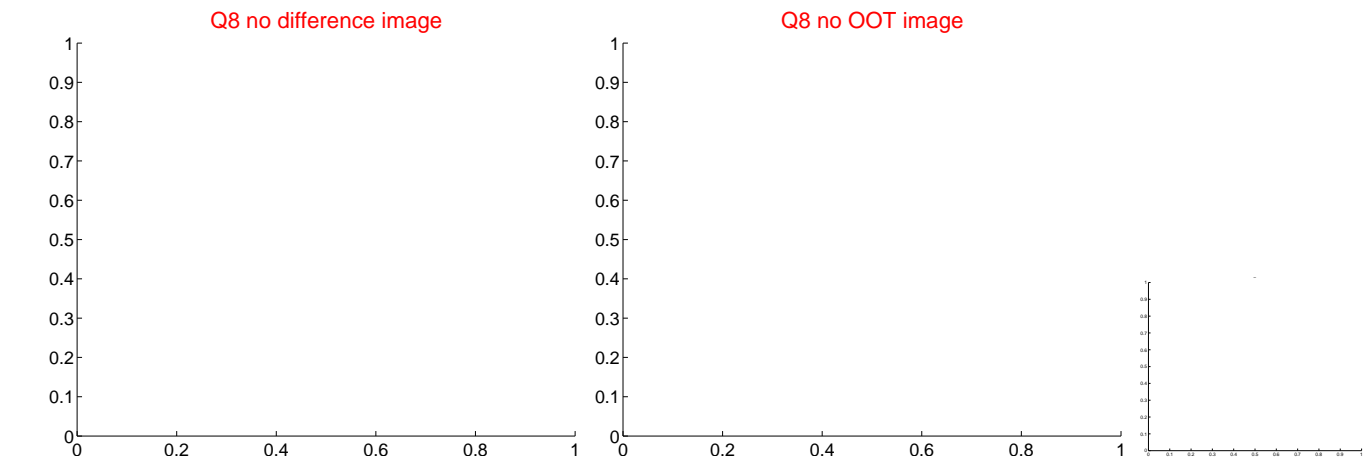
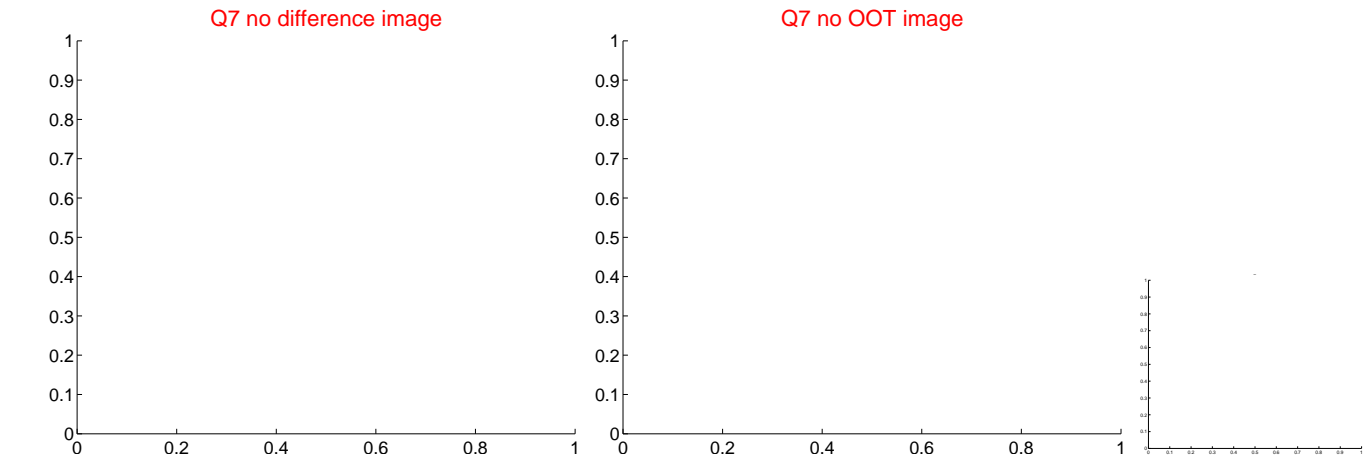
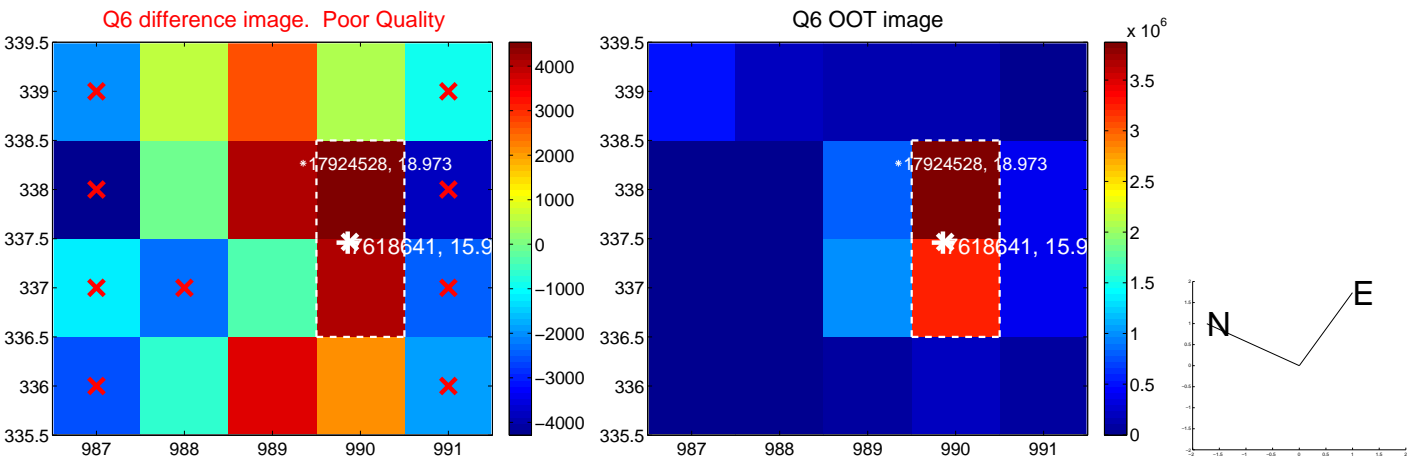
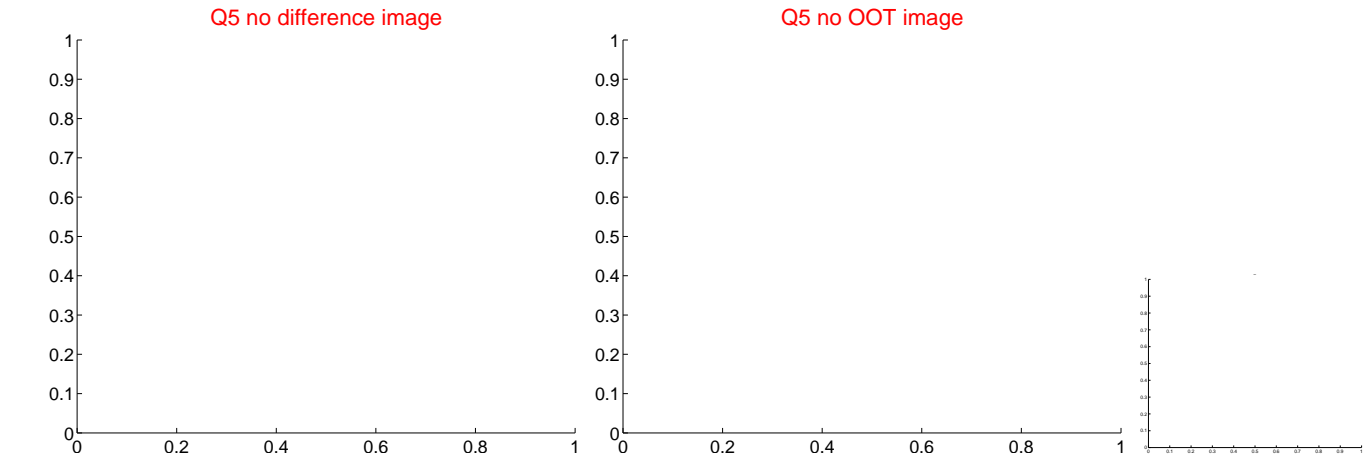


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

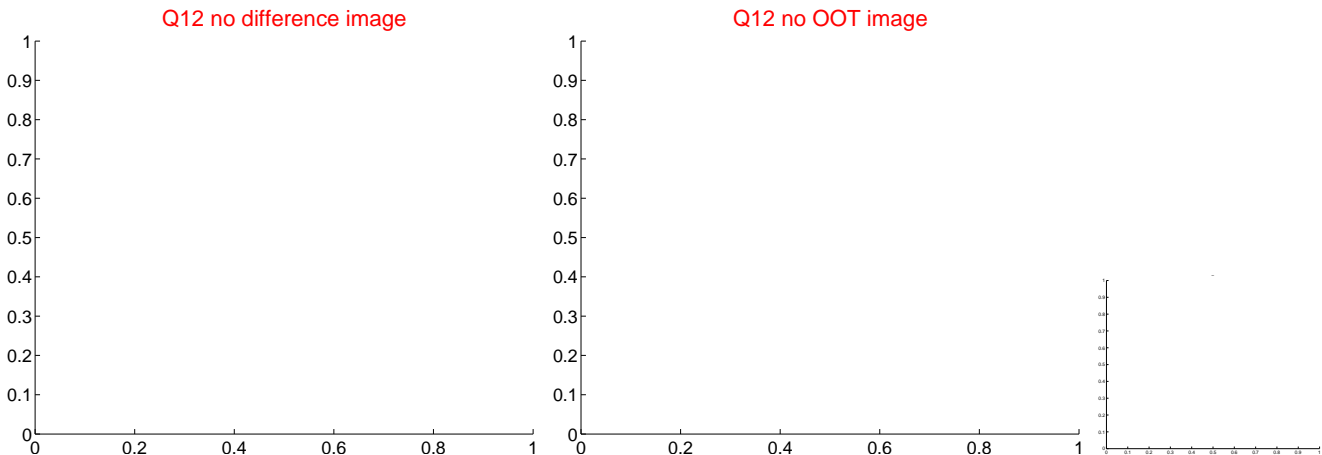
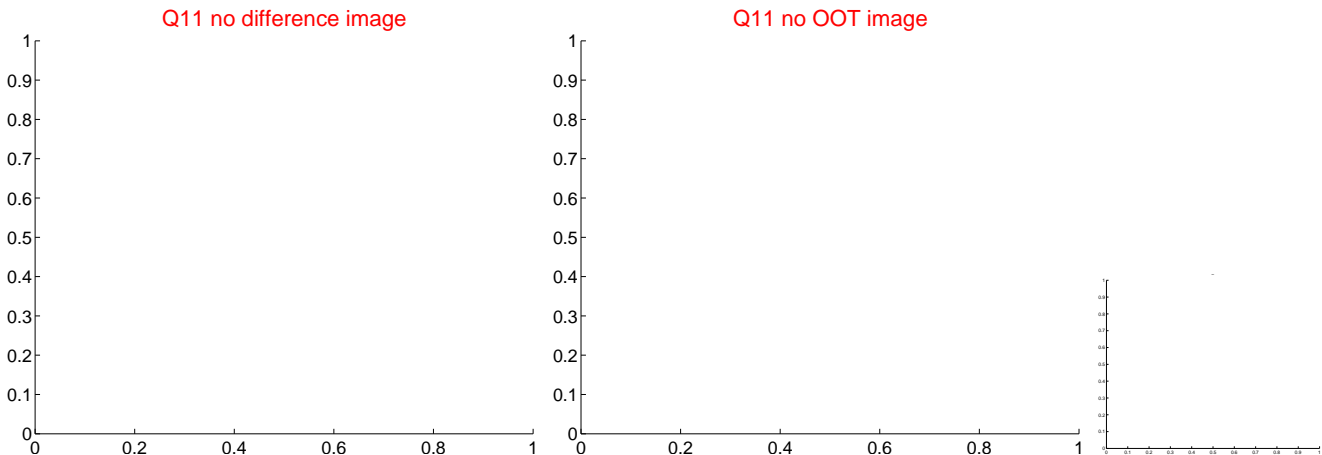
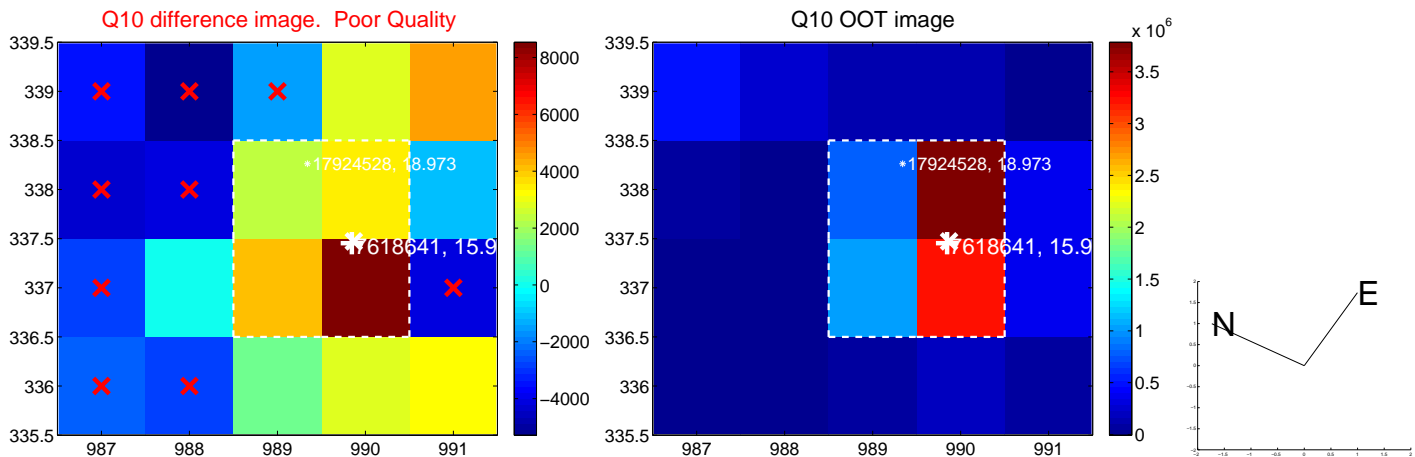
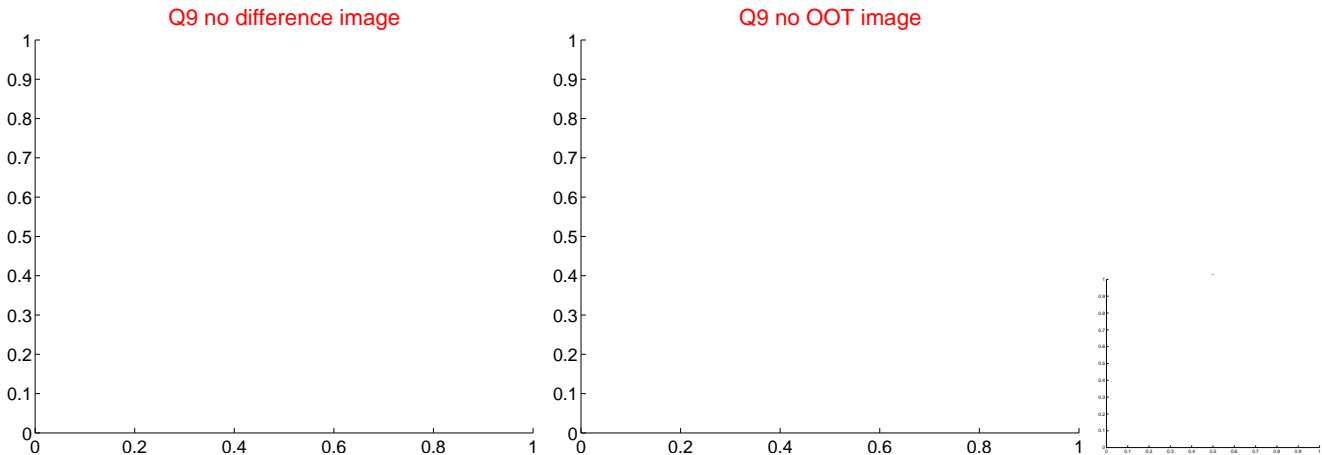
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



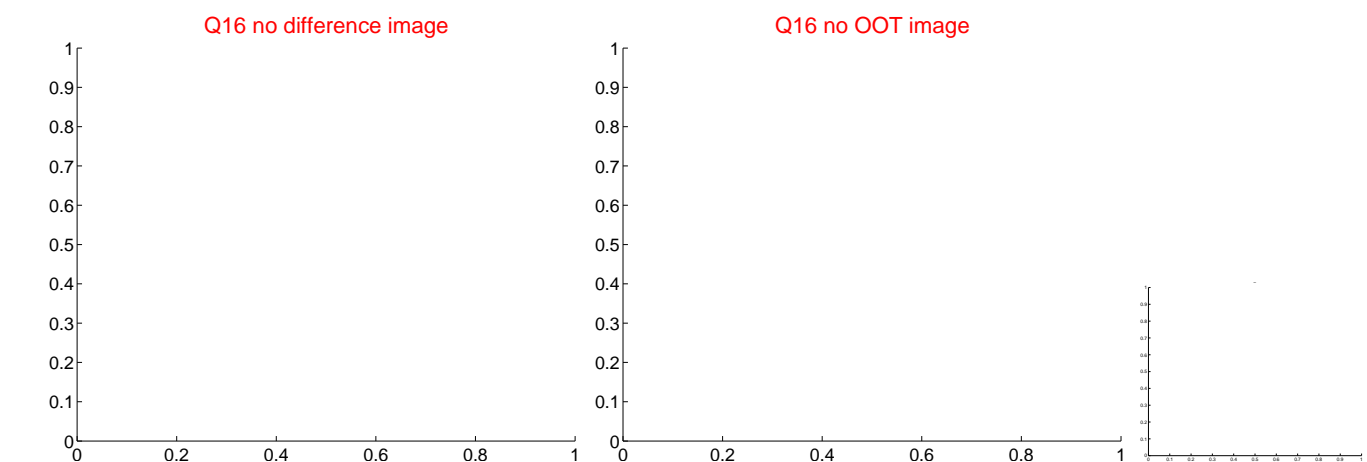
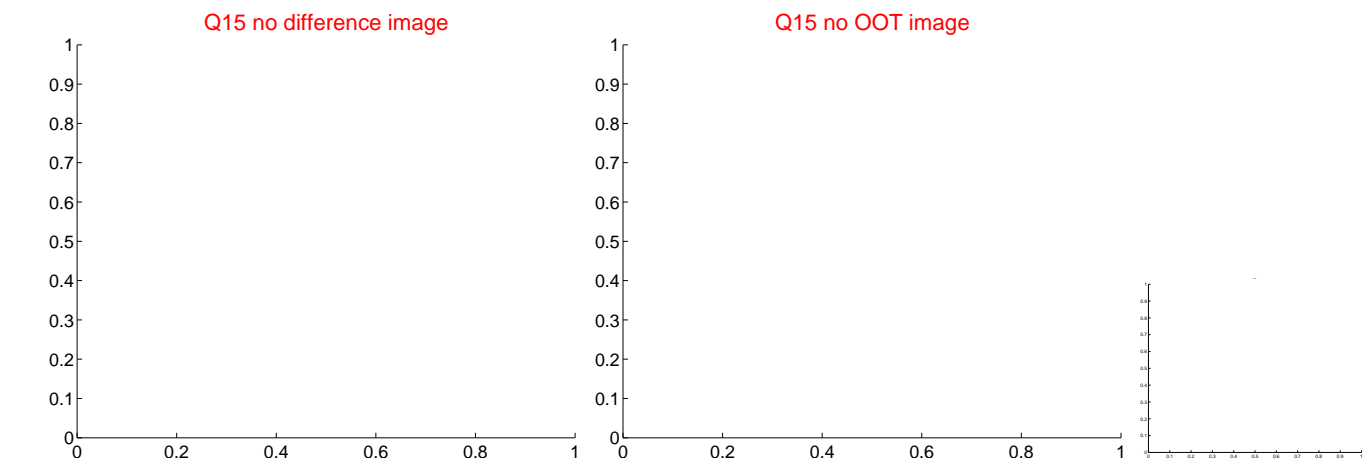
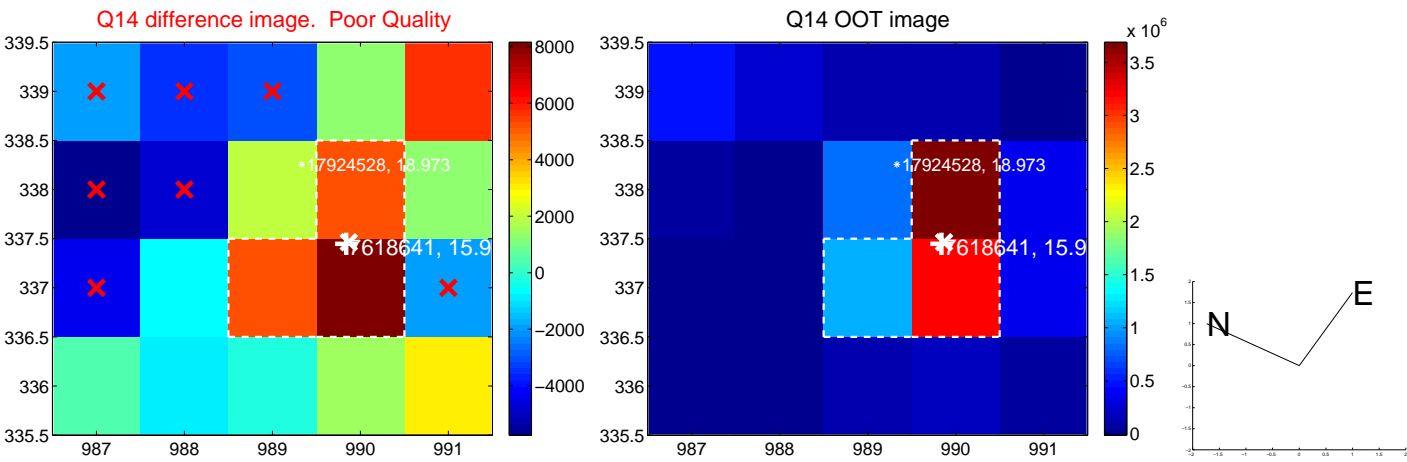
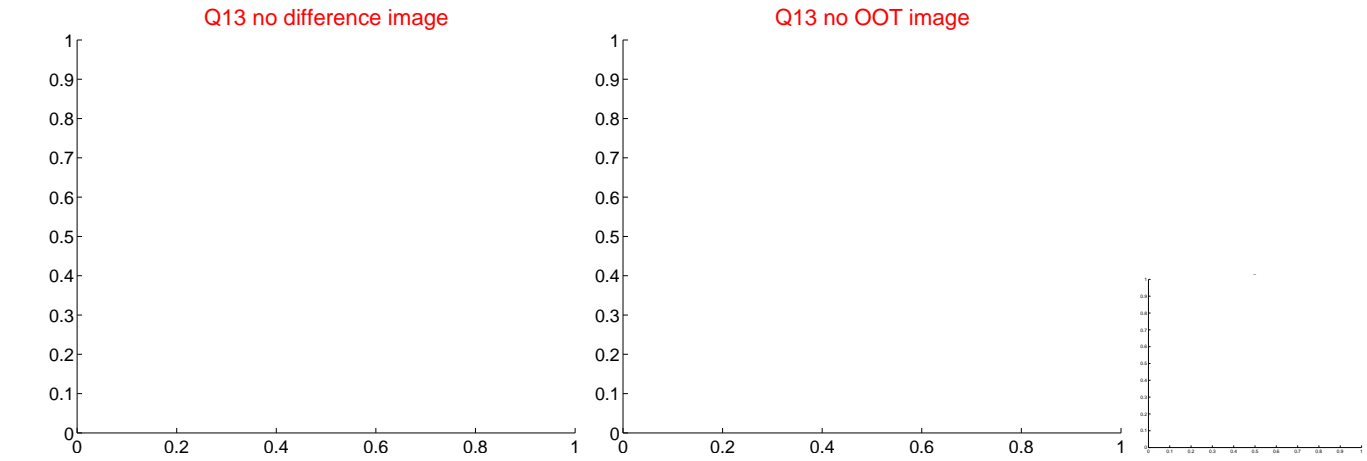
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



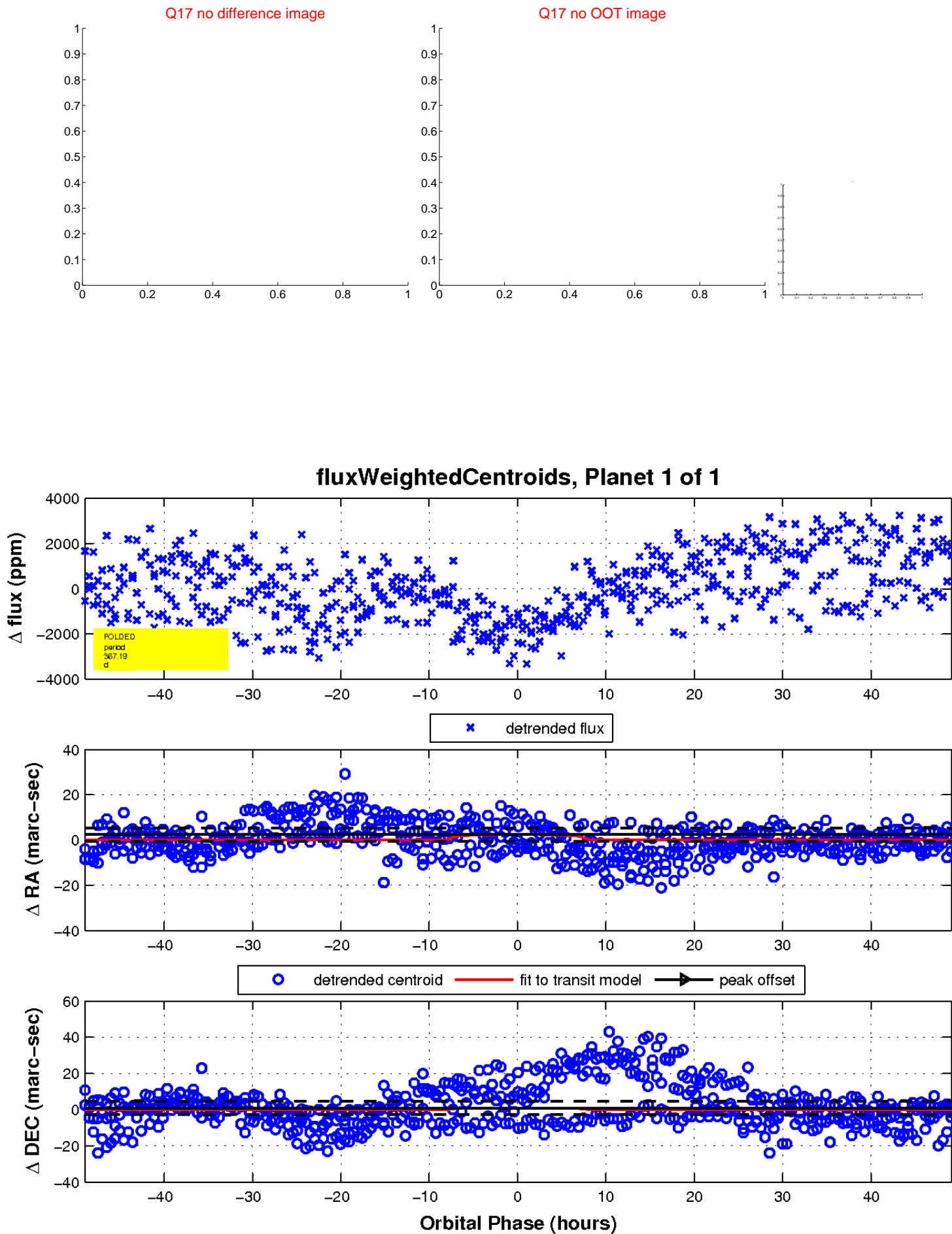
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

