

KIC 006595572

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})
006595572-01	OBS	No	338.750631	448.920653	847.7	16.733	10.4	10.2	0.91	5860	2.64	0.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006595572-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—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.

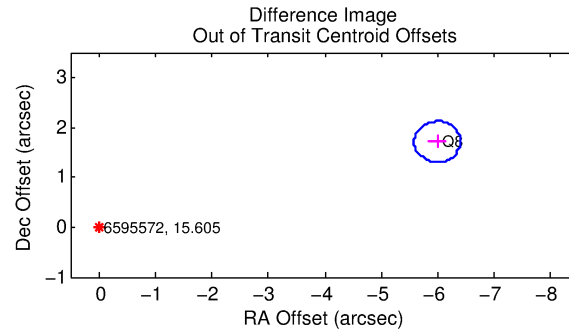
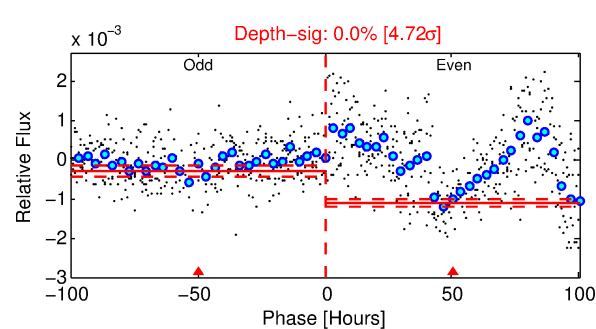
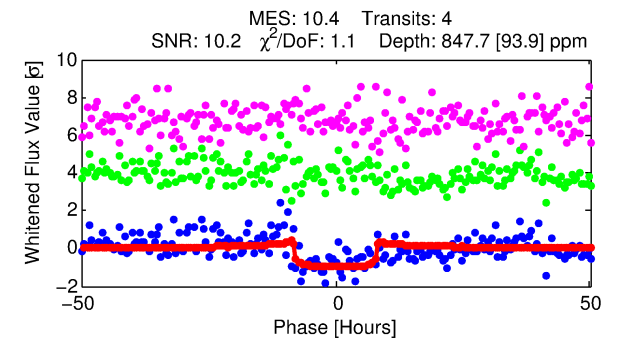
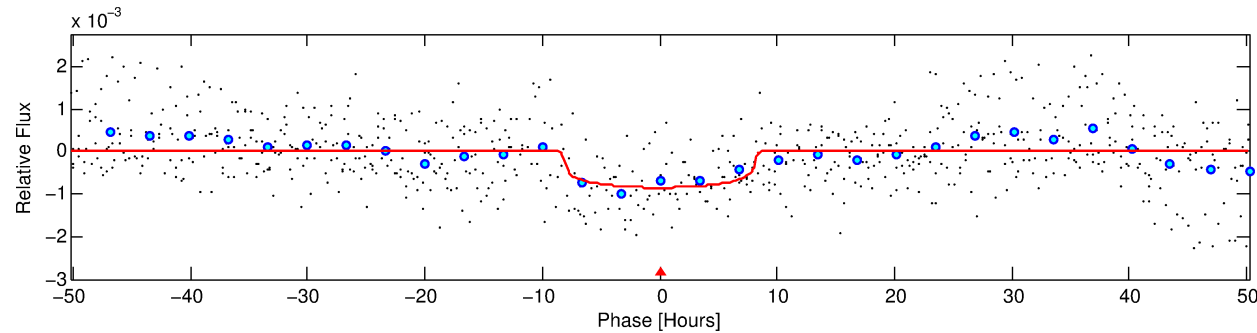
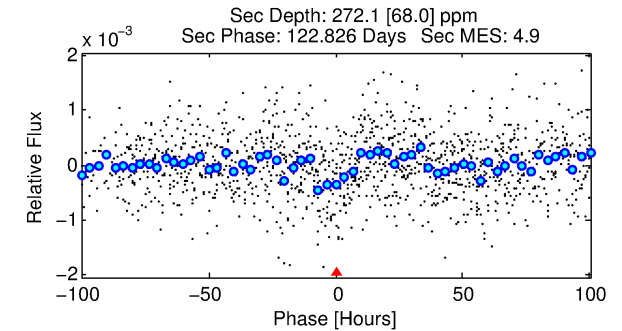
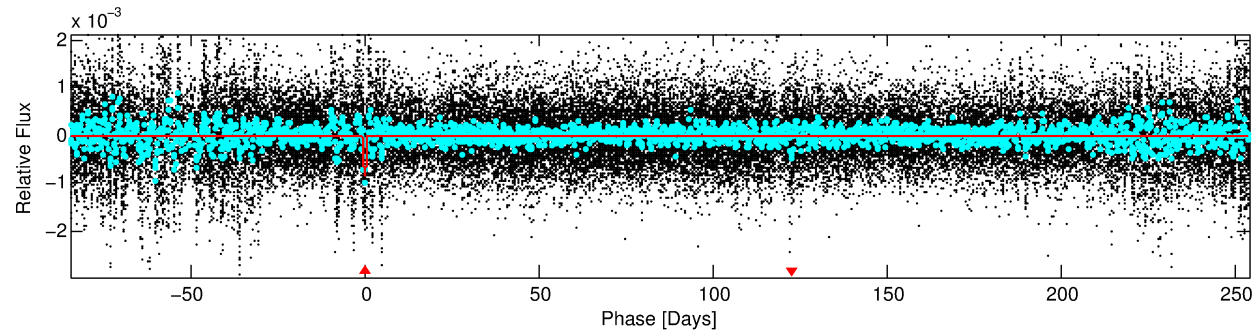
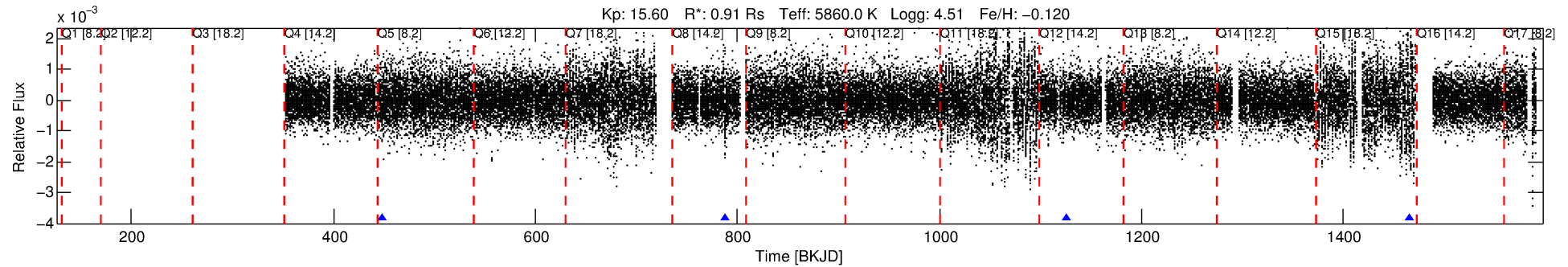
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006595572-01

No Significant Match Found

DV One-Page Summary

KIC: 6595572 Candidate: 1 of 1 Period: 338.751 d



DV Fit Results:

Period = 338.75063 [0.01073] d
Epoch = 448.9207 [0.0187] BKJD
Rp/R* = 0.0266 [0.0135]
a/R* = 154.87 [352.29]
b = 0.23 [9.59]
Seff = 0.98 [0.40]
Teq = 254 [26] K
Rp = 2.64 [1.58] Re
a = 0.9441 [0.2507] AU
Ag = 19165.32 [21257.22] [0.90σ]
Teff = 4612 [1211] K [3.60σ]

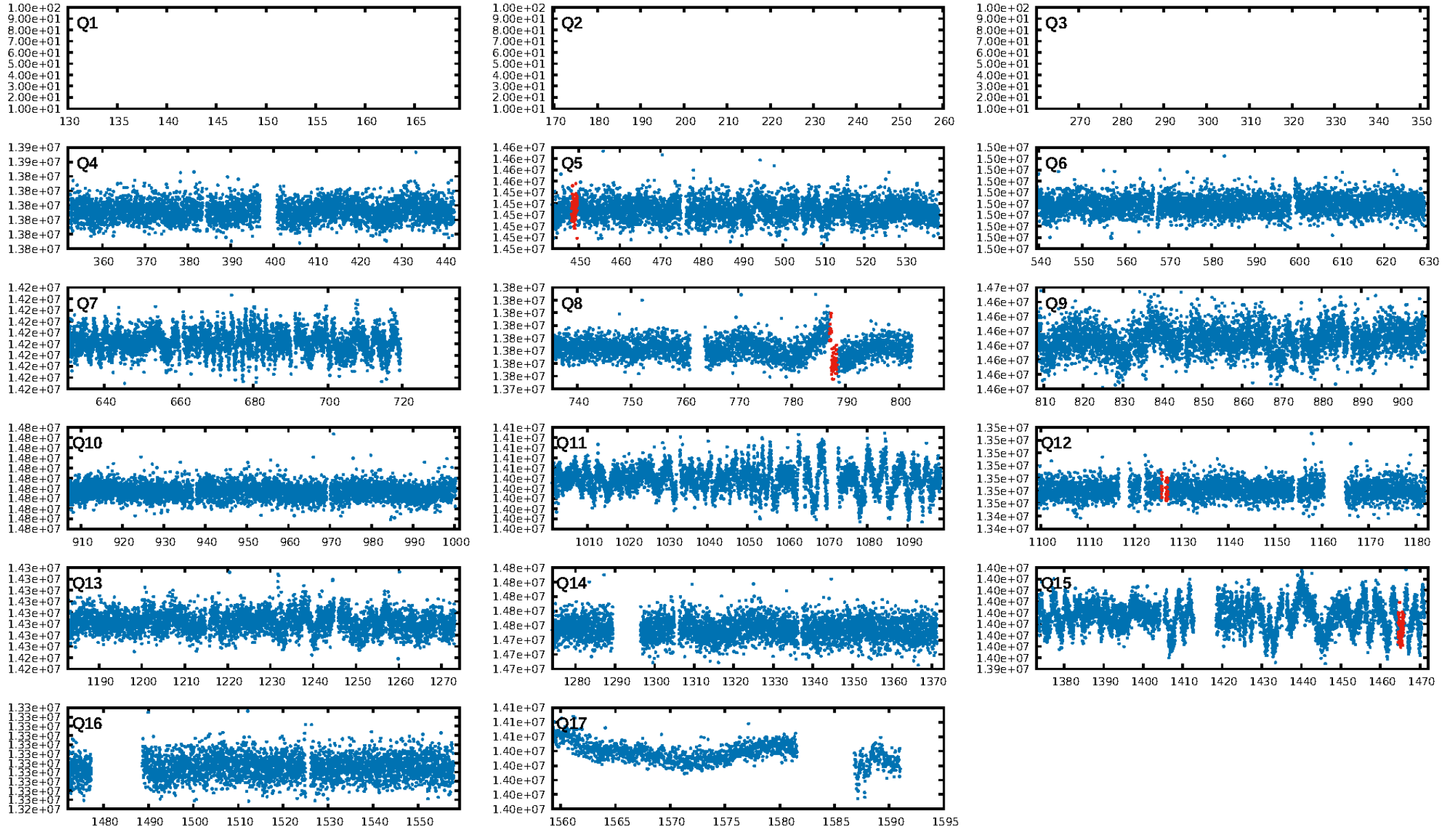
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.84e-14
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.112
Centroid-sig: 3.2%
Centroid-so: 1.848 arcsec [2.44σ]
OotOffset-rm: 6.228 arcsec [45.71σ]
KicOffset-rm: 1.982 arcsec [16.35σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

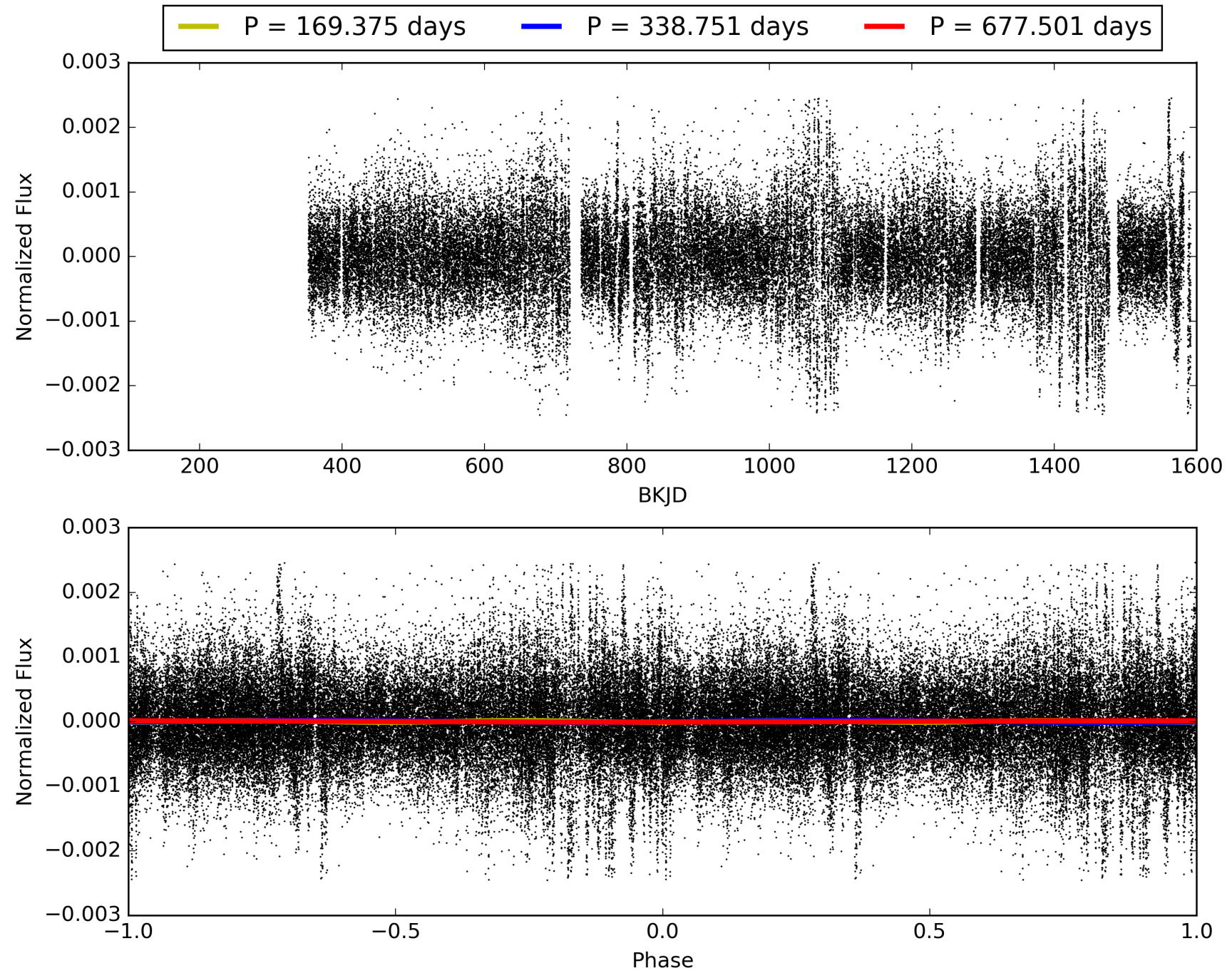
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:01:08 Z

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

TCE 006595572-01, PDC Light Curves

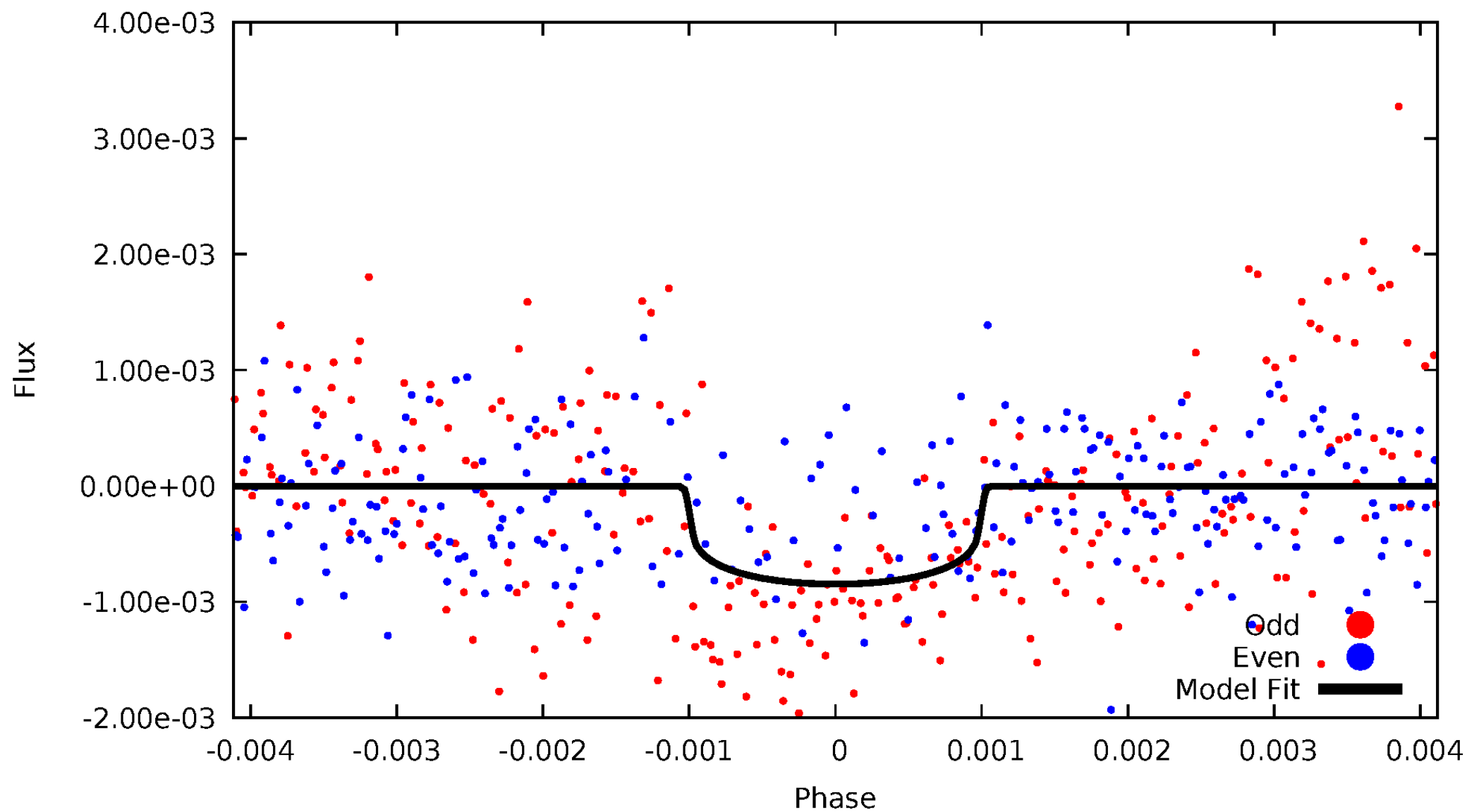


TCE 006595572-01



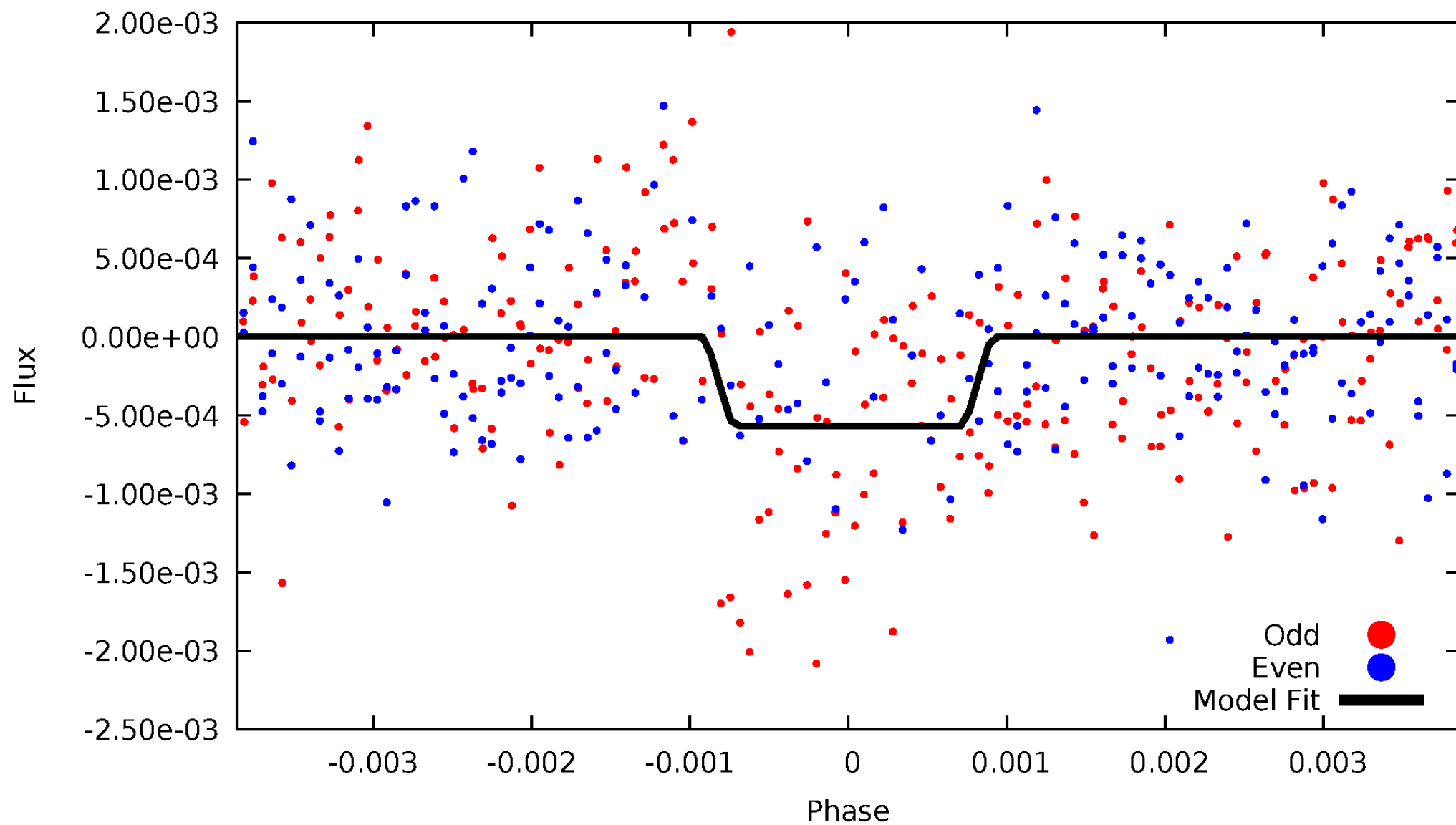
DV Odd/Even

TCE 006595572-01



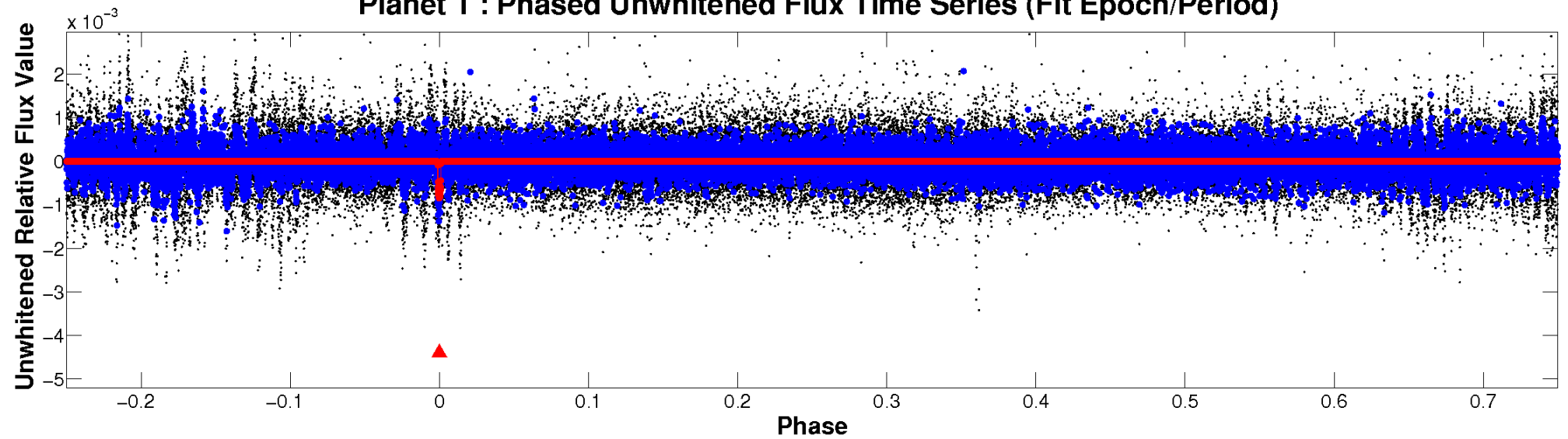
ALT Odd/Even

TCE 006595572-01

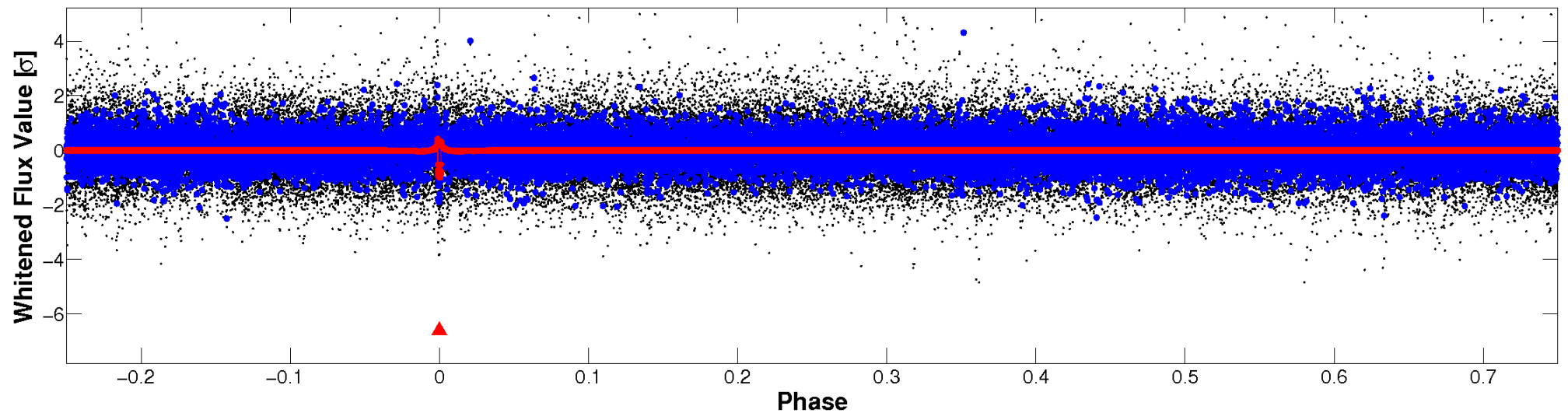


Non-Whitened Vs. Whitened Light Curve

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 006595572-01 P=338.750631 Days $T_0=448.920653$ (BKJD)



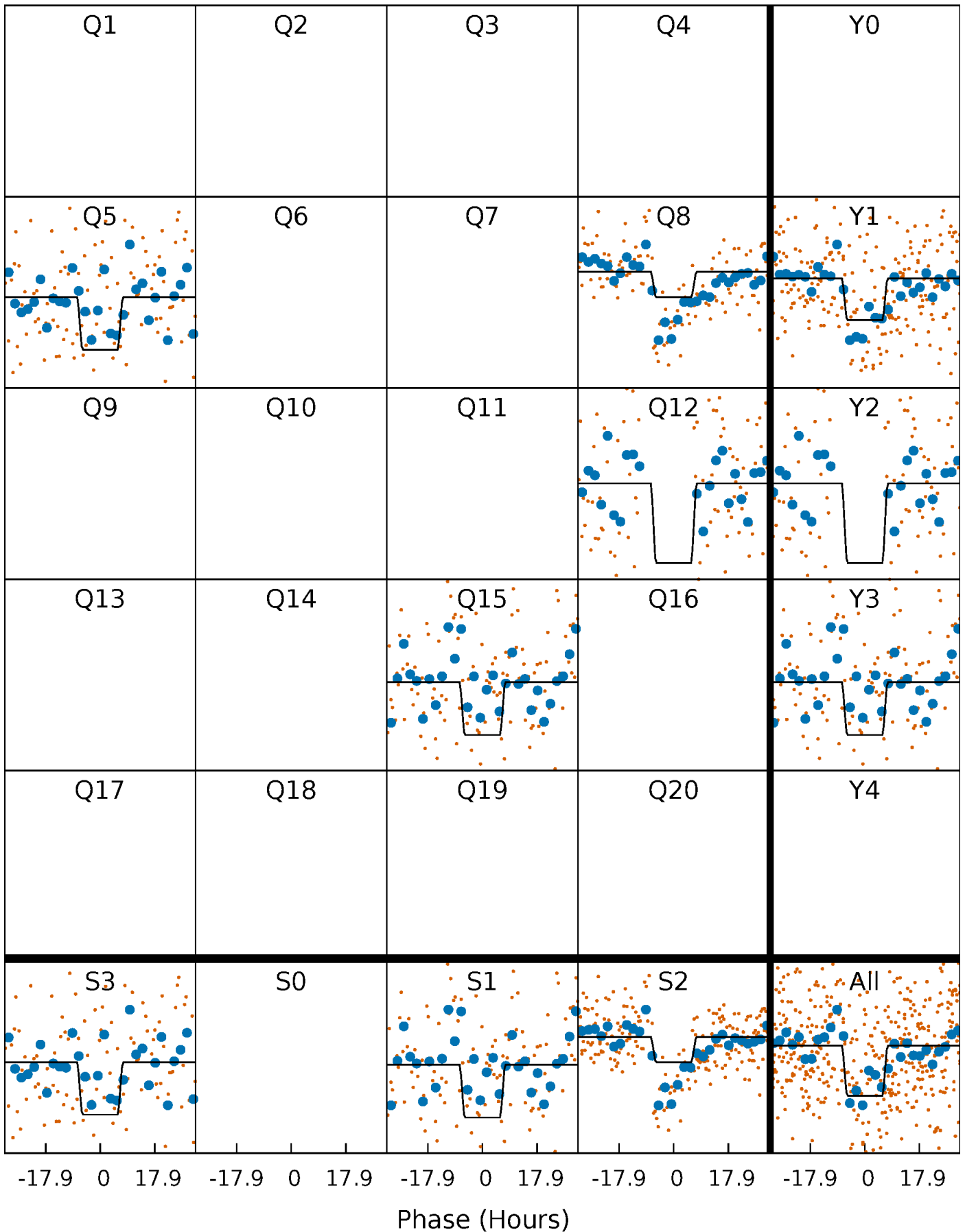
DV Quarter-Phased Transit Curves

TCE 006595572-01 P=338.750631 Days $T_0=448.920653$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

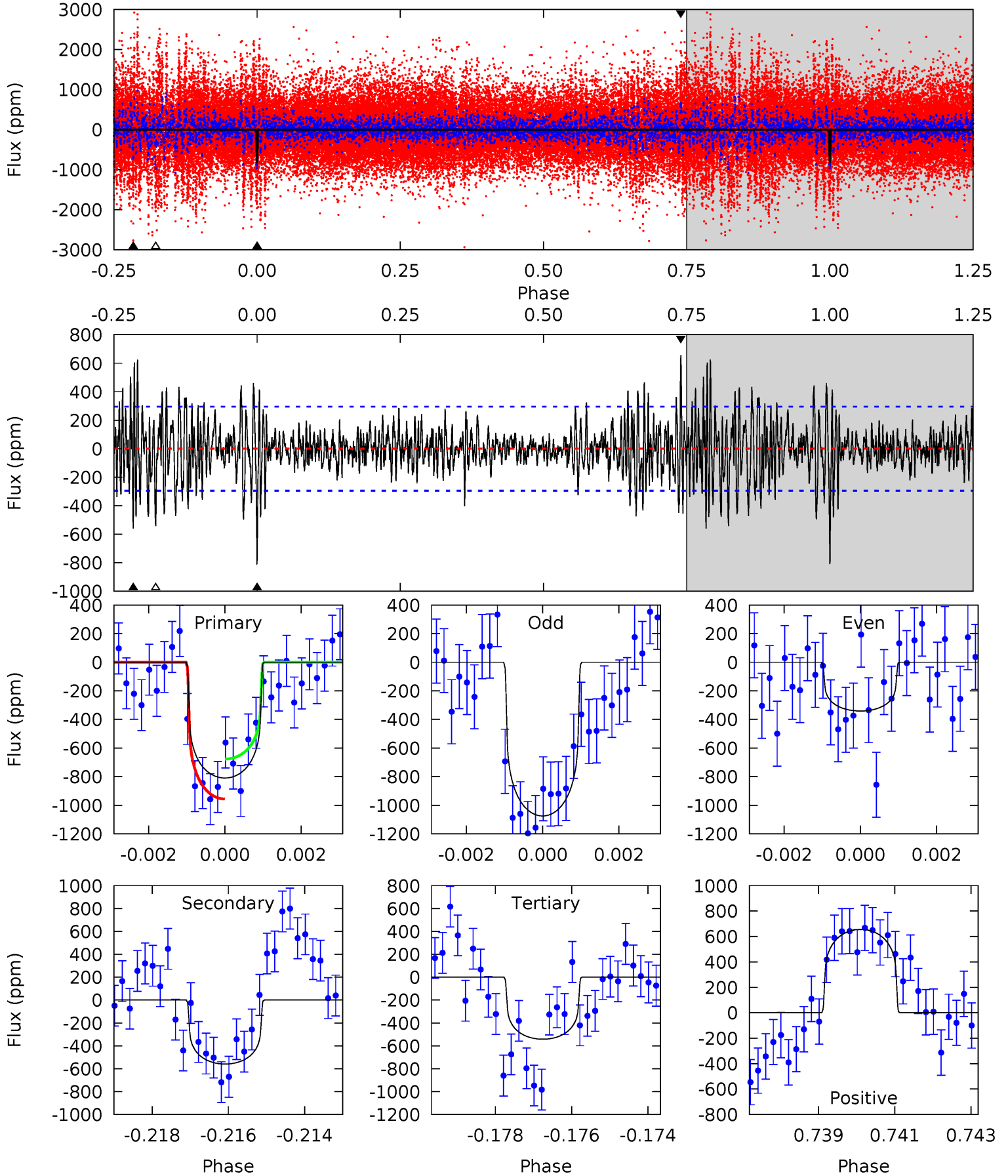
TCE 006595572-01 $P=338.747558$ Days $T_0=448.871277$ (BKJD)



DV Model-Shift Uniqueness Test

006595572-01, P = 338.750631 Days, E = 110.170022 Days

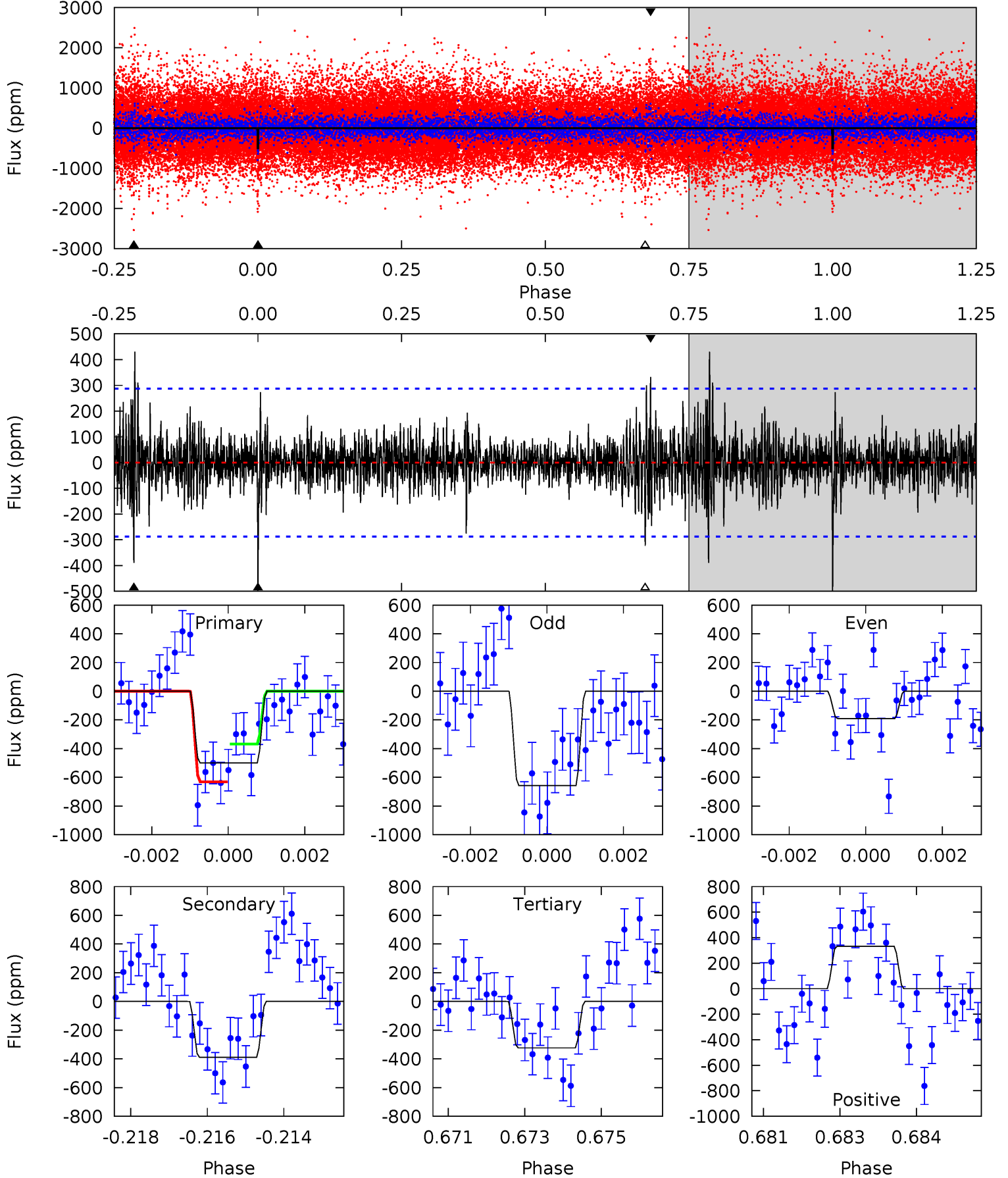
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	10.1	9.78	11.8	5.32	3.08	2.68	4.82	2.78	0.31	-1.74	6.43	0.96	0.45	2.48



Alt Model-Shift Uniqueness Test

006595572-01, $P = 338.747558$ Days, $E = 110.123719$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.29	7.23	6.02	6.18	5.34	3.11	1.27	3.27	3.10	1.22	1.05	4.15	1.08	0.46	2.43



Stellar Parameters For KIC 006595572

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5860^{+163}_{-204}	$4.512^{+0.052}_{-0.208}$	$-0.120^{+0.300}_{-0.300}$	$0.908^{+0.289}_{-0.096}$	$0.978^{+0.113}_{-0.126}$	$1.840^{+0.502}_{-0.947}$
	+3%/-3%	+1%/-5%	+250%/-250%	+32%/-11%	+12%/-13%	+27%/-51%
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 006595572-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-559 ± 55	$2.87^{+1.50}_{-1.38}$	362^{+26}_{-19}	5416^{+2130}_{-822}	33118^{+89979}_{-19238}
Alt.	-389 ± 54	$2.49^{+1.49}_{-1.36}$	360^{+28}_{-17}	5333^{+2742}_{-951}	$29784^{+118020}_{-18343}$

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

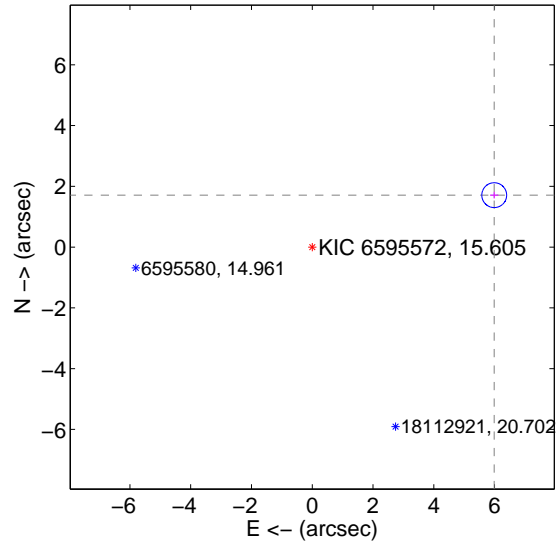
Supplemental centroid analysis for 006595572-01. Kepler magnitude: 15.61. Transit SNR 10.21

There are 1 quarters with good PRF difference image offsets

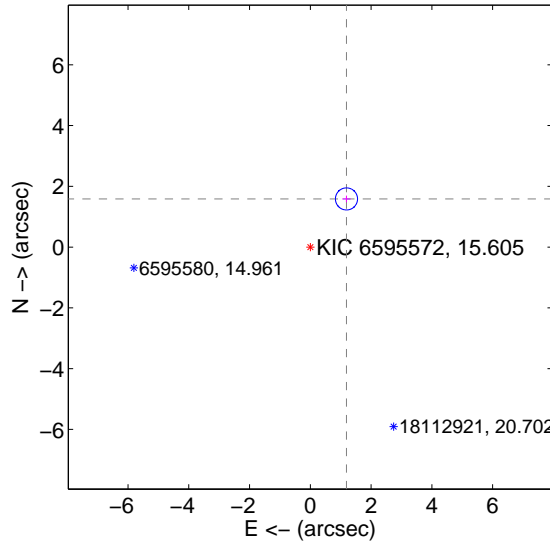
The OOT PRF centroid is offset from the target star catalog position by about 4.80 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.228 \pm 0.136	45.71	-5.989 \pm 0.138	1.710 \pm 0.110
PRF-fit source offset from KIC position	1.982 \pm 0.121	16.35	-1.190 \pm 0.138	1.585 \pm 0.110
photometric centroid source offset	1.85 \pm 0.76	2.44	1.69 \pm 0.78	-0.75 \pm 0.64

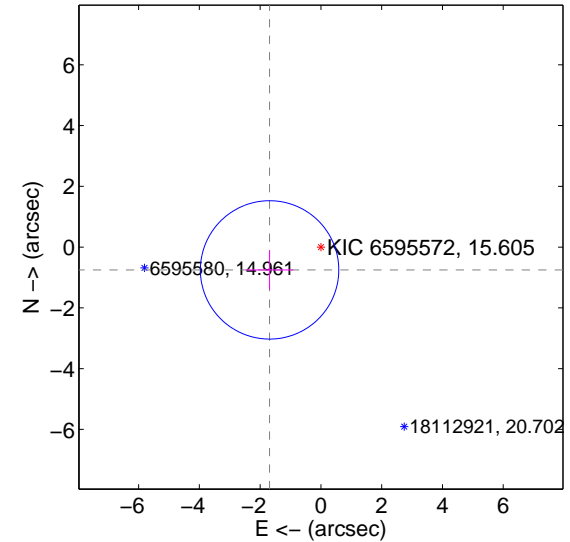
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

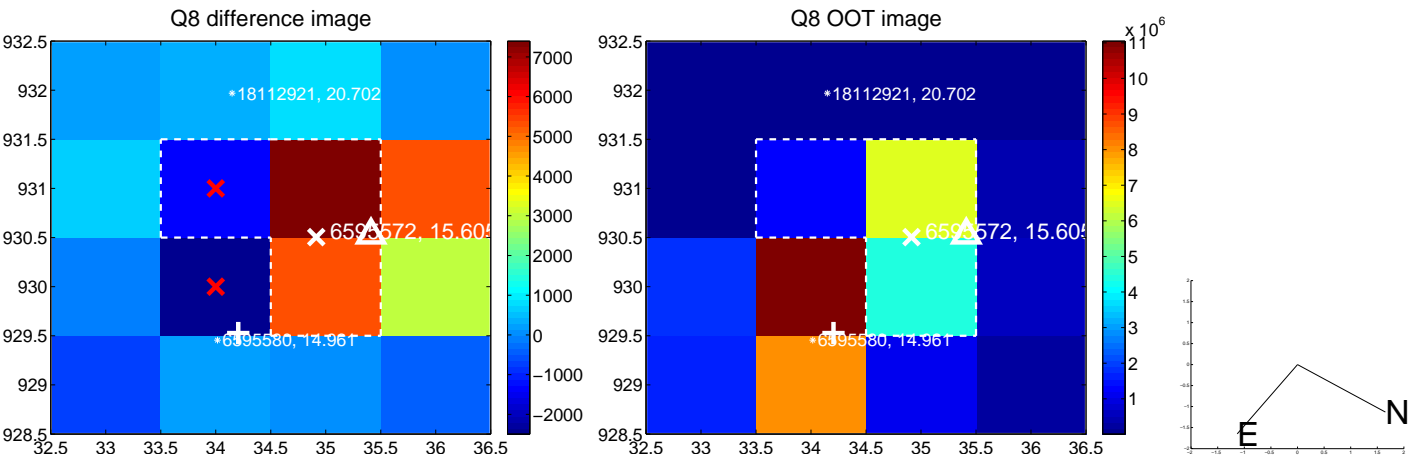
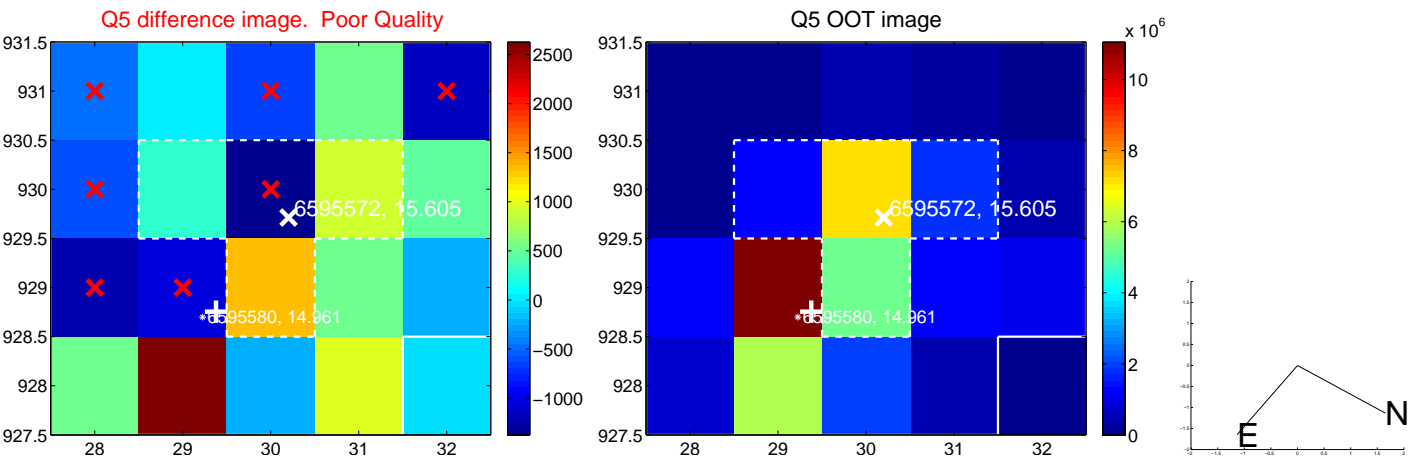


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



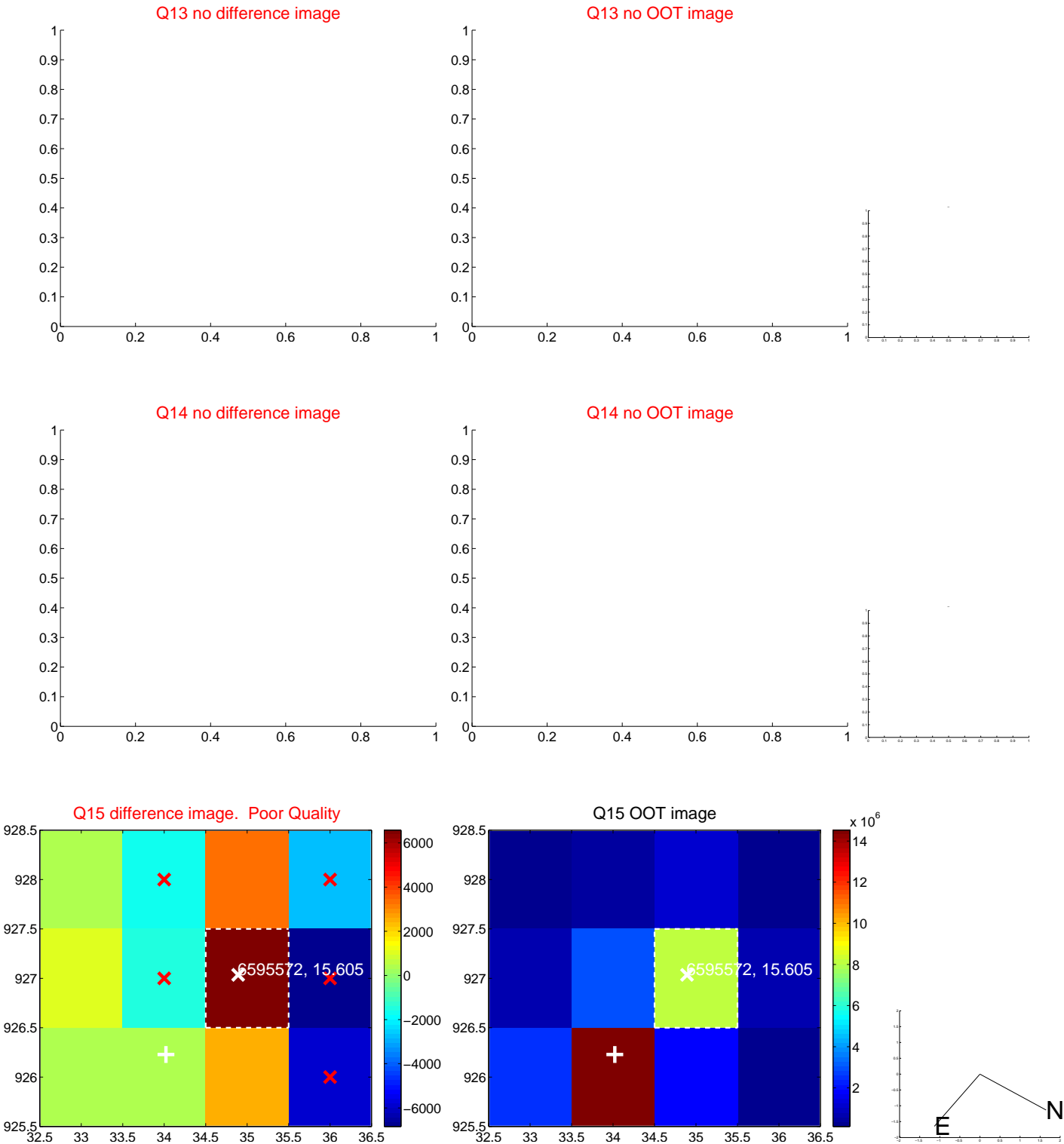
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



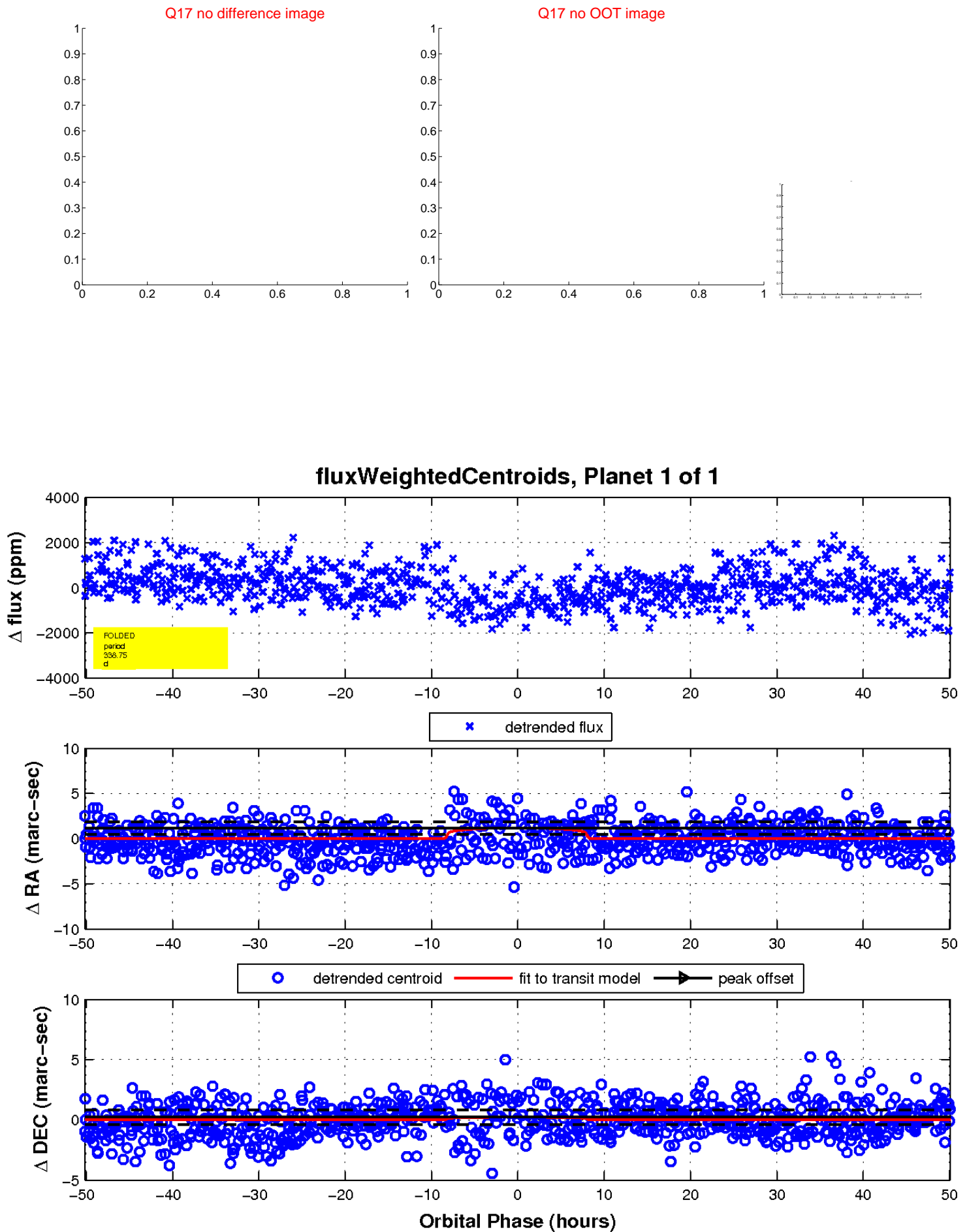
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

