

KIC 006963514

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})
006963514-01	OBS	No	478.283315	137.231021	1274.8	10.262	7.7	7.6	0.78	5368	2.84	0.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006963514-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—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.

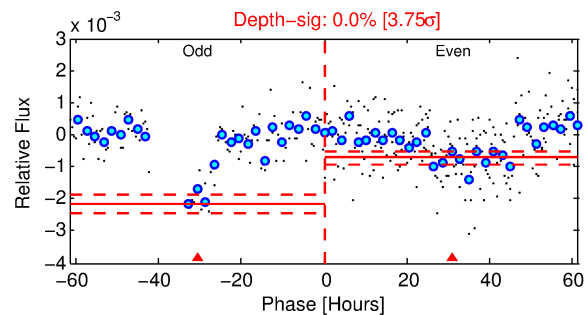
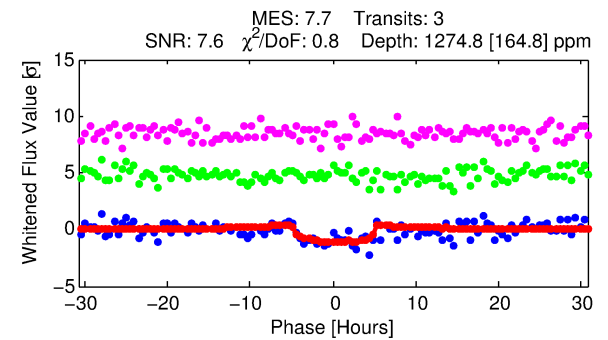
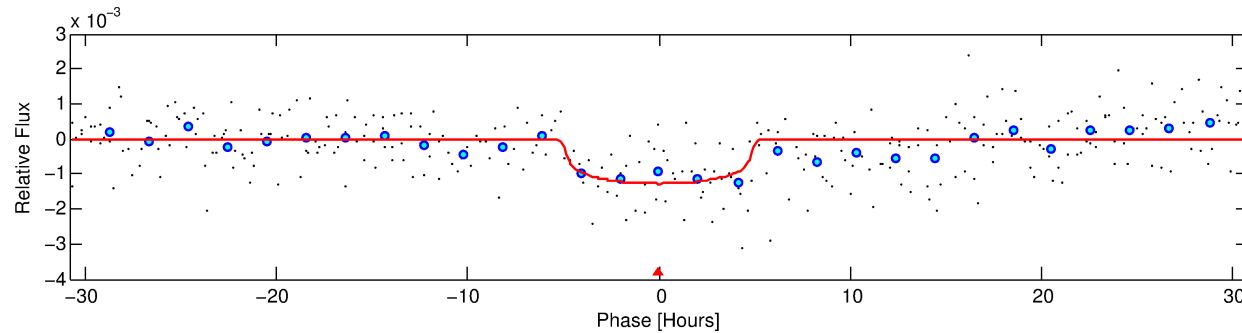
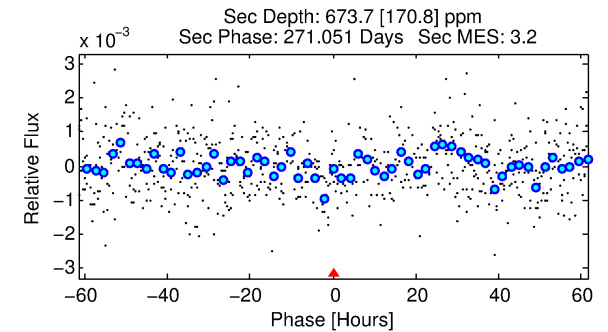
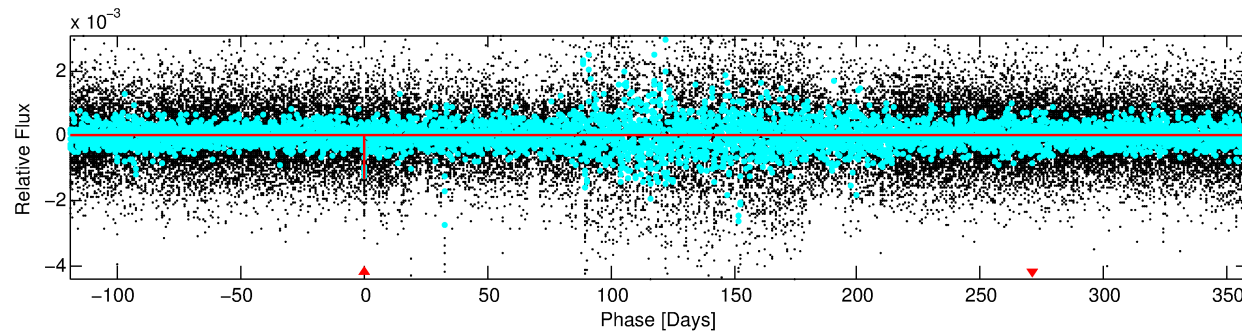
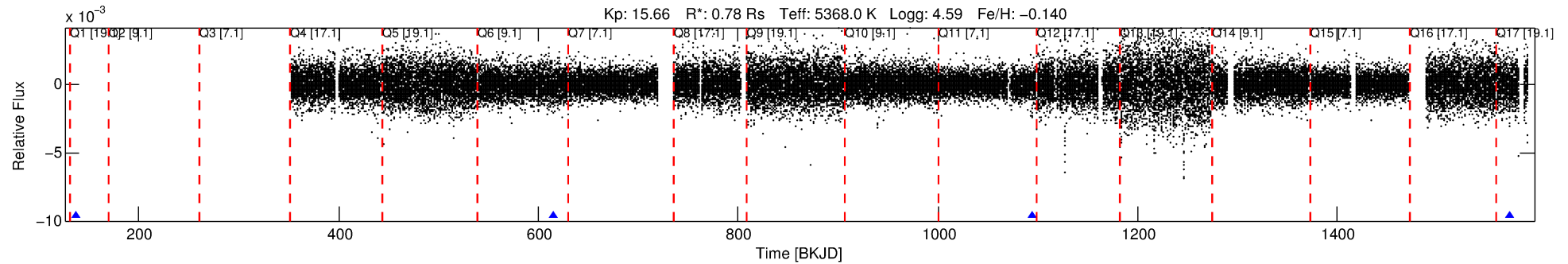
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006963514-01

No Significant Match Found

DV One-Page Summary

KIC: 6963514 Candidate: 1 of 1 Period: 478.283 d



DV Fit Results:

Period = 478.28331 [0.01201] d
Epoch = 137.2310 [0.0257] BKJD
Rp/R* = 0.0334 [0.0193]
a/R* = 315.10 [702.77]
b = 0.53 [3.01]
Seff = 0.35 [0.09]
Teq = 196 [13] K
Rp = 2.84 [1.72] Re
a = 1.1354 [0.1740] AU
Ag = 59295.48 [71214.42] [0.83σ]
Teffp = 4730 [1405] K [3.23σ]

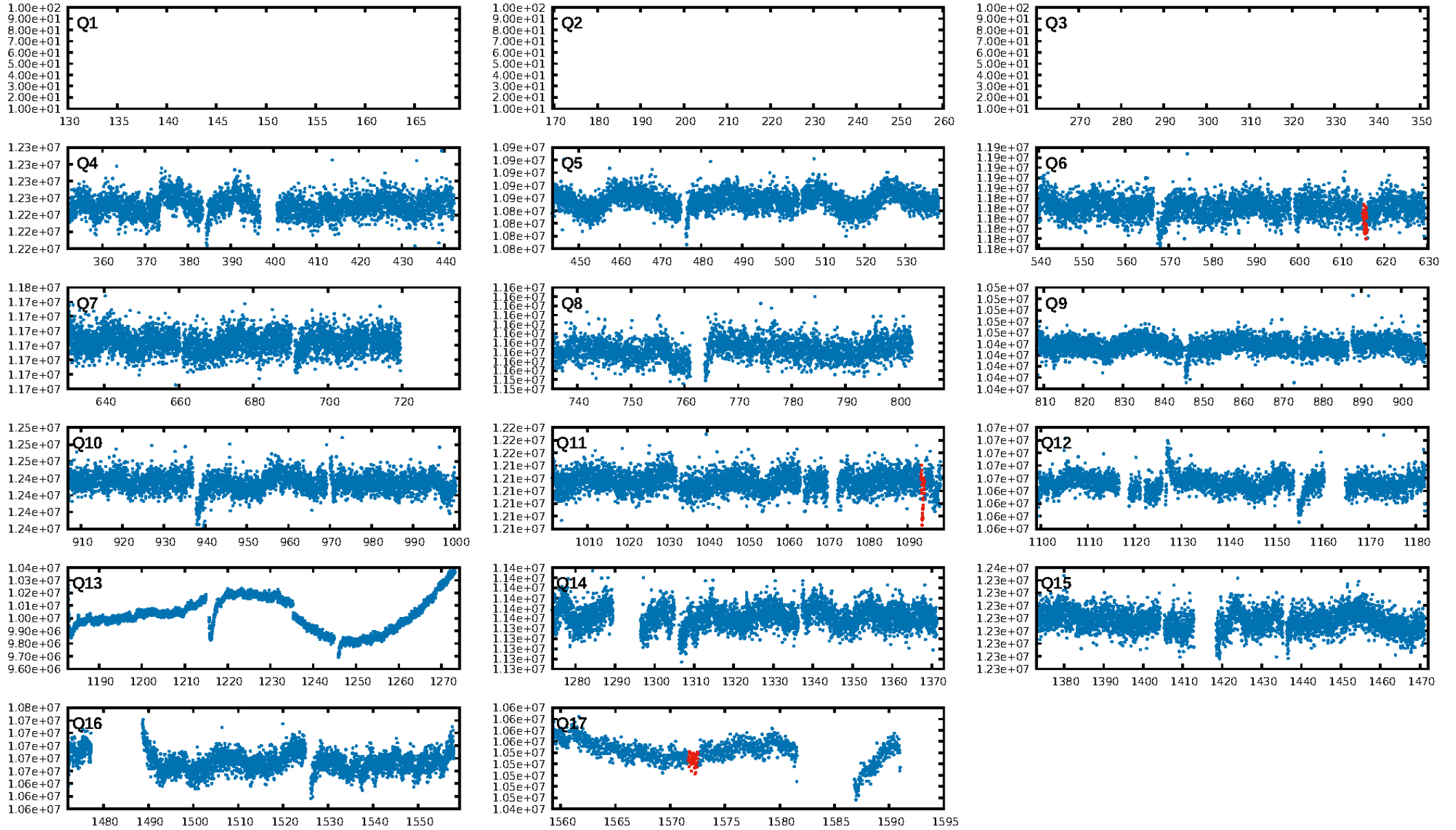
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.9%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 4.85e-10
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -1.139
Centroid-sig: 21.3%
Centroid-so: 3.668 arcsec [29.33σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

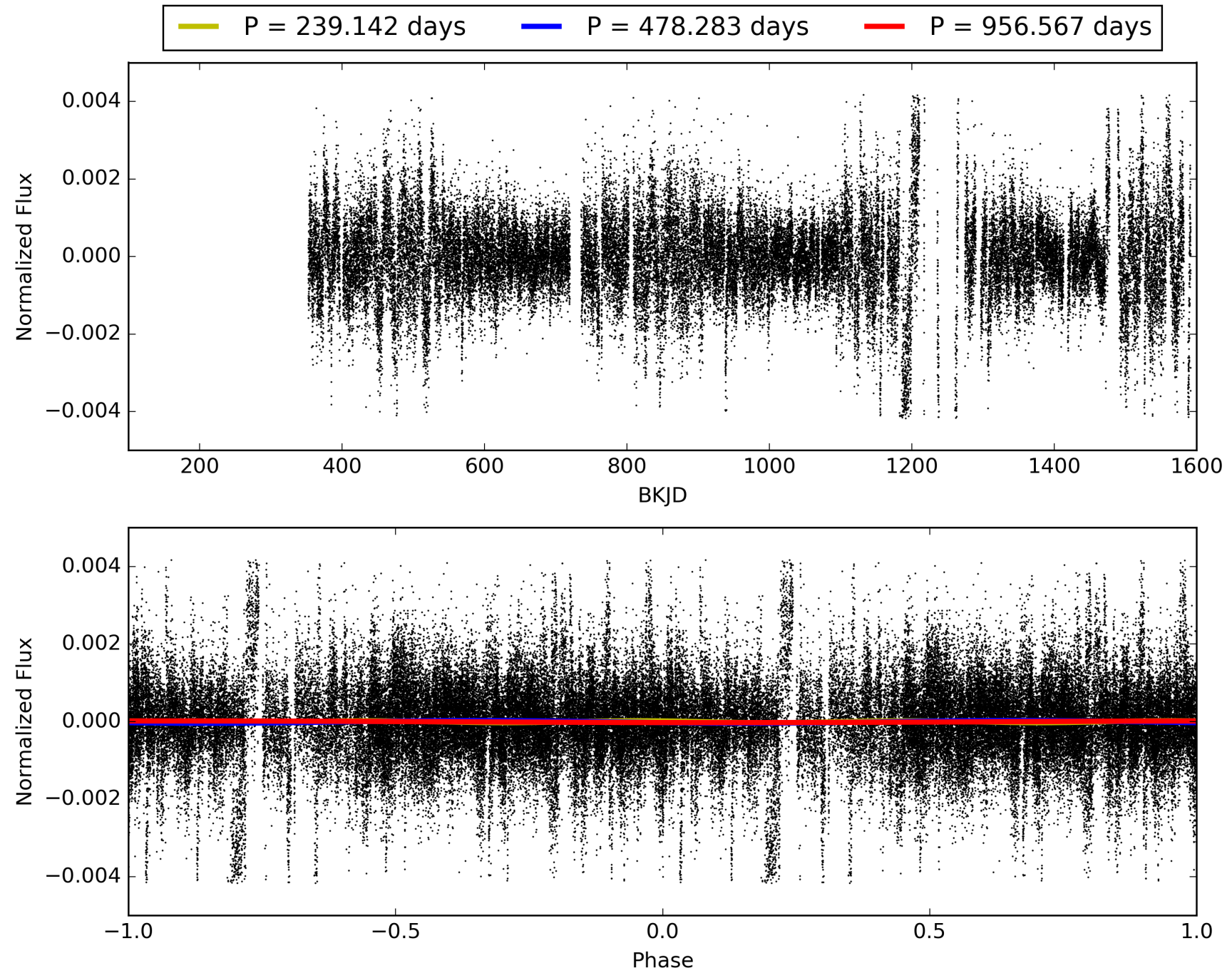
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:46:56 Z

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

TCE 006963514-01, PDC Light Curves

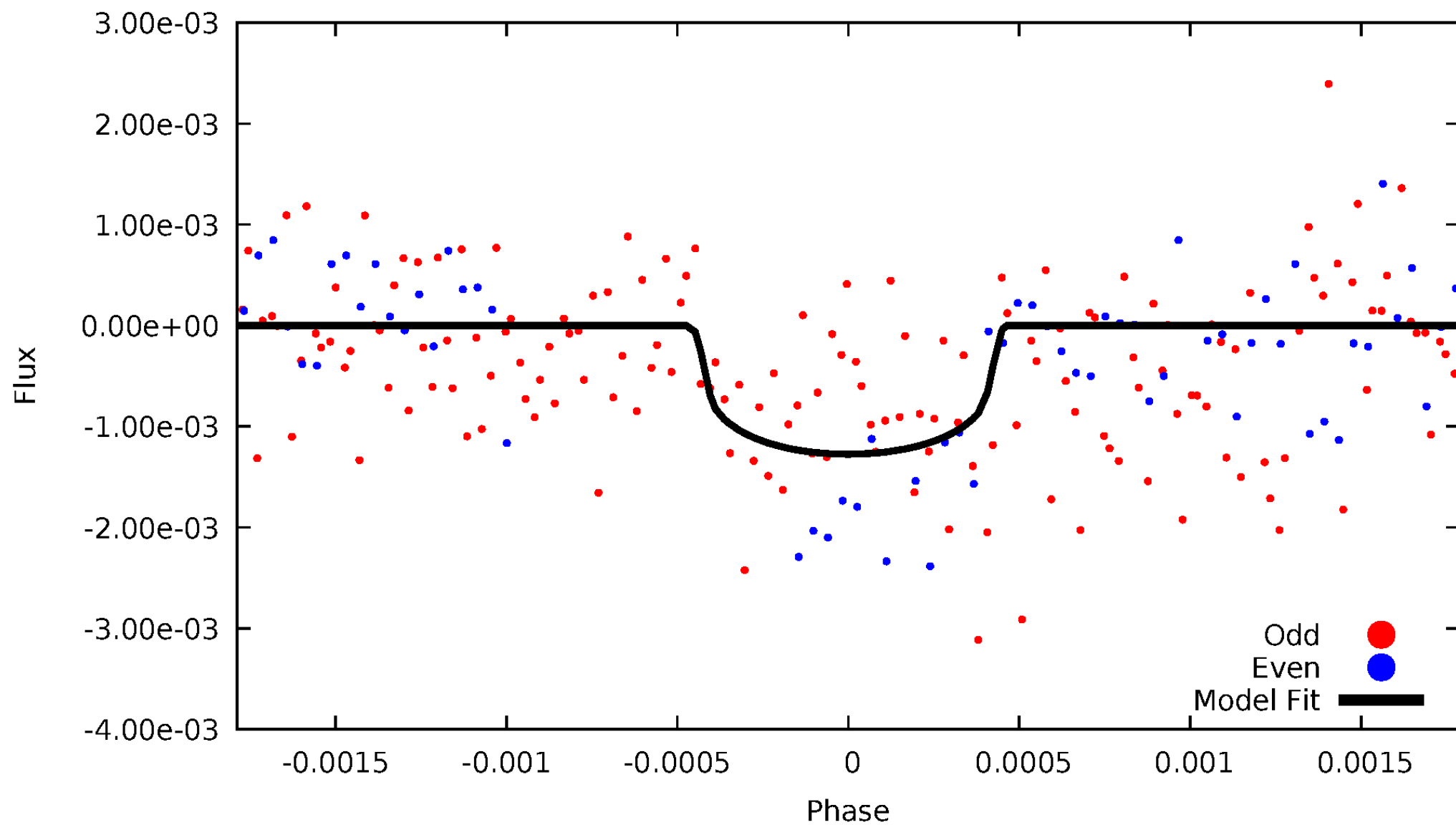


TCE 006963514-01



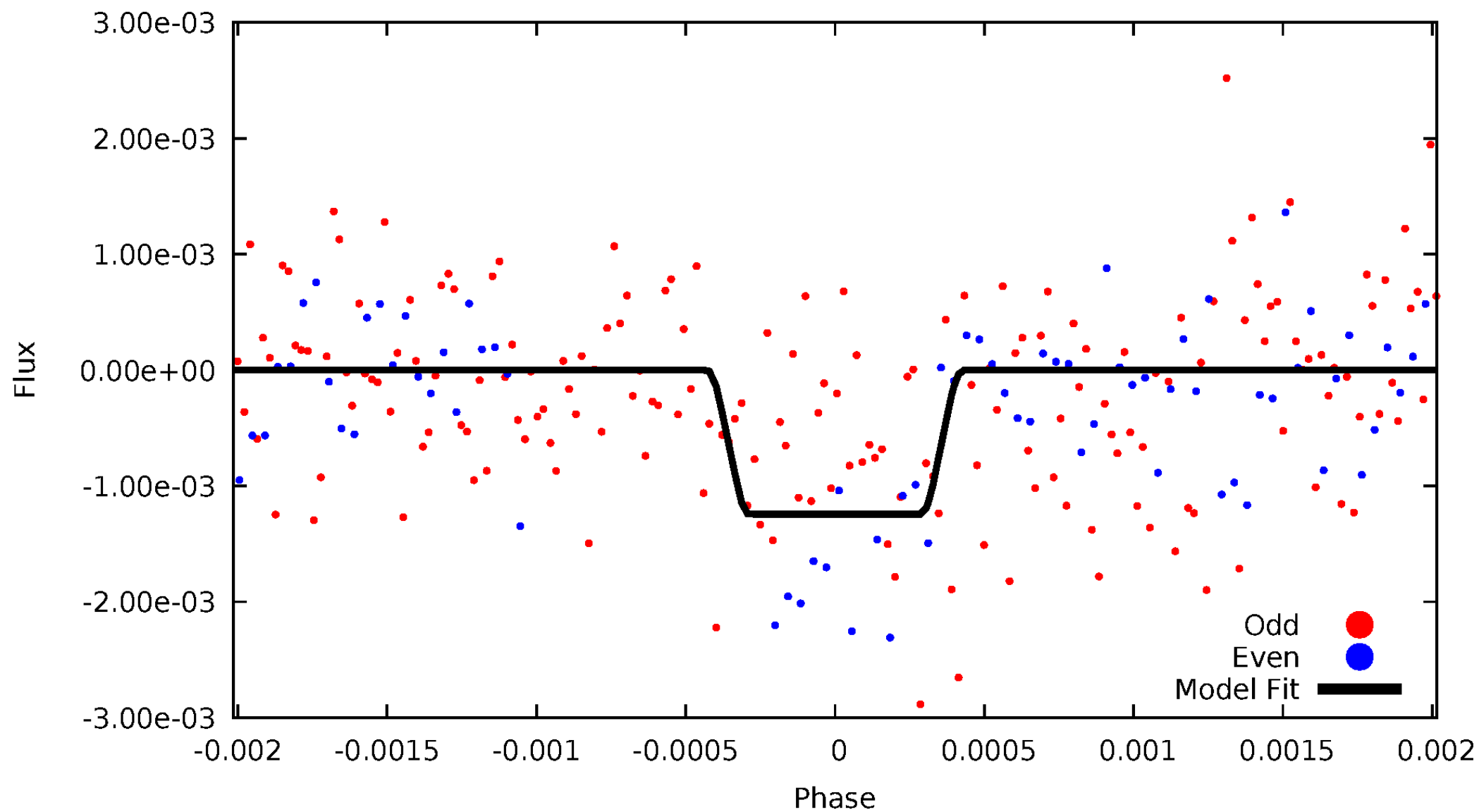
DV Odd/Even

TCE 006963514-01

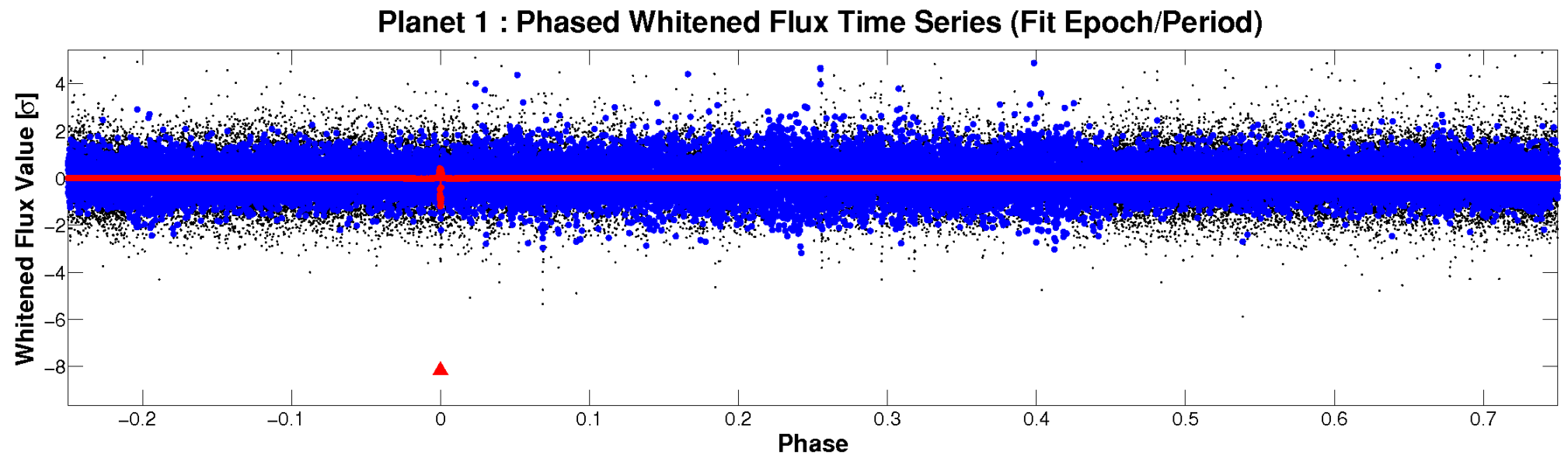
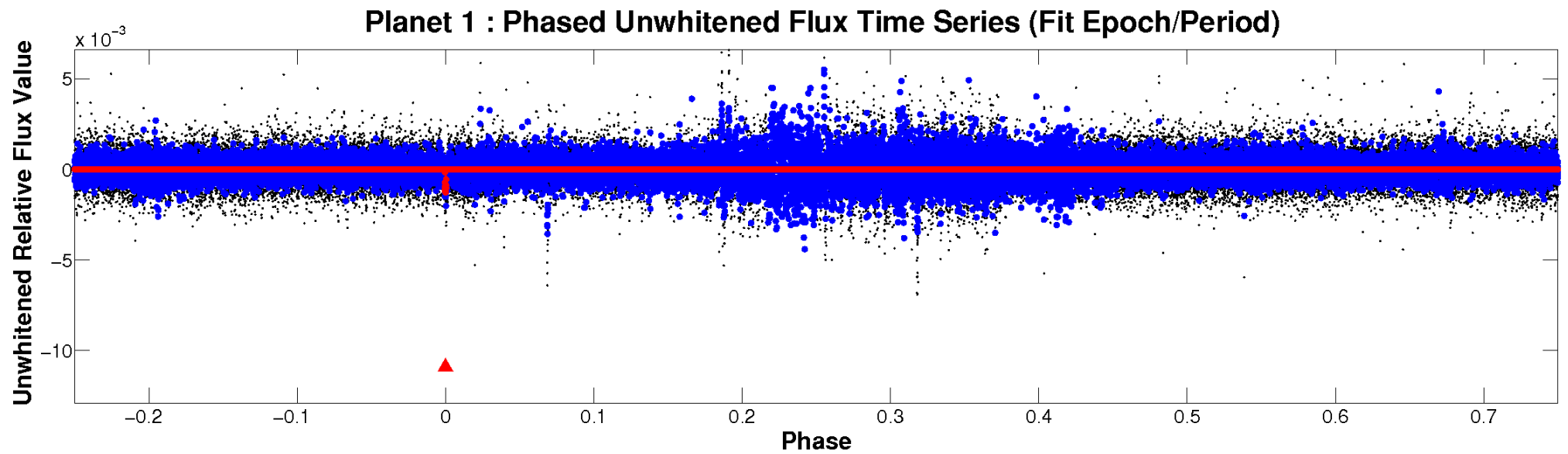


ALT Odd/Even

TCE 006963514-01



Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 006963514-01 P=478.283315 Days $T_0=137.231021$ (BKJD)



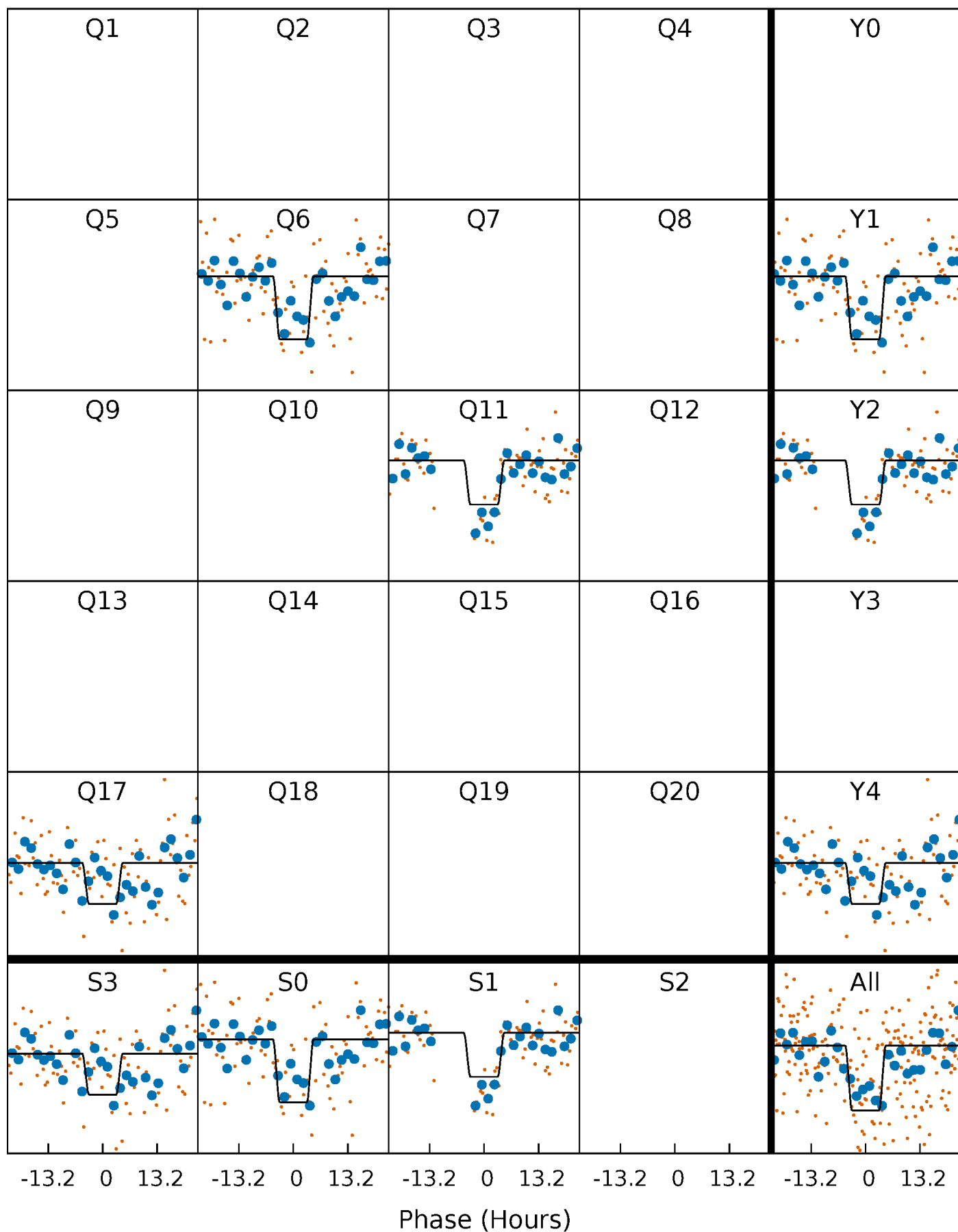
DV Quarter-Phased Transit Curves

TCE 006963514-01 P=478.283315 Days $T_0=137.231021$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

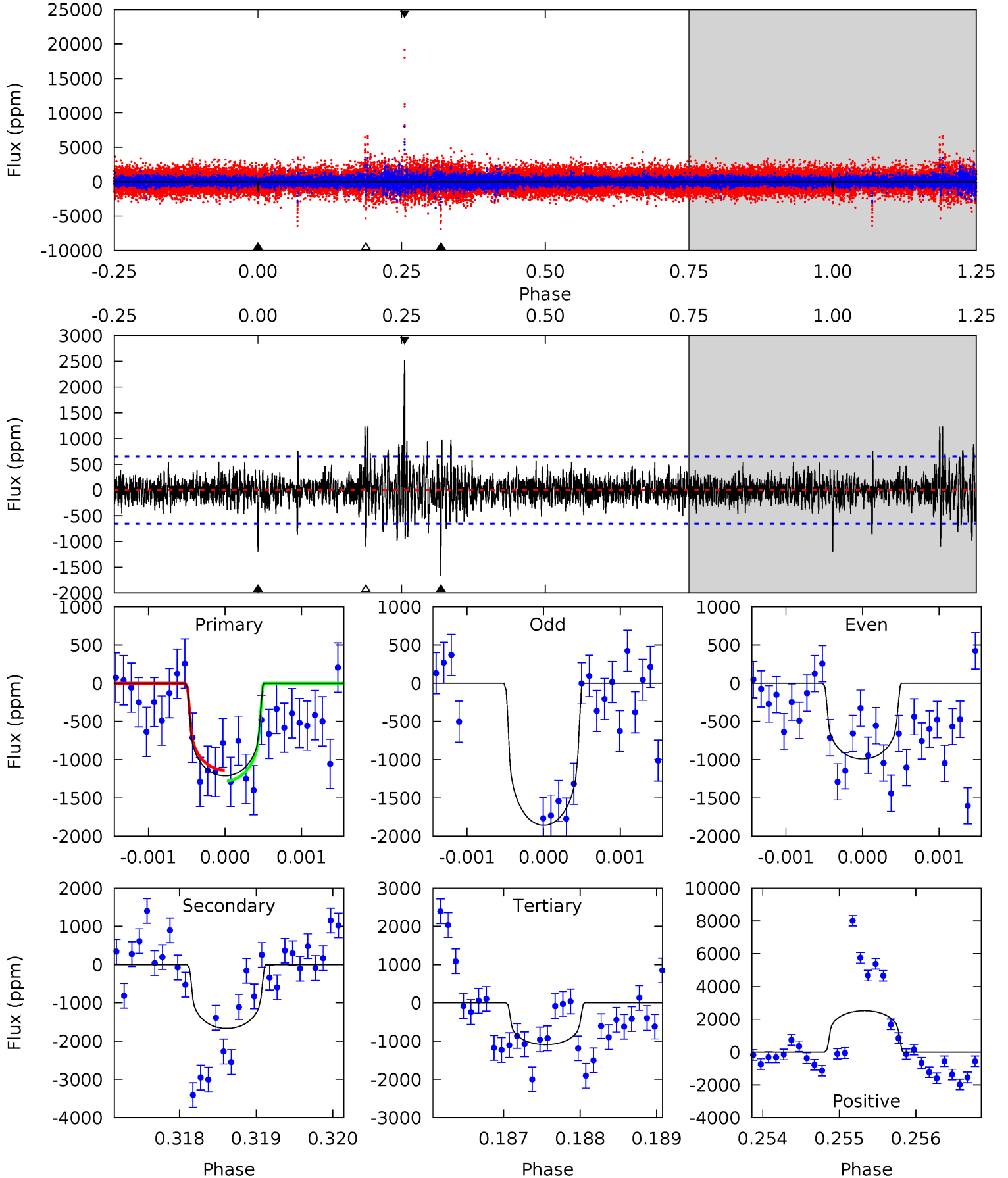
TCE 006963514-01 P=478.301961 Days $T_0=137.220161$ (BKJD)



DV Model-Shift Uniqueness Test

006963514-01, P = 478.283315 Days, E = 137.231021 Days

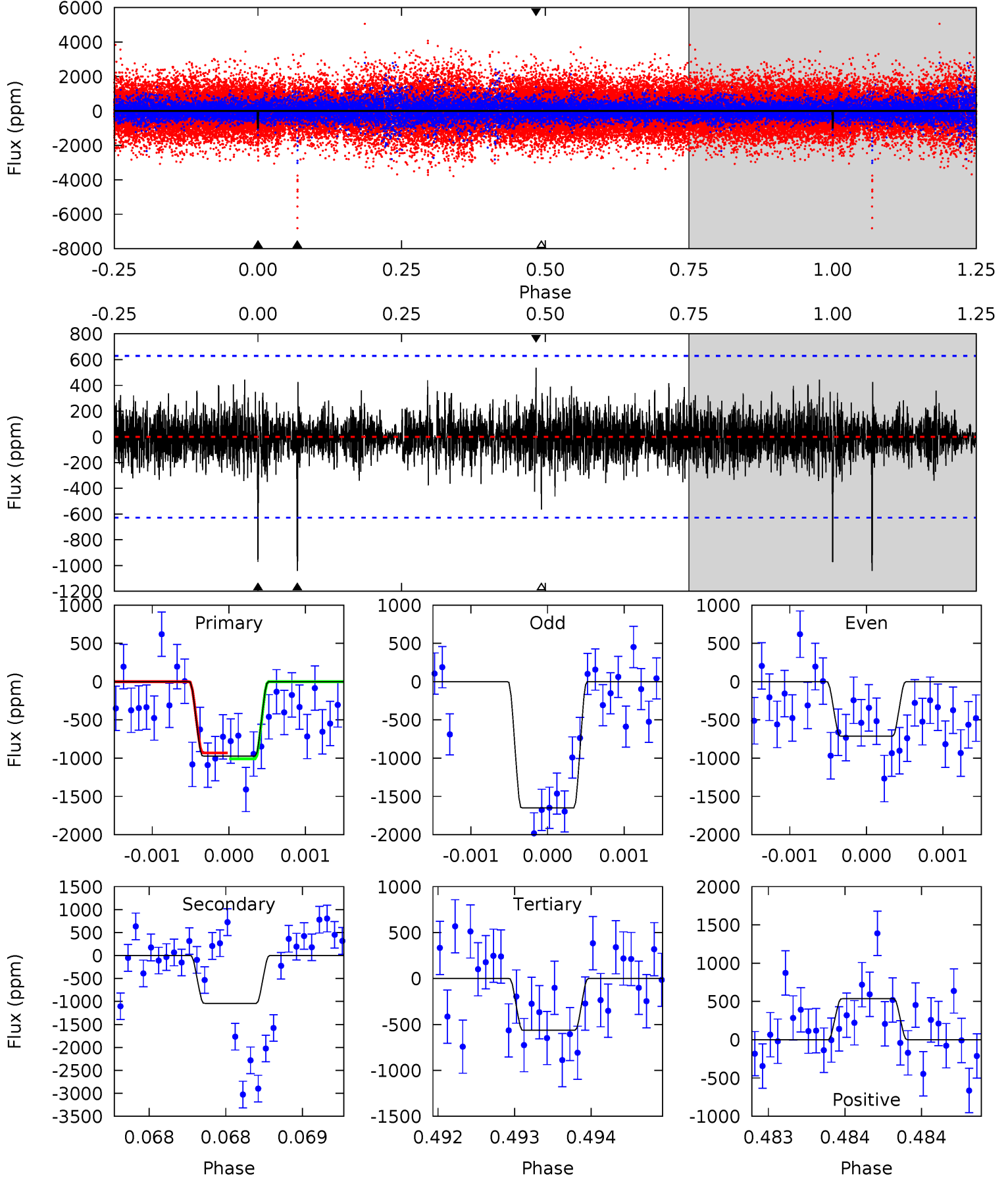
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	14.0	9.15	21.2	5.47	3.32	1.83	1.00	-11.0	4.83	-7.17	2.87	1.13	0.60	0.59



Alt Model-Shift Uniqueness Test

006963514-01, P = 478.301961 Days, E = 137.220161 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.48	9.09	4.92	4.67	5.48	3.34	1.04	3.56	3.81	4.16	4.41	3.57	1.13	0.34	0.33



Stellar Parameters For KIC 006963514

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5368^{+185}_{-185}	$4.587^{+0.037}_{-0.120}$	$-0.140^{+0.300}_{-0.300}$	$0.778^{+0.143}_{-0.071}$	$0.859^{+0.077}_{-0.096}$	$2.568^{+0.509}_{-0.937}$
	+3%/-3%	+1%/-3%	+214%/-214%	+18%/-9%	+9%/-11%	+20%/-36%
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 006963514-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1668 ± 119	$3.05^{+1.63}_{-1.47}$	278^{+13}_{-13}	5823^{+2396}_{-1020}	$126005^{+343375}_{-71615}$
Alt.	-1042 ± 115	$3.17^{+1.73}_{-1.51}$	278^{+15}_{-13}	5078^{+1945}_{-780}	$73312^{+210377}_{-42752}$

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

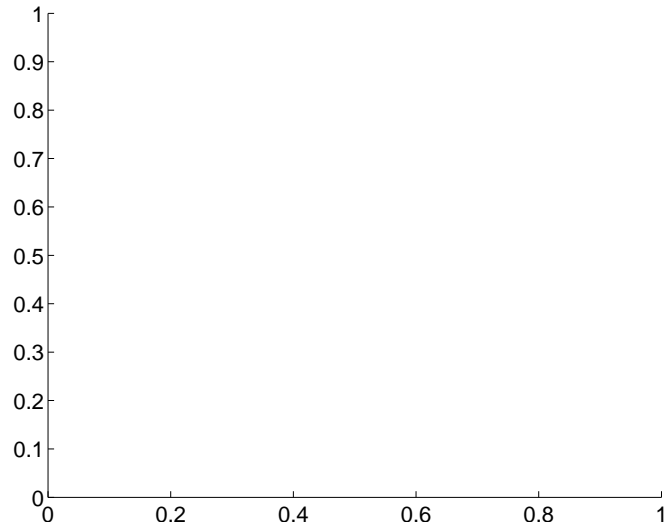
Supplemental centroid analysis for 006963514-01. Kepler magnitude: 15.66. Transit SNR 7.61

There are 0 quarters with good PRF difference image offsets

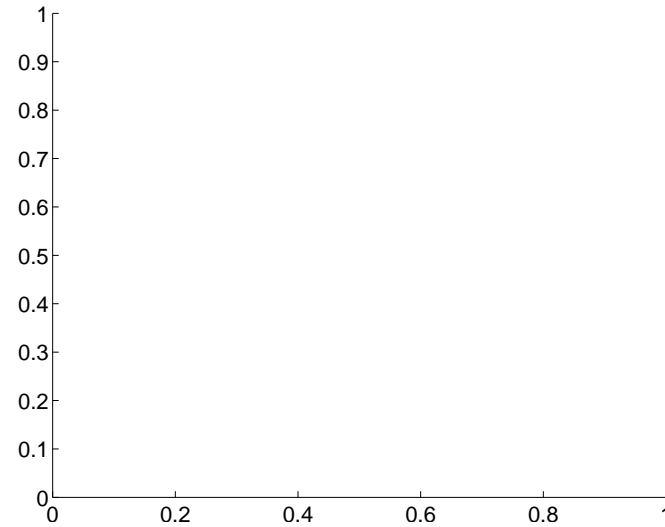
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	3.67 ± 0.13	29.33	0.05 ± 0.20	-3.67 ± 0.13

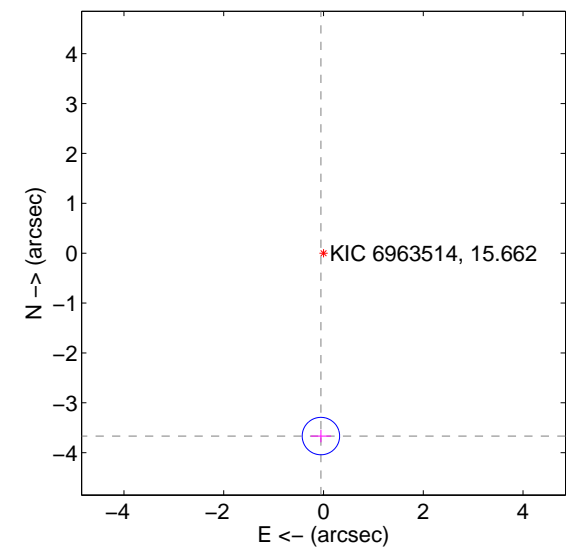
There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC



offset from photometric centroids

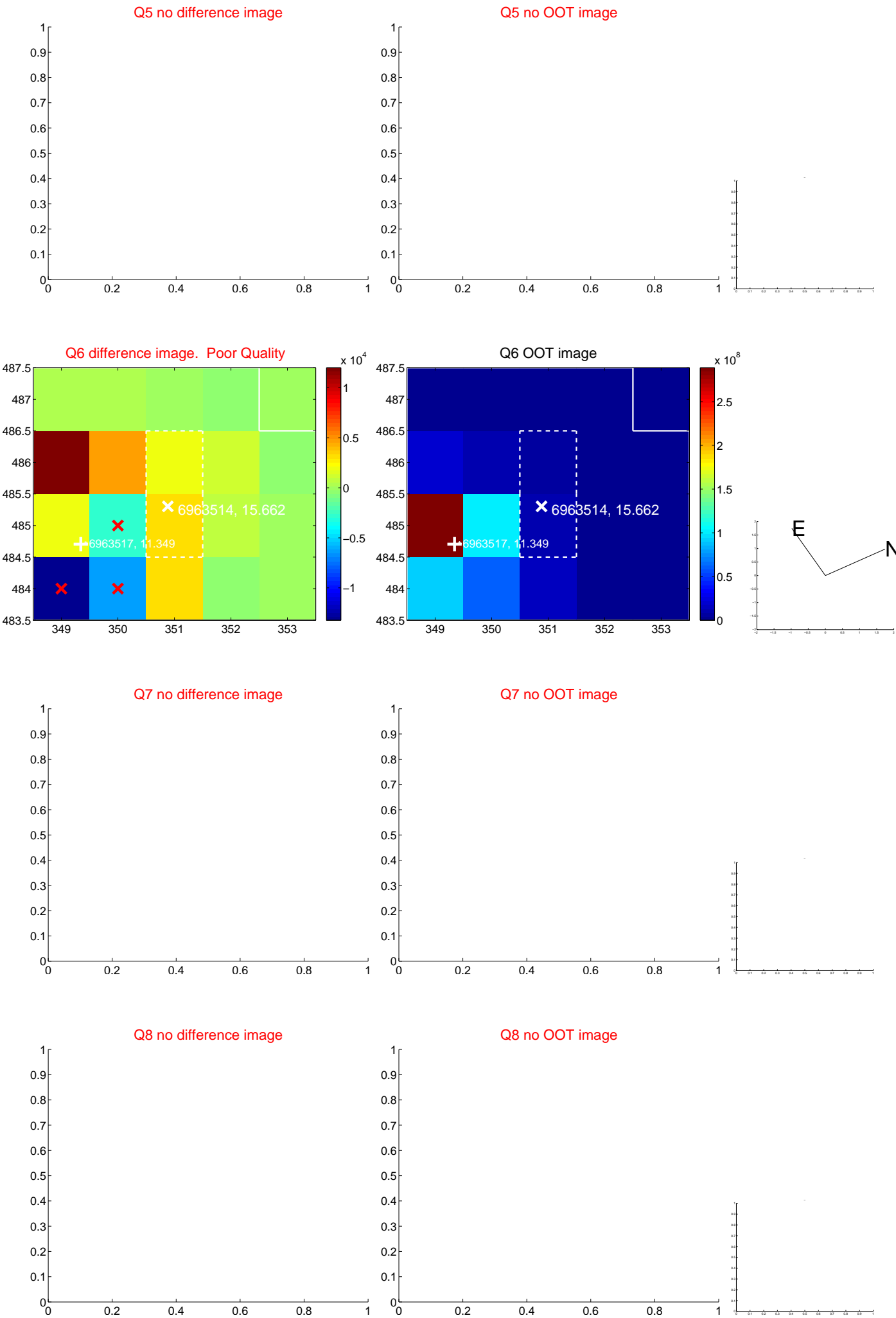


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



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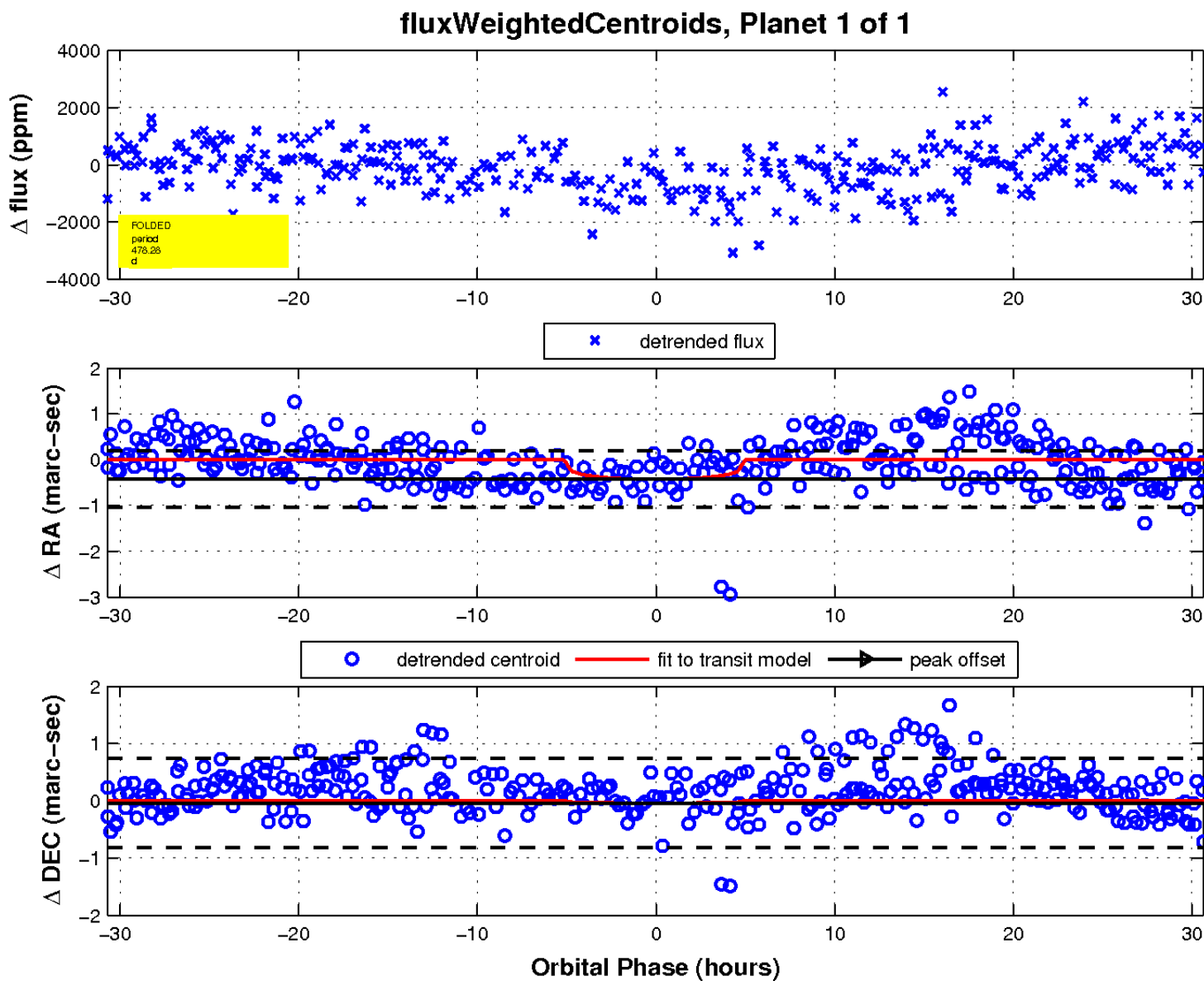
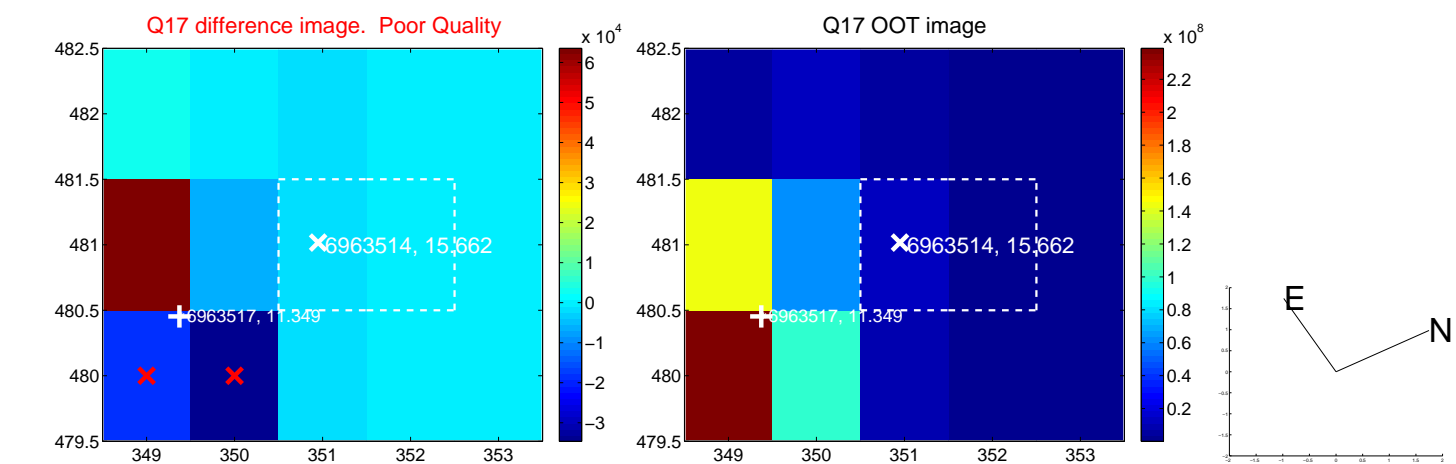
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

