

KIC 011649292

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})
011649292-01	OBS	8228.01	384.559897	160.731977	1439.8	3.881	8.3	7.6	3.00	5078	11.56	5.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011649292-01	OBS	FP	0.01	1	0	0	0	MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

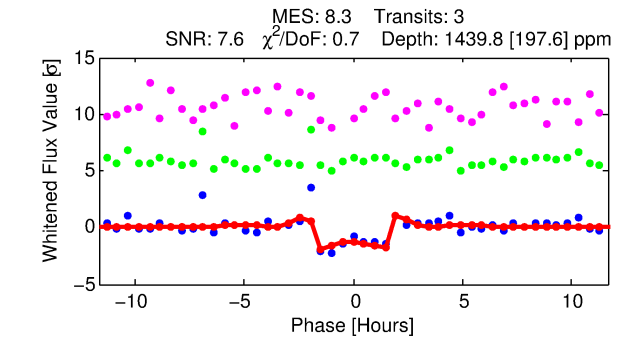
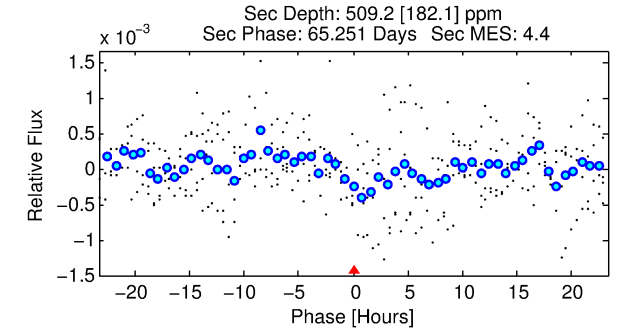
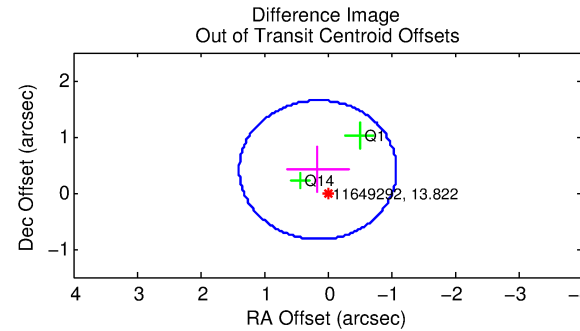
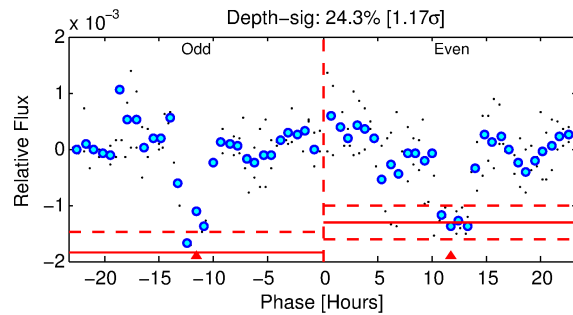
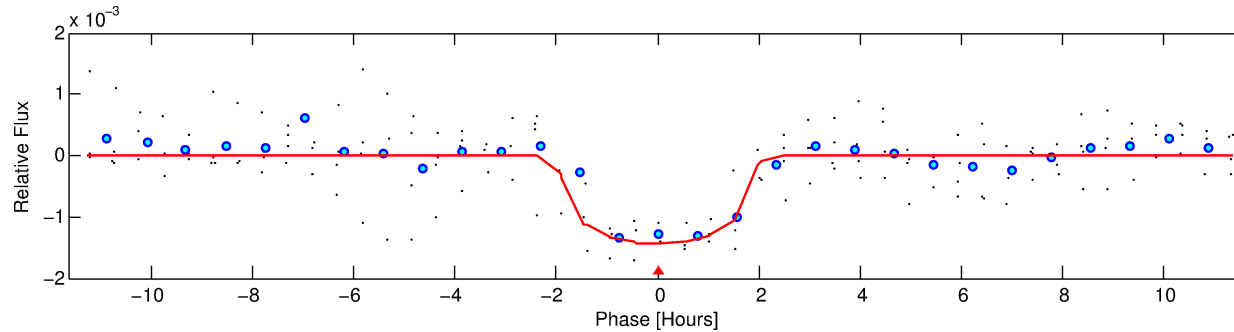
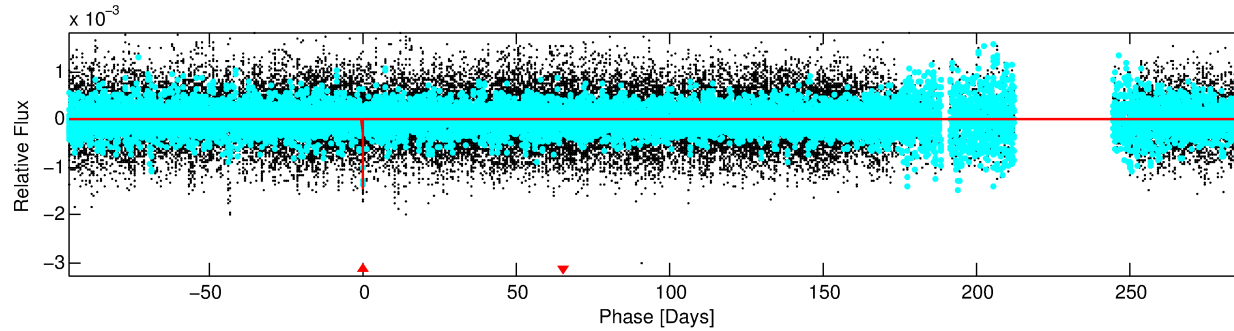
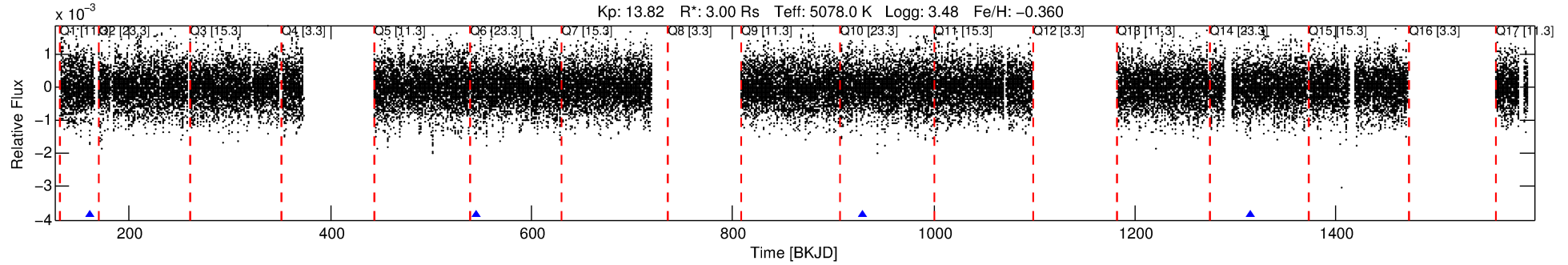
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011649292-01

No Significant Match Found

DV One-Page Summary

KIC: 11649292 Candidate: 1 of 1 Period: 384.560 d



DV Fit Results:

Period = 384.55990 [0.00250] d
Epoch = 160.7320 [0.0045] BKJD
Rp/R* = 0.0353 [0.0475]
a/R* = 682.25 [3427.12]
b = 0.51 [7.42]
Seff = 5.04 [3.16]
Teq = 382 [60] K
Rp = 11.56 [16.41] Re
a = 1.0314 [0.4167] AU
Ag = 2231.04 [6216.31] [0.36 σ]
Teffp = 4060 [2759] K [1.33 σ]

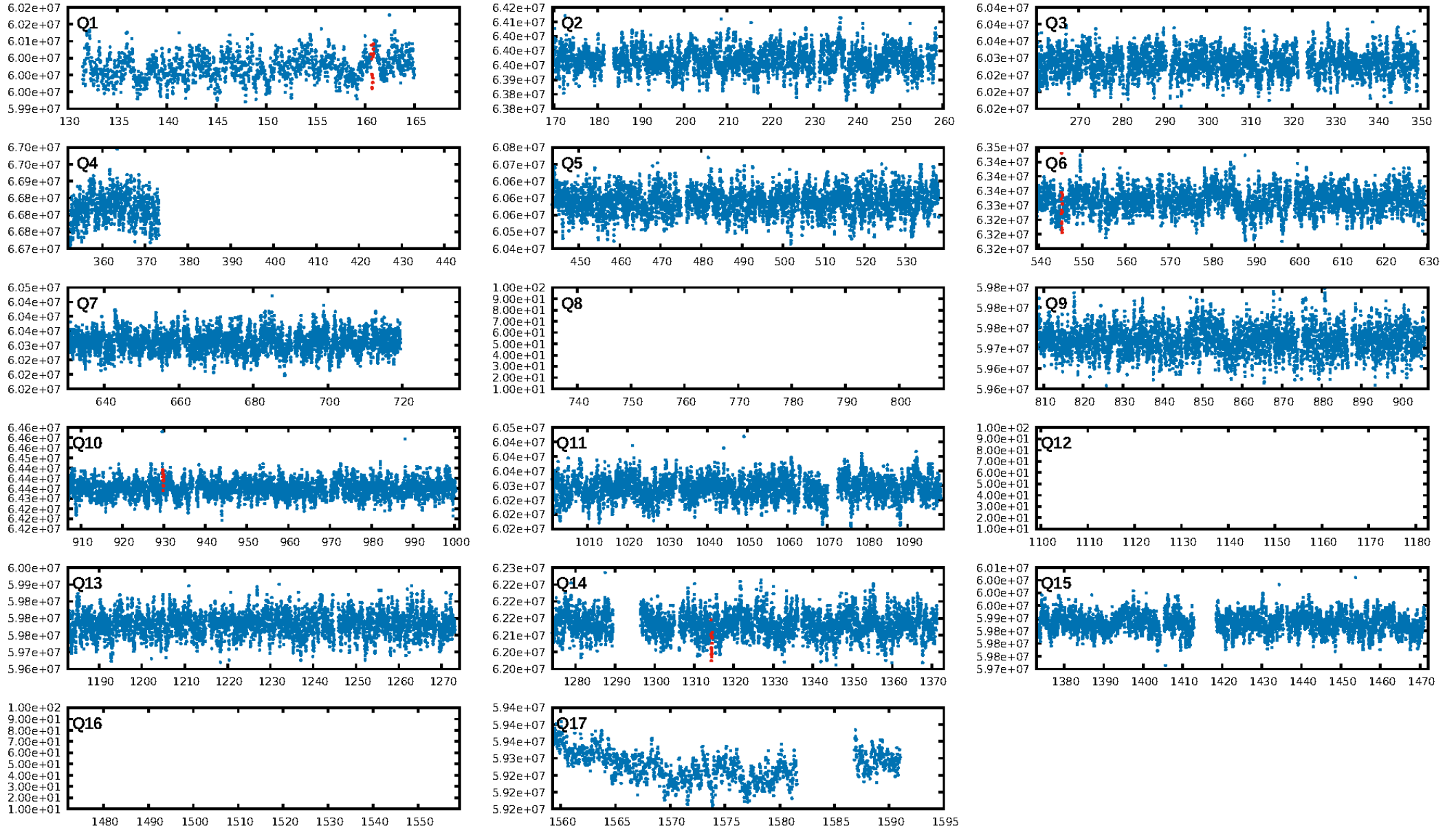
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 88.7%
ModelChiSquareGof-sig: 99.4%
Bootstrap-pfa: 1.19e-10
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -5.218
Centroid-sig: 62.1%
Centroid-so: 0.546 arcsec [0.92 σ]
OotOffset-rm: 0.433 arcsec [1.05 σ]
KicOffset-rm: 0.353 arcsec [0.73 σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

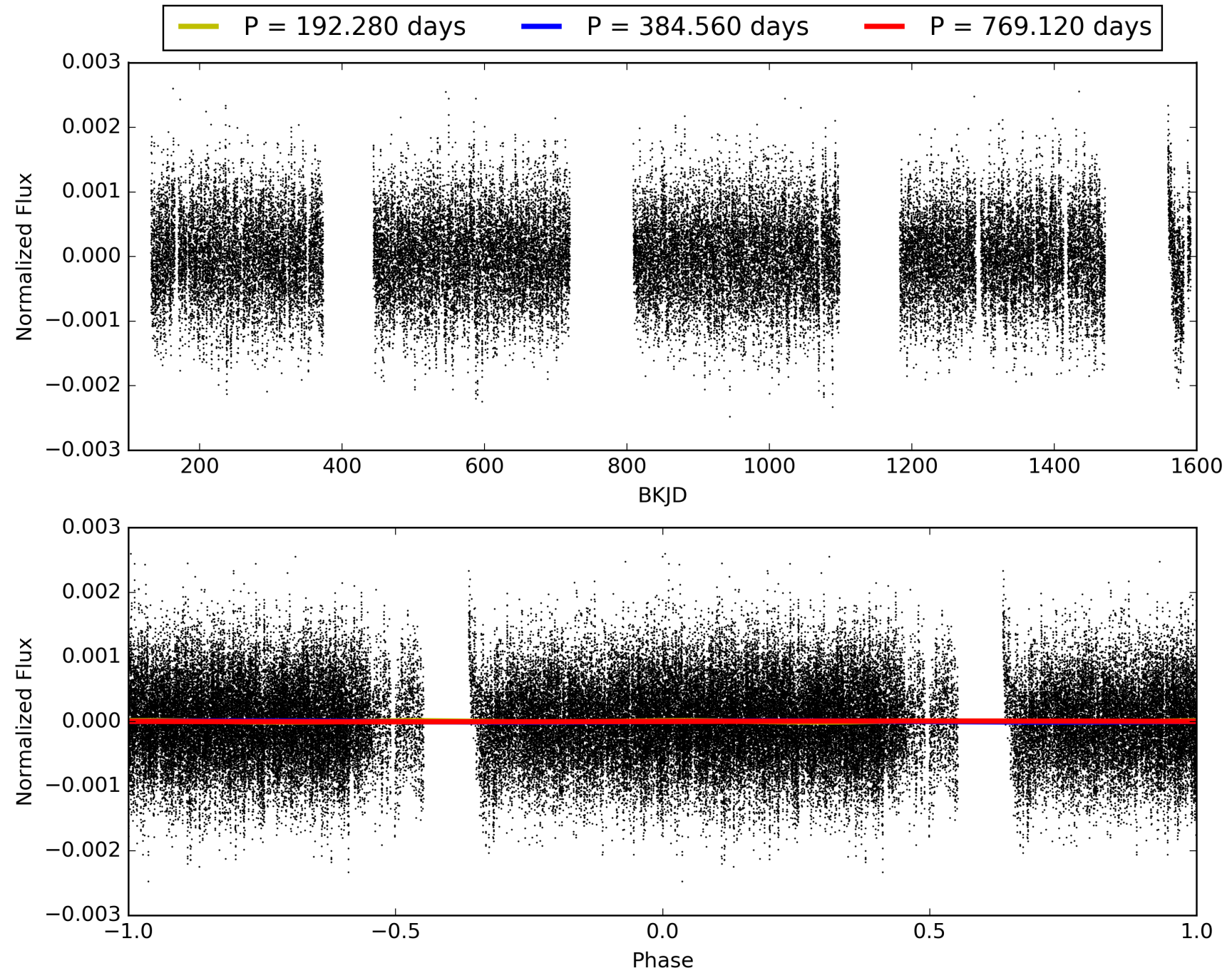
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:44:07 Z

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

TCE 011649292-01, PDC Light Curves

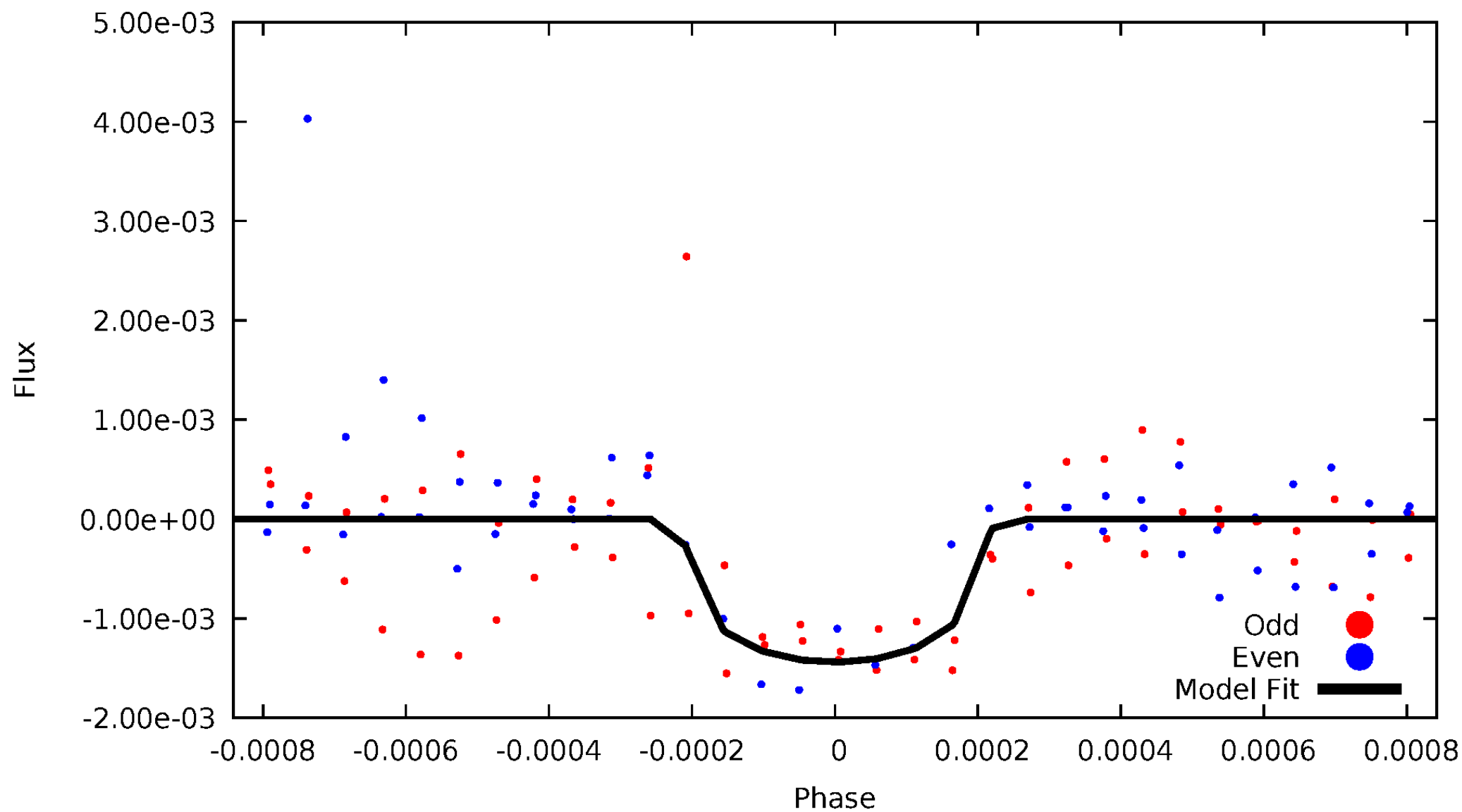


TCE 011649292-01



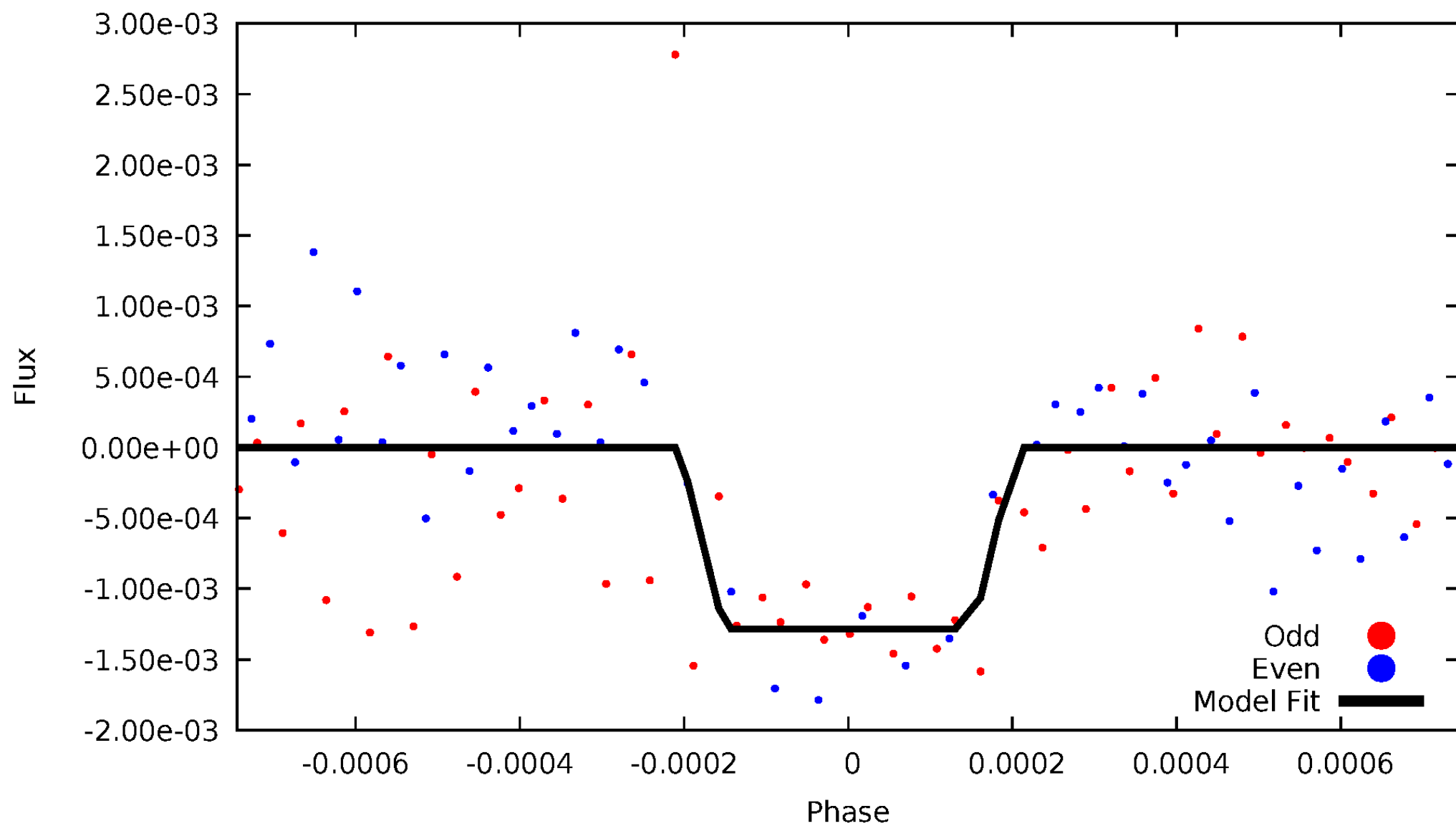
DV Odd/Even

TCE 011649292-01



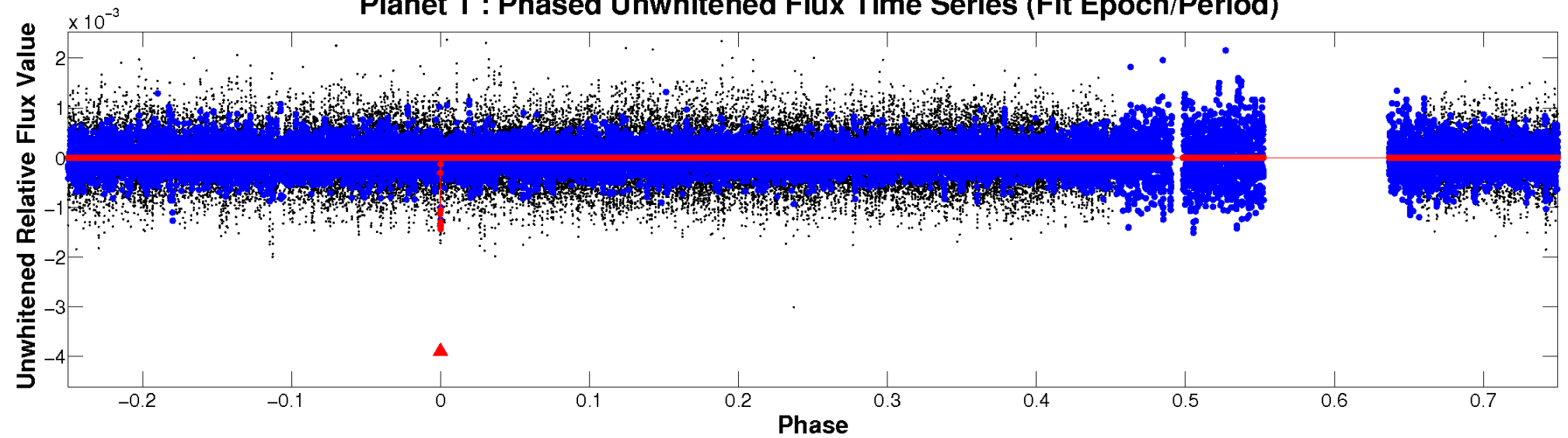
ALT Odd/Even

TCE 011649292-01

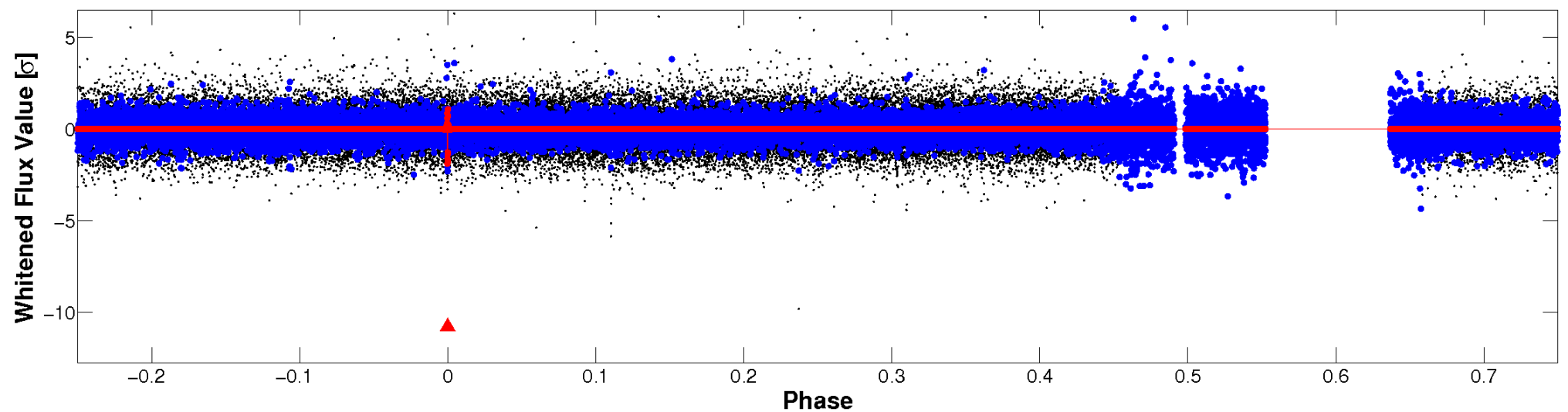


Non-Whitened Vs. Whitened Light Curve

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

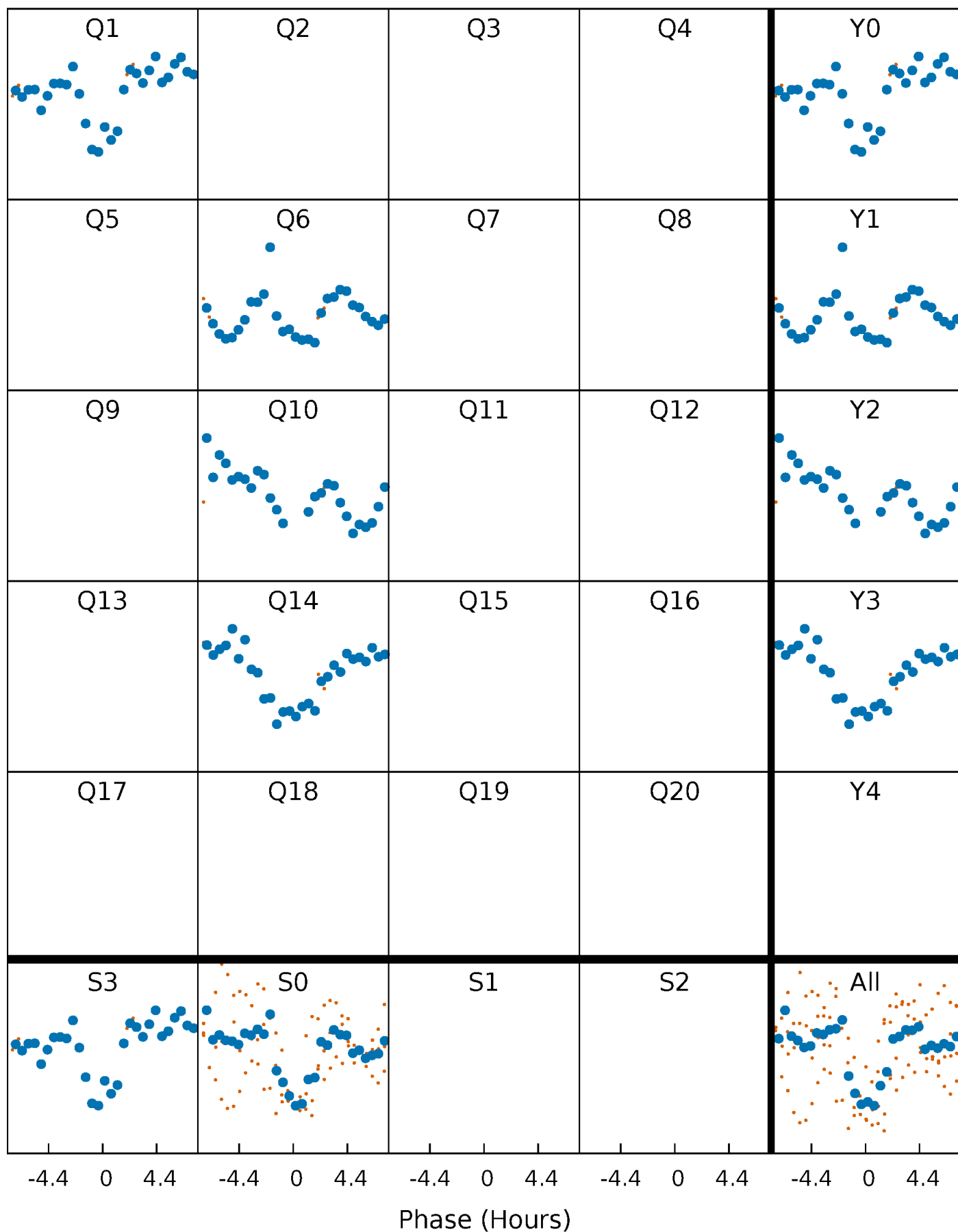


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



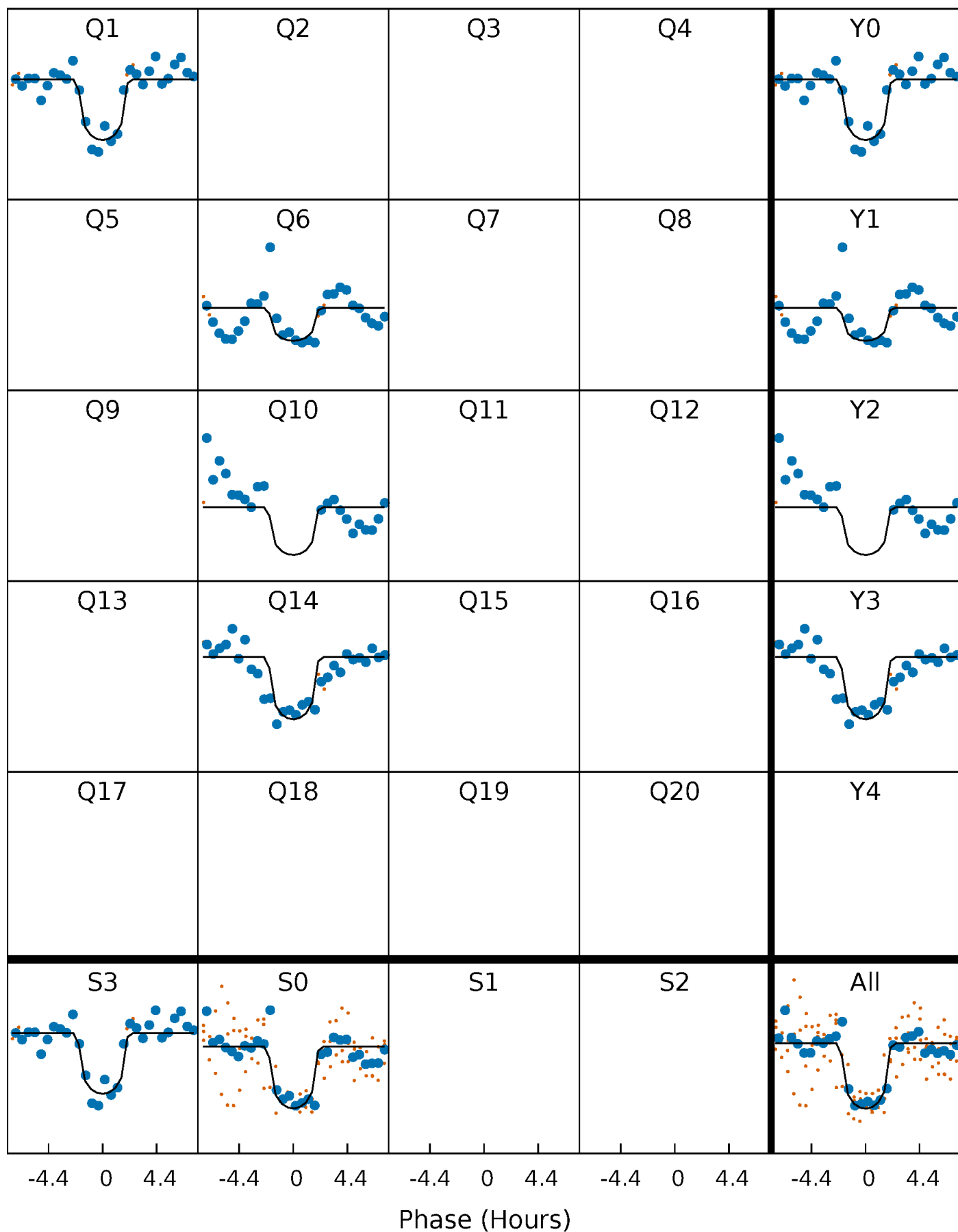
PDC Quarter-Phased Transit Curves

TCE 011649292-01 P=384.559897 Days $T_0=160.731977$ (BKJD)



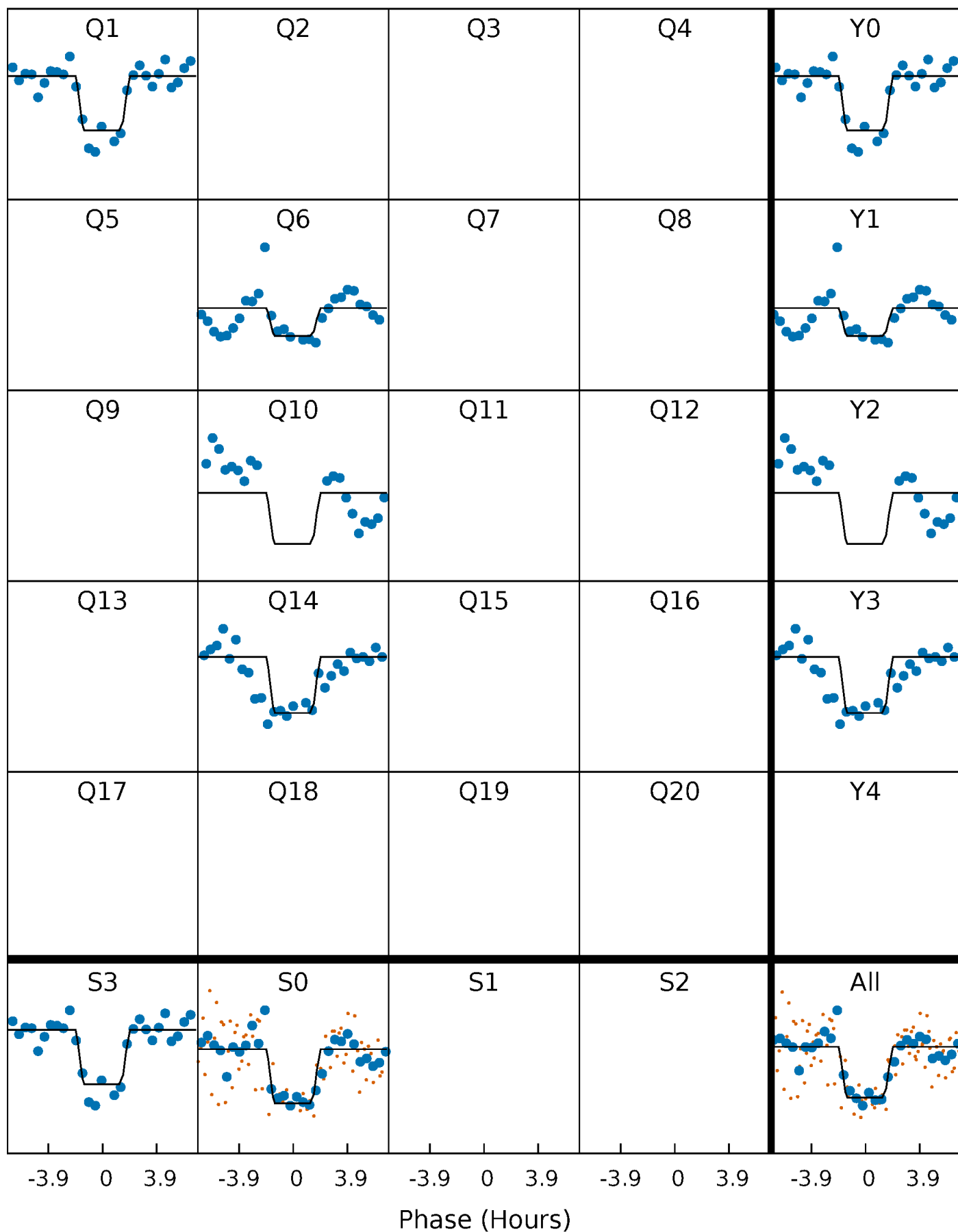
DV Quarter-Phased Transit Curves

TCE 011649292-01 P=384.559897 Days $T_0=160.731977$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

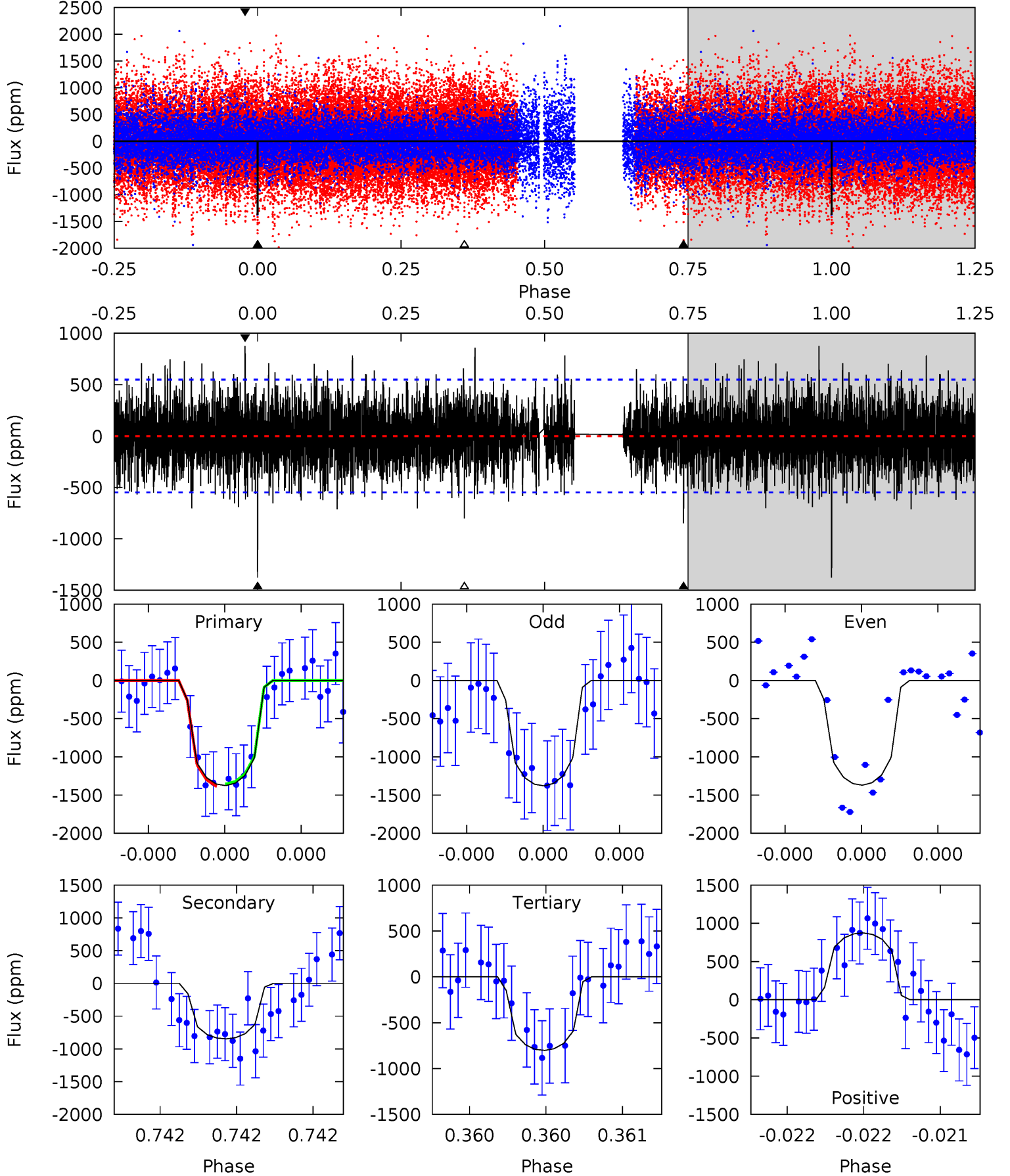
TCE 011649292-01 P=384.566410 Days $T_0=160.726723$ (BKJD)



DV Model-Shift Uniqueness Test

011649292-01, $P = 384.559897$ Days, $E = 160.731977$ Days

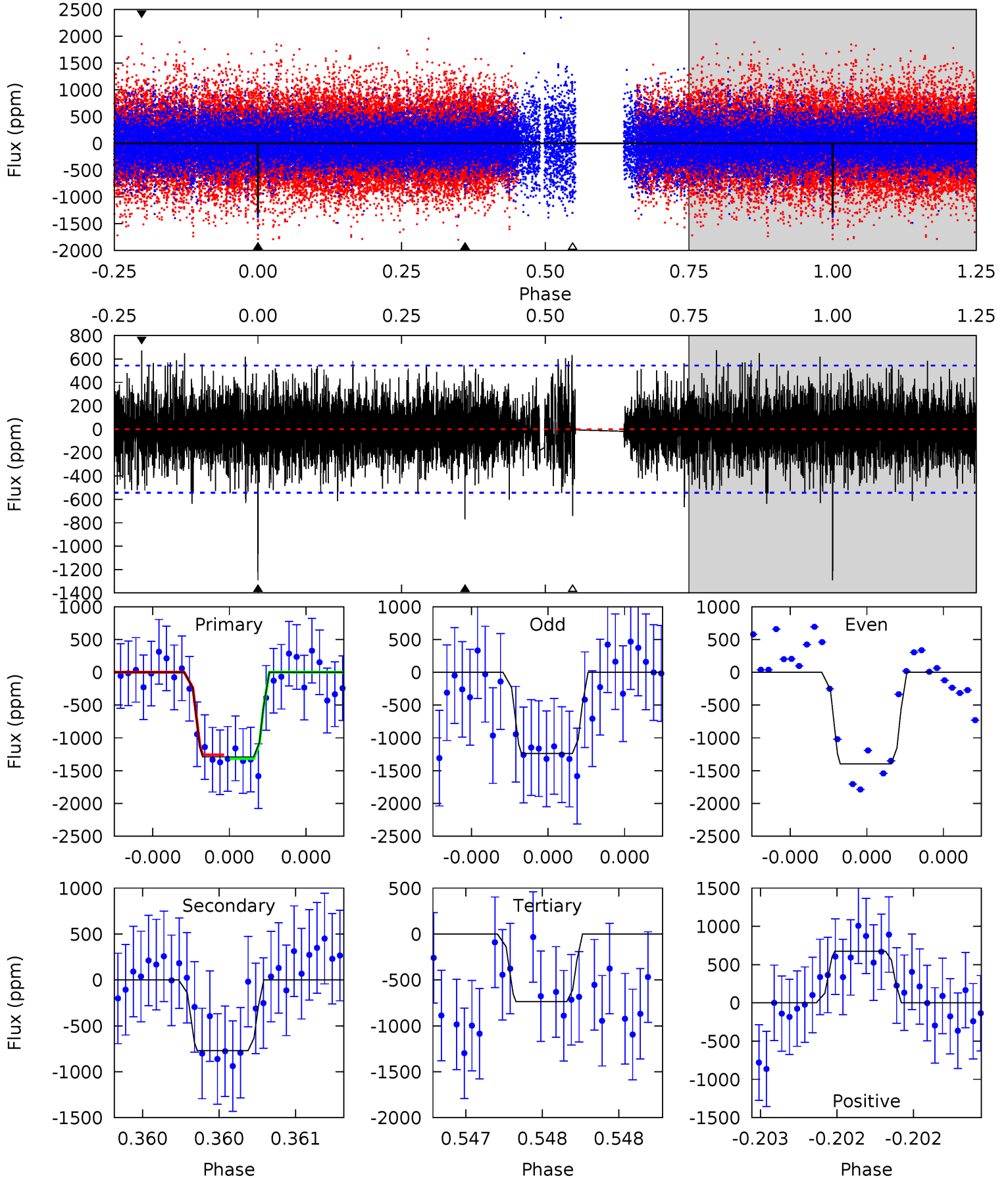
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	8.65	8.19	8.93	5.60	3.52	2.18	5.86	5.12	0.46	-0.29	0.04	0.98	0.39	0.16



Alt Model-Shift Uniqueness Test

011649292-01, P = 384.566410 Days, E = 160.726723 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	7.94	7.60	6.95	5.61	3.53	1.86	5.71	6.36	0.34	0.99	0.77	1.02	0.34	0.29



Stellar Parameters For KIC 011649292

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5078^{+132}_{-112}	$3.479^{+0.352}_{-0.288}$	$-0.360^{+0.300}_{-0.200}$	$3.000^{+1.352}_{-1.106}$	$0.989^{+0.246}_{-0.144}$	$0.052^{+0.133}_{-0.034}$
	+3%/-2%	+10%/-8%	+83%/-56%	+45%/-37%	+25%/-15%	+258%/-65%
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 011649292-01 / KOI 8228.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-846 ± 98	$16.38^{+15.03}_{-10.90}$	532^{+60}_{-56}	4063^{+2267}_{-728}	1807^{+15228}_{-1273}
Alt.	-769 ± 97	$16.50^{+15.84}_{-10.79}$	534^{+67}_{-53}	4034^{+2050}_{-758}	1686^{+12336}_{-1247}

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

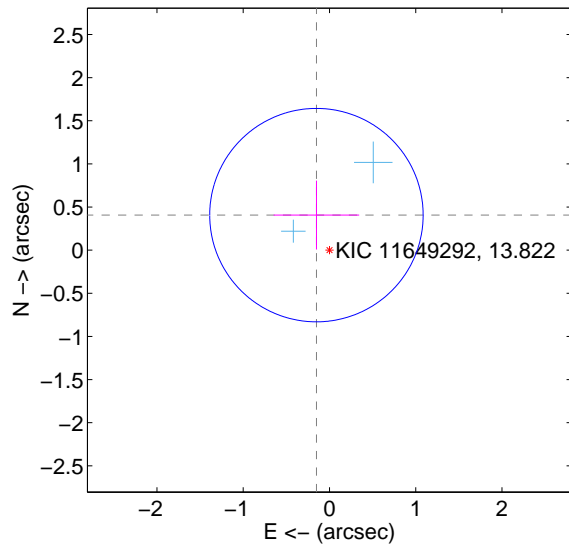
Supplemental centroid analysis for 011649292-01. Kepler magnitude: 13.82. Transit SNR 7.63

There are 2 quarters with good PRF difference image offsets

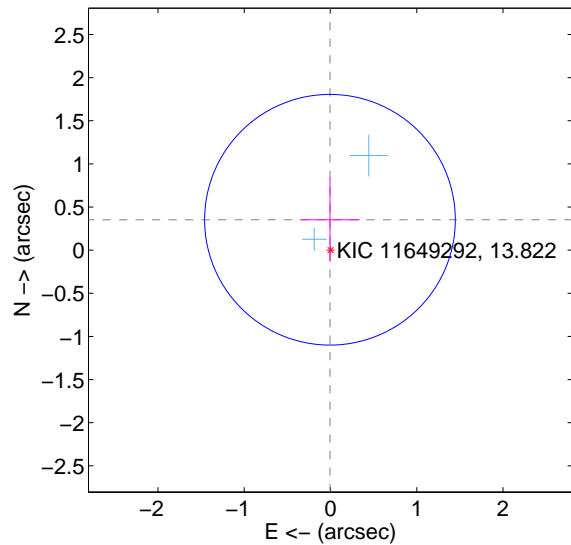
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.433 ± 0.412	1.05	0.151 ± 0.495	0.406 ± 0.399
PRF-fit source offset from KIC position	0.353 ± 0.484	0.73	0.006 ± 0.342	0.353 ± 0.484
photometric centroid source offset	0.55 ± 0.60	0.92	-0.54 ± 0.60	-0.08 ± 0.55

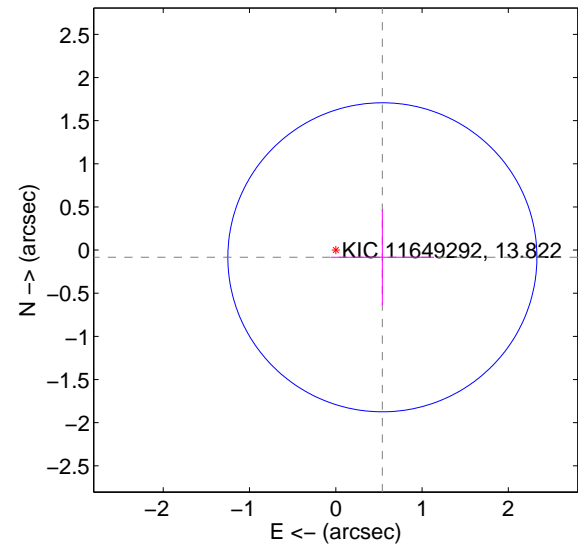
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

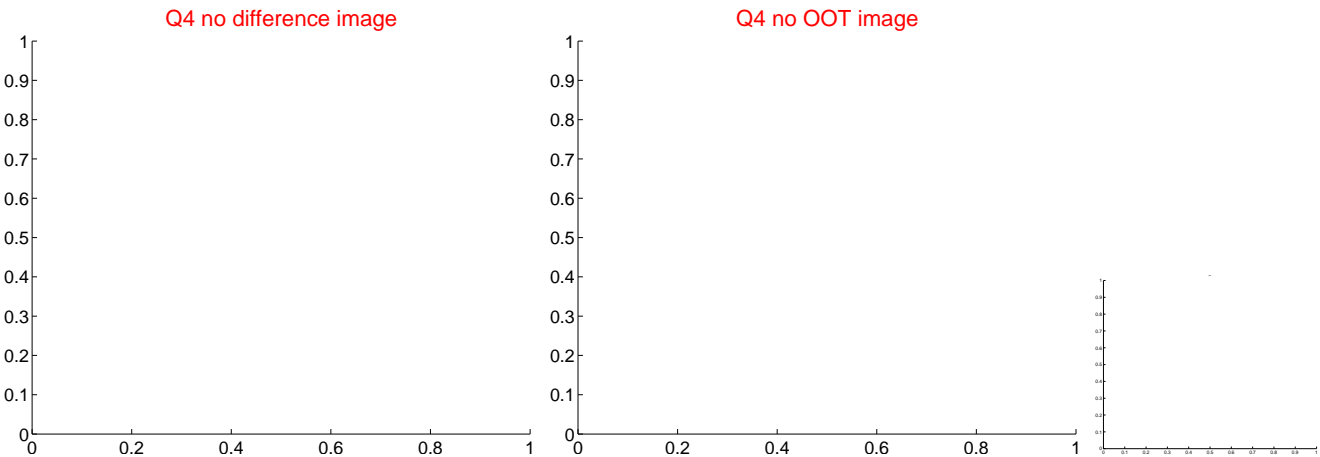
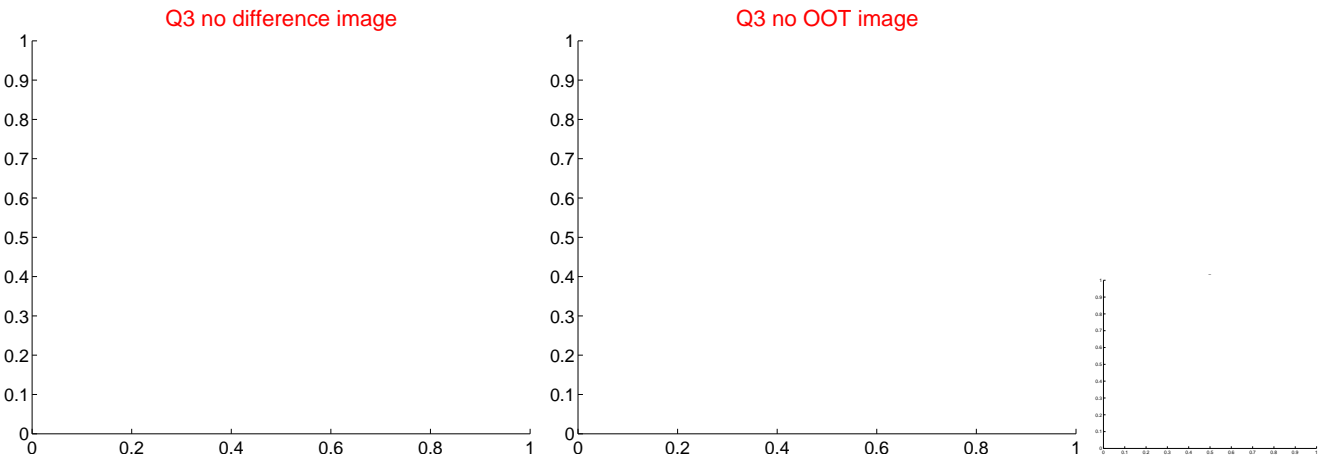
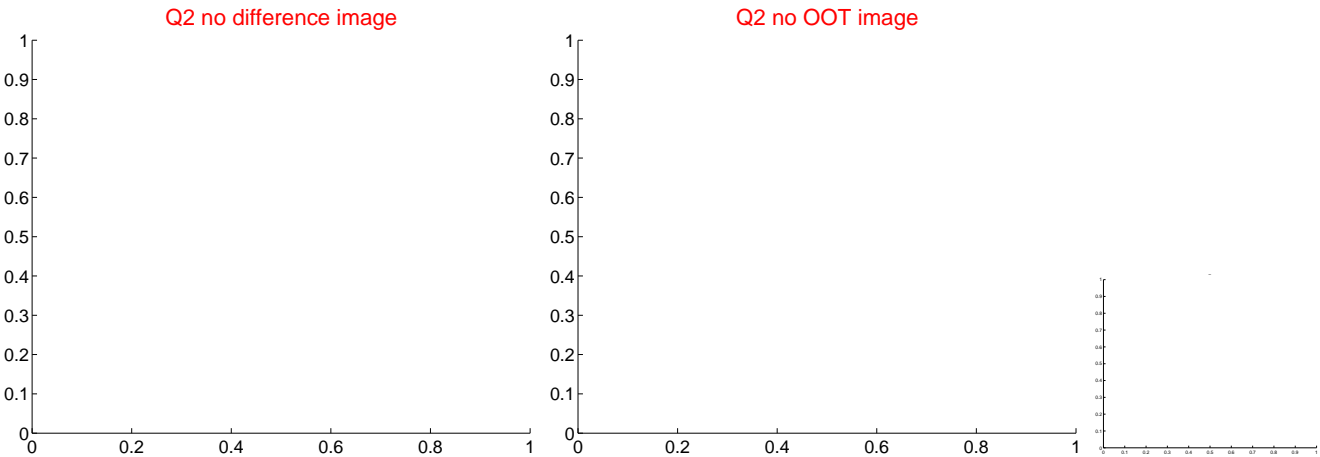
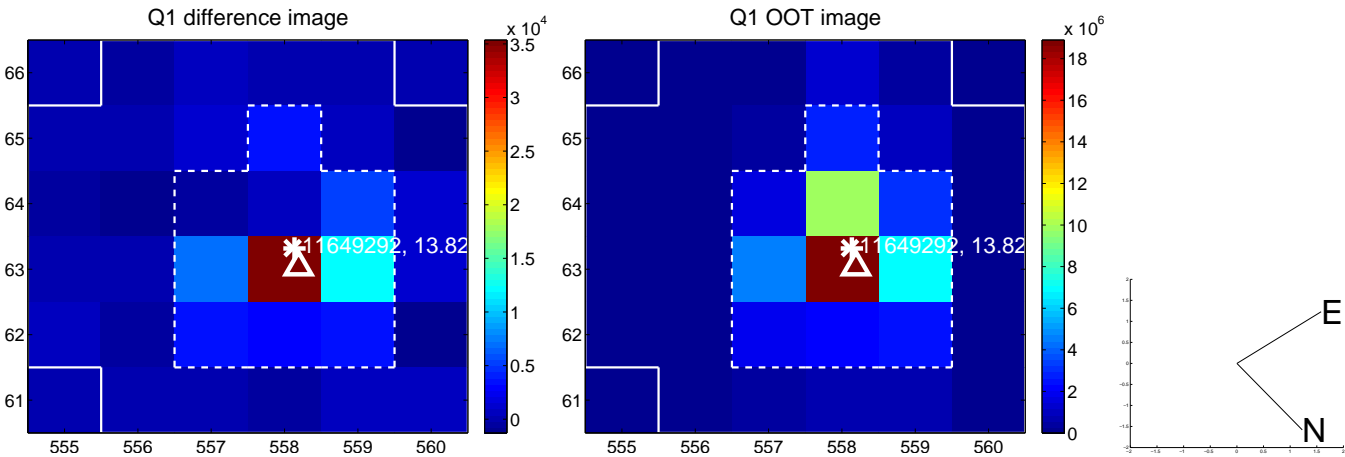


offset from photometric centroids

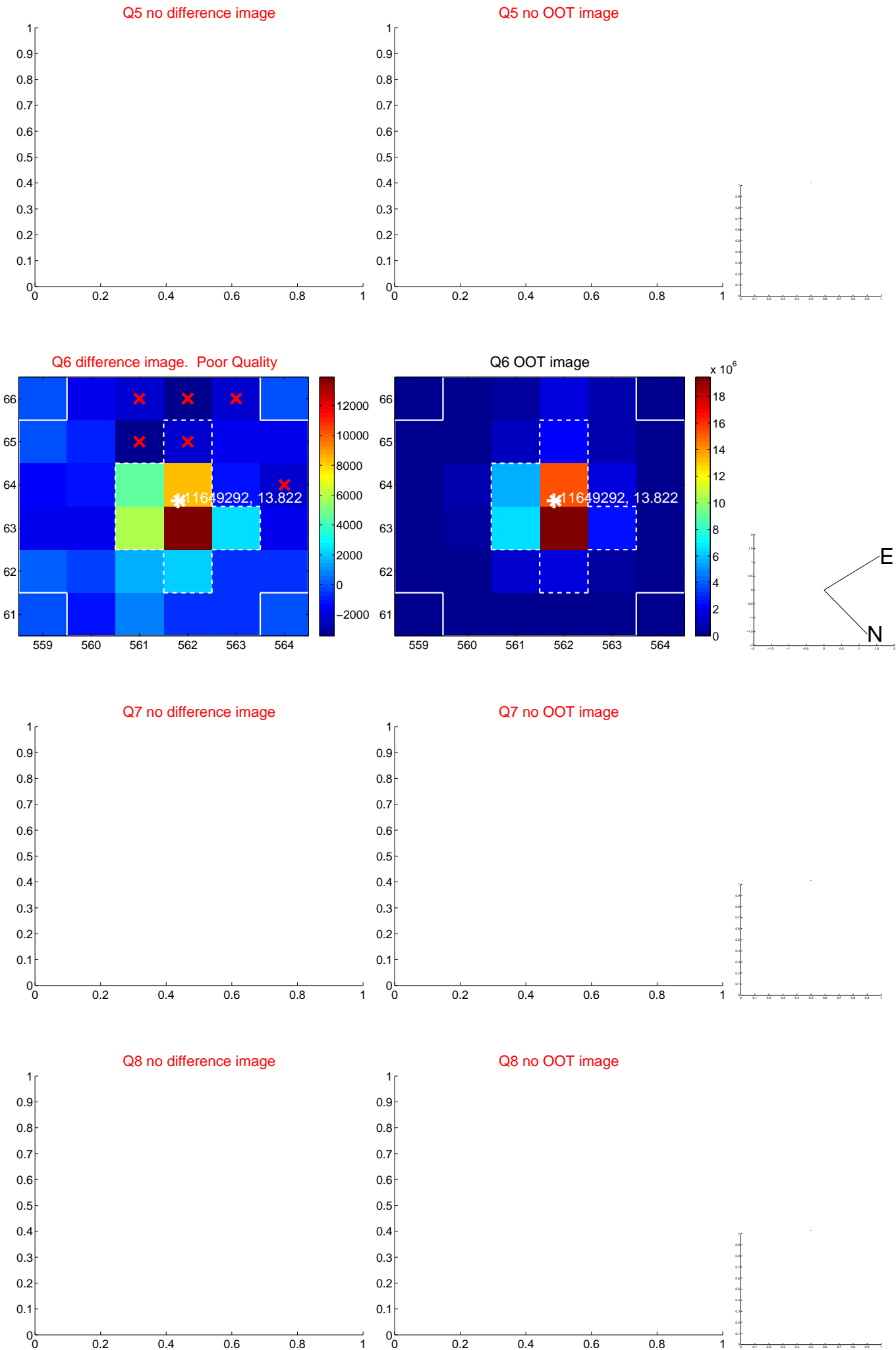


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



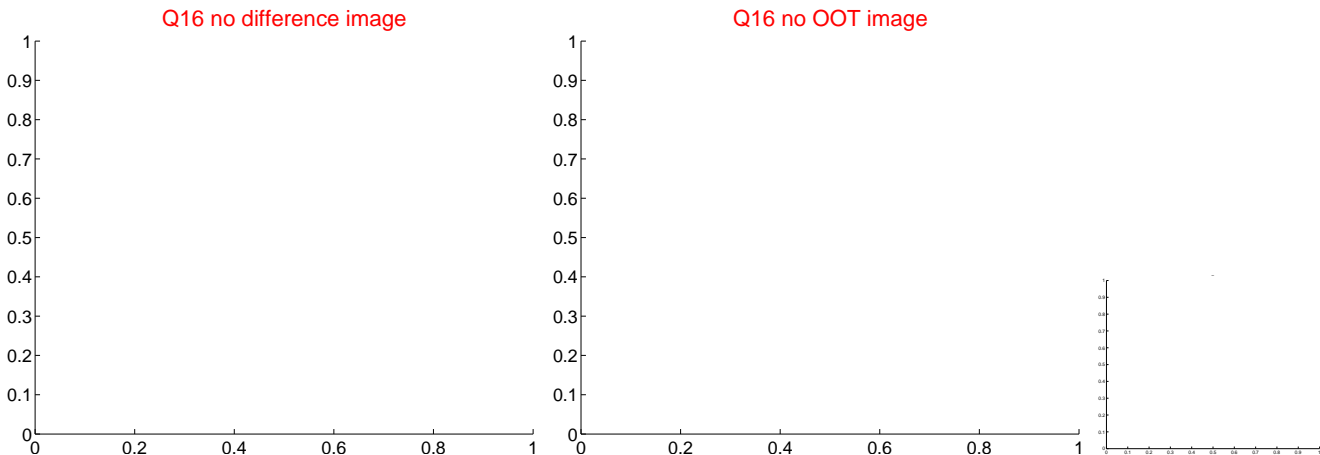
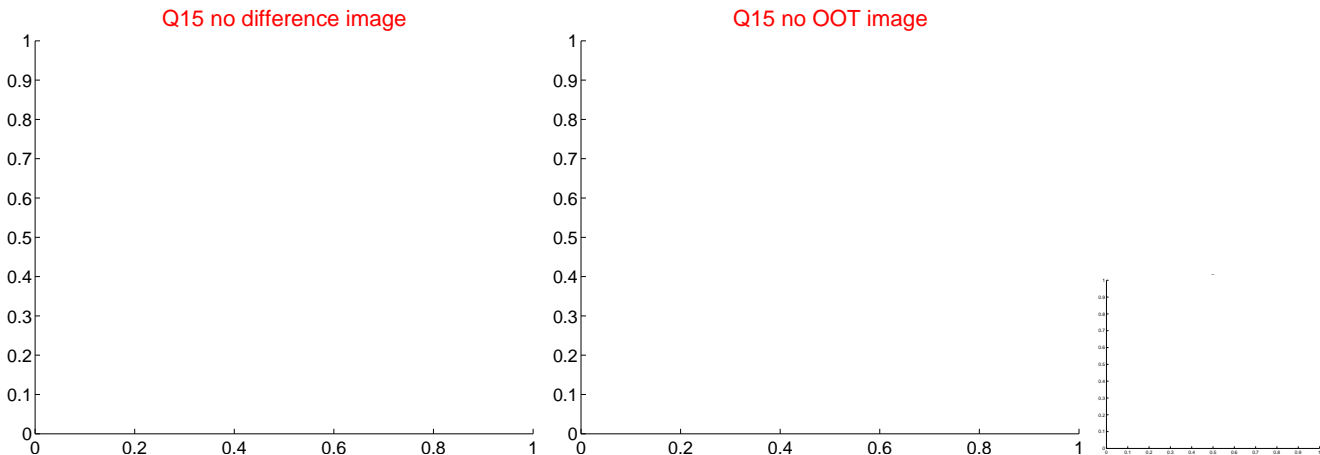
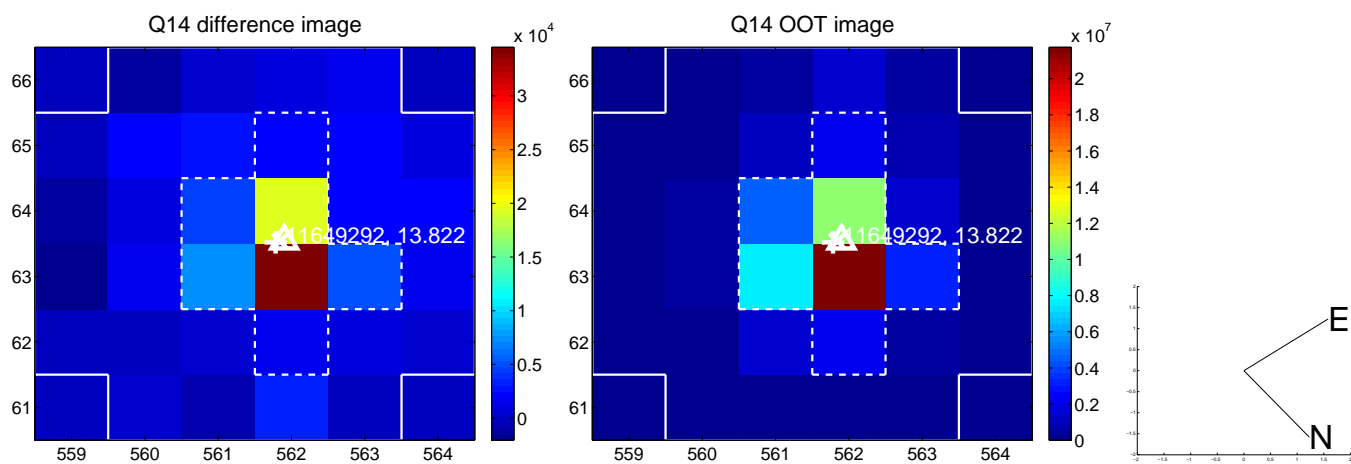
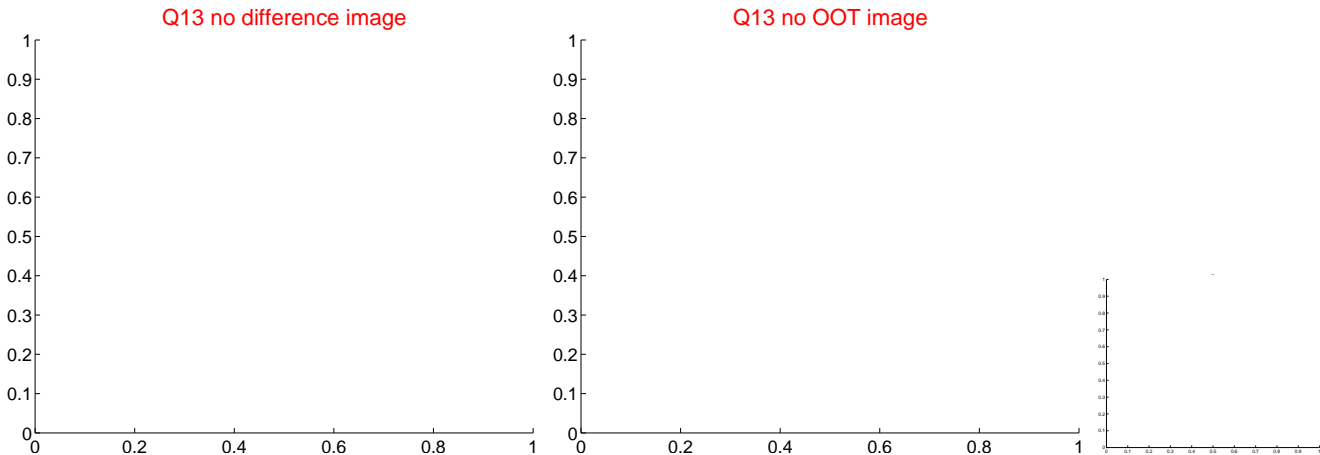
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



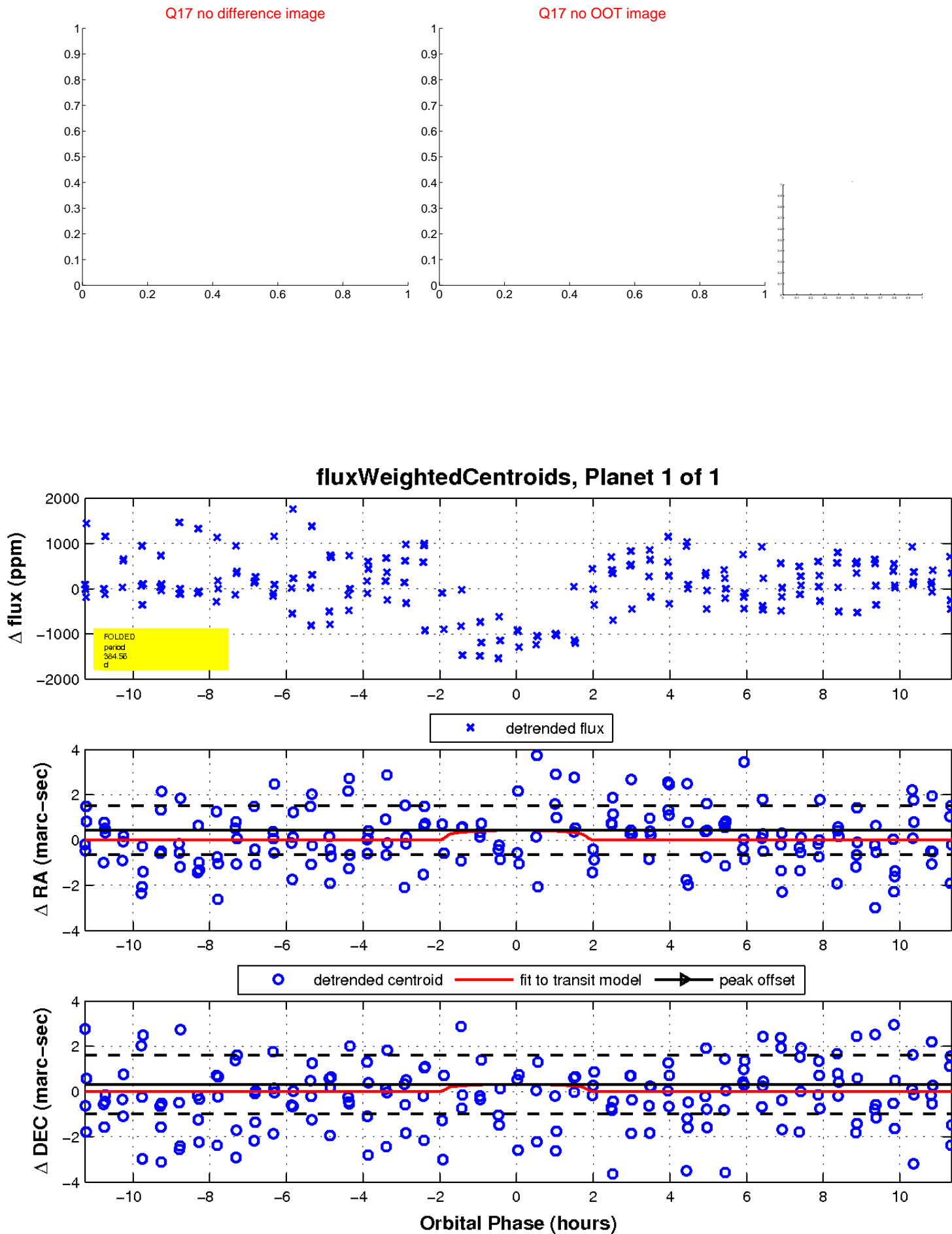
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UKIRT Image

Declination

