

KIC 006470892

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})
006470892-01	OBS	No	350.354563	230.653130	177.8	7.821	12.6	7.1	1.42	6210	2.10	3.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006470892-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_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.

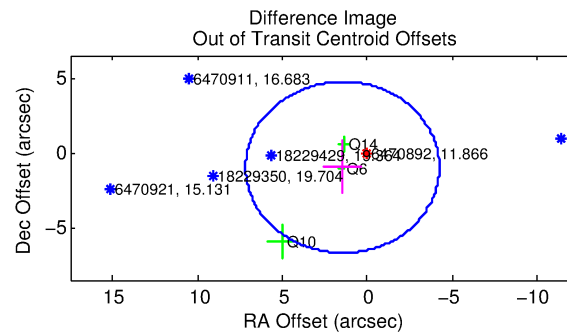
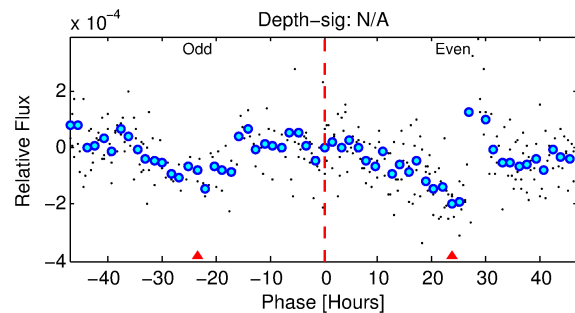
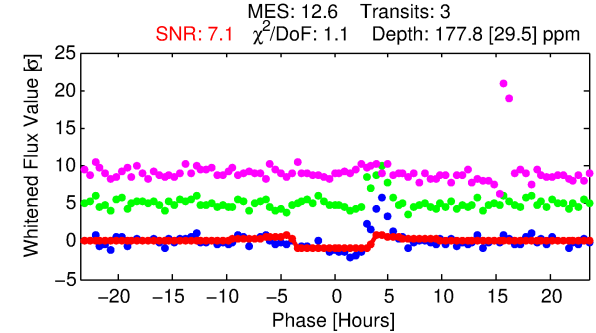
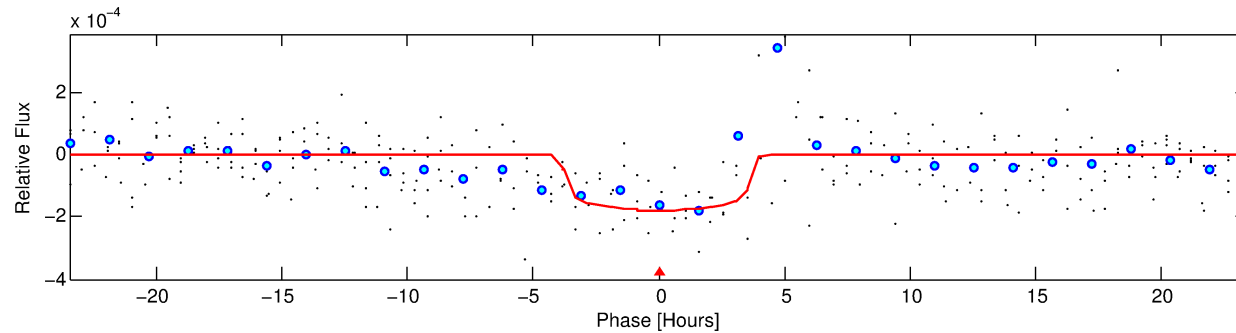
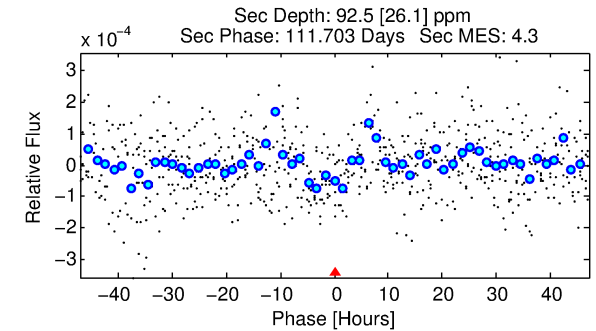
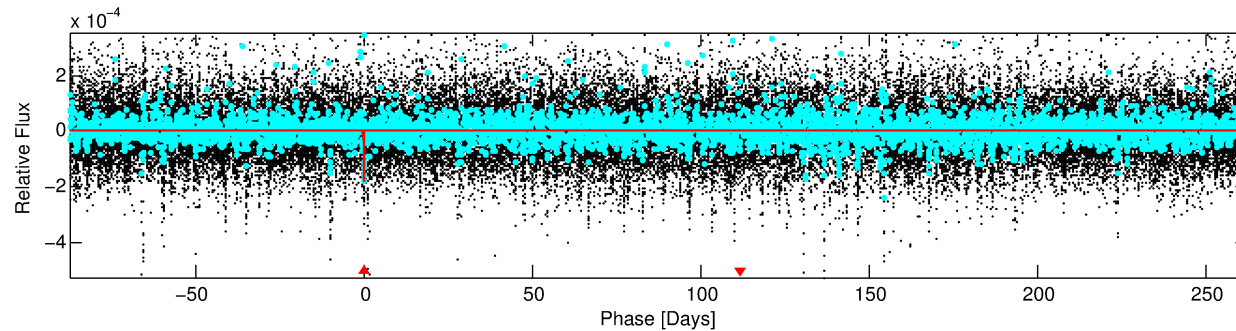
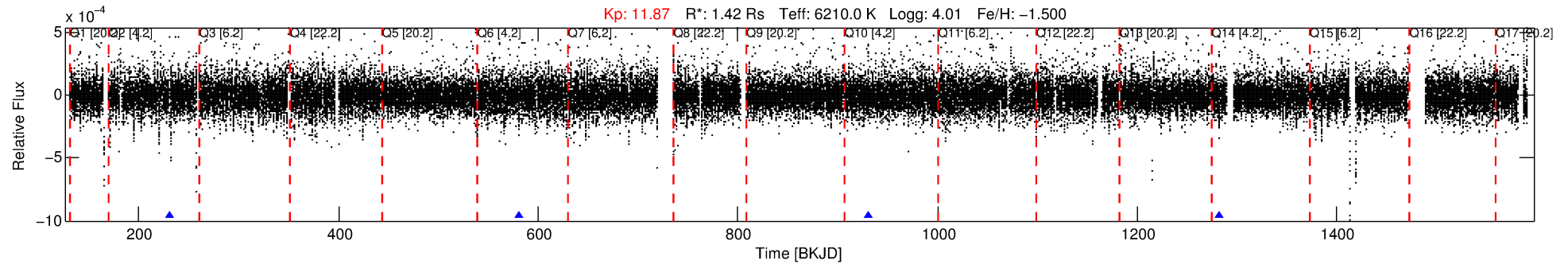
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006470892-01

No Significant Match Found

DV One-Page Summary

KIC: 6470892 Candidate: 1 of 1 Period: 350.355 d



DV Fit Results:

Period = 350.35456 [0.00839] d
Epoch = 230.6531 [0.0186] BKJD
Rp/R* = 0.0136 [0.0052]
a/R* = 204.79 [428.13]
b = 0.82 [0.85]
Seff = 3.42 [2.62]
Teq = 347 [67] K
Rp = 2.10 [1.21] Re
a = 0.8835 [0.4006] AU
Ag = 9016.43 [10048.59] [0.90σ]
Teff = 5224 [1078] K [4.51σ]

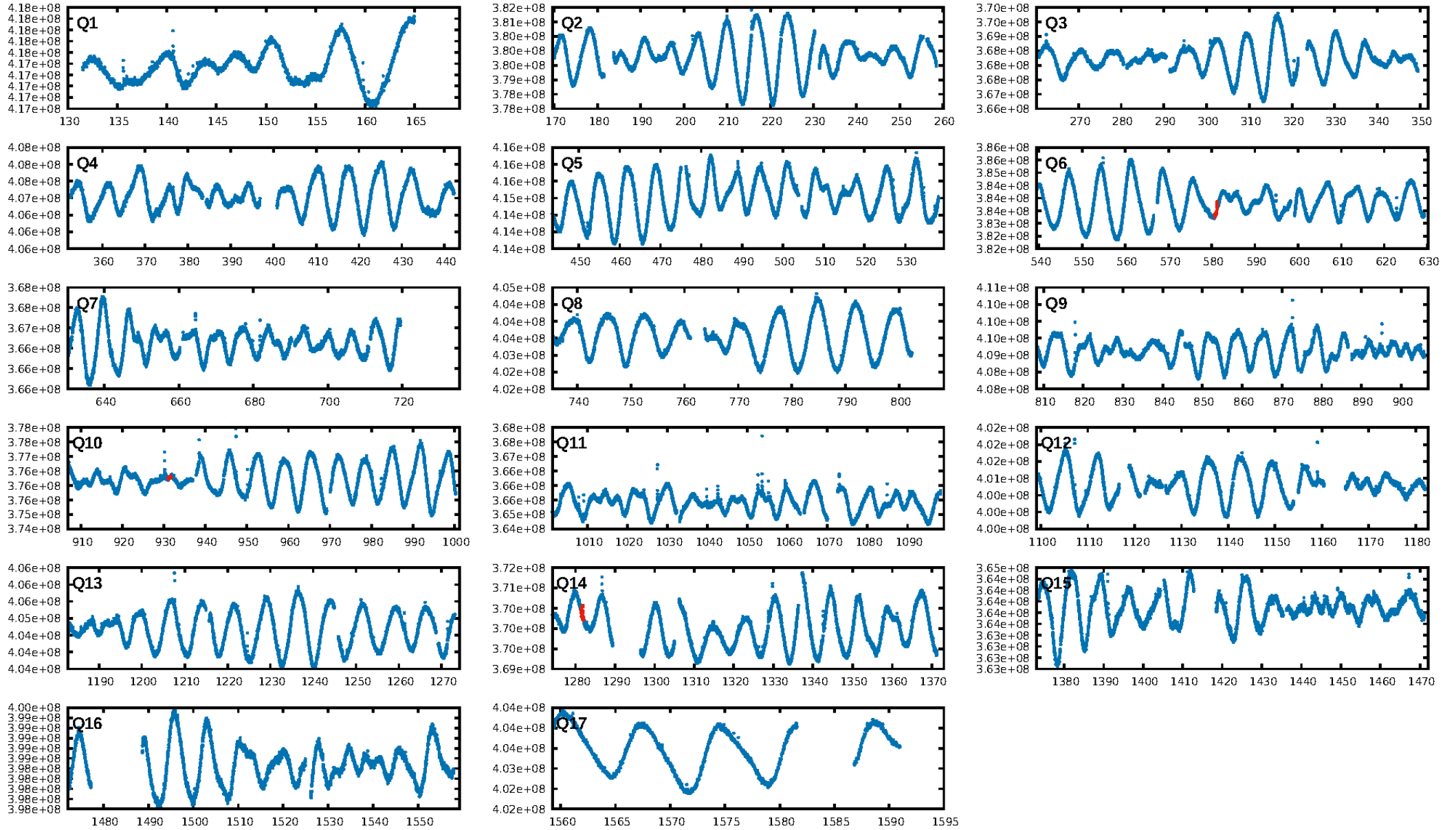
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 87.4%
Bootstrap-pfa: 5.73e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.106
Centroid-sig: 7.7%
Centroid-so: 2.127 arcsec [1.56σ]
OotOffset-rm: 1.750 arcsec [0.92σ]
KicOffset-rm: 1.729 arcsec [0.96σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

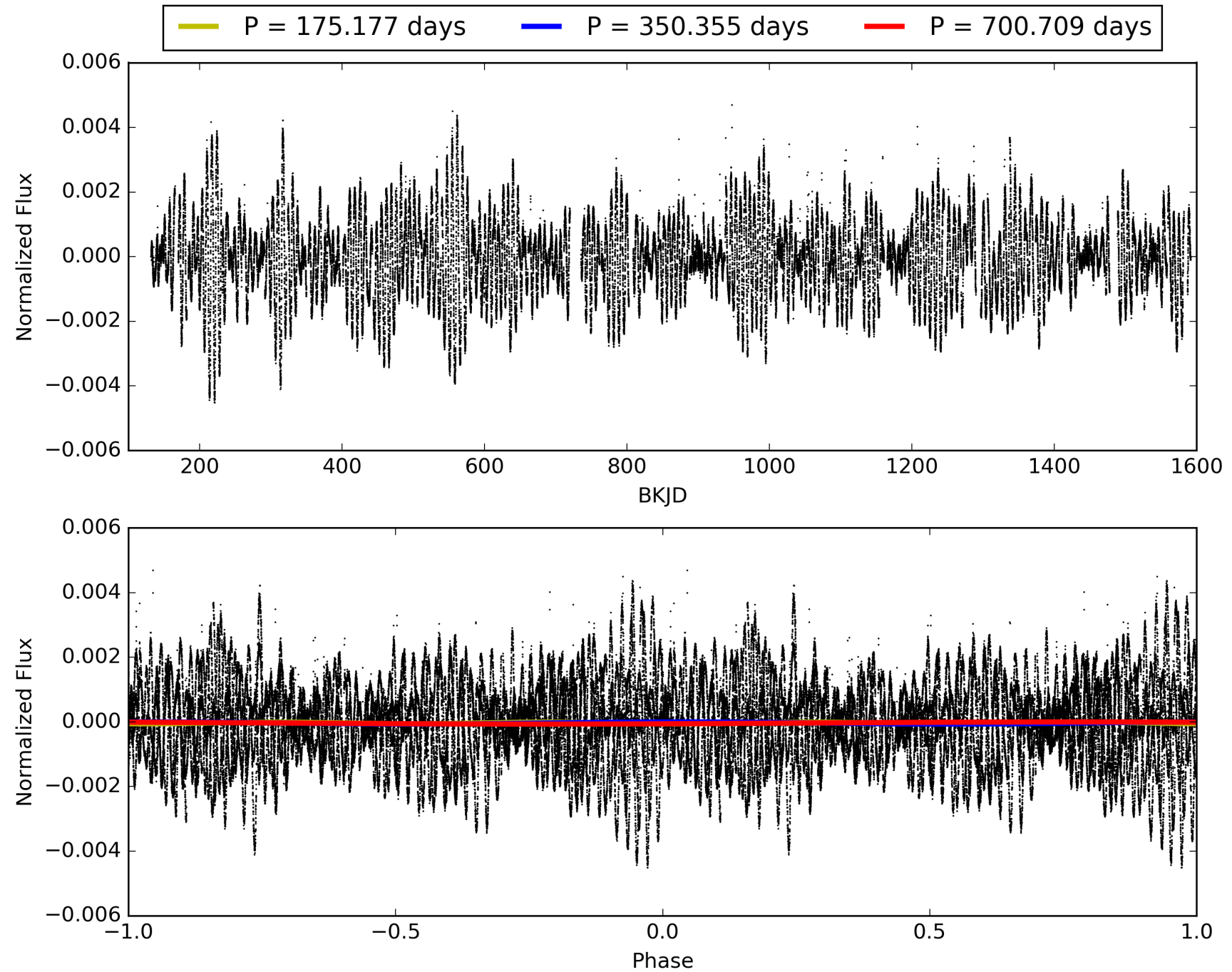
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:57:36 Z

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

TCE 006470892-01, PDC Light Curves

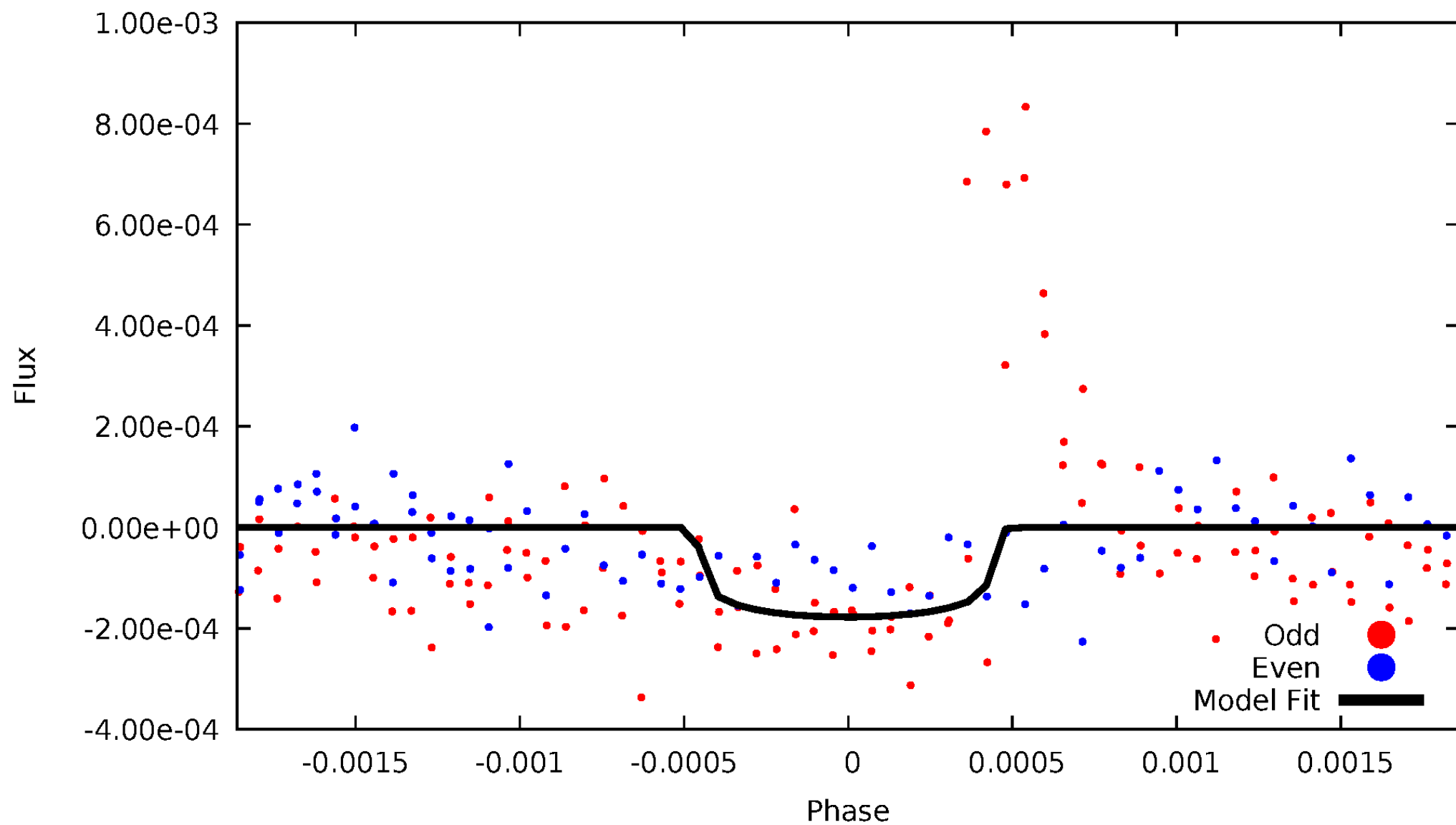


TCE 006470892-01



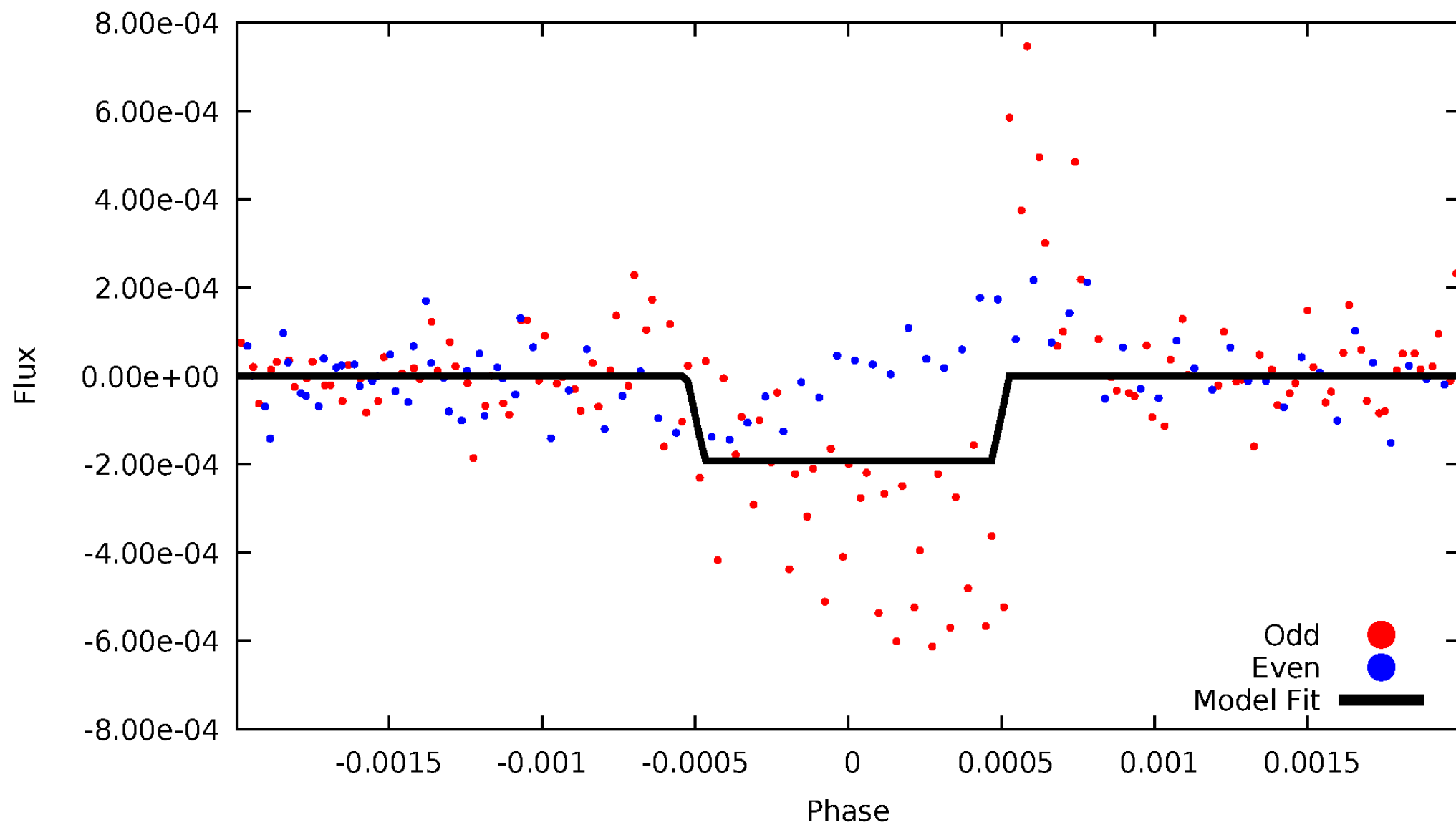
DV Odd/Even

TCE 006470892-01



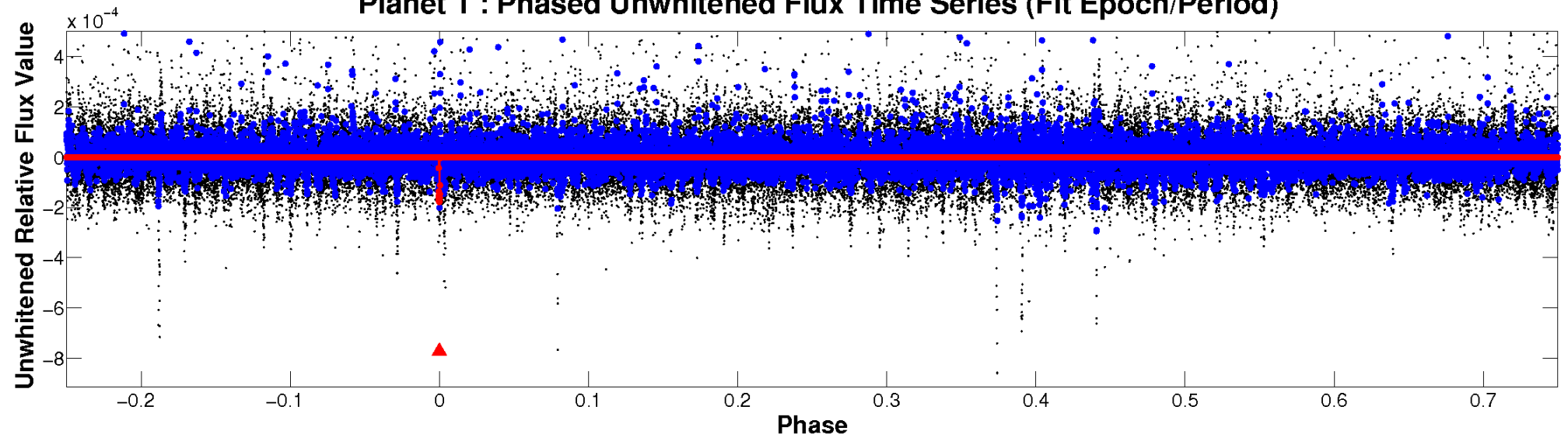
ALT Odd/Even

TCE 006470892-01

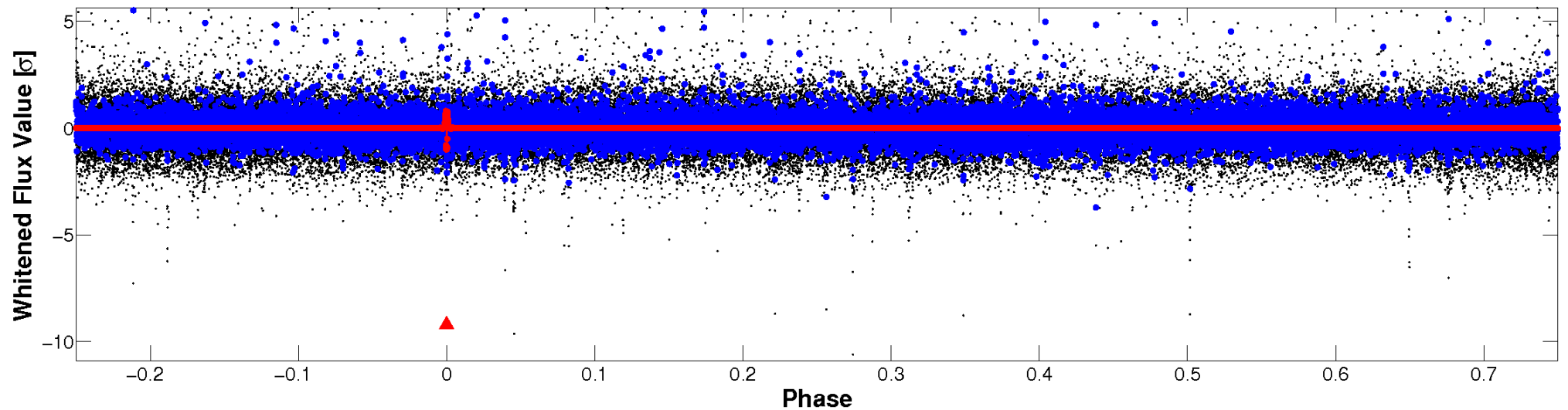


Non-Whitened Vs. Whitened Light Curve

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

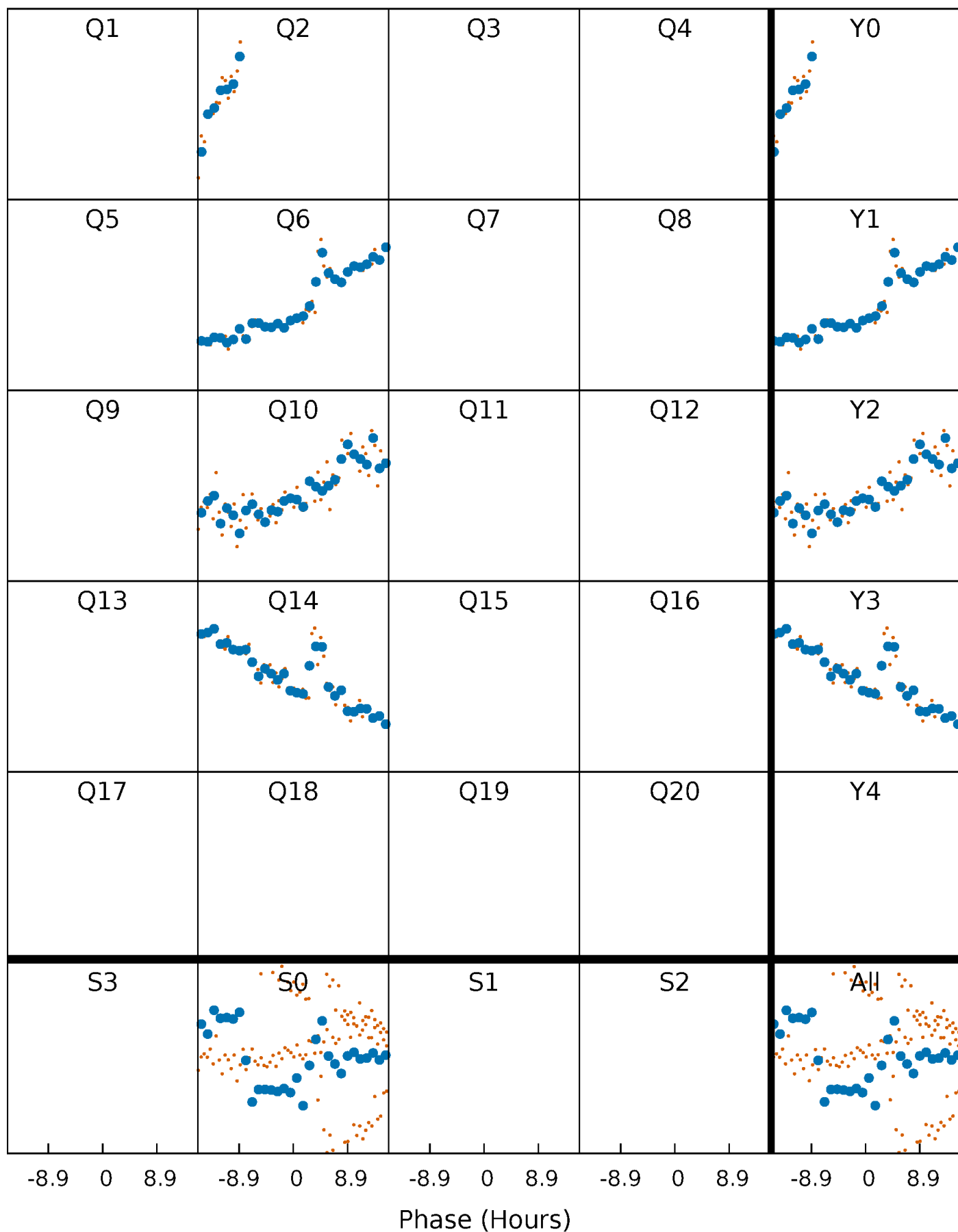


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



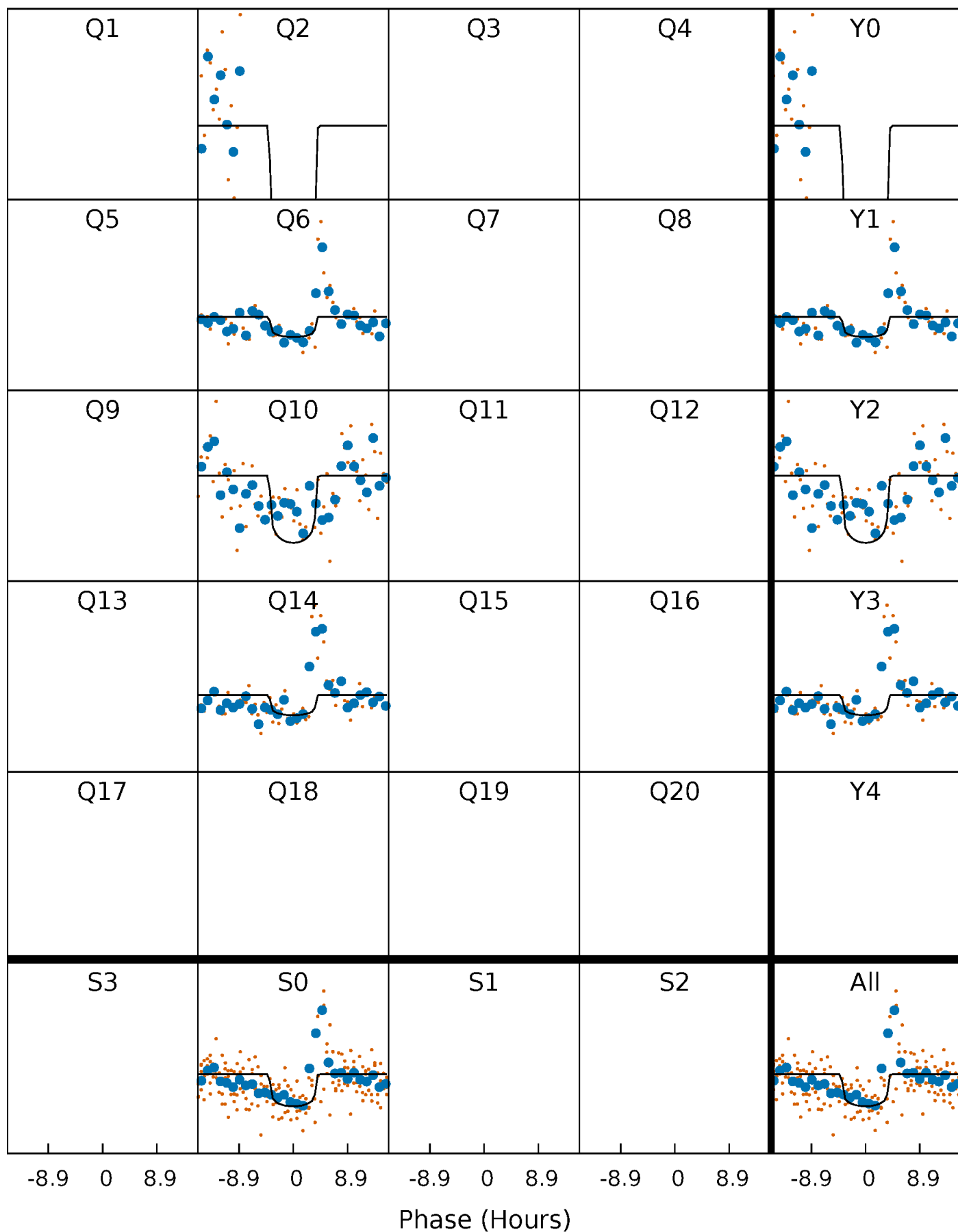
PDC Quarter-Phased Transit Curves

TCE 006470892-01 P=350.354563 Days $T_0=230.653131$ (BKJD)



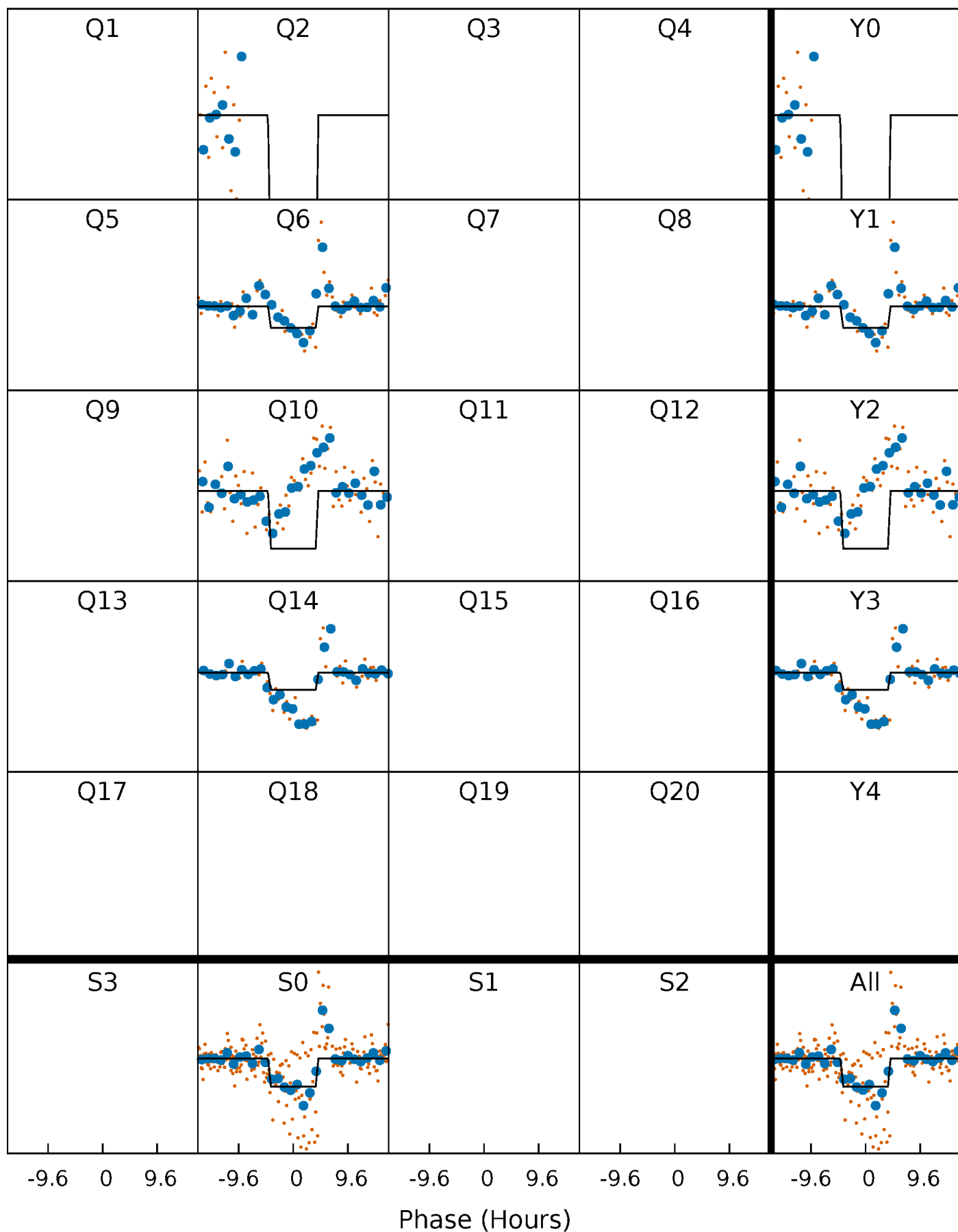
DV Quarter-Phased Transit Curves

TCE 006470892-01 P=350.354563 Days $T_0=230.653131$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

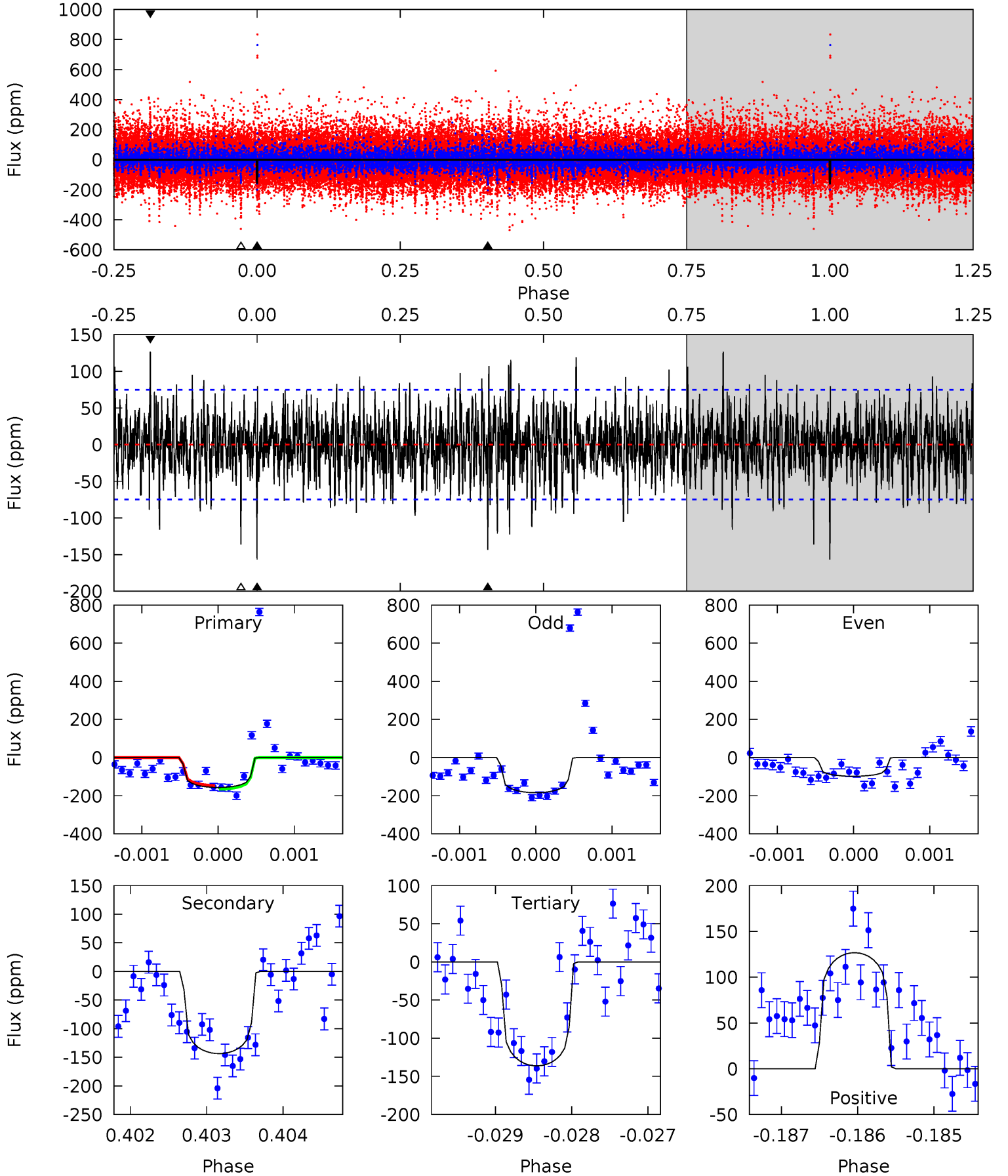
TCE 006470892-01 P=350.326575 Days $T_0=230.665507$ (BKJD)



DV Model-Shift Uniqueness Test

006470892-01, $P = 350.354563$ Days, $E = 230.653131$ Days

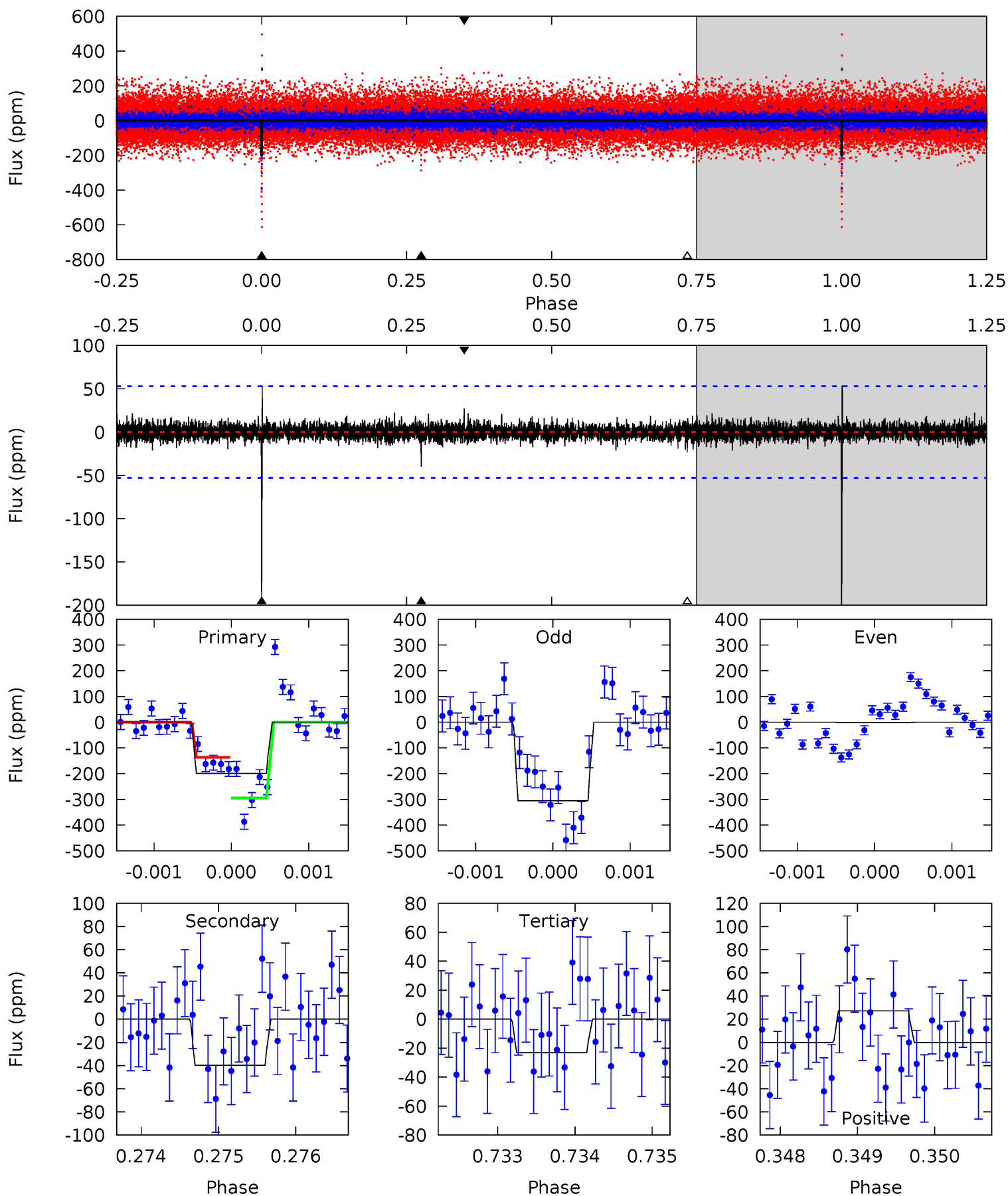
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	10.5	9.94	9.24	5.45	3.29	2.34	1.50	2.20	0.53	1.23	2.86	1.27	0.45	0.71



Alt Model-Shift Uniqueness Test

006470892-01, P = 350.326575 Days, E = 230.665507 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.5	4.09	2.38	2.80	5.45	3.28	0.53	18.1	17.7	1.71	1.29	16.2	1.12	0.21	7.70



Stellar Parameters For KIC 006470892

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6210^{+188}_{-150}	$4.011^{+0.457}_{-0.152}$	$-1.500^{+0.350}_{-0.250}$	$1.415^{+0.305}_{-0.610}$	$0.749^{+0.057}_{-0.031}$	$0.373^{+1.533}_{-0.160}$
	+3%/-2%	+11%/-4%	+23%/-17%	+22%/-43%	+8%/-4%	+411%/-43%
Source	PHO1	FLK73	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 006470892-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-144 ± 14	$1.95^{+0.95}_{-0.88}$	478^{+36}_{-58}	5838^{+1894}_{-827}	16589^{+37447}_{-9327}
Alt.	-40 ± 10	$1.94^{+0.92}_{-0.76}$	483^{+34}_{-54}	4452^{+966}_{-517}	4417^{+7599}_{-2291}

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 $A_{\text{obs}} \gg 1.0$

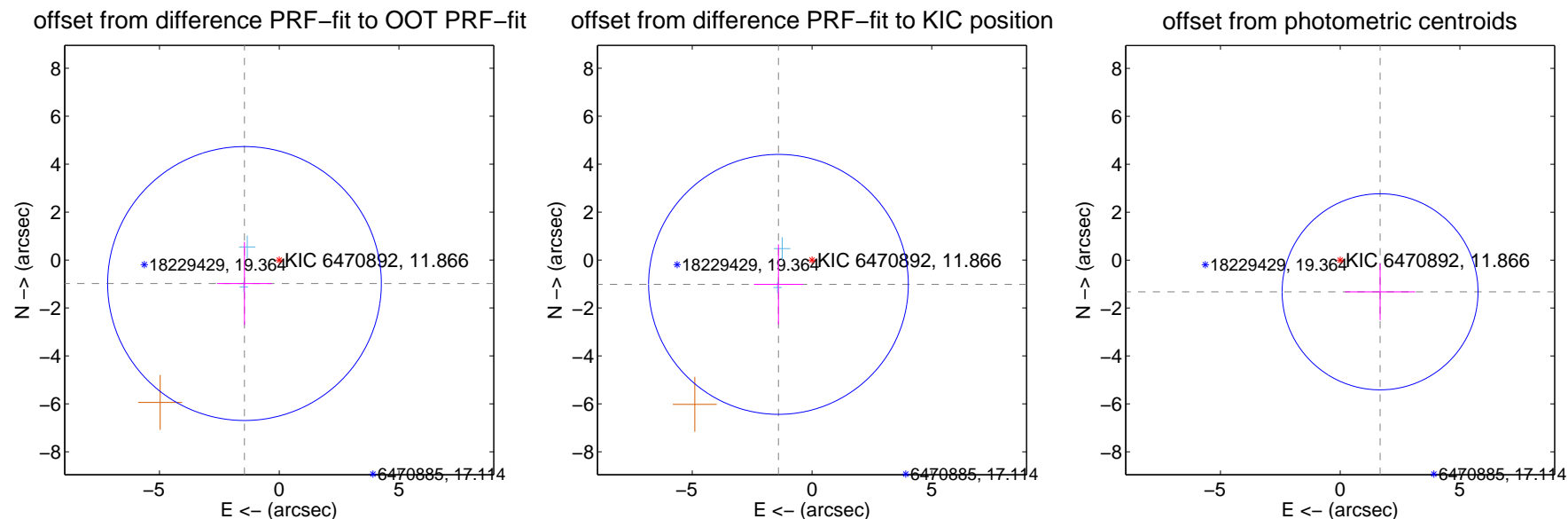
DV Centroid Data

Supplemental centroid analysis for 006470892-01. **Kepler magnitude: 11.87.** Transit SNR 7.06

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.750 ± 1.904	0.92	1.450 ± 1.143	-0.980 ± 1.733
PRF-fit source offset from KIC position	1.729 ± 1.807	0.96	1.400 ± 1.028	-1.015 ± 1.670
photometric centroid source offset	2.13 ± 1.36	1.56	-1.67 ± 1.47	-1.32 ± 1.18

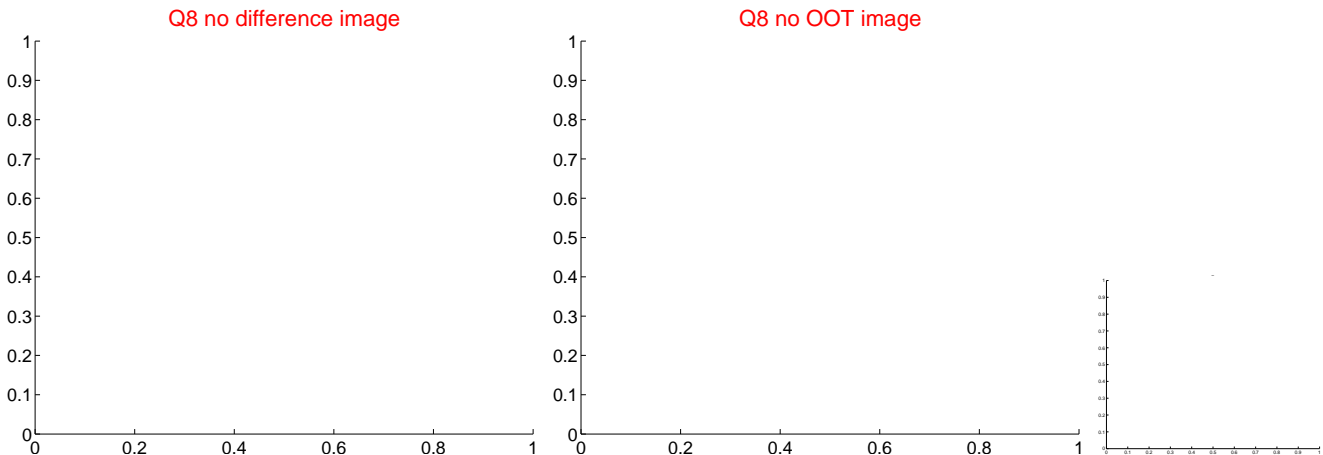
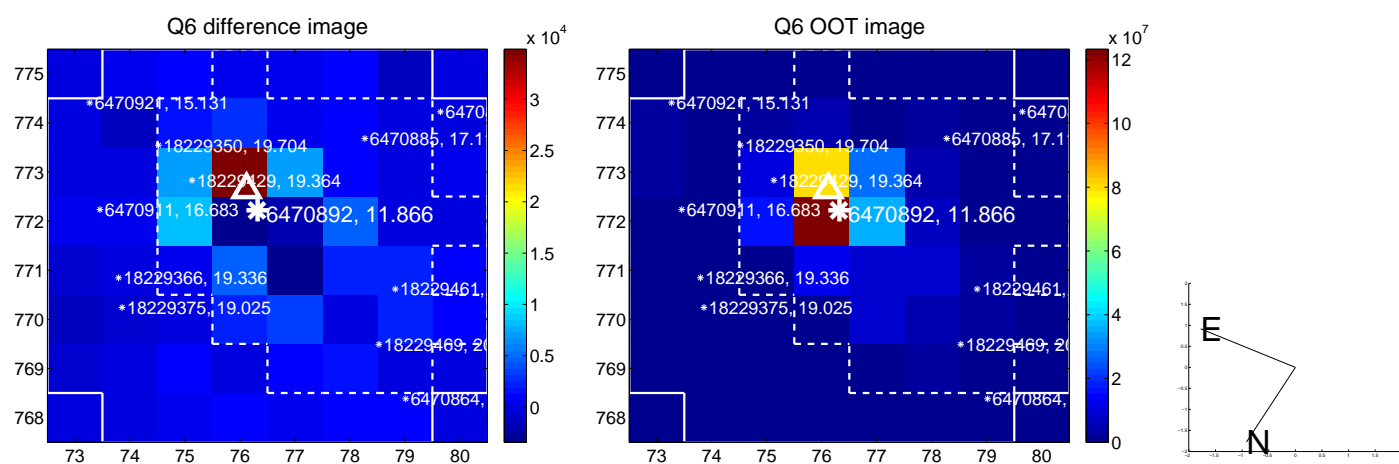


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

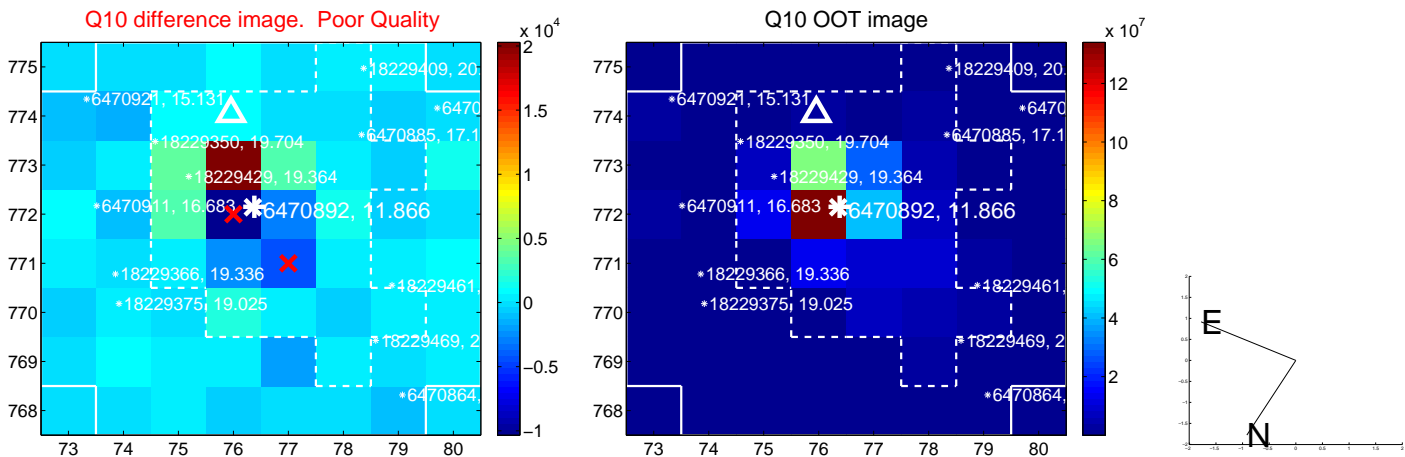
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



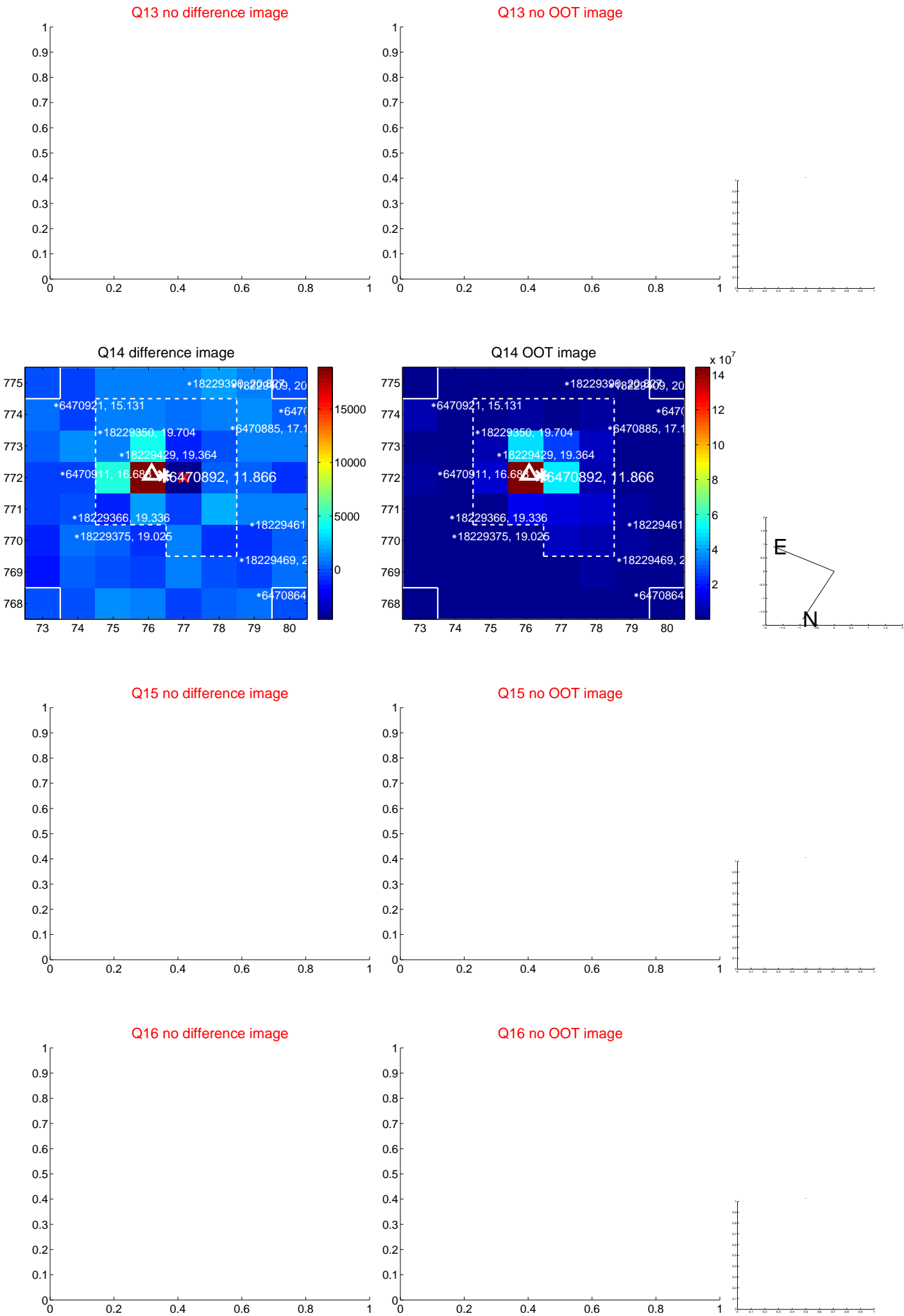
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



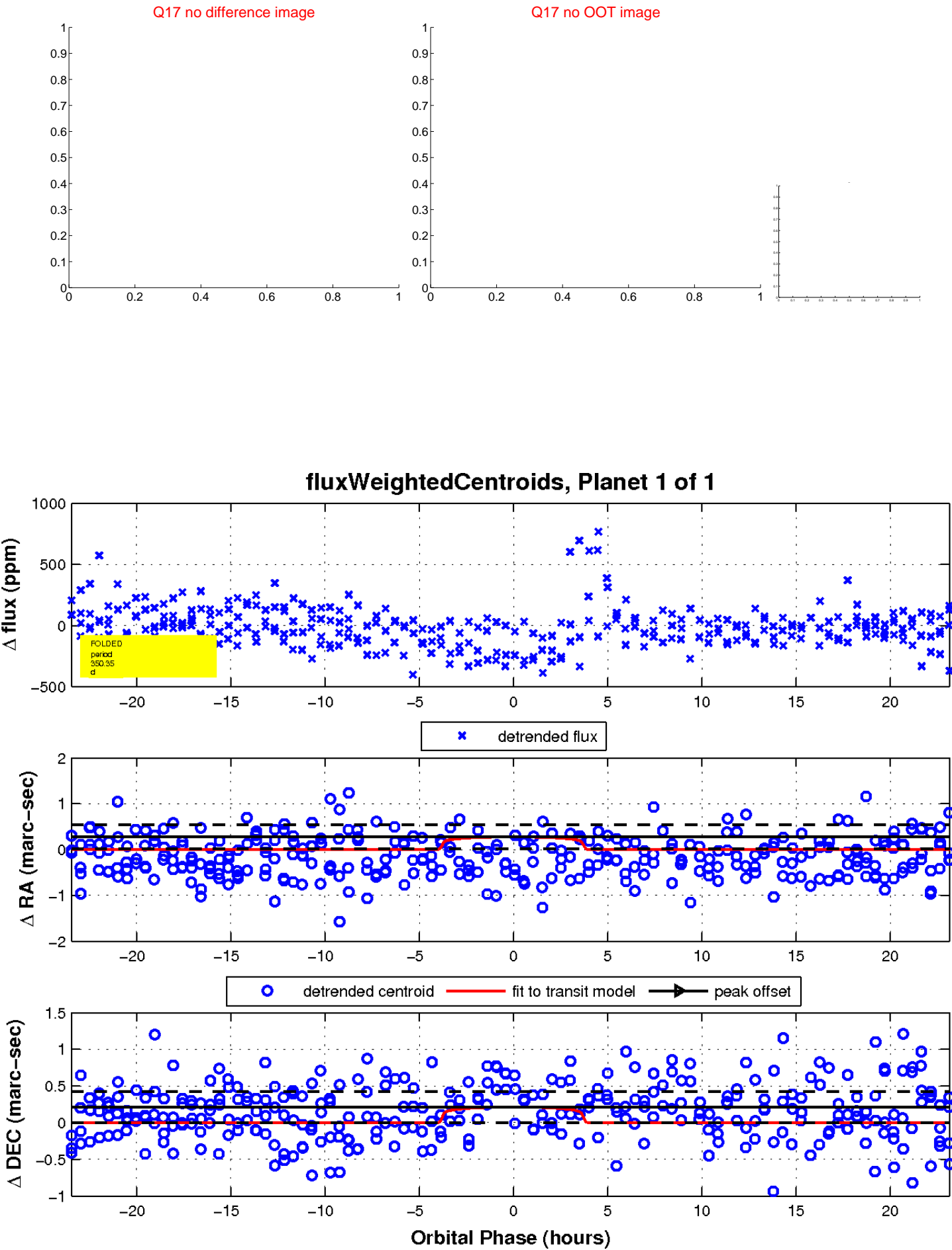
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

