

KIC 008349399

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})
008349399-01	OBS	4763.01	56.446676	170.586148	147.8	7.313	8.9	10.7	1.12	5995	1.59	17.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008349399-01	OBS	PC	0.90	0	0	0	0	NO_COMMENT

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

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

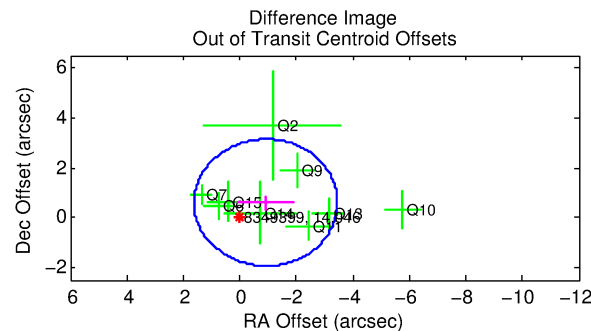
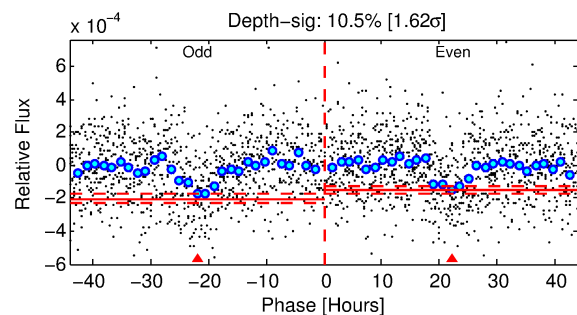
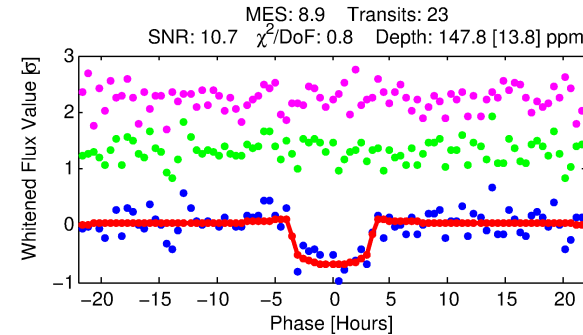
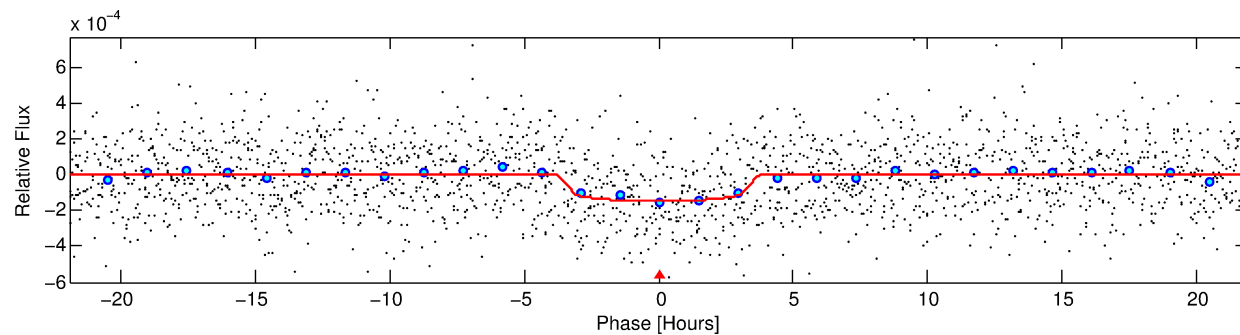
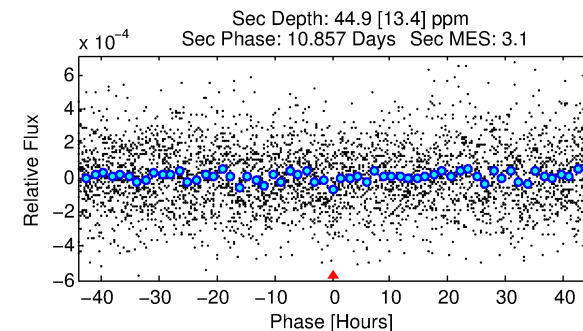
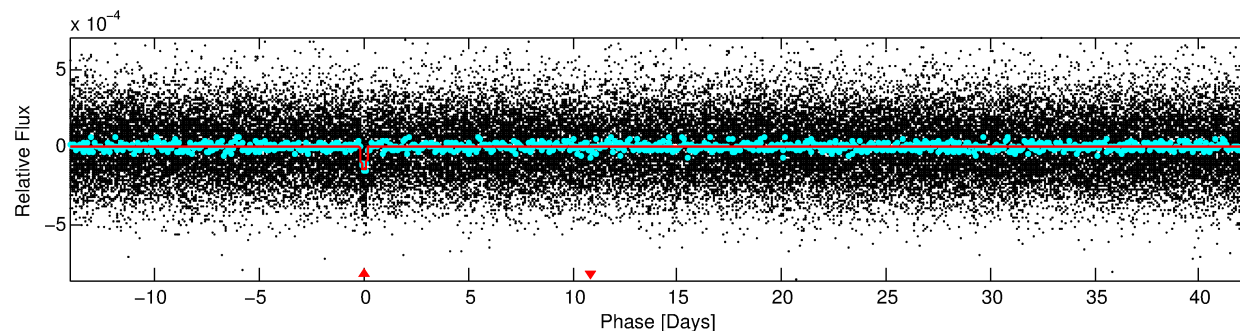
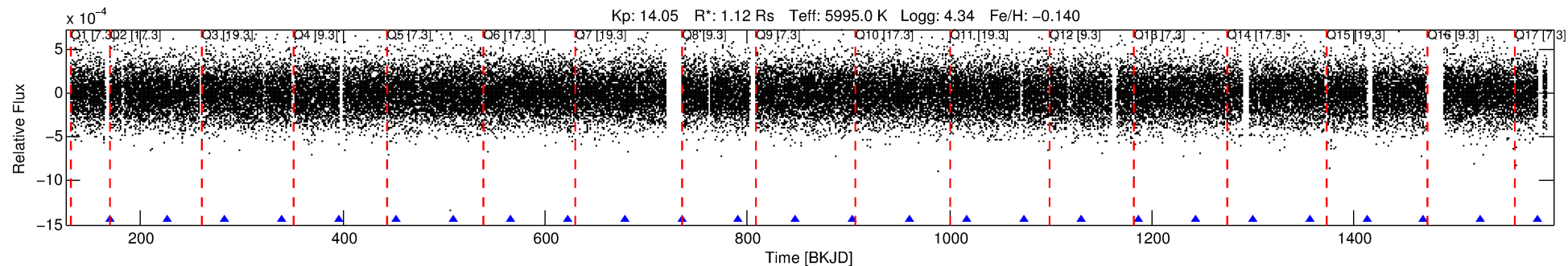
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008349399-01

No Significant Match Found

DV One-Page Summary

KIC: 8349399 Candidate: 1 of 1 Period: 56.447 d
KOI: K04763.01 Corr: 0.977



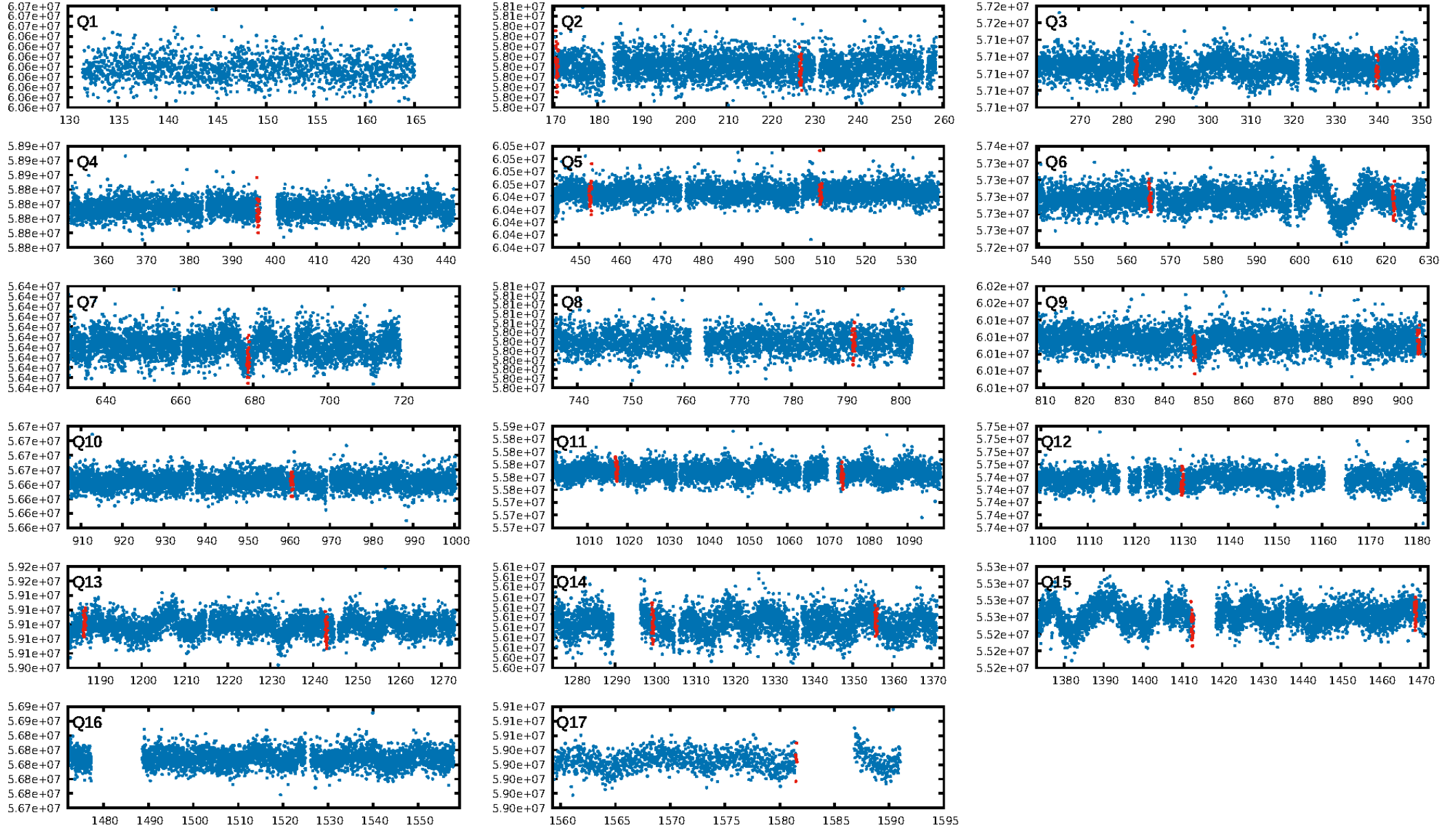
DV Fit Results:

Period = 56.44668 [0.00085] d
Epoch = 170.5861 [0.0112] BKJD
Rp/R* = 0.0131 [0.0030]
a/R* = 28.27 [32.44]
b = 0.89 [0.26]
Seff = 17.53 [6.44]
Teff = 522 [48] K
Rp = 1.59 [0.59] Re
a = 0.2870 [0.0695] AU
Ag = 803.03 [520.40] [1.54σ]
Teffp = 4295 [601] K [6.25σ]

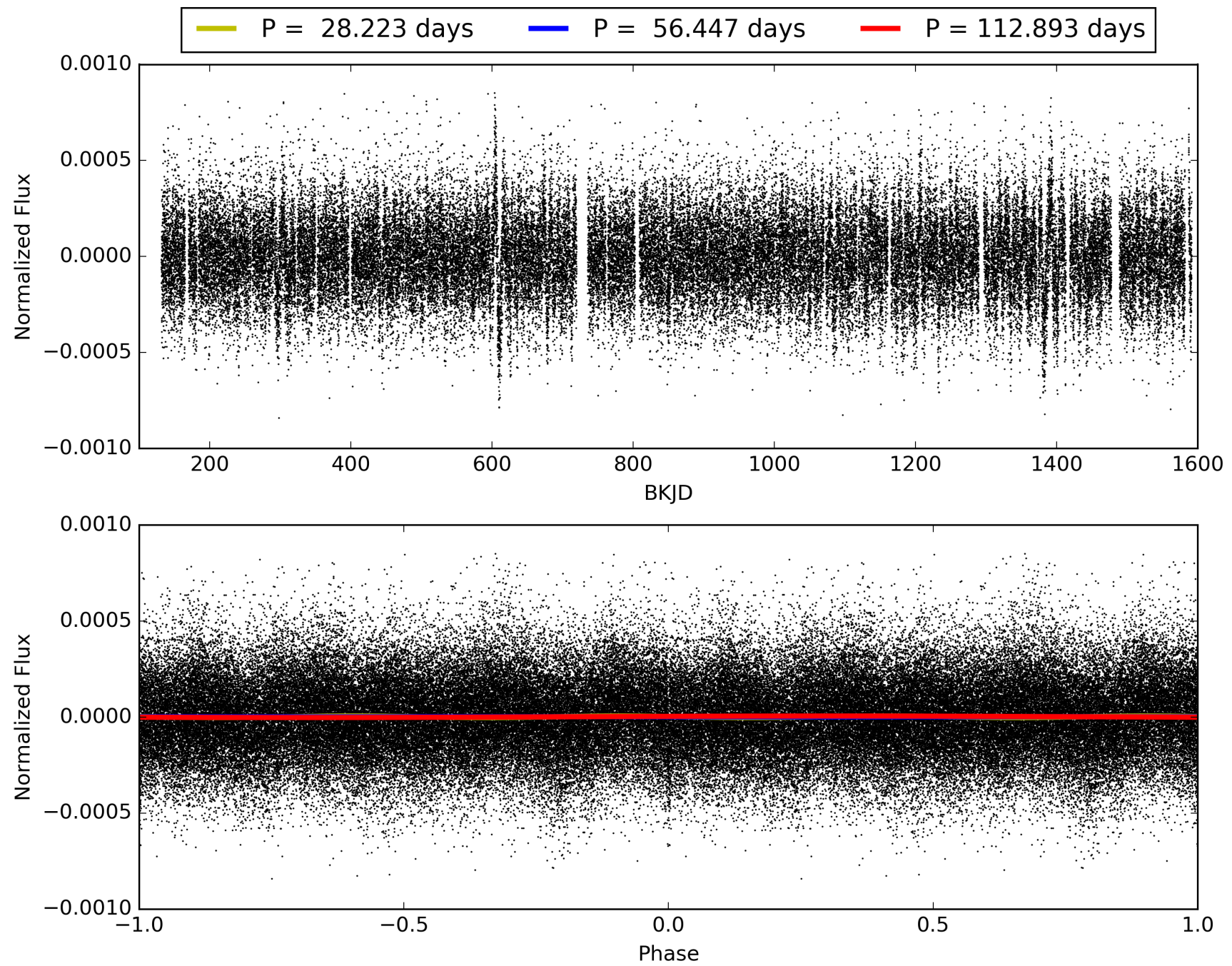
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 56.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.33e-18
RollingBand-fgt: 1.00 [23/23]
GhostDiagnostic-chr: 1.351
Centroid-sig: 57.0%
Centroid-so: 0.805 arcsec [0.76σ]
OotOffset-rm: 1.094 arcsec [1.29σ]
KicOffset-rm: 1.264 arcsec [1.66σ]
OotOffset-st: 4/3/0/2 [9]
KicOffset-st: 4/3/0/2 [9]
DiffImageQuality-fgm: 0.56 [5/9]
DiffImageOverlap-fno: 1.00 [12/12]

TCE 008349399-01, PDC Light Curves

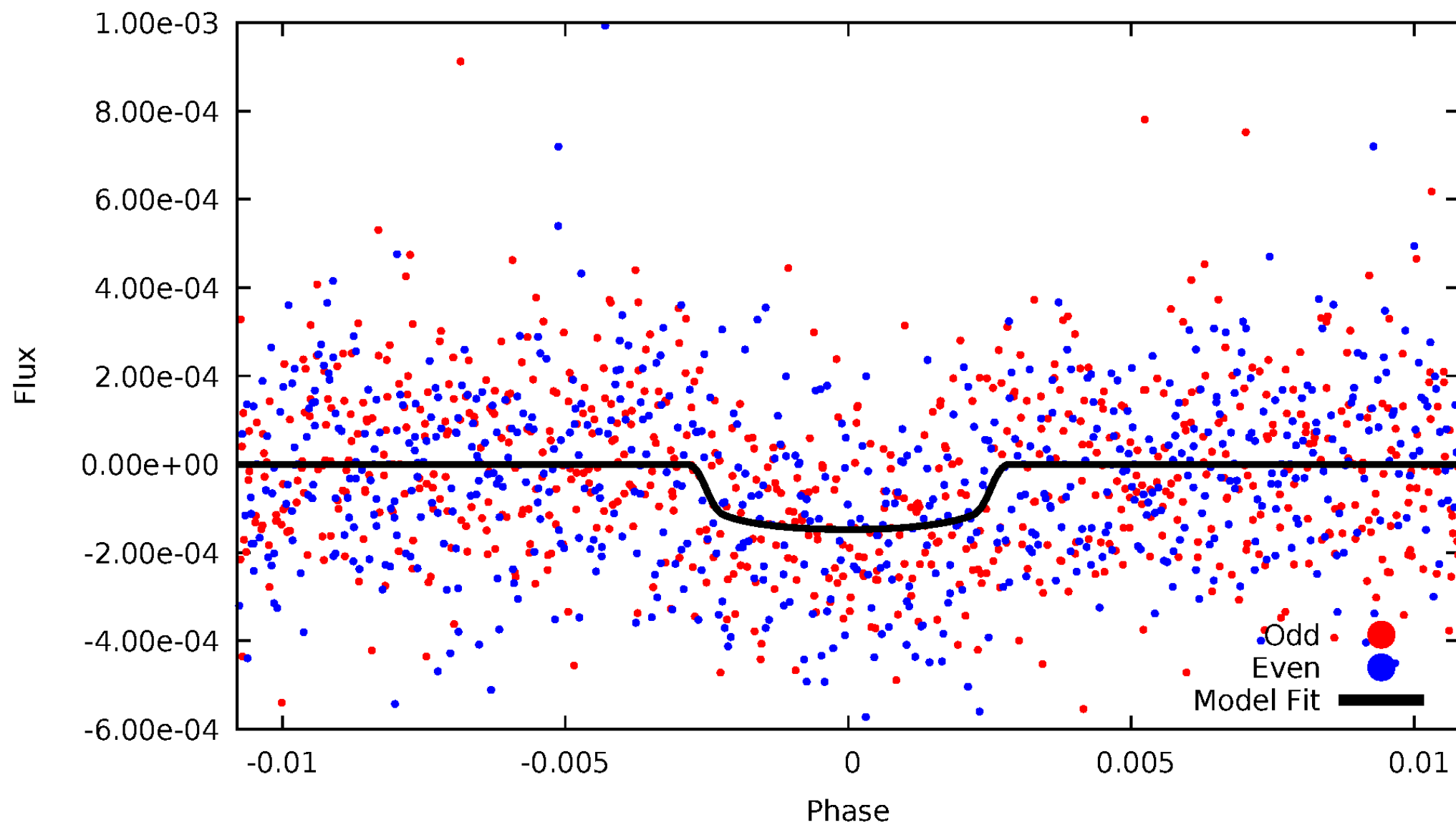


TCE 008349399-01



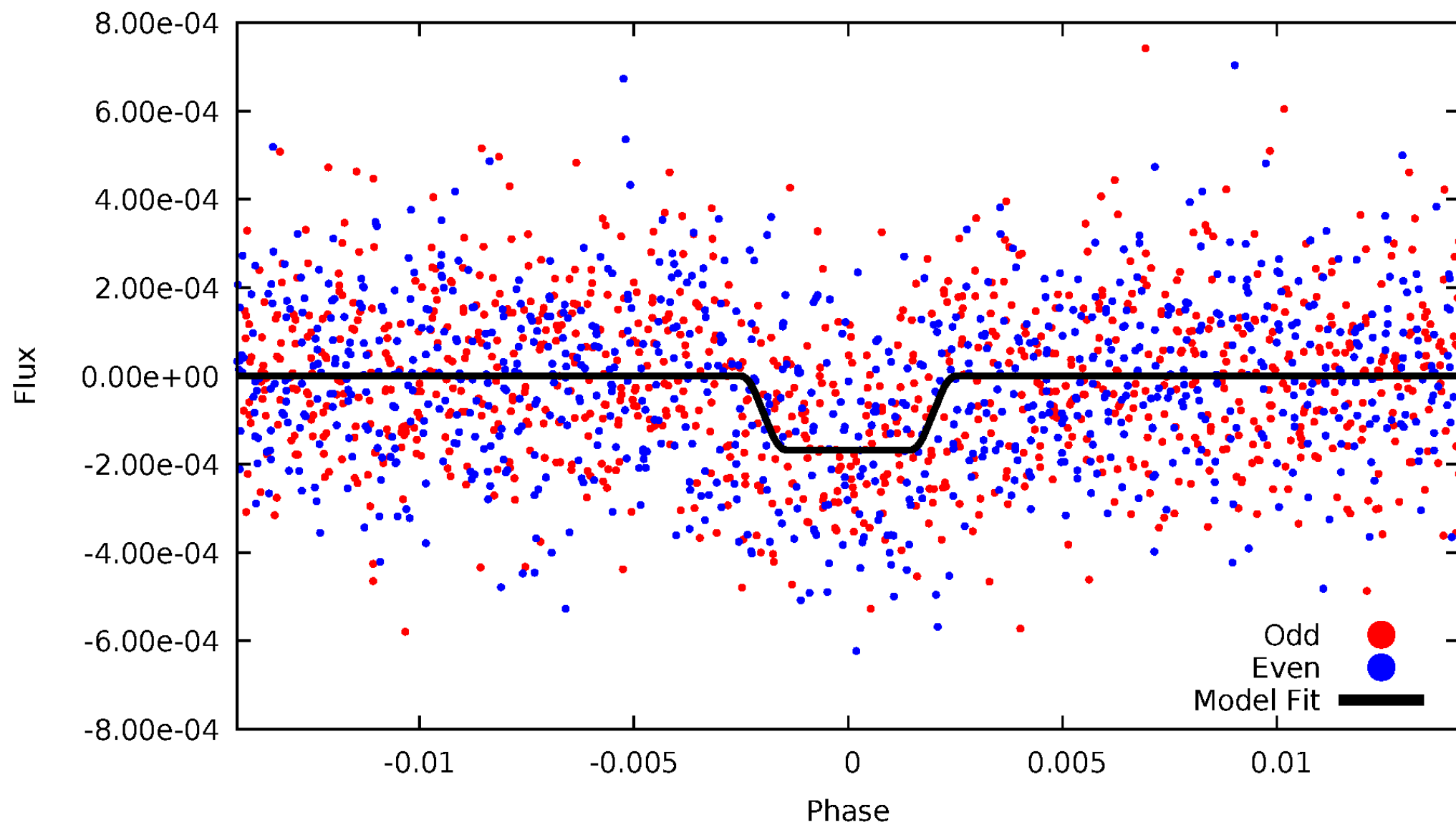
DV Odd/Even

TCE 008349399-01



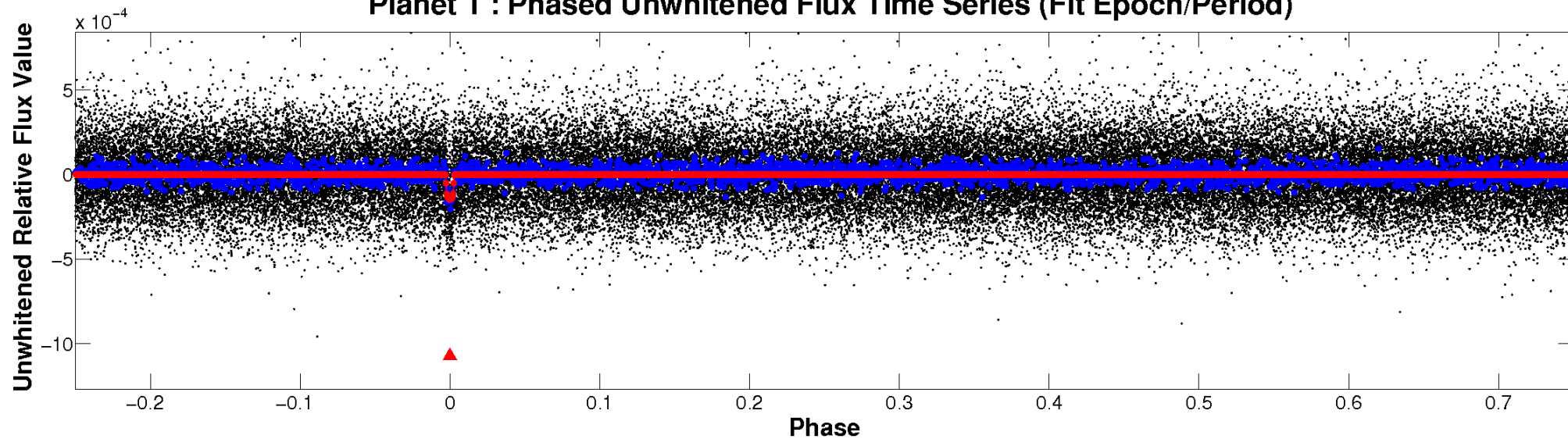
ALT Odd/Even

TCE 008349399-01

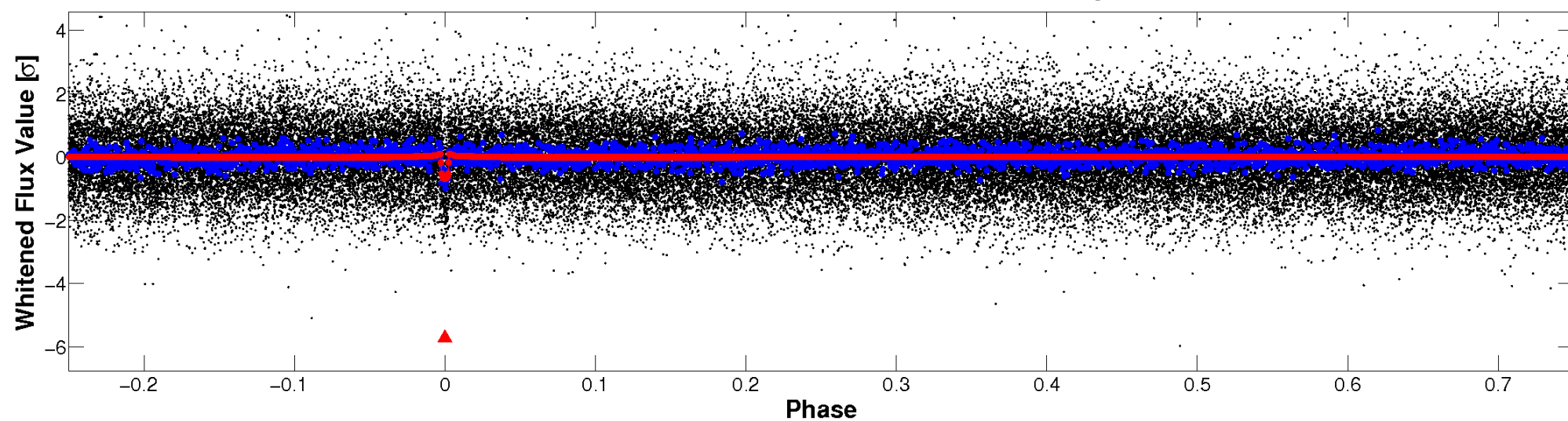


Non-Whitened Vs. Whitened Light Curve

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

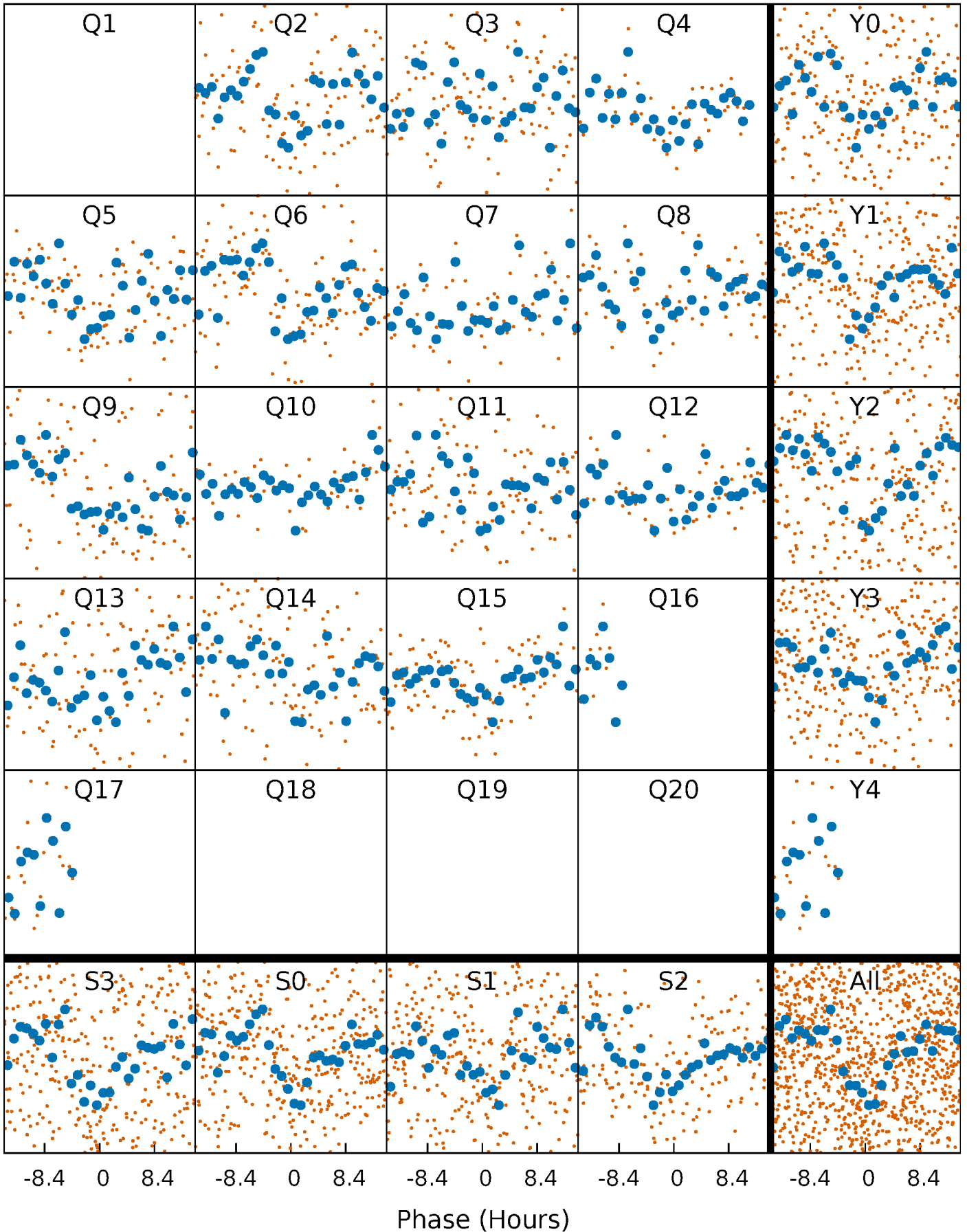


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



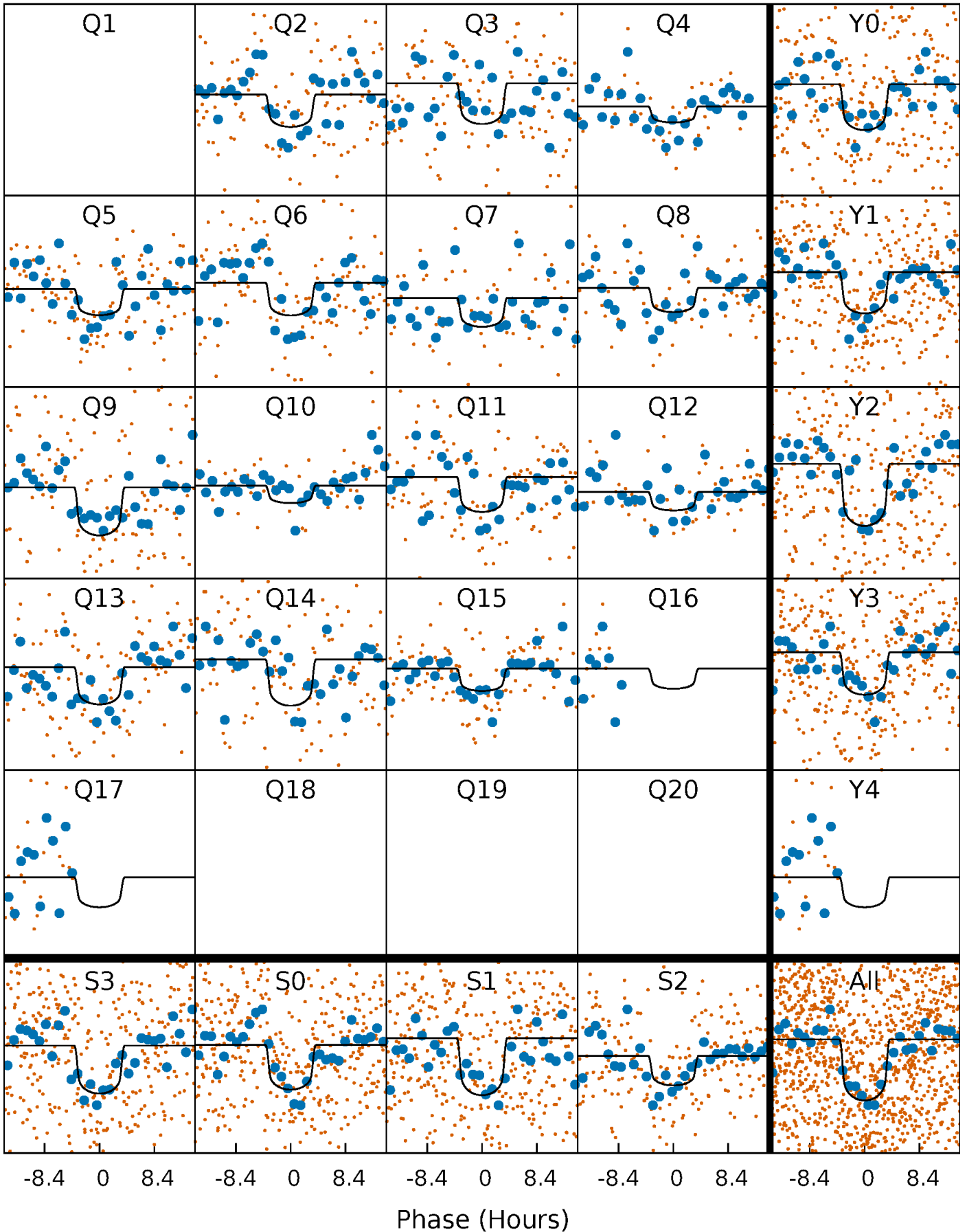
PDC Quarter-Phased Transit Curves

TCE 008349399-01 P= 56.446676 Days $T_0=170.586148$ (BKJD)



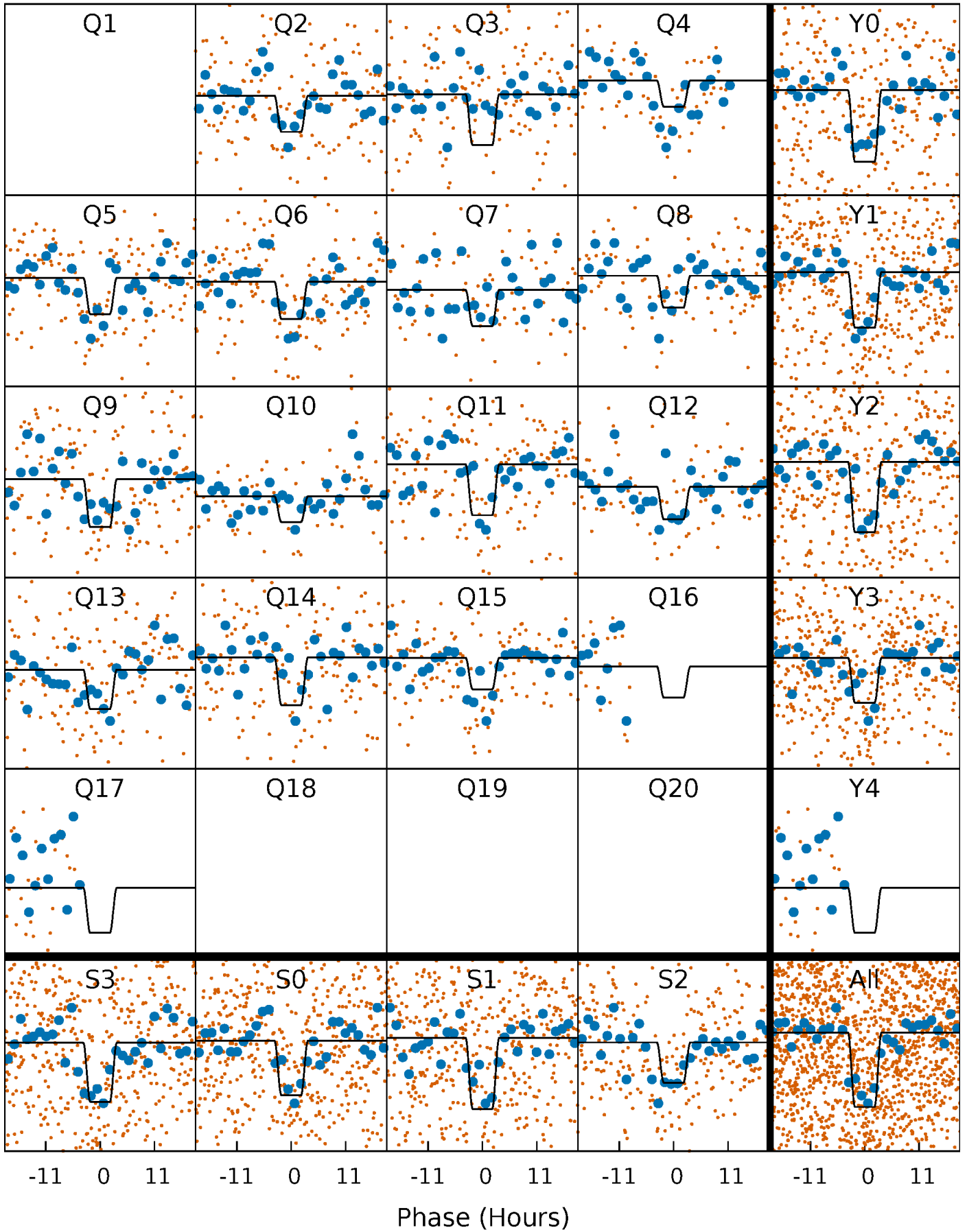
DV Quarter-Phased Transit Curves

TCE 008349399-01 P= 56.446676 Days $T_0=170.586148$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

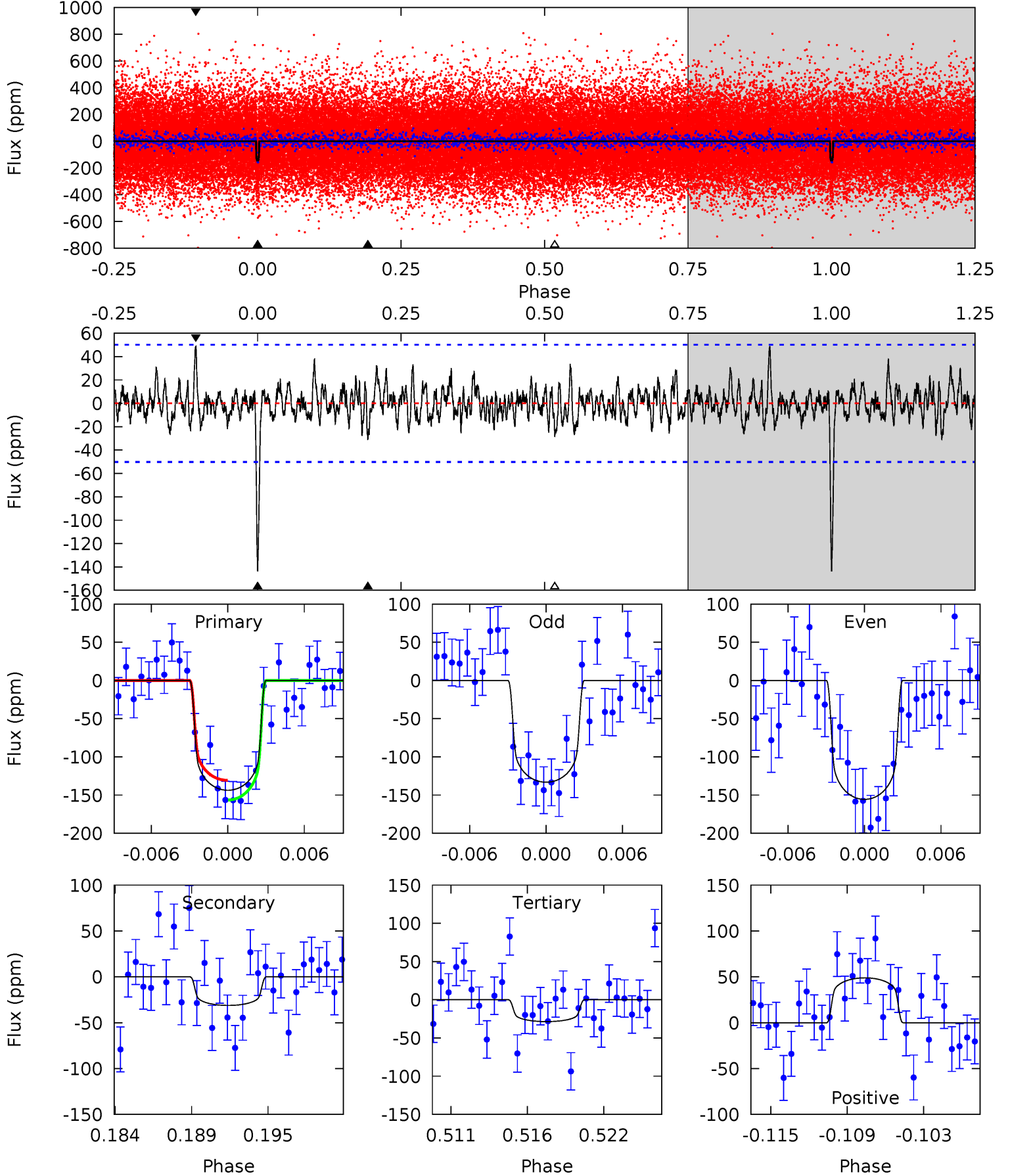
TCE 008349399-01 P= 56.447451 Days $T_0=170.590011$ (BKJD)



DV Model-Shift Uniqueness Test

008349399-01, P = 56.446676 Days, E = 114.139472 Days

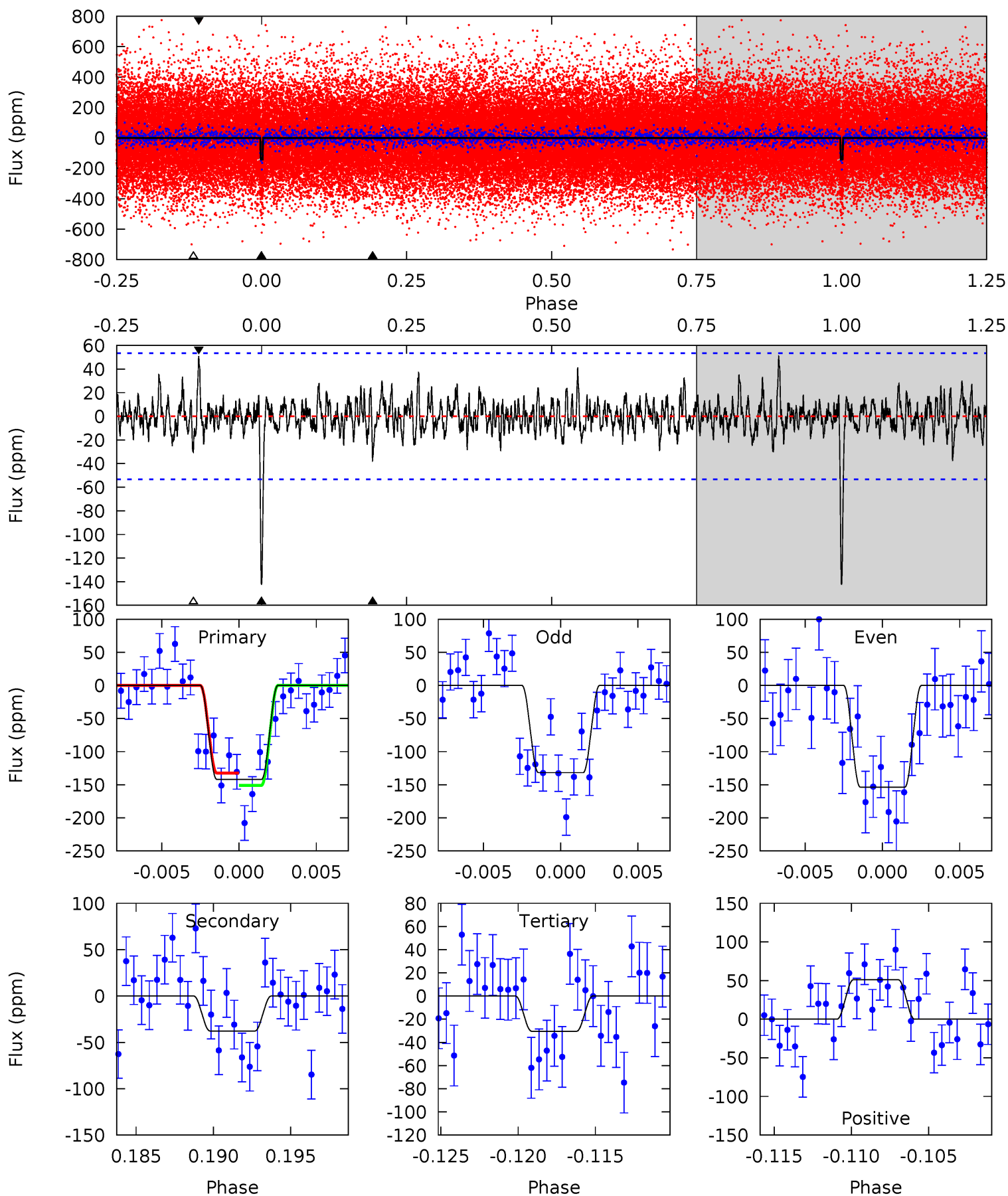
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.7	3.19	2.93	5.00	5.13	2.76	1.14	11.8	9.70	0.27	-1.81	1.15	1.16	0.25	1.32



Alt Model-Shift Uniqueness Test

008349399-01, P = 56.447451 Days, E = 114.142560 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	3.65	2.94	4.94	5.16	2.81	1.06	10.8	8.78	0.70	-1.29	1.05	1.25	0.26	0.90



Stellar Parameters For KIC 008349399

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5995^{+161}_{-179}	$4.337^{+0.136}_{-0.187}$	$-0.140^{+0.300}_{-0.300}$	$1.117^{+0.327}_{-0.201}$	$0.988^{+0.145}_{-0.118}$	$1.000^{+0.725}_{-0.490}$
	+3%/-3%	+3%/-4%	+214%/-214%	+29%/-18%	+15%/-12%	+72%/-49%
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 008349399-01 / KOI 4763.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-31 ± 10	$1.63^{+0.43}_{-0.43}$	731^{+57}_{-41}	4163^{+515}_{-380}	522^{+456}_{-223}
Alt.	-38 ± 10	$1.59^{+0.48}_{-0.40}$	731^{+58}_{-42}	4330^{+559}_{-399}	658^{+588}_{-291}

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

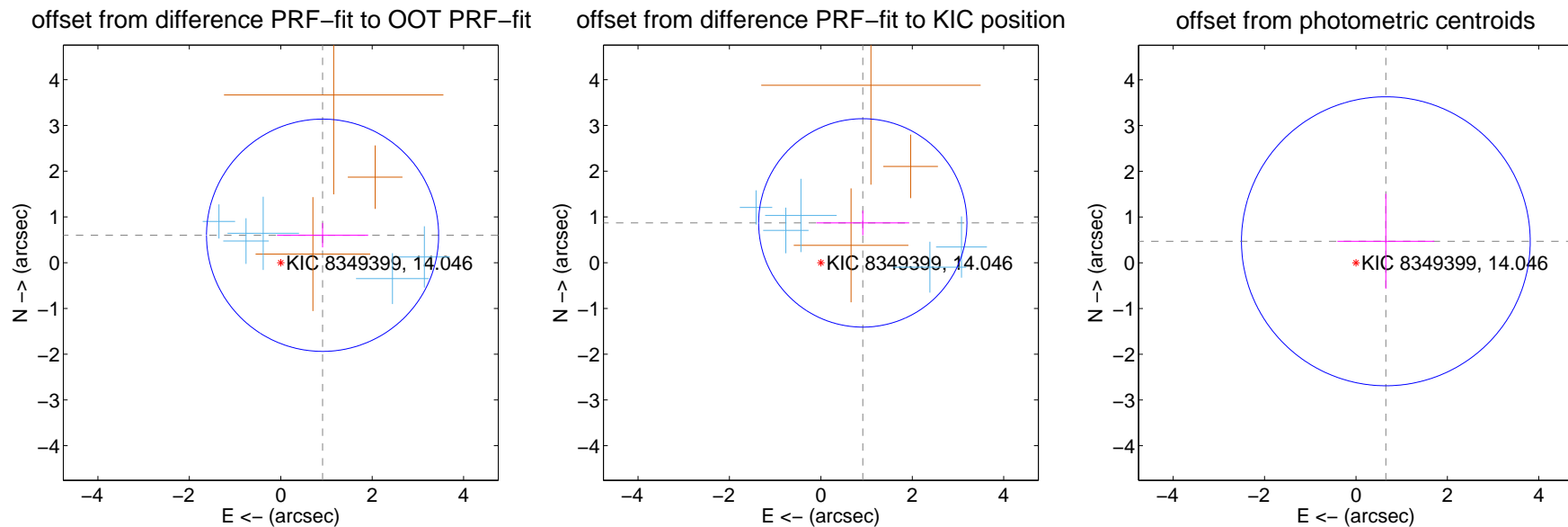
DV Centroid Data

Supplemental centroid analysis for 008349399-01. Kepler magnitude: 14.05. Transit SNR 10.71

There are 5 quarters with good PRF difference image offsets

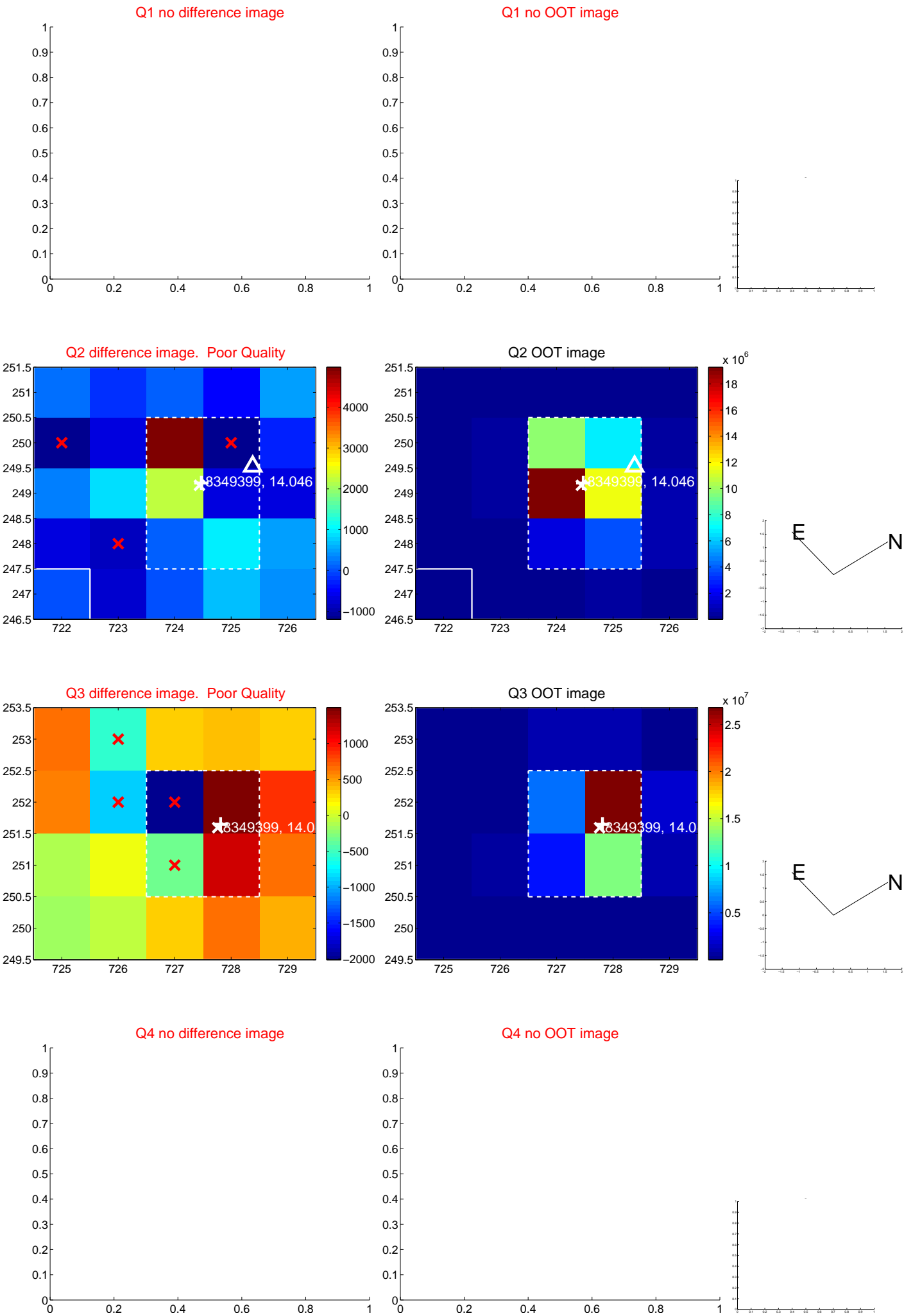
The direct PRF centroid is offset from the target star catalog position by about 0.39 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.094 ± 0.846	1.29	-0.915 ± 0.997	0.600 ± 0.266
PRF-fit source offset from KIC position	1.264 ± 0.759	1.66	-0.917 ± 1.015	0.870 ± 0.269
photometric centroid source offset	0.81 ± 1.05	0.76	-0.65 ± 1.06	0.47 ± 1.04

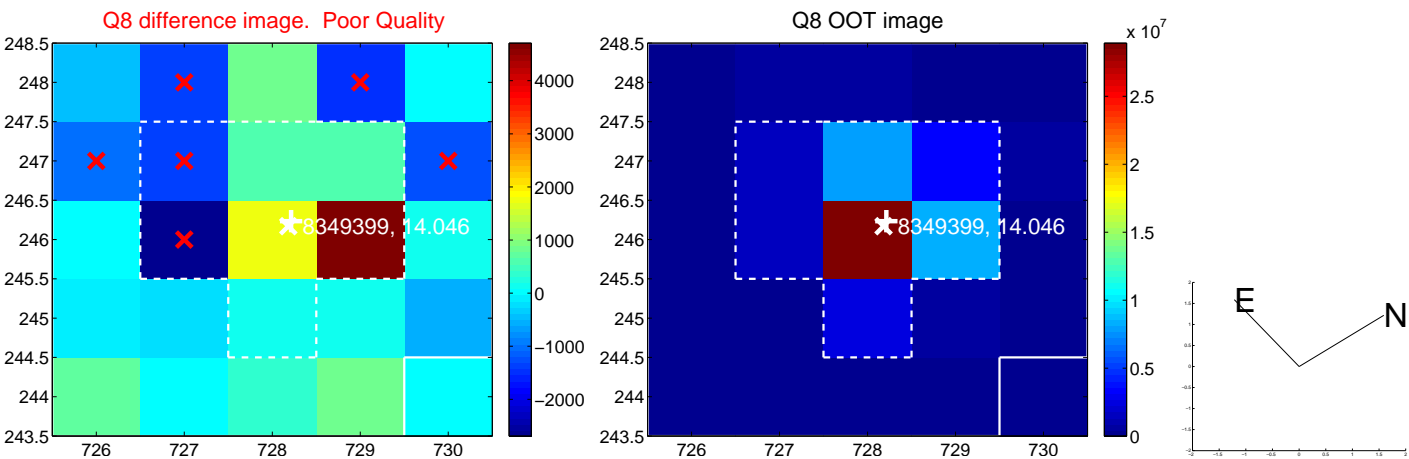
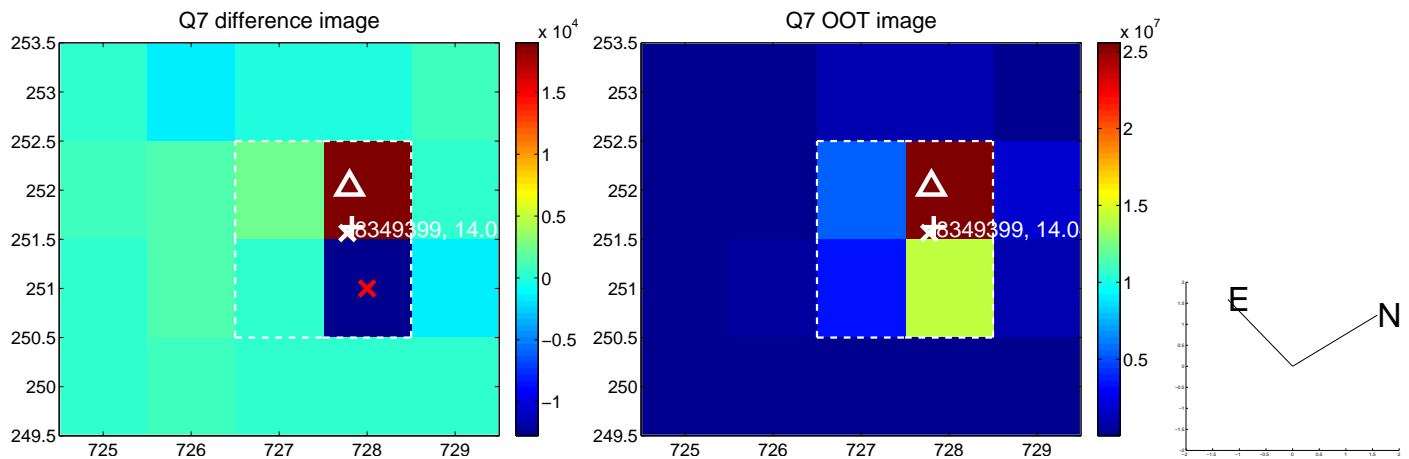
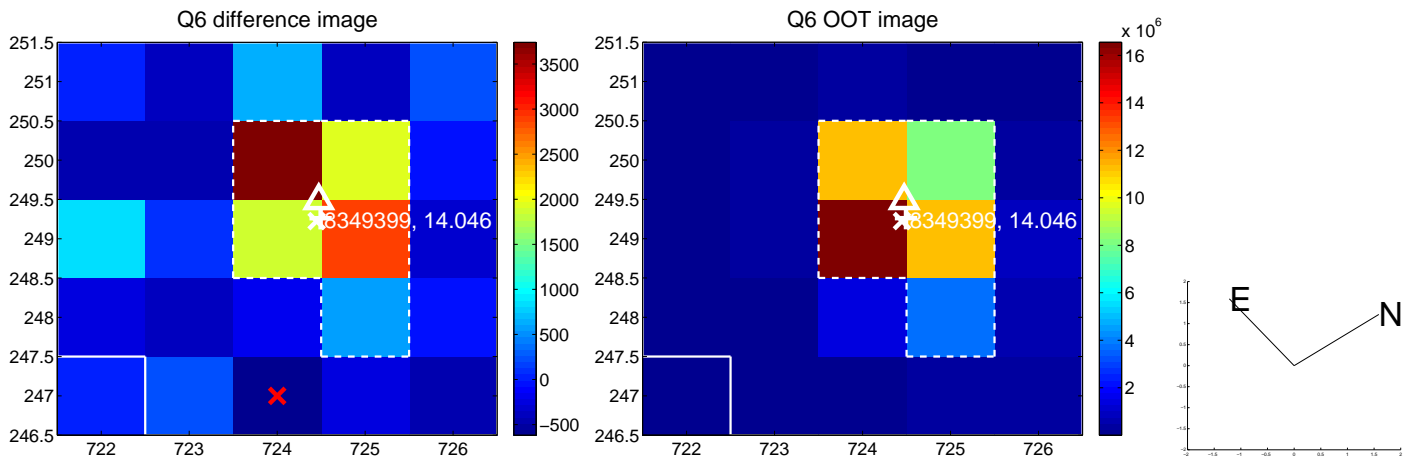
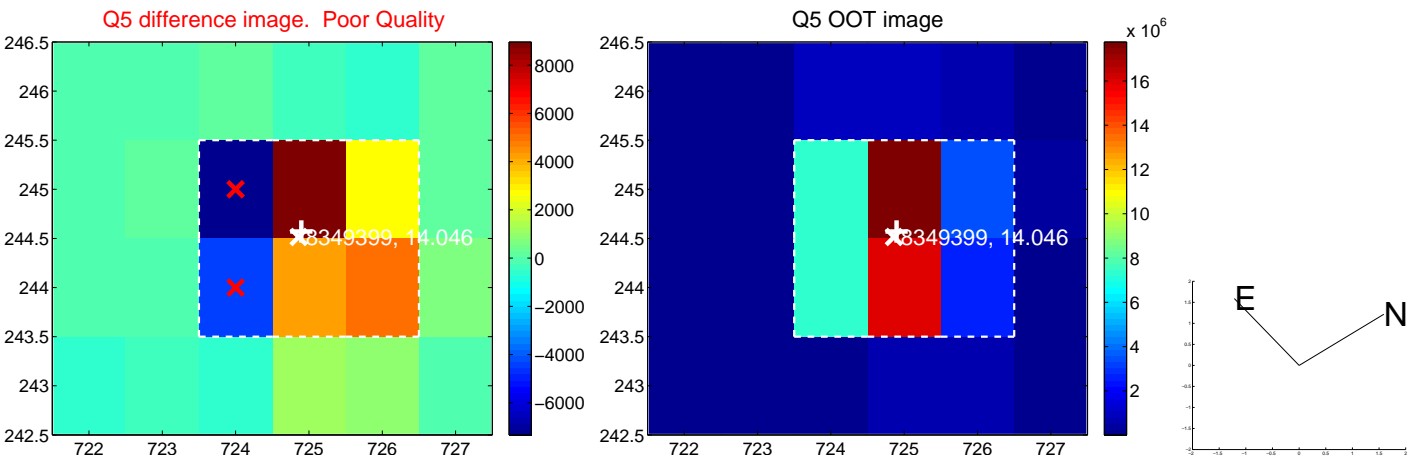


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

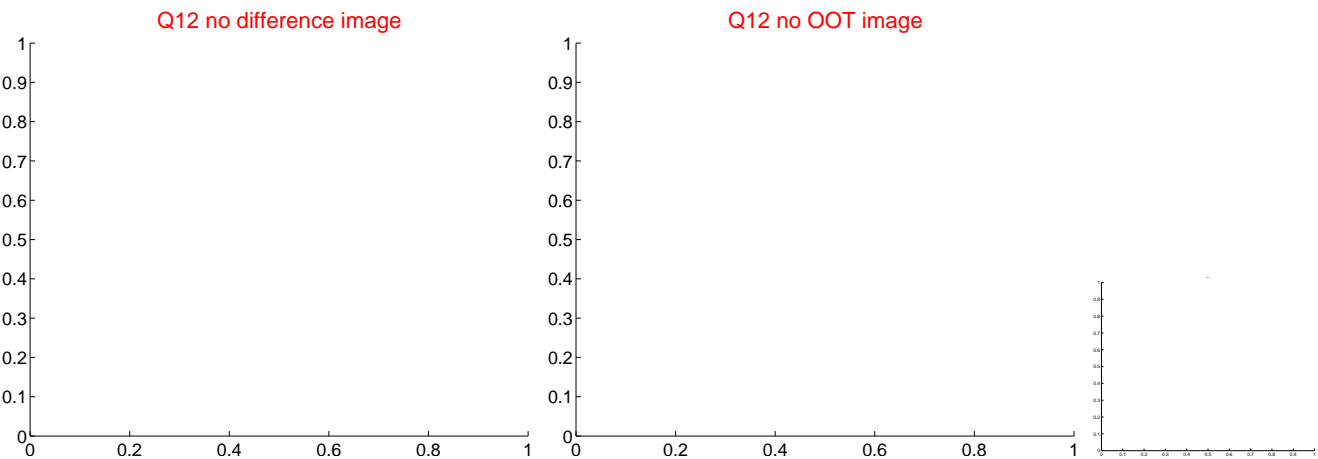
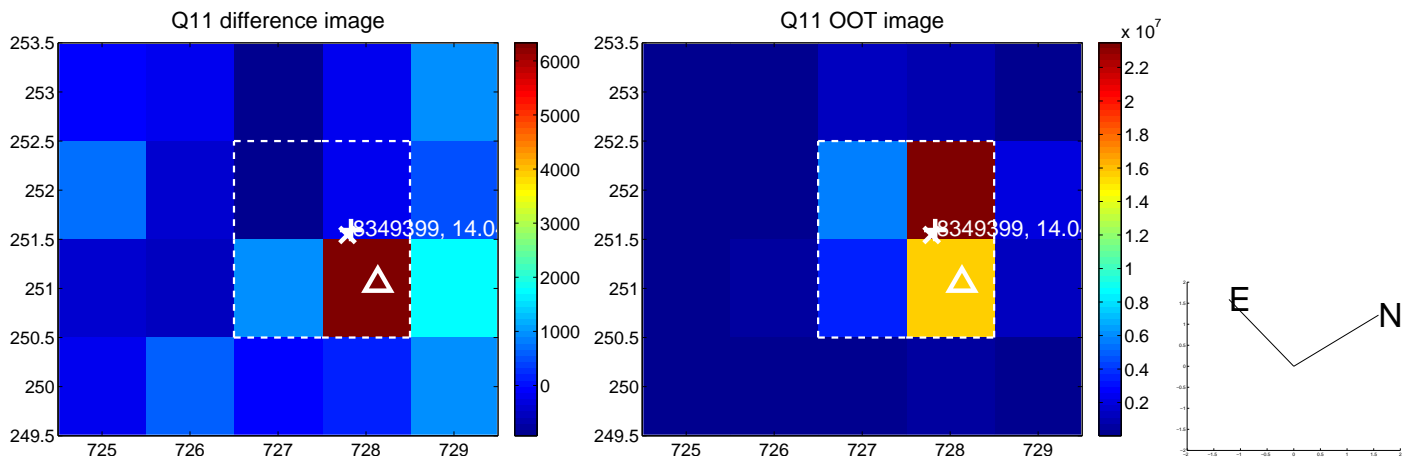
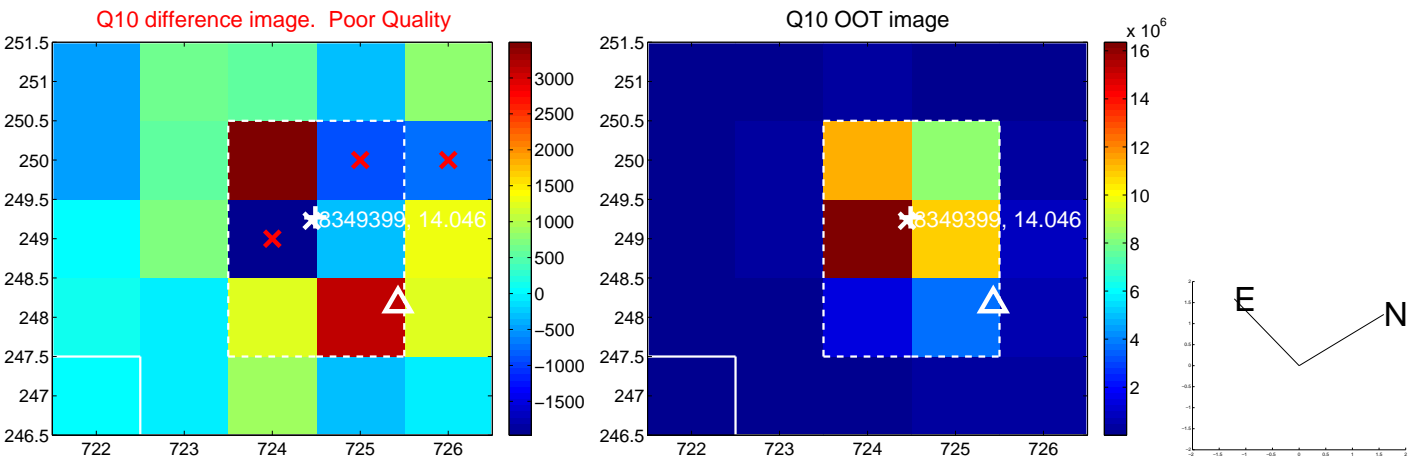
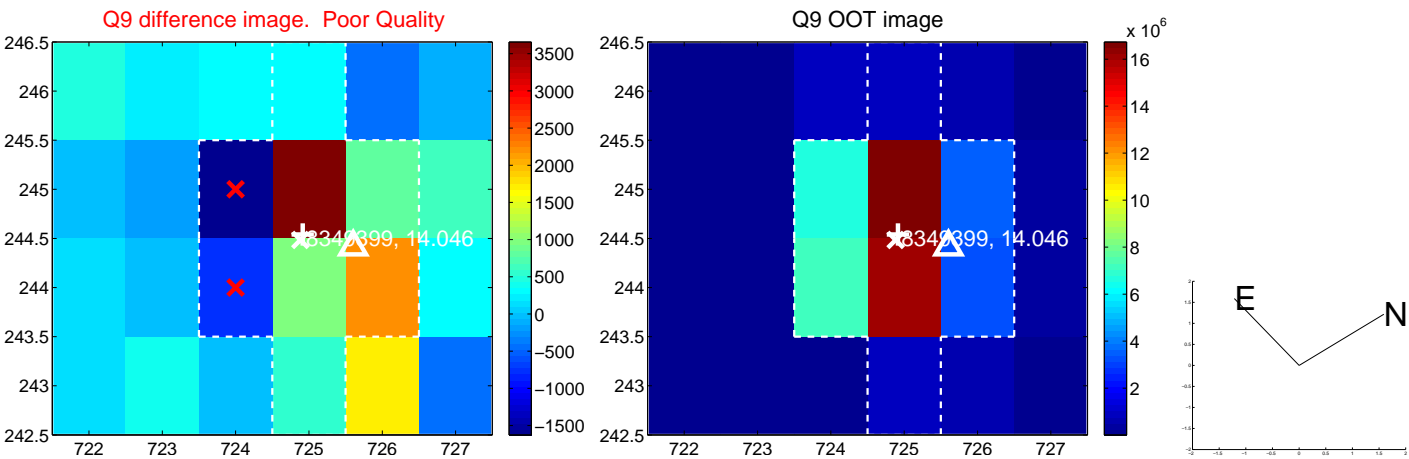
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



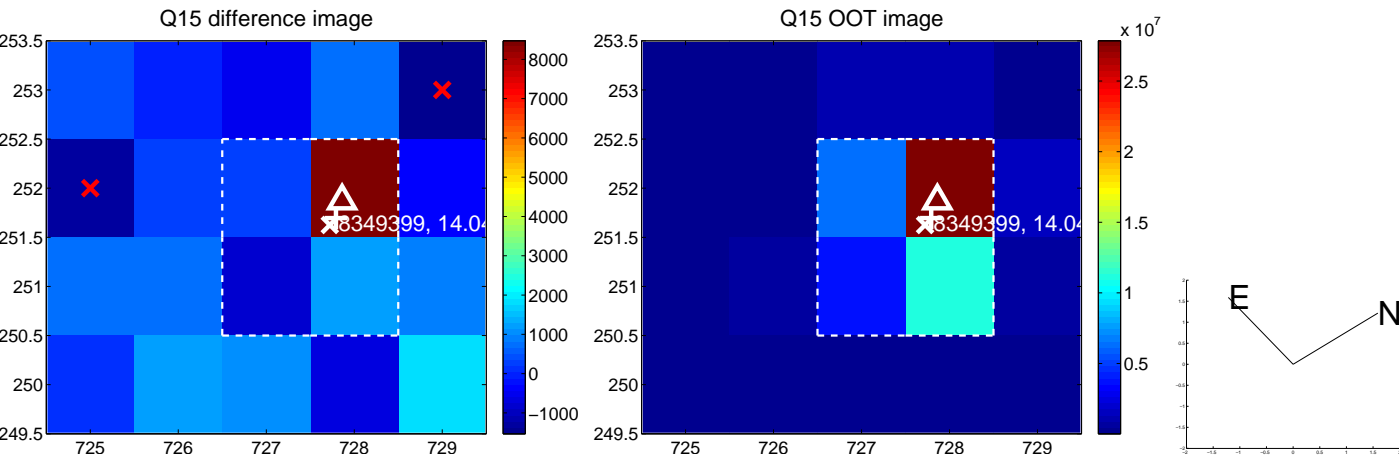
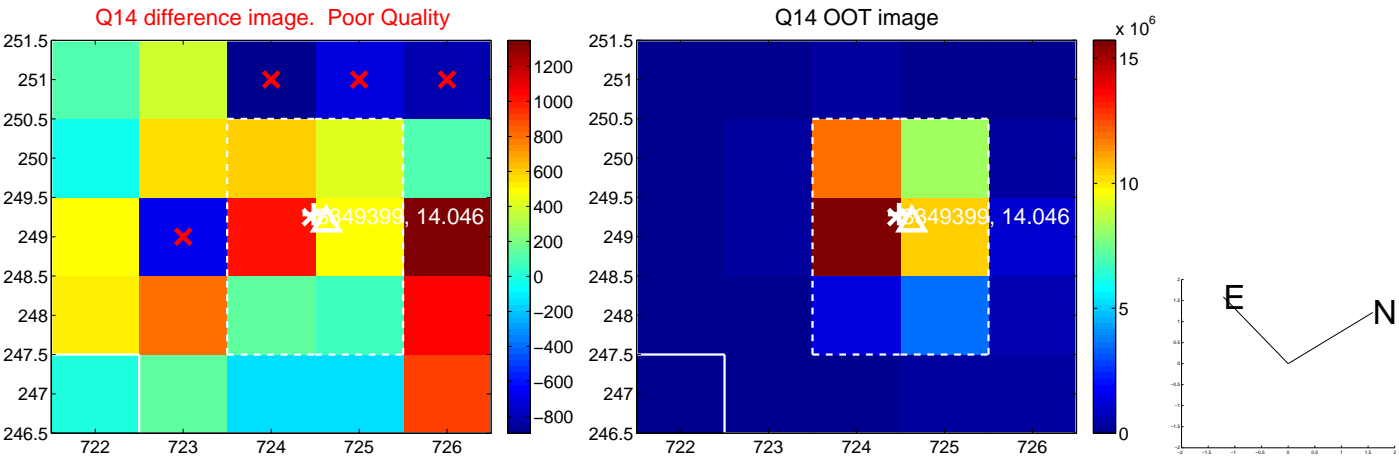
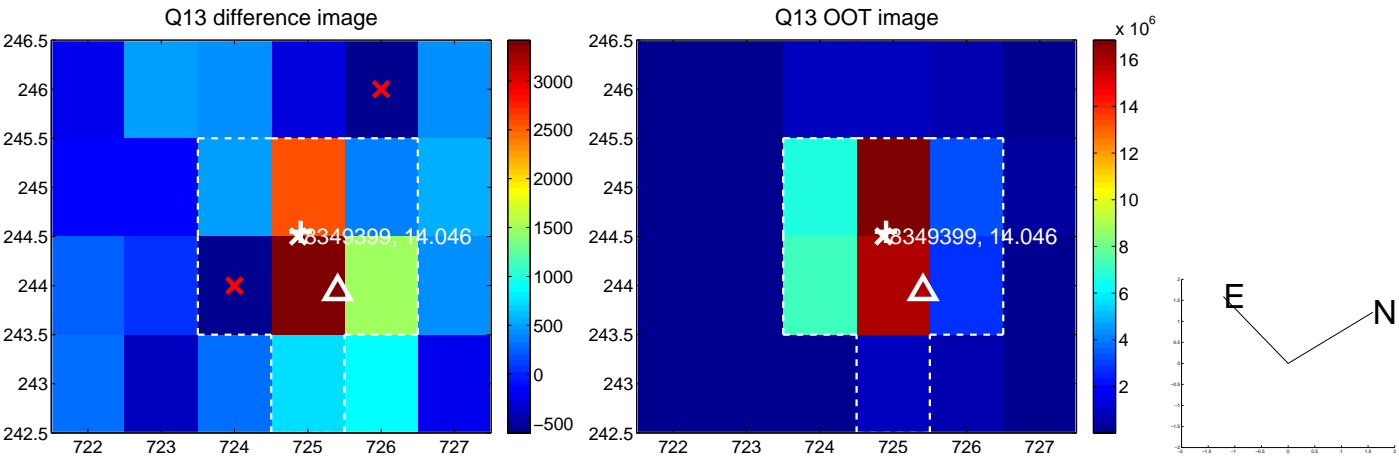
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



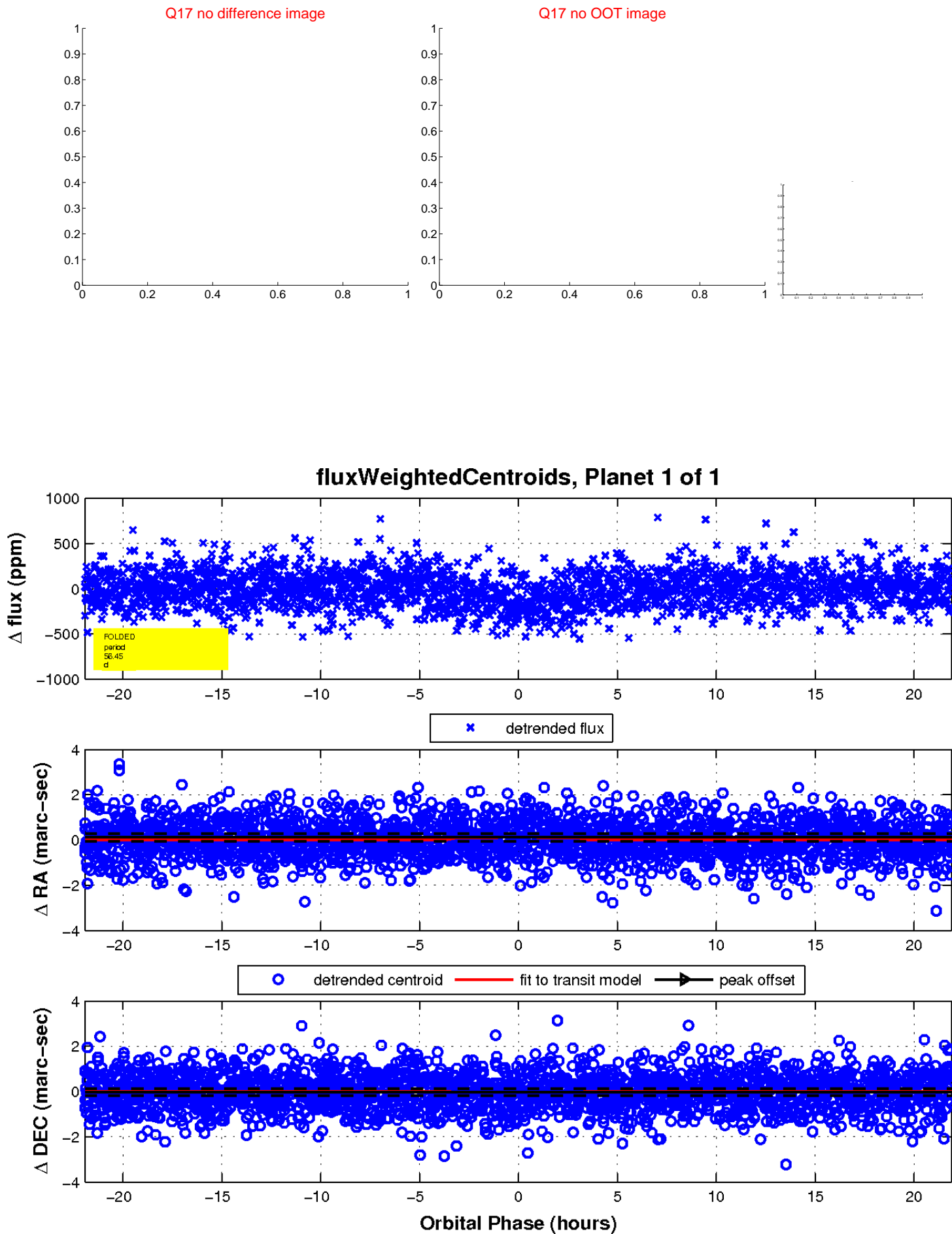
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



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



UKIRT Image

Declination

