

KIC 011671579

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})
011671579-01	OBS	4510.01	5.176143	133.756639	81.3	5.030	11.4	12.7	1.50	5578	1.59	566.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011671579-01	OBS	PC	1.00	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.

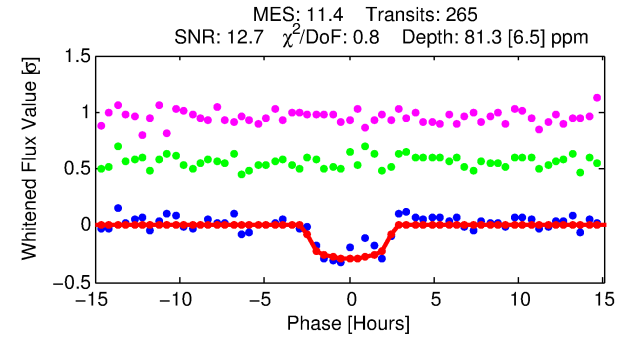
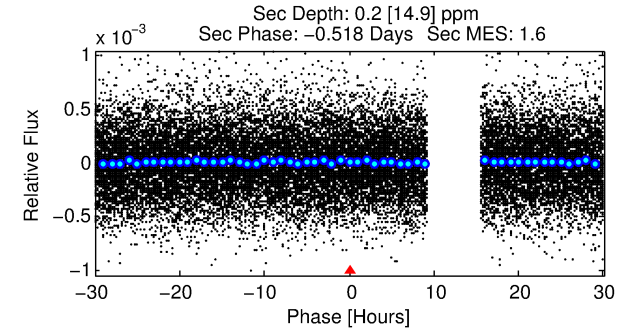
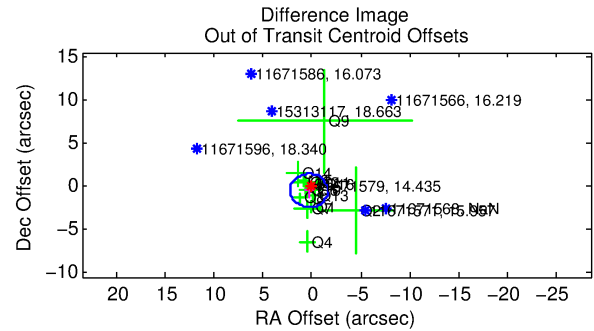
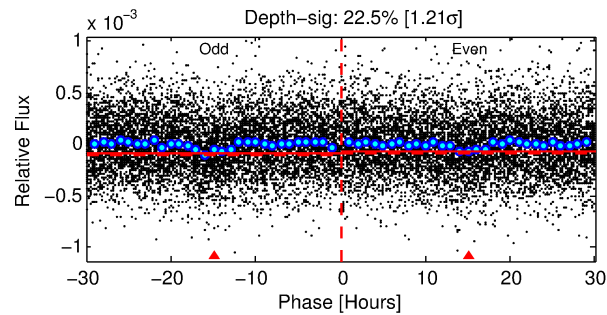
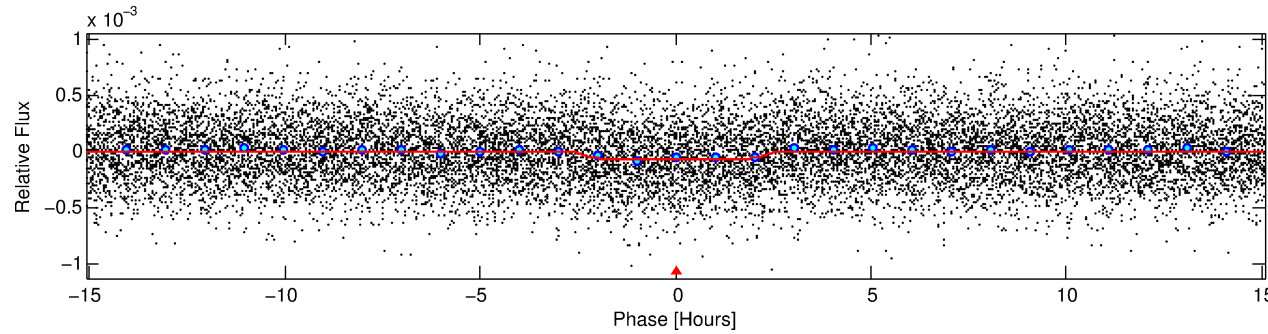
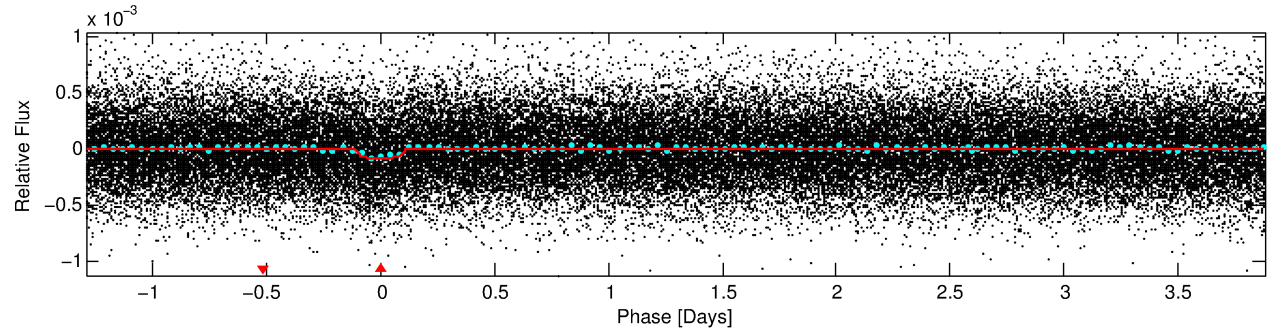
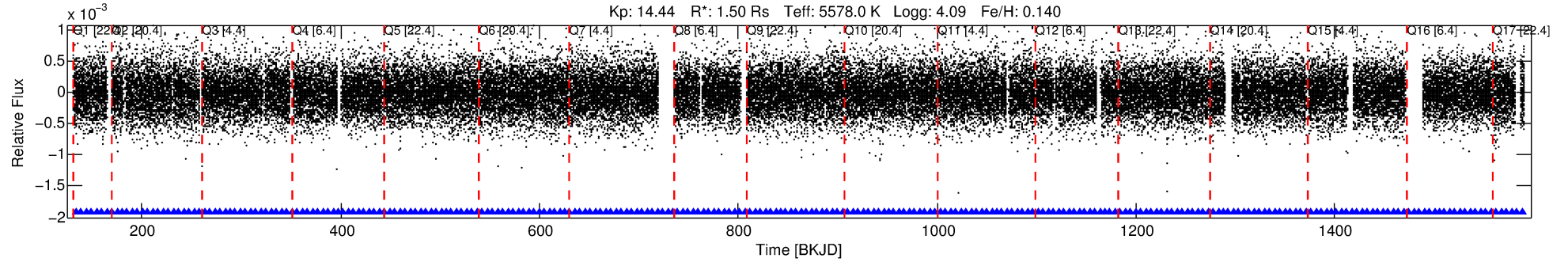
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011671579-01

No Significant Match Found

DV One-Page Summary

KIC: 11671579 Candidate: 1 of 1 Period: 5.176 d
KOI: K04510.01 Corr: 0.966



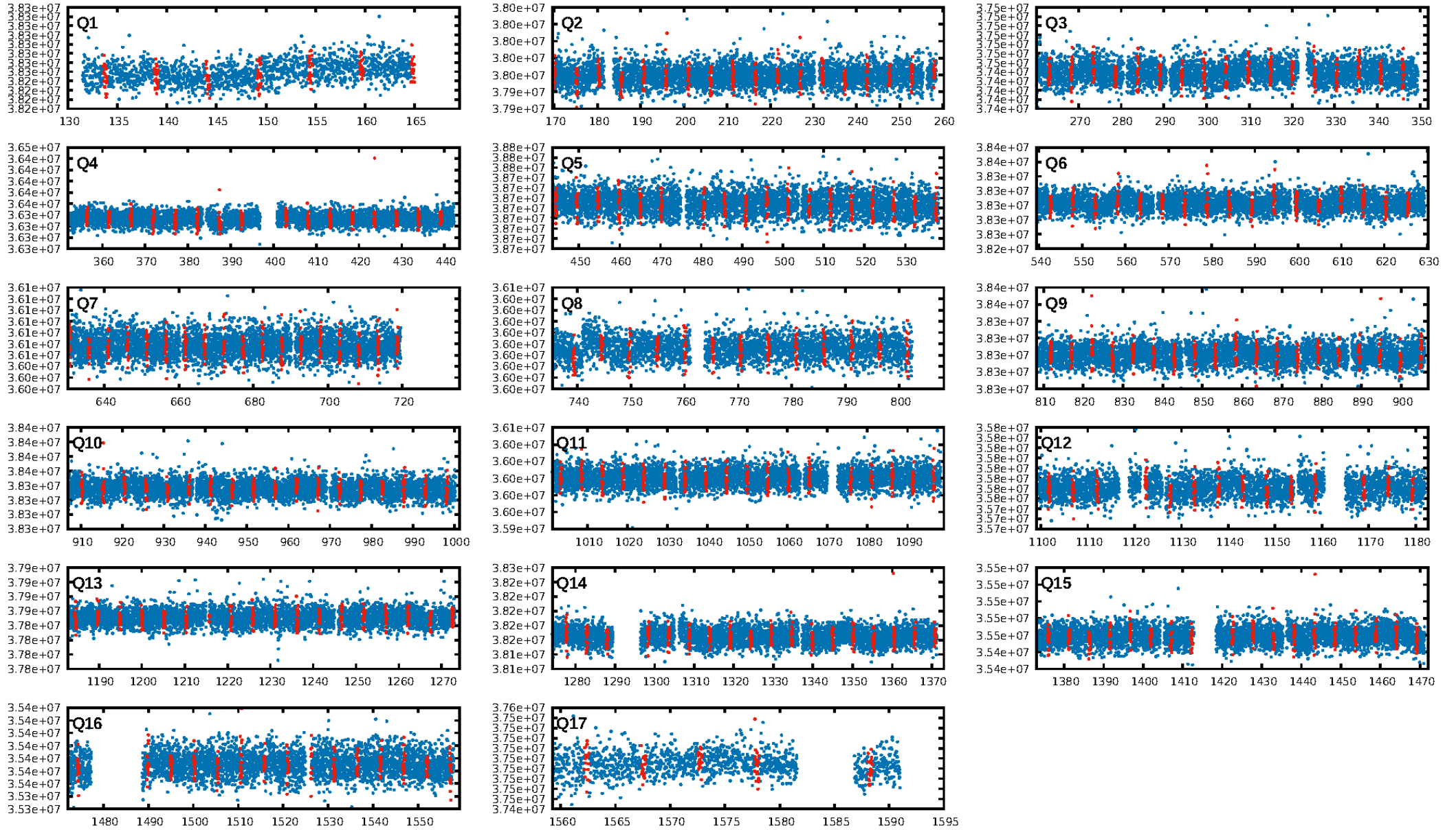
DV Fit Results:

Period = 5.17614 [0.00004] d
Epoch = 133.7566 [0.0064] BKJD
Rp/R* = 0.0097 [0.0045]
a/R* = 3.98 [7.78]
b = 0.88 [0.54]
Seff = 566.17 [191.35]
Teff = 1244 [105] K
Rp = 1.59 [0.81] Re
a = 0.0586 [0.0122] AU
Ag = 0.13 [11.17] [-0.08 σ]
Teffp = 1149 [25210] K [-0.00 σ]

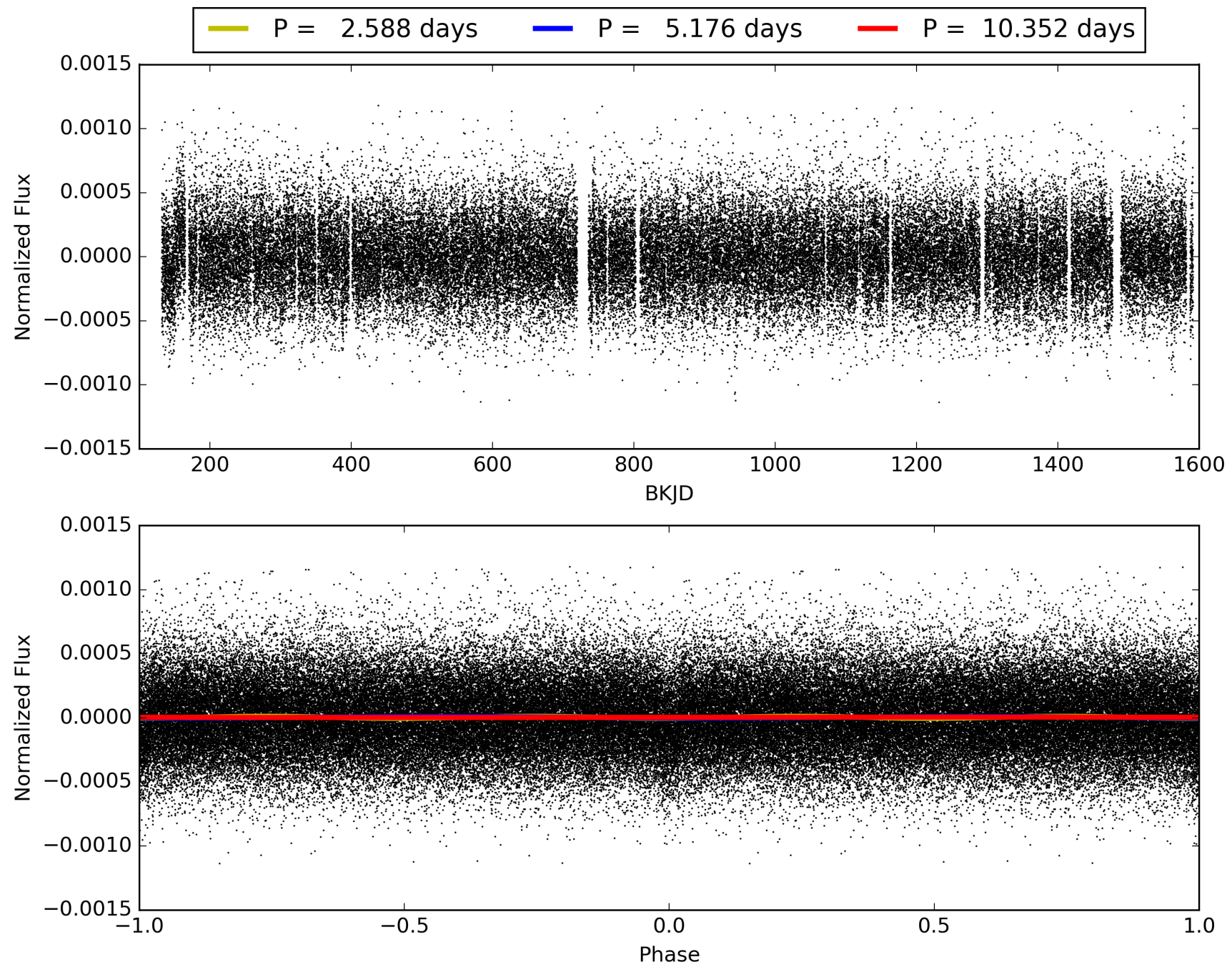
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.02e-29
RollingBand-fgt: 1.00 [253/253]
GhostDiagnostic-chr: 2.187
Centroid-sig: 48.3%
Centroid-so: 0.600 arcsec [0.59 σ]
OotOffset-rm: 0.588 arcsec [0.91 σ]
KicOffset-rm: 0.426 arcsec [0.70 σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.67 [10/15]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011671579-01, PDC Light Curves

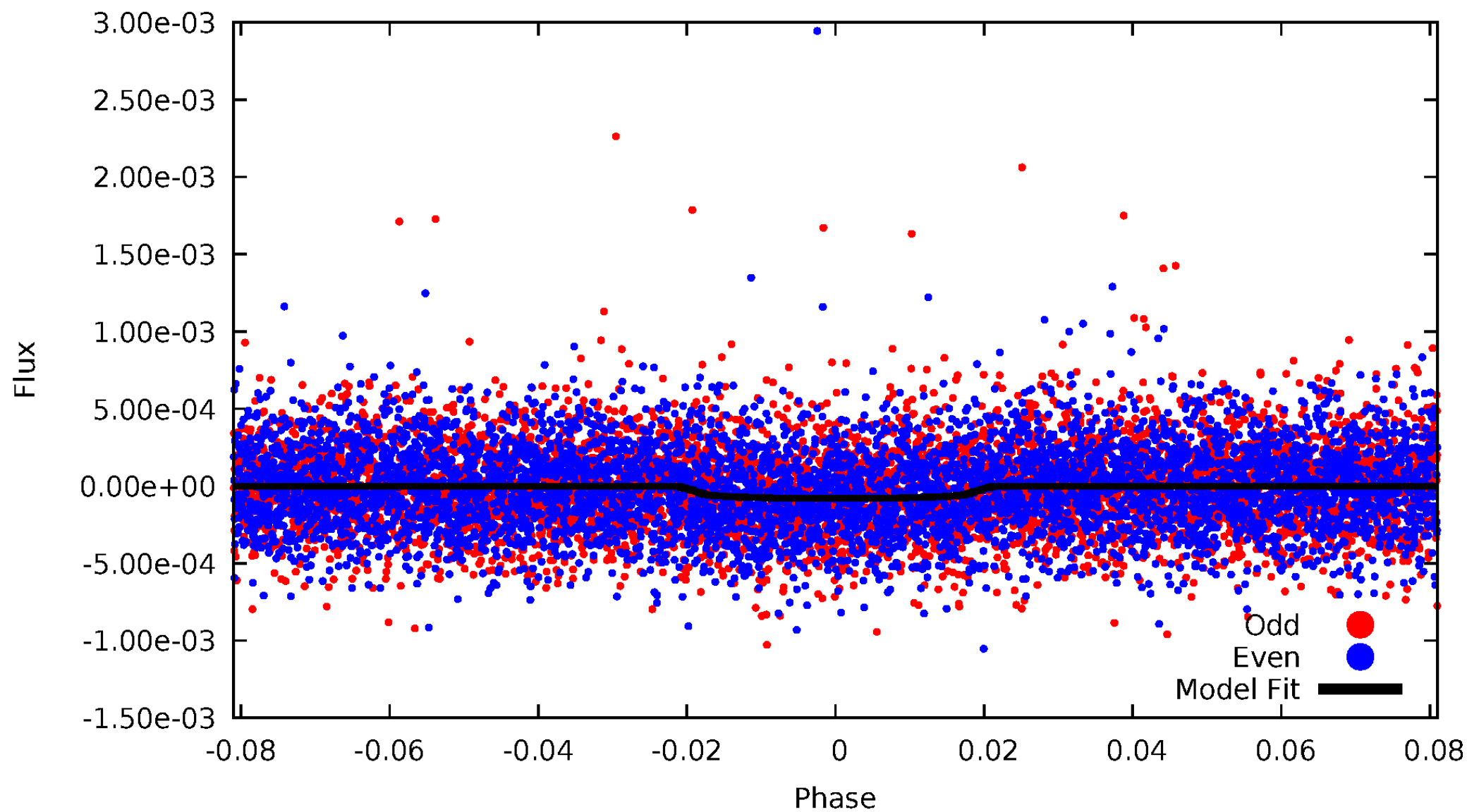


TCE 011671579-01



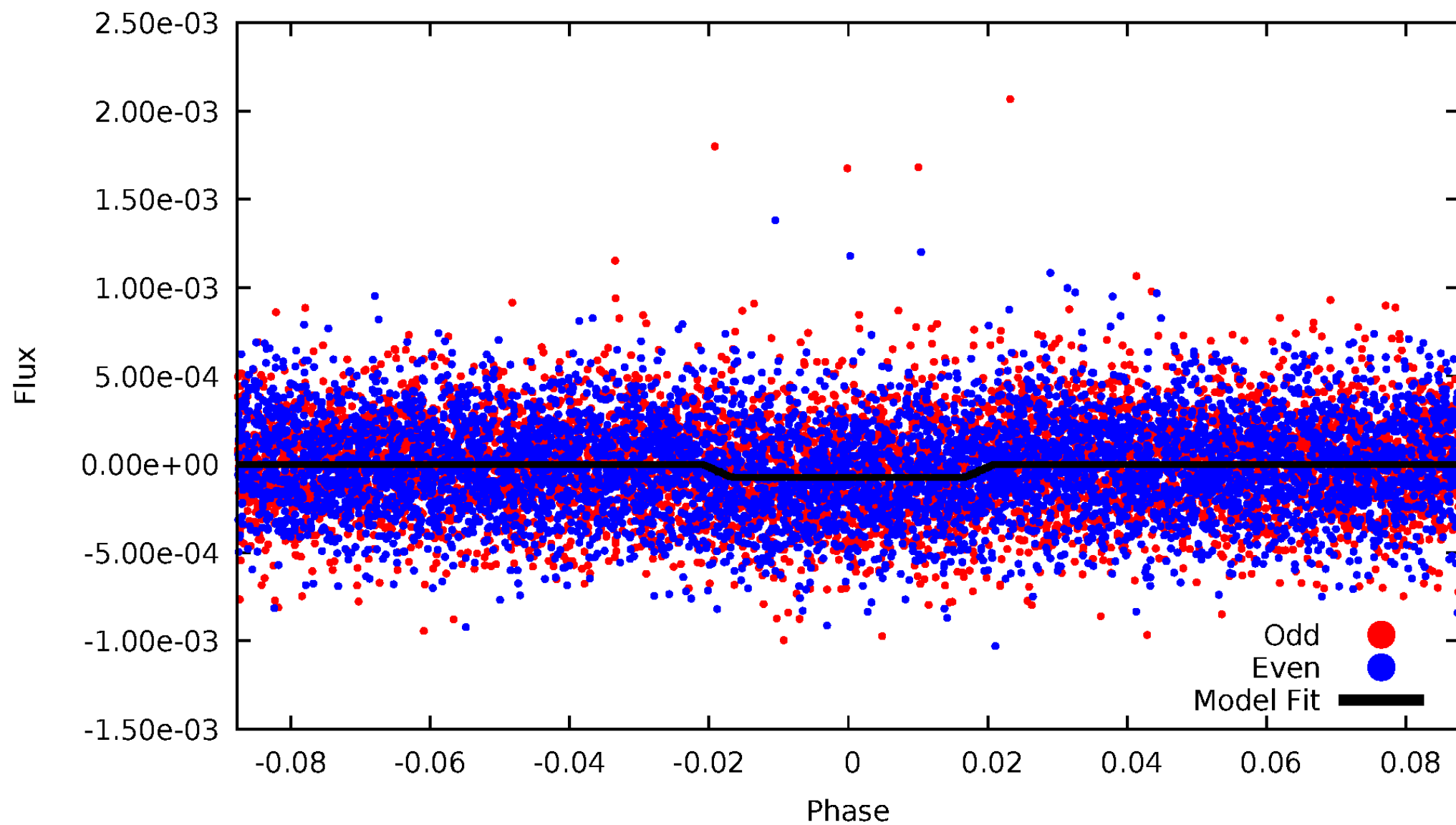
DV Odd/Even

TCE 011671579-01



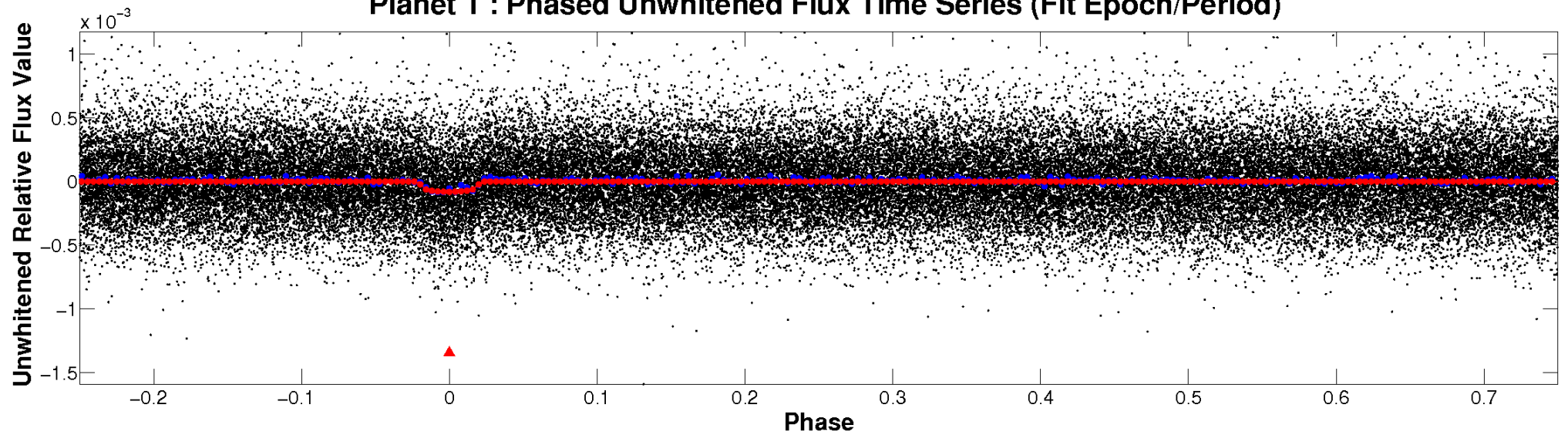
ALT Odd/Even

TCE 011671579-01

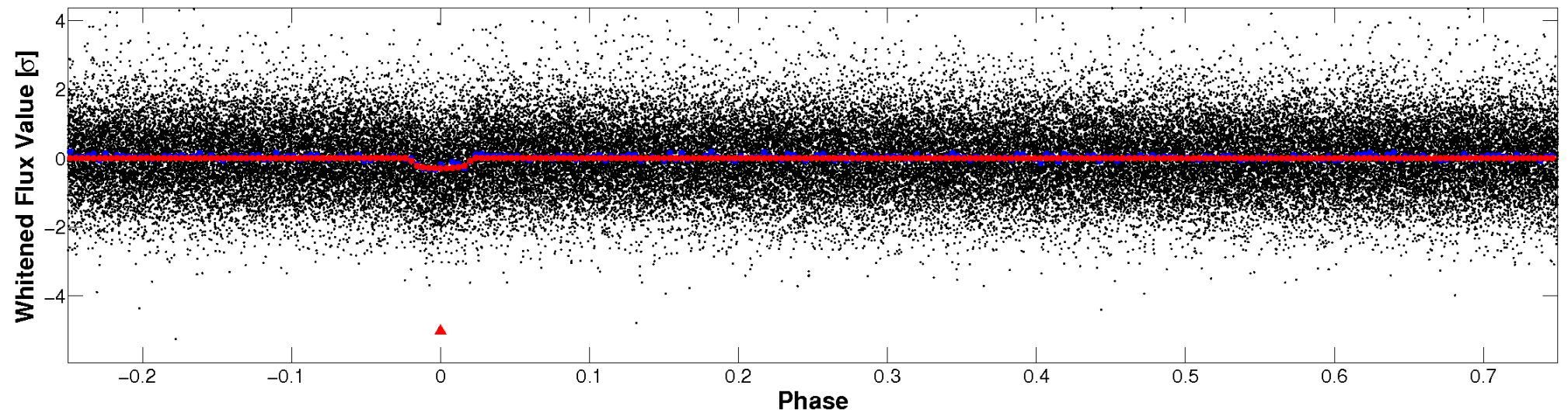


Non-Whitened Vs. Whitened Light Curve

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

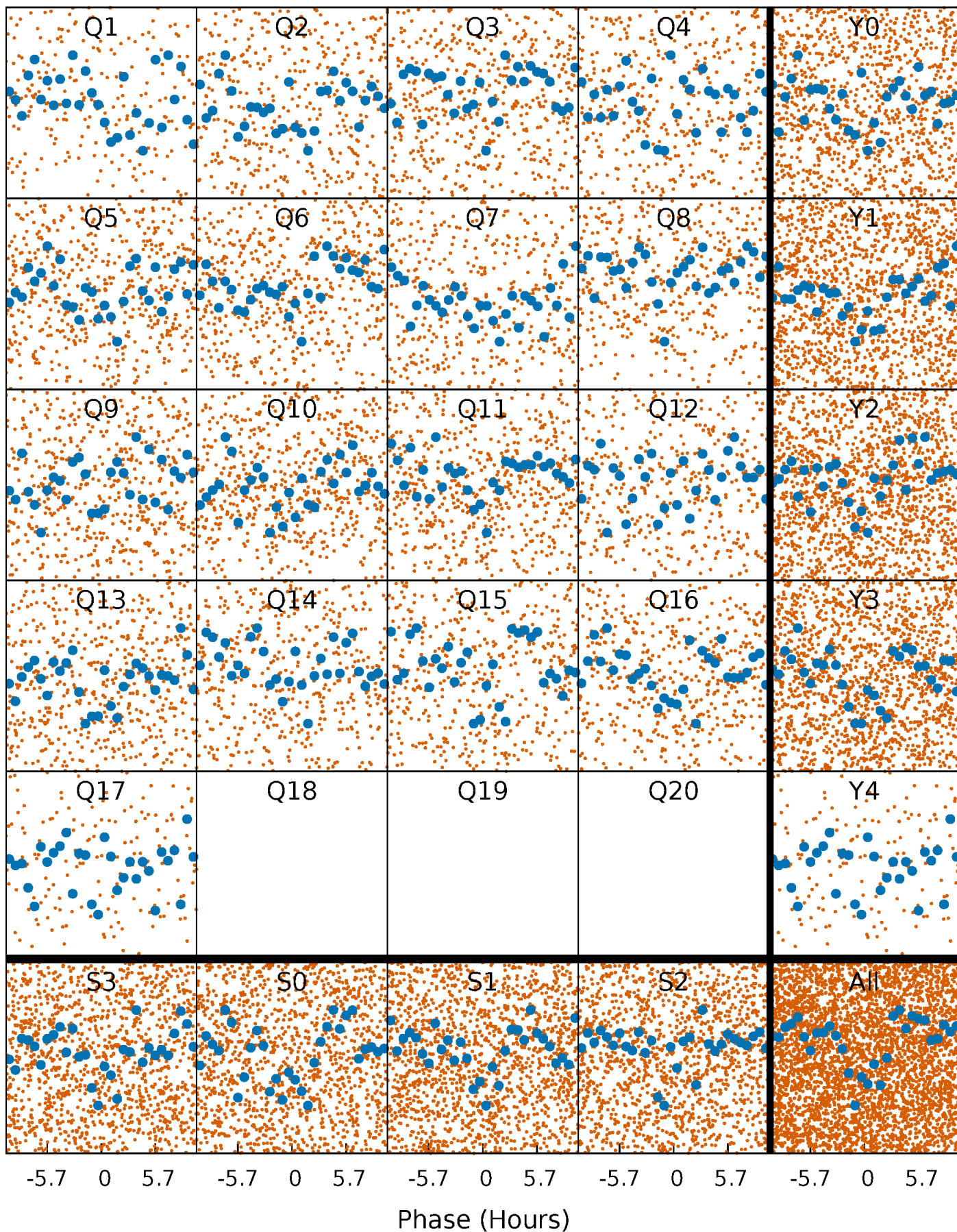


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



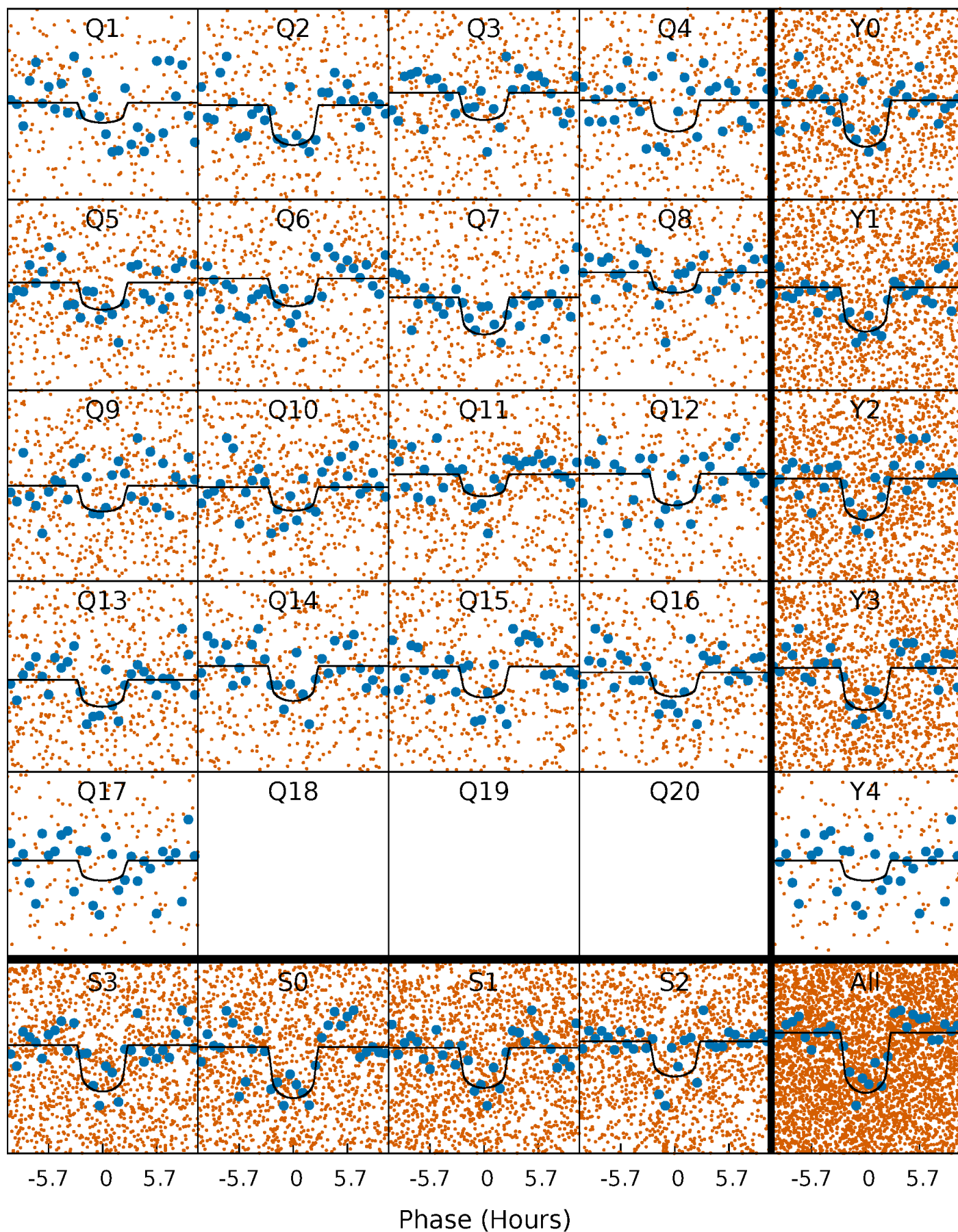
PDC Quarter-Phased Transit Curves

TCE 011671579-01 P= 5.176143 Days $T_0=133.756639$ (BKJD)



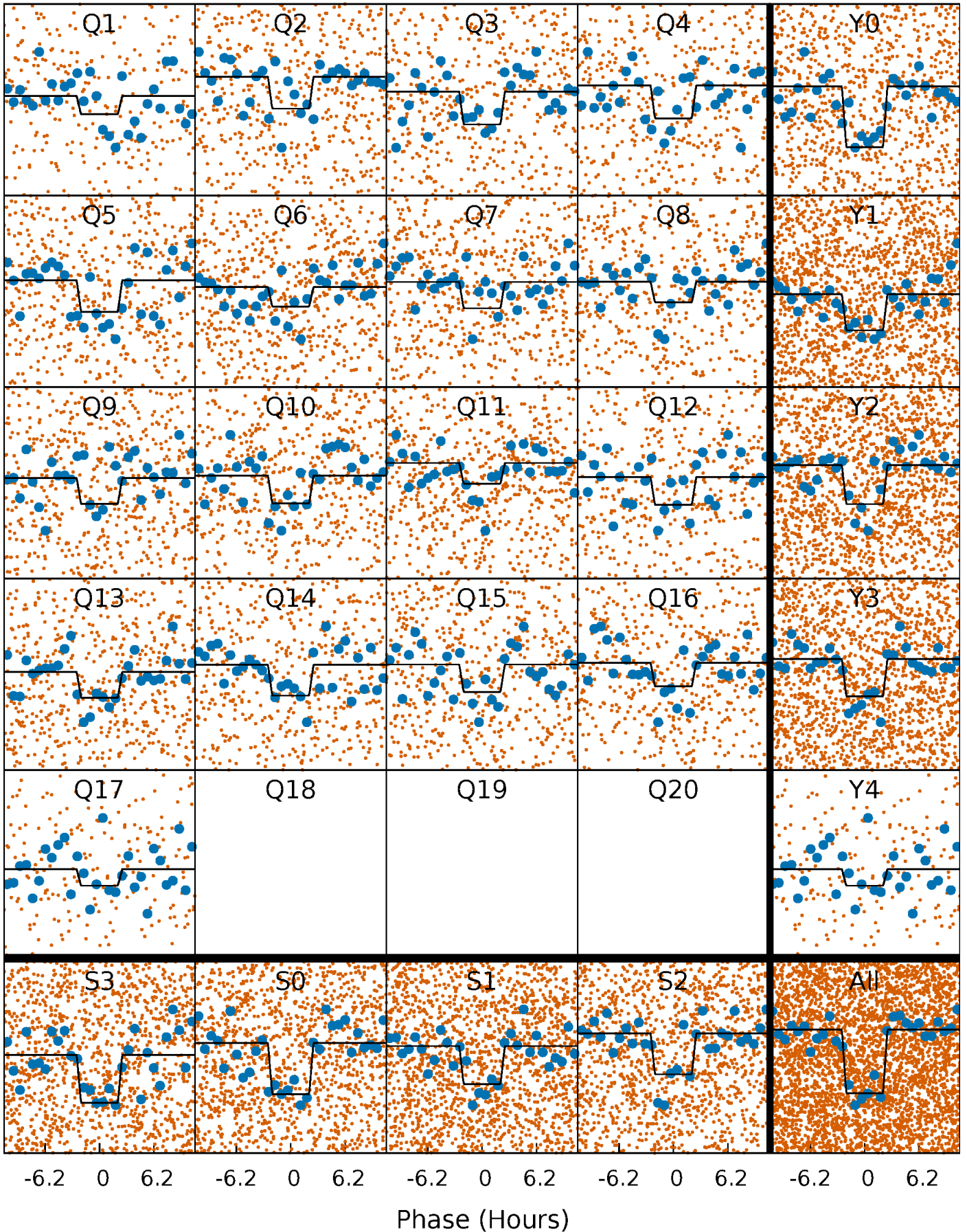
DV Quarter-Phased Transit Curves

TCE 011671579-01 P= 5.176143 Days $T_0=133.756639$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

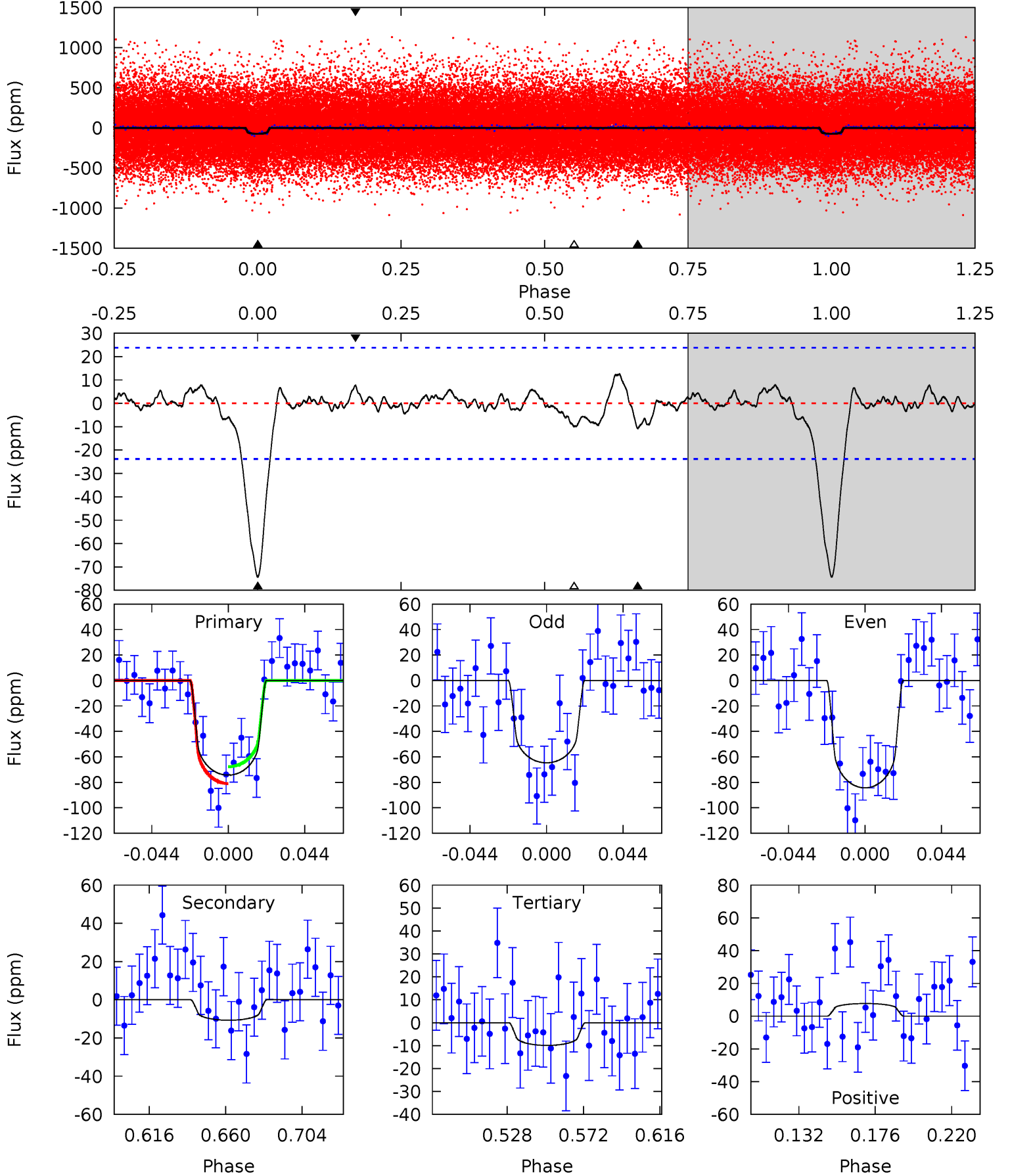
TCE 011671579-01 P= 5.176228 Days $T_0=133.744842$ (BKJD)



DV Model-Shift Uniqueness Test

011671579-01, P = 5.176143 Days, E = 128.580496 Days

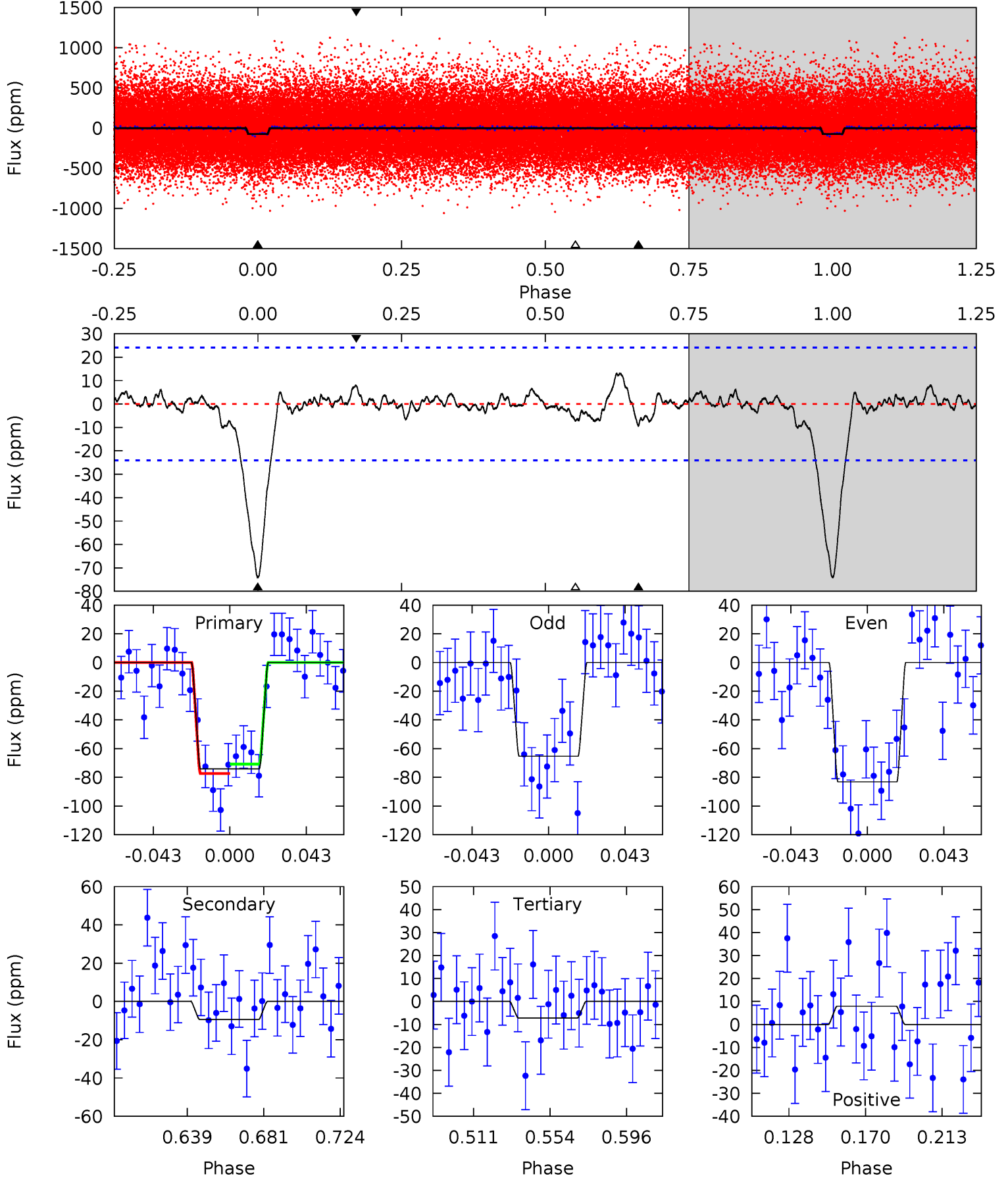
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	2.13	1.97	1.53	4.73	2.01	0.70	12.8	13.3	0.16	0.60	1.96	1.00	0.14	1.32



Alt Model-Shift Uniqueness Test

011671579-01, P = 5.176228 Days, E = 128.568614 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	1.85	1.41	1.56	4.74	2.03	0.61	13.2	13.0	0.44	0.29	1.76	1.00	0.15	0.64



Stellar Parameters For KIC 011671579

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5578^{+83}_{-66}	$4.088^{+0.195}_{-0.090}$	$0.140^{+0.150}_{-0.150}$	$1.497^{+0.237}_{-0.326}$	$1.001^{+0.081}_{-0.073}$	$0.420^{+0.436}_{-0.135}$
	+1%/-1%	+5%/-2%	+107%/-107%	+16%/-22%	+8%/-7%	+104%/-32%
Source	SPE90	SPE90	SPE90	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011671579-01 / KOI 4510.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-11 ± 5	$1.47^{+0.83}_{-0.66}$	1724^{+75}_{-97}	3642^{+914}_{-546}	$8.775^{+22.749}_{-5.768}$
Alt.	-9 ± 5	$1.38^{+0.72}_{-0.69}$	1720^{+75}_{-104}	3633^{+1224}_{-620}	$8.460^{+31.258}_{-5.858}$

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

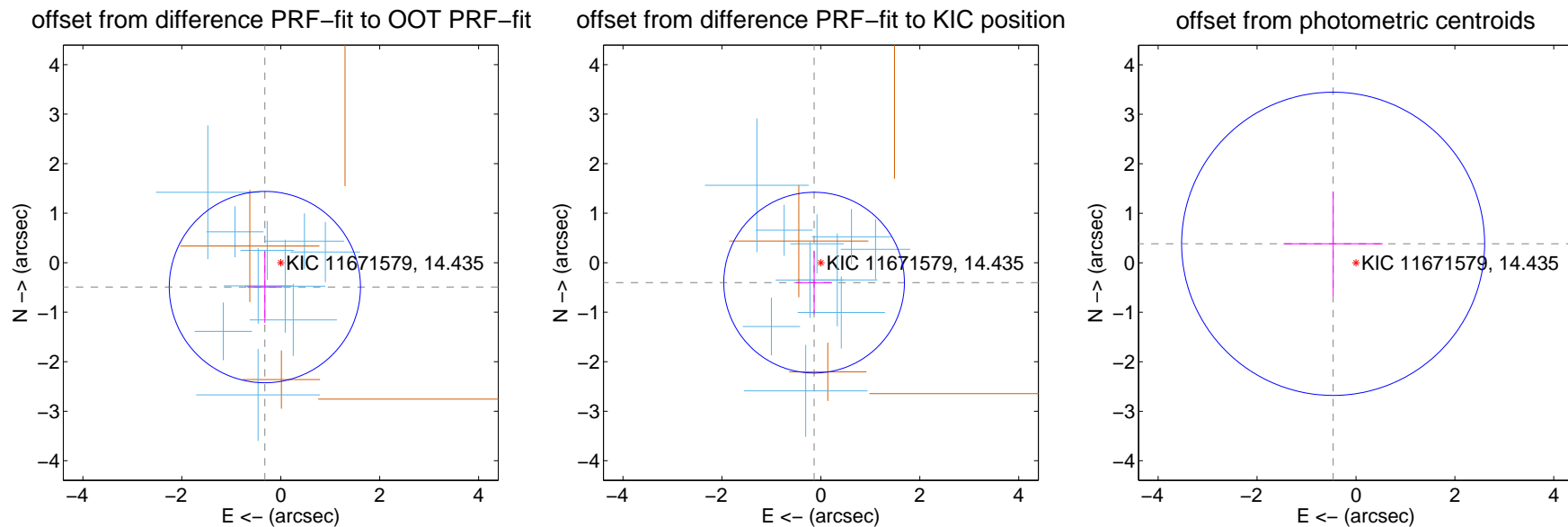
DV Centroid Data

Supplemental centroid analysis for 011671579-01. Kepler magnitude: 14.44. Transit SNR 12.70

There are 10 quarters with good PRF difference image offsets

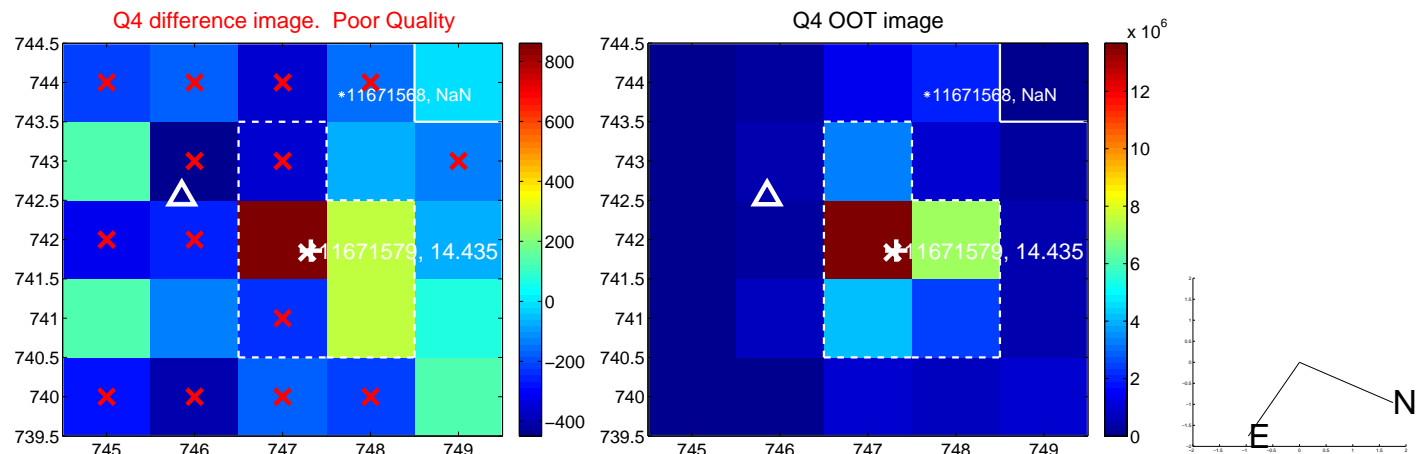
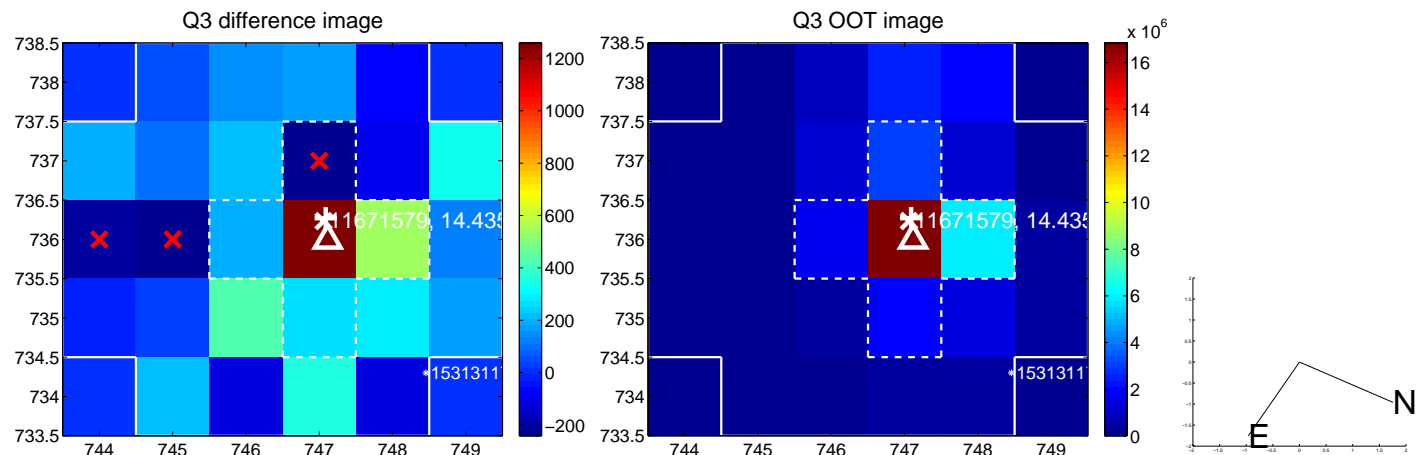
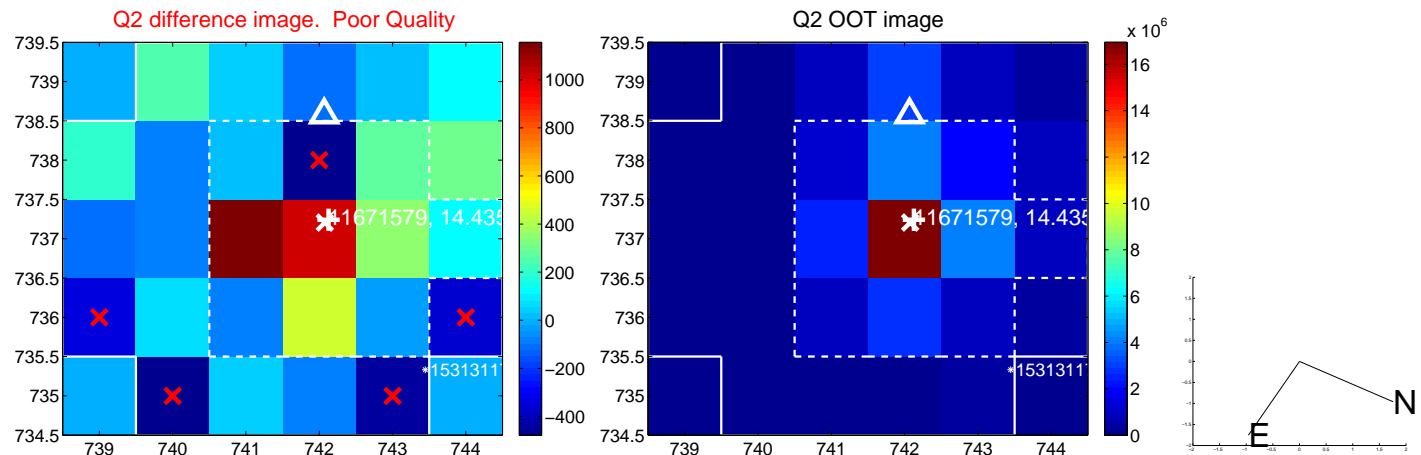
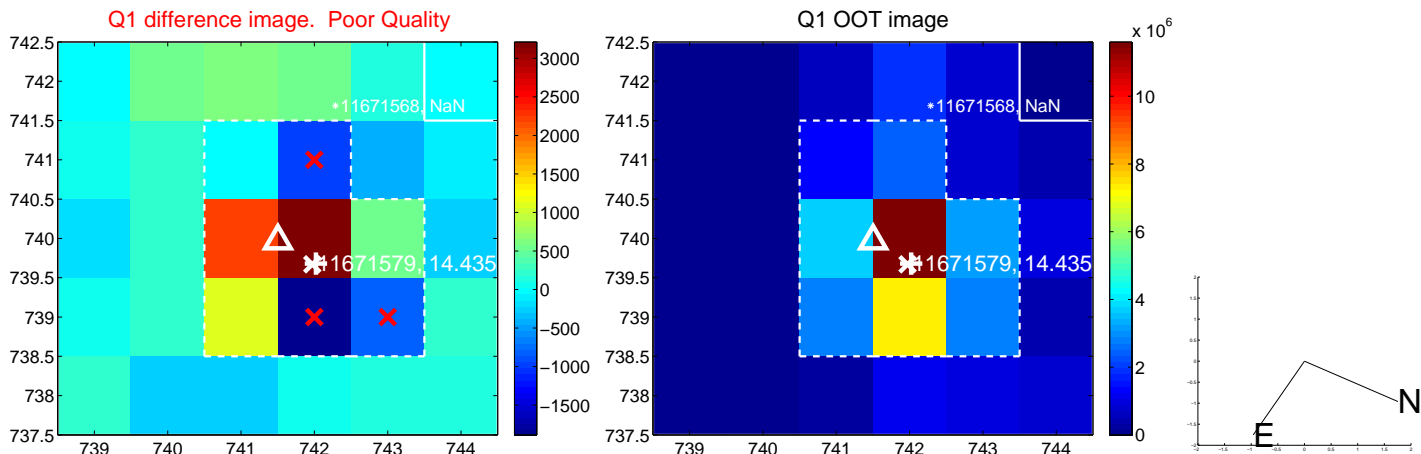
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.588 ± 0.644	0.91	0.321 ± 0.351	-0.493 ± 0.722
PRF-fit source offset from KIC position	0.426 ± 0.608	0.70	0.137 ± 0.362	-0.403 ± 0.632
photometric centroid source offset	0.60 ± 1.02	0.59	0.46 ± 1.00	0.38 ± 1.04

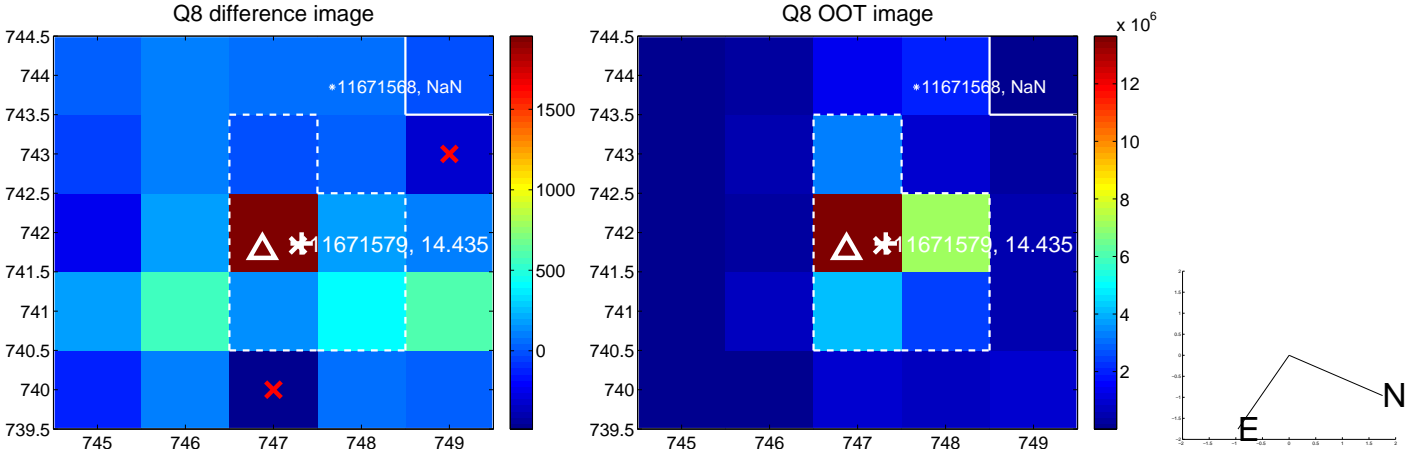
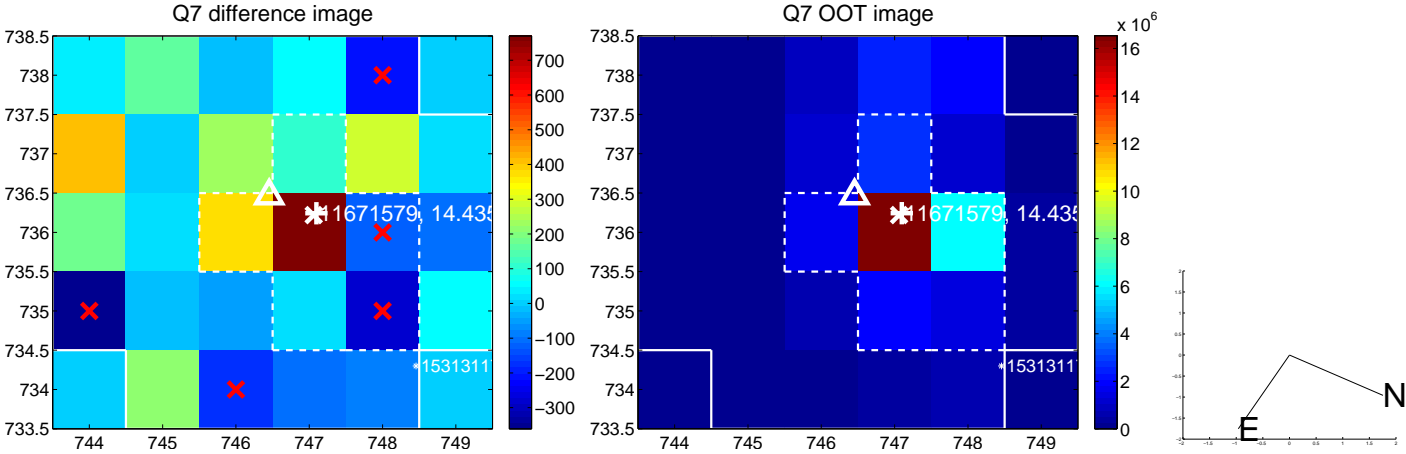
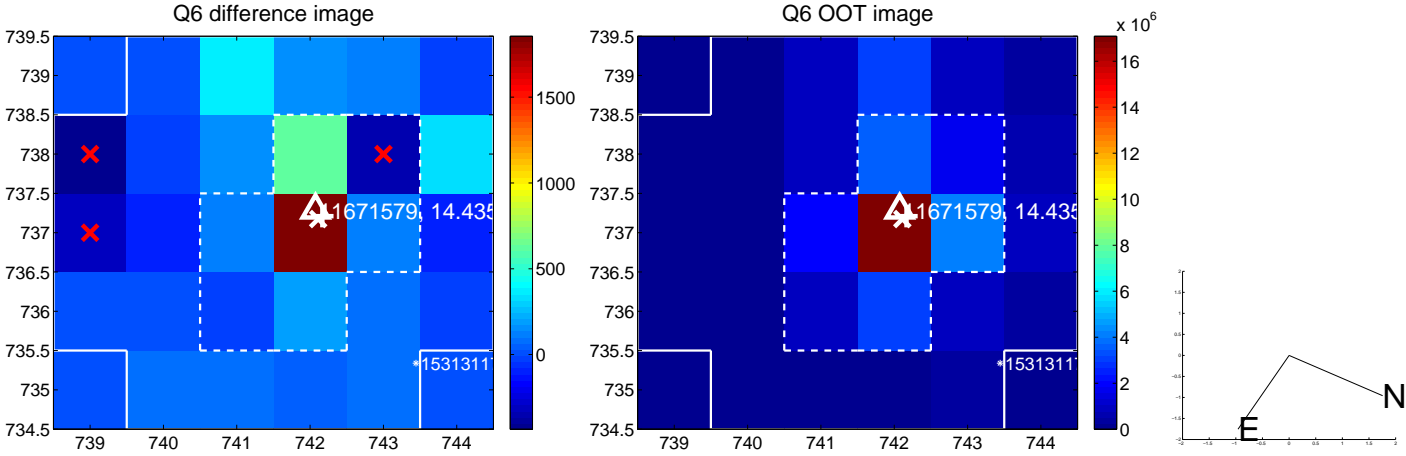
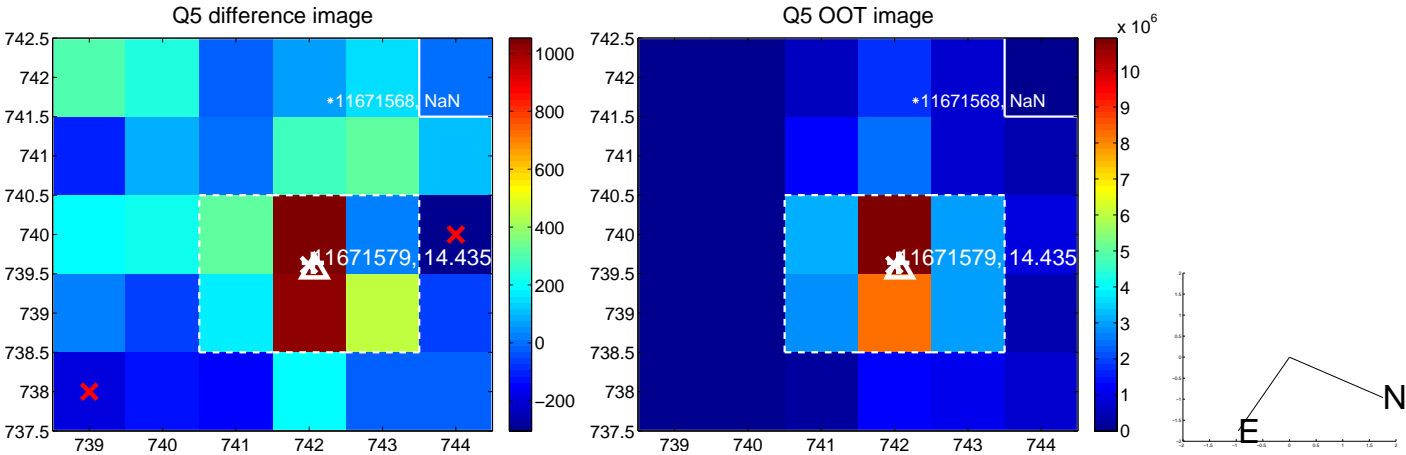


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

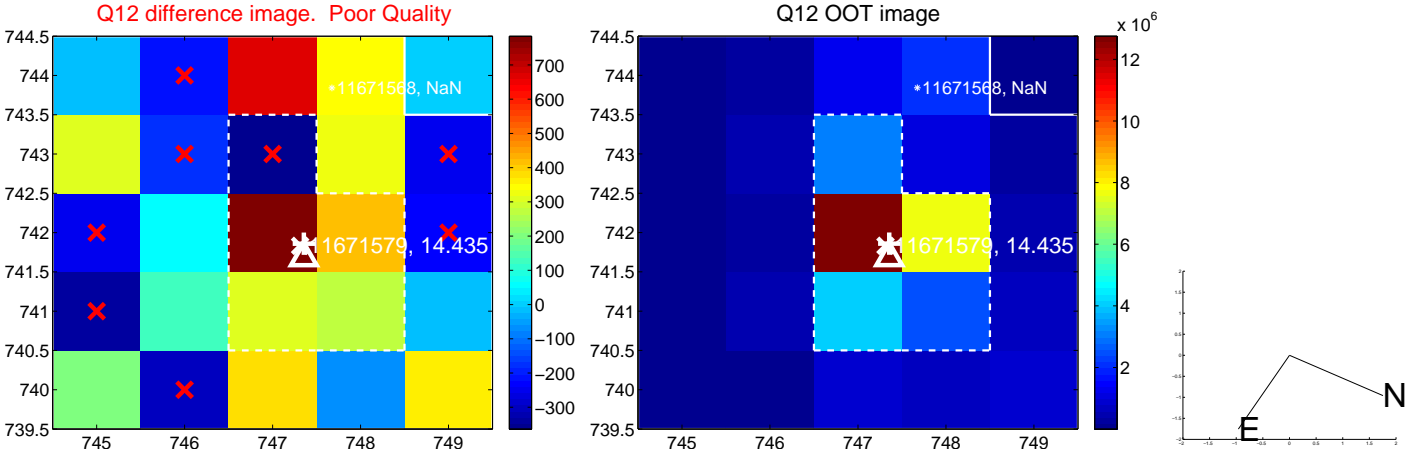
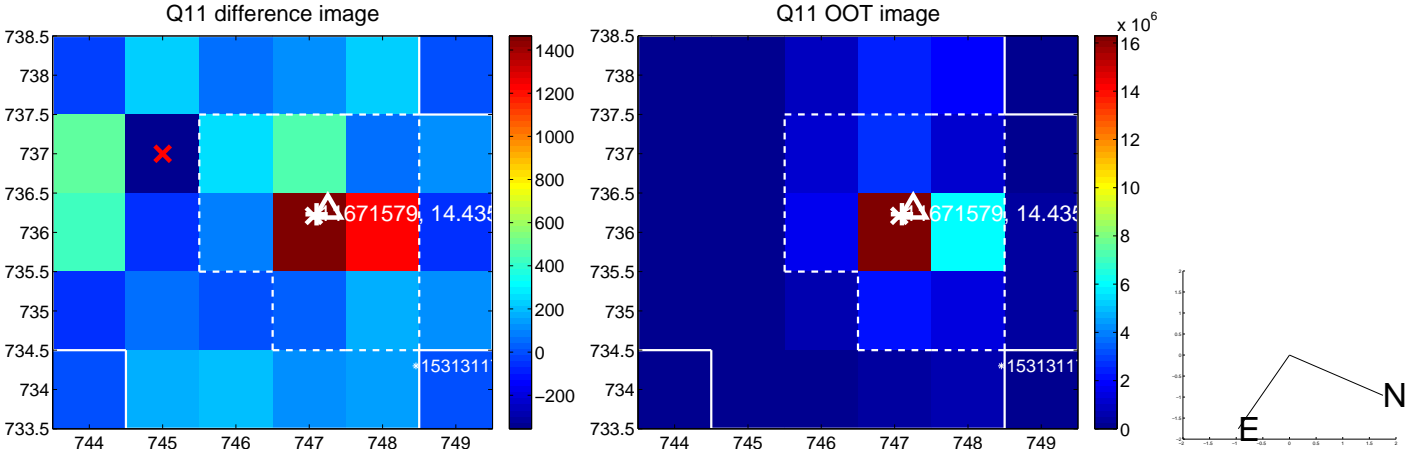
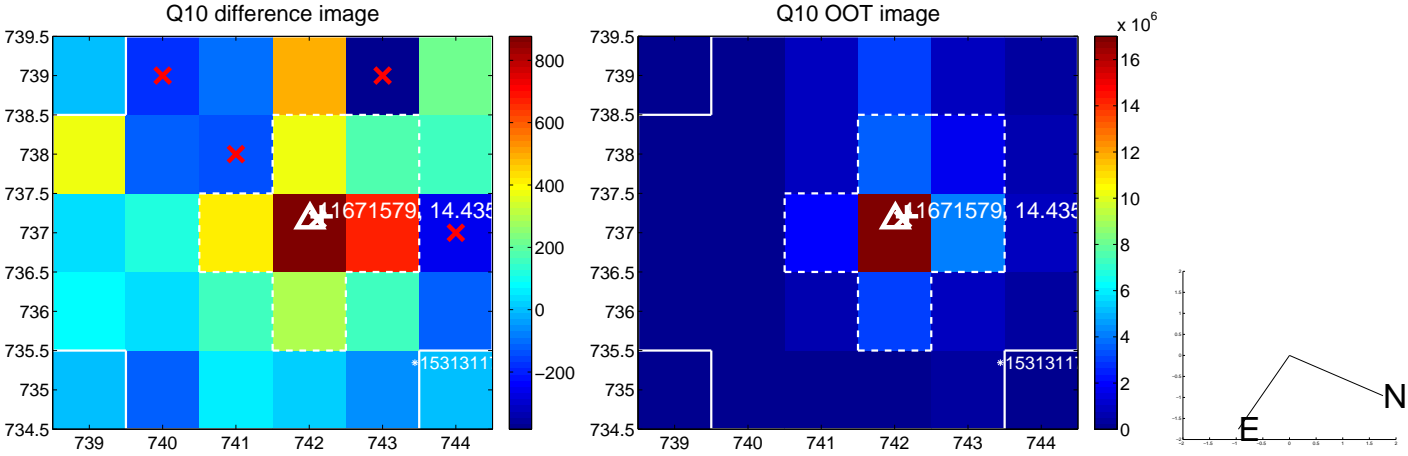
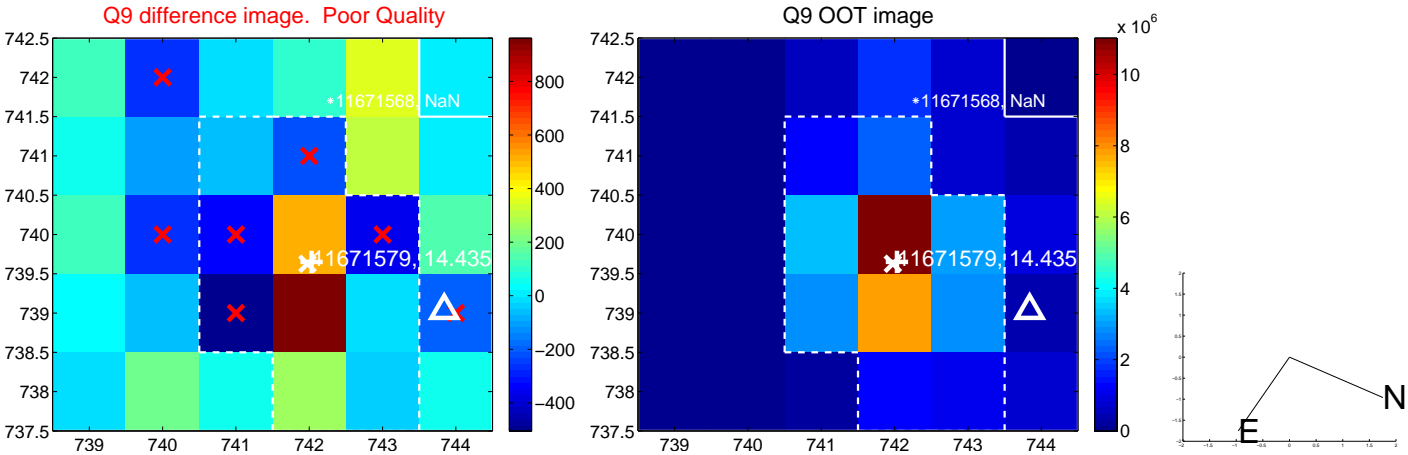
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



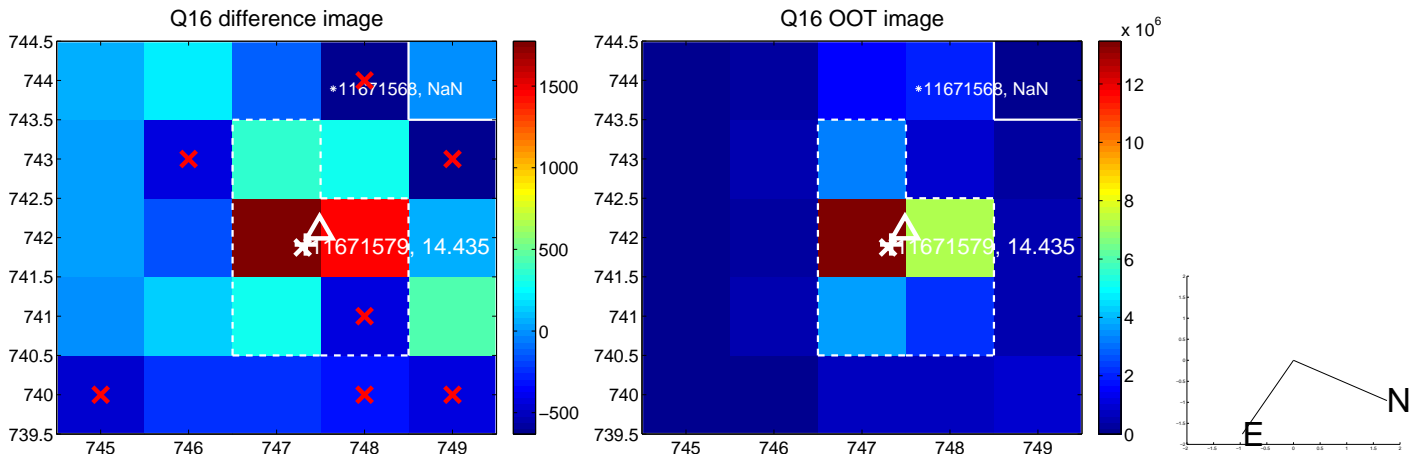
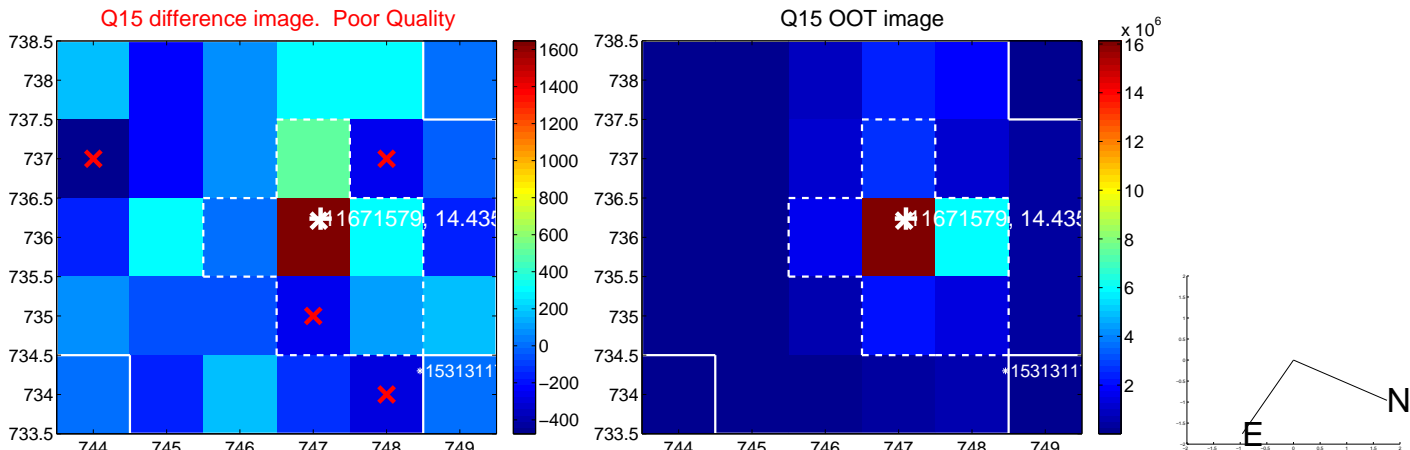
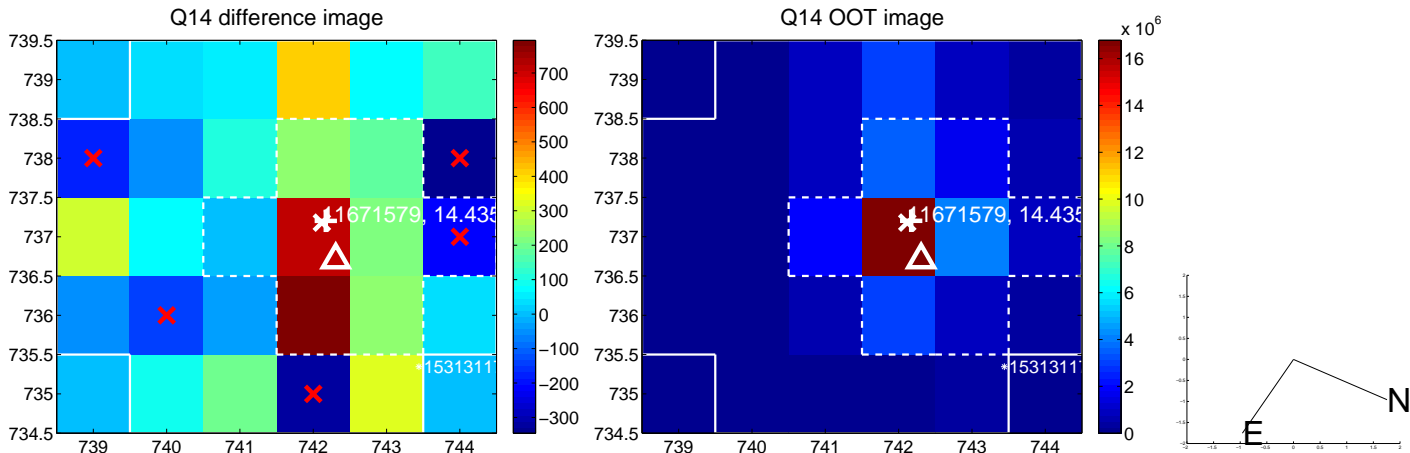
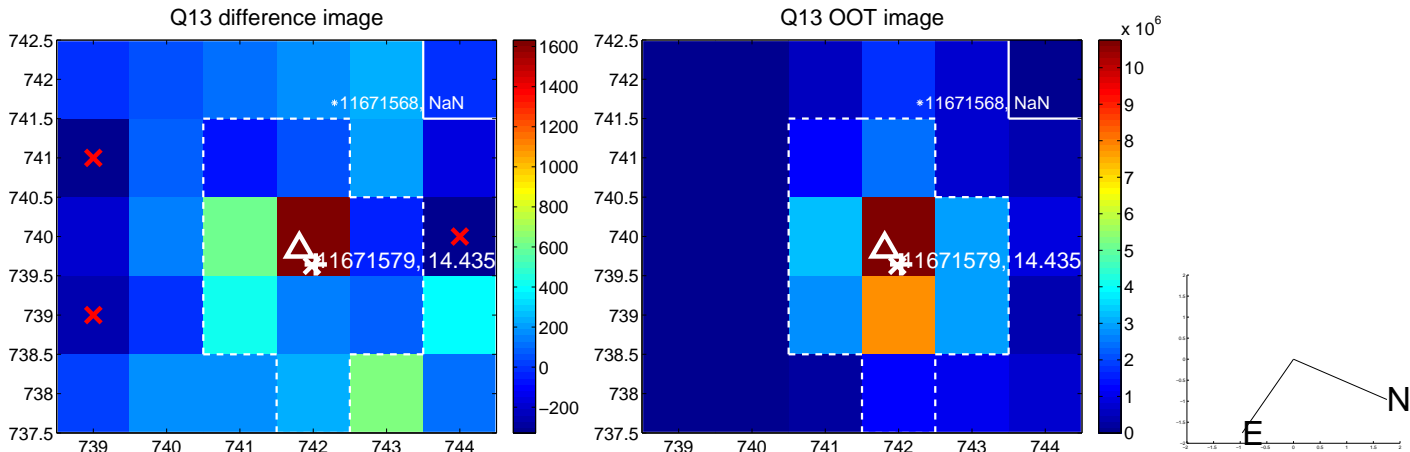
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



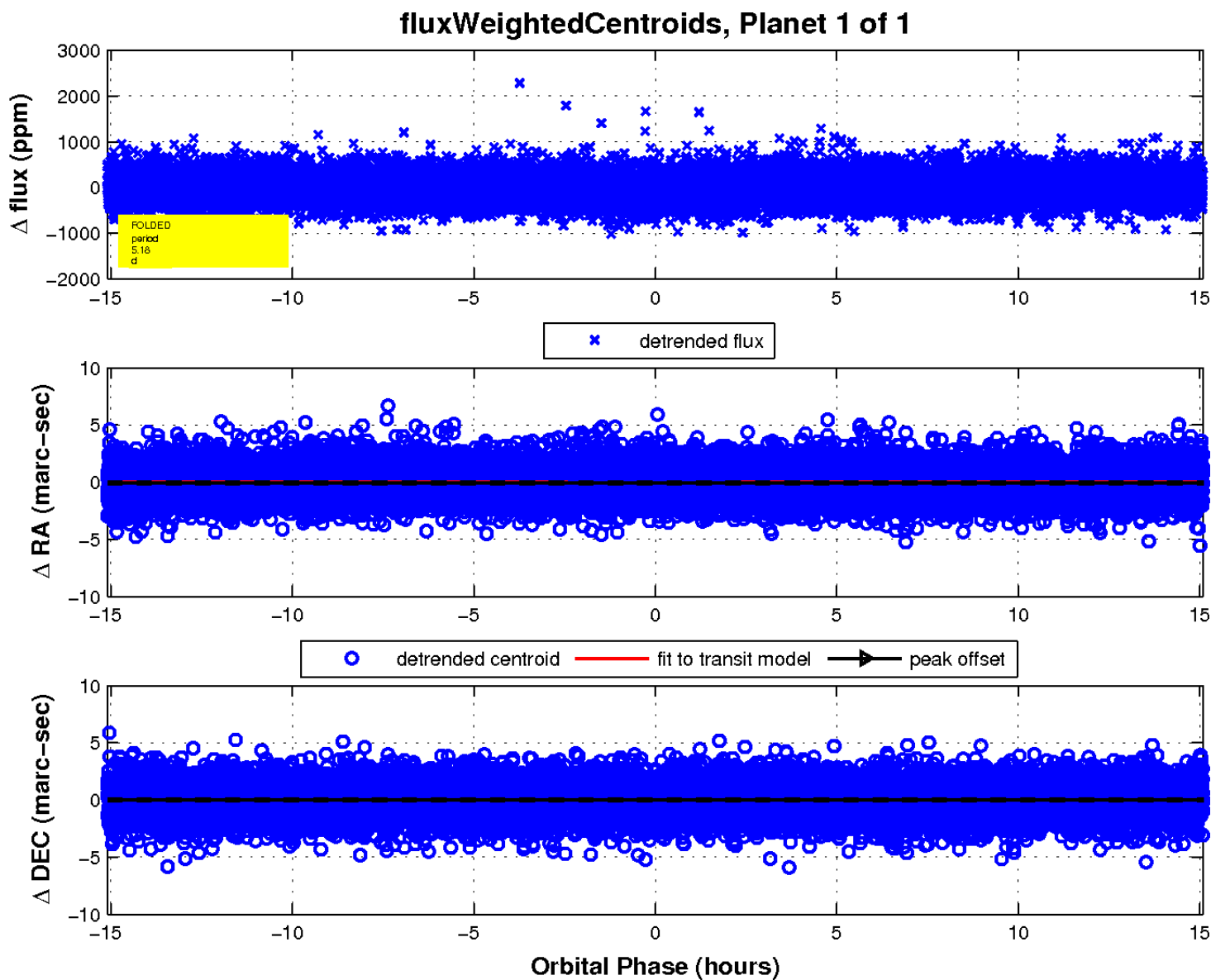
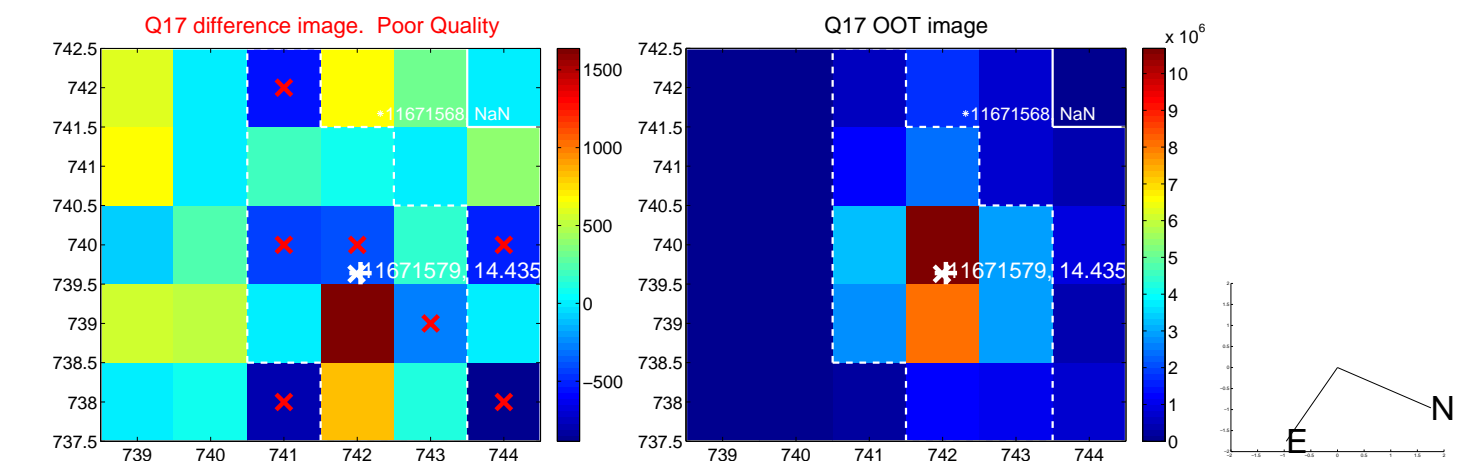
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

