

KIC 011241560

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})
011241560-01	OBS	7426.01	6.962029	135.544072	152.2	2.801	8.3	9.0	0.81	5008	1.17	86.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011241560-01	OBS	PC	1.00	0	0	0	0	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.

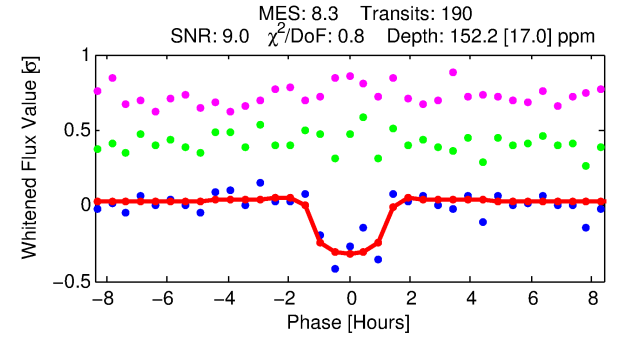
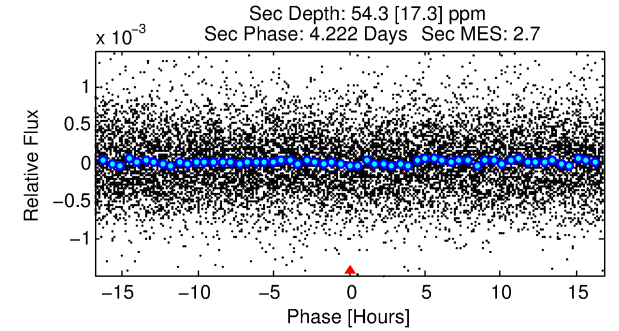
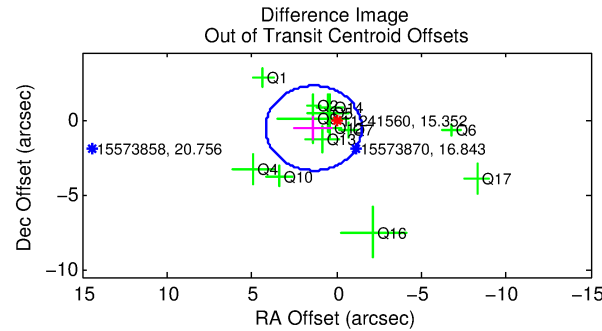
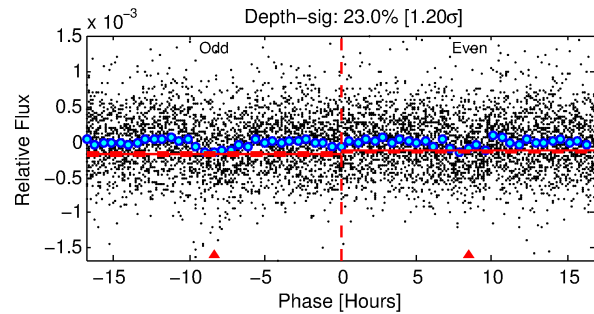
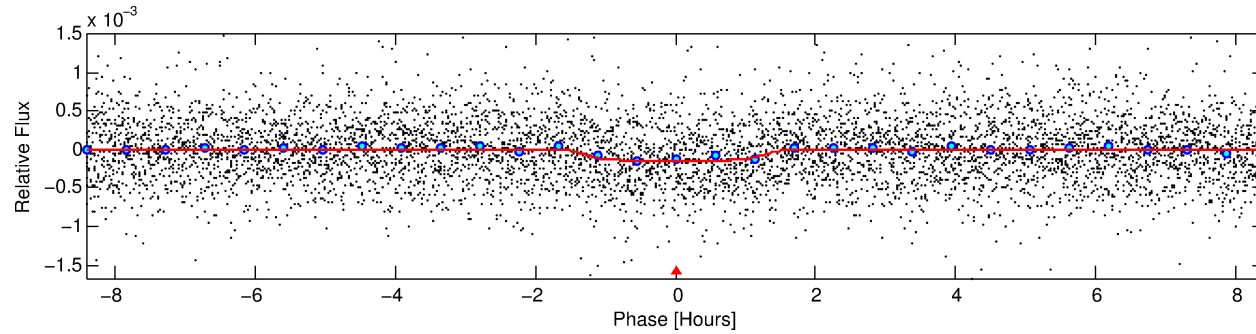
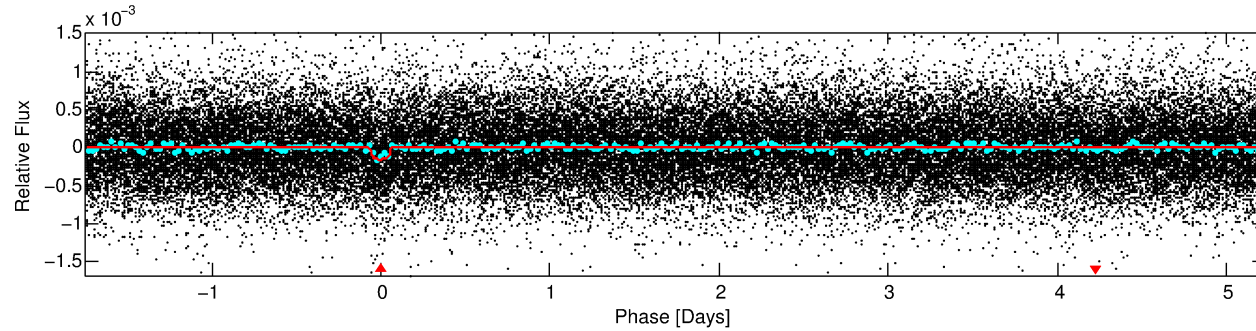
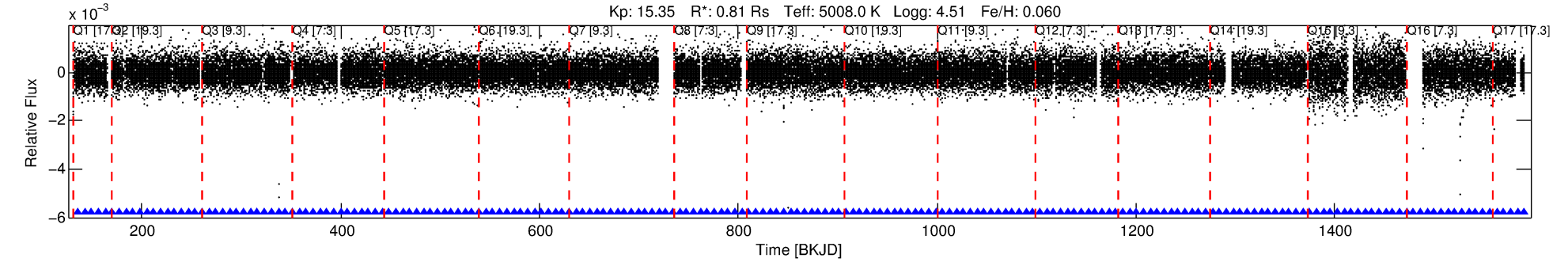
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011241560-01

No Significant Match Found

DV One-Page Summary

KIC: 11241560 Candidate: 1 of 1 Period: 6.962 d
KOI: K07426.01 Corr: 0.965



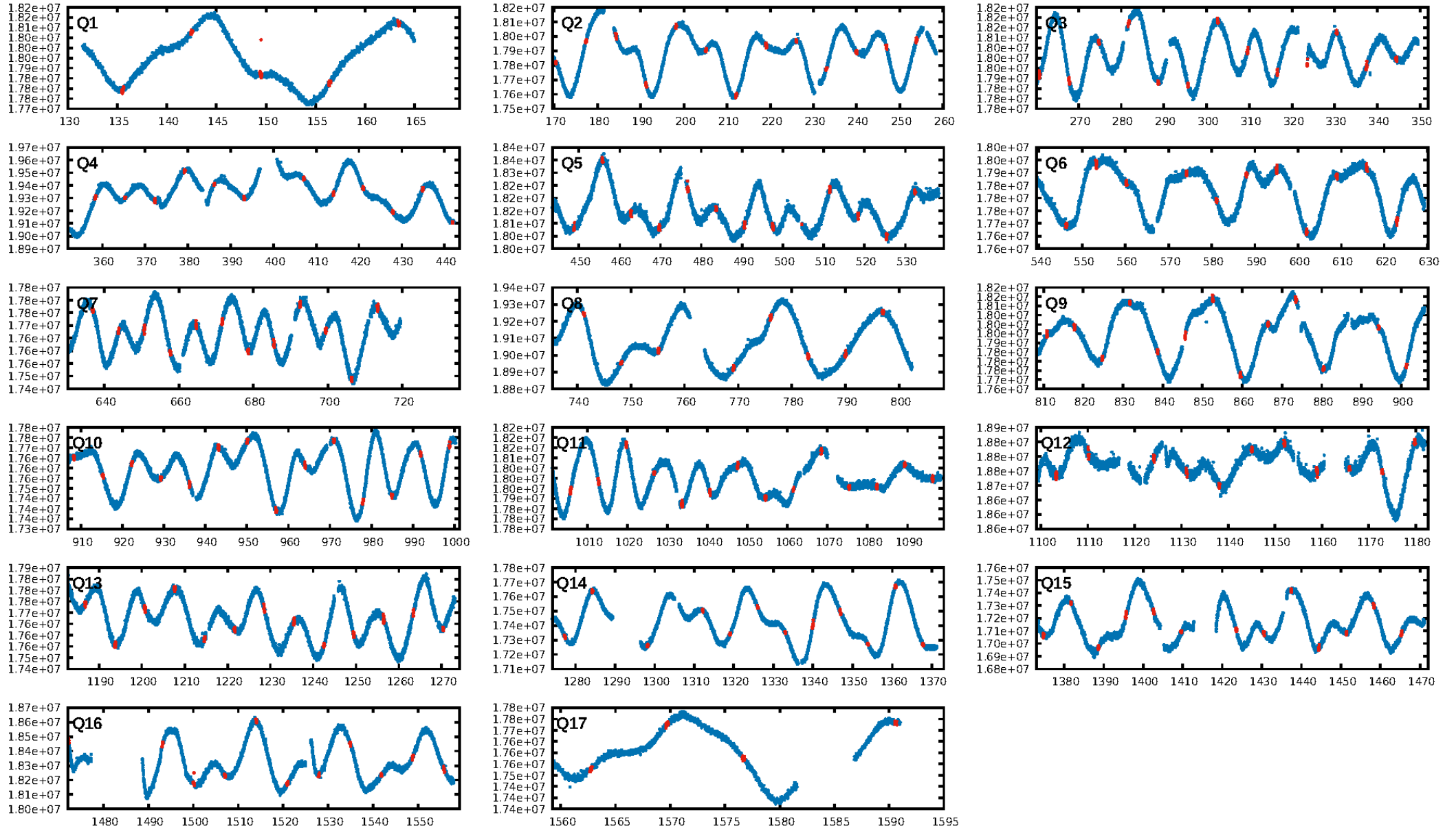
DV Fit Results:

Period = 6.96203 [0.00005] d
Epoch = 135.5441 [0.0057] BKJD
Rp/R* = 0.0132 [0.0119]
a/R* = 10.27 [34.79]
b = 0.86 [1.08]
Seff = 86.89 [17.38]
Teff = 779 [39] K
Rp = 1.17 [1.07] Re
a = 0.0656 [0.0066] AU
Ag = 93.16 [171.21] [0.54 σ]
Teffp = 3740 [1715] K [1.73 σ]

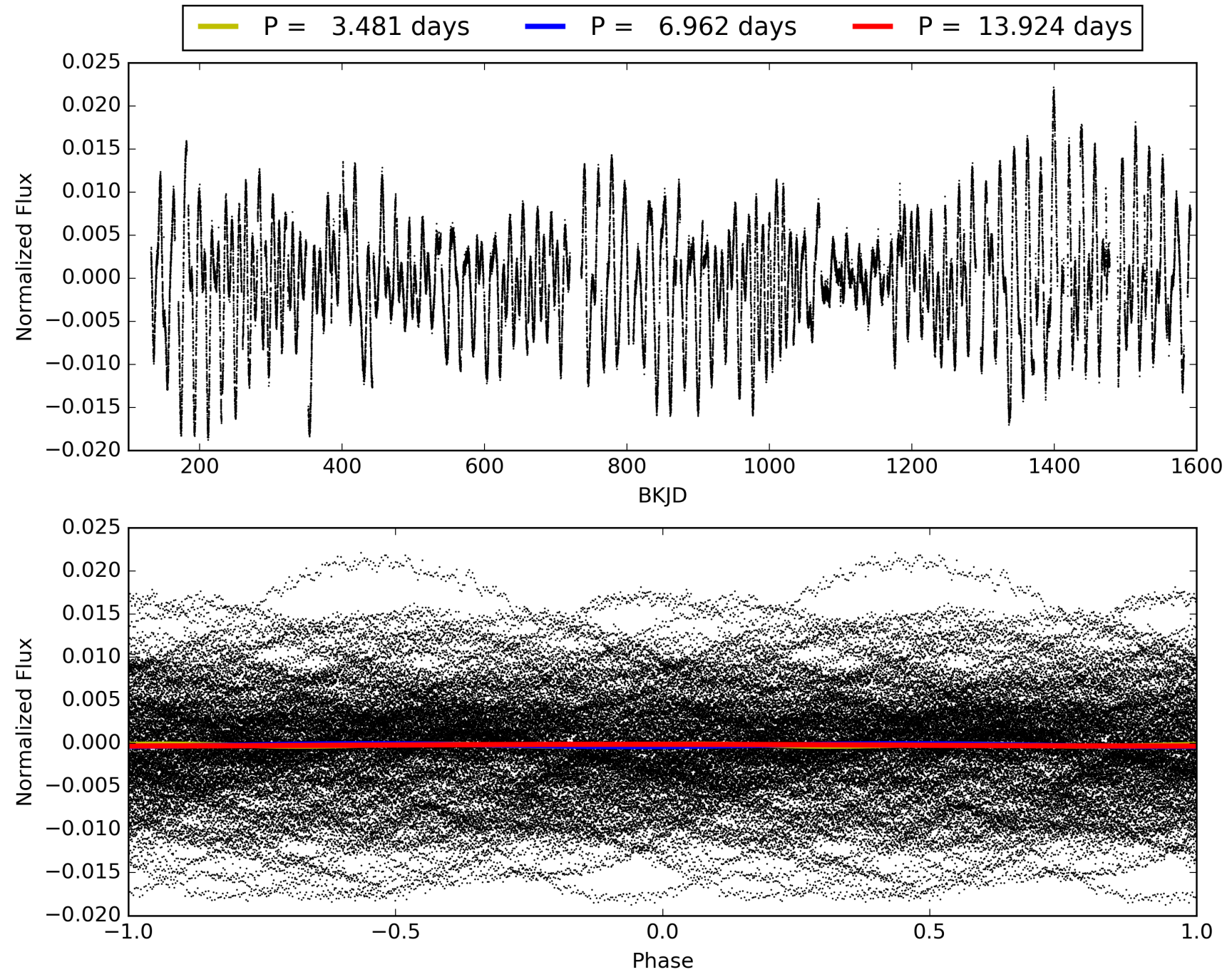
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.77e-16
RollingBand-fgt: 1.00 [181/181]
GhostDiagnostic-chr: -6.92
Centroid-sig: 15.4%
Centroid-so: 1.738 arcsec [1.32 σ]
OotOffset-rm: 1.464 arcsec [1.55 σ]
KicOffset-rm: 1.523 arcsec [1.64 σ]
OotOffset-st: 4/1/3/5 [13]
KicOffset-st: 4/1/3/5 [13]
DiffImageQuality-fgm: 0.38 [5/13]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011241560-01, PDC Light Curves

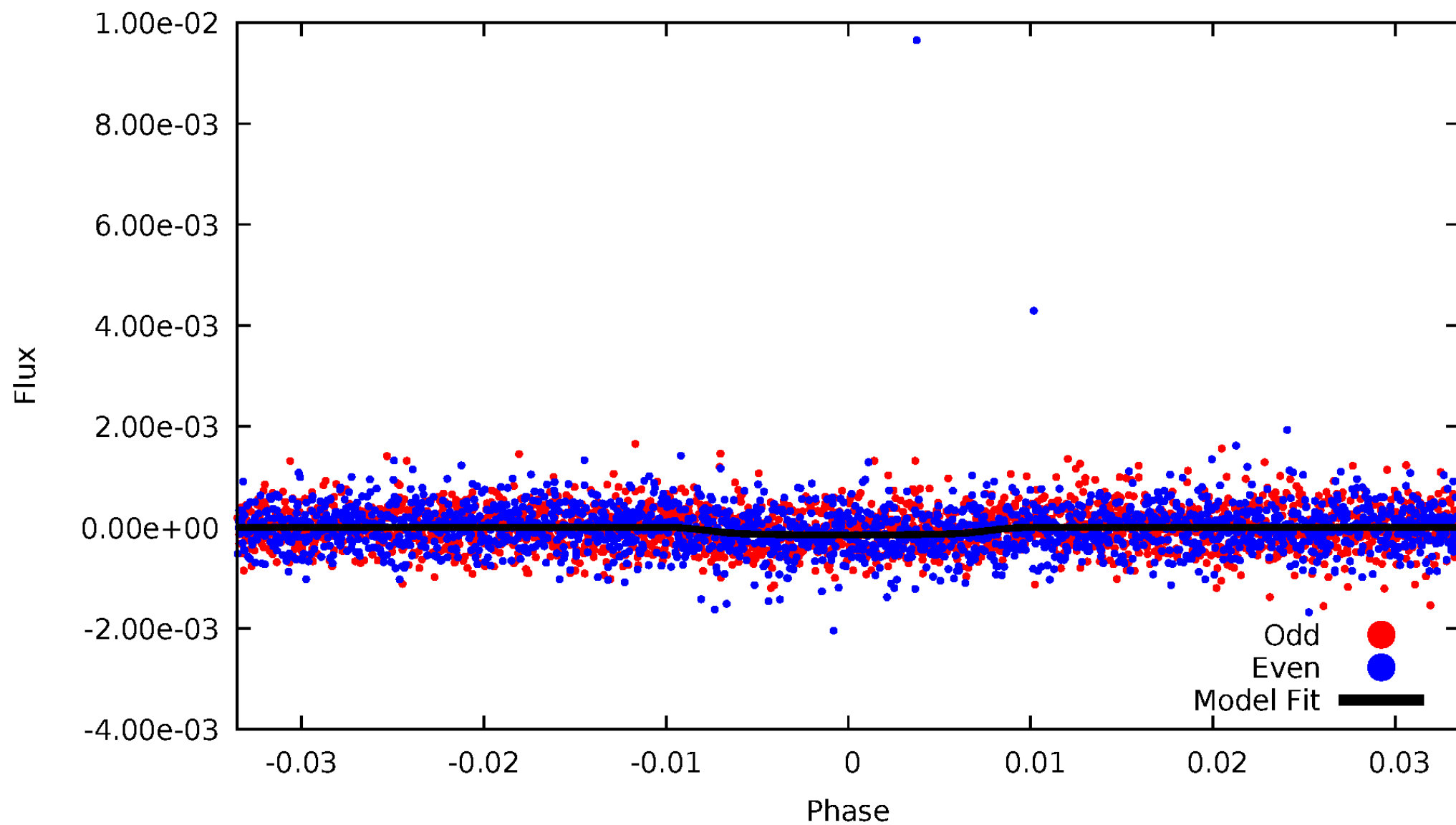


TCE 011241560-01



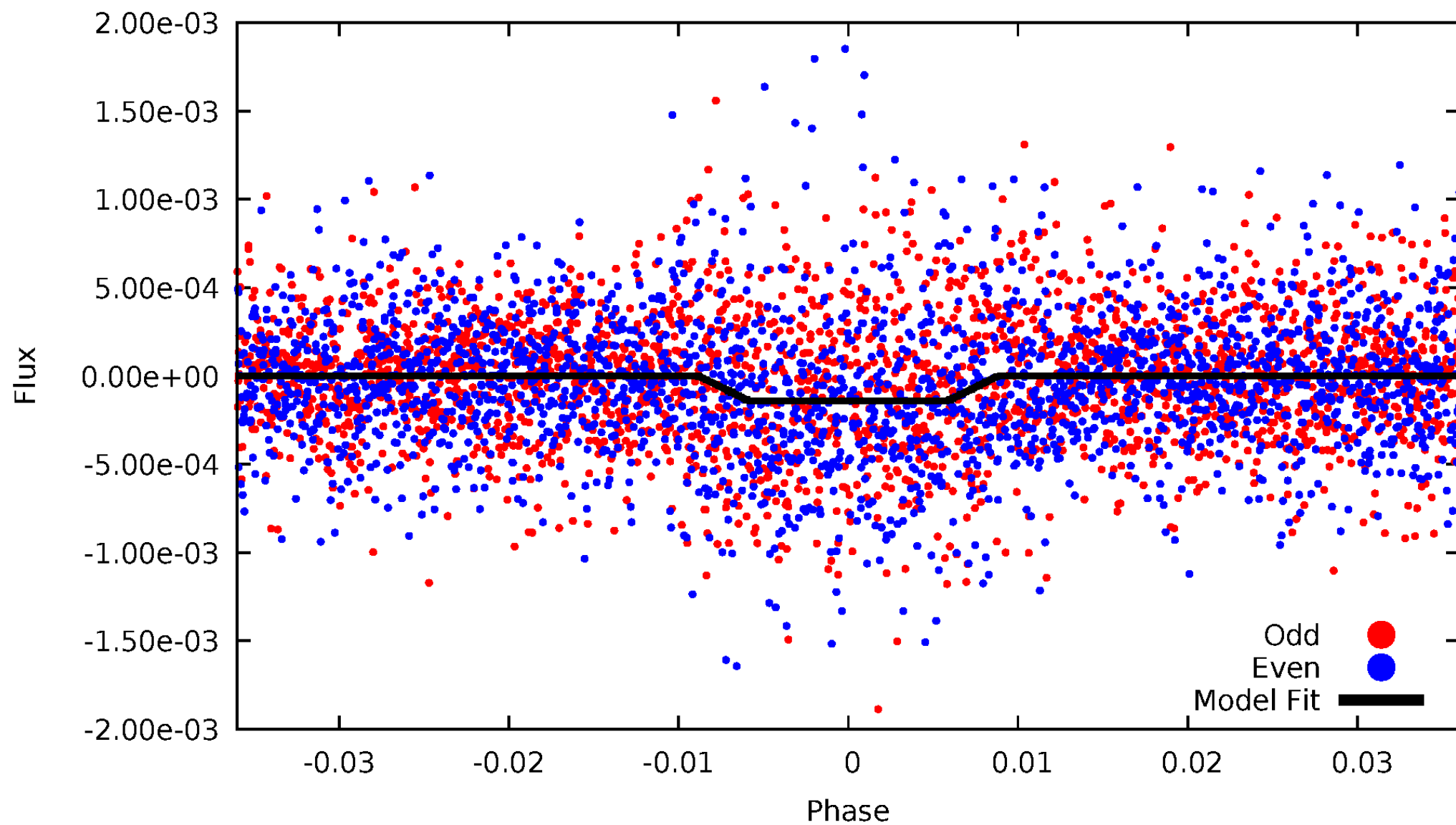
DV Odd/Even

TCE 011241560-01



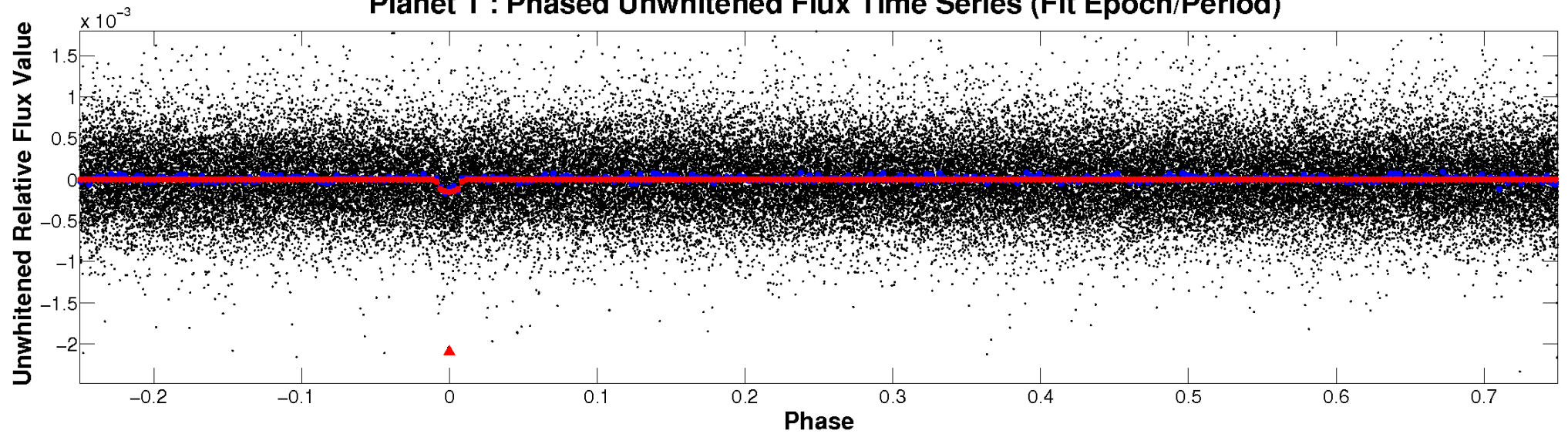
ALT Odd/Even

TCE 011241560-01

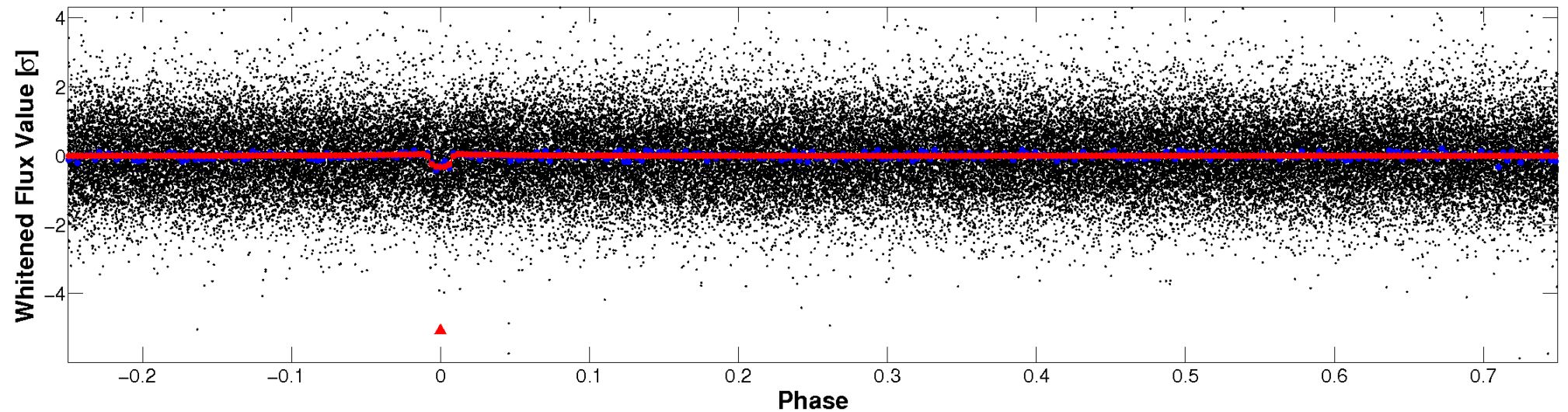


Non-Whitened Vs. Whitened Light Curve

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

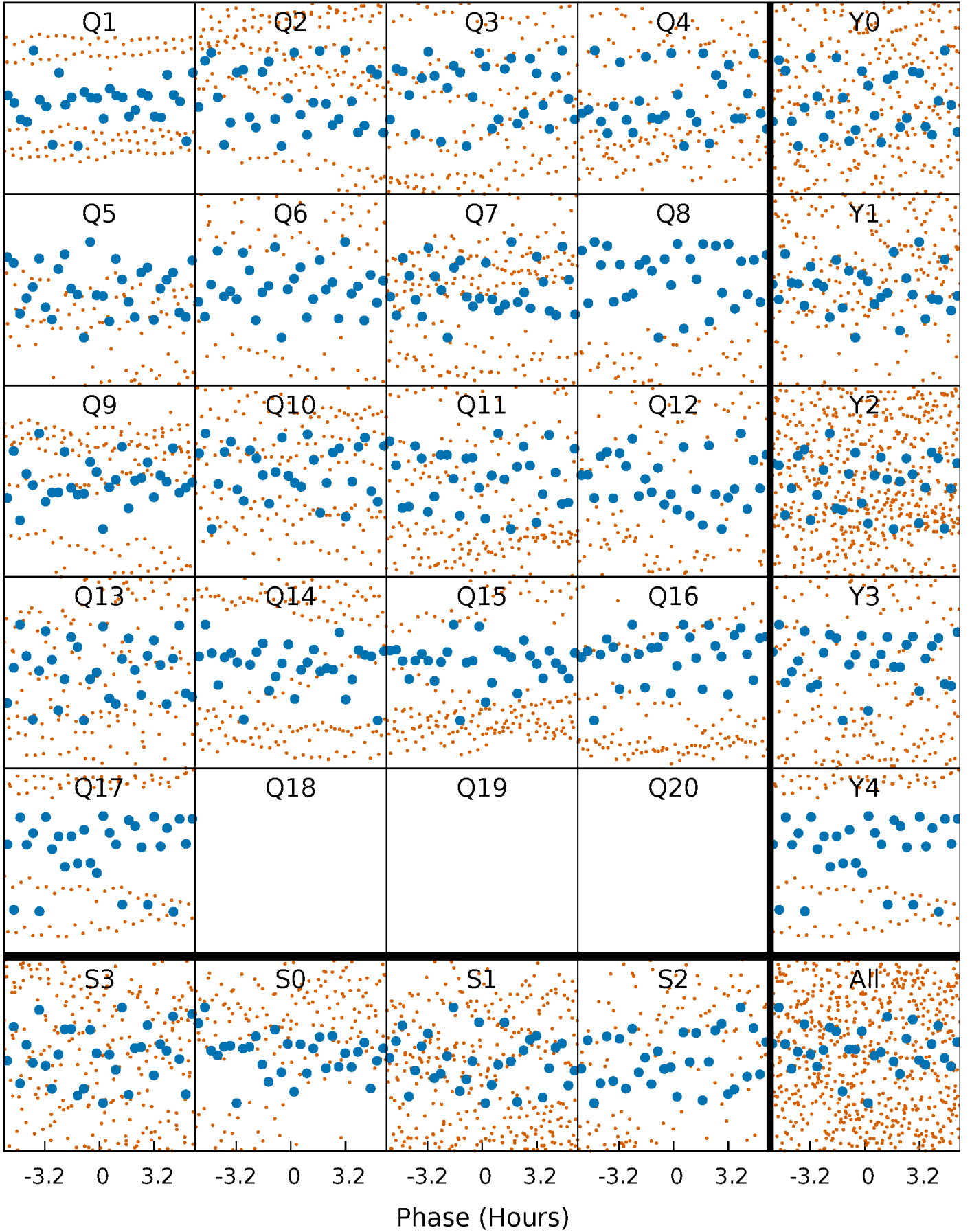


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



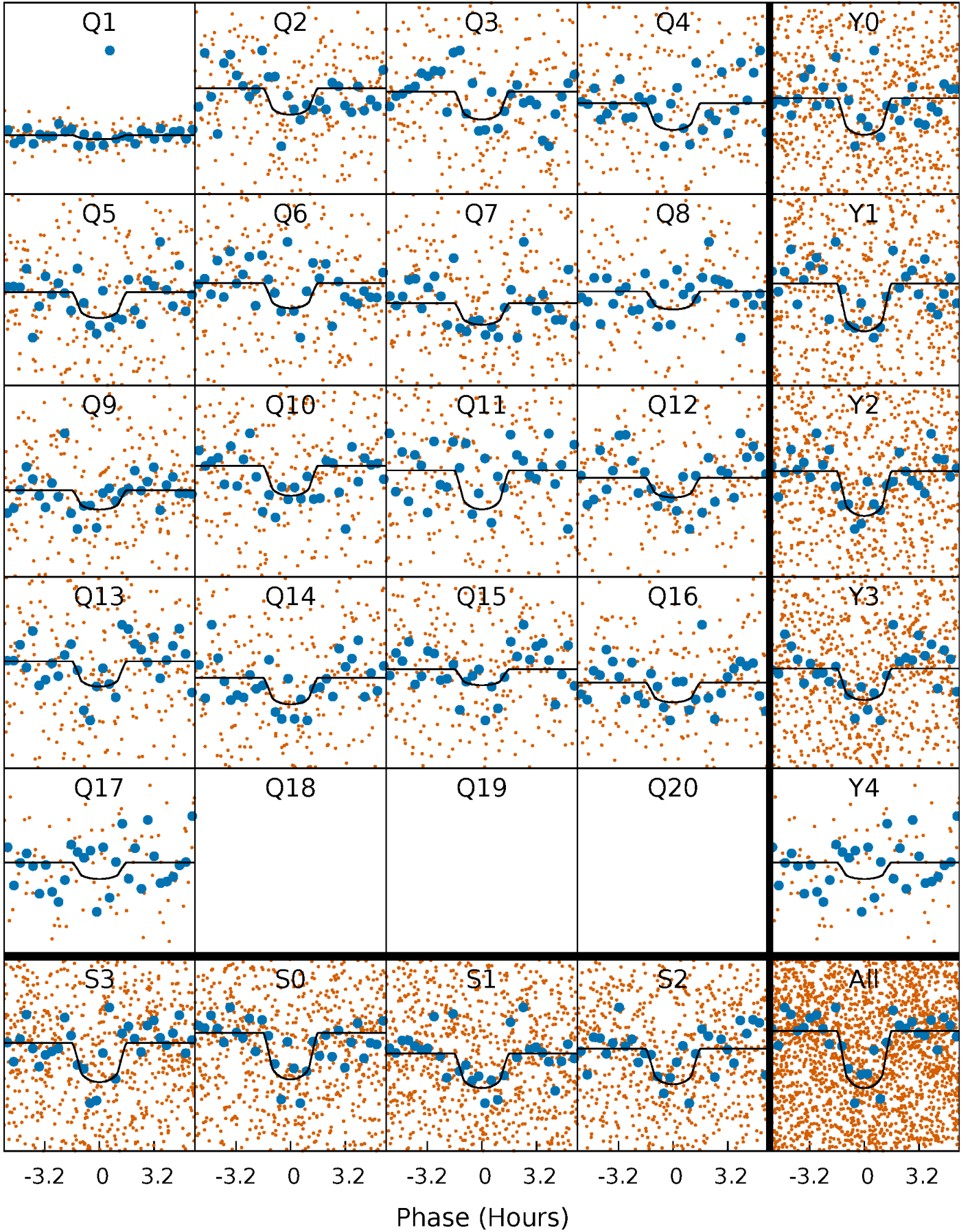
PDC Quarter-Phased Transit Curves

TCE 011241560-01 P= 6.962029 Days $T_0=135.544072$ (BKJD)



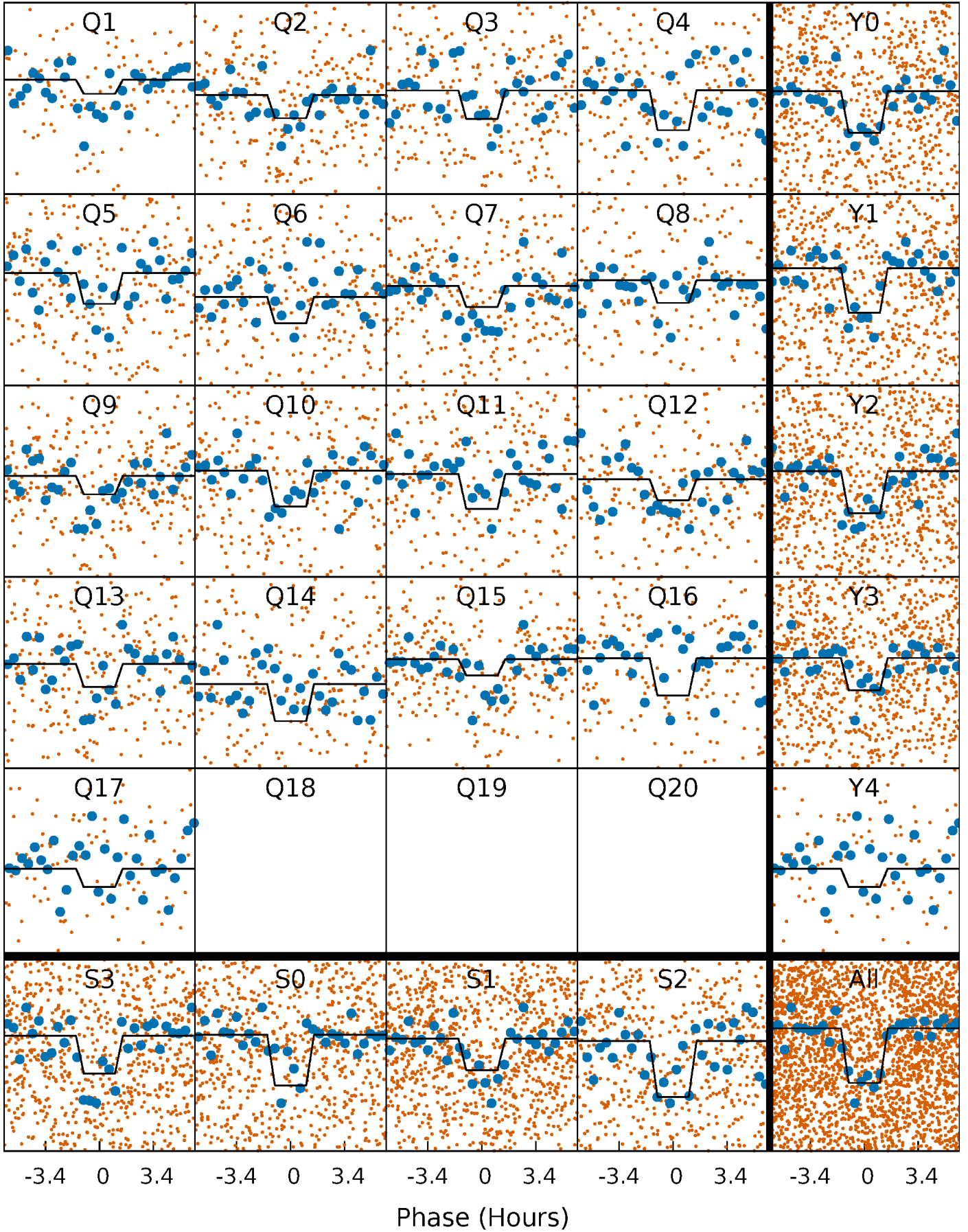
DV Quarter-Phased Transit Curves

TCE 011241560-01 P= 6.962029 Days $T_0=135.544072$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

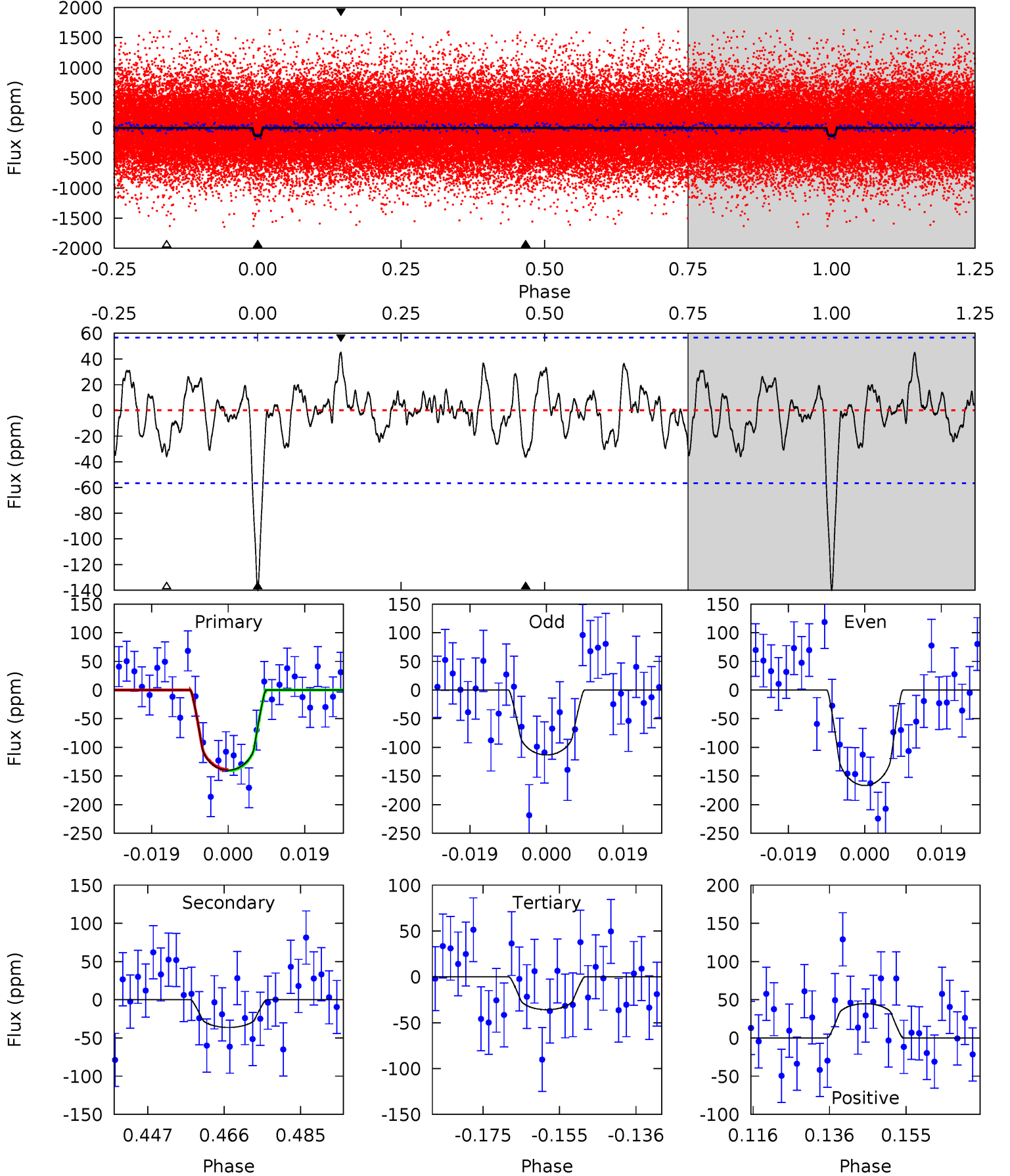
TCE 011241560-01 P= 6.961946 Days $T_0=135.553708$ (BKJD)



DV Model-Shift Uniqueness Test

011241560-01, P = 6.962029 Days, E = 128.582043 Days

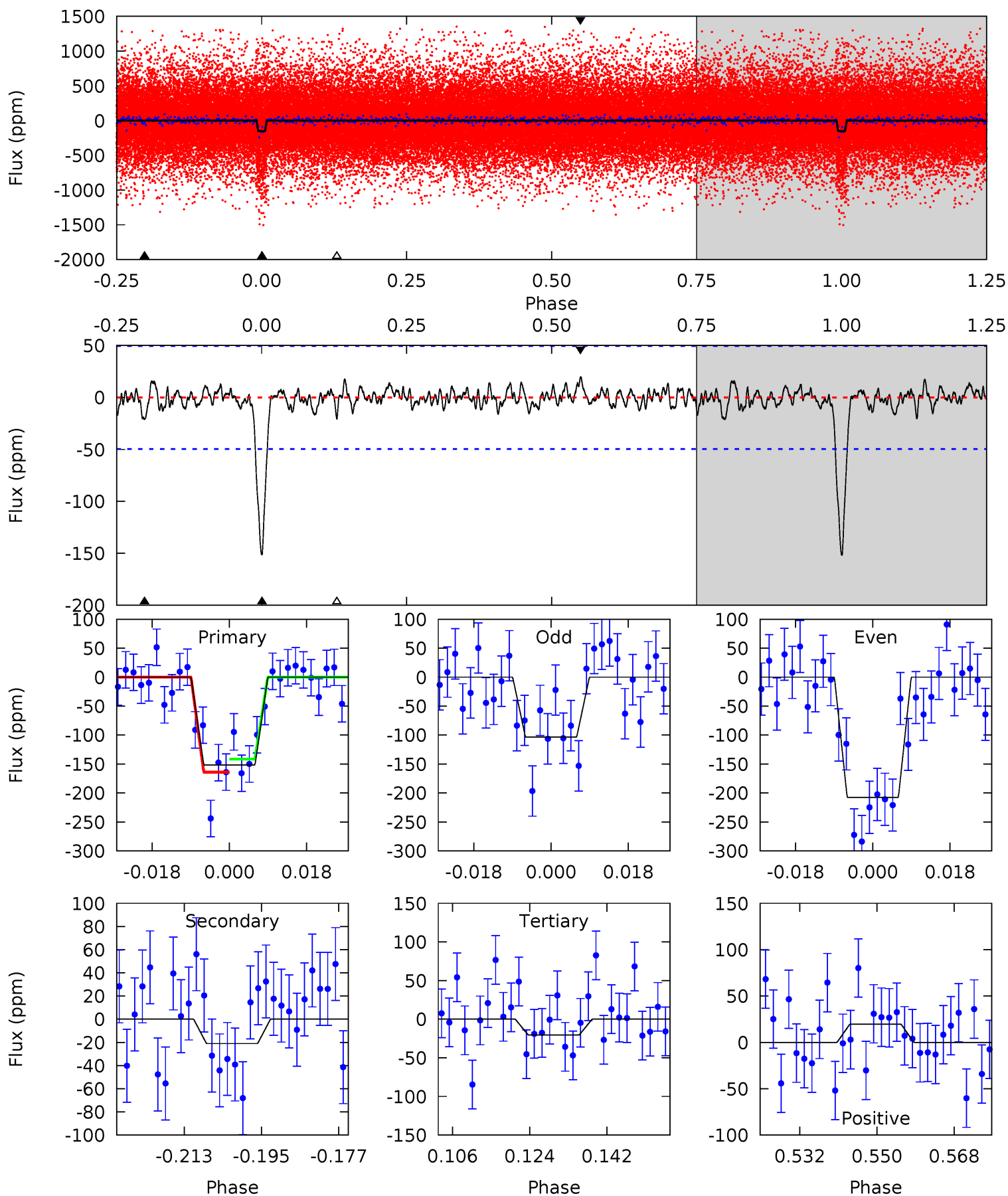
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	3.13	3.10	3.88	4.90	2.34	1.30	9.00	8.22	0.03	-0.75	2.31	0.93	0.24	0.09



Alt Model-Shift Uniqueness Test

011241560-01, P = 6.961946 Days, E = 128.591762 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.0	2.08	2.02	1.95	4.92	2.37	0.65	13.0	13.1	0.06	0.13	5.16	1.01	0.11	1.12



Stellar Parameters For KIC 011241560

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5008^{+151}_{-151}	$4.506^{+0.093}_{-0.085}$	$0.060^{+0.250}_{-0.300}$	$0.814^{+0.079}_{-0.087}$	$0.775^{+0.085}_{-0.057}$	$2.024^{+0.725}_{-0.450}$
	+3%/-3%	+2%/-2%	+417%/-500%	+10%/-11%	+11%/-7%	+36%/-22%
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 011241560-01 / KOI 7426.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-36 ± 12	$1.37^{+0.98}_{-0.79}$	1087^{+47}_{-43}	3514^{+1336}_{-529}	44^{+213}_{-29}
Alt.	-21 ± 10	$1.27^{+0.99}_{-0.74}$	1089^{+46}_{-47}	3287^{+1190}_{-572}	28^{+150}_{-20}

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 $A_{obs} \gg 1.0$

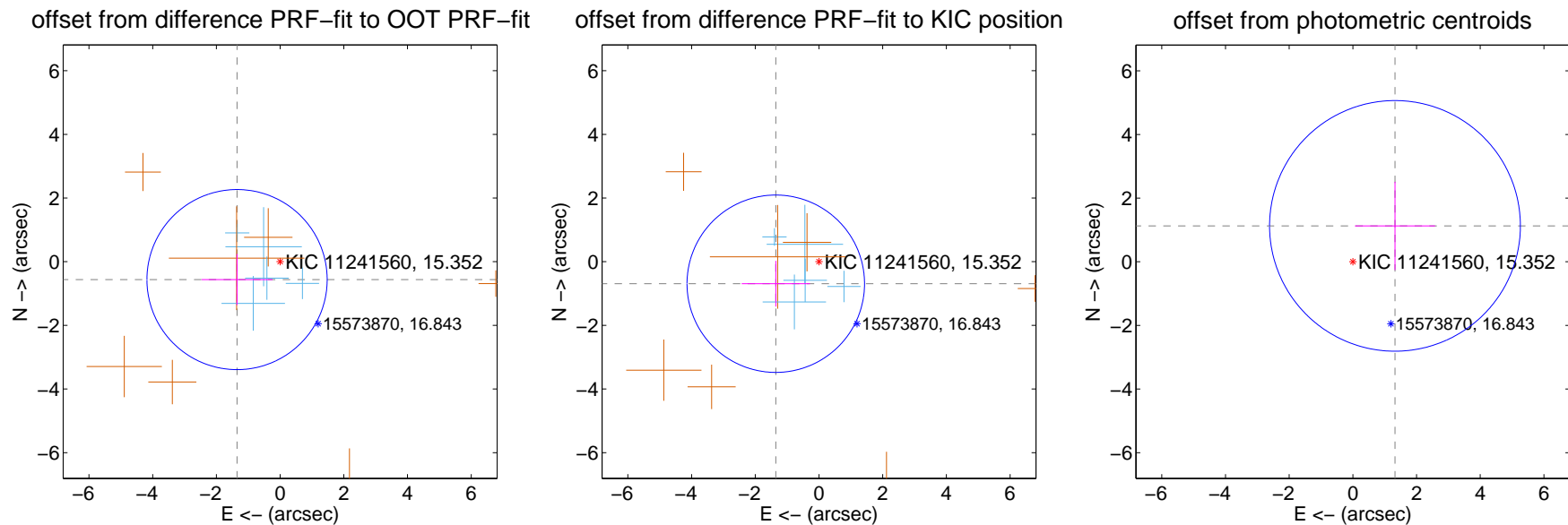
DV Centroid Data

Supplemental centroid analysis for 011241560-01. Kepler magnitude: 15.35. Transit SNR 8.96

There are 5 quarters with good PRF difference image offsets

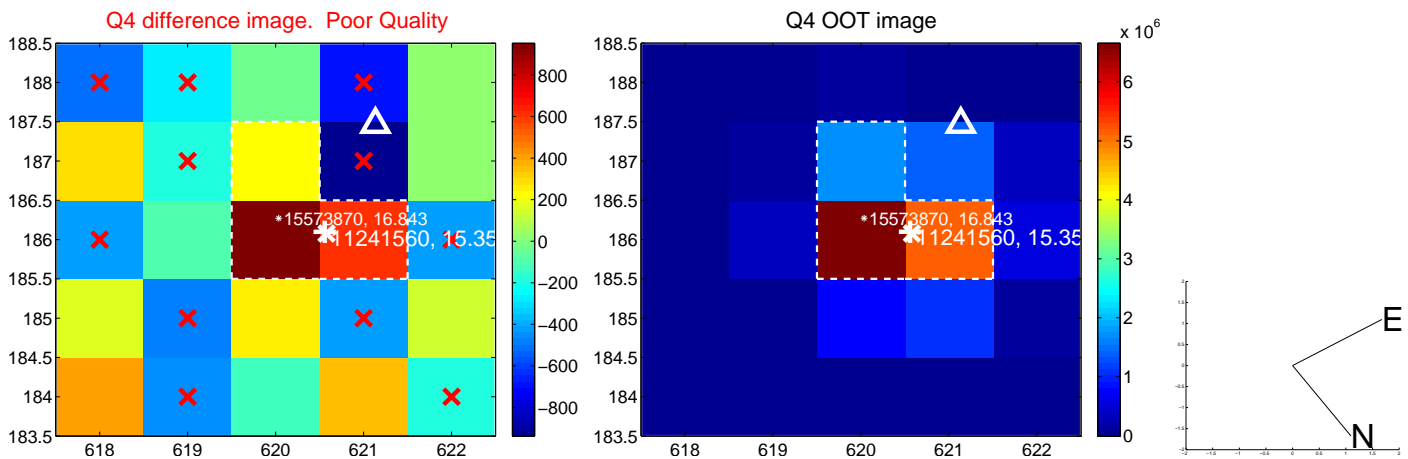
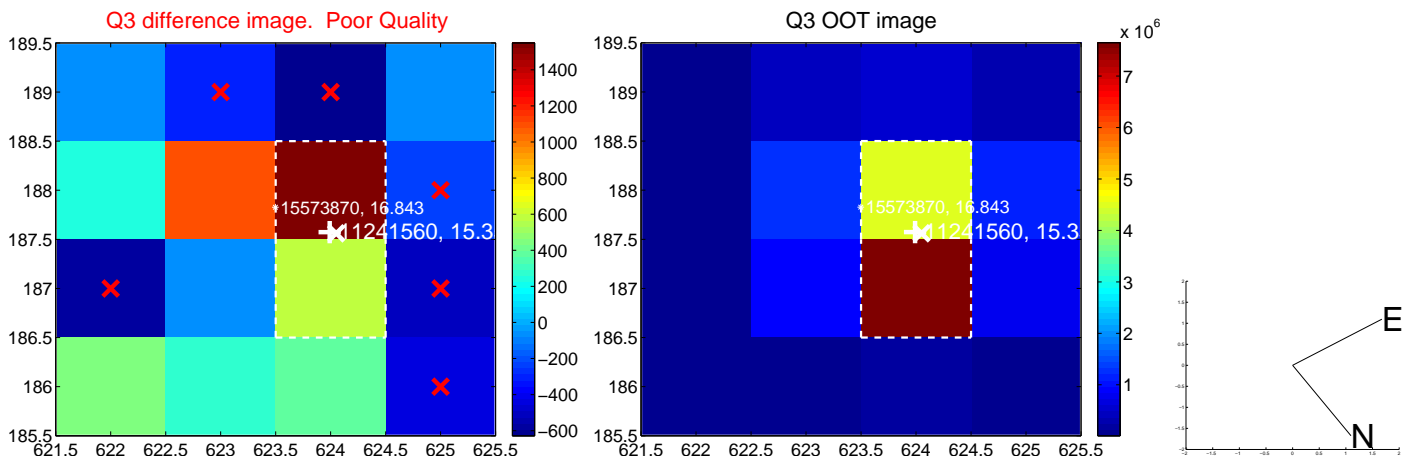
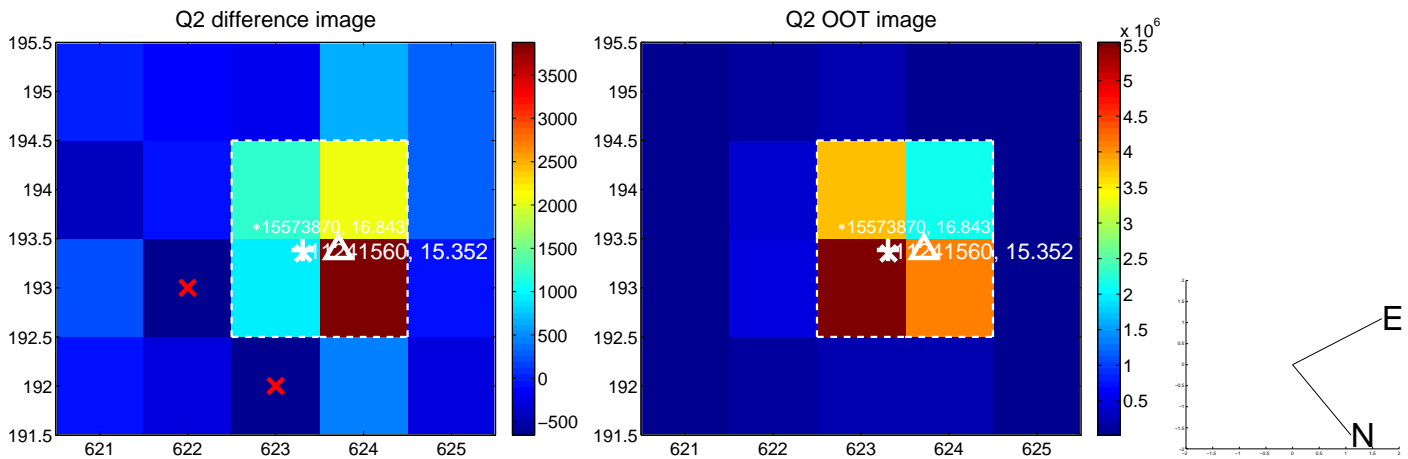
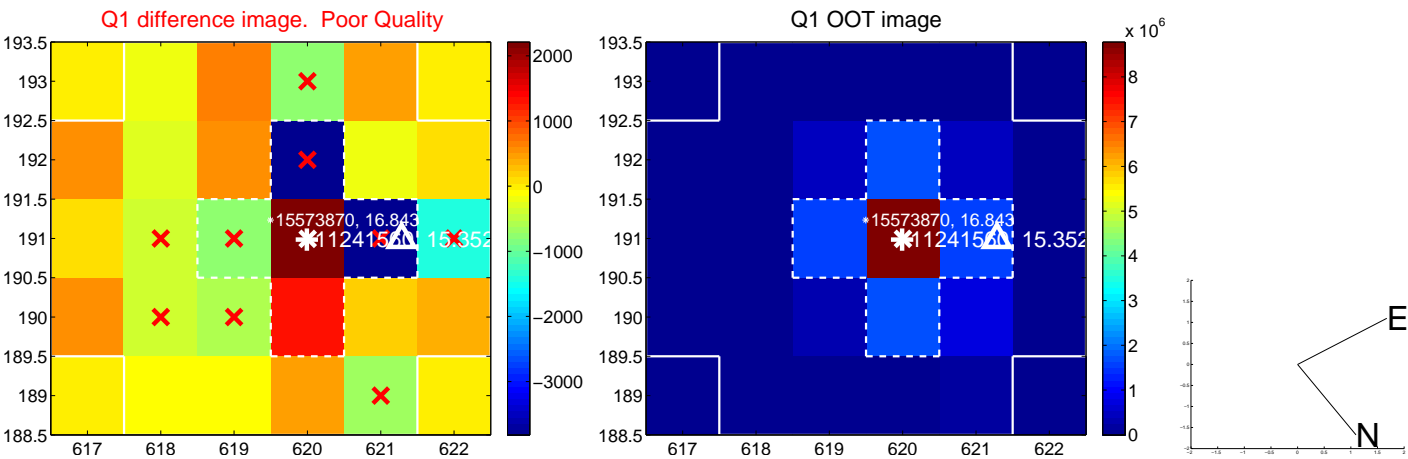
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.464 ± 0.943	1.55	1.352 ± 1.113	-0.562 ± 0.802
PRF-fit source offset from KIC position	1.523 ± 0.929	1.64	1.357 ± 1.070	-0.692 ± 0.718
photometric centroid source offset	1.74 ± 1.31	1.32	-1.32 ± 1.26	1.13 ± 1.39

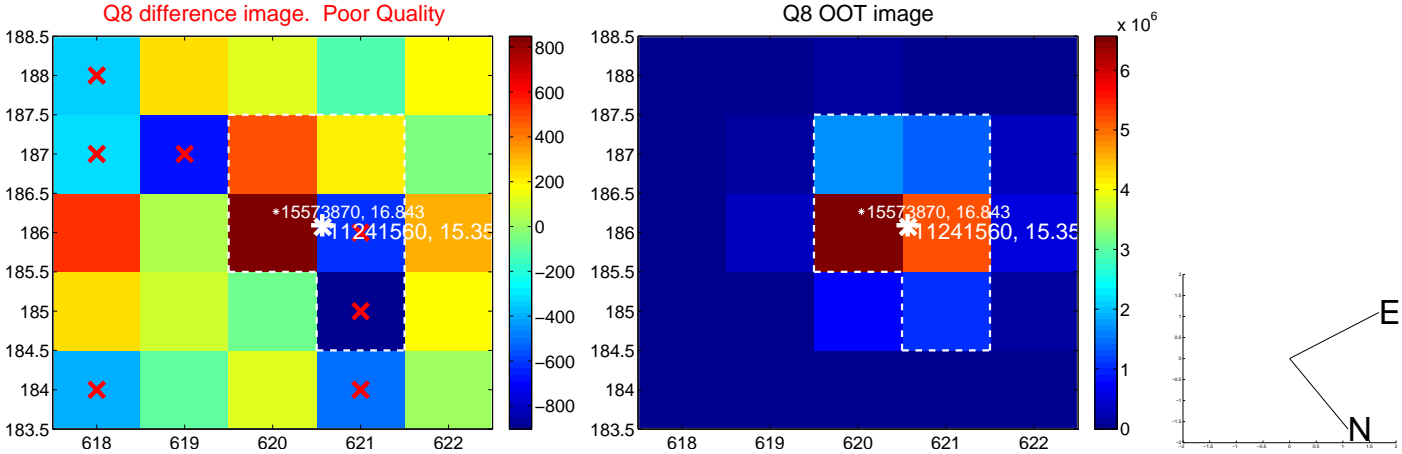
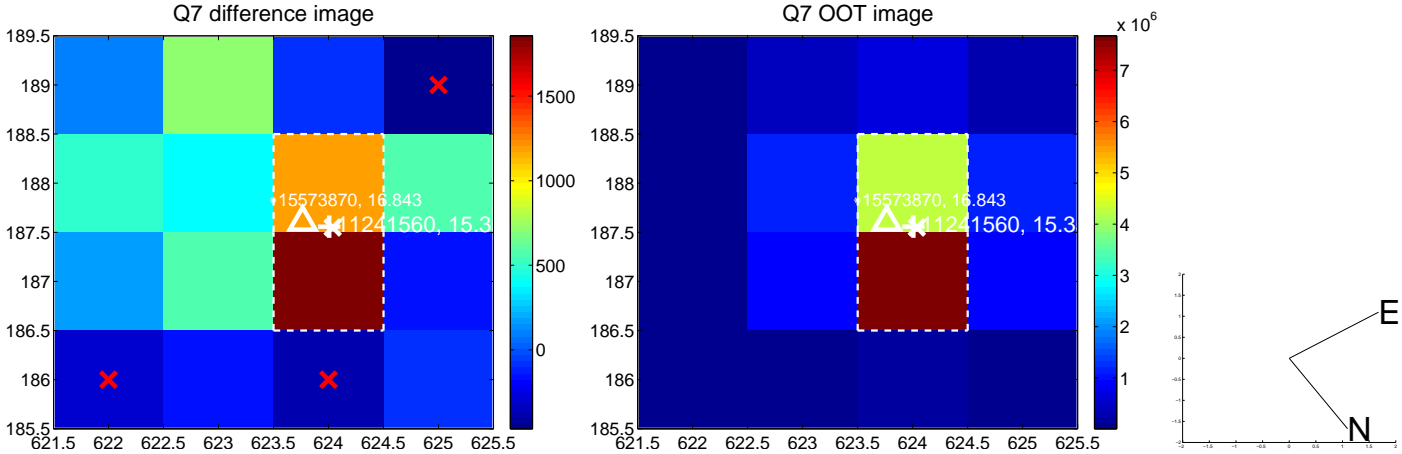
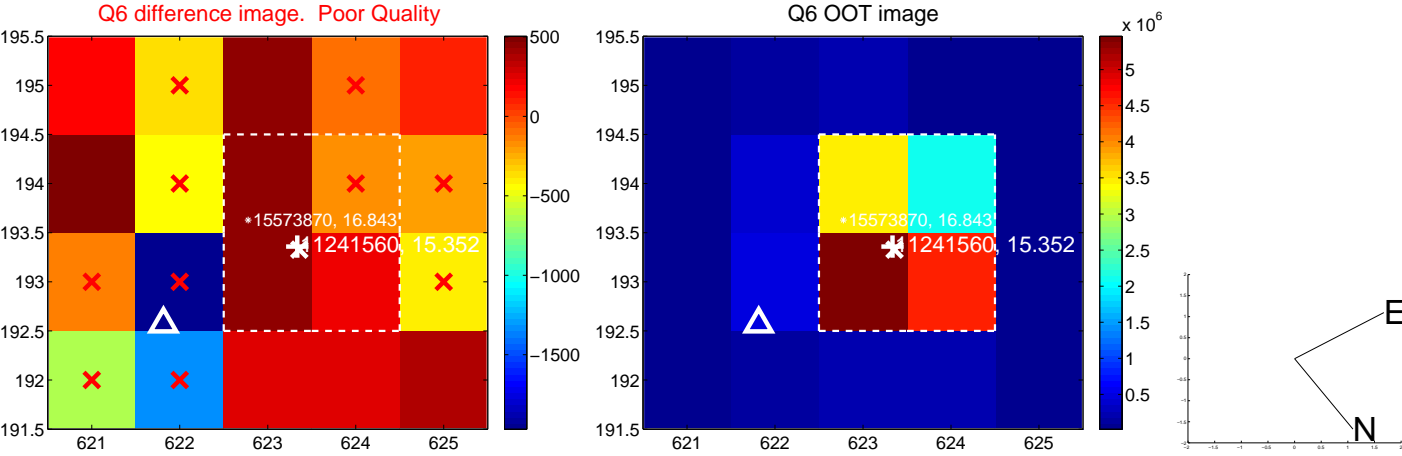
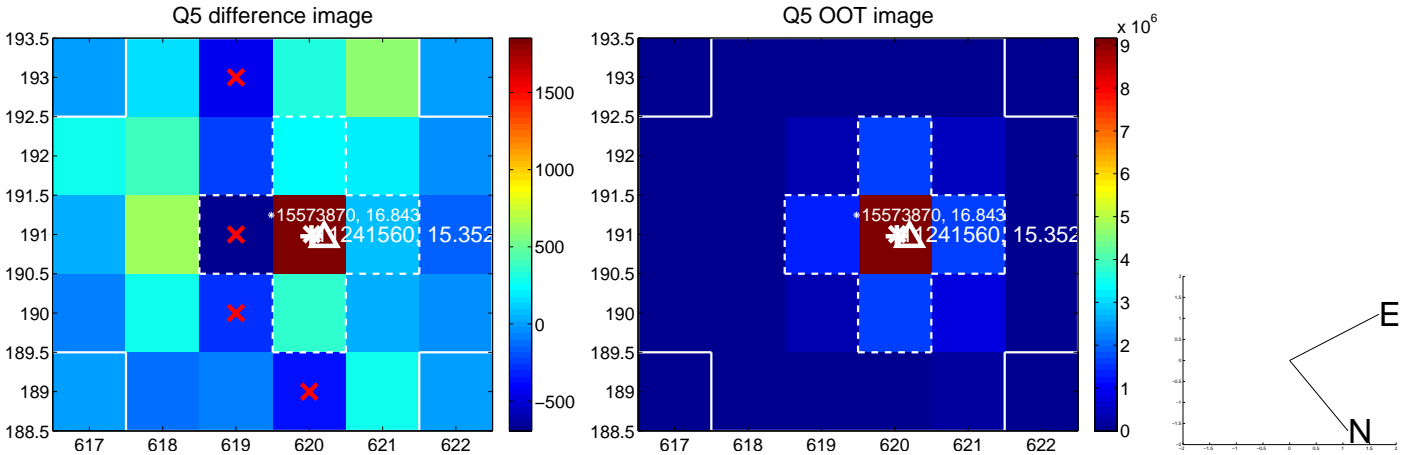


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

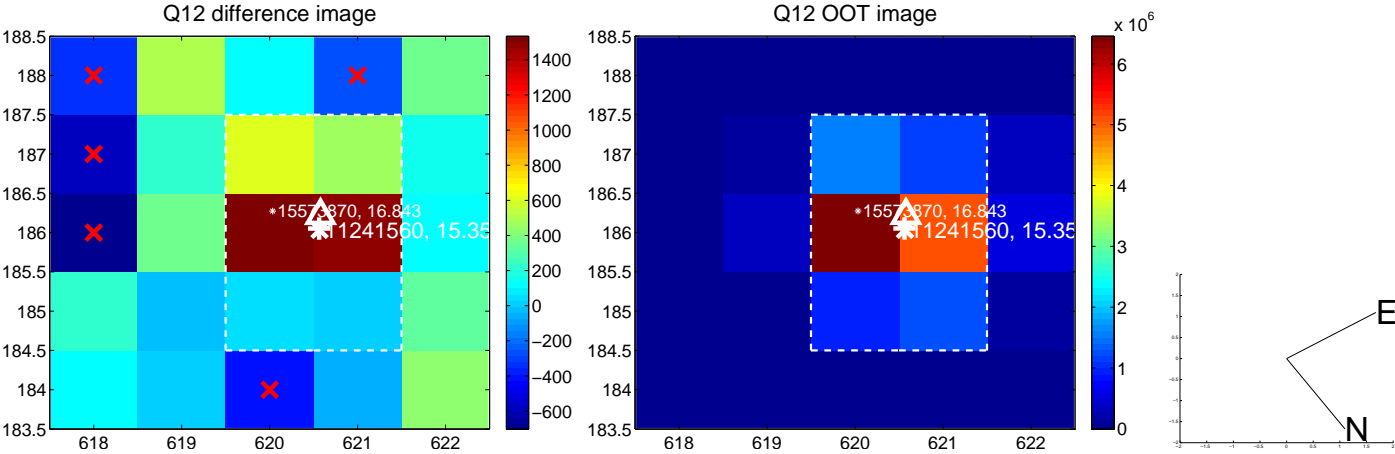
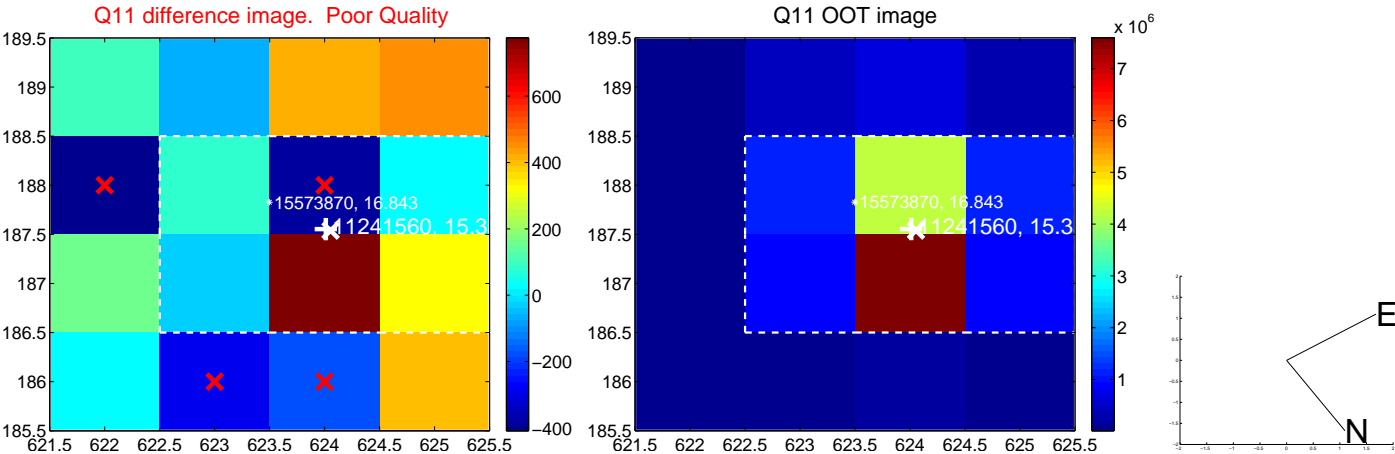
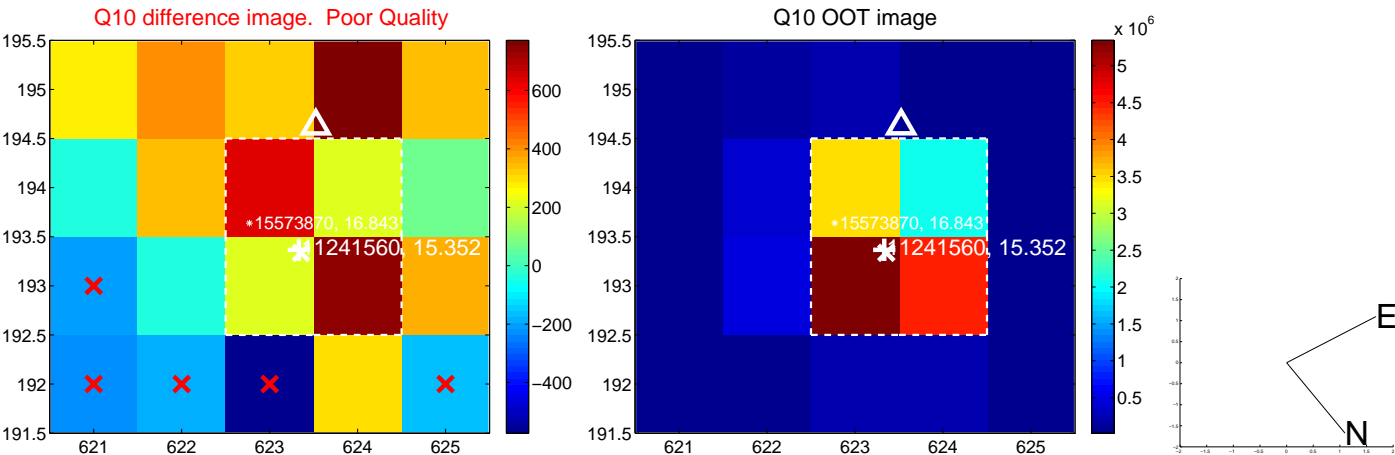
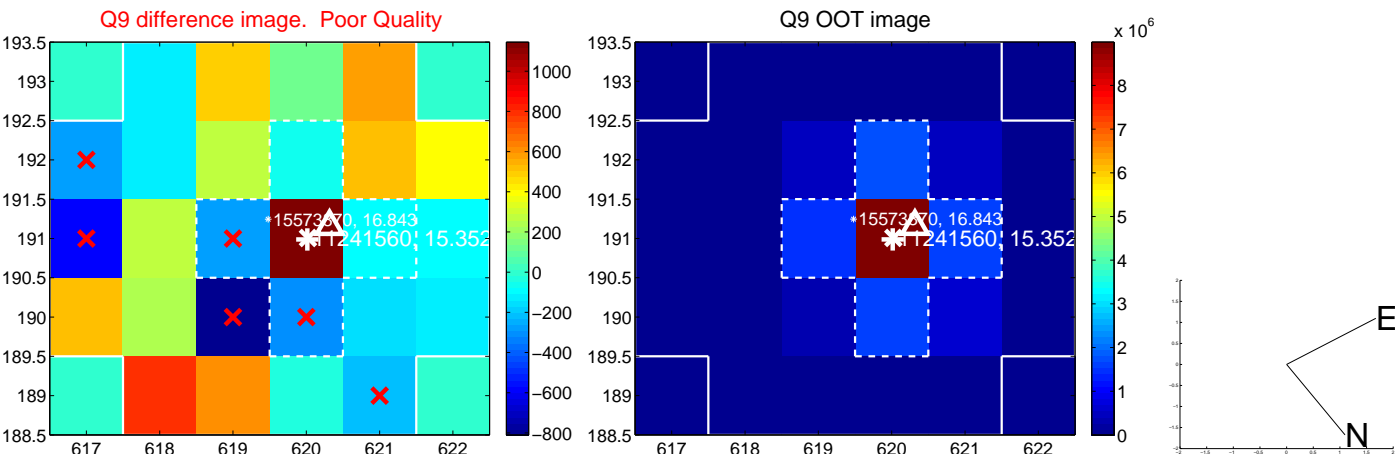
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



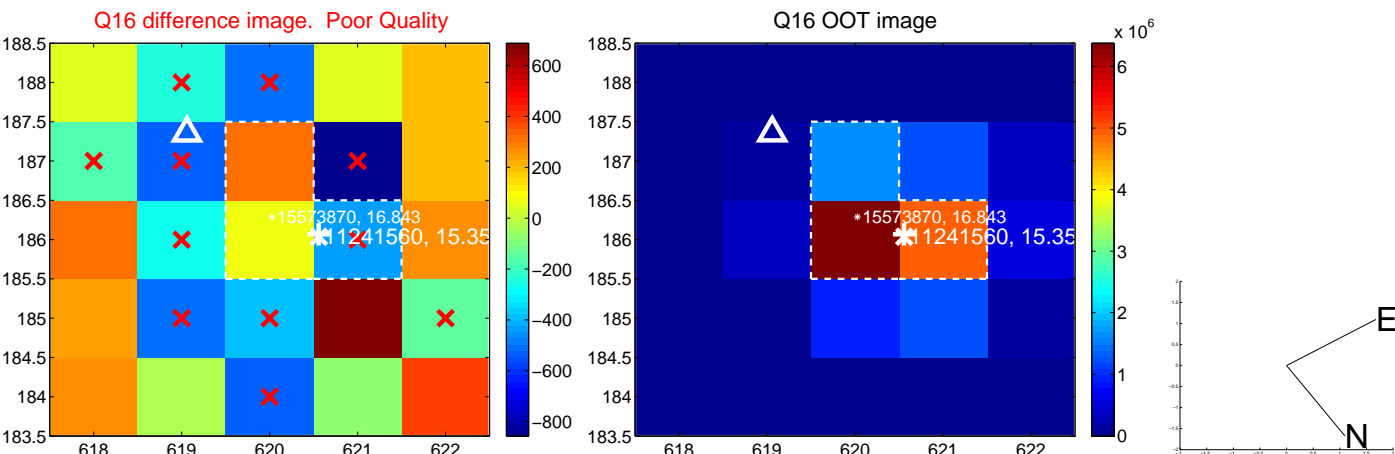
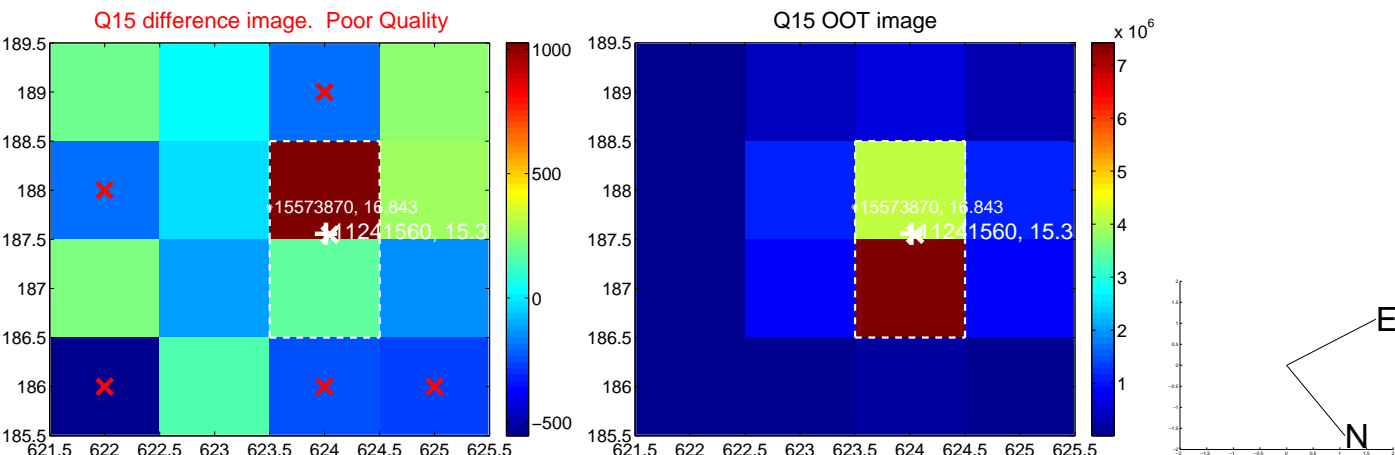
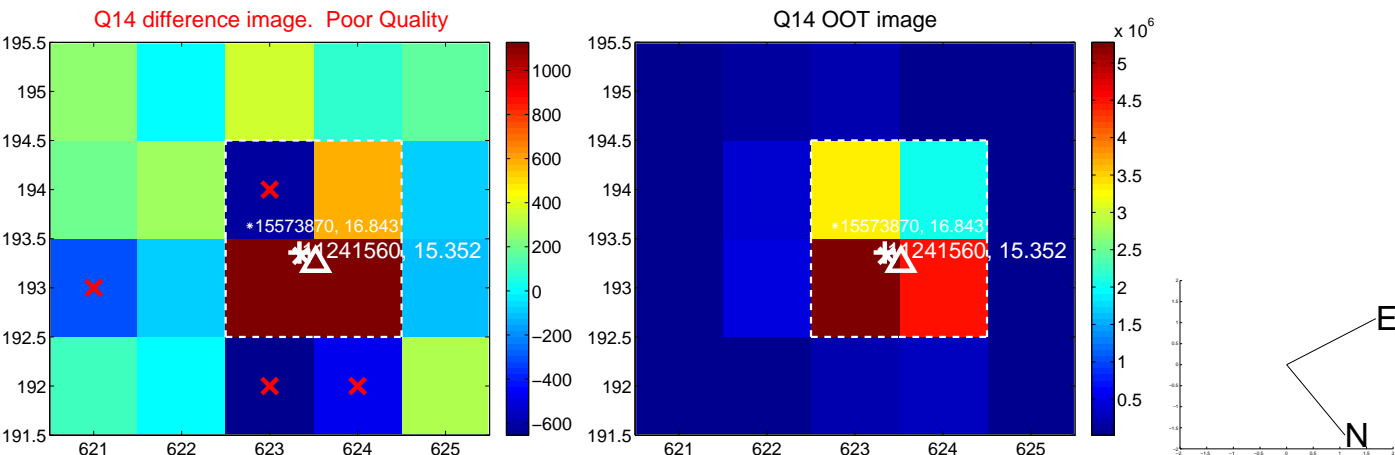
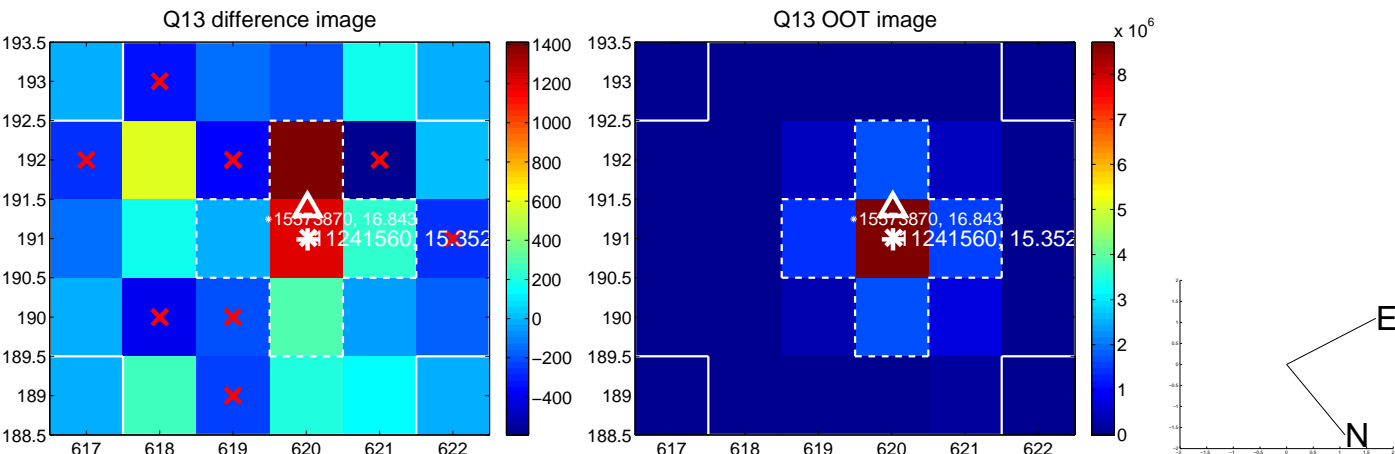
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



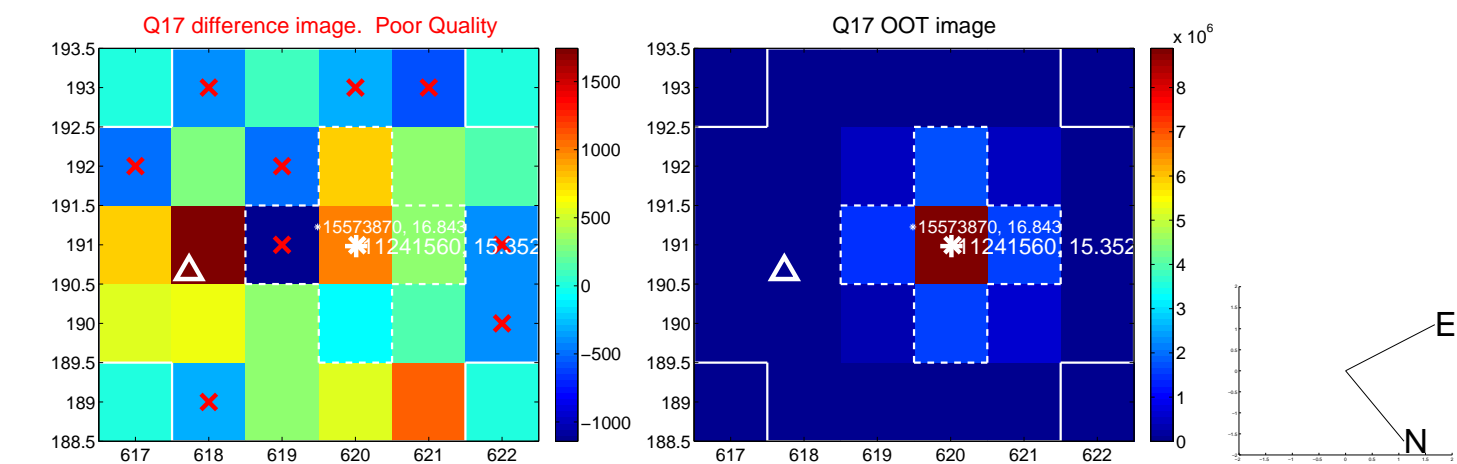
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



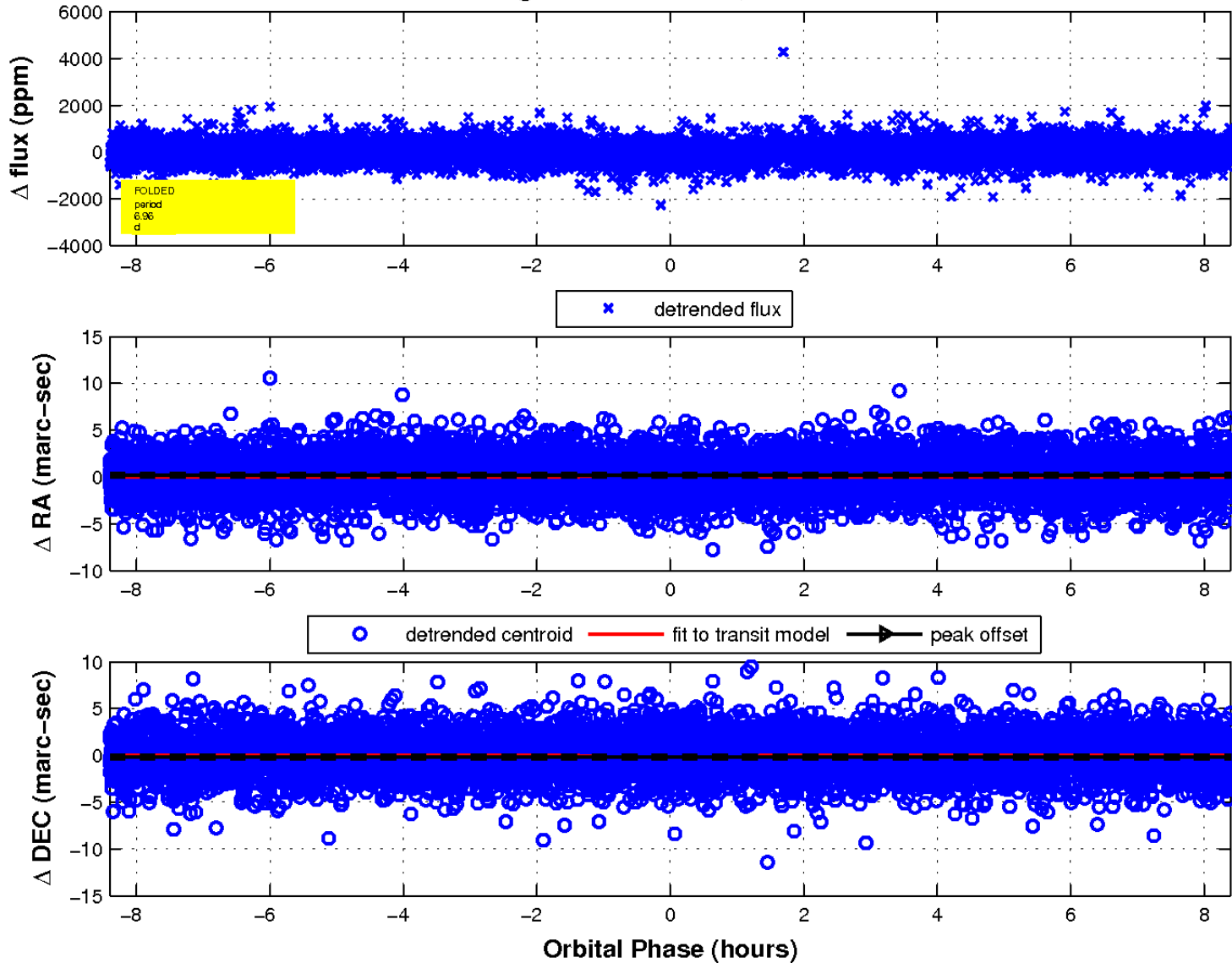
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

