

KIC 011337012

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})
011337012-01	OBS	4666.01	12.401886	141.181472	210.5	5.813	9.2	9.3	0.83	5555	1.64	61.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011337012-01	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.

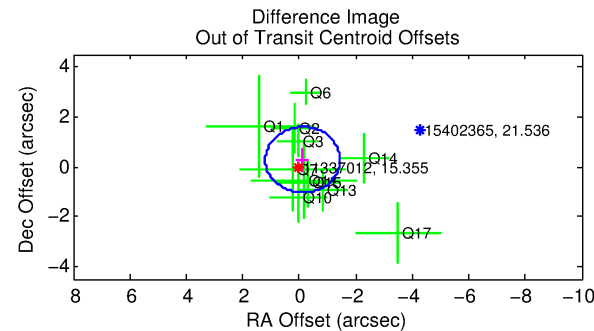
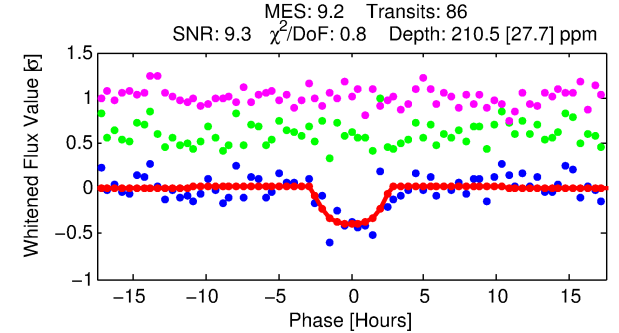
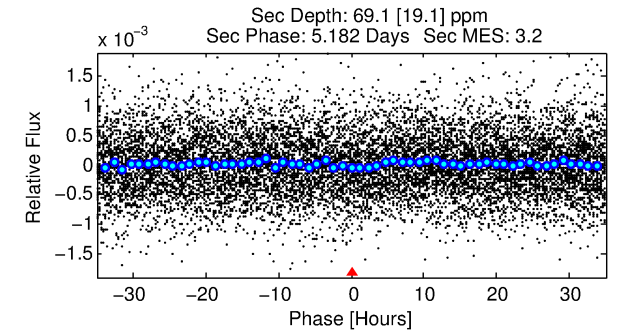
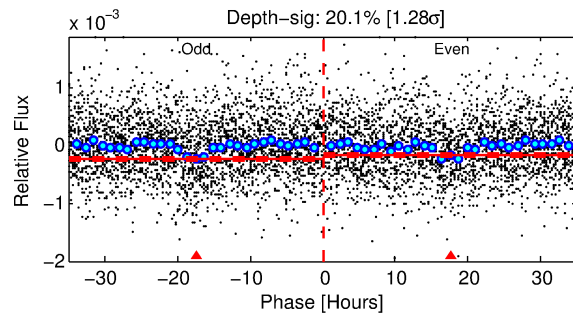
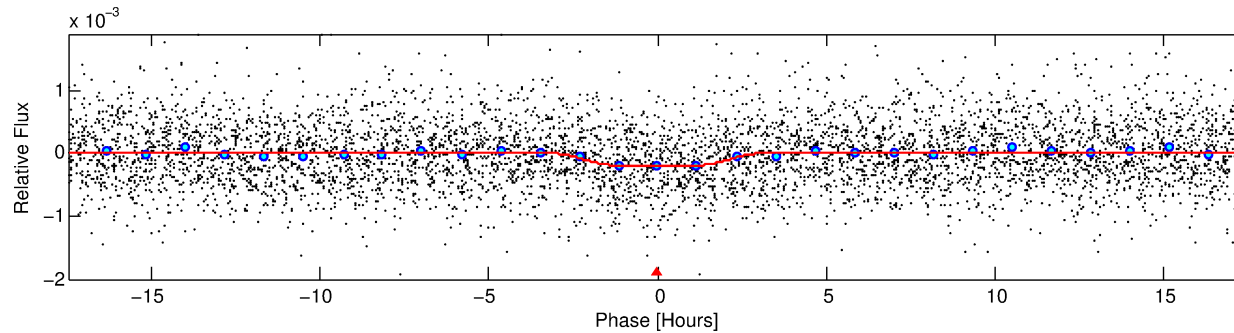
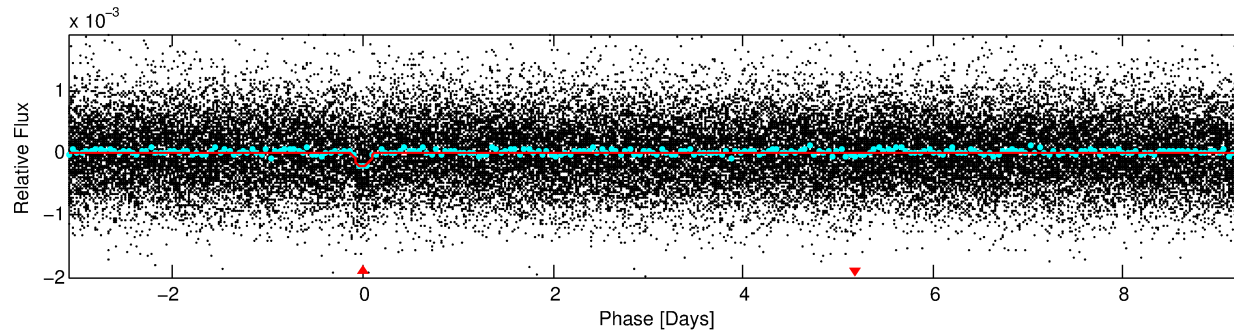
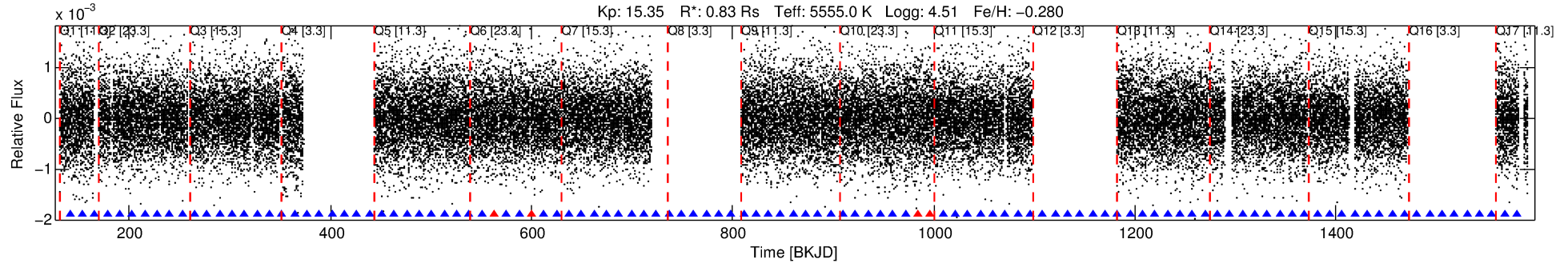
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011337012-01

No Significant Match Found

DV One-Page Summary

KIC: 11337012 Candidate: 1 of 1 Period: 12.402 d
KOI: K04666.01 Corr: 0.979



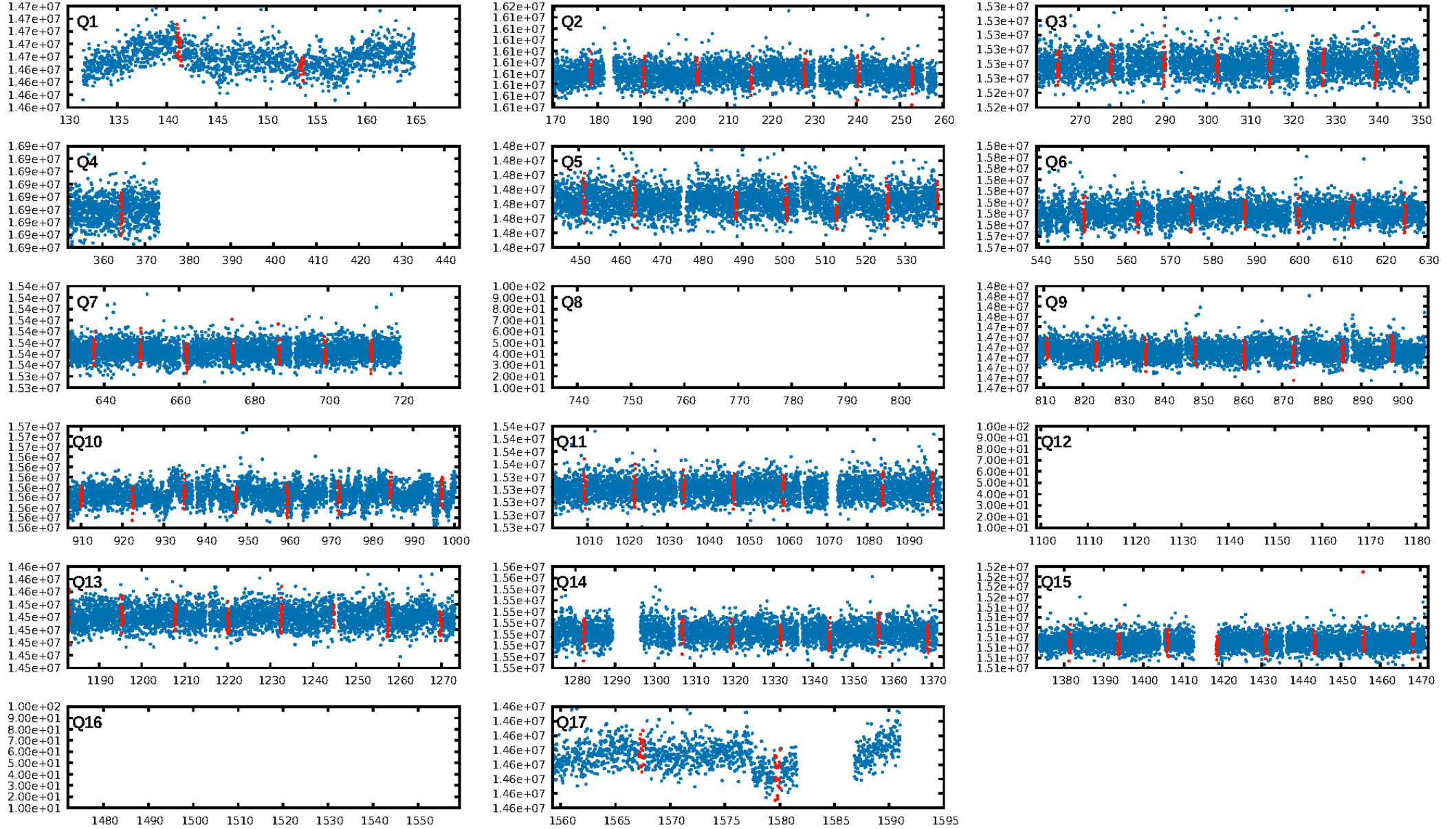
DV Fit Results:

Period = 12.40189 [0.00022] d
Epoch = 141.1815 [0.0142] BKJD
Rp/R* = 0.0180 [0.0018]
a/R* = 4.92 [1.33]
b = 0.97 [0.02]
Seff = 61.06 [17.97]
Teq = 713 [52] K
Rp = 1.64 [0.39] Re
a = 0.0983 [0.0181] AU
Ag = 137.46 [59.85] [2.28 σ]
Teffp = 3773 [343] K [8.83 σ]

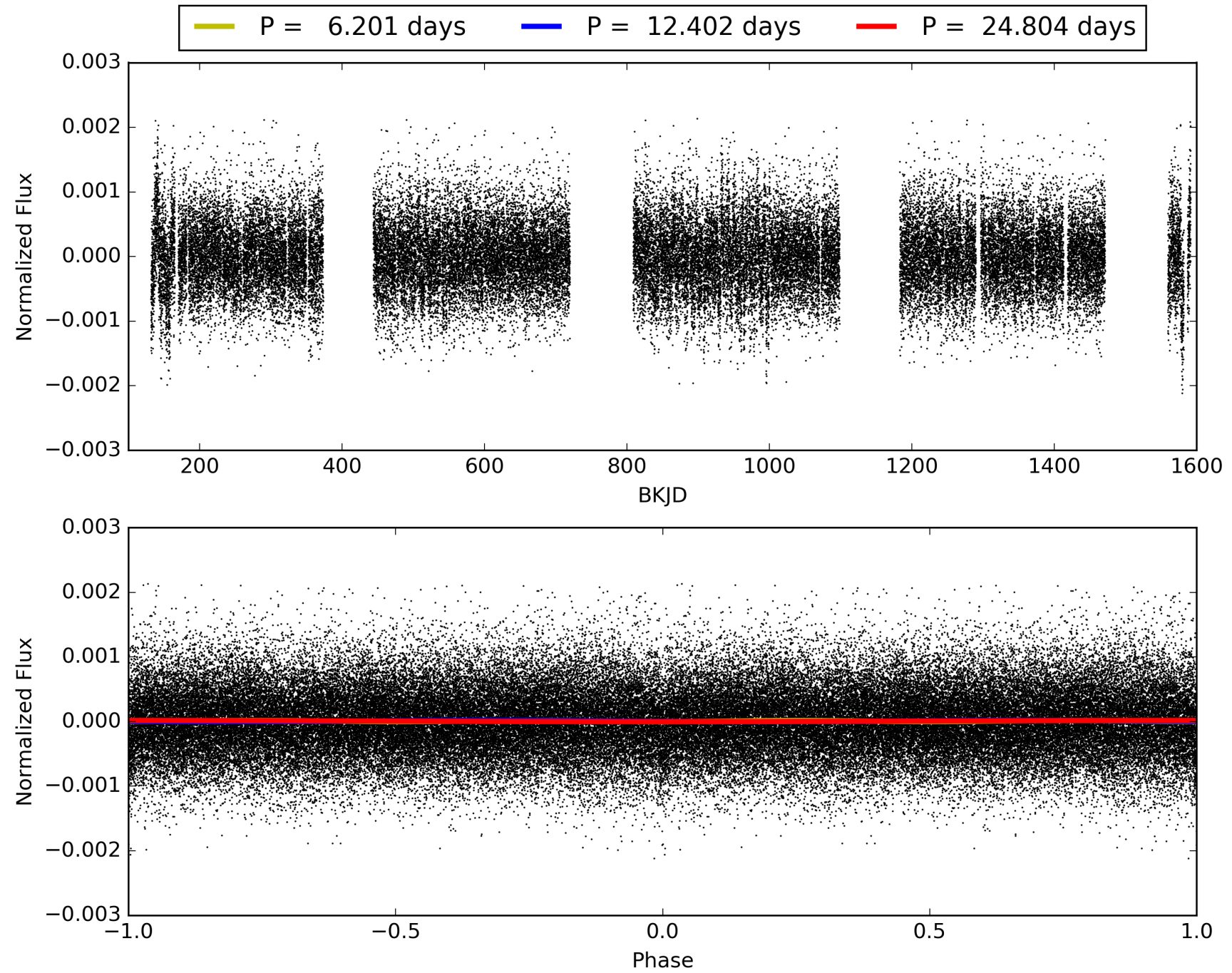
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.55e-20
RollingBand-fgt: 0.95 [77/81]
GhostDiagnostic-chr: 7.591
Centroid-sig: 52.4%
Centroid-so: 1.862 arcsec [1.07 σ]
OotOffset-rm: 0.297 arcsec [0.68 σ]
KicOffset-rm: 0.637 arcsec [1.66 σ]
OotOffset-st: 4/4/0/3 [11]
KicOffset-st: 4/4/0/3 [11]
DiffImageQuality-fgm: 0.55 [6/11]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 011337012-01, PDC Light Curves

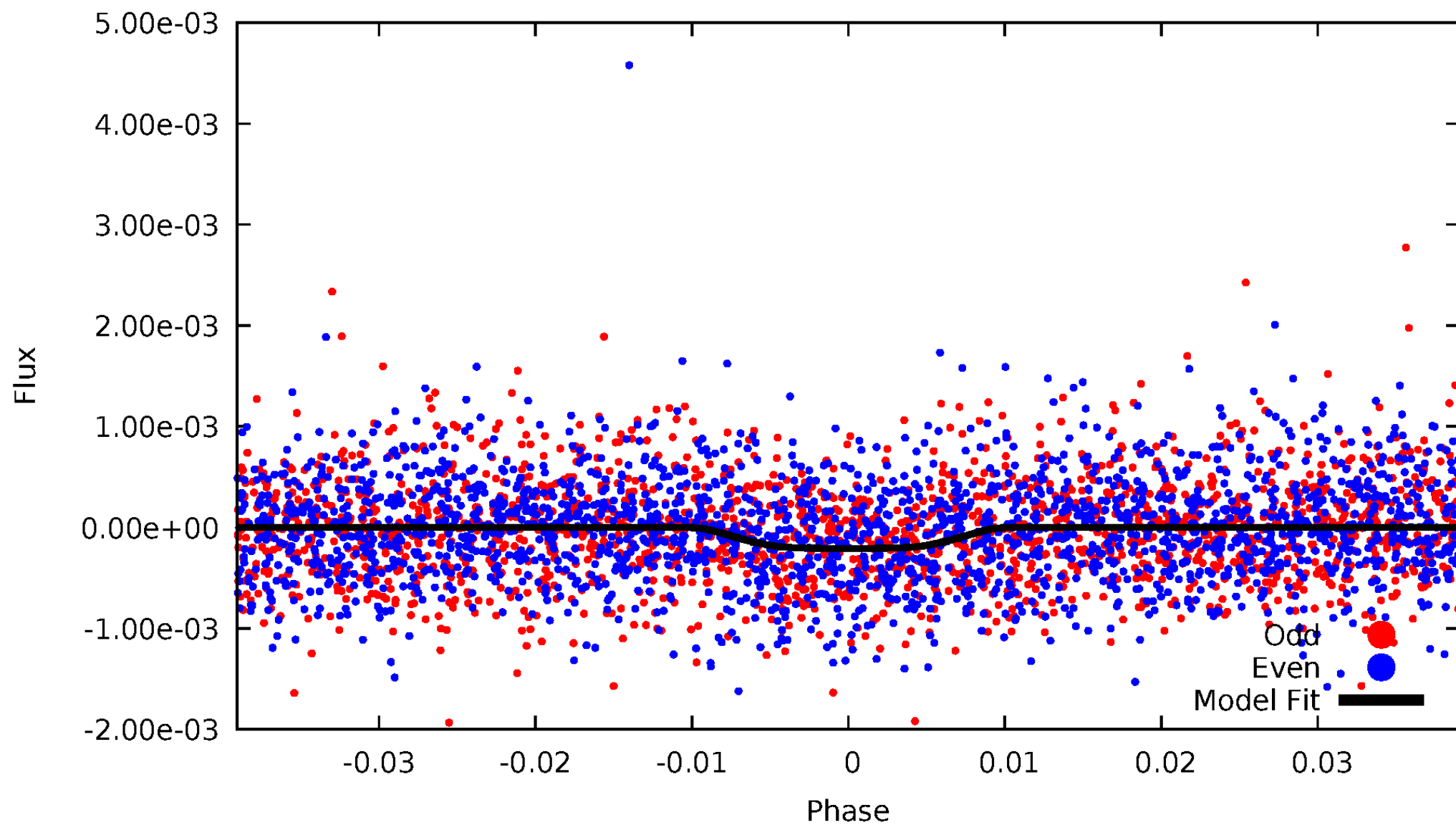


TCE 011337012-01



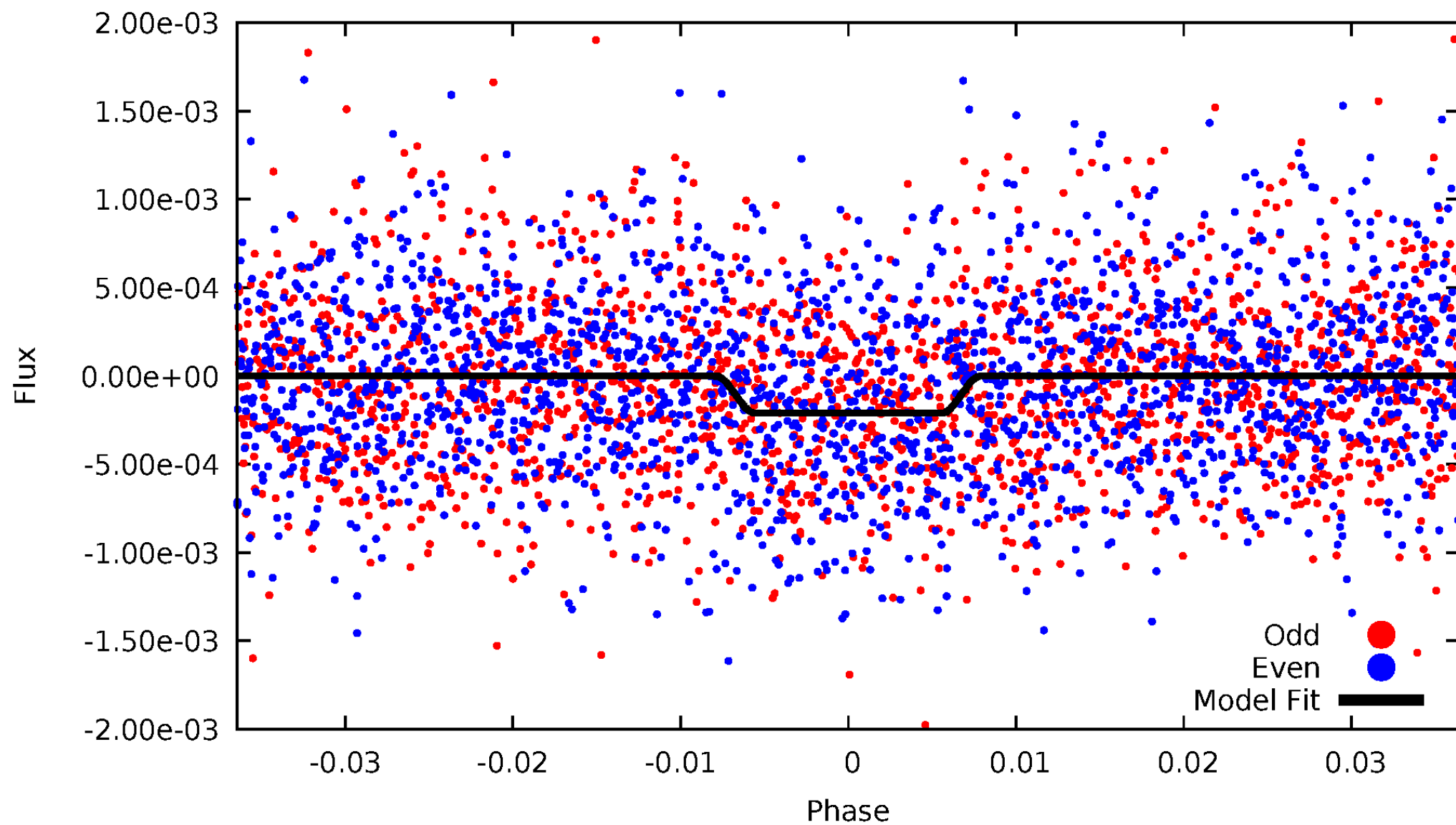
DV Odd/Even

TCE 011337012-01



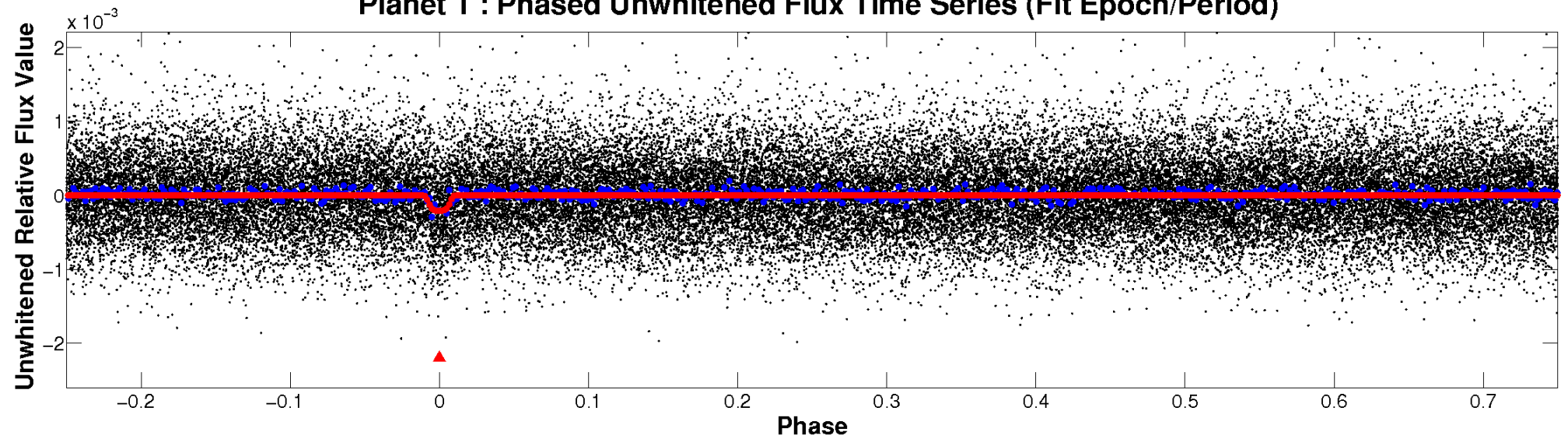
ALT Odd/Even

TCE 011337012-01

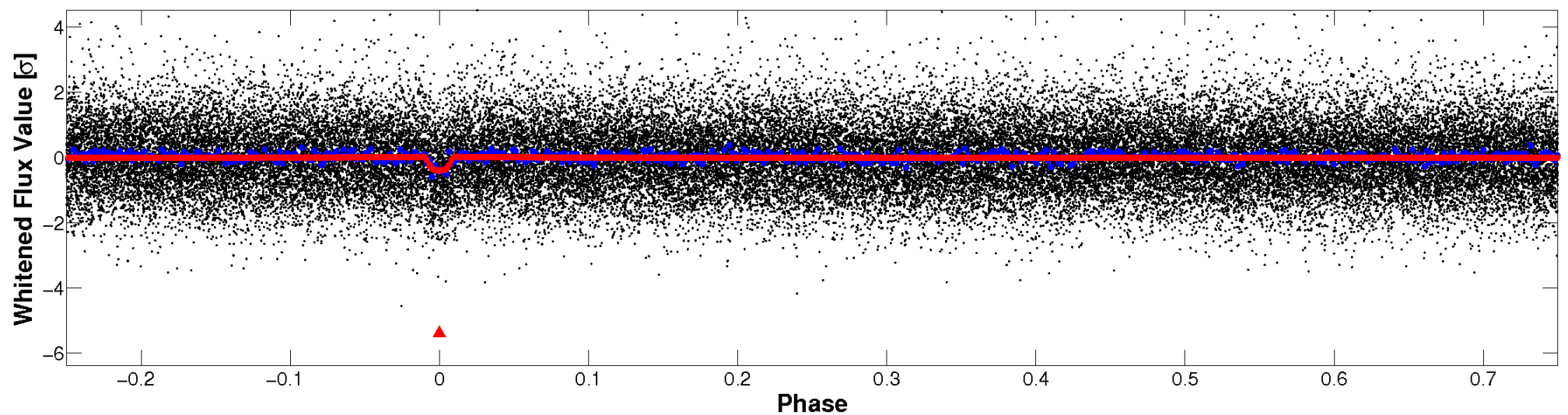


Non-Whitened Vs. Whitened Light Curve

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

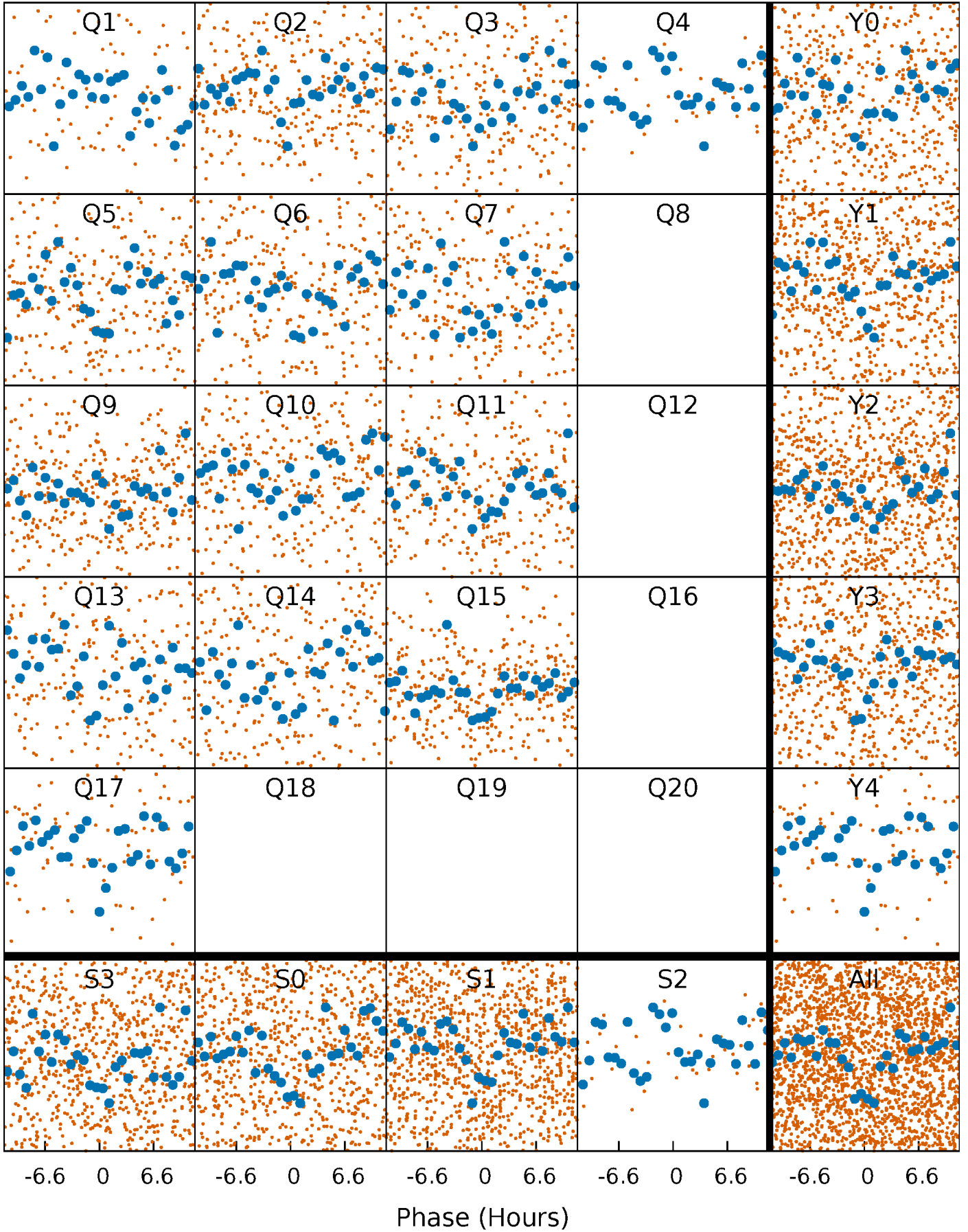


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



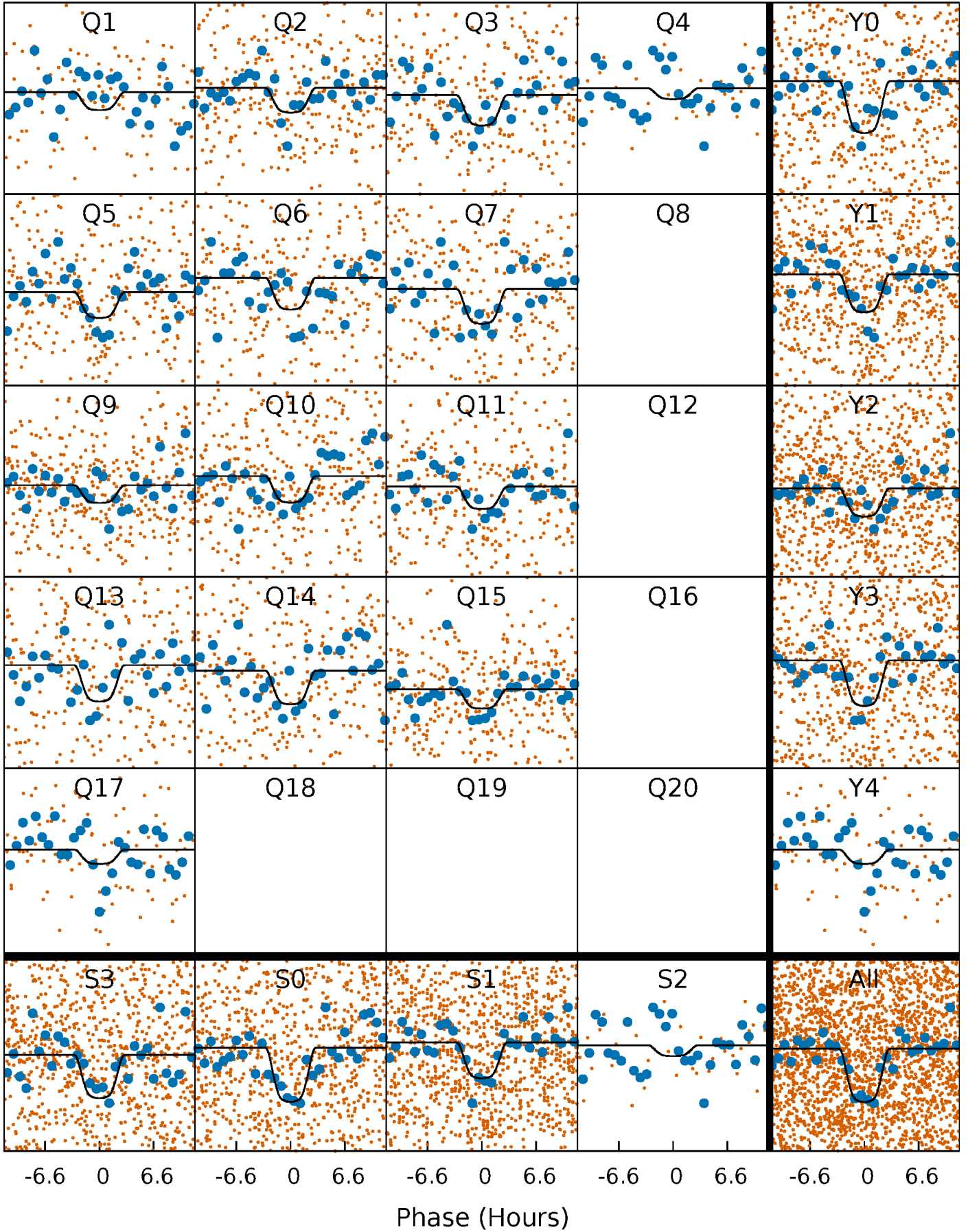
PDC Quarter-Phased Transit Curves

TCE 011337012-01 P= 12.401886 Days $T_0=141.181472$ (BKJD)



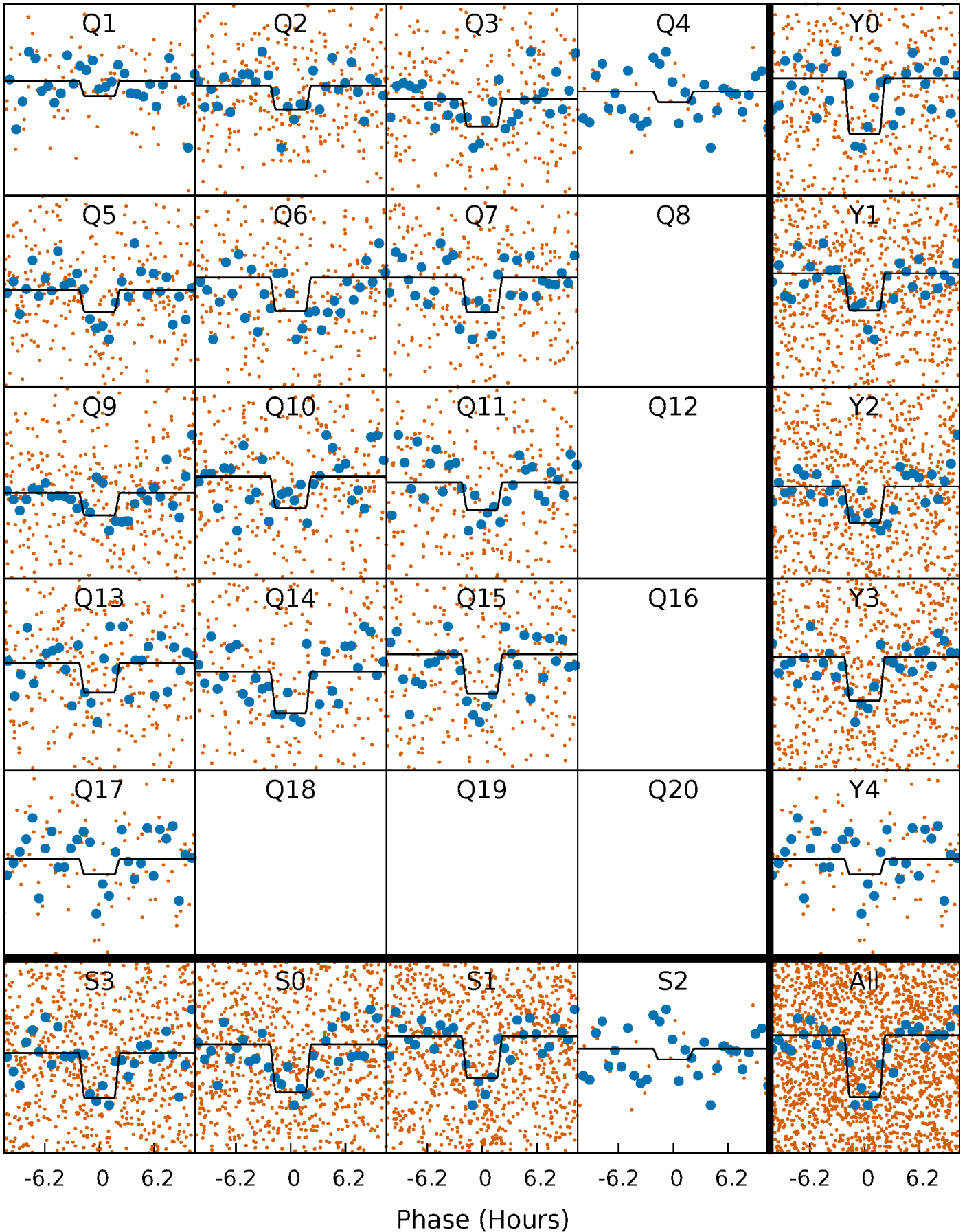
DV Quarter-Phased Transit Curves

TCE 011337012-01 P= 12.401886 Days $T_0=141.181472$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

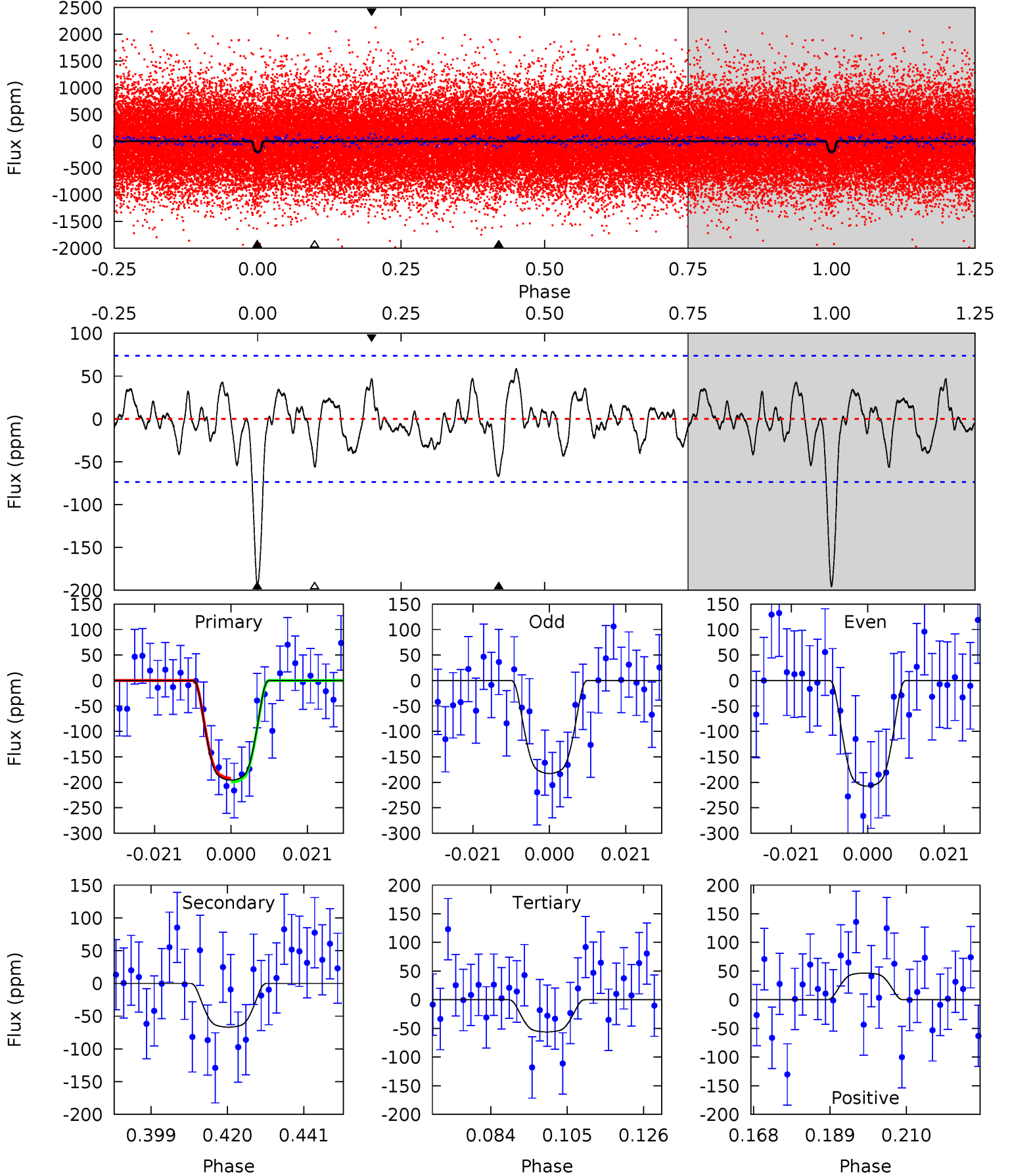
TCE 011337012-01 P= 12.402061 Days $T_0=141.167076$ (BKJD)



DV Model-Shift Uniqueness Test

011337012-01, $P = 12.401886$ Days, $E = 128.779586$ Days

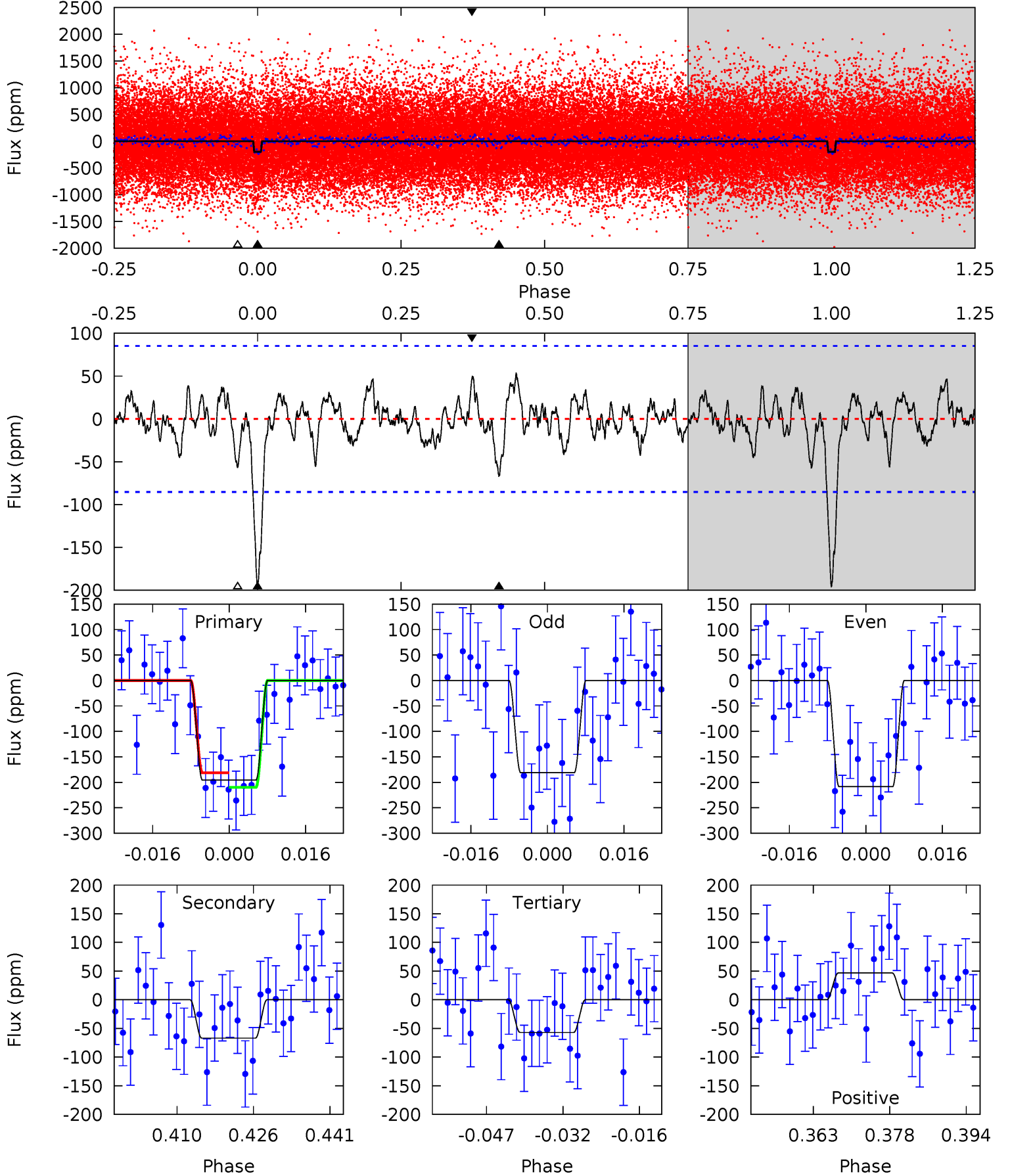
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	4.42	3.72	3.08	4.88	2.31	1.37	9.24	9.88	0.71	1.34	0.83	0.85	0.23	0.24



Alt Model-Shift Uniqueness Test

011337012-01, $P = 12.402061$ Days, $E = 128.765015$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	3.88	3.30	2.72	4.94	2.41	1.08	8.03	8.61	0.58	1.16	0.79	0.90	0.22	0.83



Stellar Parameters For KIC 011337012

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5555^{+167}_{-150}	$4.514^{+0.074}_{-0.147}$	$-0.280^{+0.300}_{-0.300}$	$0.832^{+0.182}_{-0.084}$	$0.824^{+0.109}_{-0.072}$	$2.016^{+0.658}_{-0.823}$
	+3%/-3%	+2%/-3%	+107%/-107%	+22%/-10%	+13%/-9%	+33%/-41%
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 011337012-01 / KOI 4666.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-67 ± 15	$1.68^{+0.26}_{-0.22}$	1008^{+52}_{-45}	4020^{+251}_{-235}	125^{+51}_{-41}
Alt.	-67 ± 17	$1.36^{+0.23}_{-0.19}$	1008^{+58}_{-45}	4369^{+336}_{-324}	193^{+90}_{-68}

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 $A_{obs} \gg 1.0$

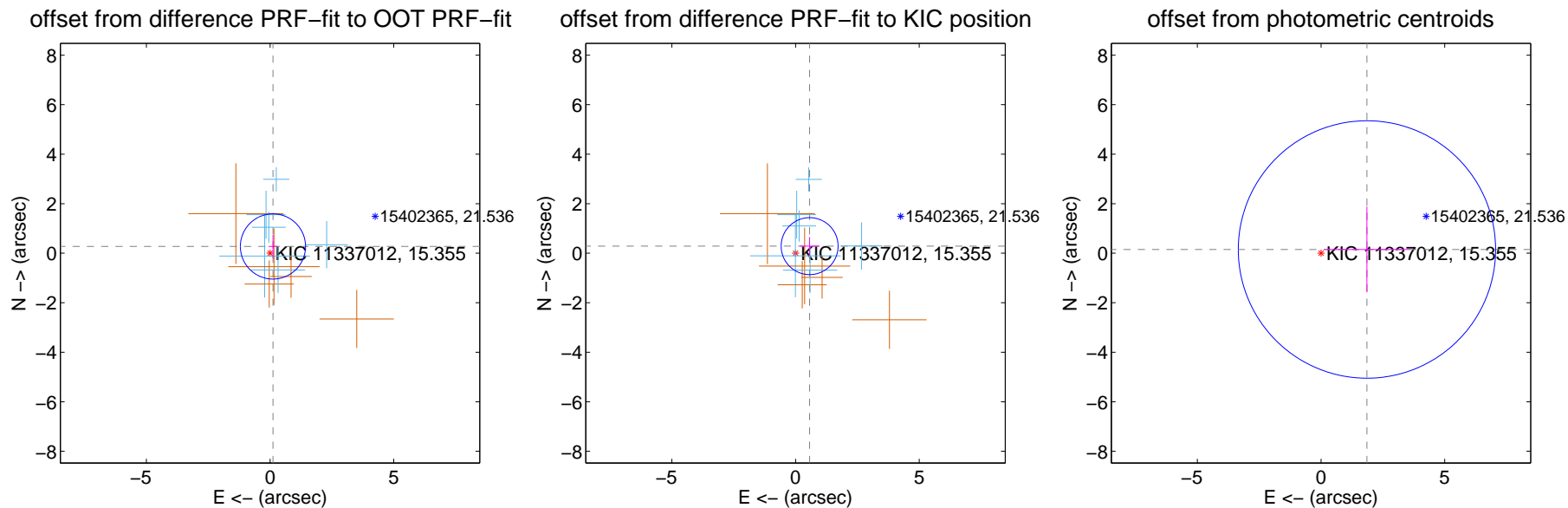
DV Centroid Data

Supplemental centroid analysis for 011337012-01. Kepler magnitude: 15.36. Transit SNR 9.34

There are 6 quarters with good PRF difference image offsets

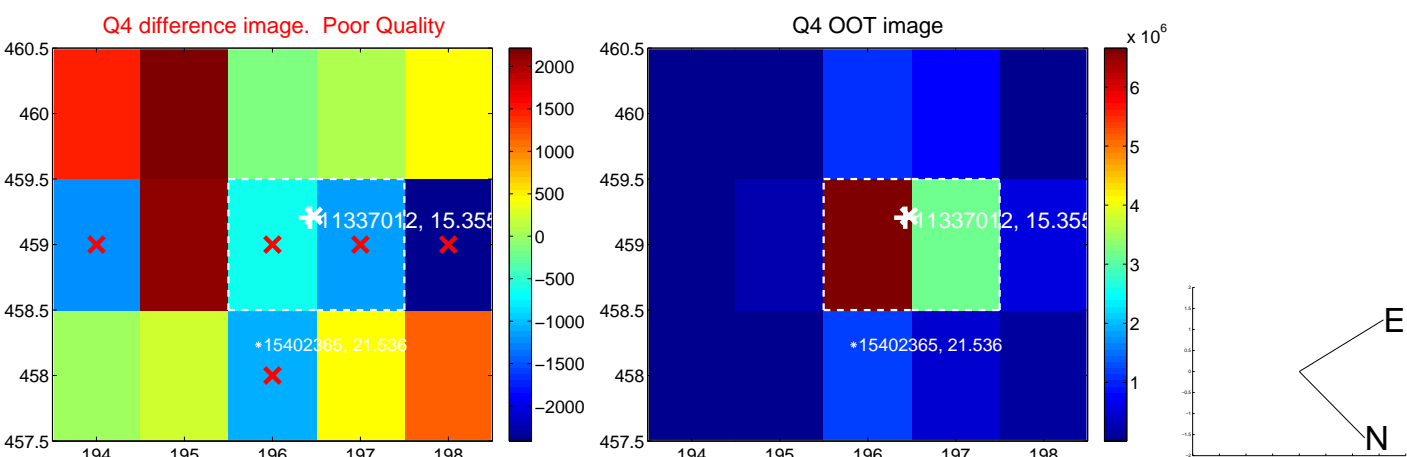
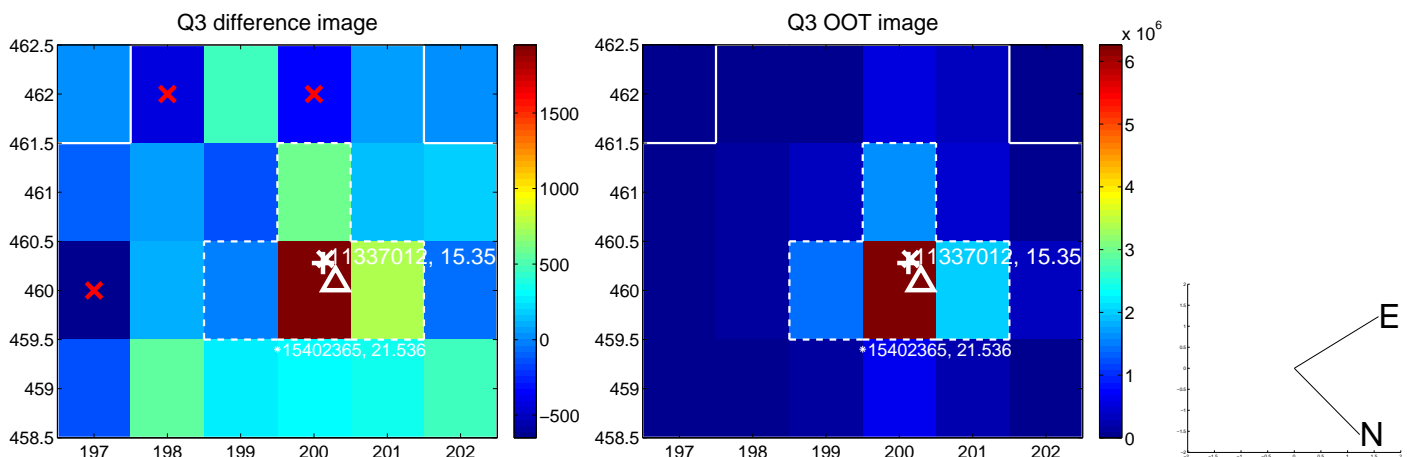
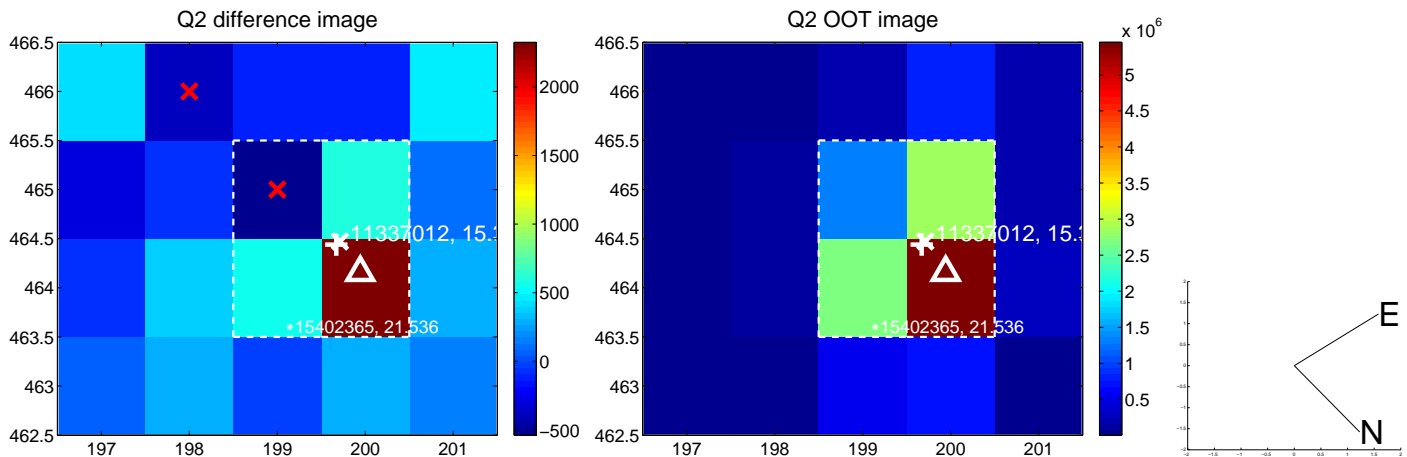
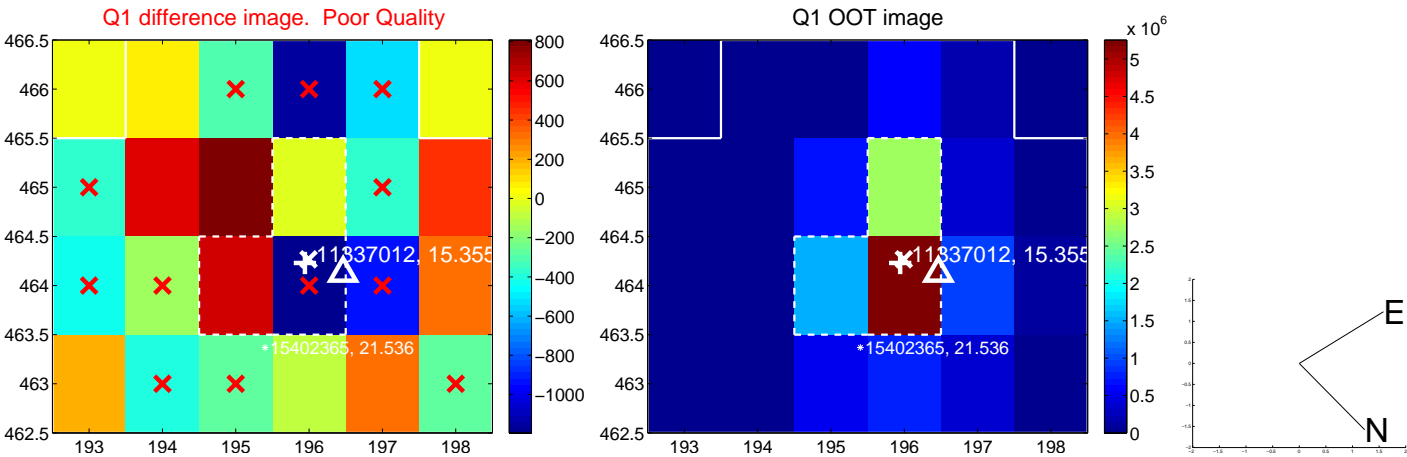
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.297 ± 0.439	0.68	-0.116 ± 0.178	0.273 ± 0.471
PRF-fit source offset from KIC position	0.637 ± 0.384	1.66	-0.569 ± 0.388	0.287 ± 0.366
photometric centroid source offset	1.86 ± 1.73	1.07	-1.86 ± 1.73	0.15 ± 1.73

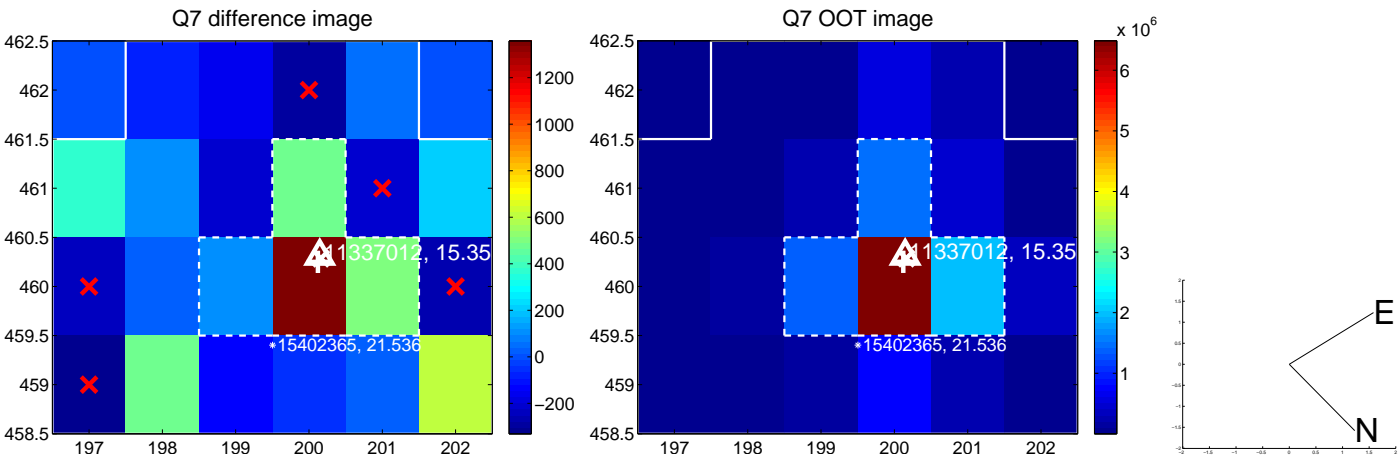
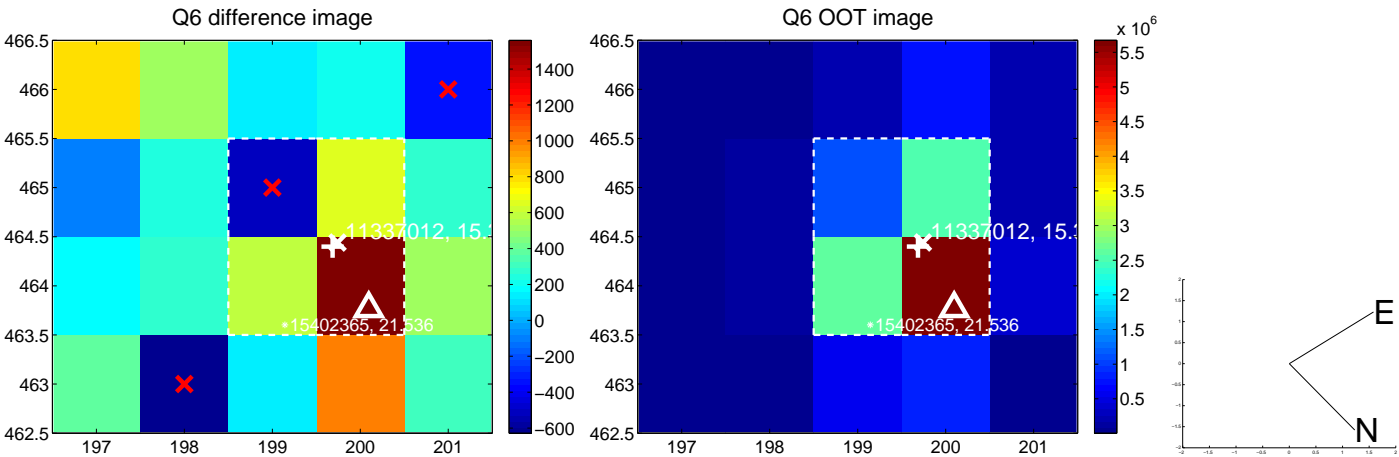
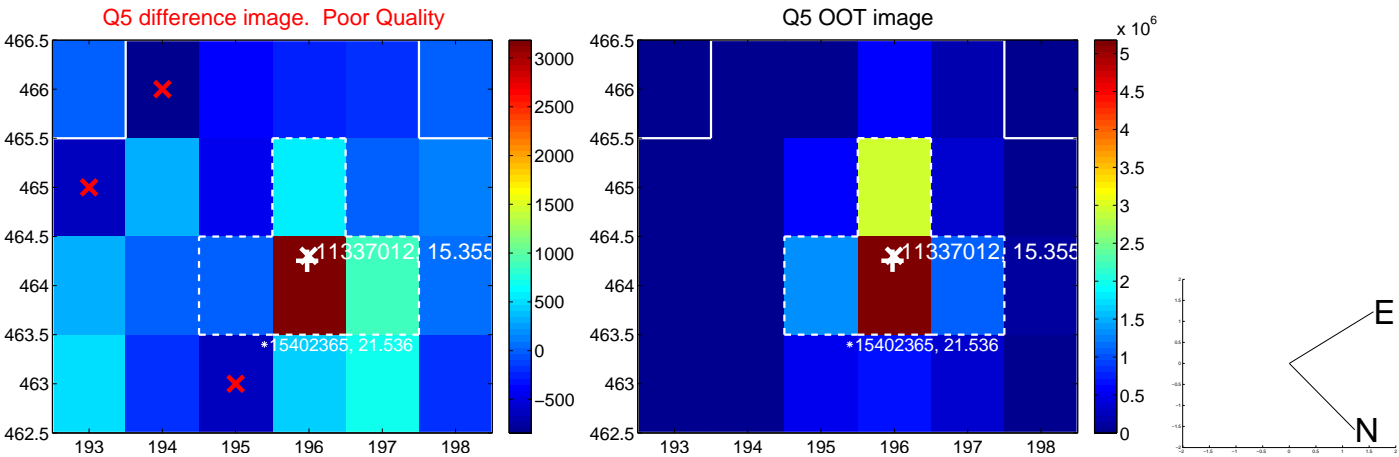


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

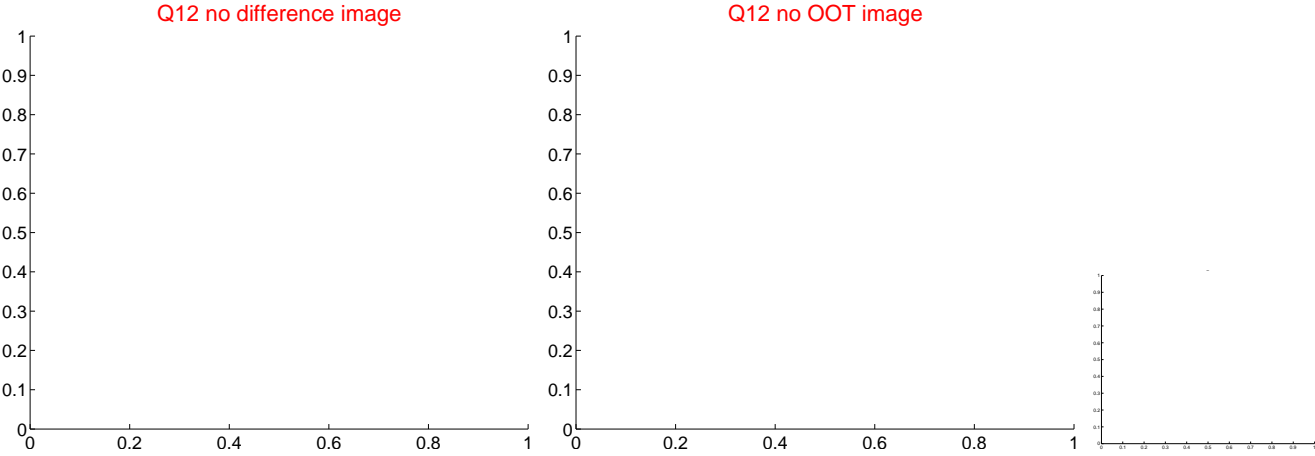
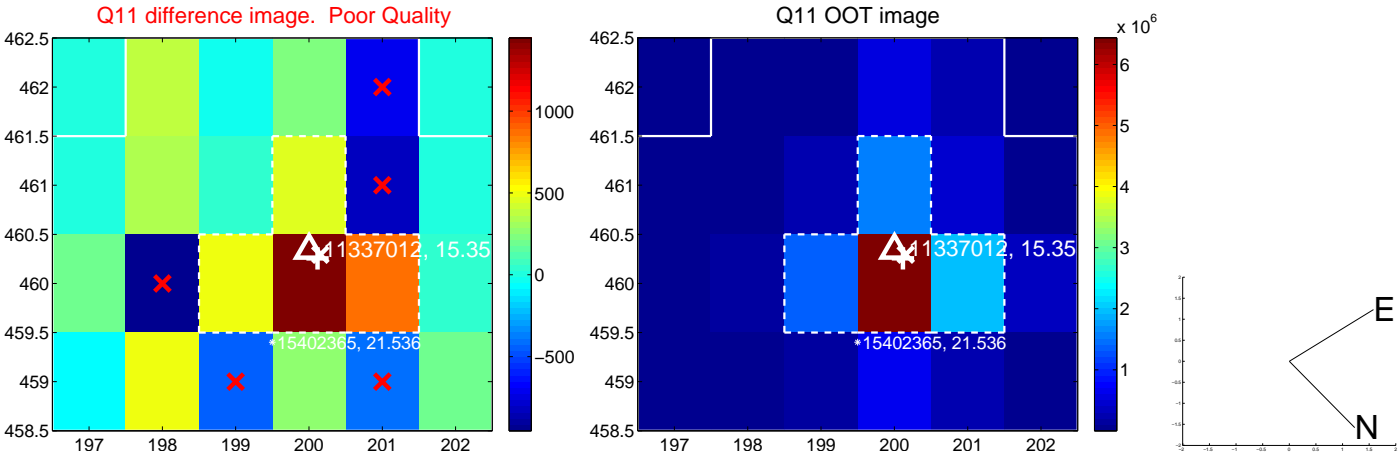
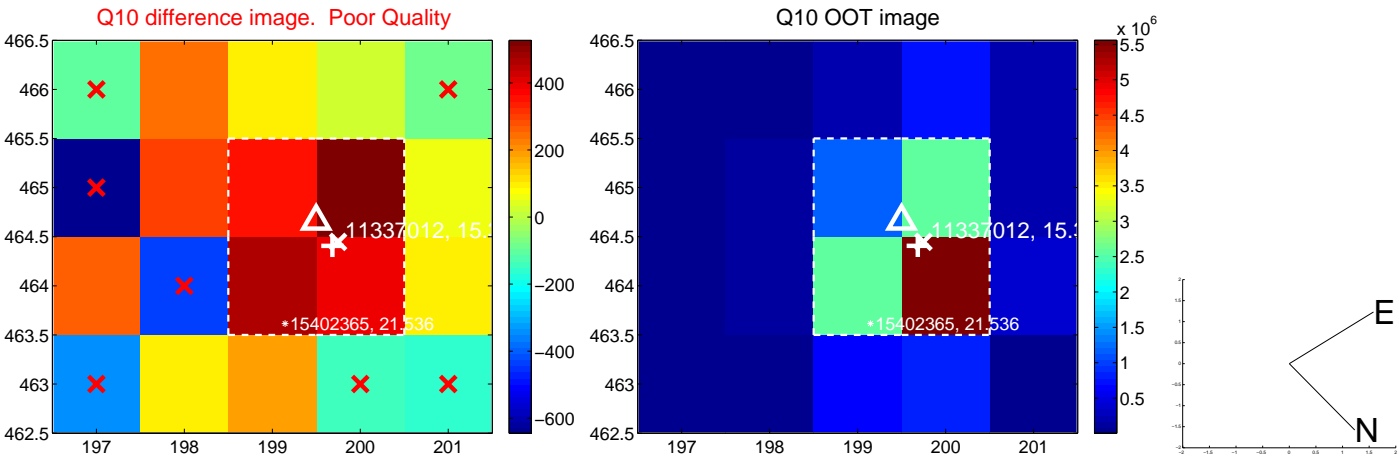
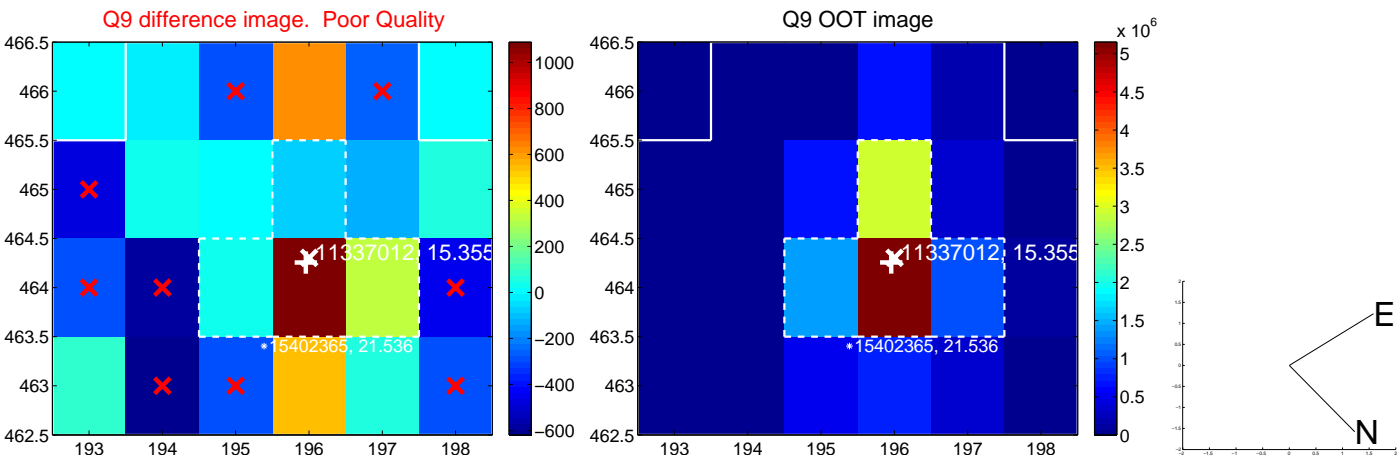
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



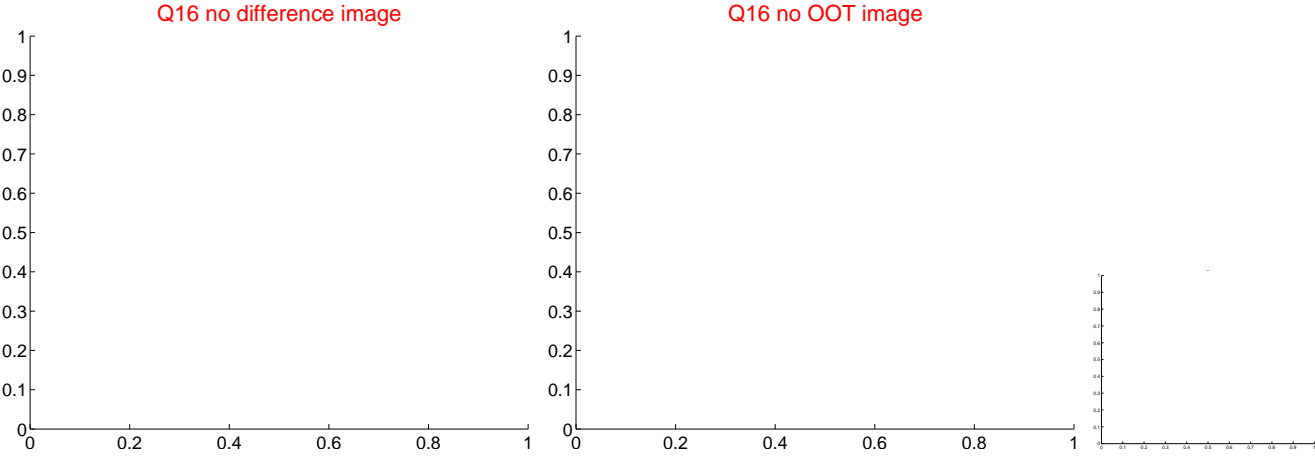
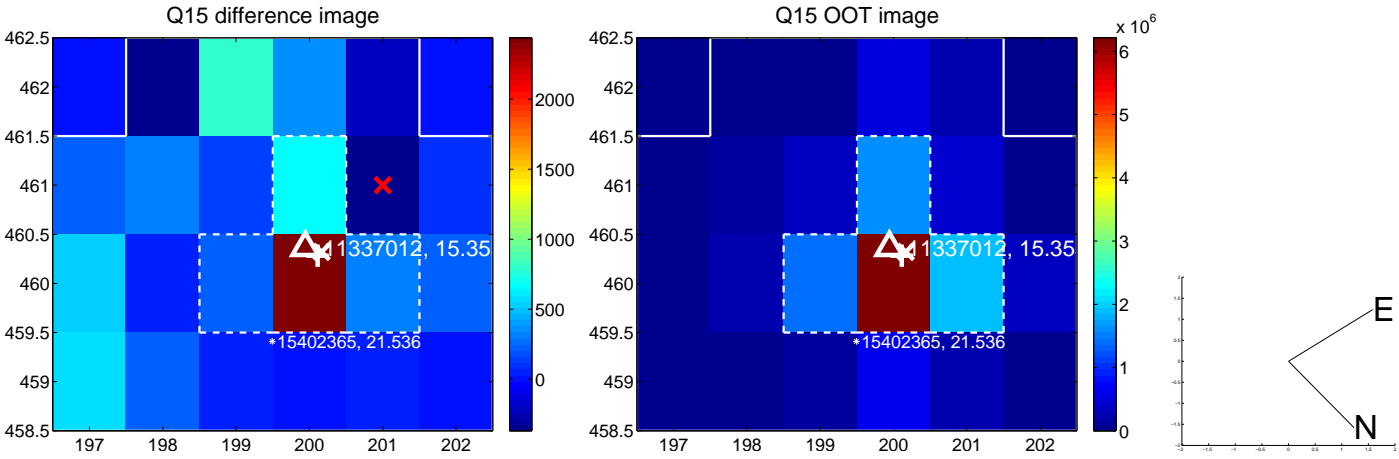
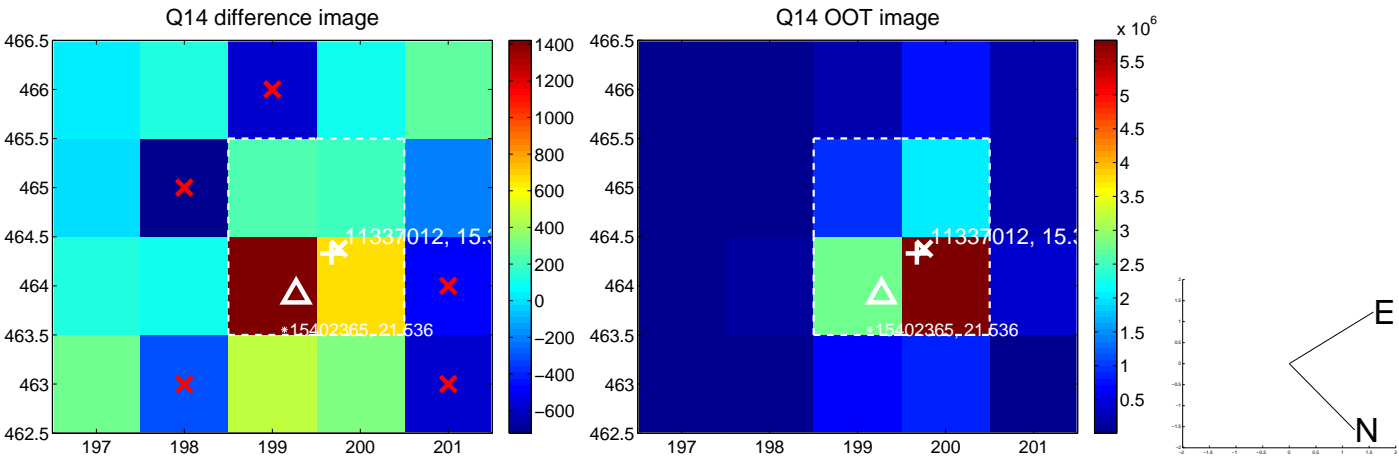
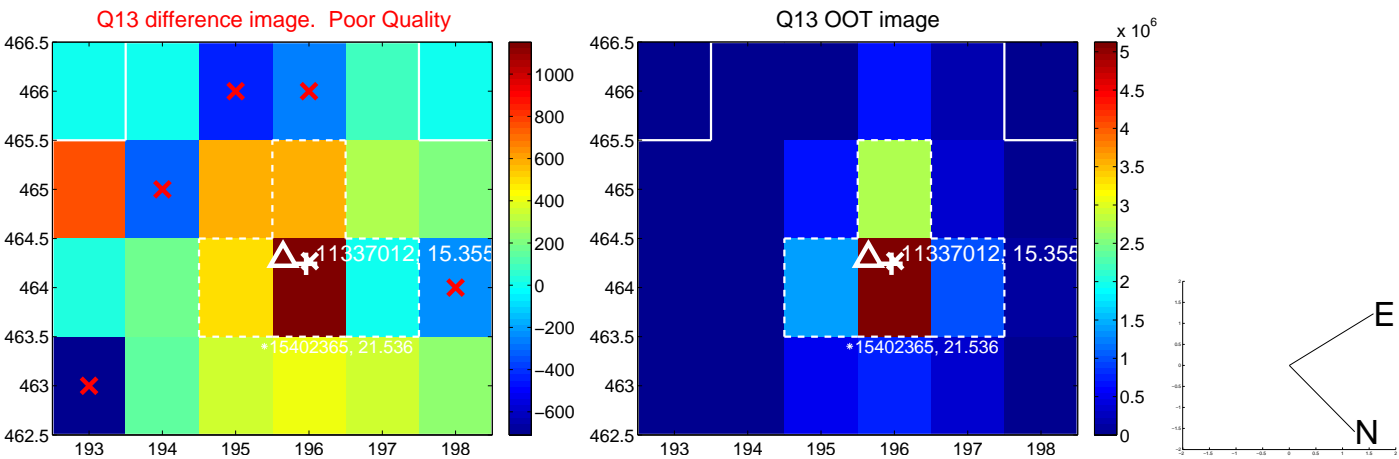
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



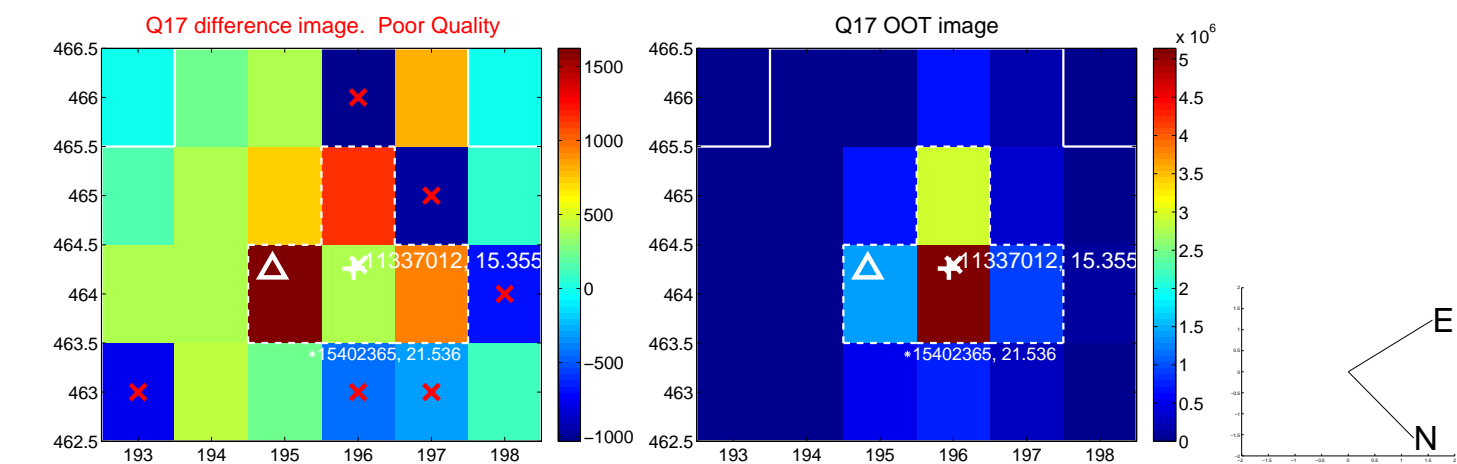
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



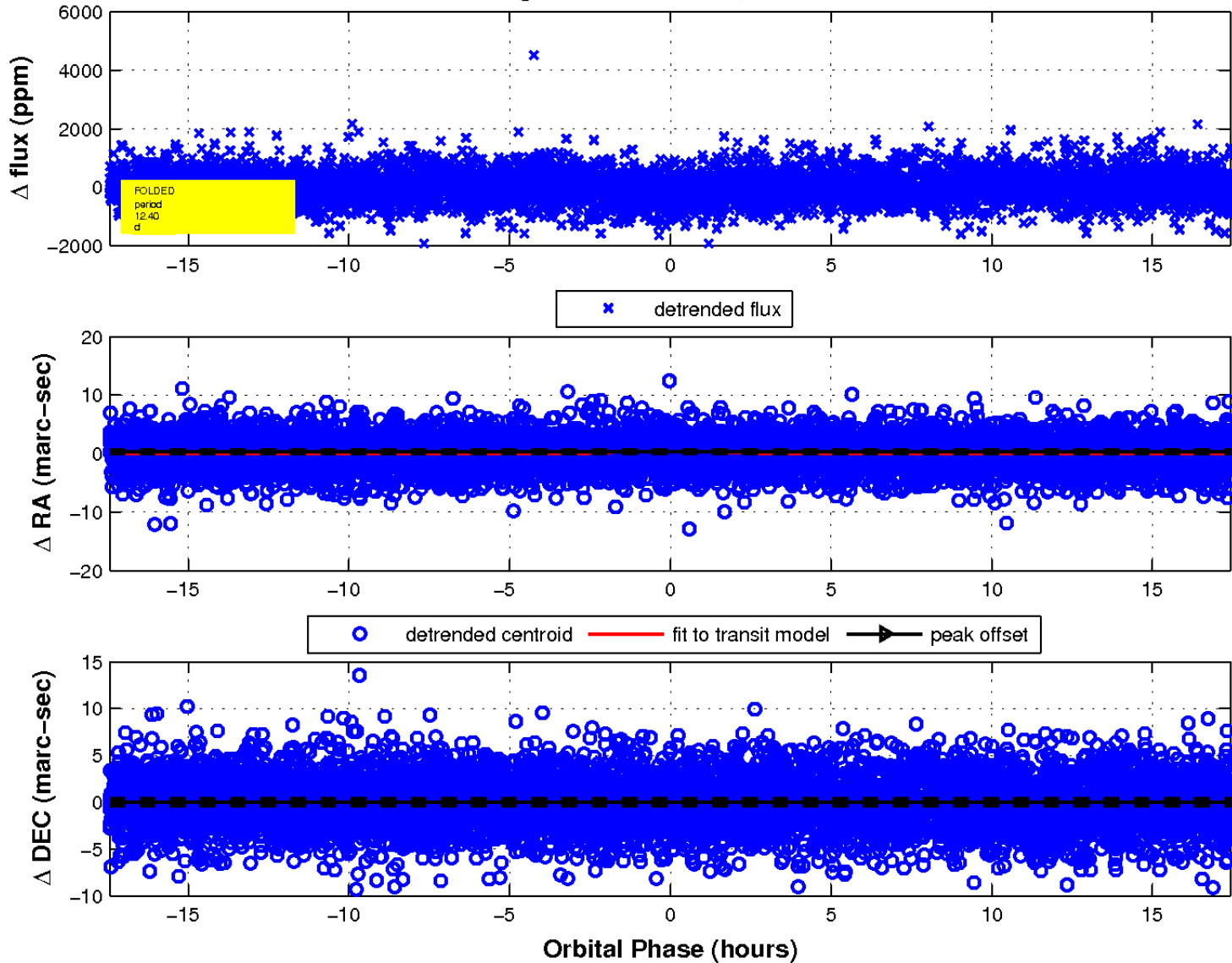
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

