

KIC 004732015

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})
004732015-01	OBS	5076.01	0.938391	132.294176	465.6	11.261	2027.9	42.1	27.68	4217	76.48	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004732015-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED

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.

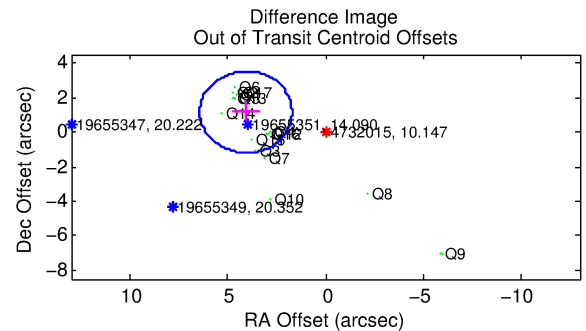
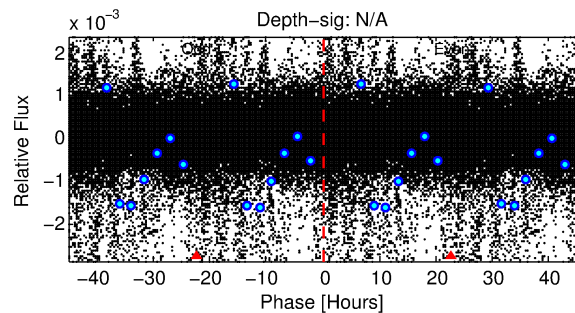
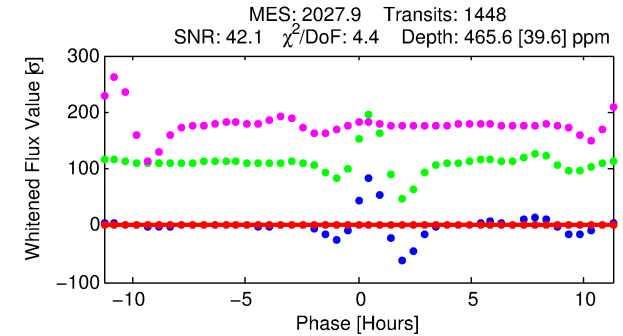
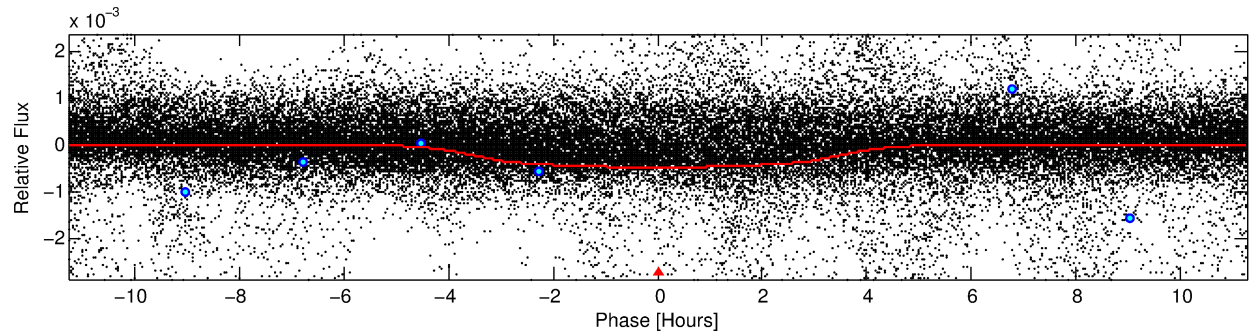
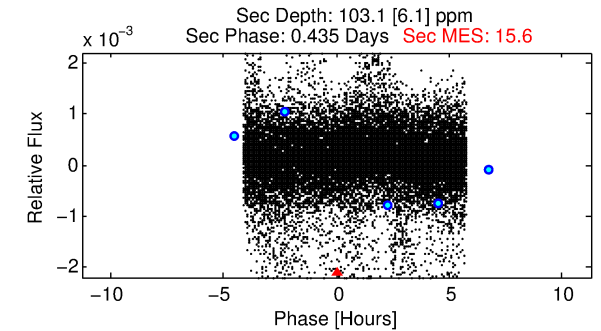
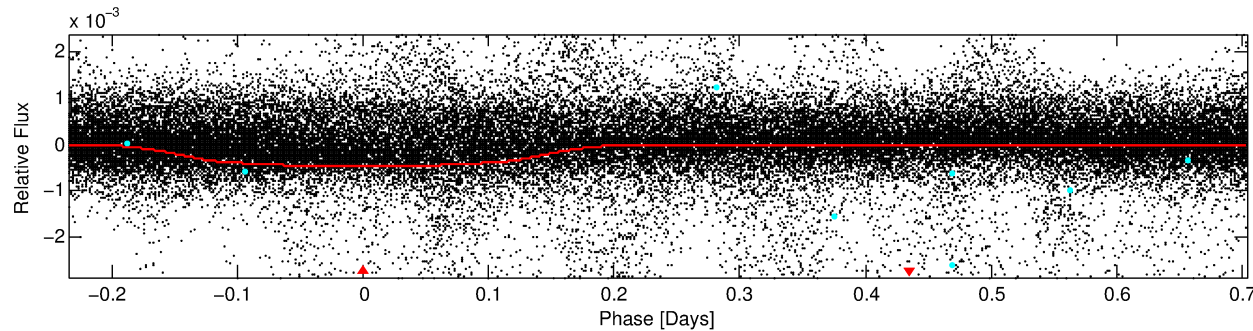
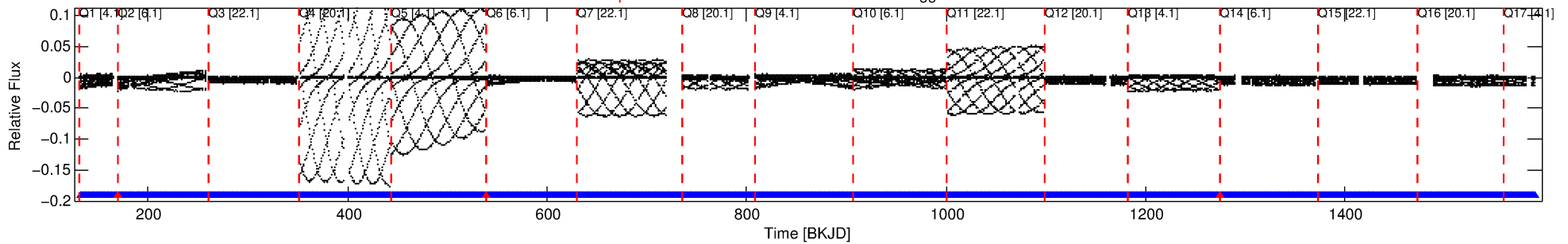
Ephemeris Match Information For 004732015-01

No Significant Match Found

DV One-Page Summary

KIC: 4732015 Candidate: 1 of 1 Period: 0.938 d
KOI: K05076 Corr: No Ephemeris Match

Kp: 10.15 R*: 27.68 Rs Teff: 4217.0 K Logg: 1.66 Fe/H: -0.180



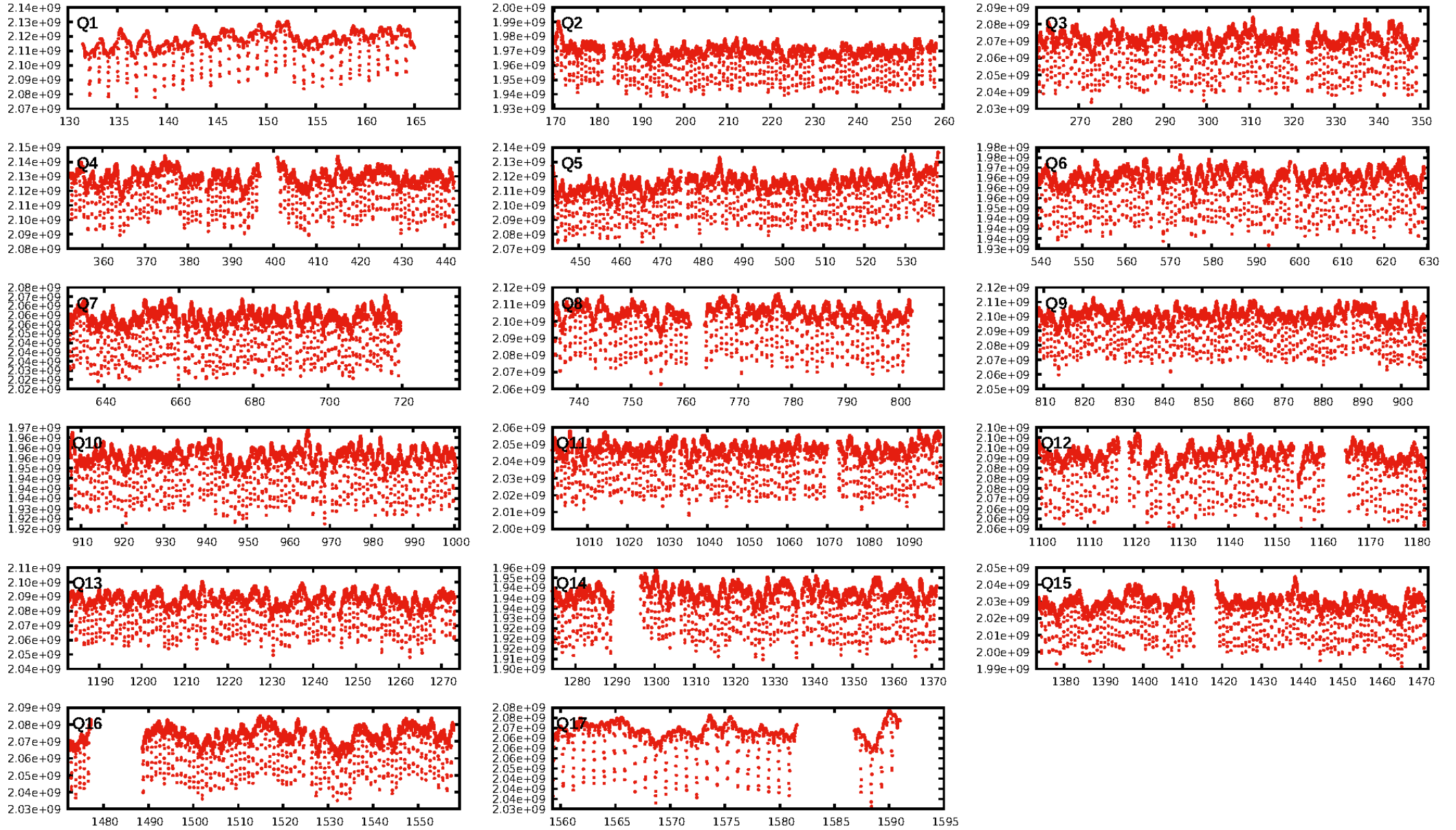
DV Fit Results:

Period = 0.93839 [0.00001] d
Epoch = 132.2942 [0.0026] BKJD
Rp/R* = 0.0253 [0.0011]
a/R* = 1.03 [0.00]
b = 0.92 [0.01]
Seff = N/A
Teq = N/A
Rp = 76.48 [16.12] Re
a = N/A
Ag = N/A
Teffp = N/A

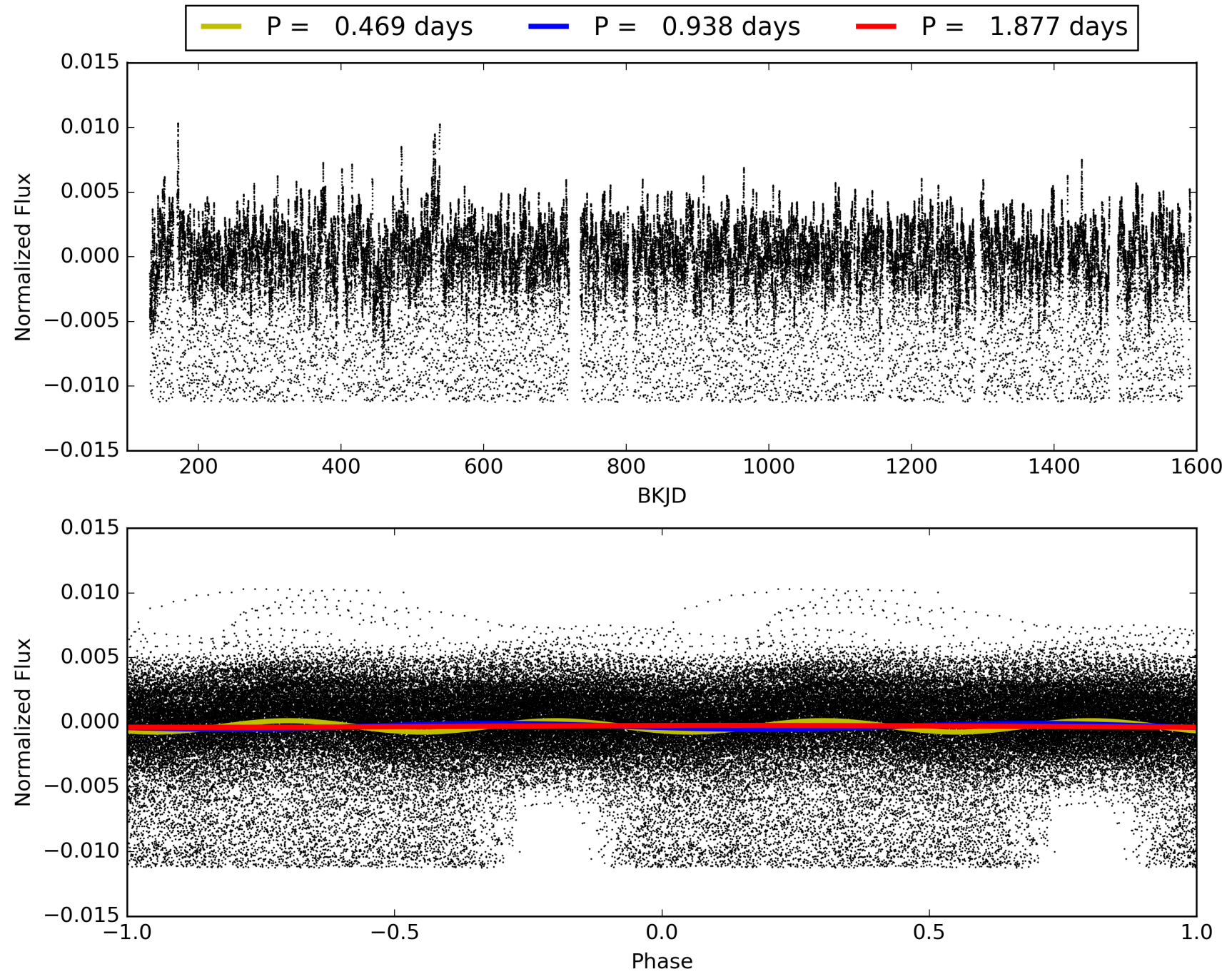
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1379/1382]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 4.230 arcsec [5.38 σ]
KicOffset-rm: 4.989 arcsec [6.04 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.29 [5/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 004732015-01, PDC Light Curves

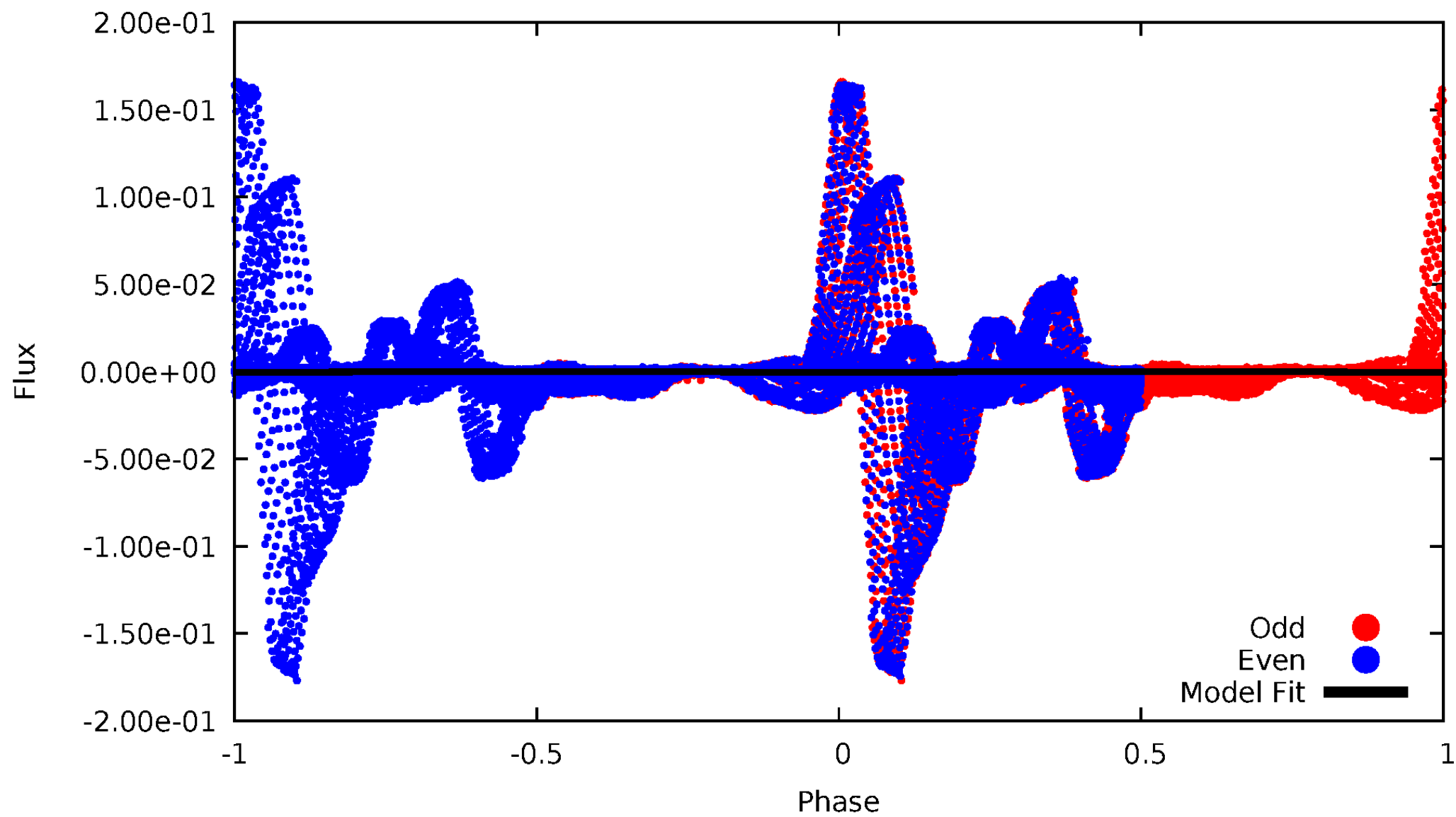


TCE 004732015-01



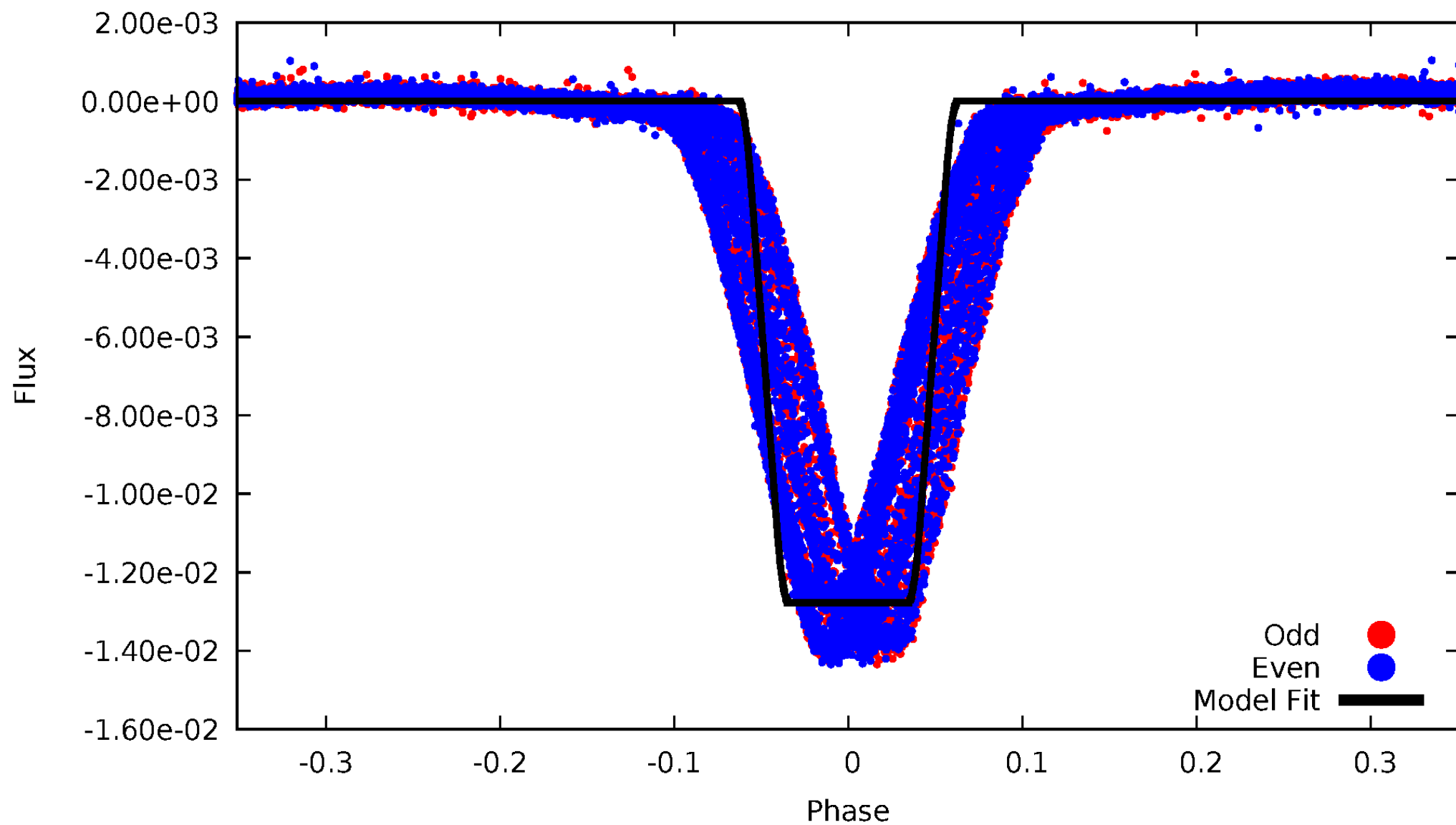
DV Odd/Even

TCE 004732015-01



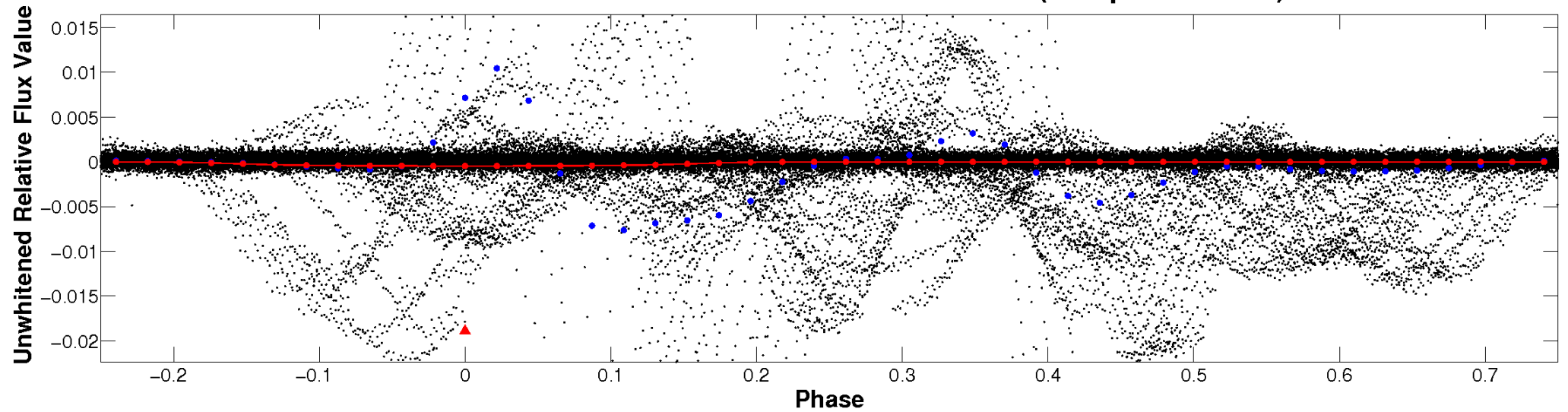
ALT Odd/Even

TCE 004732015-01

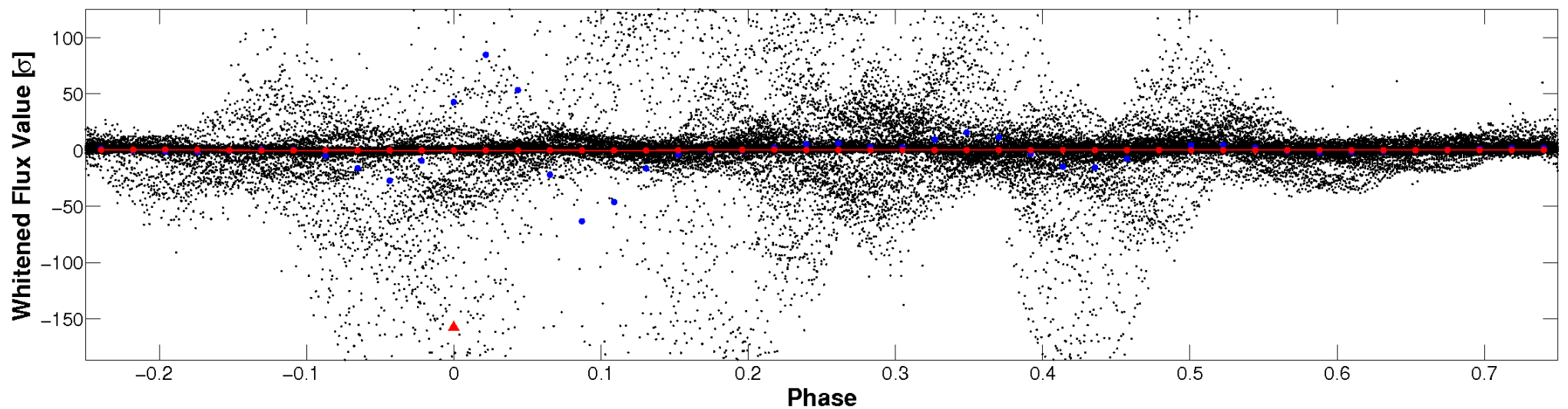


Non-Whitened Vs. Whitened Light Curve

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

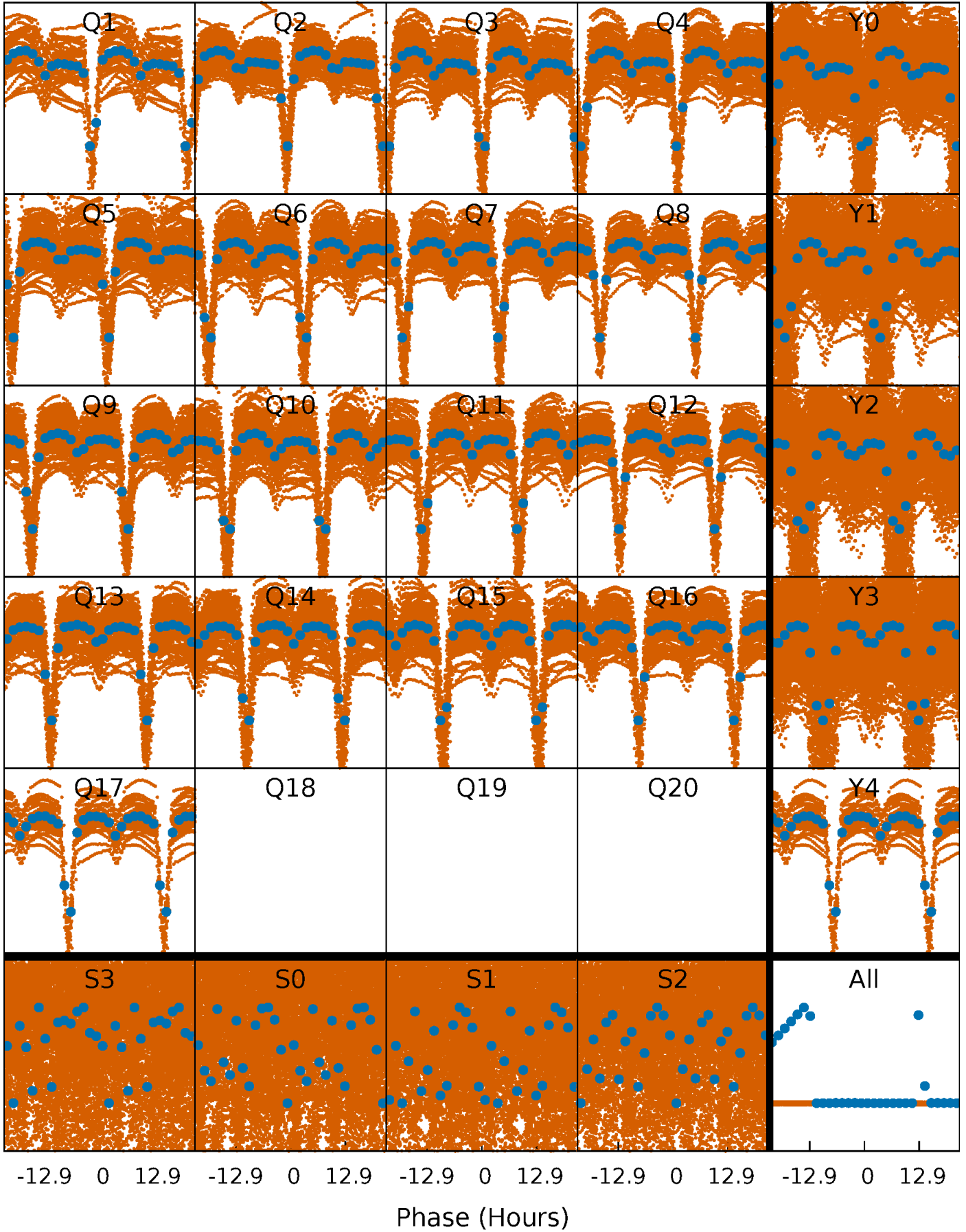


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



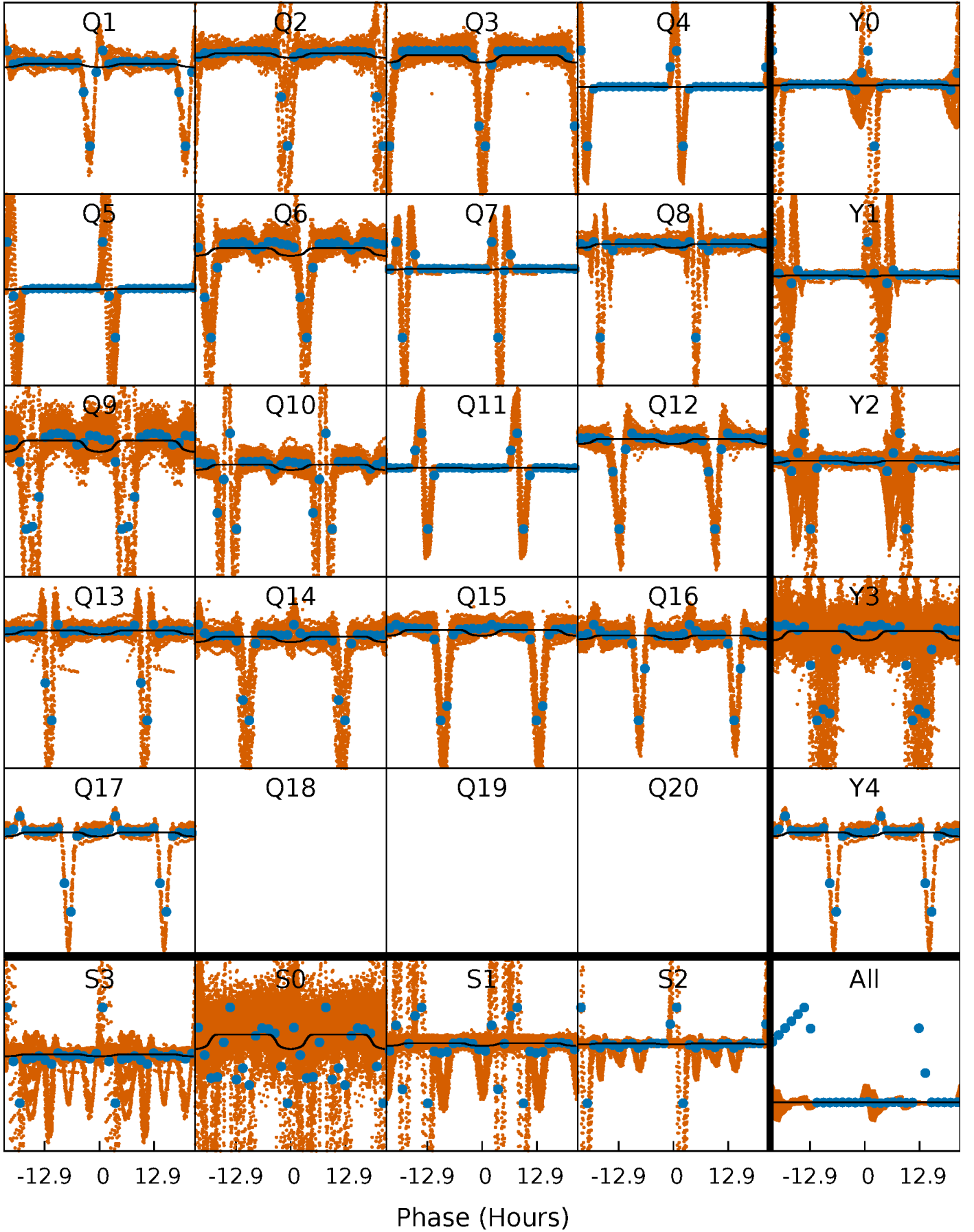
PDC Quarter-Phased Transit Curves

TCE 004732015-01 P= 0.938391 Days $T_0=132.294176$ (BKJD)



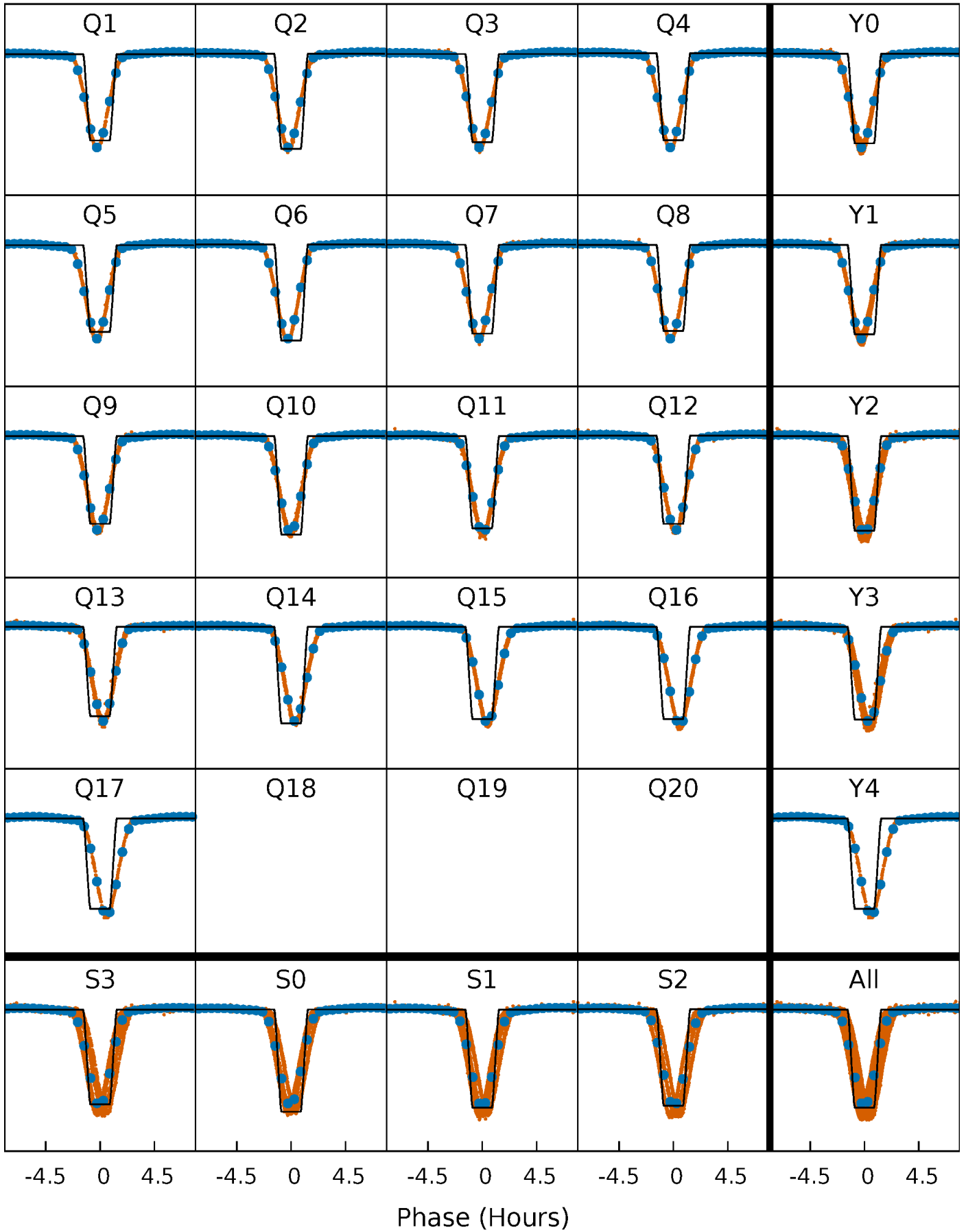
DV Quarter-Phased Transit Curves

TCE 004732015-01 P= 0.938391 Days $T_0=132.294176$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

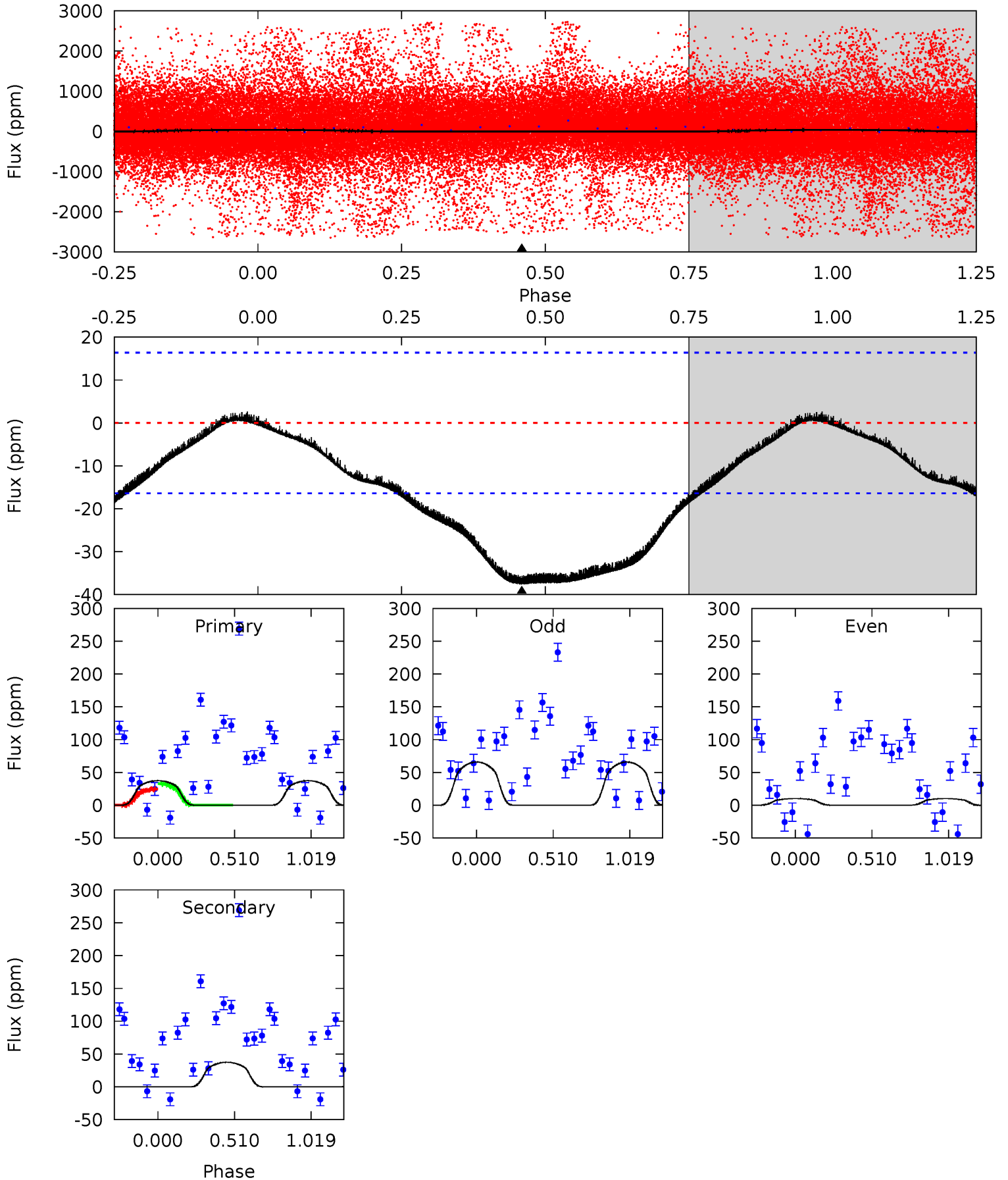
TCE 004732015-01 P= 0.938833 Days $T_0=132.226183$ (BKJD)



DV Model-Shift Uniqueness Test

004732015-01, P = 0.938391 Days, E = 131.355785 Days

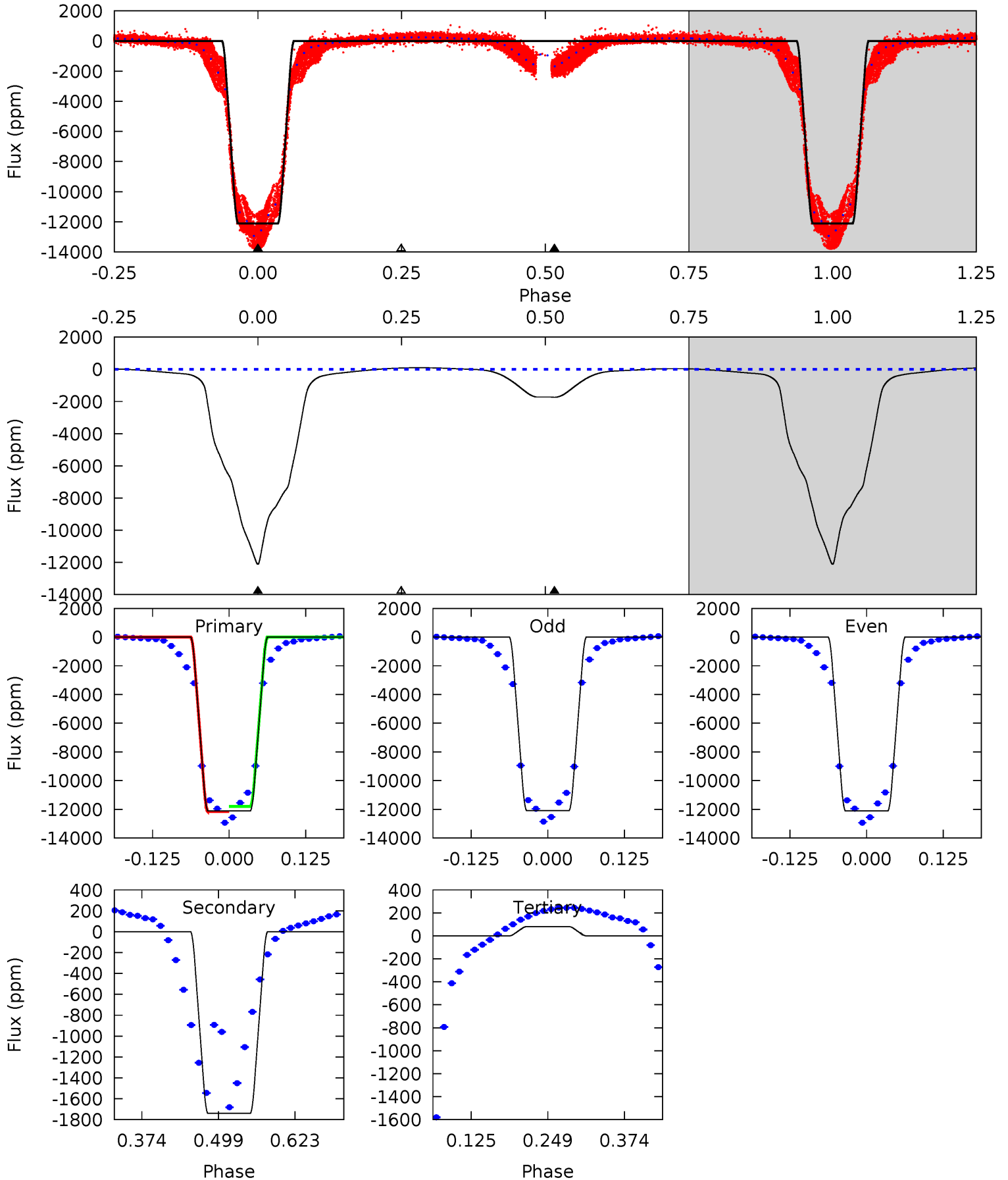
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.62	9.62	0	0	4.21	0.66	0.21	9.62	9.62	9.62	9.62	6.68	-229.2	0.07	0.93



Alt Model-Shift Uniqueness Test

004732015-01, P = 0.938833 Days, E = 131.287350 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3805	546.8	-25.3	0	4.52	1.54	33.7	3830	3805	572.1	546.8	4.91	0.99	0.01	56.6



Stellar Parameters For KIC 004732015

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4217^{+67}_{-59}	$1.656^{+0.132}_{-0.108}$	$-0.180^{+0.150}_{-0.100}$	$27.676^{+5.711}_{-4.673}$	$1.264^{+0.388}_{-0.258}$	$0.000^{+0.000}_{-0.000}$
	+2%/-1%	+8%/-7%	+83%/-56%	+21%/-17%	+31%/-20%	+56%/-36%
Source	SPE74	SPE74	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 004732015-01 / KOI 5076.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-37 ± 4	$76.45^{+10.60}_{-9.29}$	9568^{+481}_{-461}	-7442^{+407}_{-479}	$0.001^{+0.000}_{-0.000}$
Alt.	-1741 ± 3	$342.52^{+42.89}_{-38.34}$	9598^{+427}_{-461}	-7459^{+443}_{-427}	$0.003^{+0.001}_{-0.001}$

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

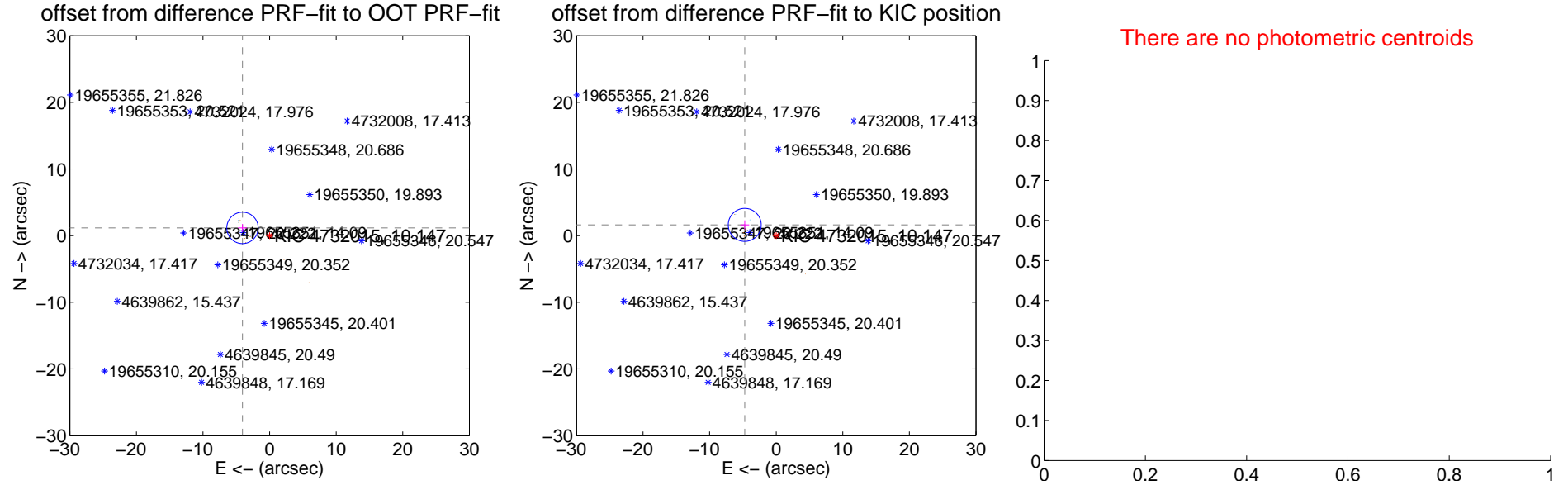
DV Centroid Data

Supplemental centroid analysis for 004732015-01. **Kepler magnitude: 10.15.** Transit SNR 42.11

There are 5 quarters with good PRF difference image offsets

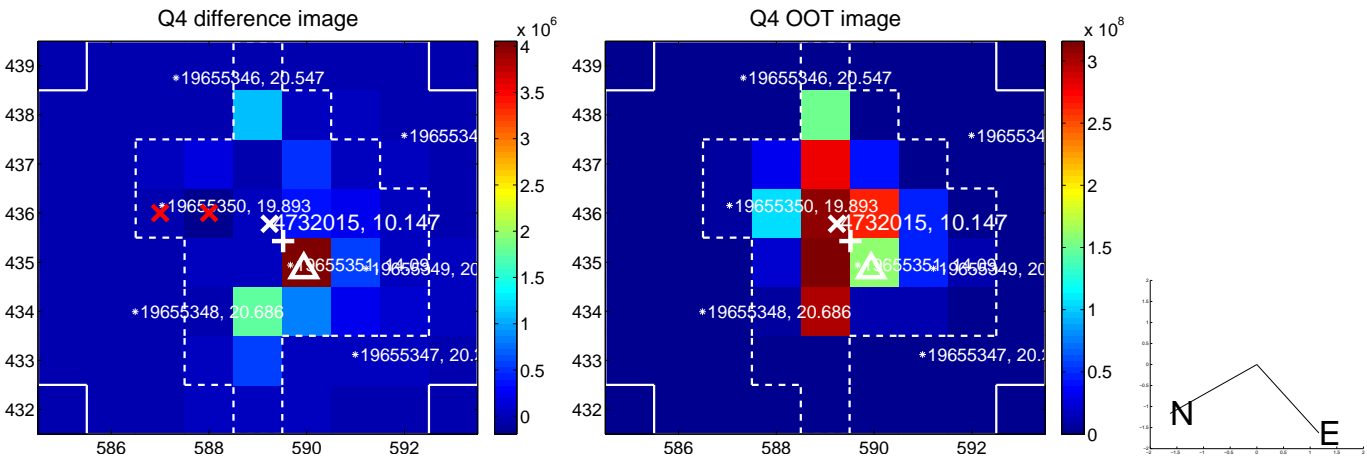
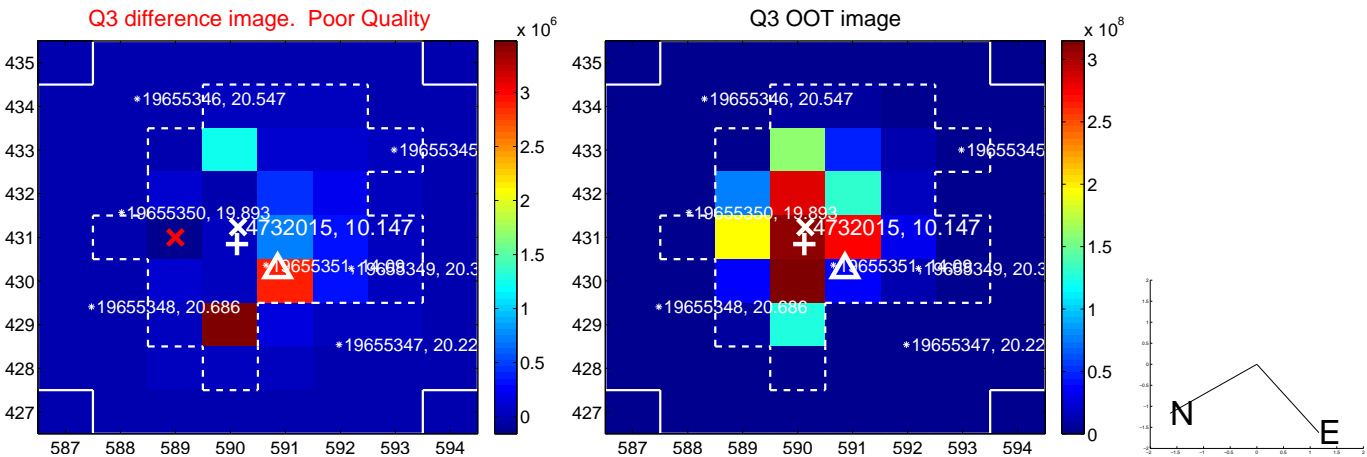
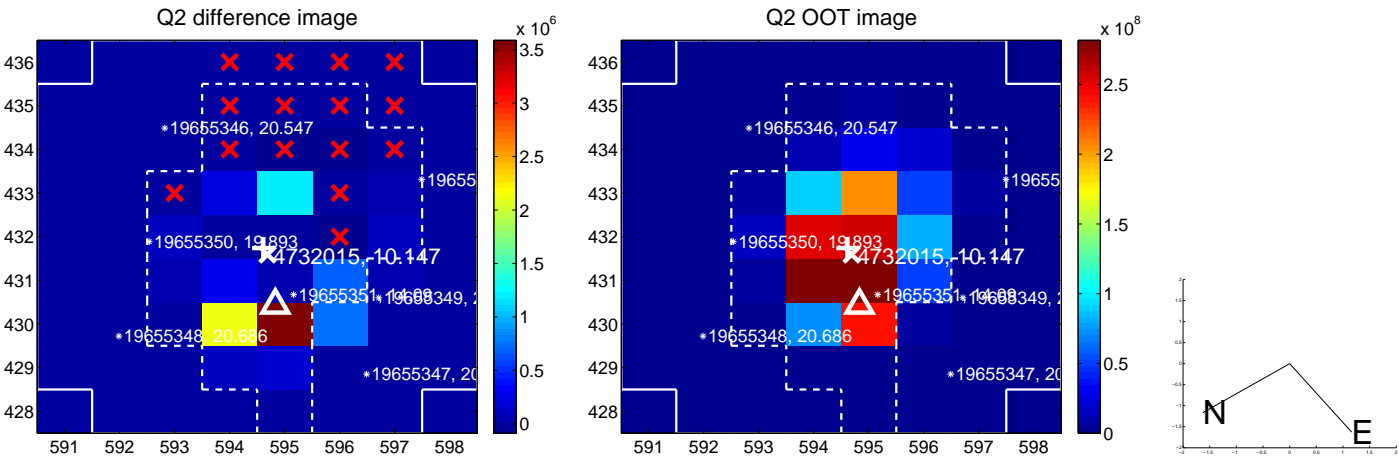
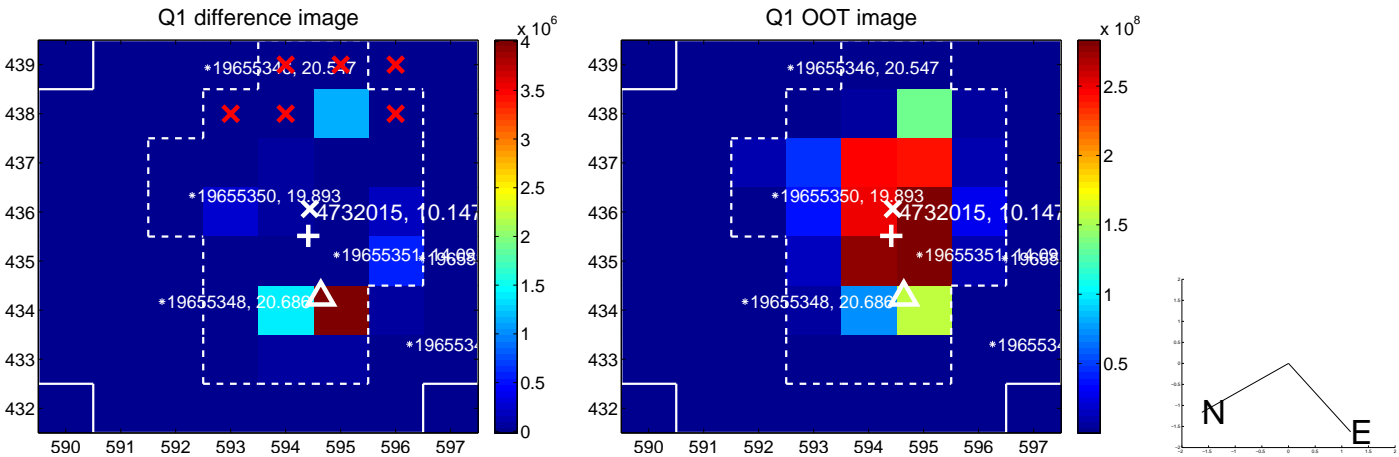
The direct PRF centroid is offset from the target star catalog position by about 1.89 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.230 ± 0.787	5.38	4.068 ± 0.671	1.158 ± 0.586
PRF-fit source offset from KIC position	4.989 ± 0.826	6.04	4.722 ± 0.663	1.613 ± 0.680
photometric centroid source offset	—	—	—	—

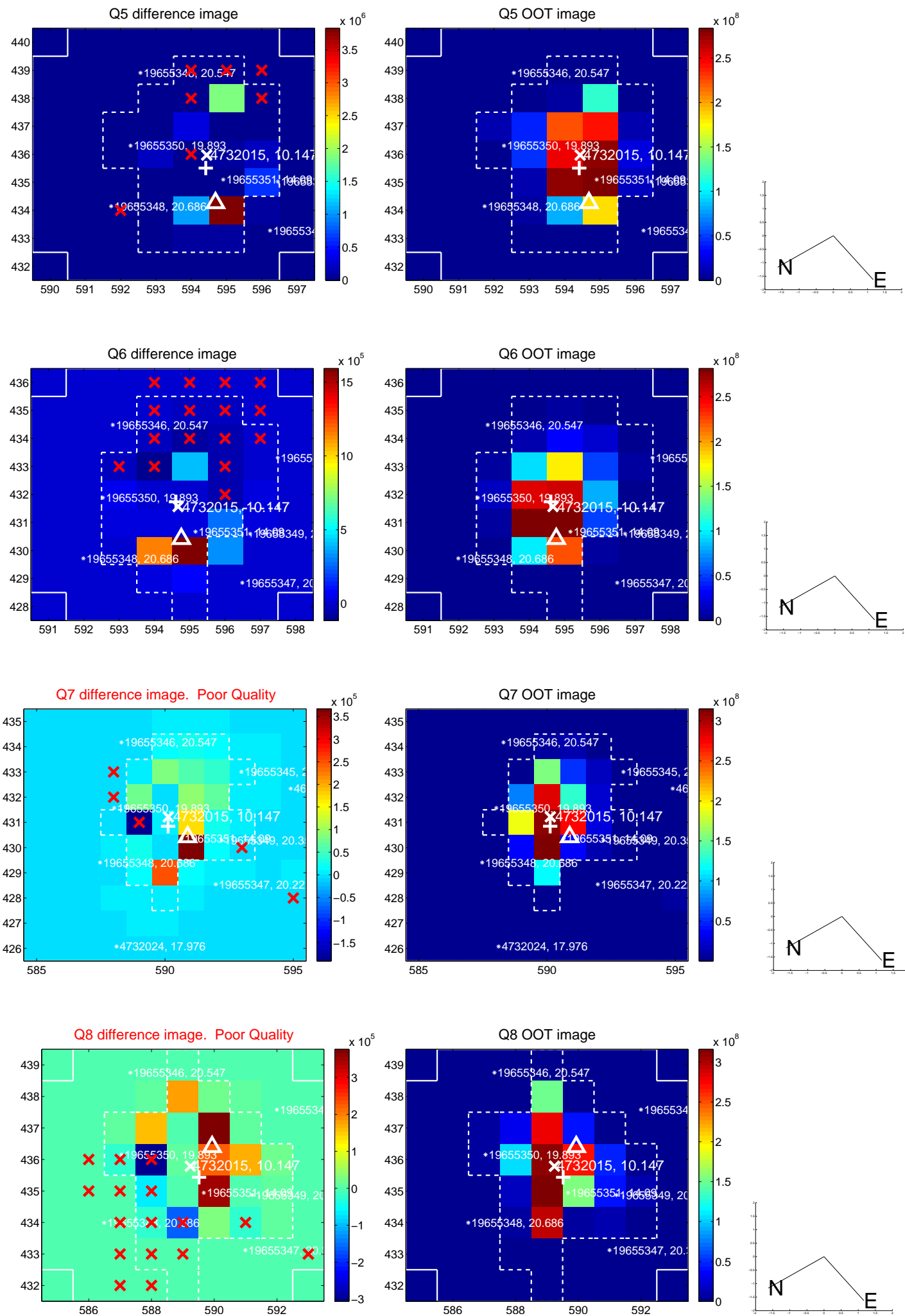


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

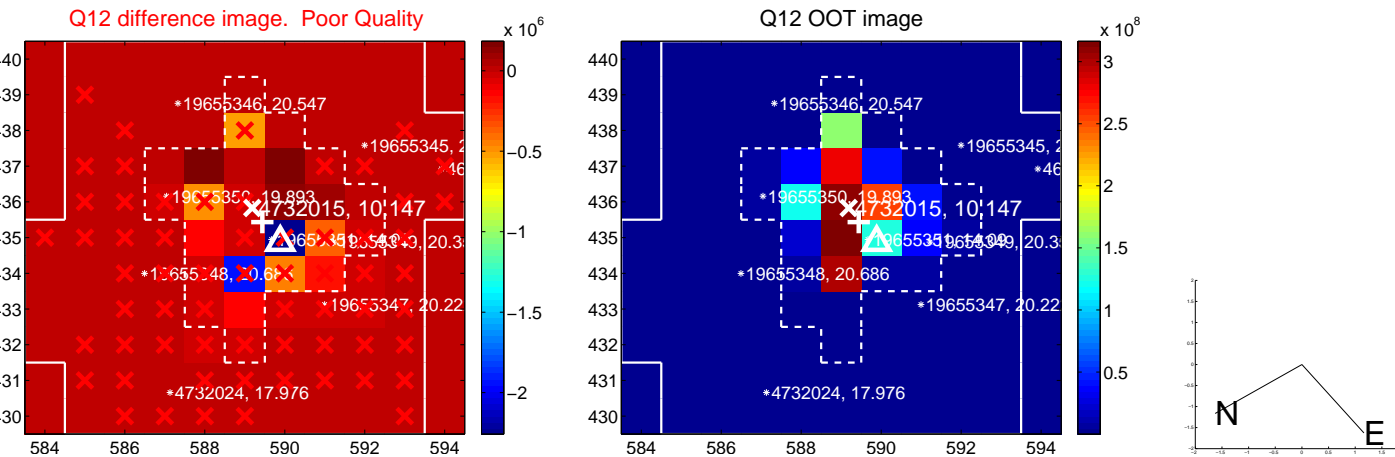
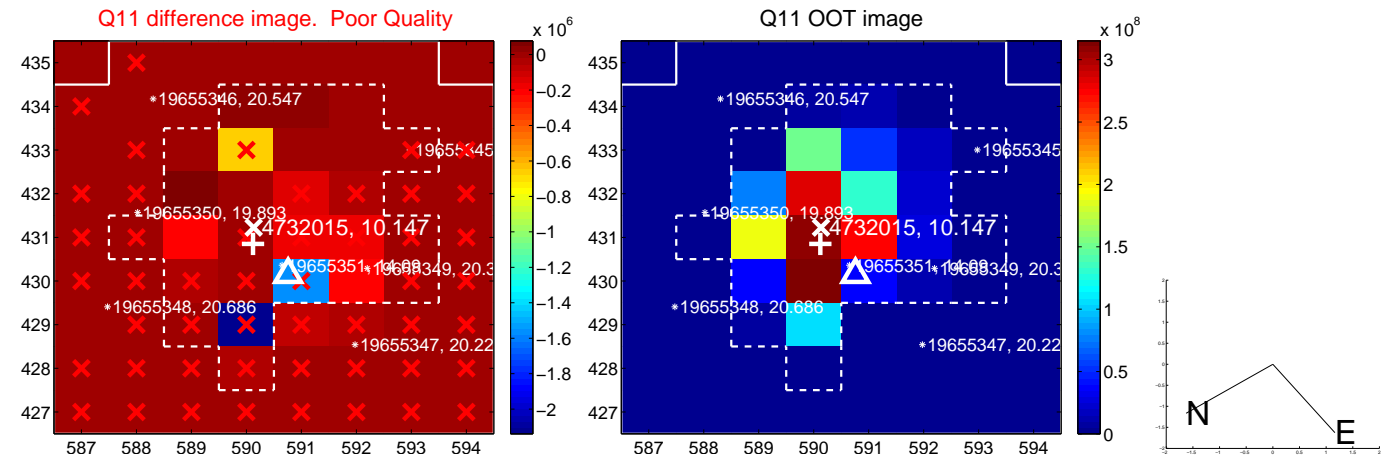
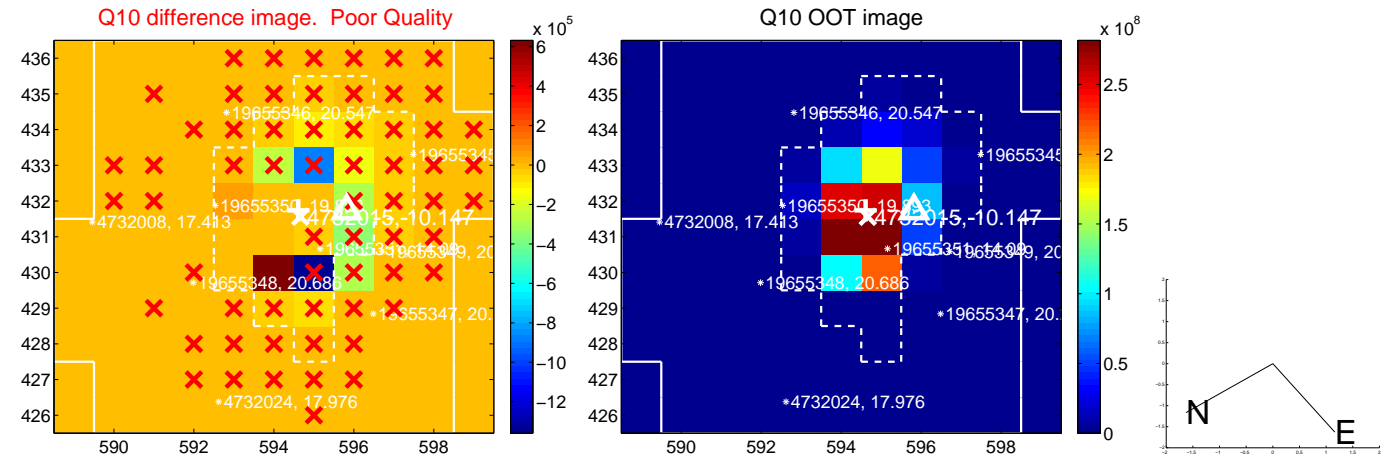
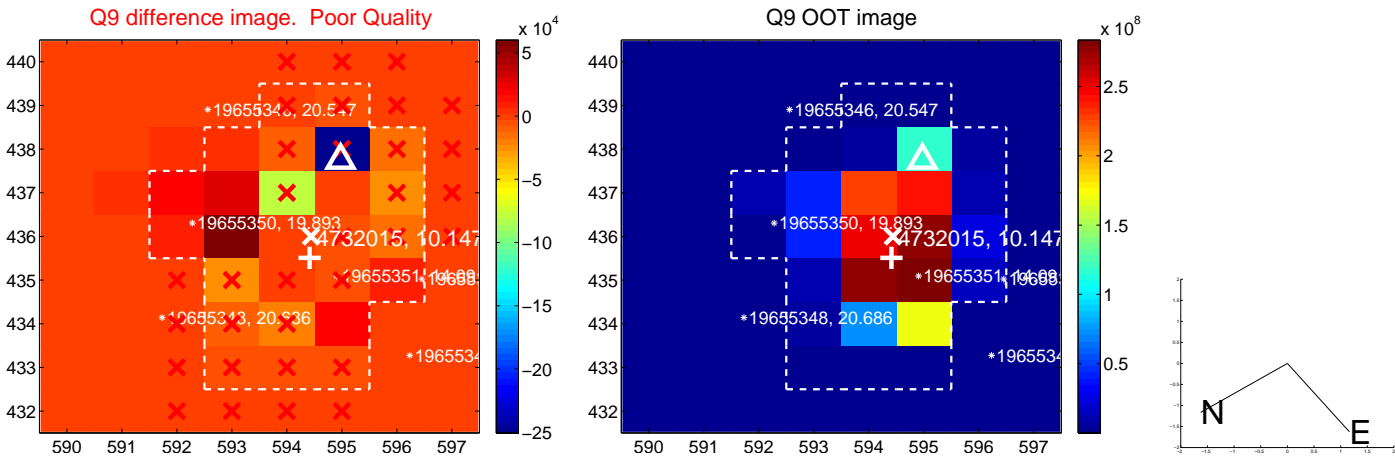
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



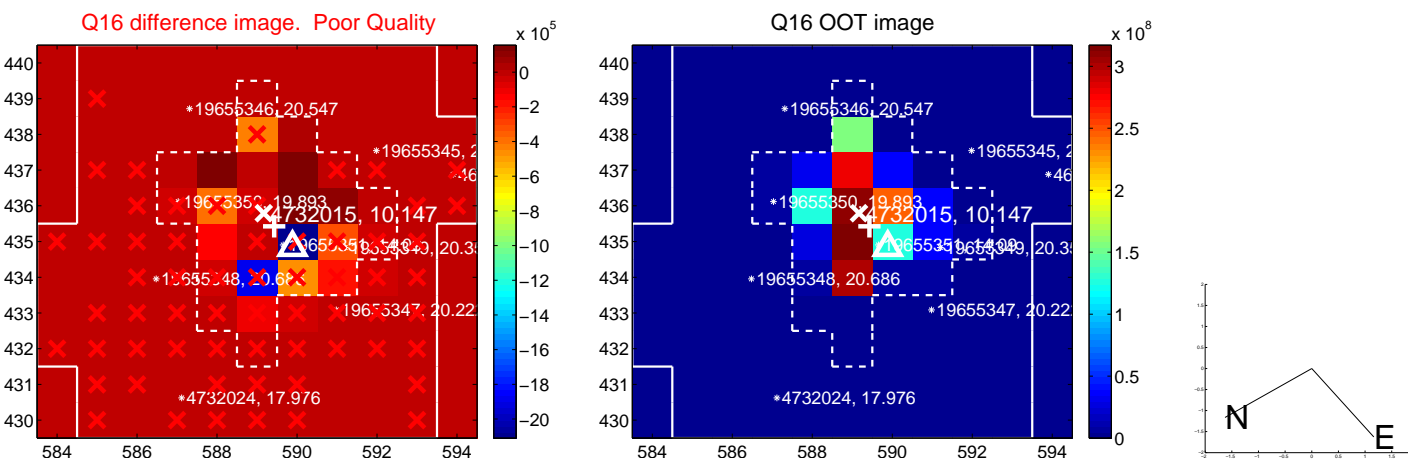
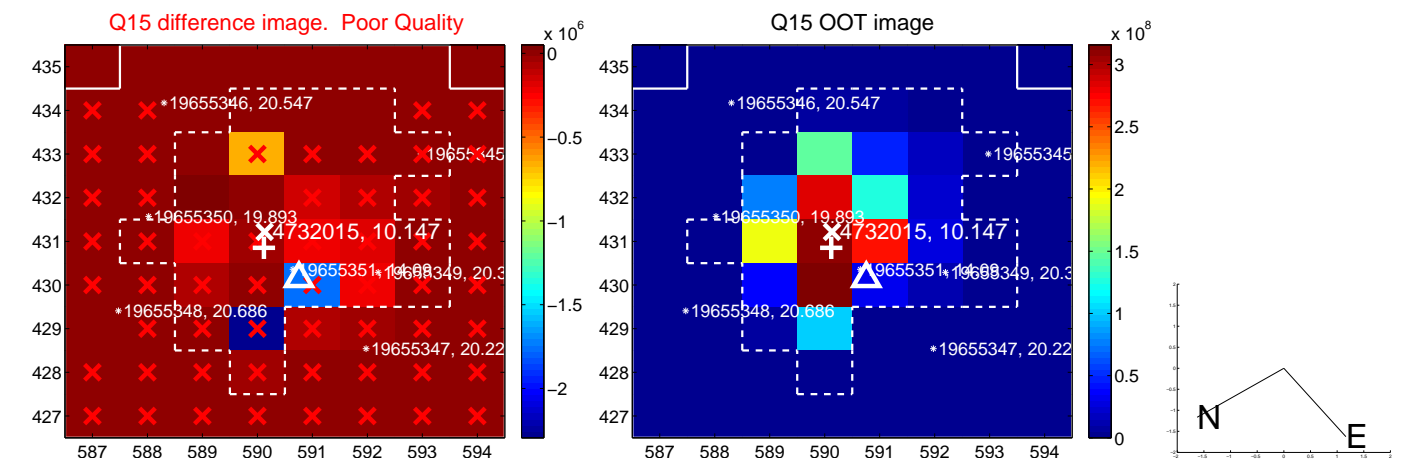
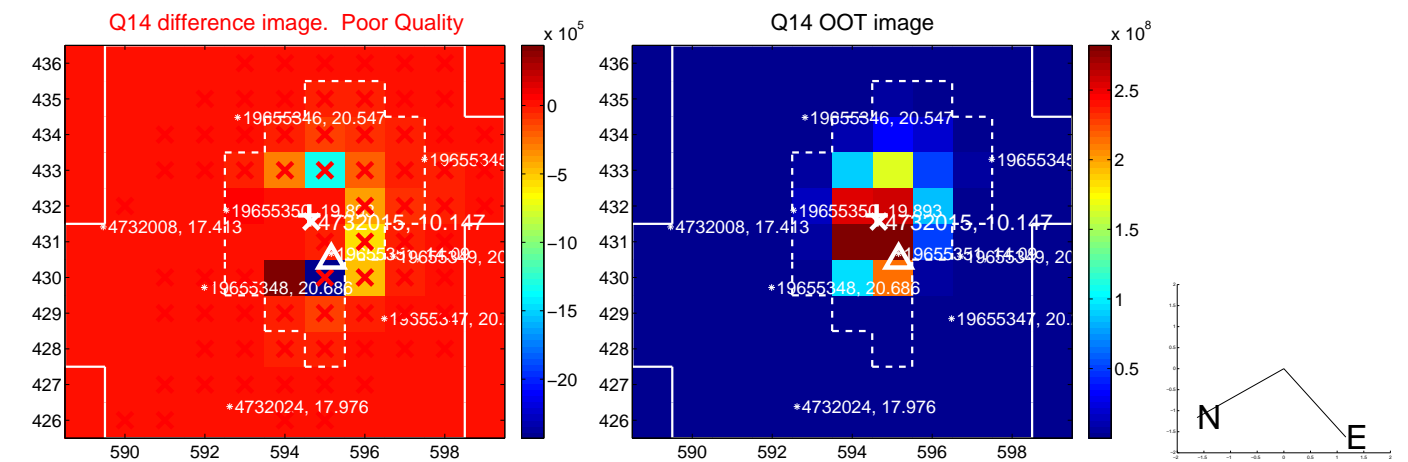
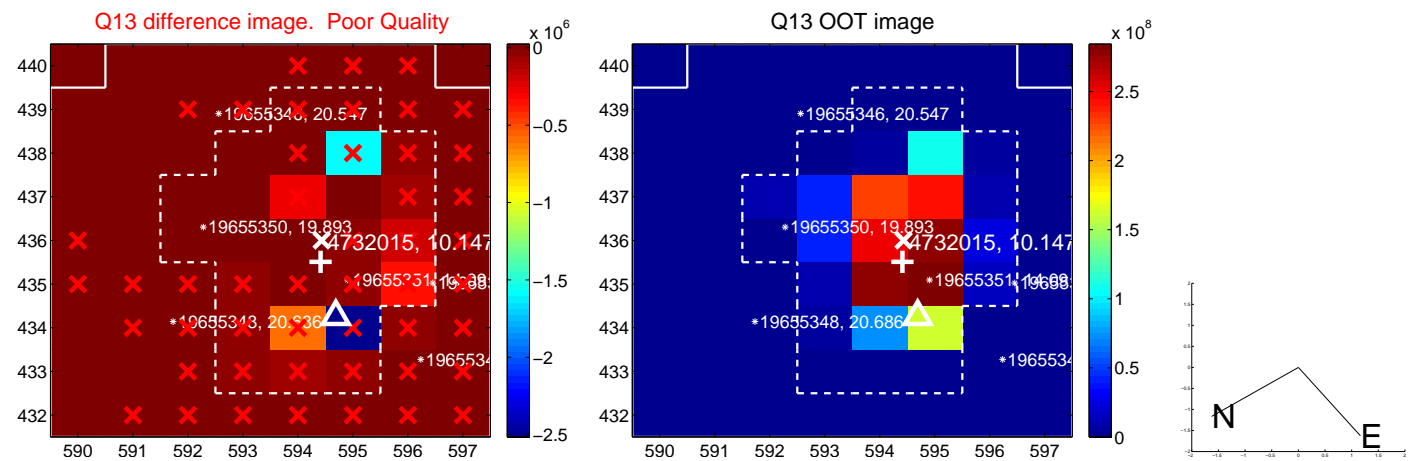
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



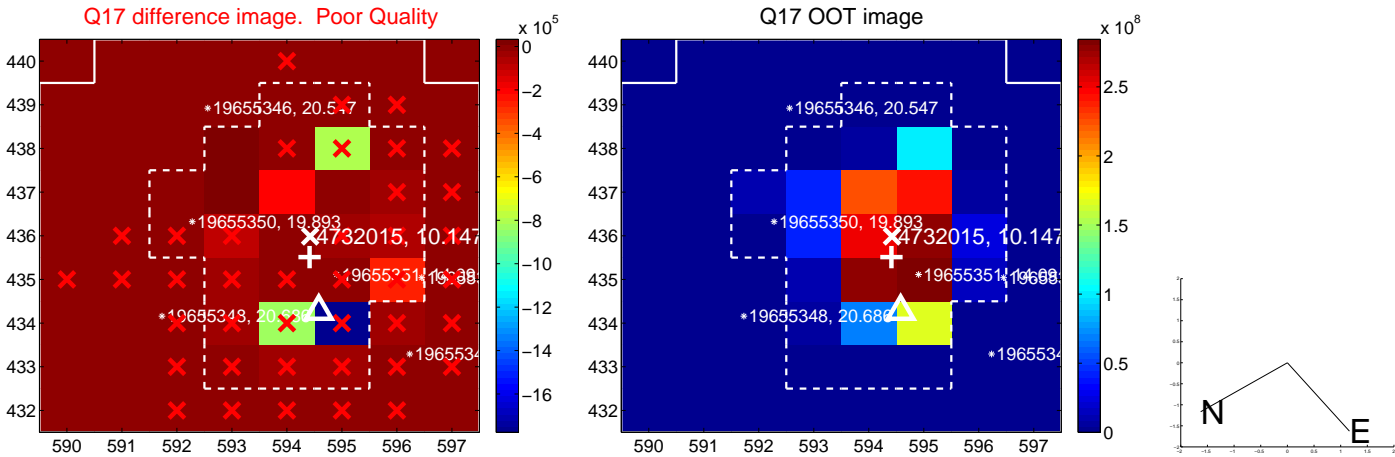
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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folded centroid time series figure for this object.

UKIRT Image

Declination

