

KIC 007366501

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})
007366501-01	OBS	7834.01	7.381393	137.556264	101.5	2.780	7.3	7.9	0.92	6072	1.09	187.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007366501-01	OBS	PC	0.80	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.

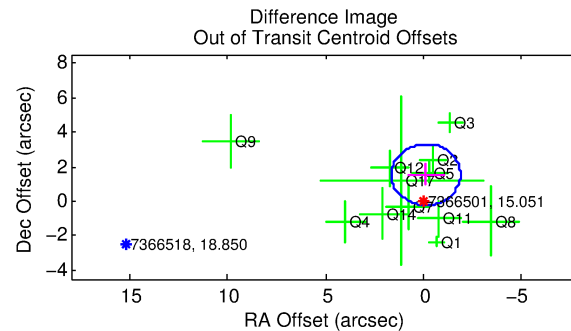
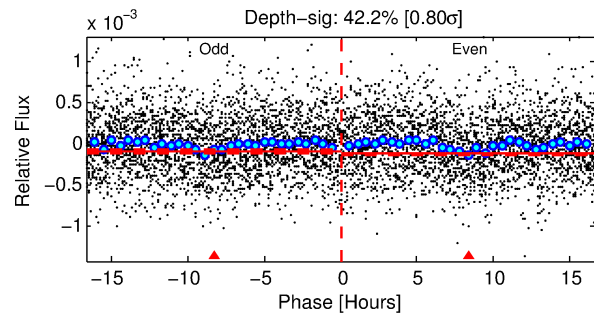
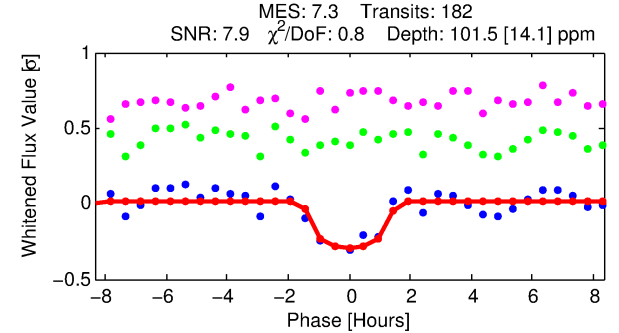
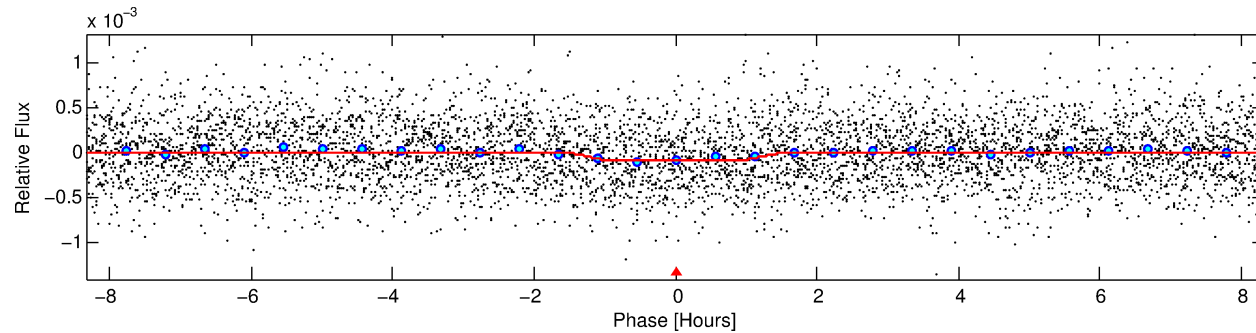
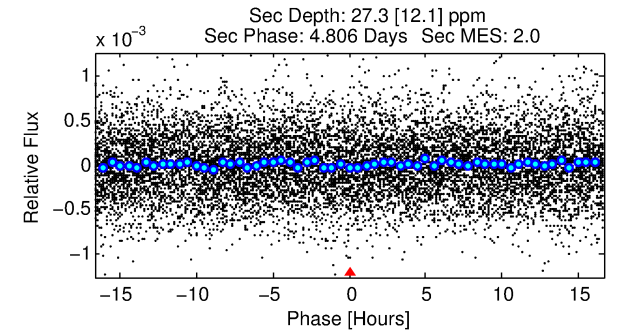
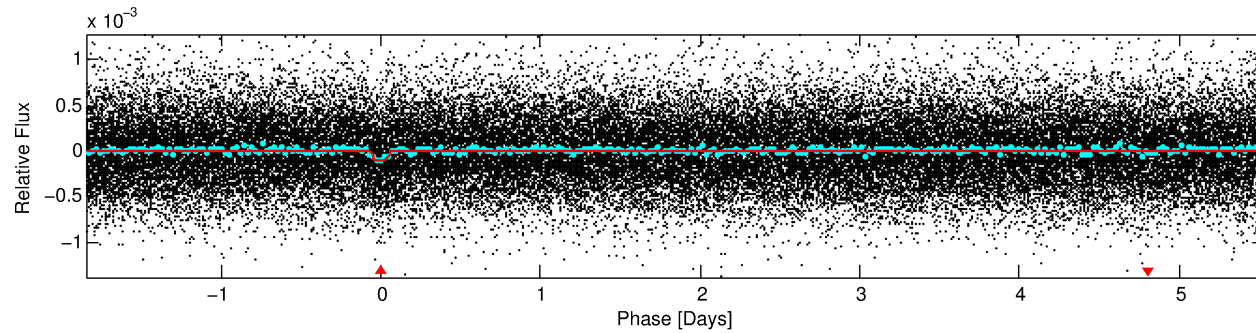
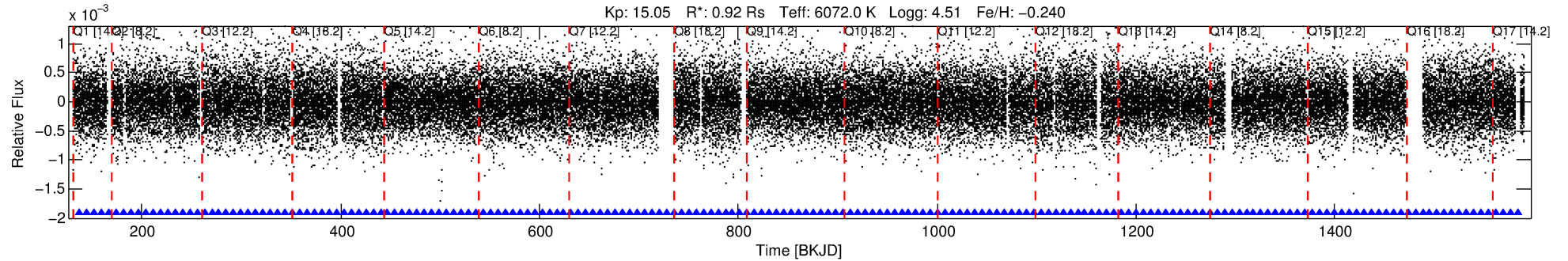
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007366501-01

No Significant Match Found

DV One-Page Summary

KIC: 7366501 Candidate: 1 of 1 Period: 7.381 d



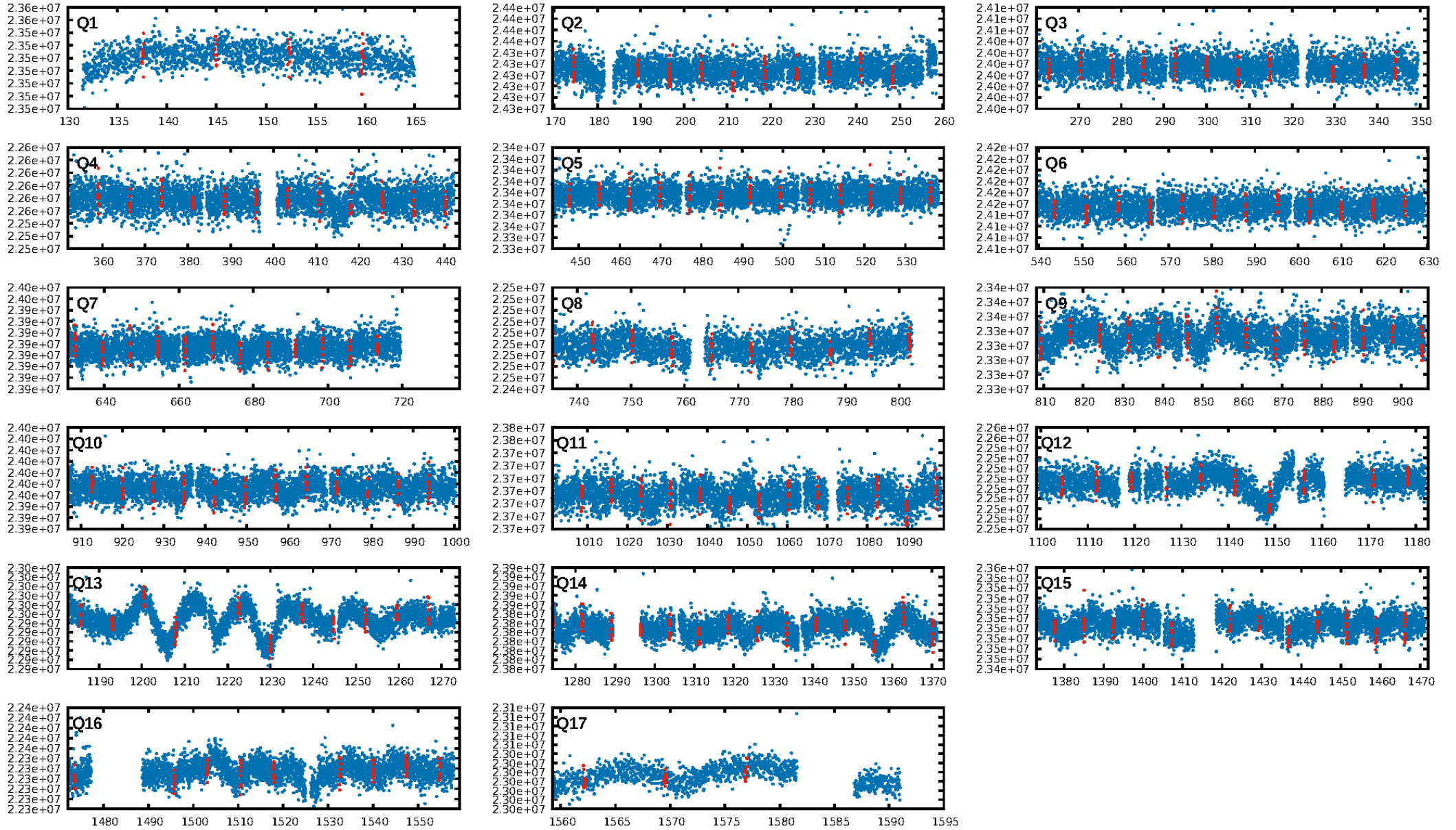
DV Fit Results:

Period = 7.38139 [0.00007] d
Epoch = 137.5563 [0.0076] BKJD
Rp/R* = 0.0109 [0.0091]
a/R* = 9.42 [41.49]
b = 0.90 [0.97]
Seff = 187.72 [72.99]
Teff = 944 [92] K
Rp = 1.09 [0.97] Re
a = 0.0743 [0.0187] AU
Ag = 69.29 [122.53] [0.56σ]
Teffp = 4210 [1826] K [1.79σ]

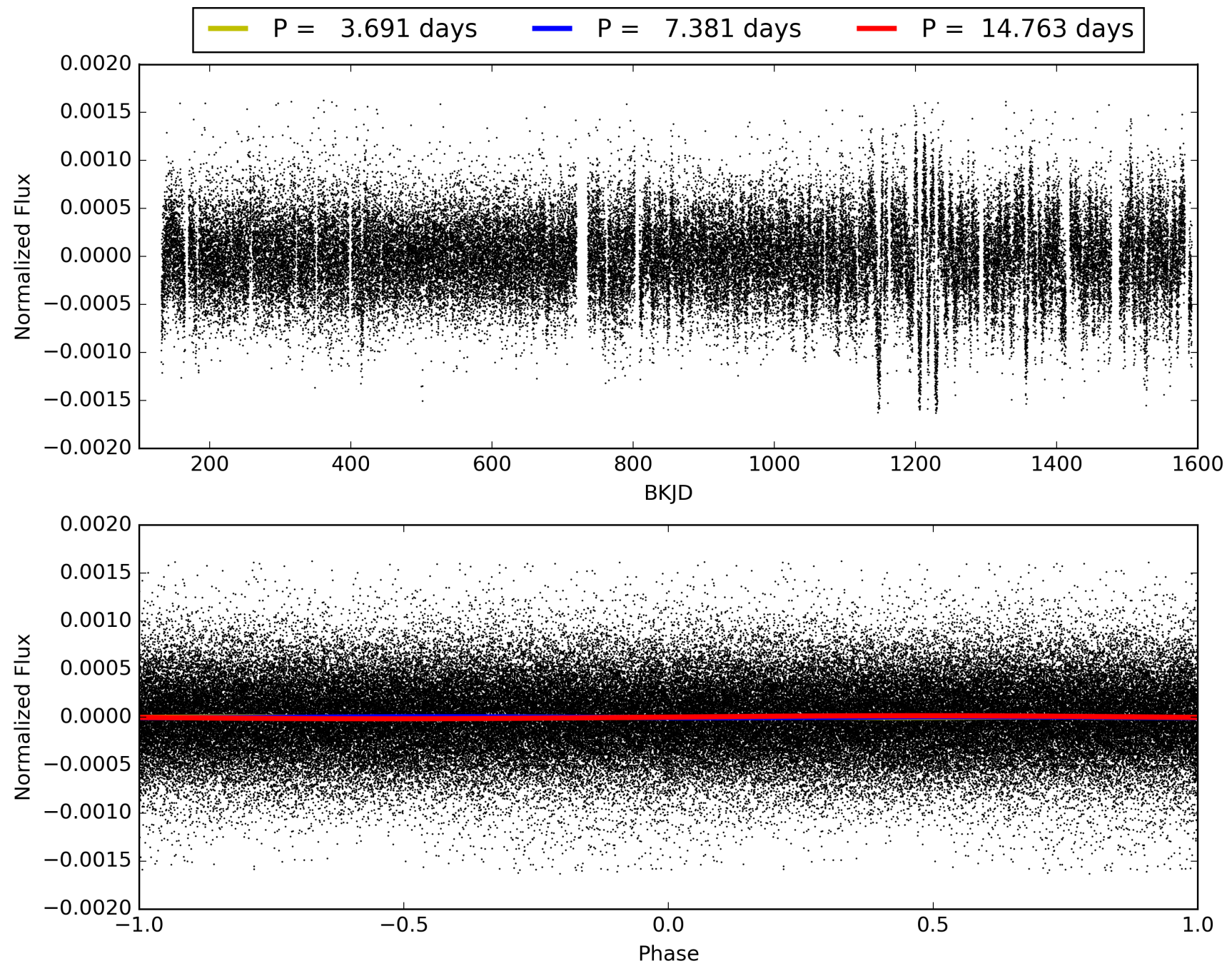
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.57e-13
RollingBand-fgt: 1.00 [175/175]
GhostDiagnostic-chr: -10.96
Centroid-sig: 4.1%
Centroid-so: 2.813 arcsec [1.52σ]
OotOffset-rm: 1.540 arcsec [2.62σ]
KicOffset-rm: 1.636 arcsec [2.88σ]
OotOffset-st: 2/3/3/4 [12]
KicOffset-st: 2/3/3/4 [12]
DiffImageQuality-fgm: 0.50 [6/12]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007366501-01, PDC Light Curves

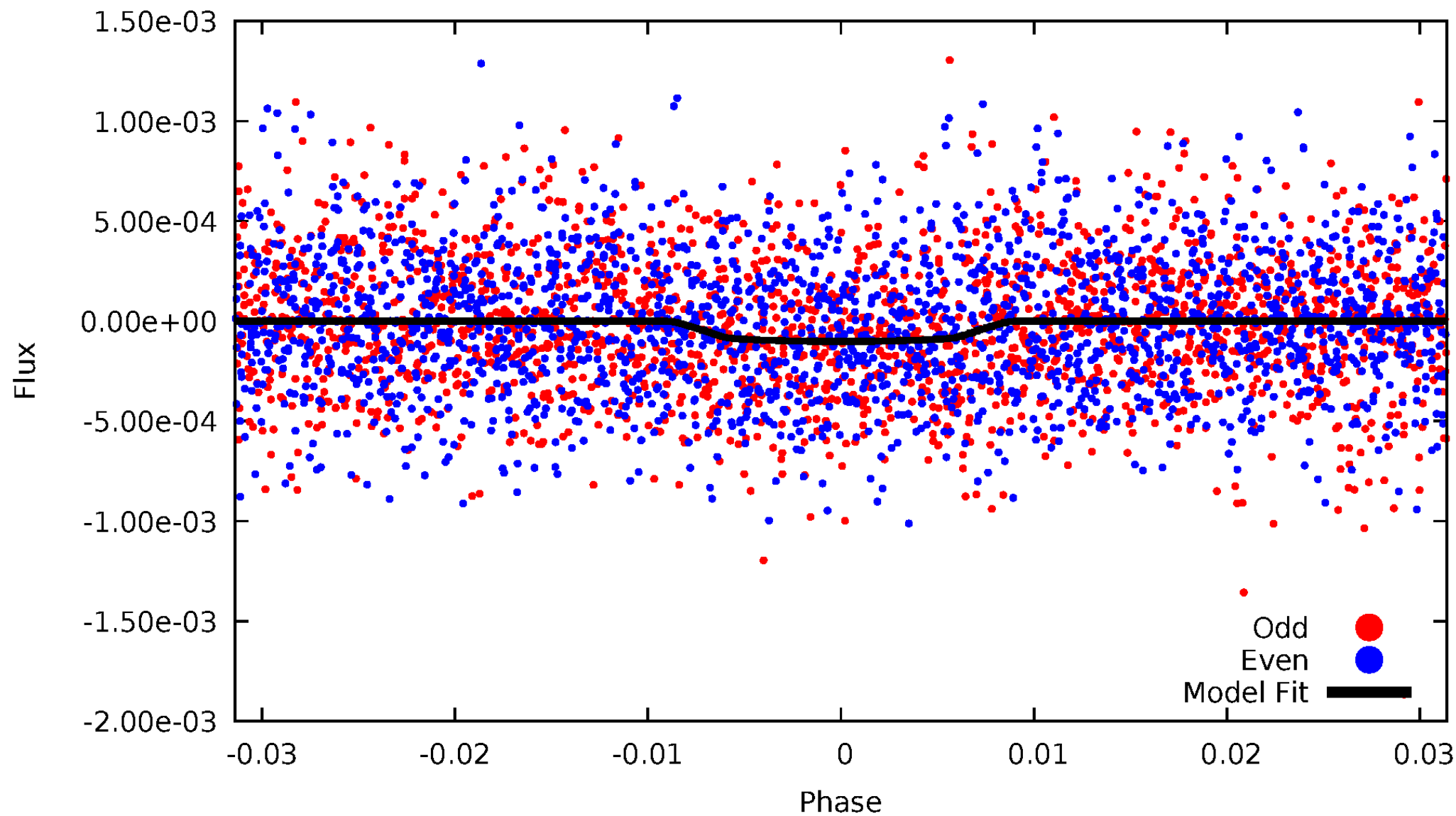


TCE 007366501-01



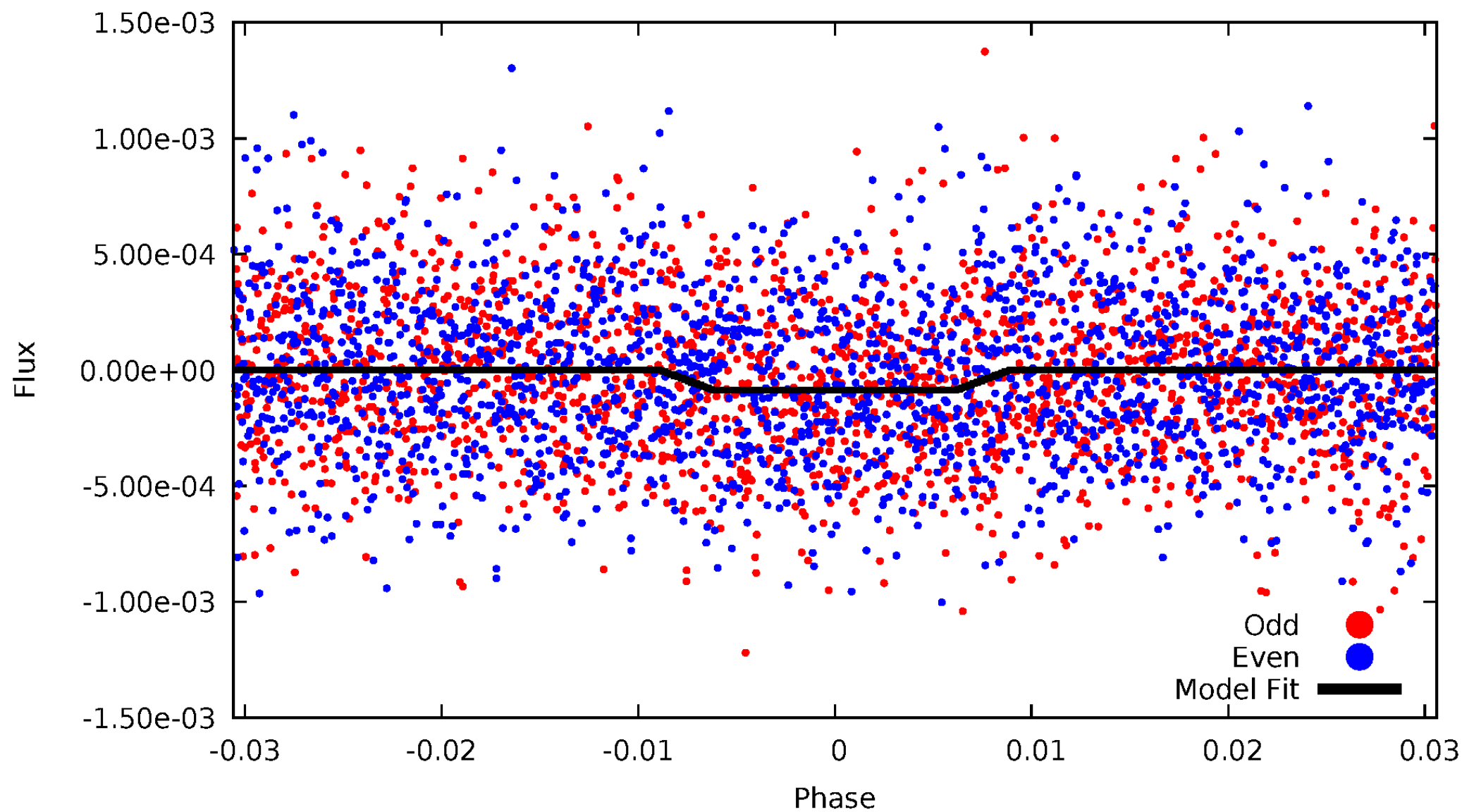
DV Odd/Even

TCE 007366501-01

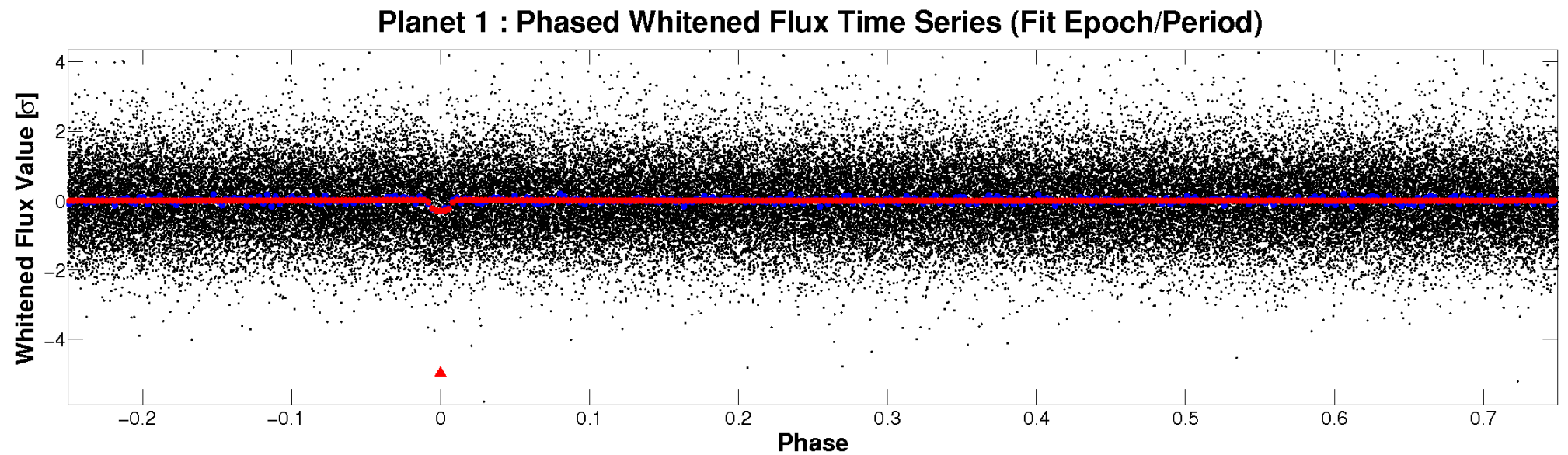
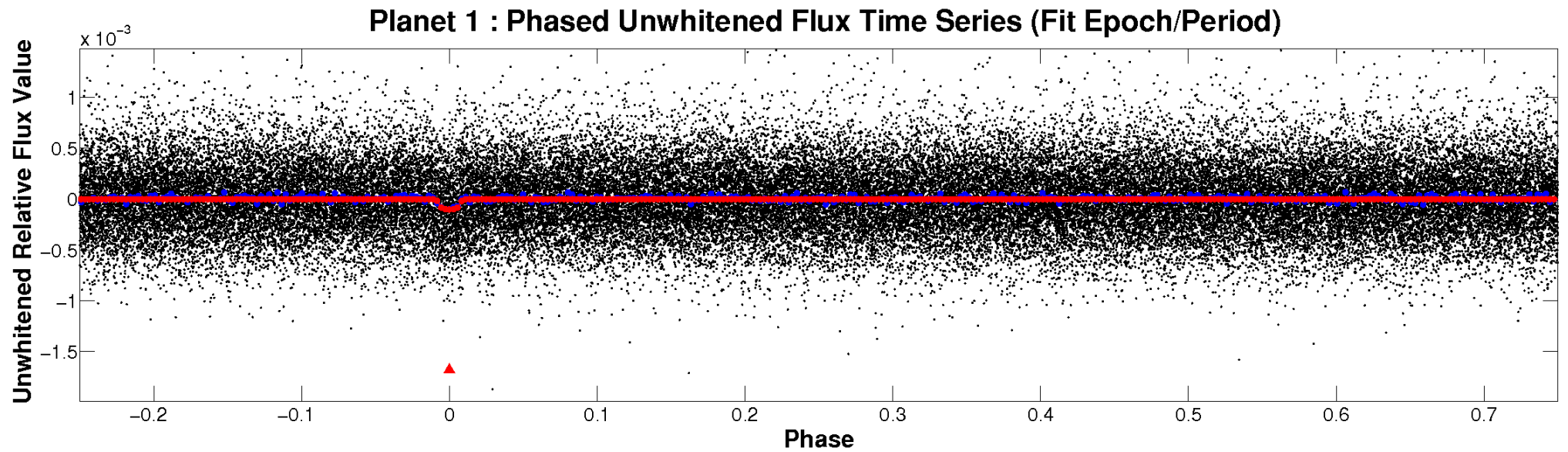


ALT Odd/Even

TCE 007366501-01

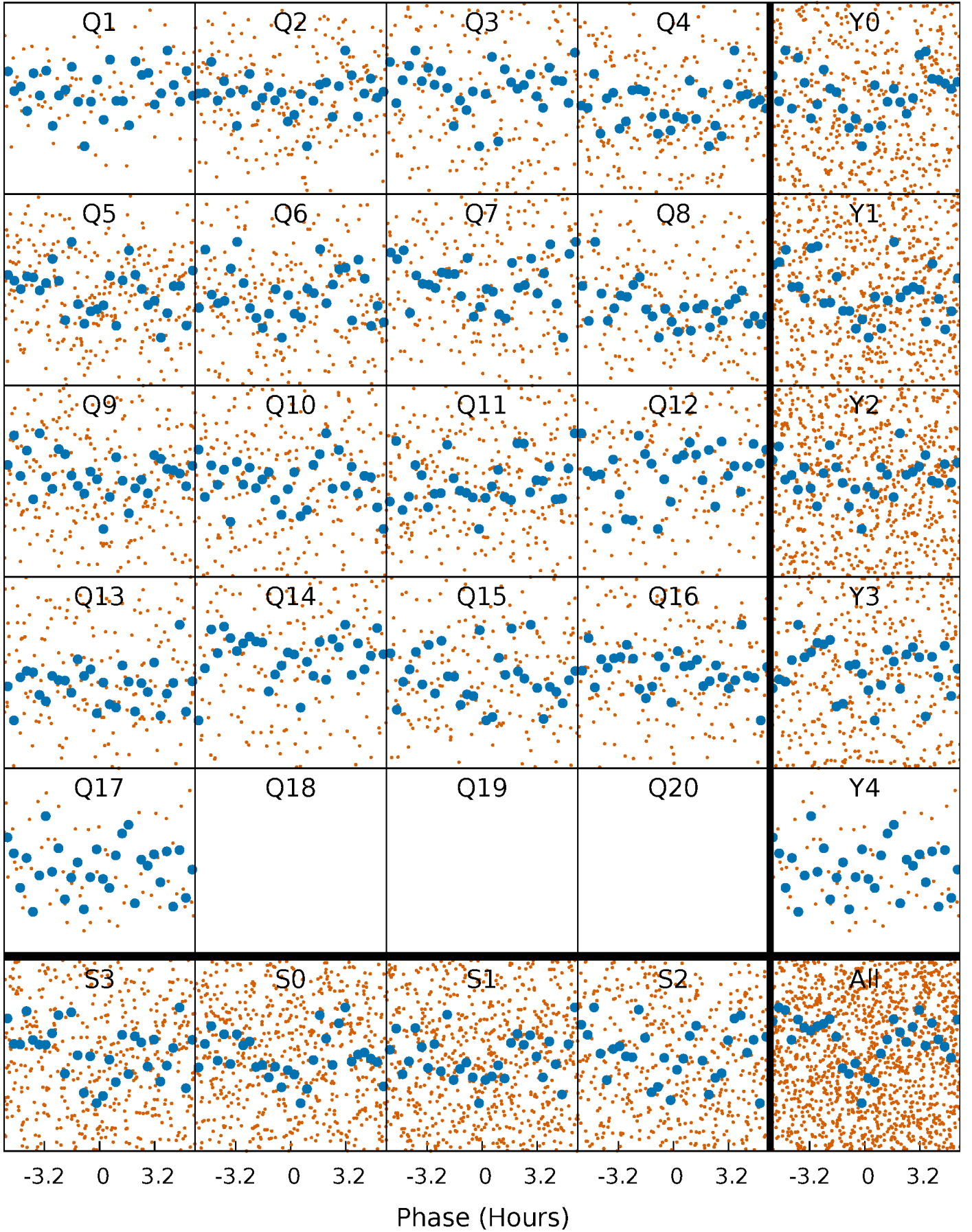


Non-Whitened Vs. Whitened Light Curve



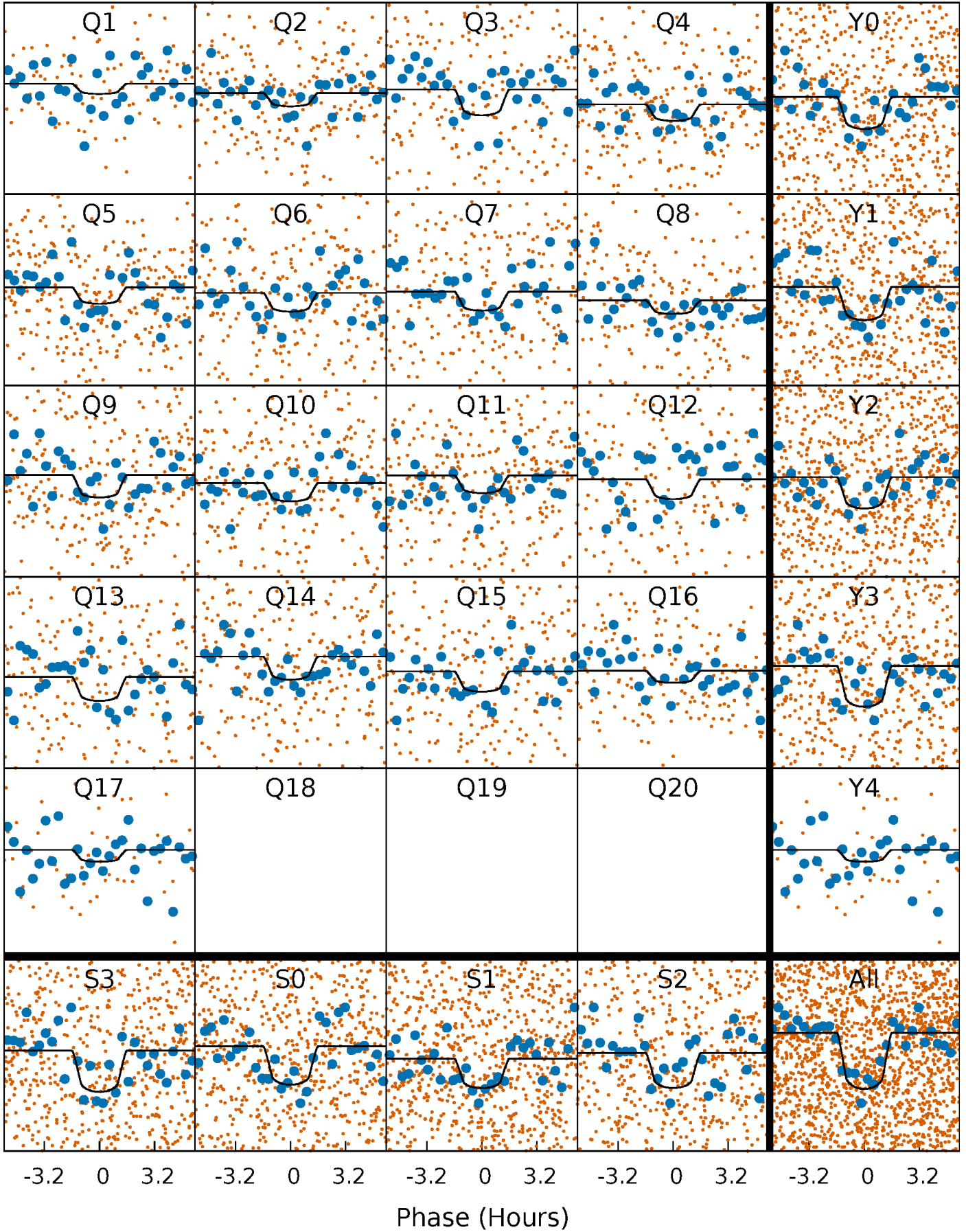
PDC Quarter-Phased Transit Curves

TCE 007366501-01 P= 7.381393 Days $T_0=137.556264$ (BKJD)



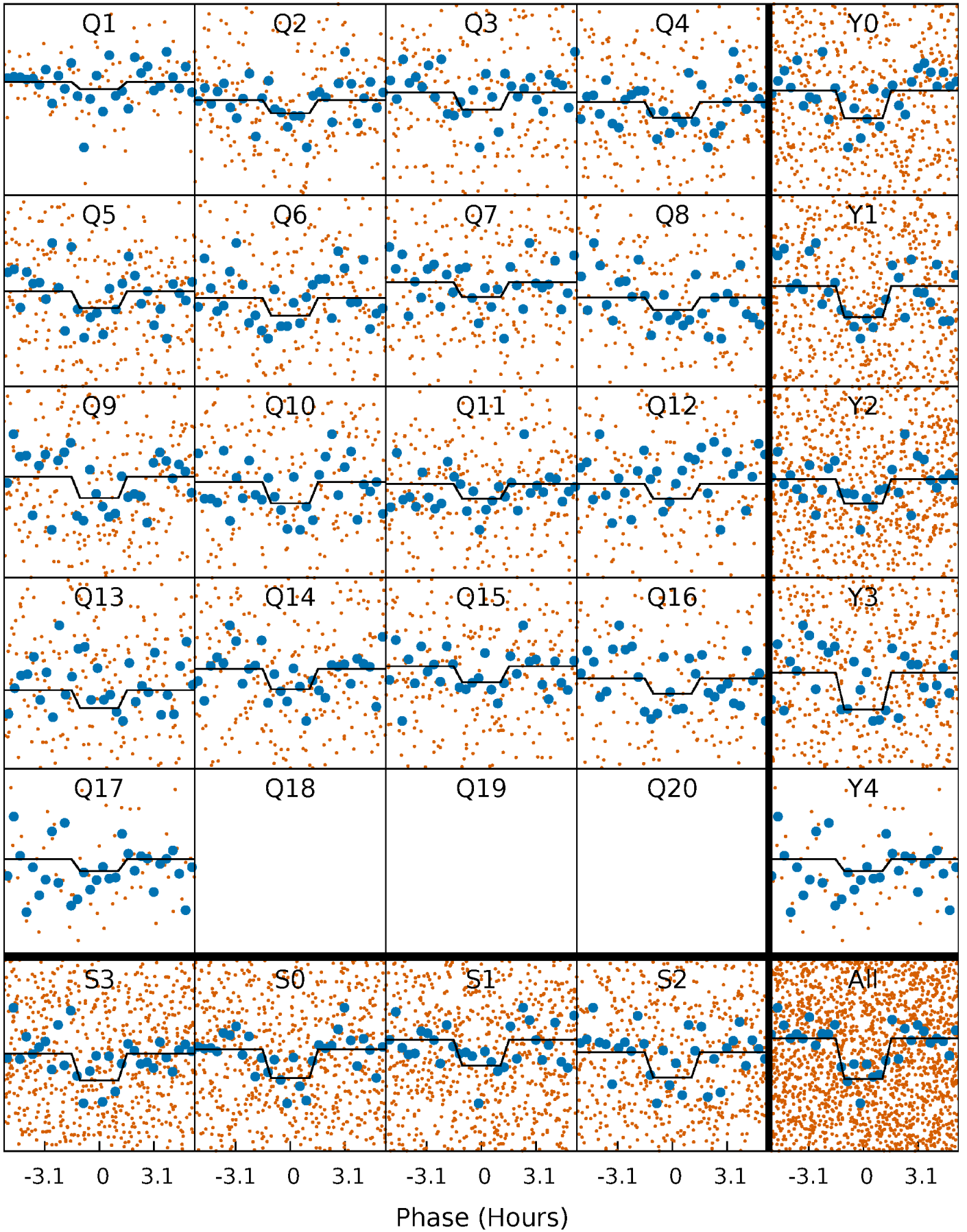
DV Quarter-Phased Transit Curves

TCE 007366501-01 P= 7.381393 Days $T_0=137.556264$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

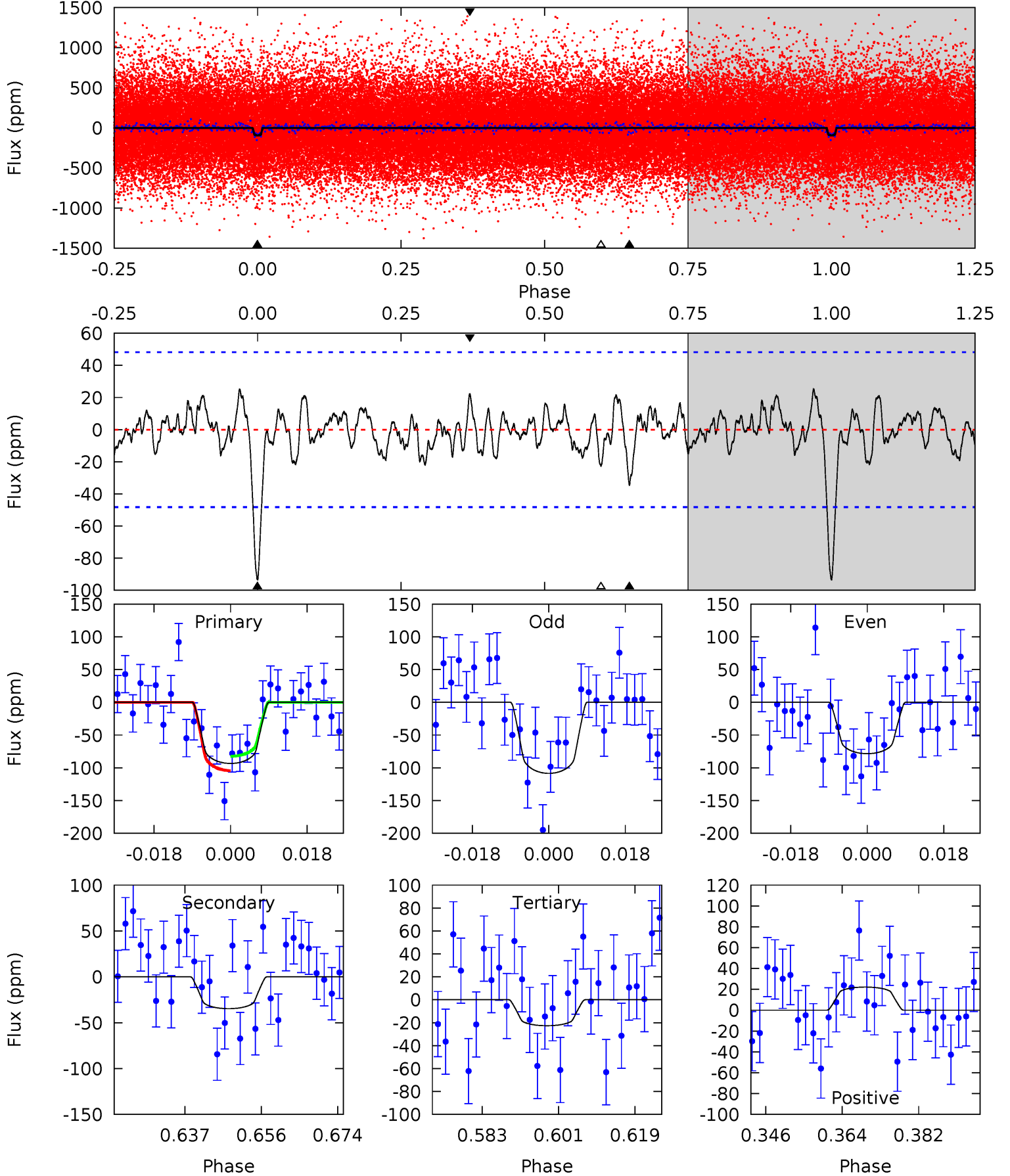
TCE 007366501-01 P= 7.381281 Days $T_0=137.560574$ (BKJD)



DV Model-Shift Uniqueness Test

007366501-01, P = 7.381393 Days, E = 130.174871 Days

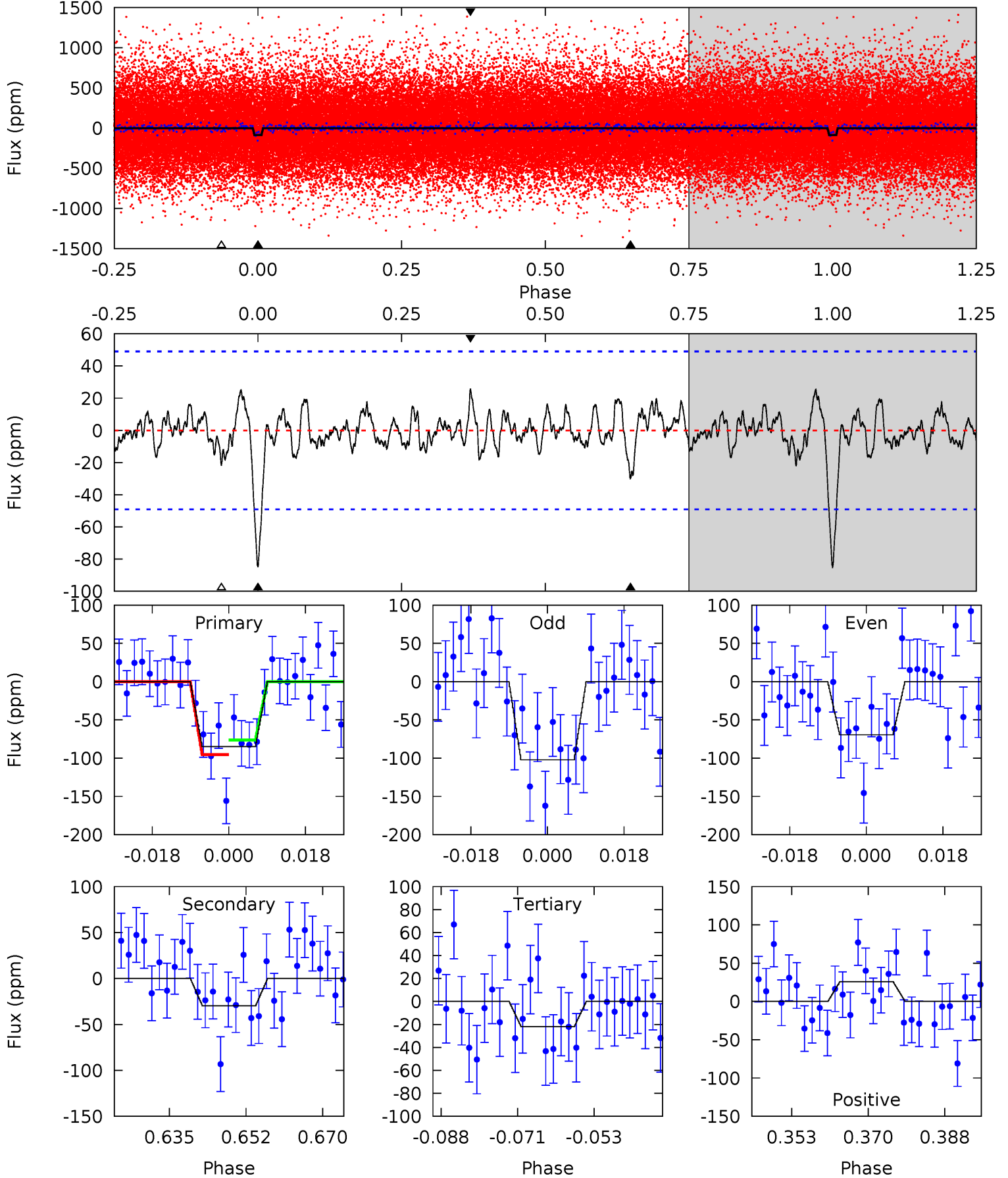
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.50	3.53	2.31	2.26	4.91	2.36	0.97	7.20	7.25	1.23	1.28	1.53	1.06	0.21	1.12



Alt Model-Shift Uniqueness Test

007366501-01, P = 7.381281 Days, E = 130.179293 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.53	3.00	2.20	2.60	4.92	2.37	0.87	6.33	5.93	0.80	0.40	1.64	0.96	0.23	0.95



Stellar Parameters For KIC 007366501

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6072^{+163}_{-199}	$4.510^{+0.050}_{-0.200}$	$-0.240^{+0.300}_{-0.300}$	$0.923^{+0.276}_{-0.092}$	$1.005^{+0.130}_{-0.143}$	$1.800^{+0.465}_{-0.896}$
	+3%/-3%	+1%/-4%	+125%/-125%	+30%/-10%	+13%/-14%	+26%/-50%
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 007366501-01 / KOI 7834.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-35 ± 10	$1.32^{+0.92}_{-0.77}$	1346^{+88}_{-66}	4329^{+2130}_{-718}	58^{+265}_{-37}
Alt.	-30 ± 10	$1.19^{+0.93}_{-0.72}$	1346^{+98}_{-63}	4350^{+2300}_{-811}	57^{+319}_{-40}

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

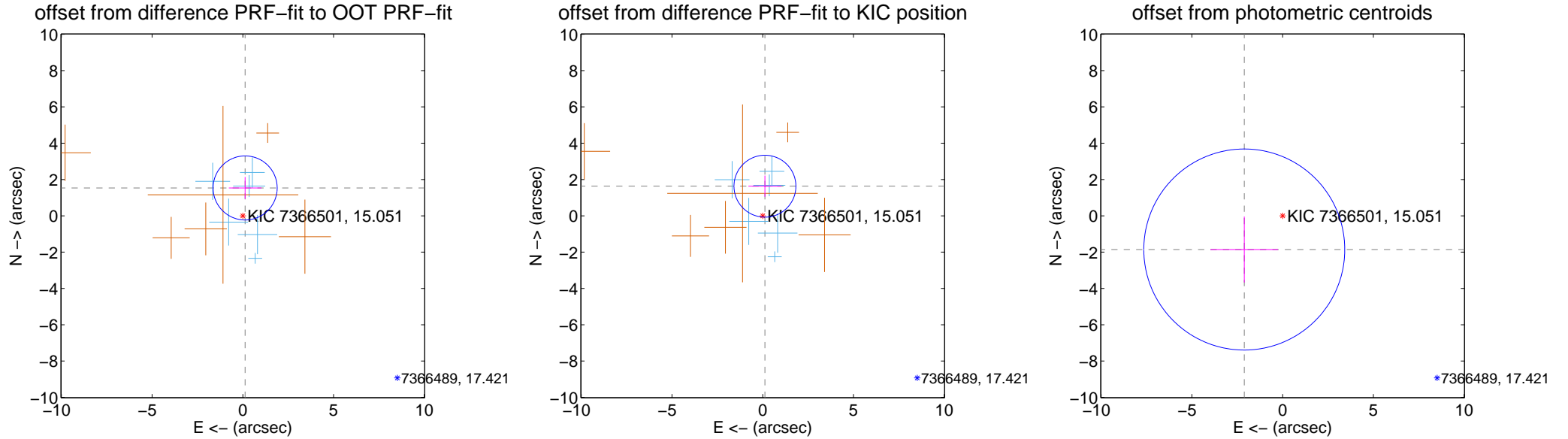
DV Centroid Data

Supplemental centroid analysis for 007366501-01. Kepler magnitude: 15.05. Transit SNR 7.90

There are 6 quarters with good PRF difference image offsets

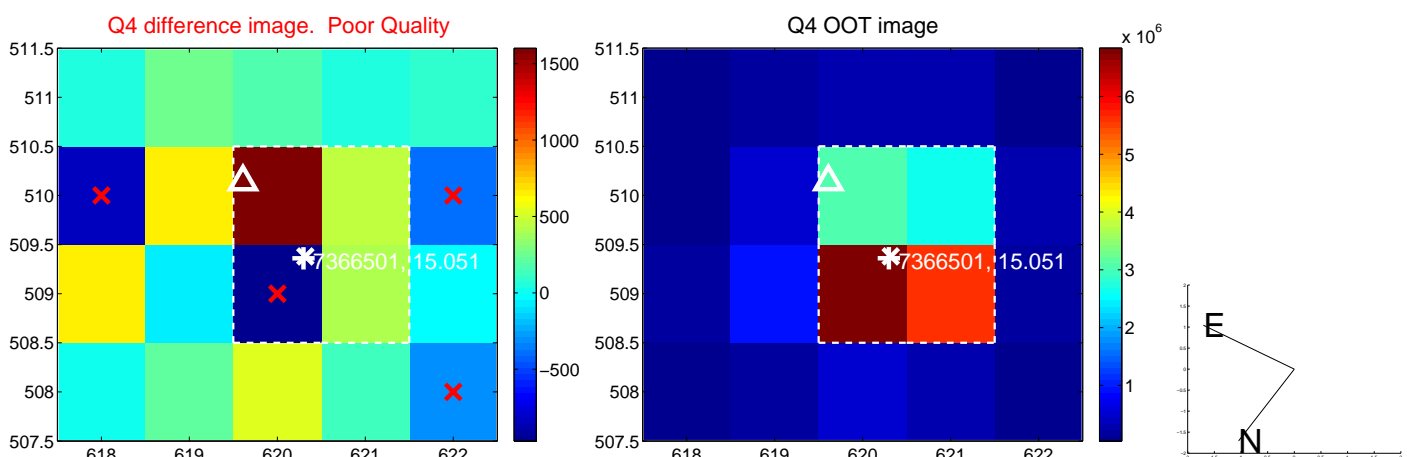
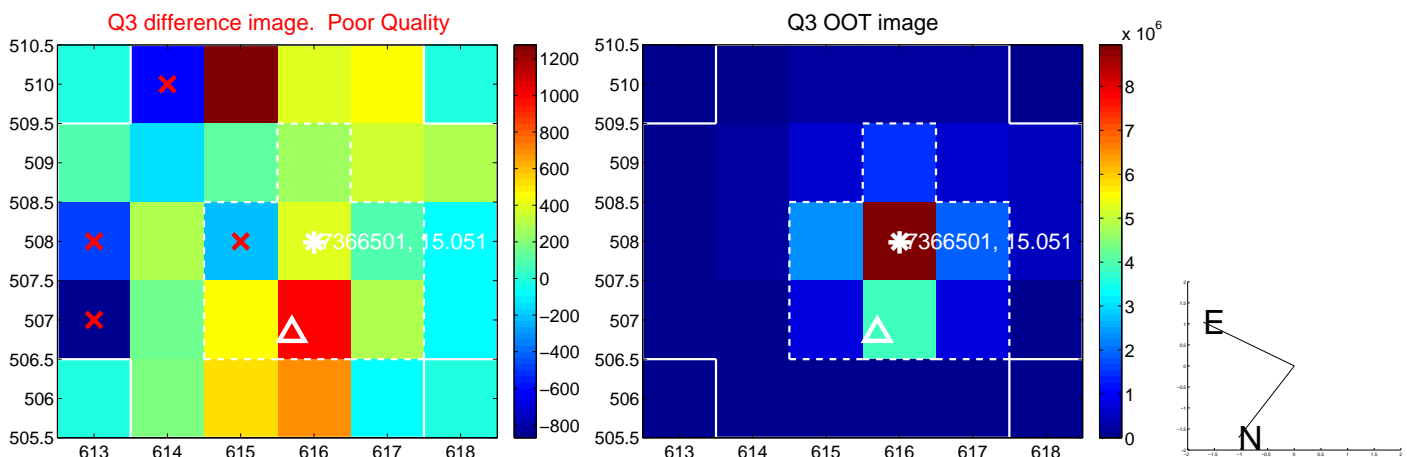
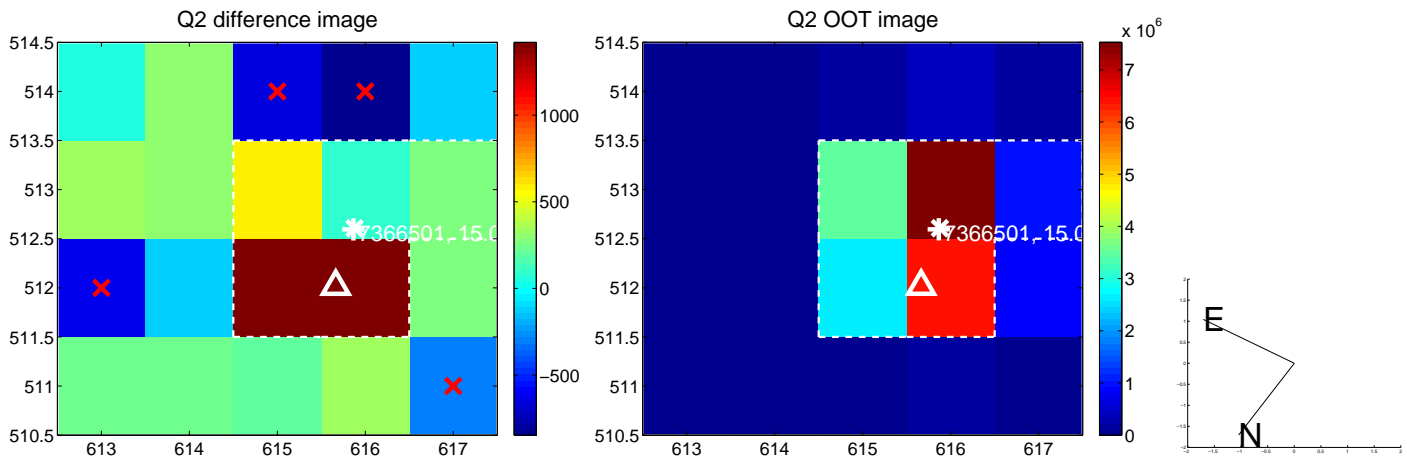
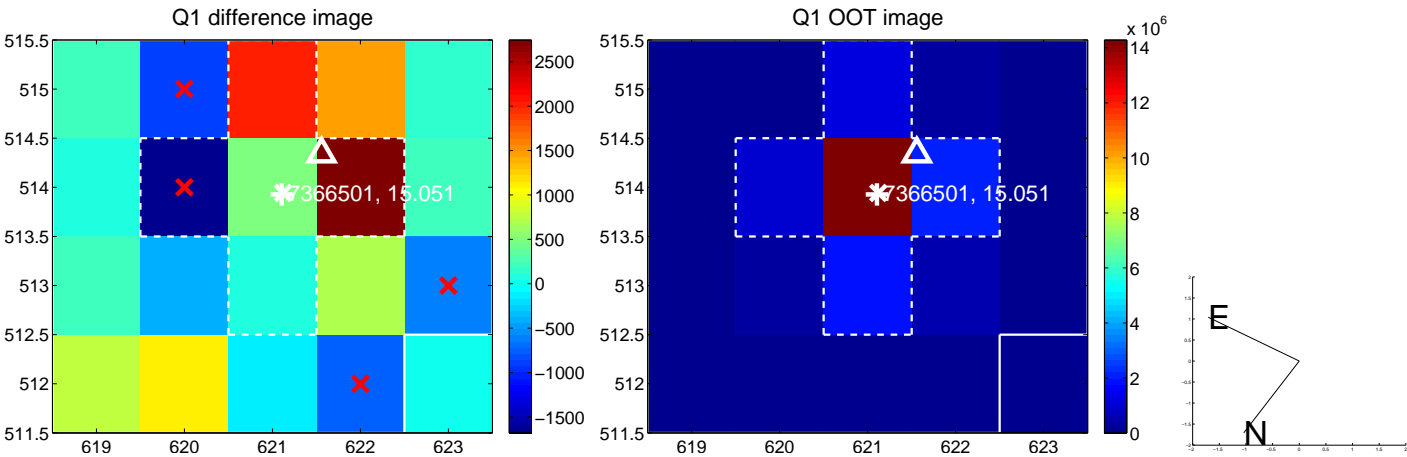
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.540 ± 0.588	2.62	-0.128 ± 0.897	1.535 ± 0.603
PRF-fit source offset from KIC position	1.636 ± 0.569	2.88	-0.121 ± 0.911	1.631 ± 0.586
photometric centroid source offset	2.81 ± 1.85	1.52	2.11 ± 1.87	-1.86 ± 1.82

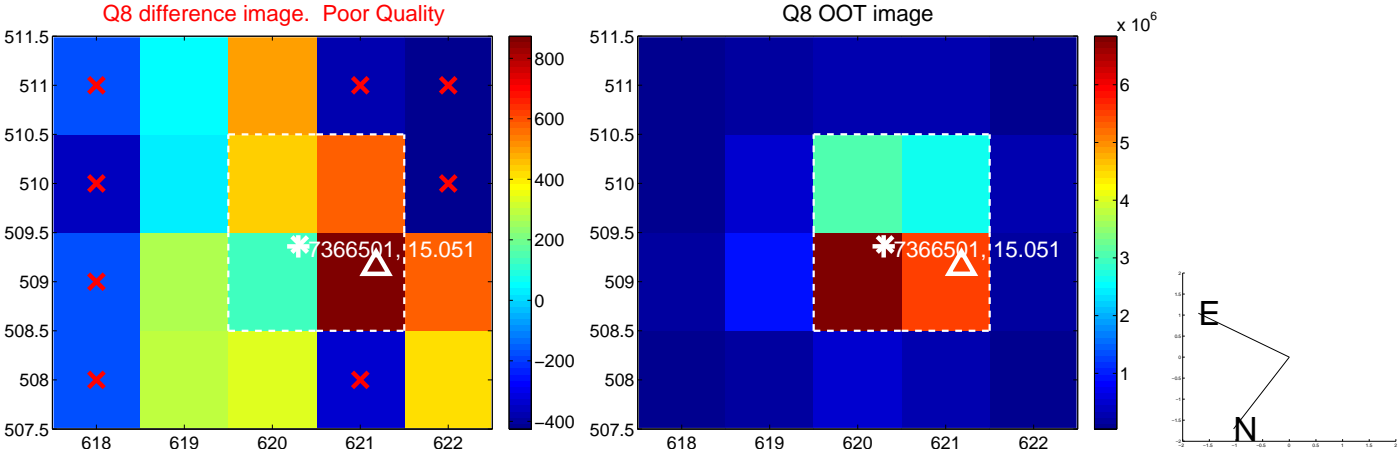
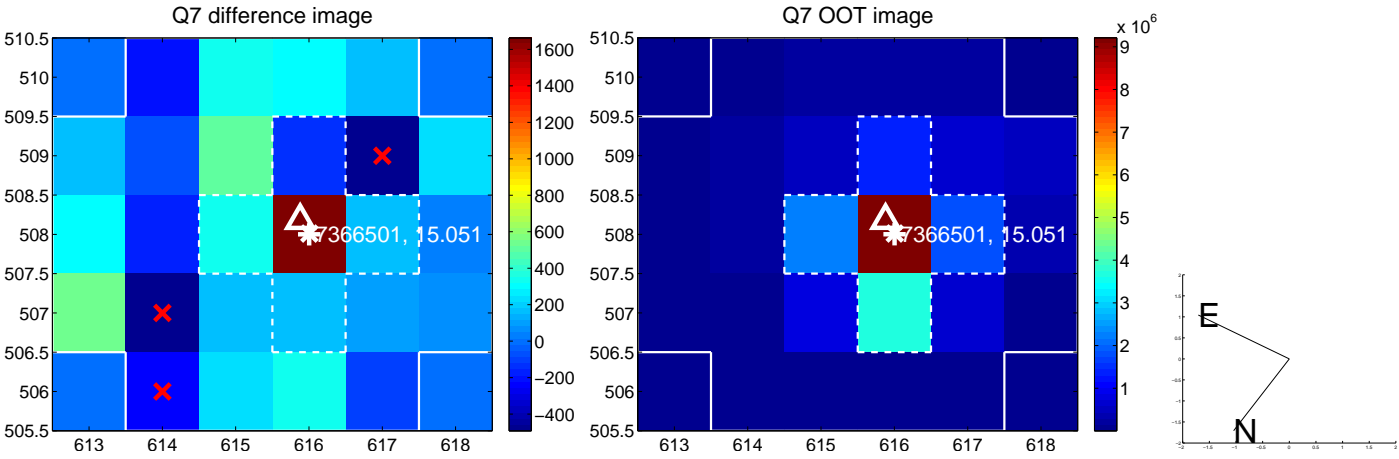
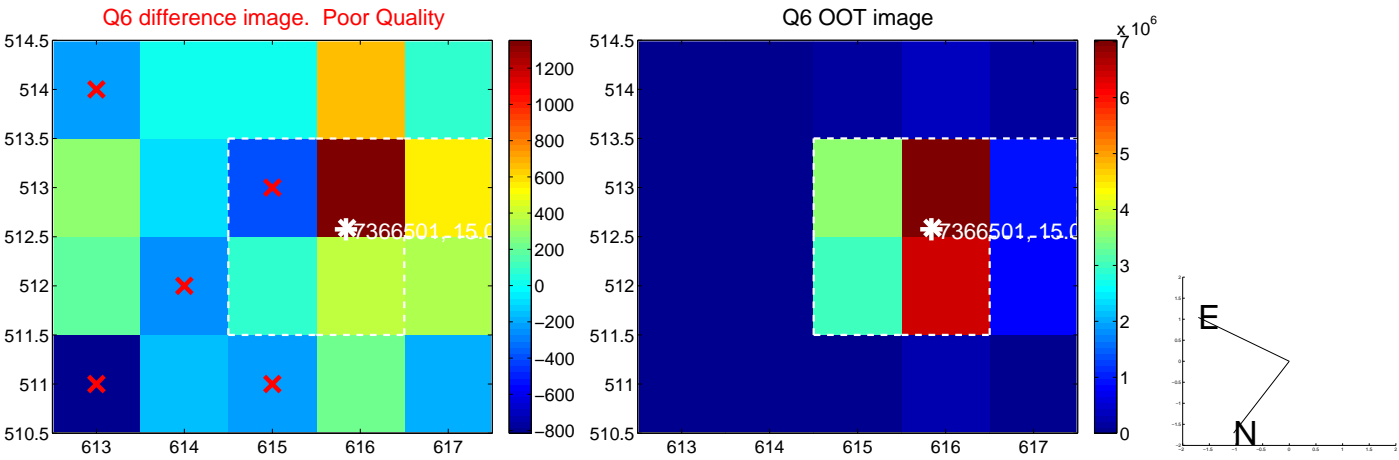
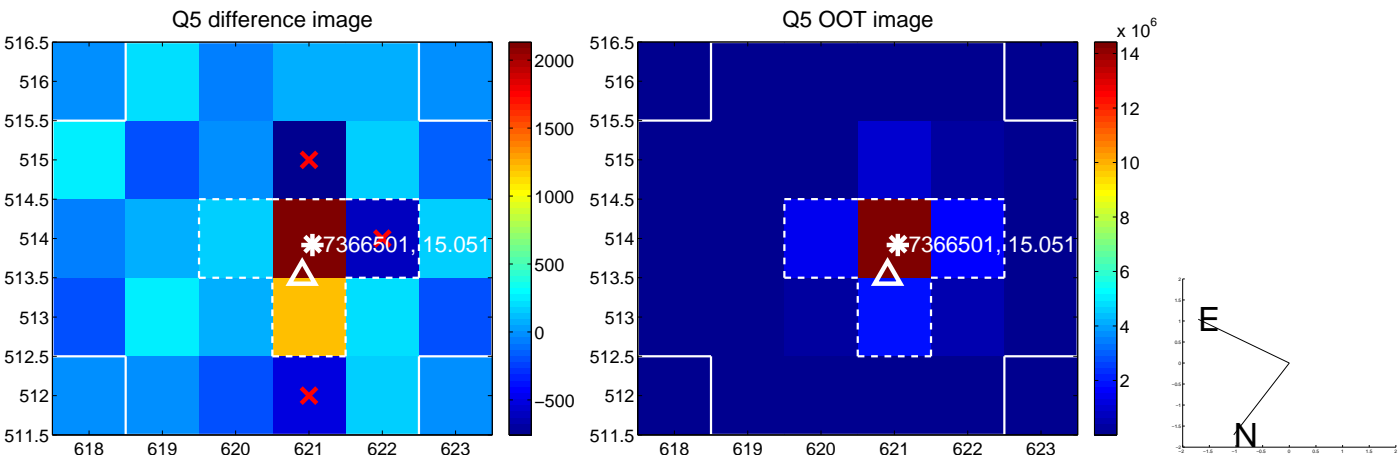


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

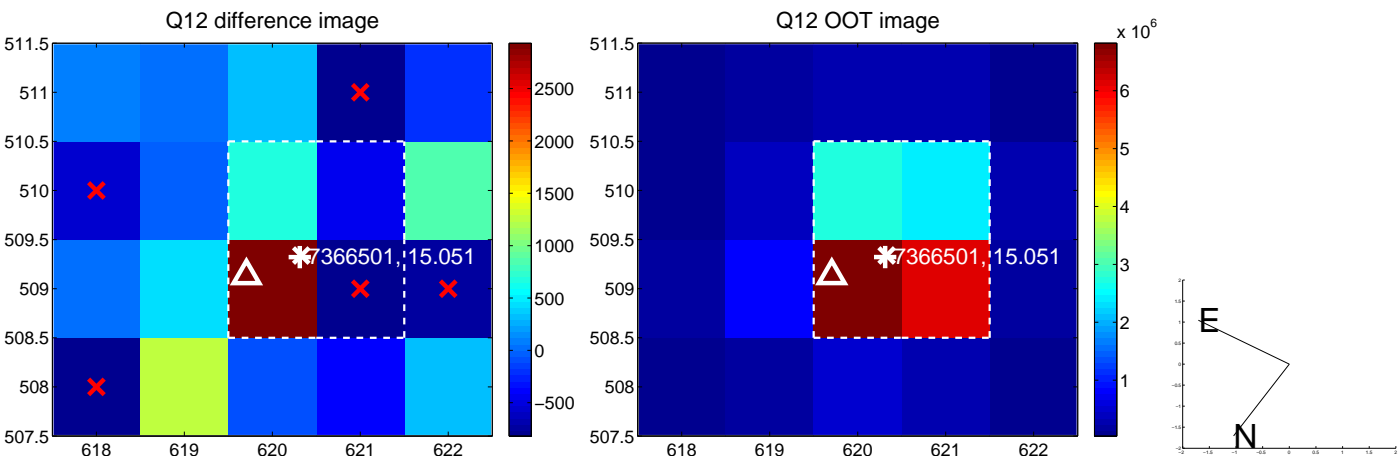
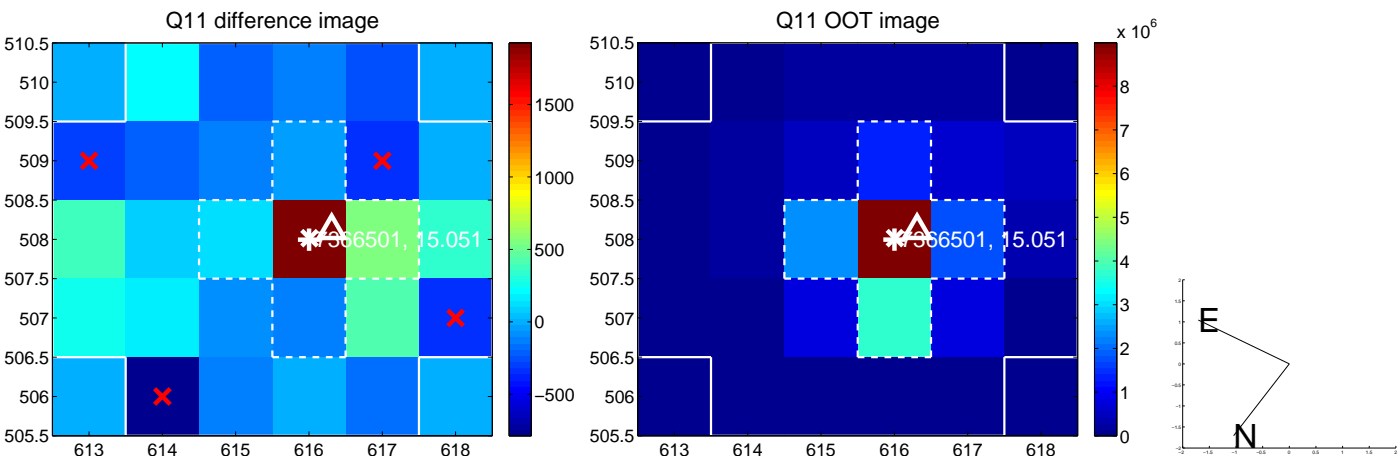
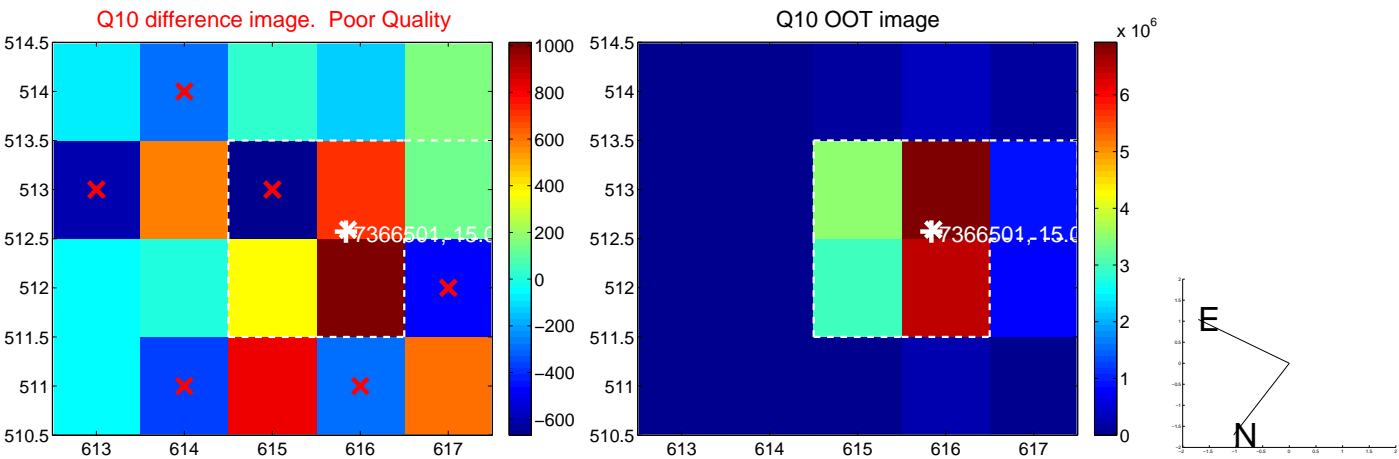
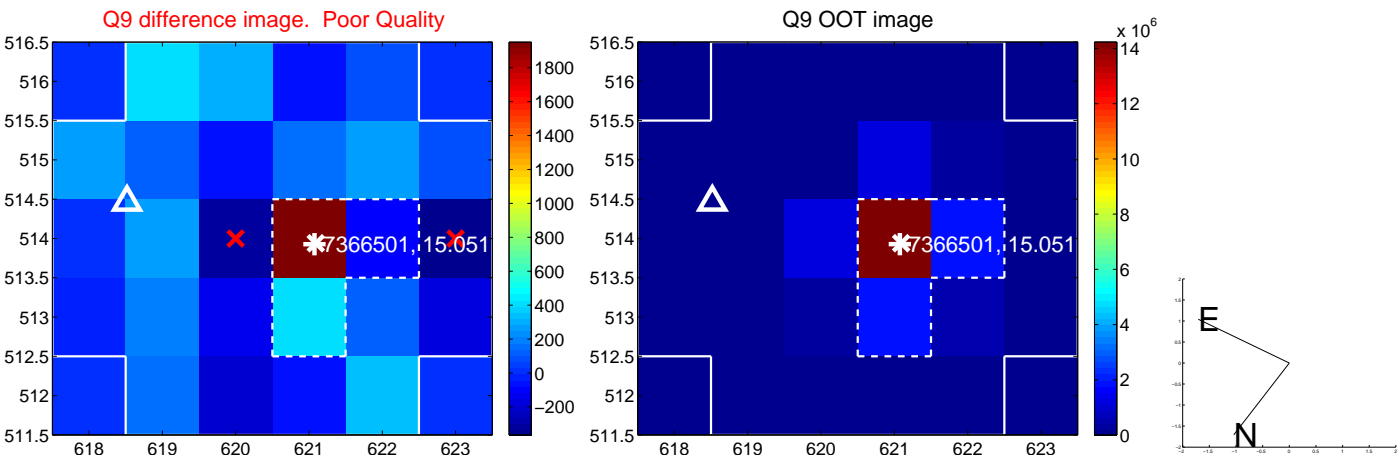
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



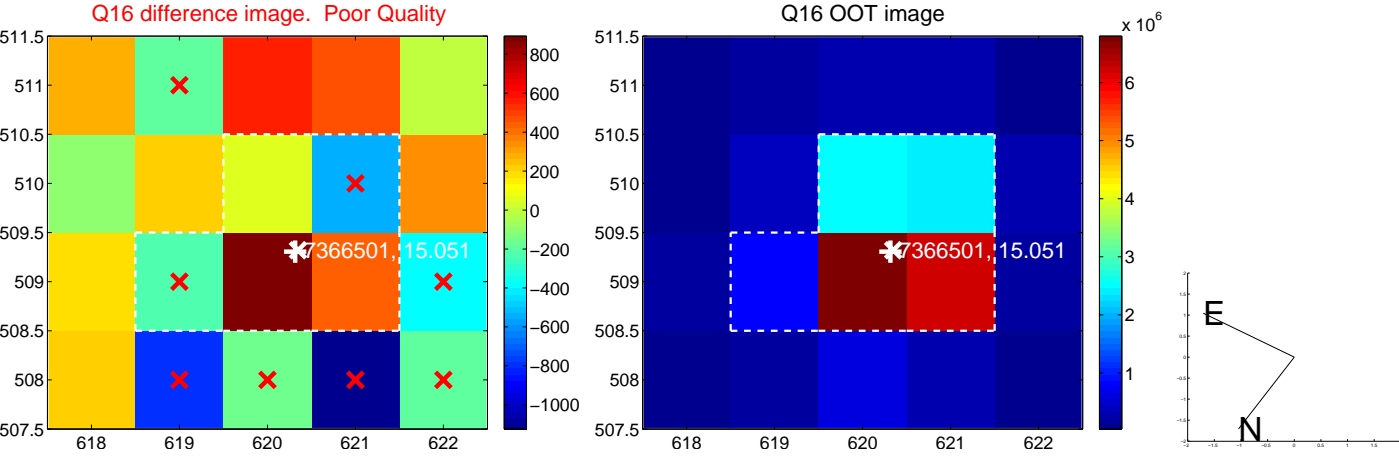
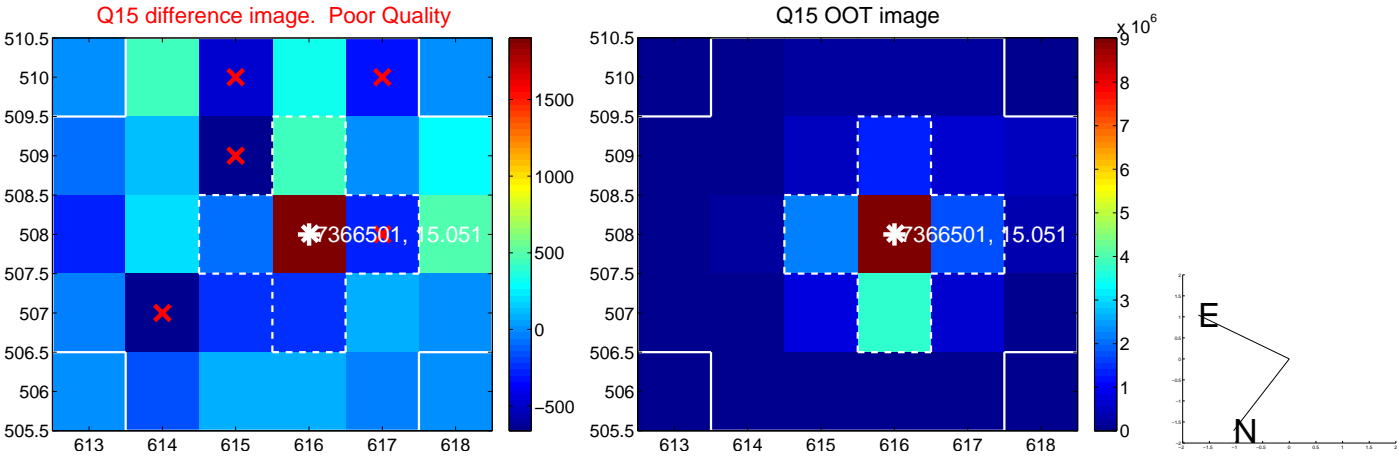
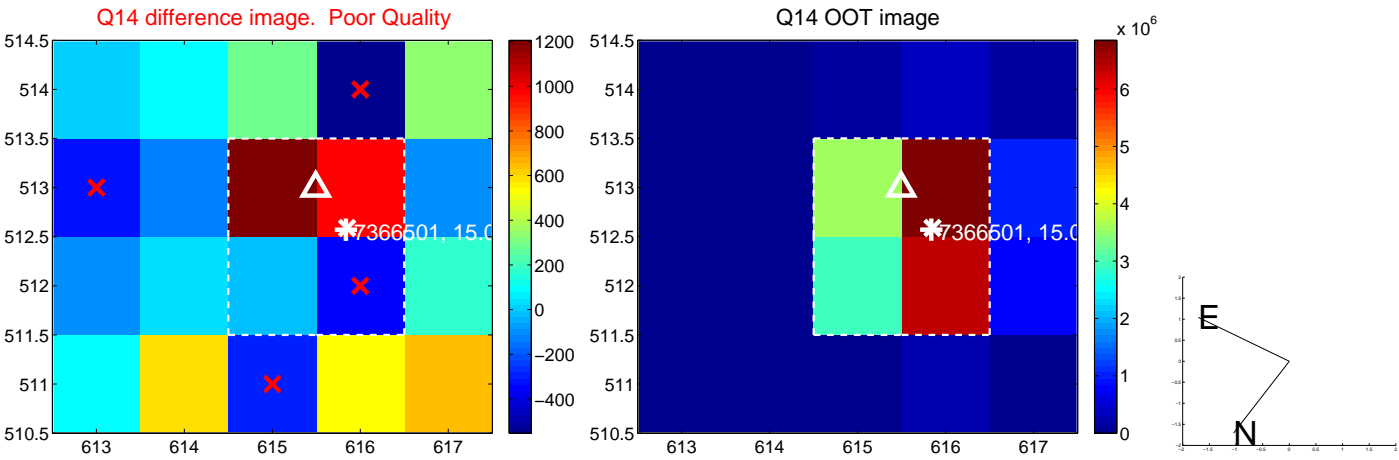
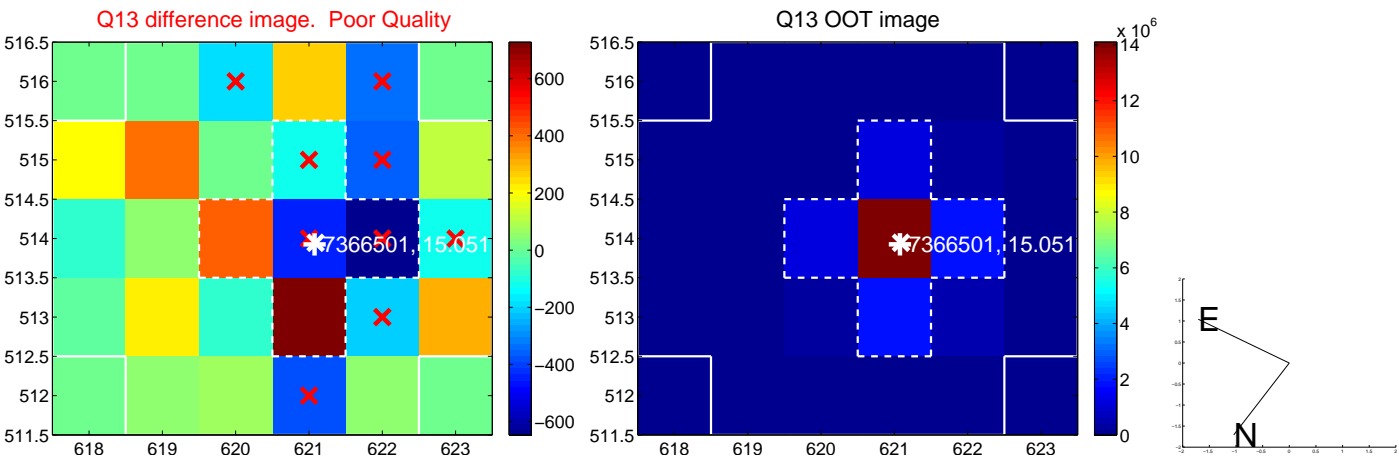
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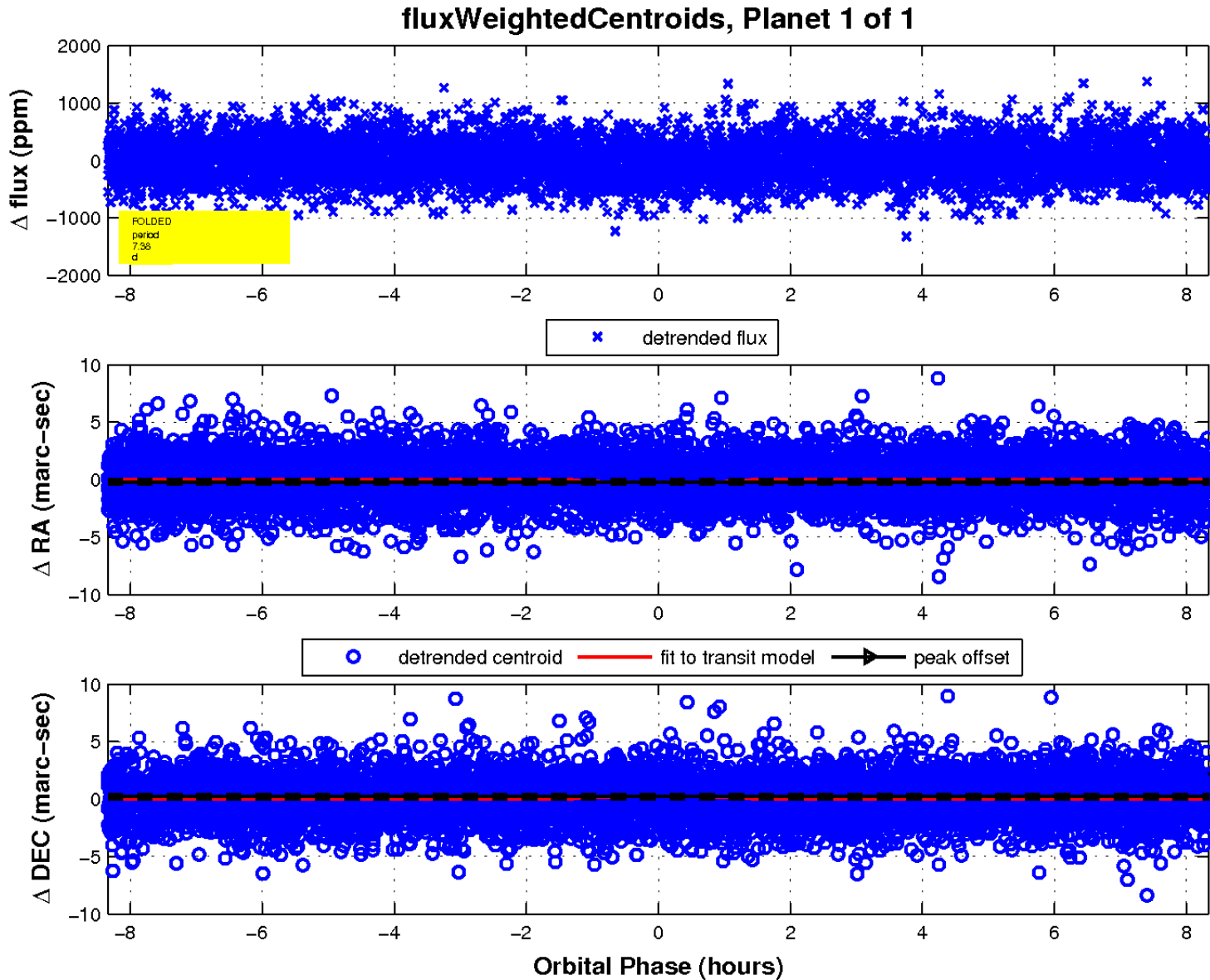
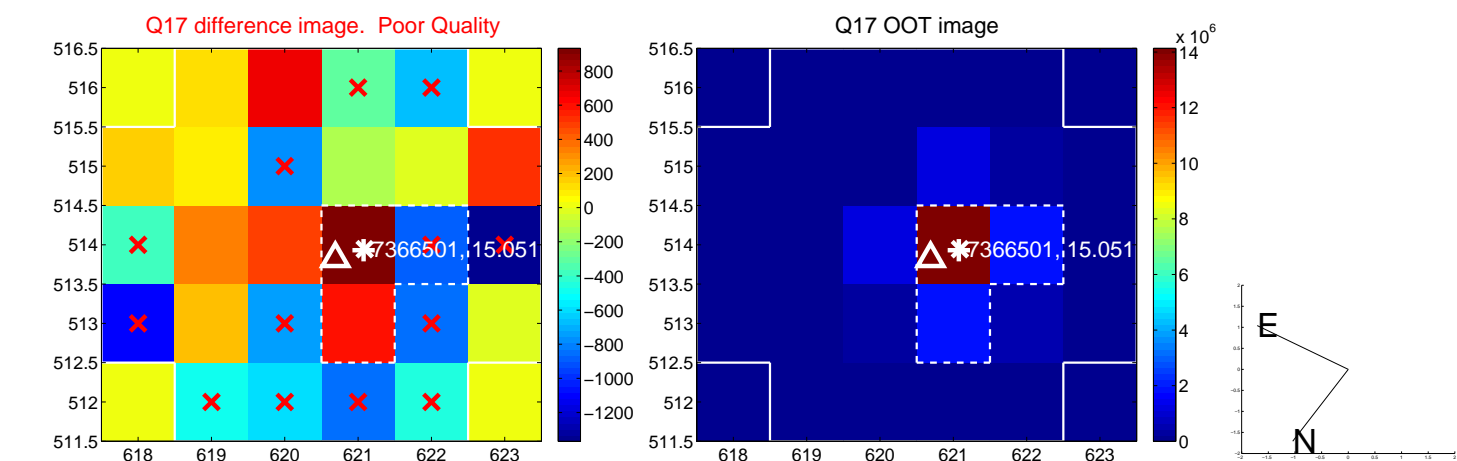
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UKIRT Image

Declination

