

KIC 006207053

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})
006207053-01	OBS	6675.01	0.604746	131.854557	128.7	1.286	13.1	15.1	0.73	4842	1.02	1544.73

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006207053-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—MOD_SEC_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST

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.

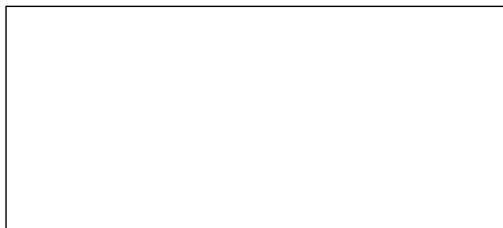
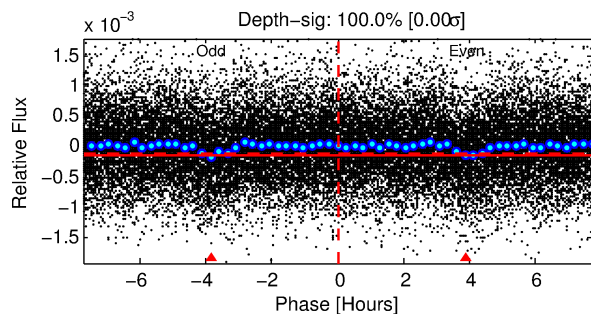
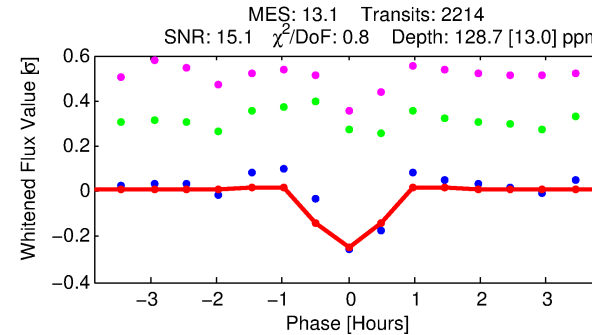
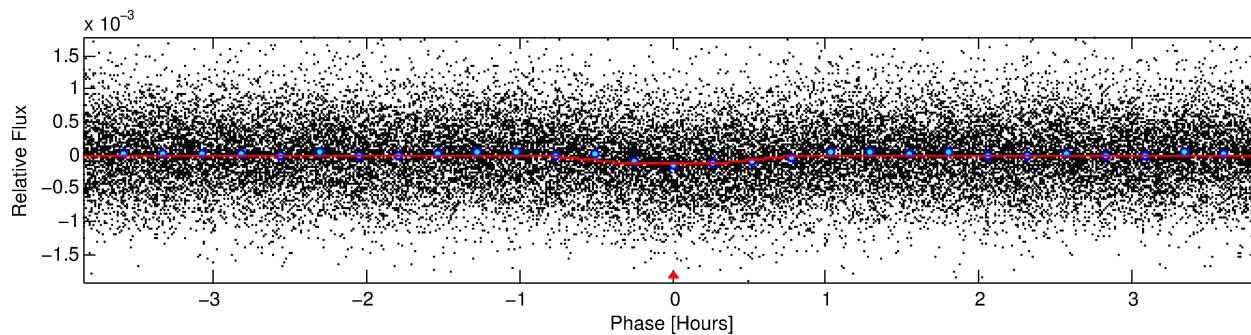
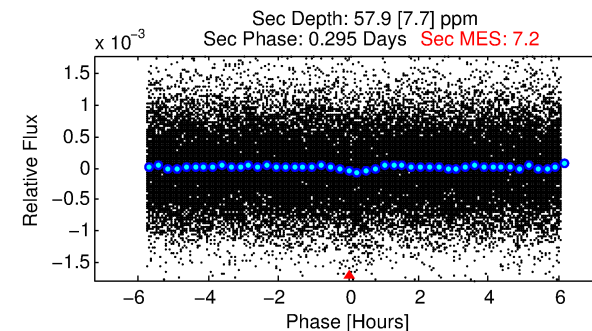
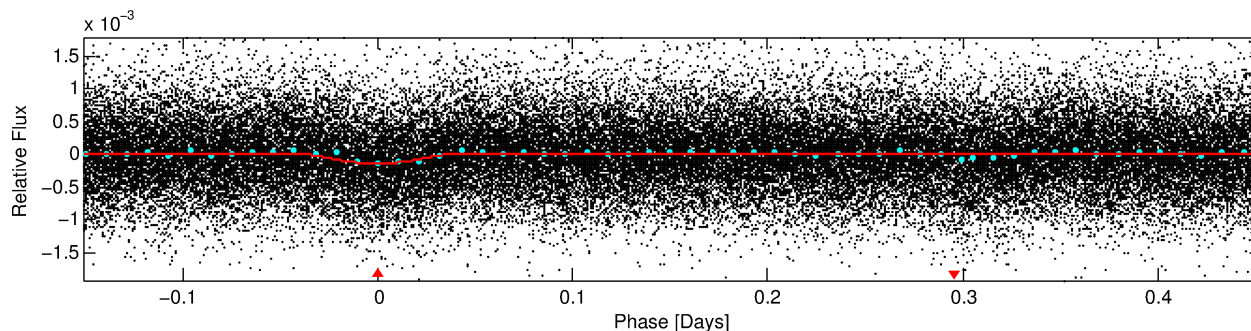
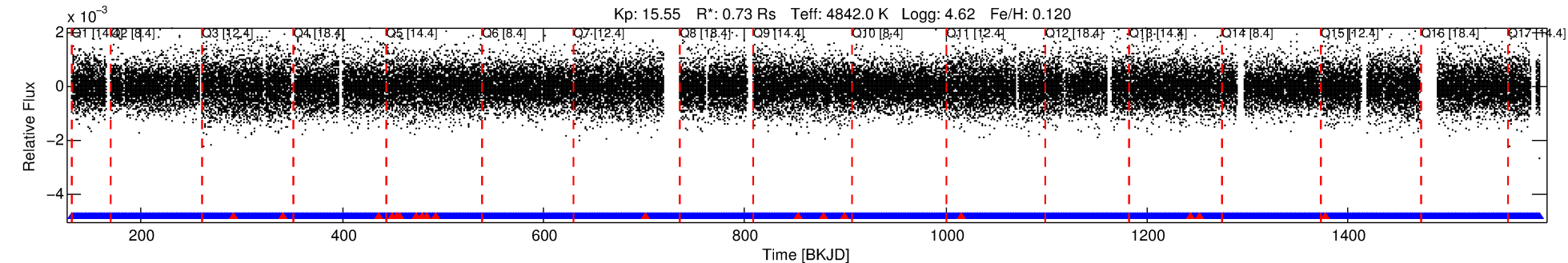
Ephemeris Match Information For 006207053-01

No Significant Match Found

DV One-Page Summary

KIC: 6207053 Candidate: 1 of 1 Period: 0.605 d
KOI: K06675.01 Corr: 0.871

Kp: 15.55 R*: 0.73 Rs Teff: 4842.0 K Logg: 4.62 Fe/H: 0.120



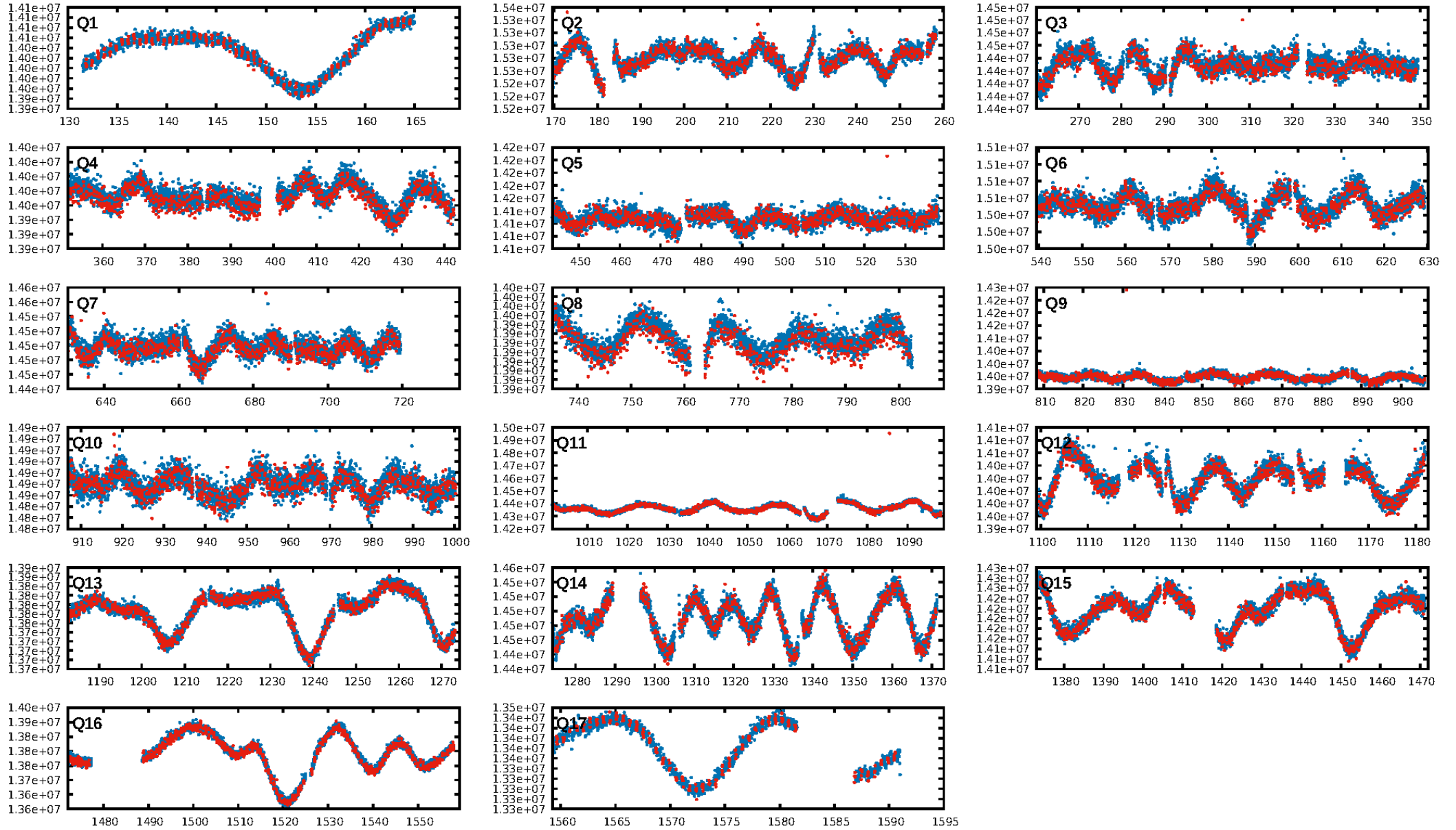
DV Fit Results:

Period = 0.60475 [0.00001] d
Epoch = 131.8546 [0.0013] BKJD
Rp/R* = 0.0128 [0.0077]
a/R* = 1.92 [3.23]
b = 0.90 [0.51]
Seff = 1544.73 [252.72]
Teq = 1599 [65] K
Rp = 1.02 [0.62] Re
a = 0.0130 [0.0010] AU
Ag = 5.19 [6.33] [0.66σ]
Teffp = 3730 [1138] K [1.87σ]

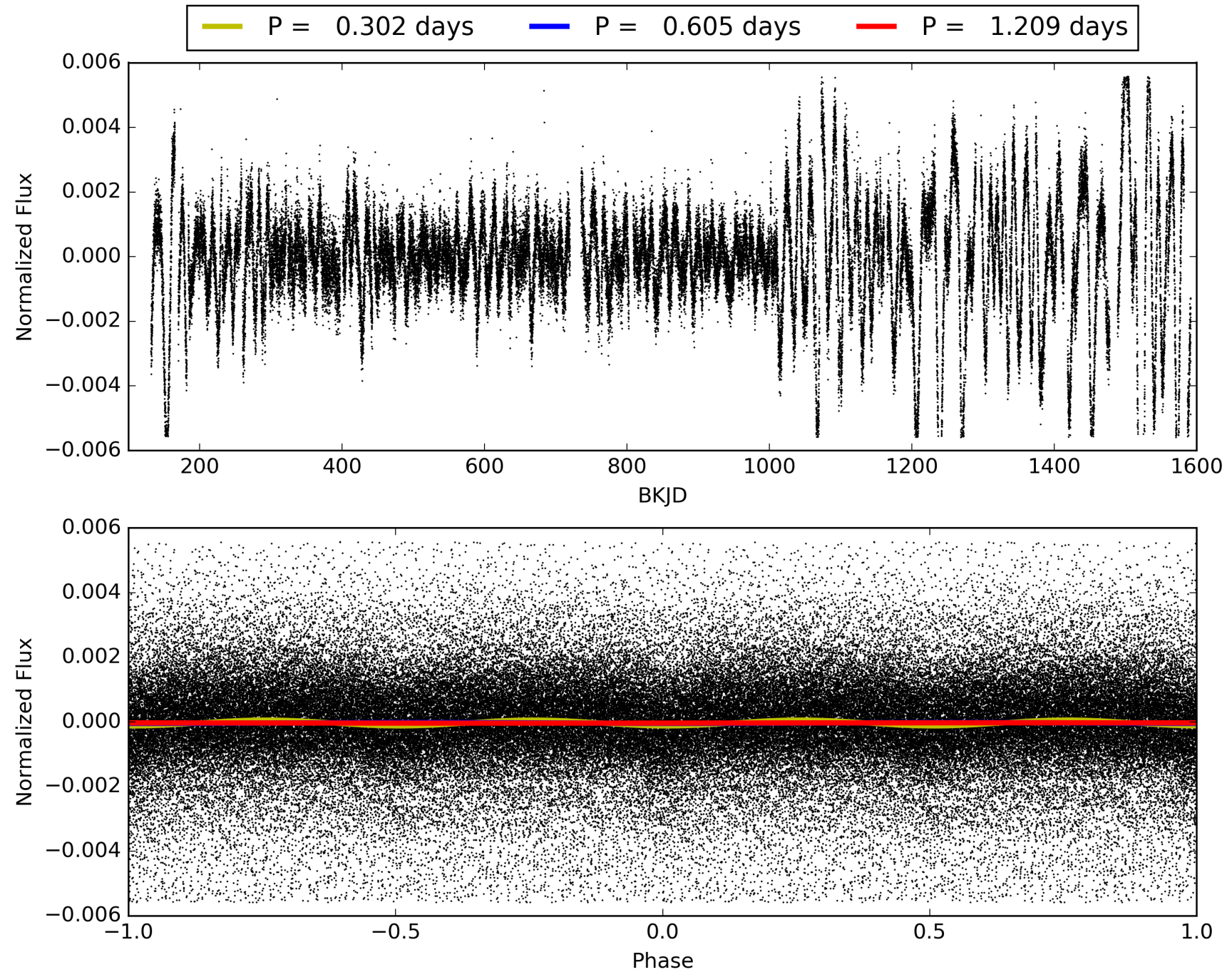
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.77e-35
RollingBand-fgt: 0.99 [2097/2115]
GhostDiagnostic-chr: -0.1564
Centroid-sig: 0.0%
Centroid-so: 166.344 arcsec [142.37σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006207053-01, PDC Light Curves

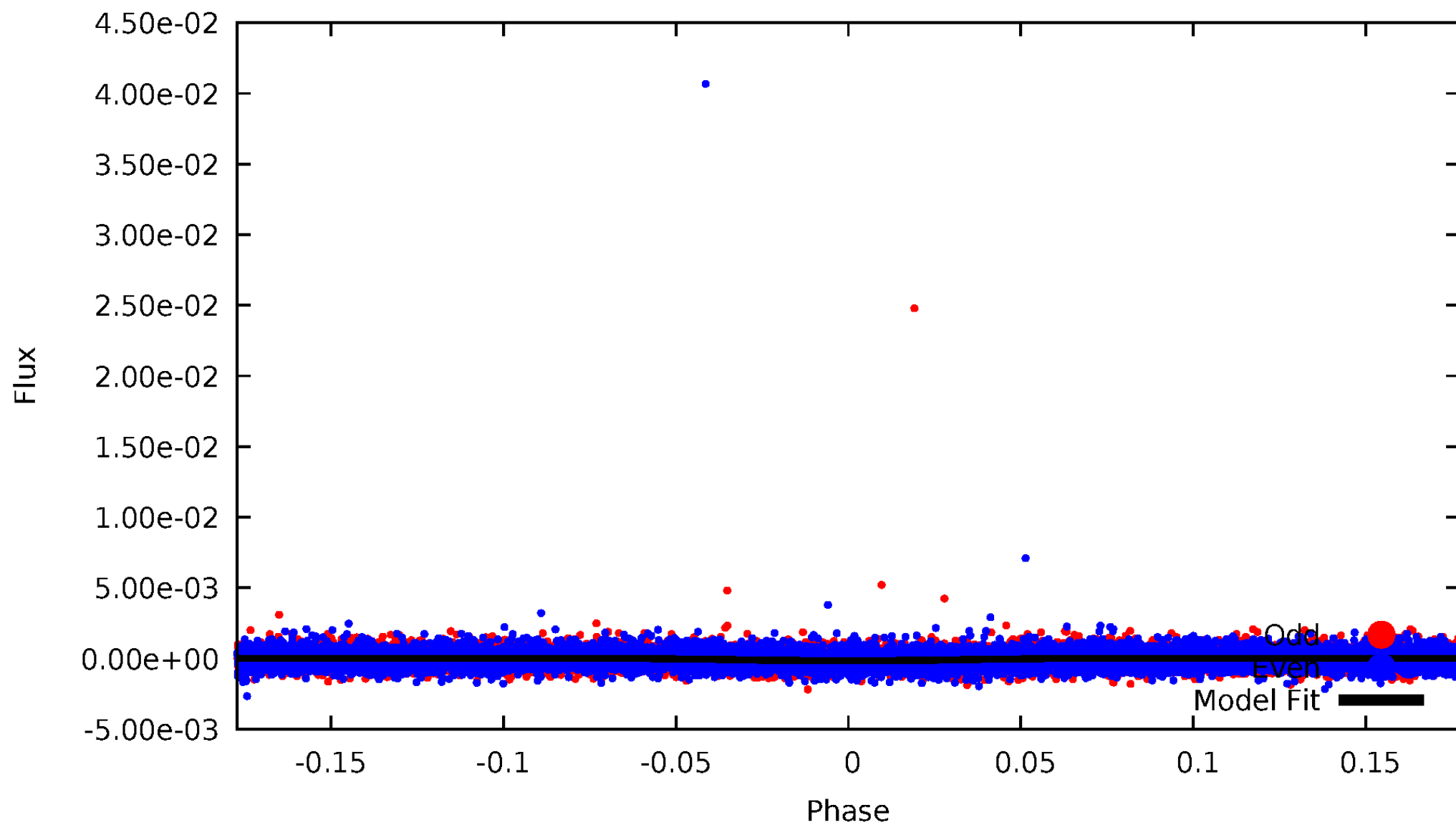


TCE 006207053-01



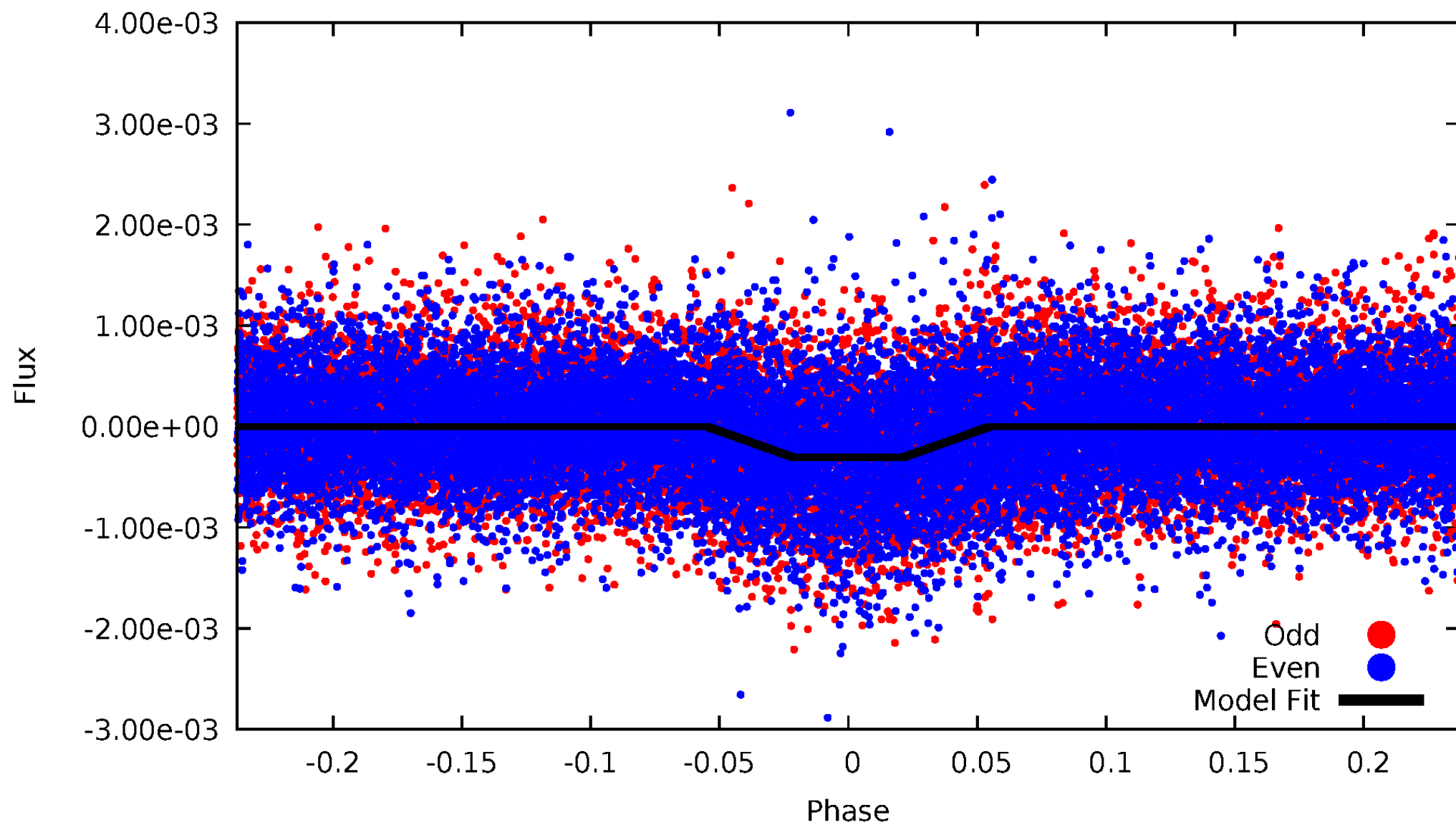
DV Odd/Even

TCE 006207053-01

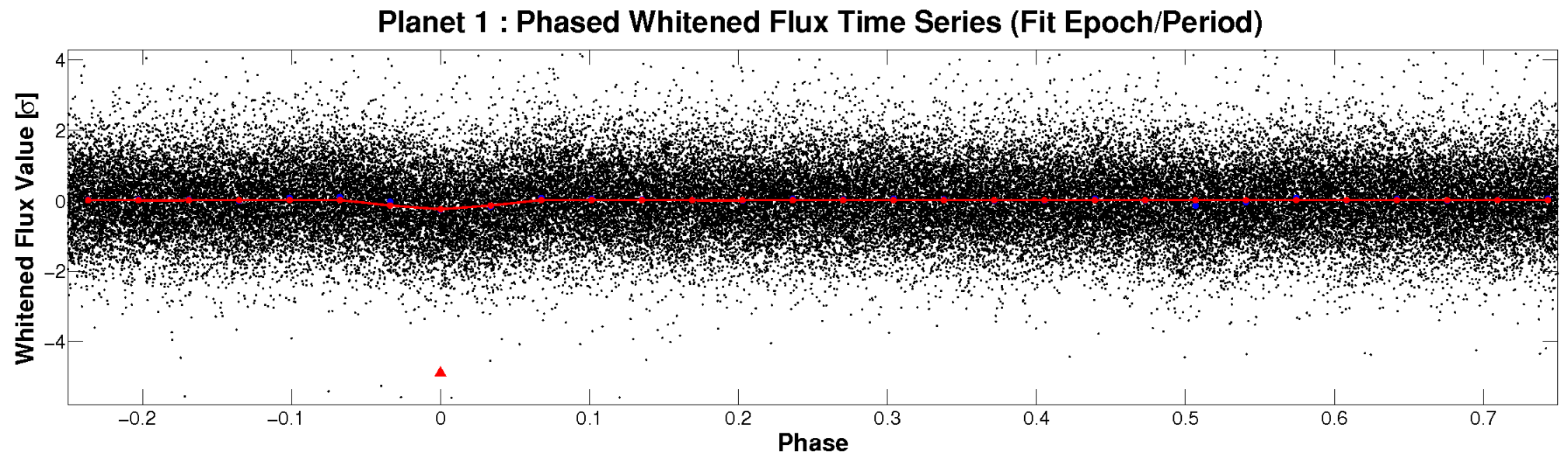
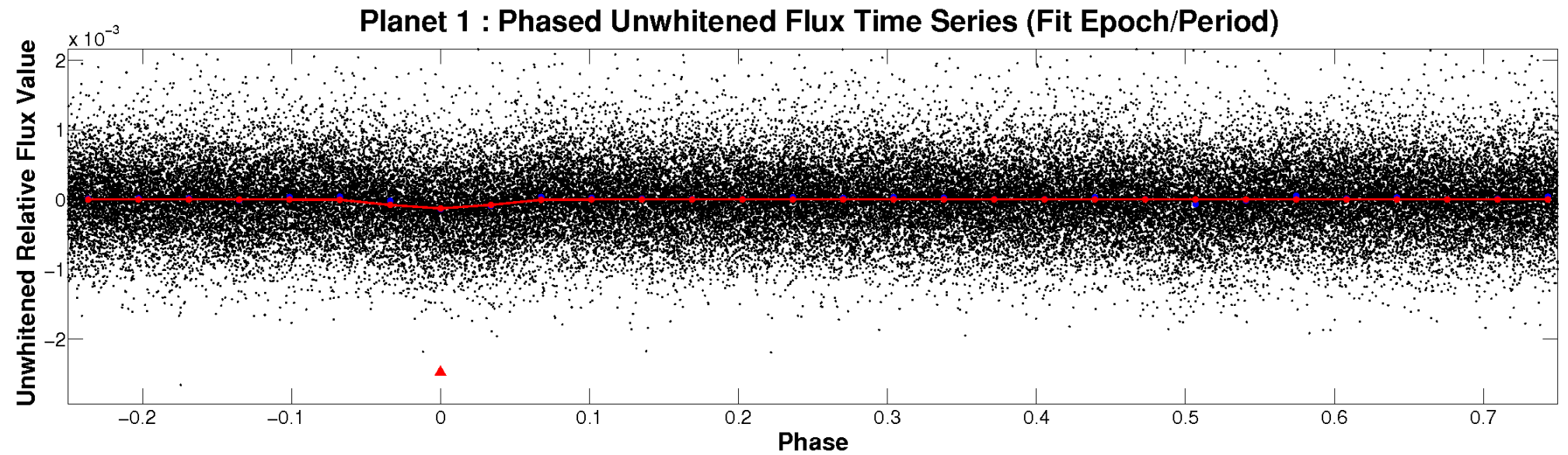


ALT Odd/Even

TCE 006207053-01

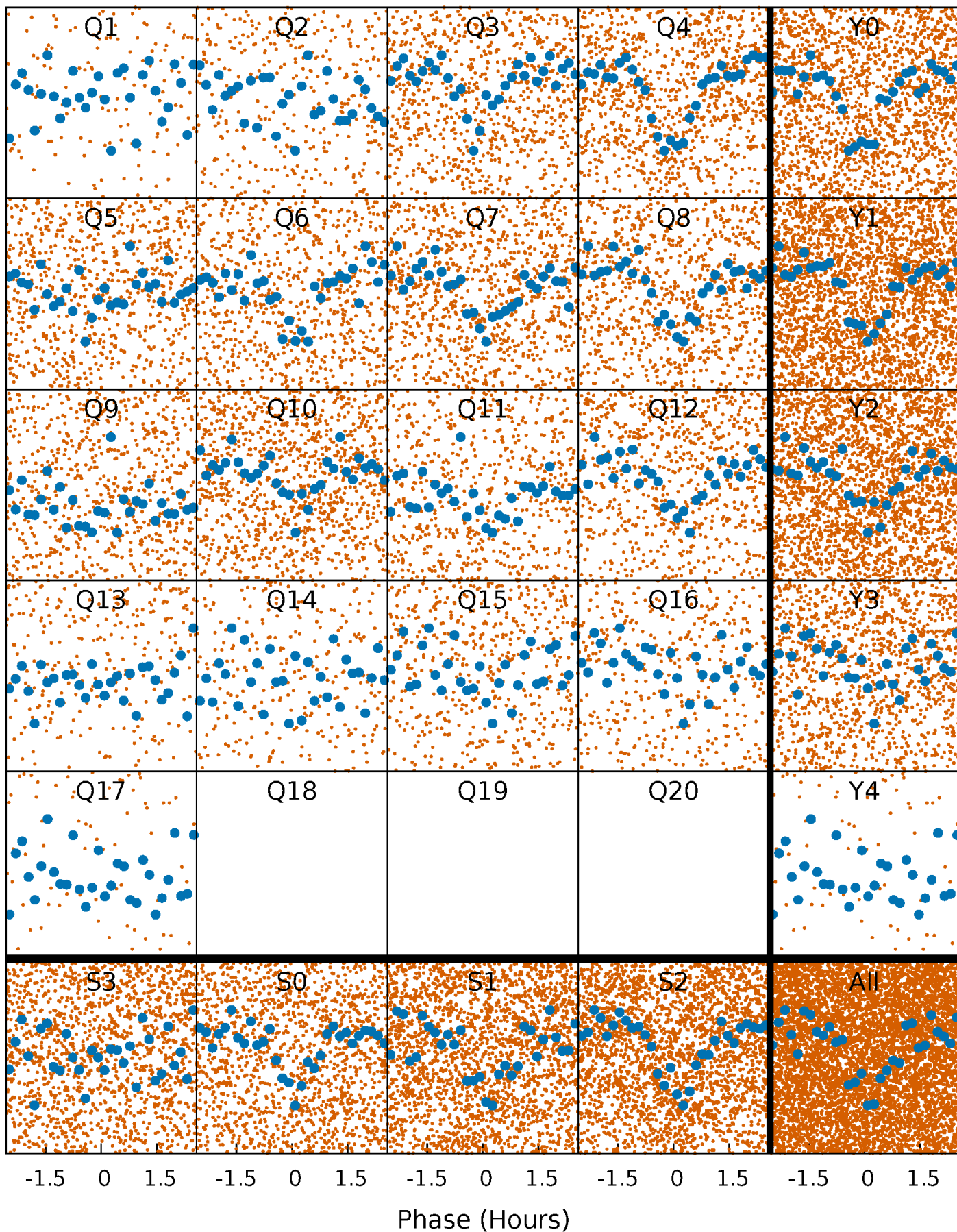


Non-Whitened Vs. Whitened Light Curve



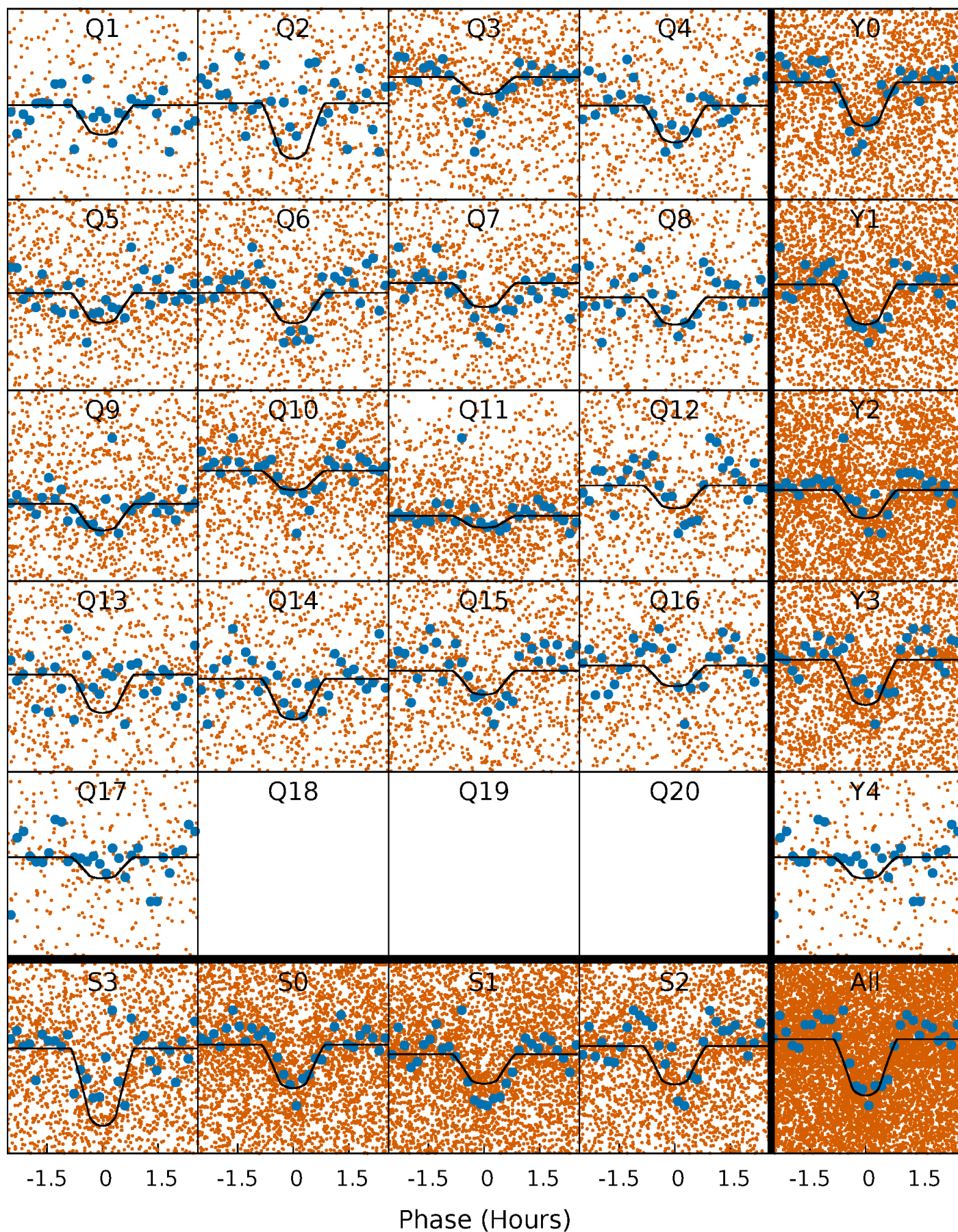
PDC Quarter-Phased Transit Curves

TCE 006207053-01 P= 0.604746 Days $T_0=131.854557$ (BKJD)



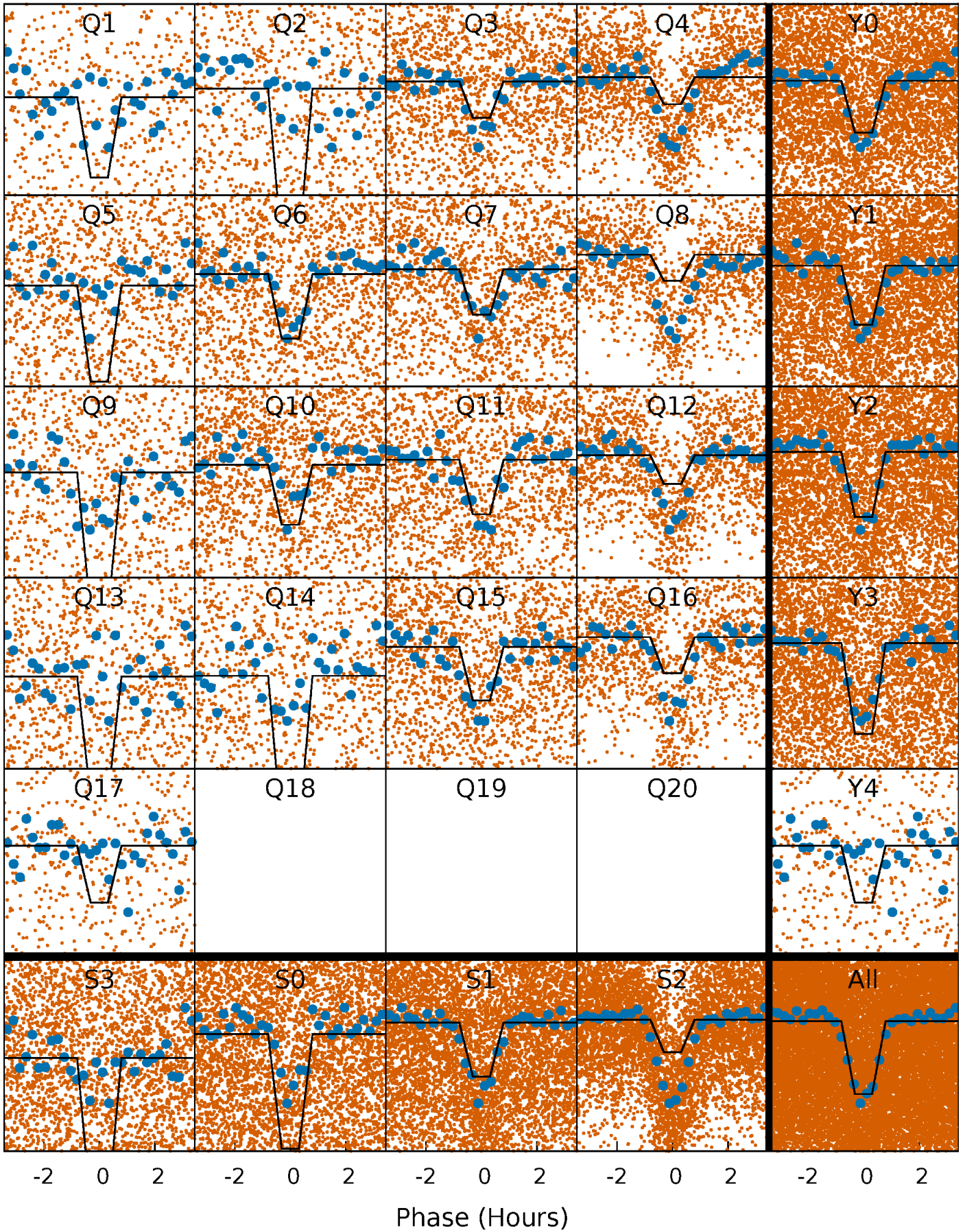
DV Quarter-Phased Transit Curves

TCE 006207053-01 P= 0.604746 Days $T_0=131.854557$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

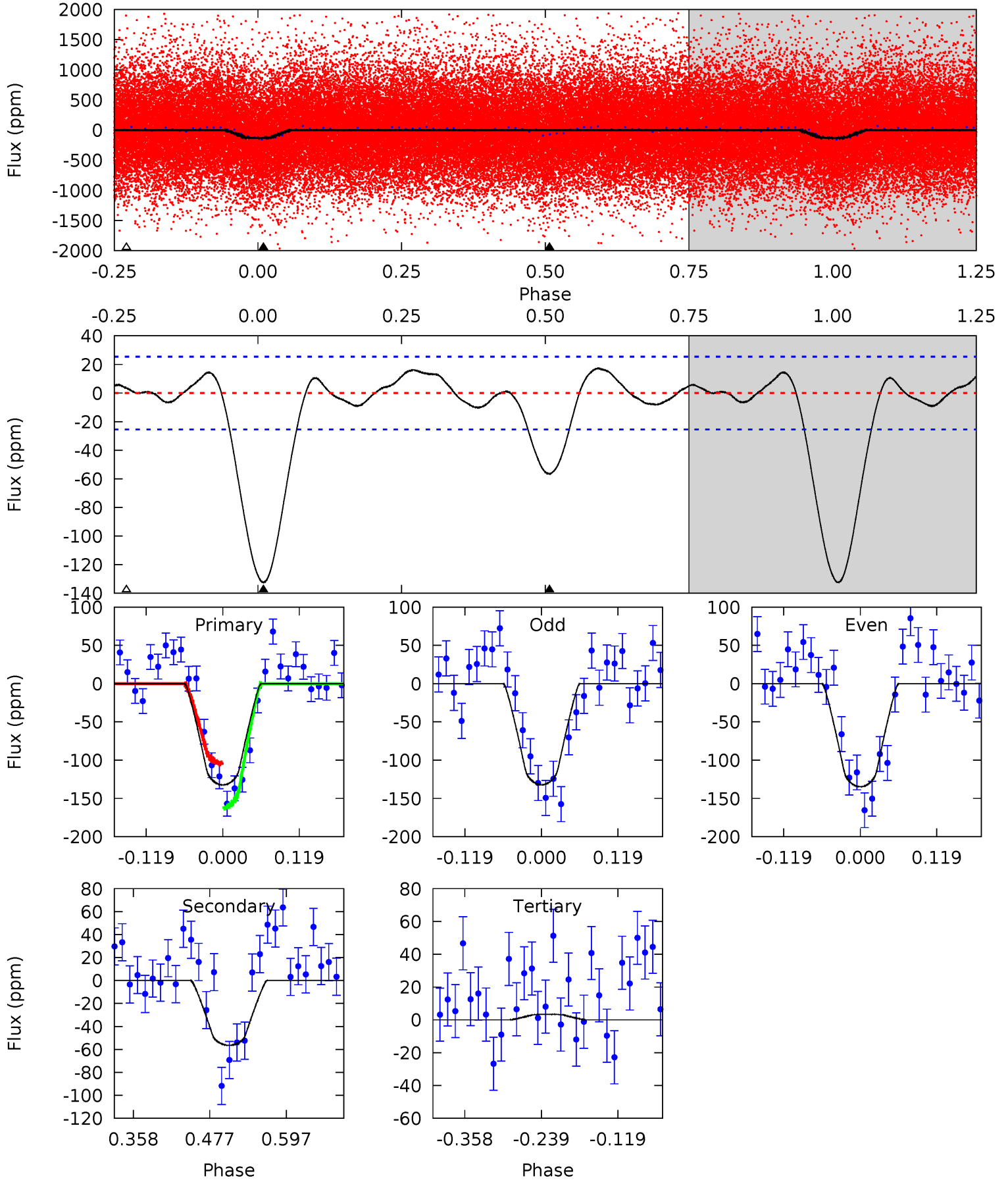
TCE 006207053-01 P= 0.604755 Days $T_0=131.848539$ (BKJD)



DV Model-Shift Uniqueness Test

006207053-01, P = 0.604746 Days, E = 131.249811 Days

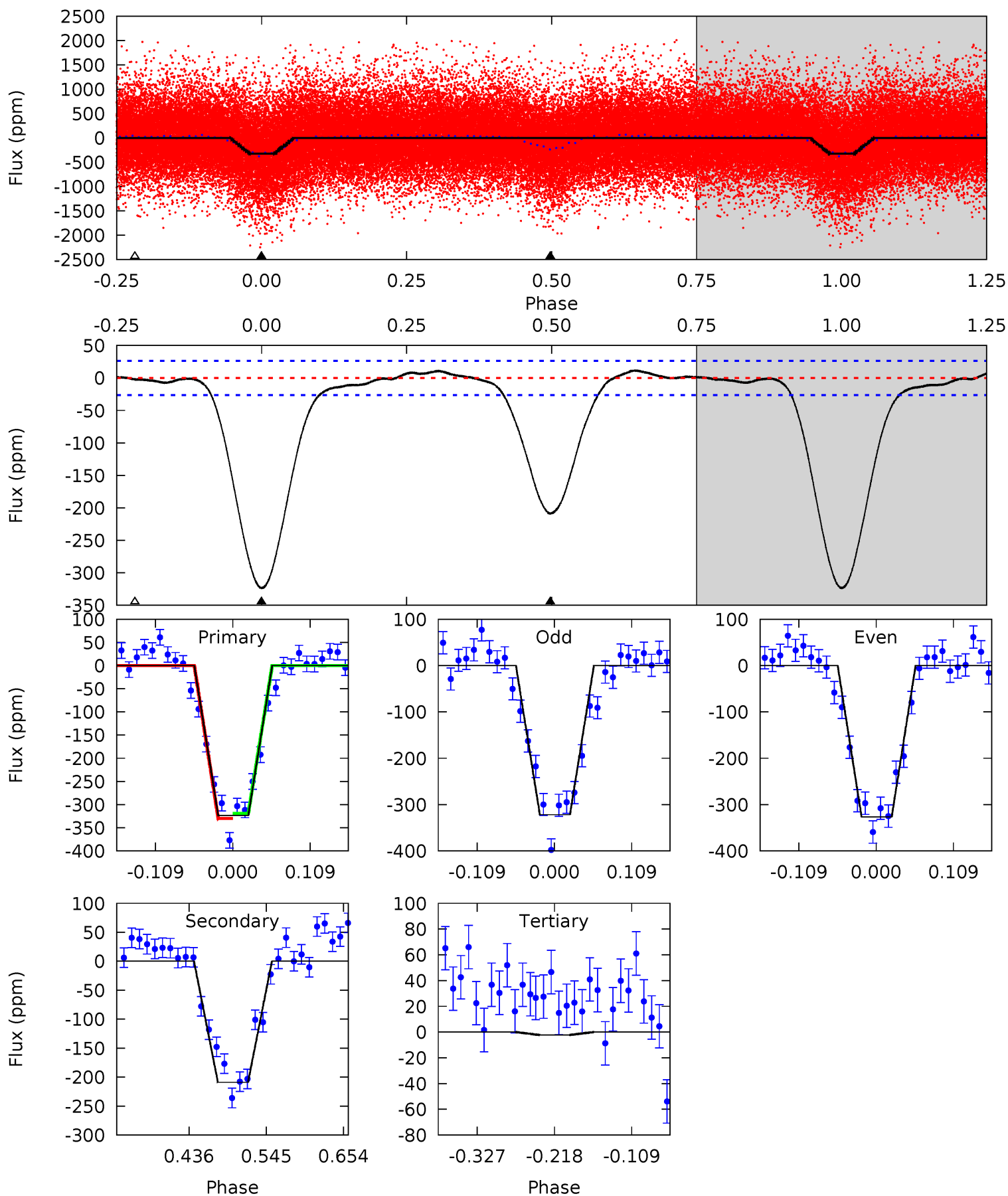
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.6	10.1	-0.61	0	4.53	1.56	1.27	24.2	23.6	10.7	10.1	0.24	0.89	0.12	5.15



Alt Model-Shift Uniqueness Test

006207053-01, P = 0.604755 Days, E = 131.243784 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
56.0	36.2	0.39	0	4.55	1.60	1.18	55.6	56.0	35.8	36.2	0.41	1.08	0.03	0.97



Stellar Parameters For KIC 006207053

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4842^{+144}_{-144}	$4.616^{+0.024}_{-0.060}$	$0.120^{+0.250}_{-0.300}$	$0.726^{+0.070}_{-0.049}$	$0.815^{+0.036}_{-0.078}$	$2.999^{+0.348}_{-0.635}$
	+3%/-3%	+1%/-1%	+208%/-250%	+10%/-7%	+4%/-10%	+12%/-21%
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 006207053-01 / KOI 6675.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-56 ± 6	$1.06^{+0.62}_{-0.55}$	2256^{+77}_{-71}	3873^{+1316}_{-588}	$4.655^{+15.807}_{-2.800}$
Alt.	-209 ± 6	$1.40^{+0.64}_{-0.59}$	2258^{+79}_{-72}	4504^{+1204}_{-611}	$9.724^{+20.181}_{-5.037}$

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 006207053-01. Kepler magnitude: 15.55. Transit SNR 15.14

There are 0 quarters with good PRF difference image offsets

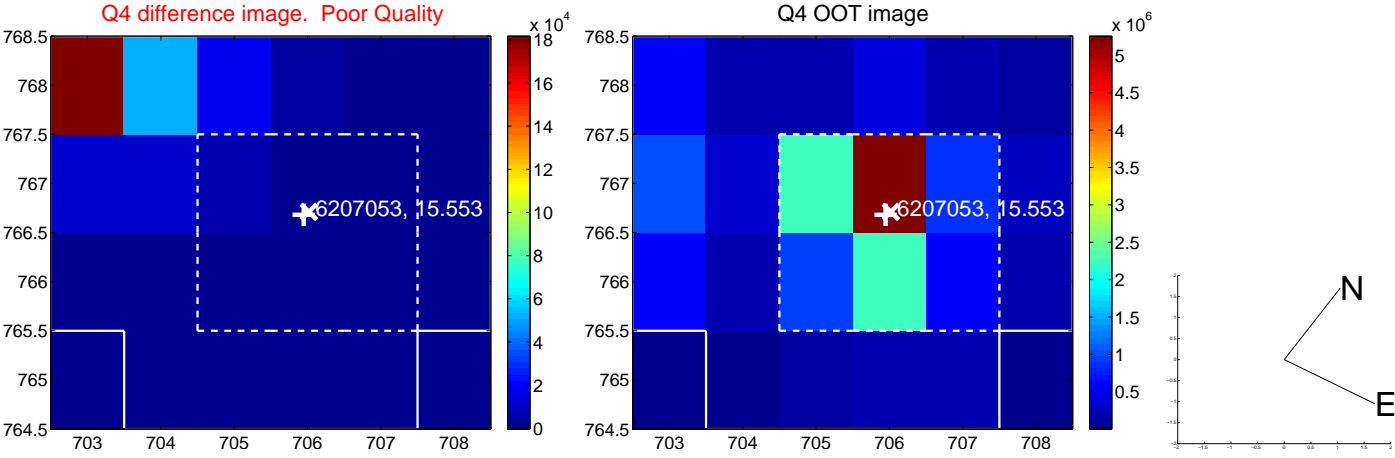
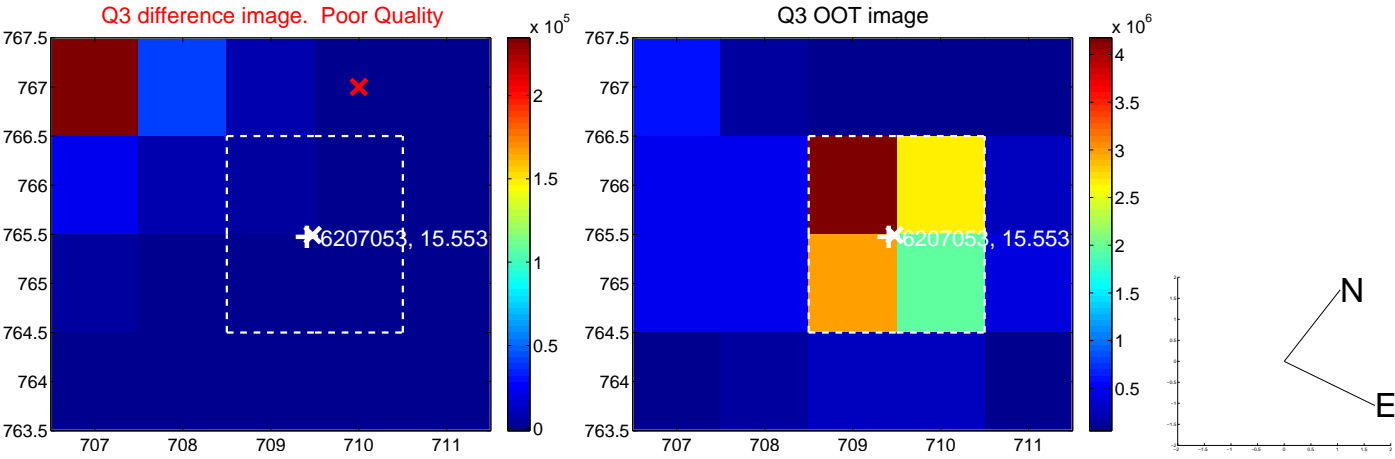
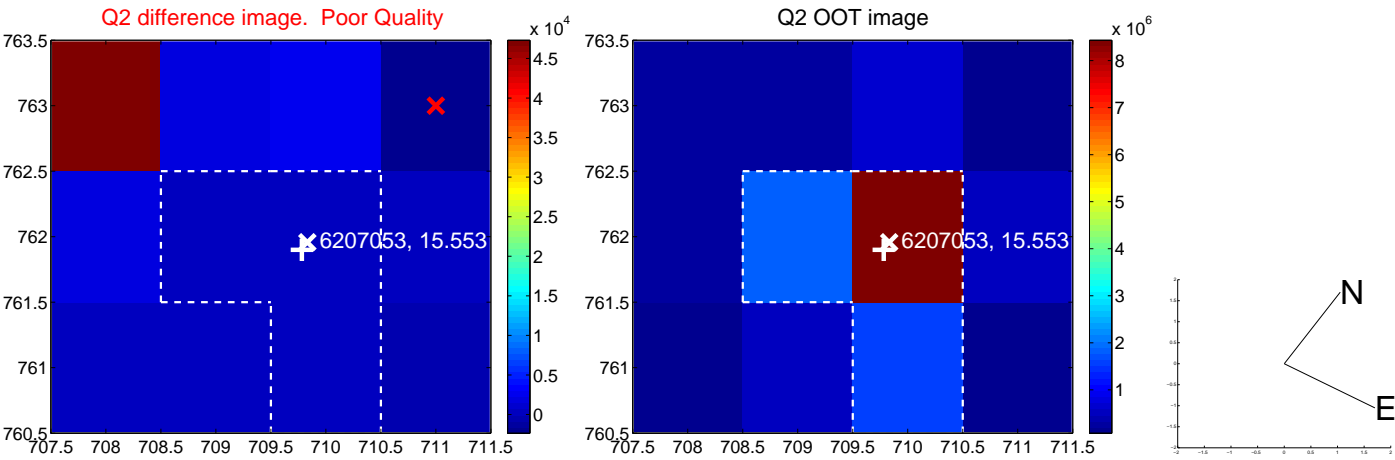
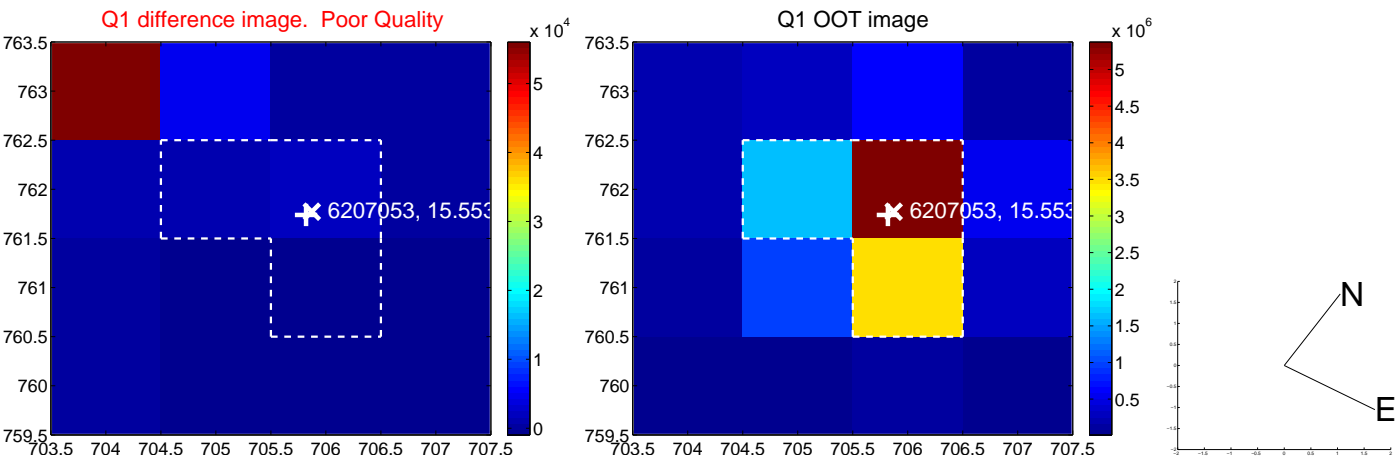
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—

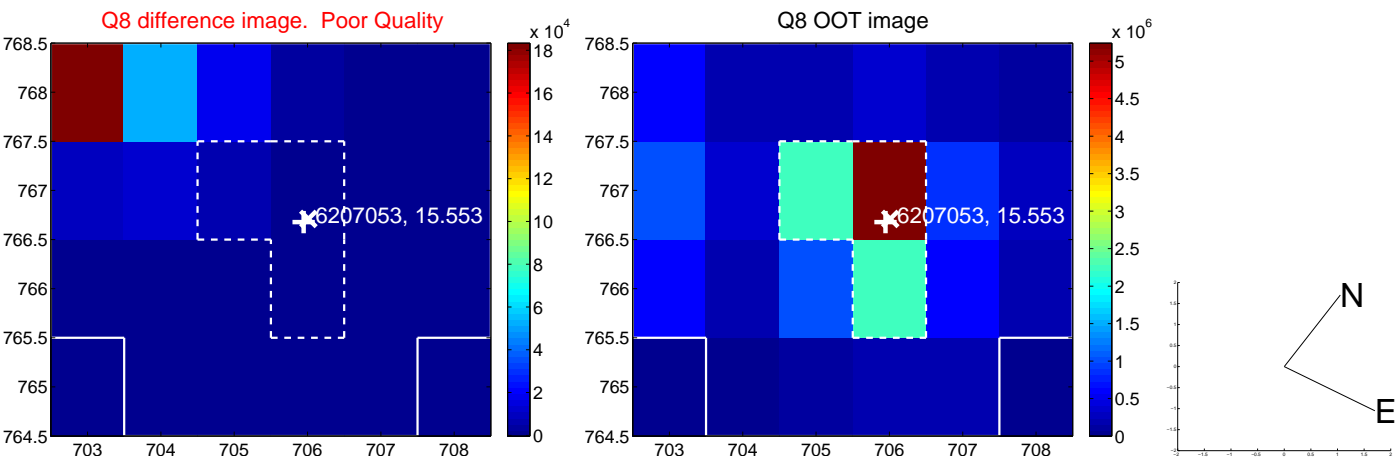
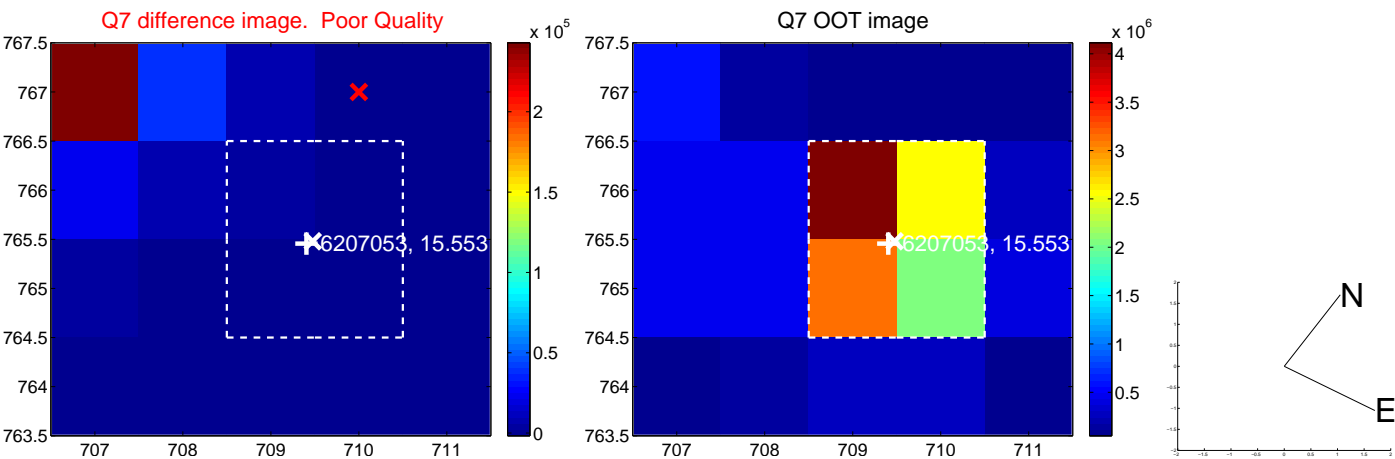
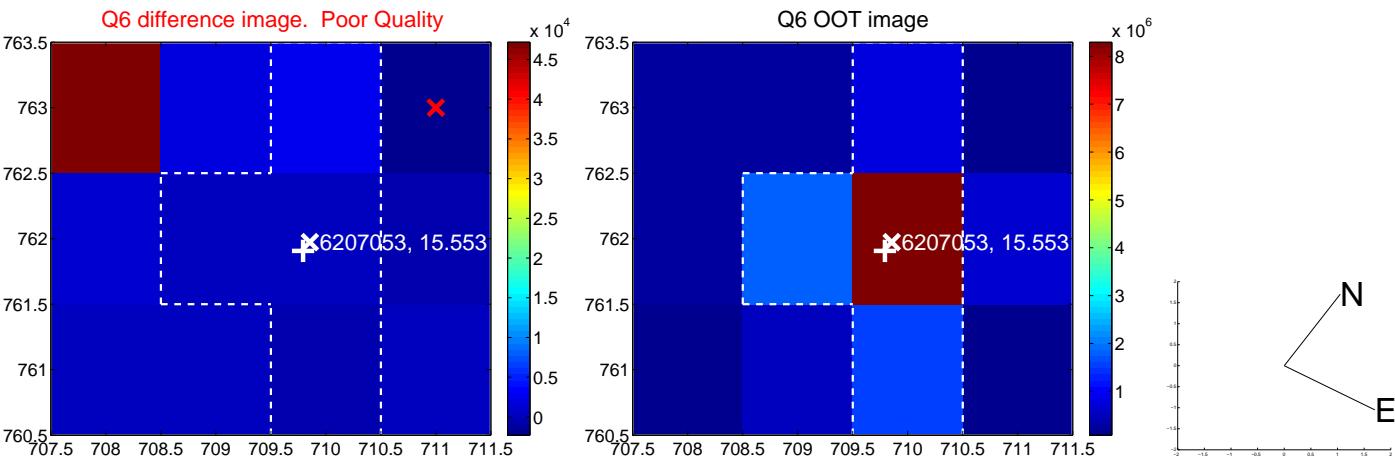
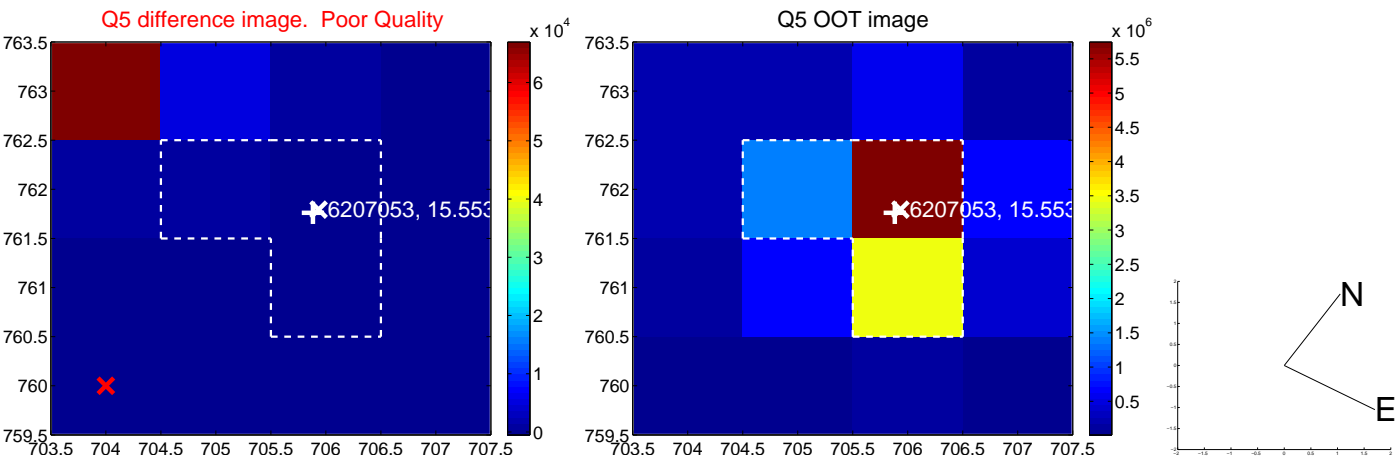


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

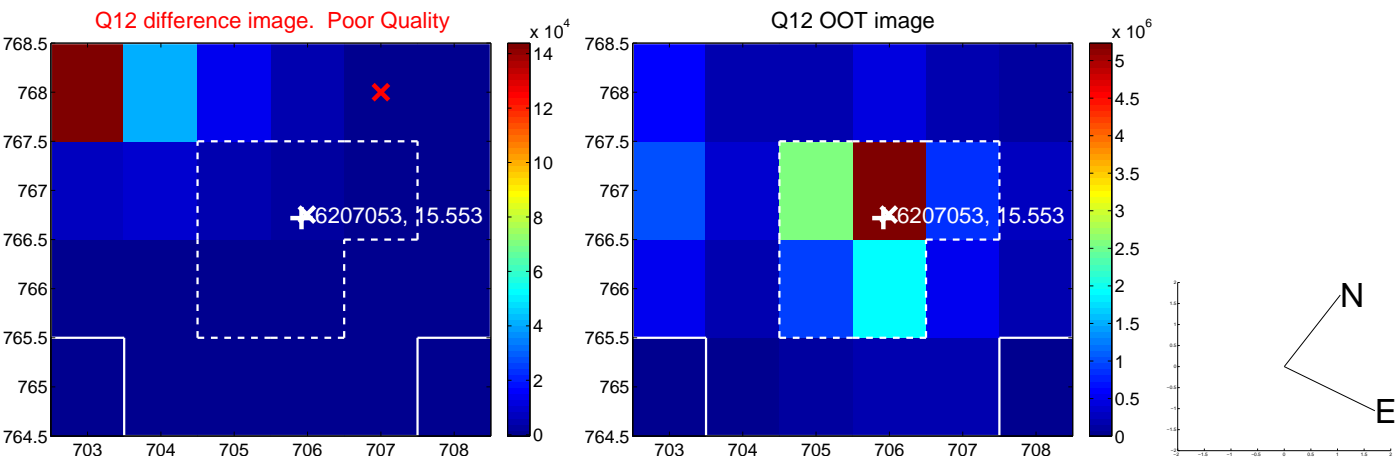
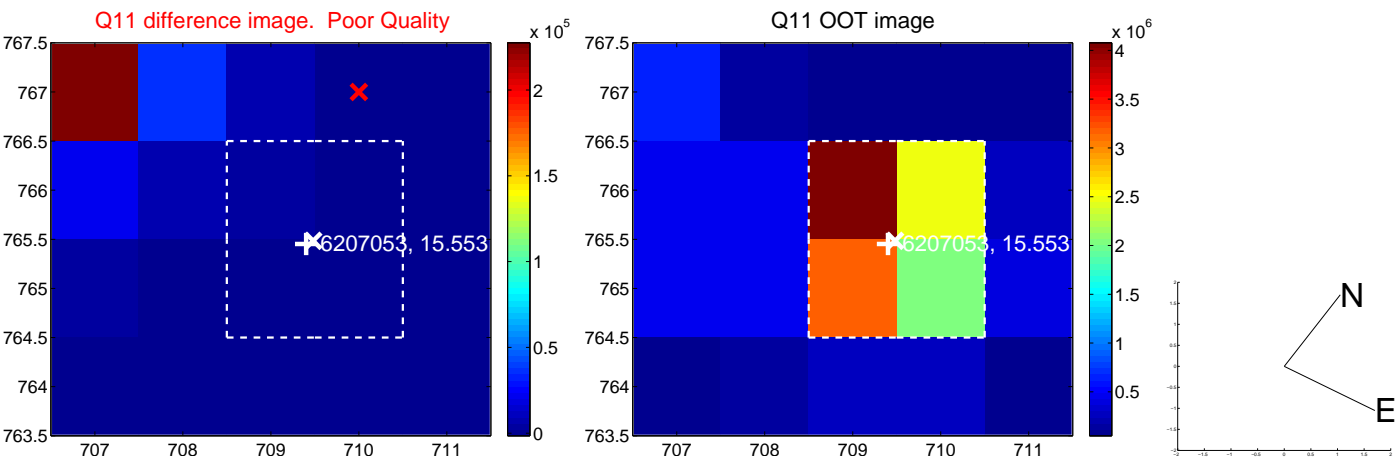
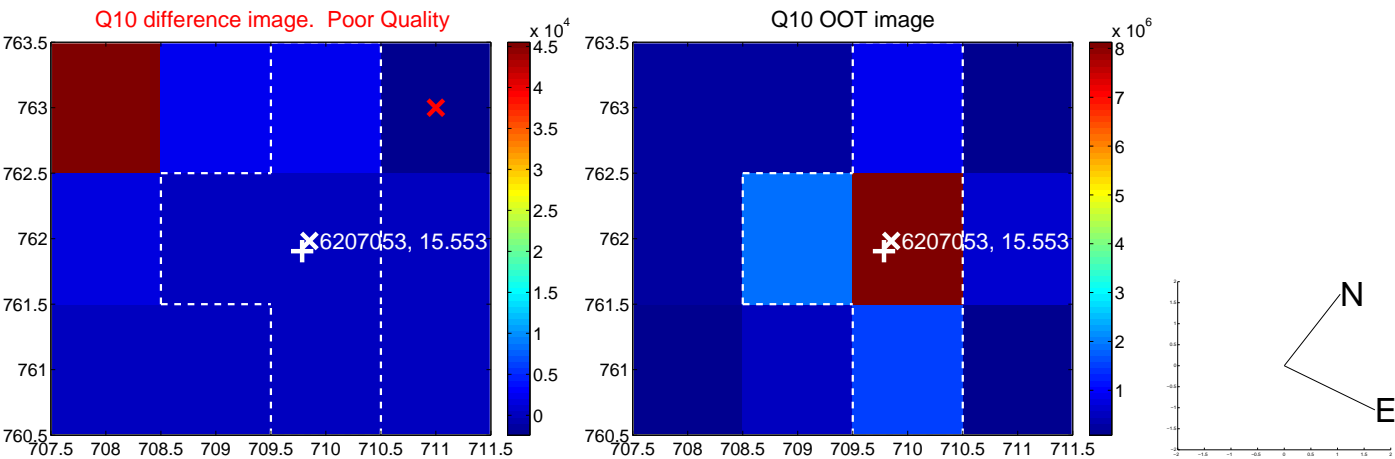
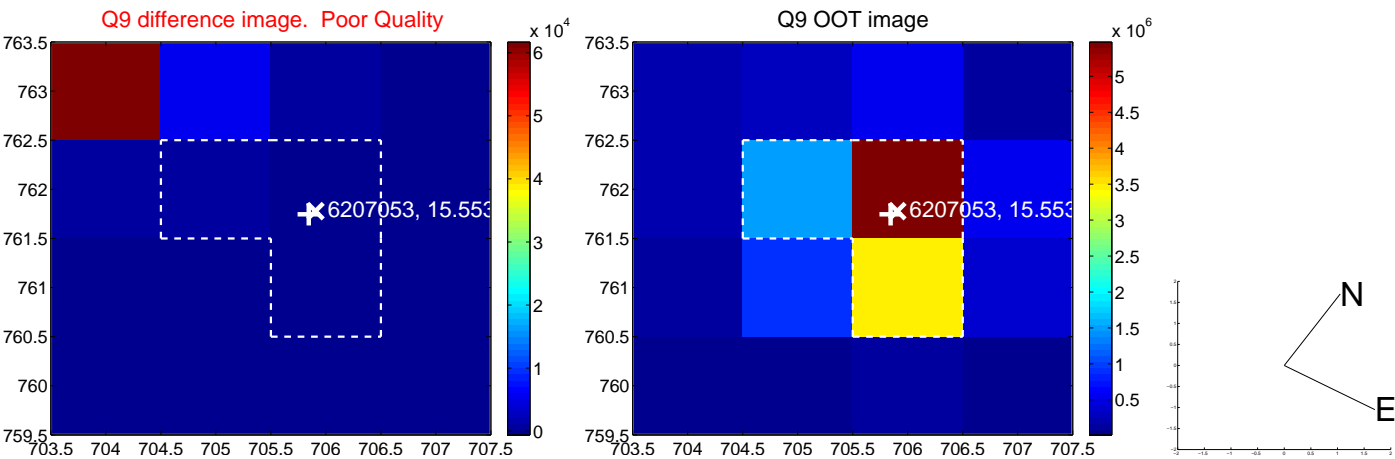
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



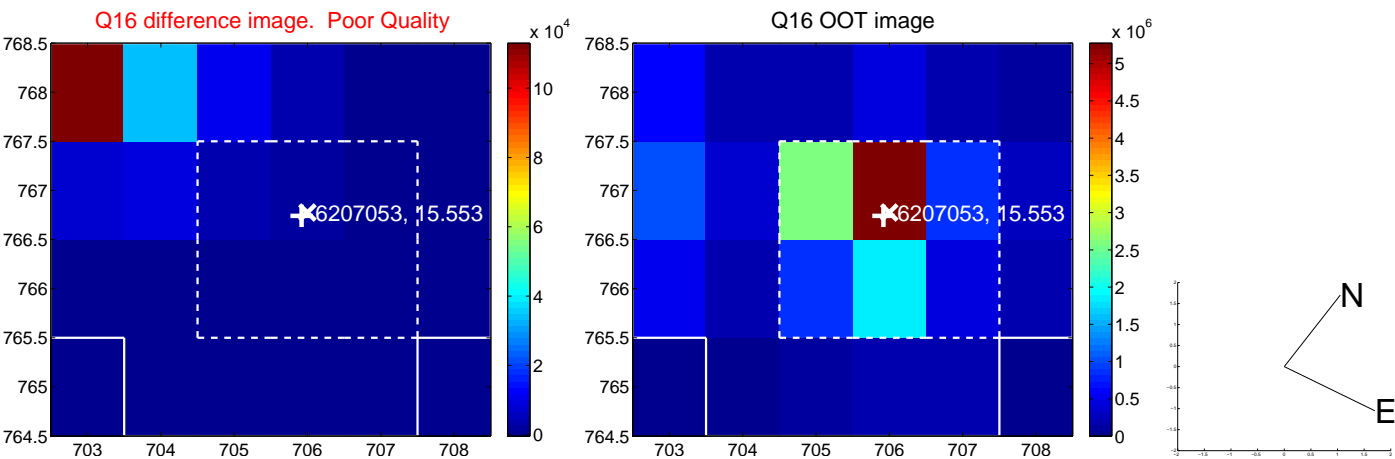
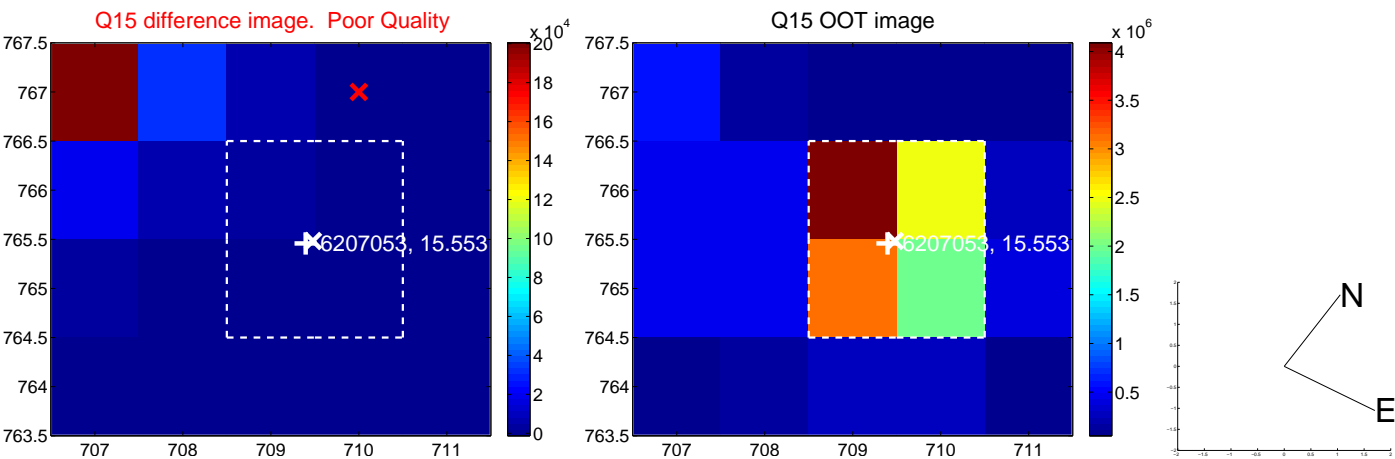
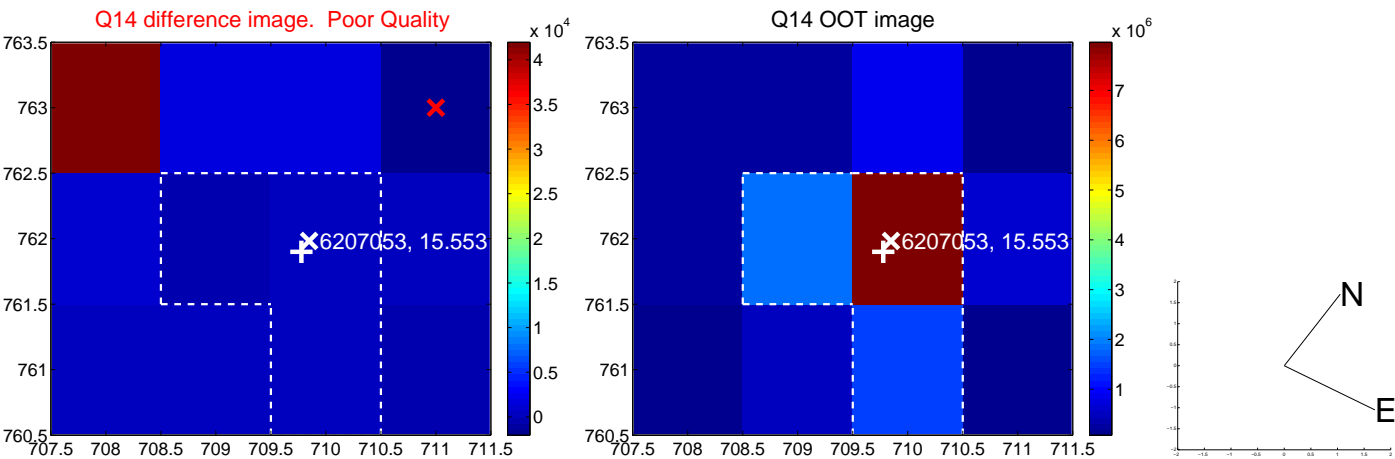
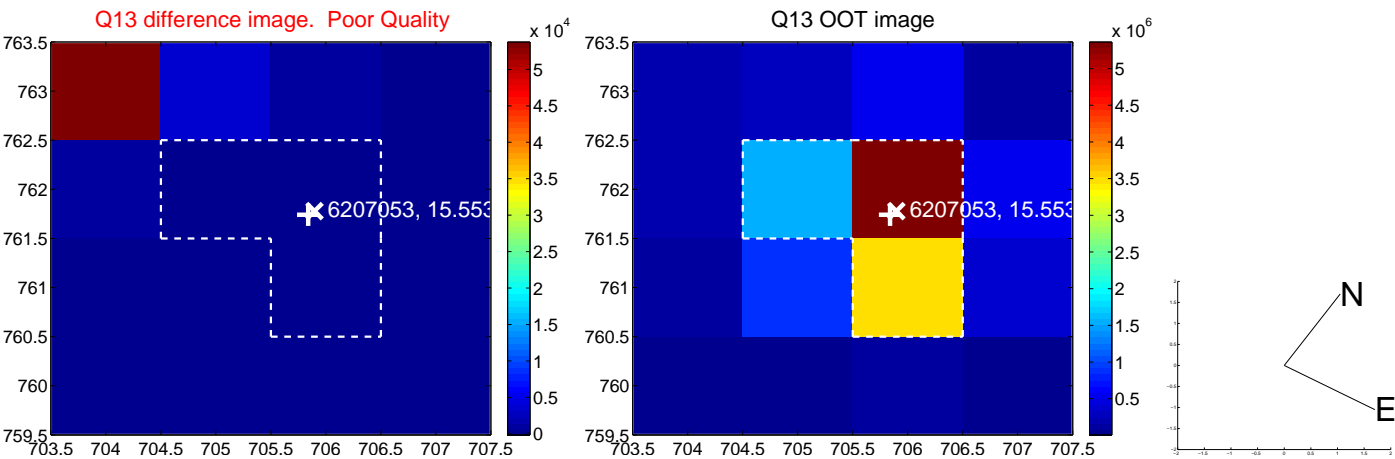
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



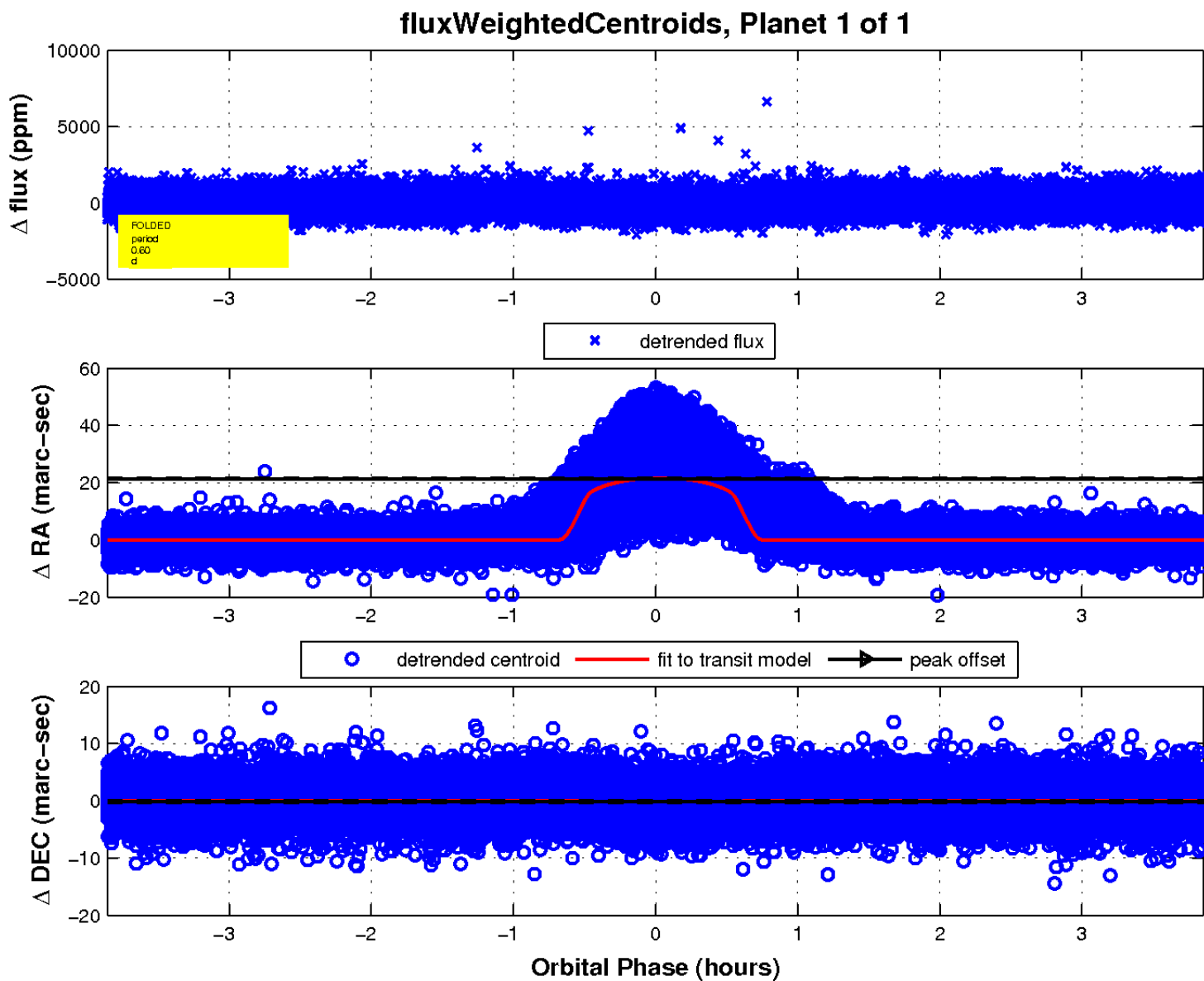
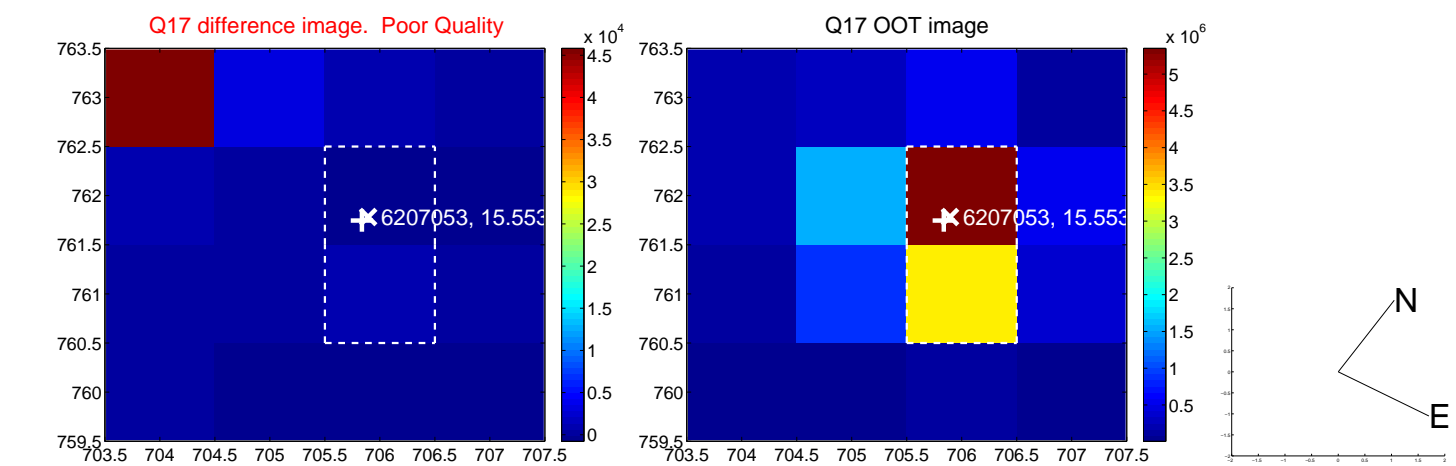
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



UKIRT Image

Declination

