

KIC 007679090

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})
007679090-01	OBS	No	159.032421	269.928073	242.2	2.789	10.4	6.9	1.02	6211	1.91	4.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007679090-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—MOD_NONUNIQ_DV—MOD_TER_DV

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

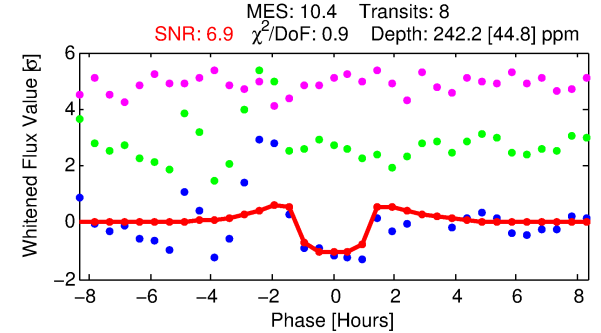
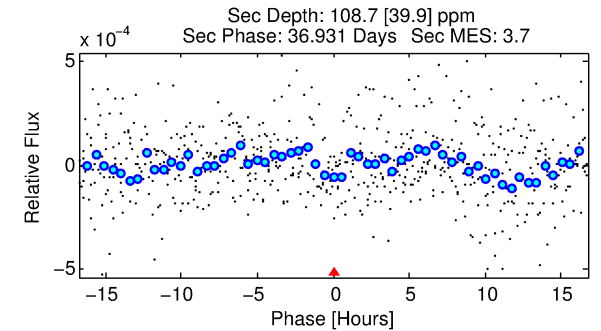
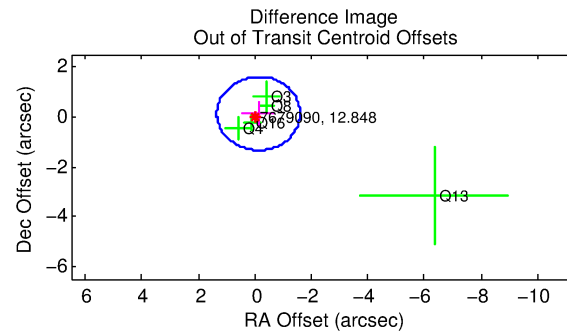
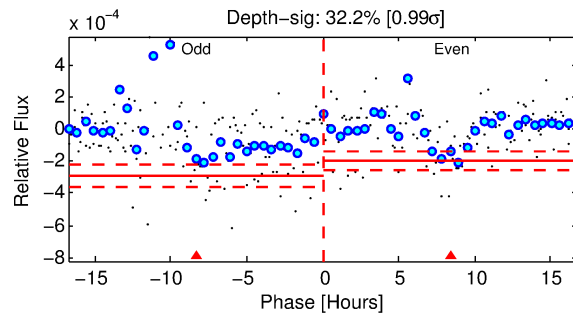
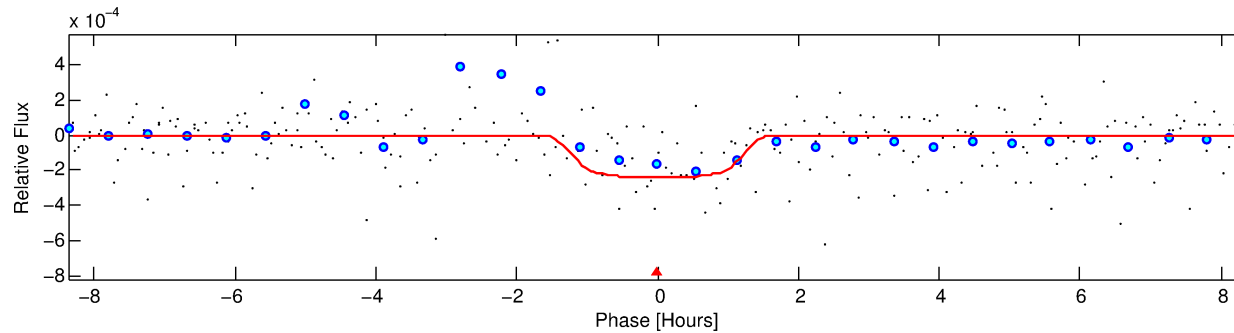
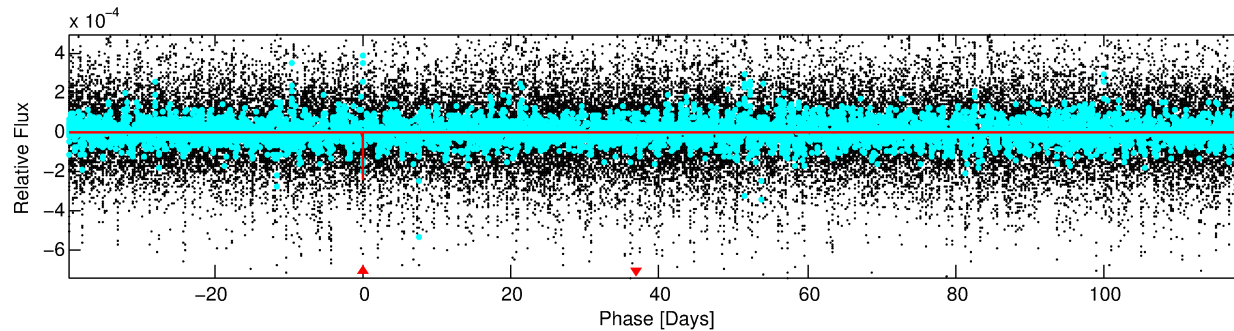
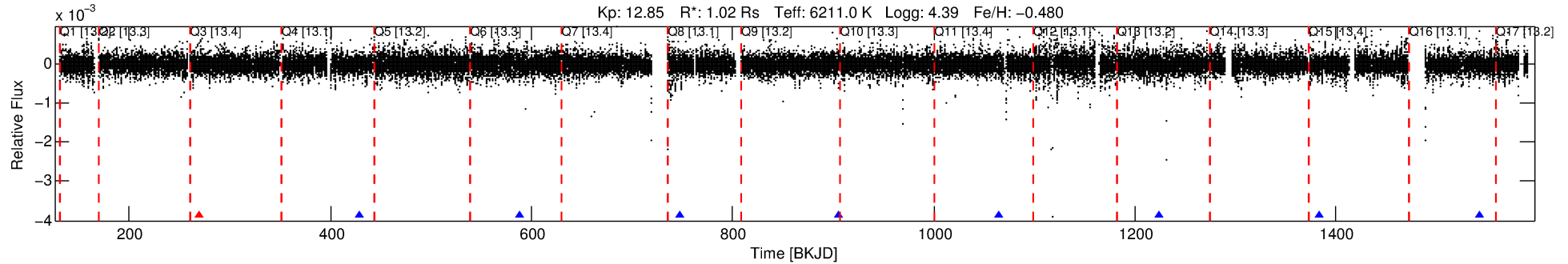
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007679090-01

No Significant Match Found

DV One-Page Summary

KIC: 7679090 Candidate: 1 of 1 Period: 159.032 d



DV Fit Results:

Period = 159.03242 [0.00148] d
Epoch = 269.9281 [0.0079] BKJD
Rp/R* = 0.0171 [0.0061]
a/R* = 186.46 [337.42]
b = 0.92 [0.30]
Seff = 4.42 [1.60]
Teq = 370 [33] K
Rp = 1.91 [0.86] Re
a = 0.5618 [0.1313] AU
Ag = 5198.10 [4545.33] [1.14σ]
Teffp = 4854 [988] K [4.53σ]

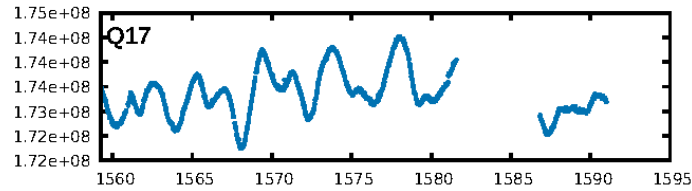
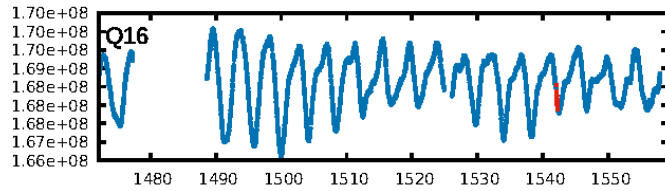
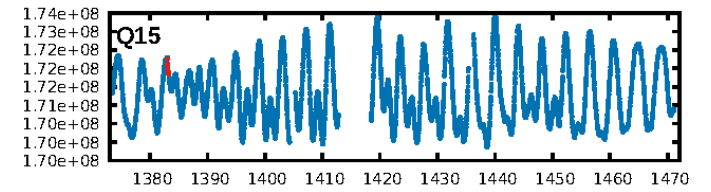
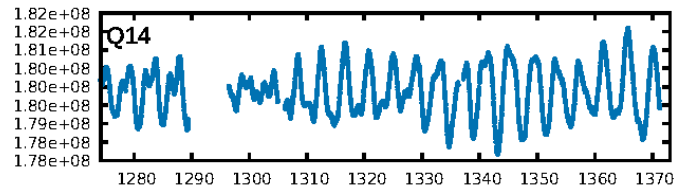
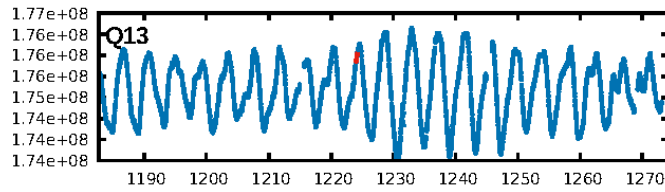
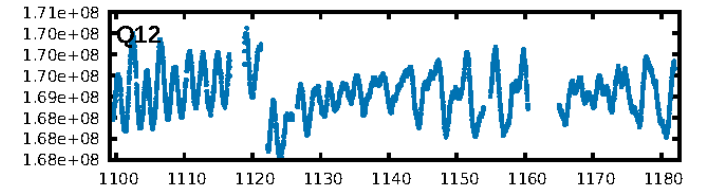
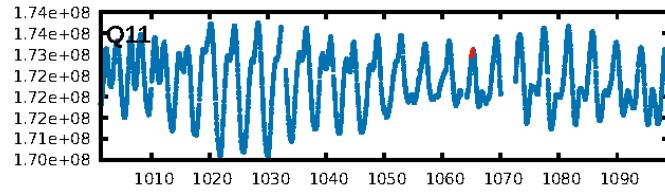
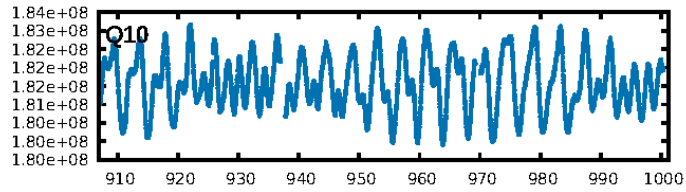
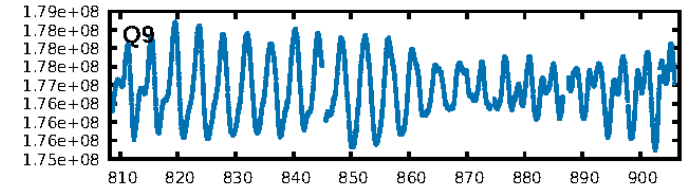
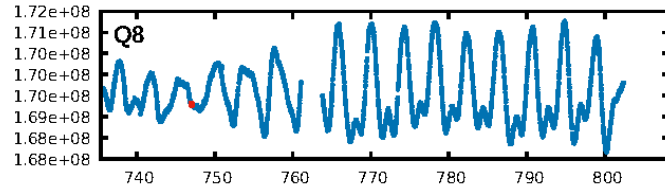
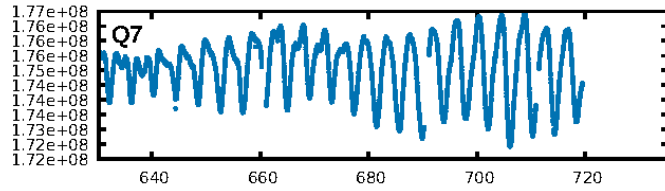
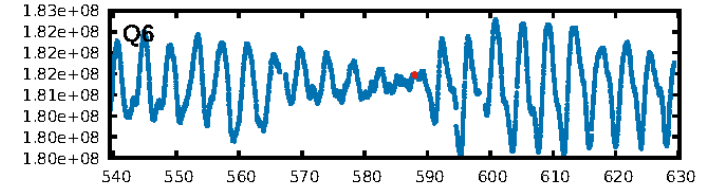
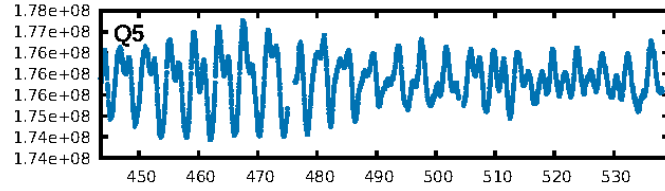
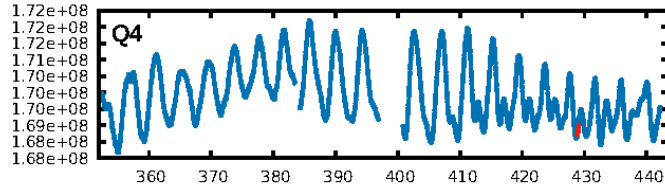
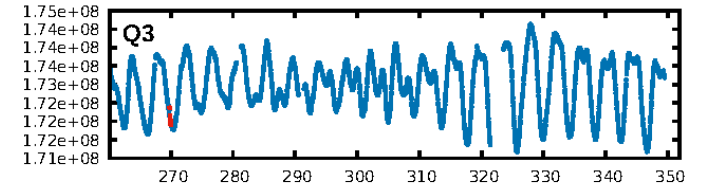
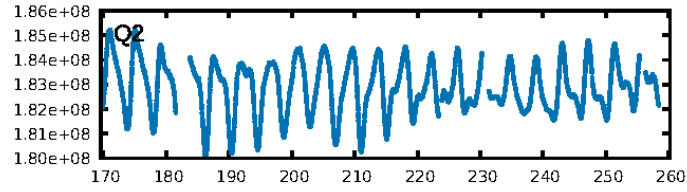
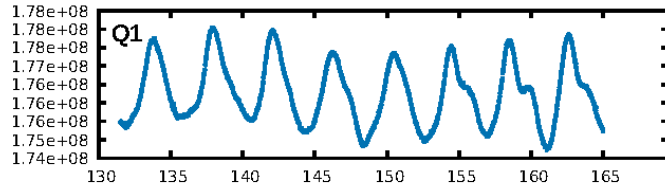
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 38.0%
ModelChiSquareGof-sig: 98.8%
Bootstrap-pfa: 7.37e-12
RollingBand-fgt: 0.88 [7/8]
GhostDiagnostic-chr: 1.129
Centroid-sig: 79.7%
Centroid-so: 0.529 arcsec [0.46σ]
OotOffset-rm: 0.179 arcsec [0.37σ]
KicOffset-rm: 0.169 arcsec [0.38σ]
OotOffset-st: 0/1/3/1 [5]
KicOffset-st: 0/1/3/1 [5]
DiffImageQuality-fgm: 0.80 [4/5]
DiffImageOverlap-fno: 1.00 [7/7]

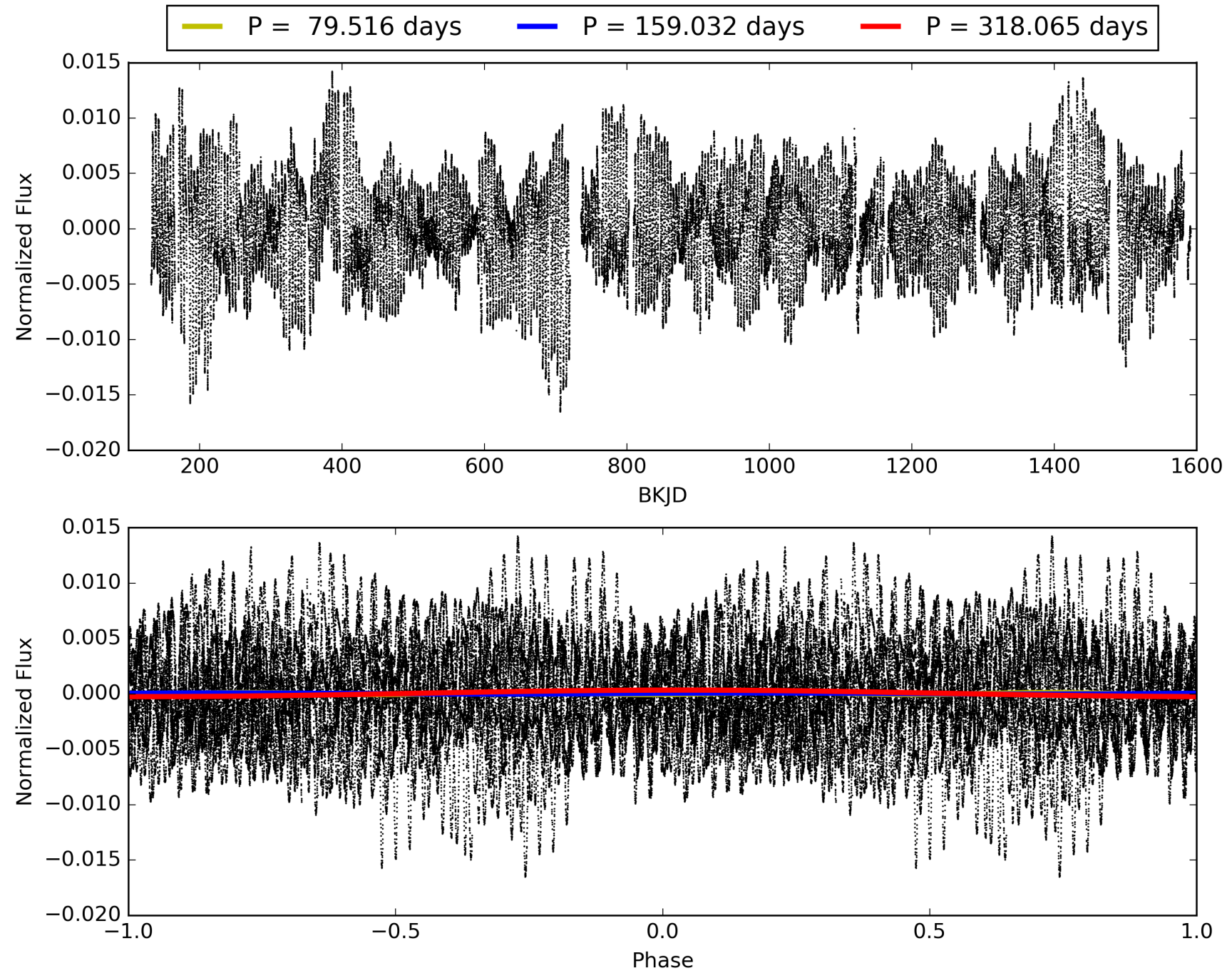
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:46:49 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007679090-01, PDC Light Curves

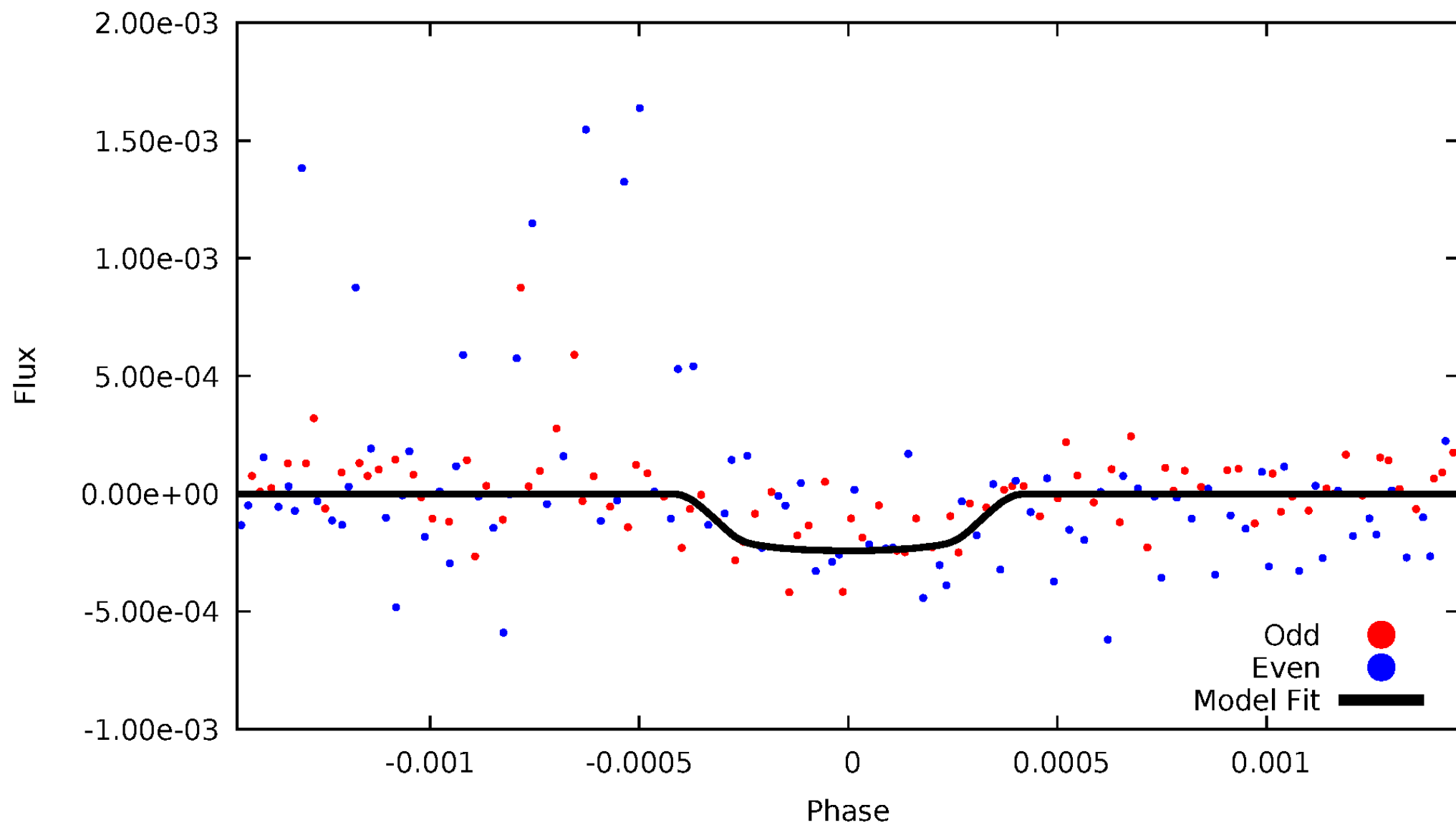


TCE 007679090-01



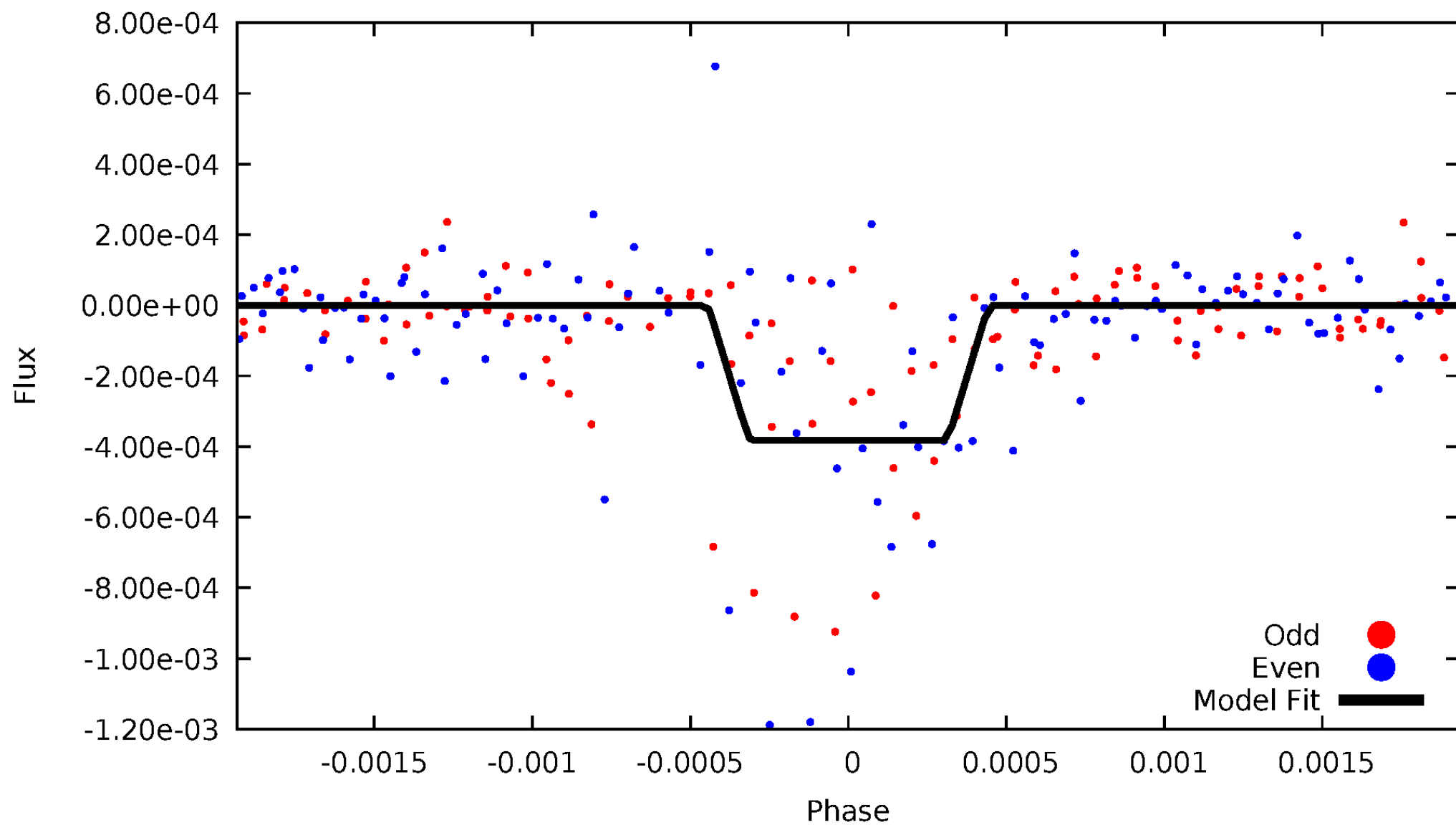
DV Odd/Even

TCE 007679090-01

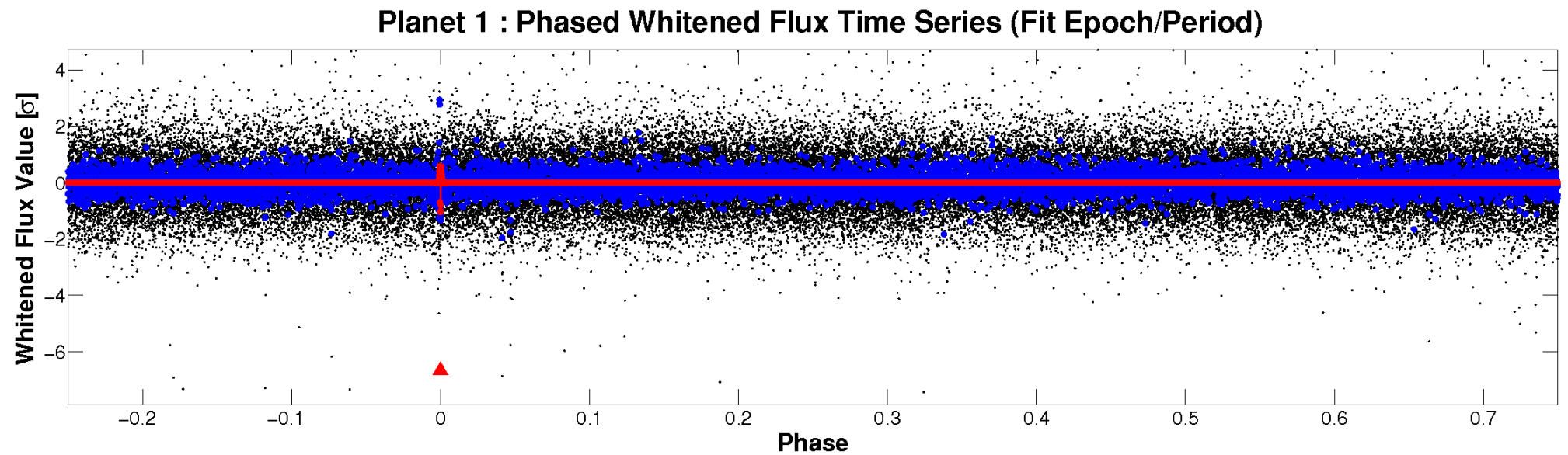
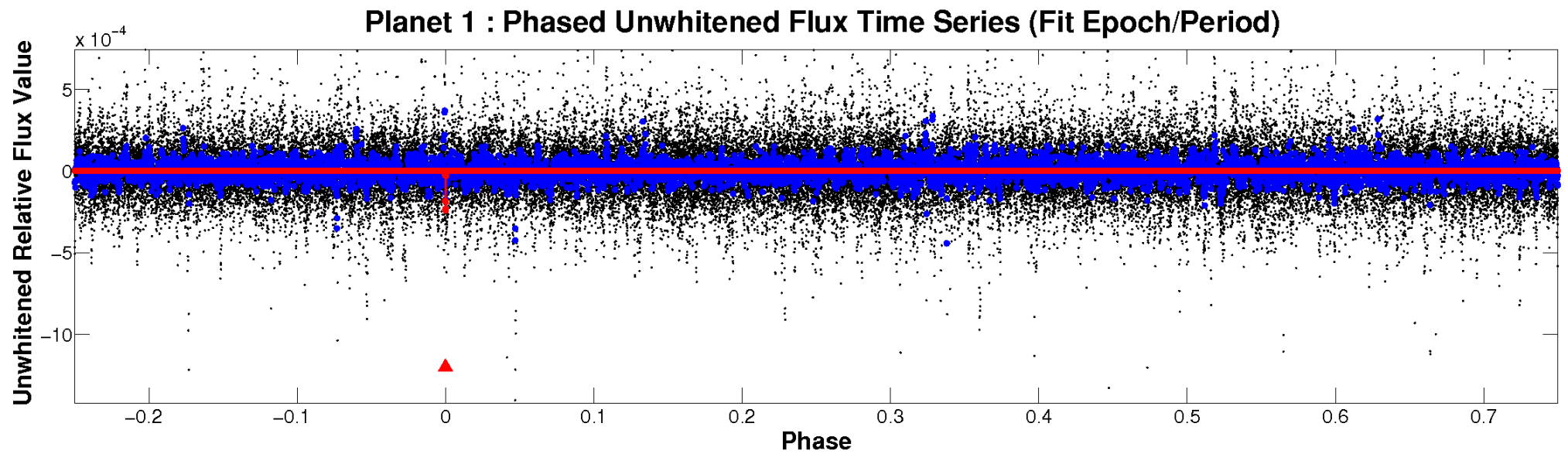


ALT Odd/Even

TCE 007679090-01

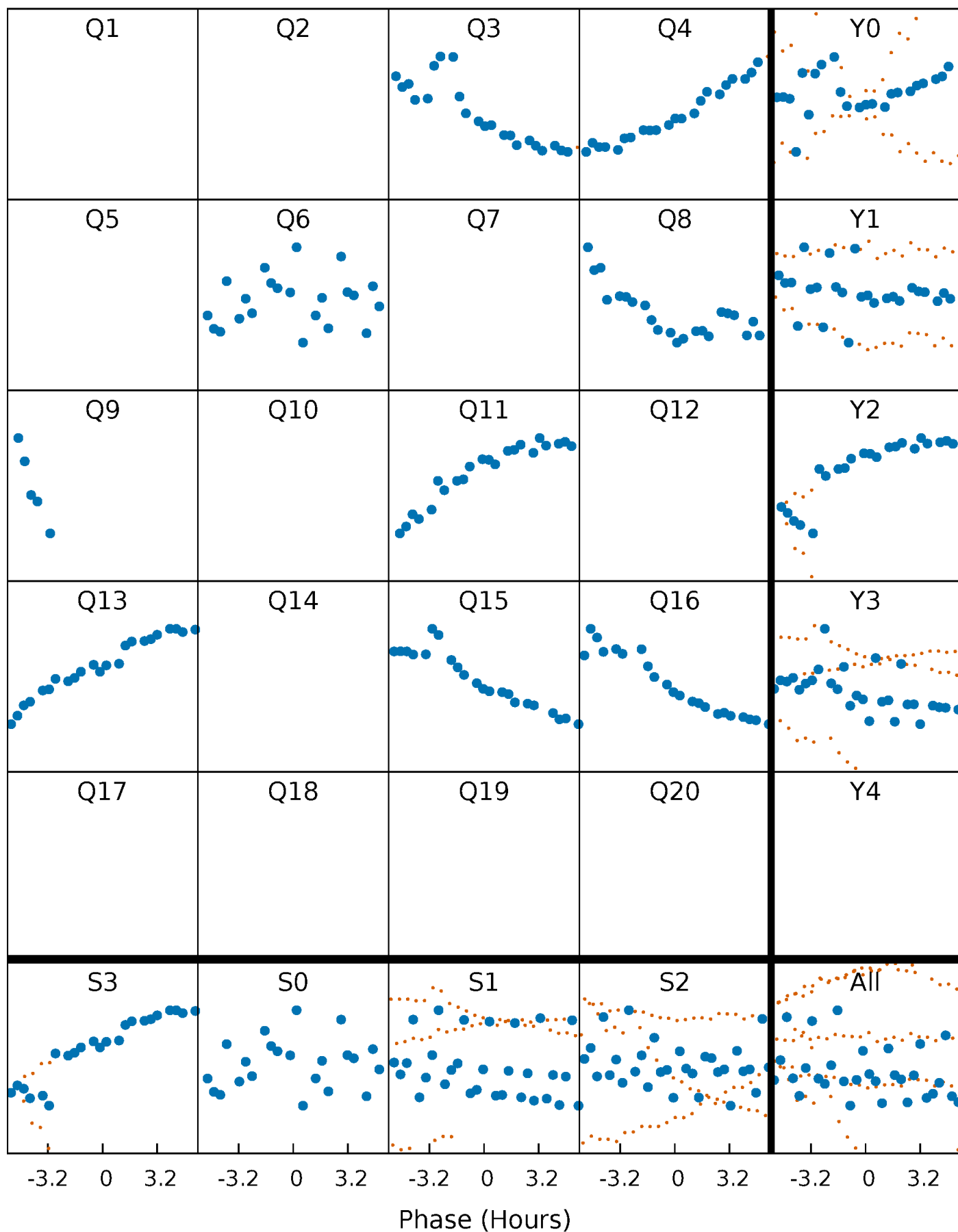


Non-Whitened Vs. Whitened Light Curve



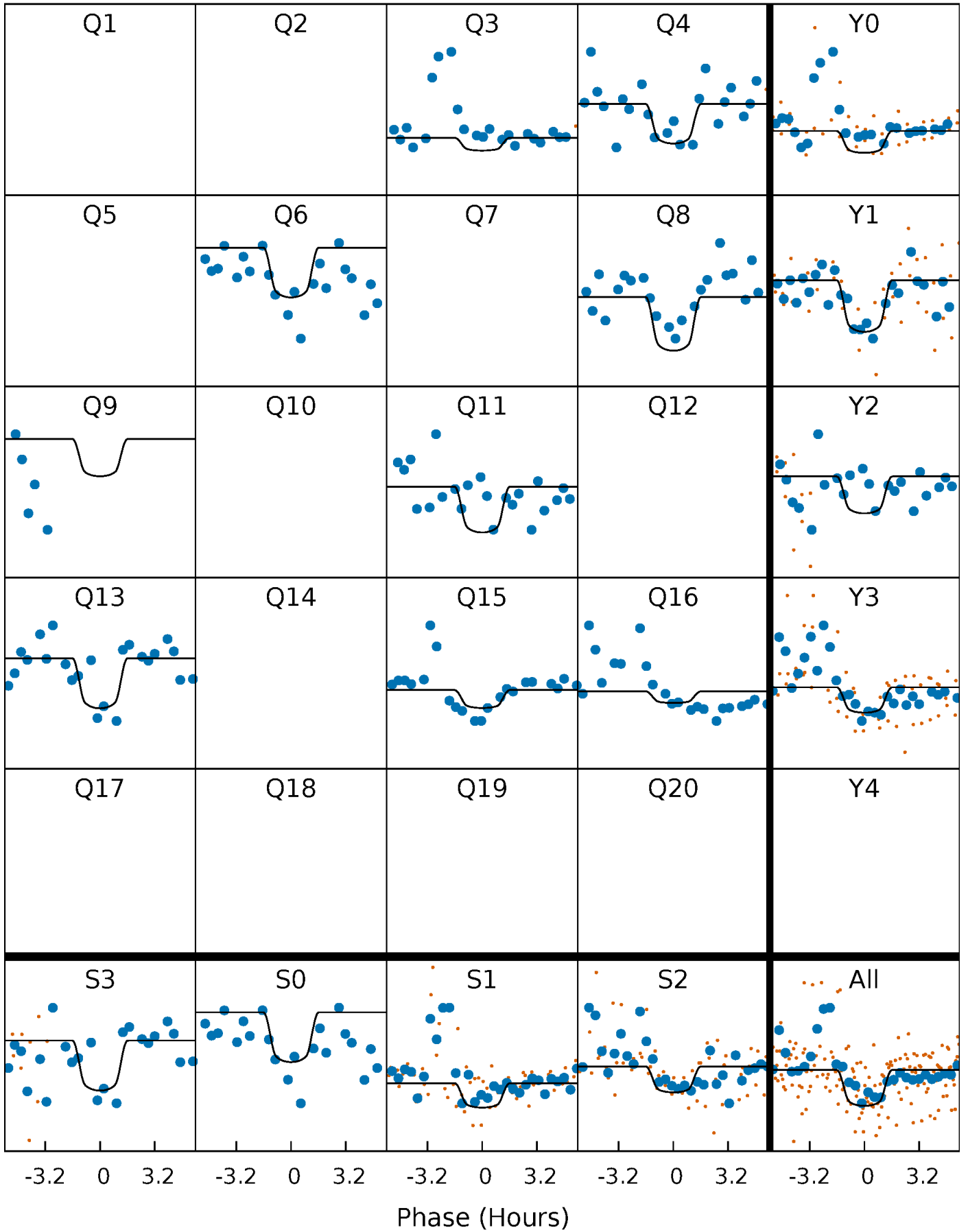
PDC Quarter-Phased Transit Curves

TCE 007679090-01 P=159.032421 Days $T_0=269.928073$ (BKJD)



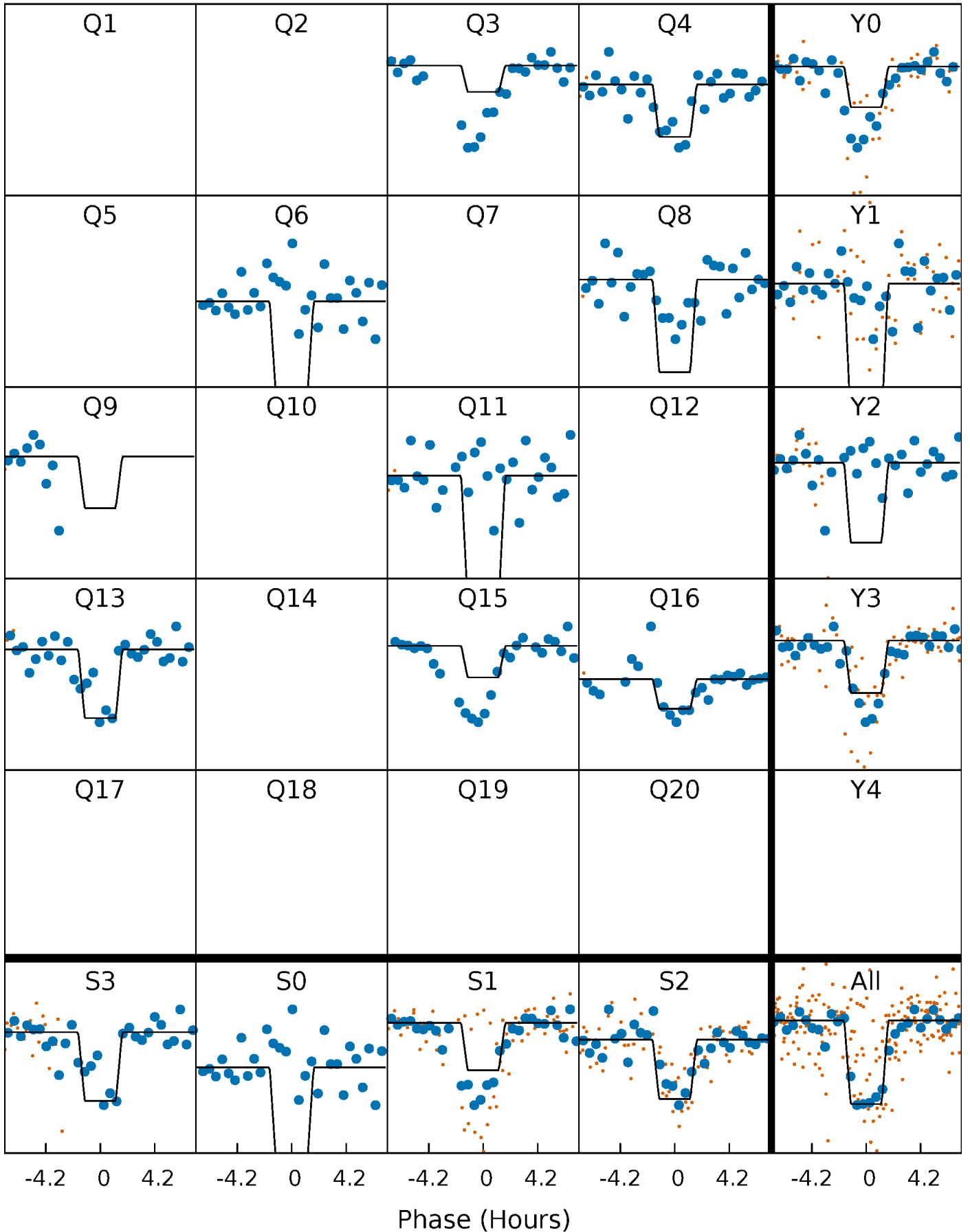
DV Quarter-Phased Transit Curves

TCE 007679090-01 P=159.032421 Days $T_0=269.928073$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

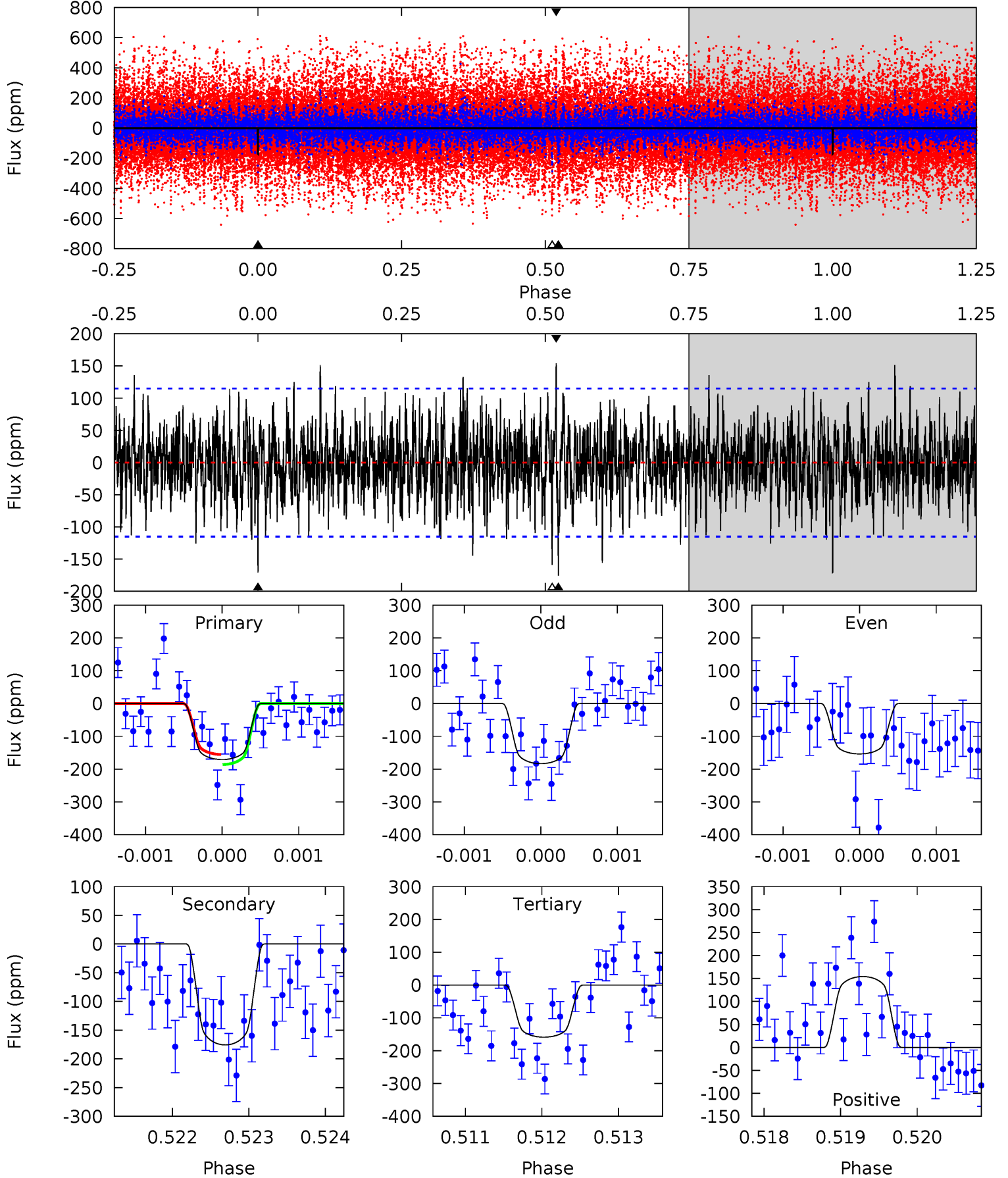
TCE 007679090-01 P=159.030003 Days $T_0=269.929182$ (BKJD)



DV Model-Shift Uniqueness Test

007679090-01, $P = 159.032421$ Days, $E = 110.895652$ Days

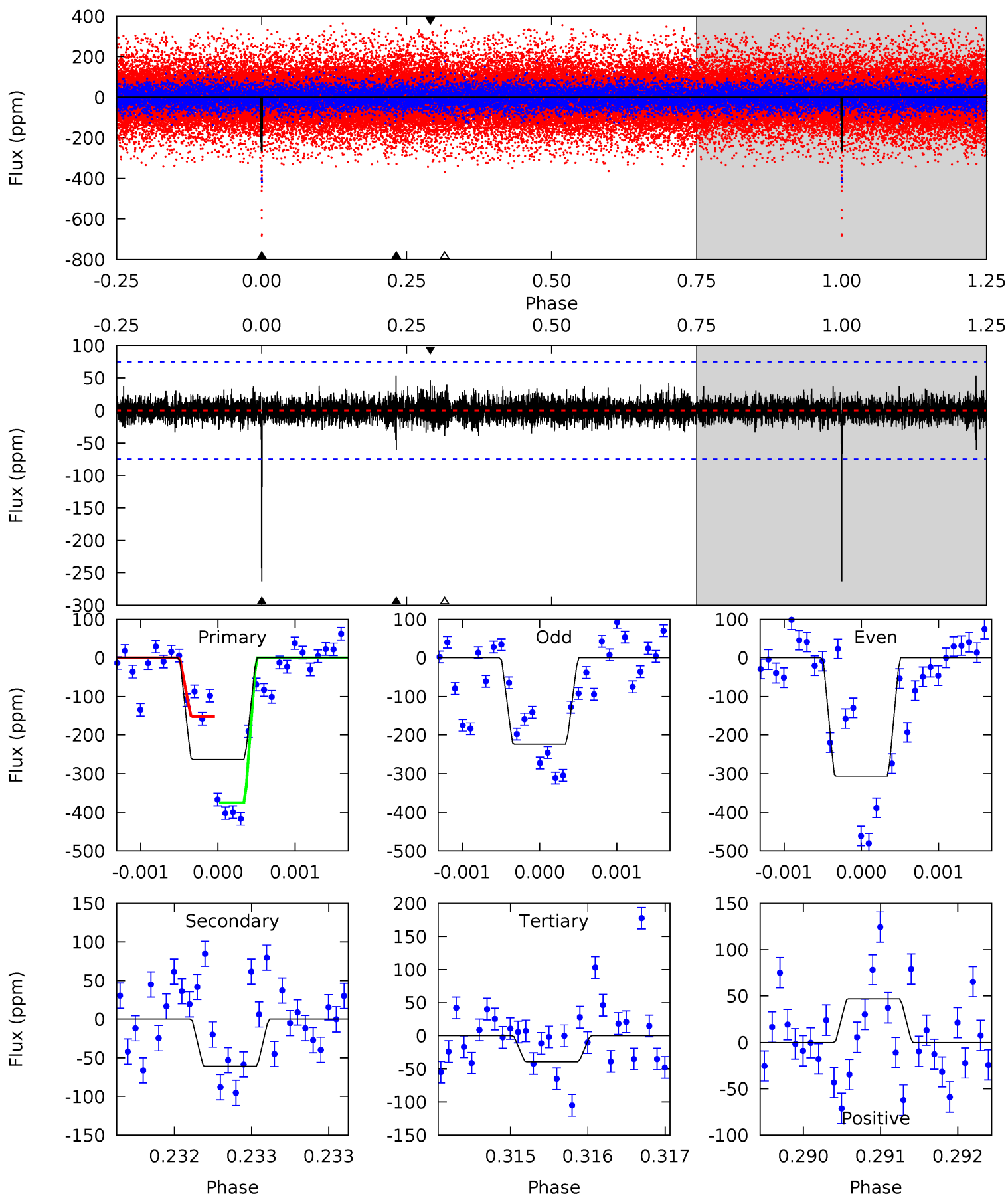
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.14	8.37	7.57	7.35	5.48	3.34	2.01	0.57	0.79	0.80	1.02	0.72	0.84	0.47	0.74



Alt Model-Shift Uniqueness Test

007679090-01, P = 159.030003 Days, E = 110.899179 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	4.44	2.85	3.41	5.47	3.32	0.77	16.3	15.8	1.59	1.03	3.03	1.11	0.17	7.99



Stellar Parameters For KIC 007679090

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6211^{+169}_{-187}	$4.389^{+0.108}_{-0.186}$	$-0.480^{+0.300}_{-0.300}$	$1.023^{+0.284}_{-0.153}$	$0.935^{+0.128}_{-0.093}$	$1.228^{+0.657}_{-0.579}$
	+3%/-3%	+2%/-4%	+62%/-62%	+28%/-15%	+14%/-10%	+54%/-47%
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 007679090-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-176 ± 21	$1.97^{+0.76}_{-0.72}$	522^{+36}_{-30}	5470^{+1419}_{-690}	7798^{+11867}_{-3732}
Alt.	-61 ± 14	$2.23^{+0.82}_{-0.74}$	521^{+34}_{-27}	4184^{+708}_{-448}	2079^{+2596}_{-1025}

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

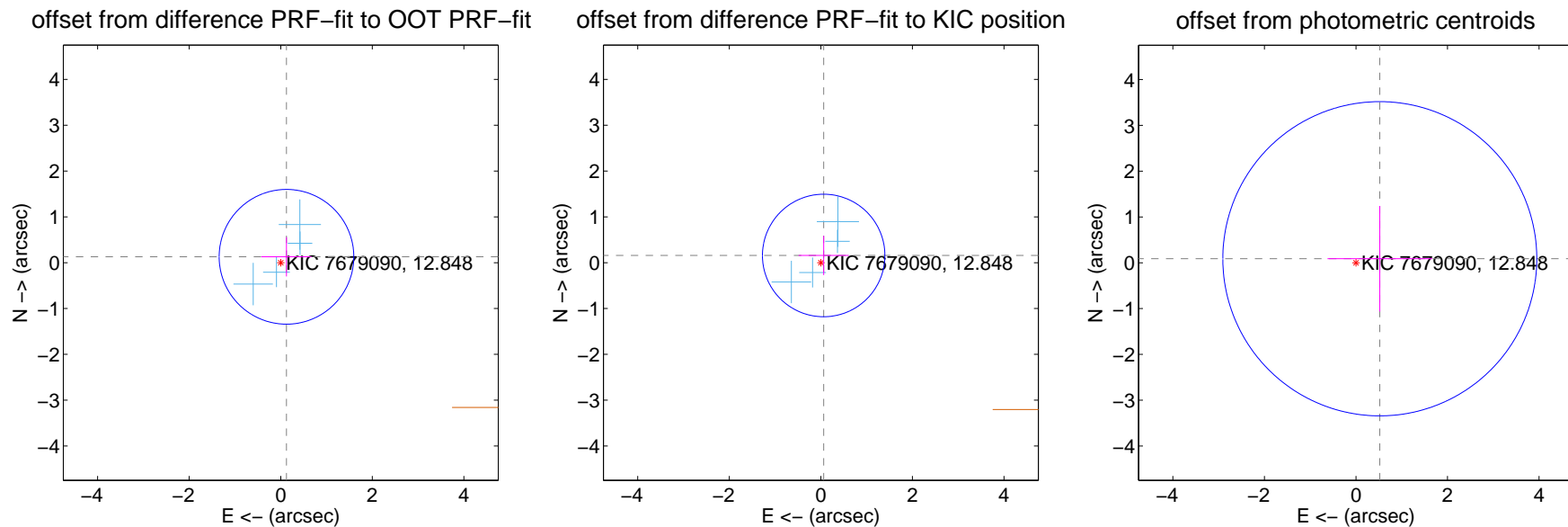
DV Centroid Data

Supplemental centroid analysis for 007679090-01. Kepler magnitude: 12.85. Transit SNR 6.92

There are 4 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

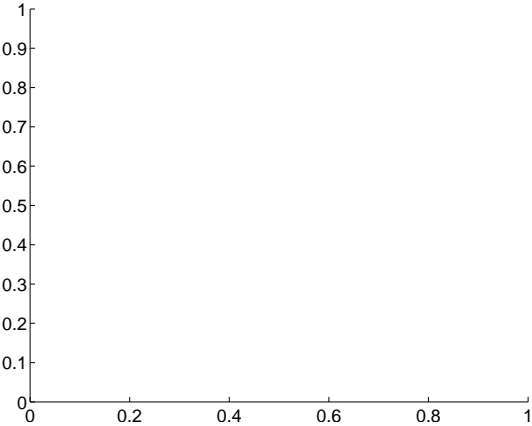
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.179 ± 0.490	0.37	-0.125 ± 0.548	0.129 ± 0.428
PRF-fit source offset from KIC position	0.169 ± 0.446	0.38	-0.061 ± 0.548	0.157 ± 0.428
photometric centroid source offset	0.53 ± 1.14	0.46	-0.52 ± 1.14	0.09 ± 1.15



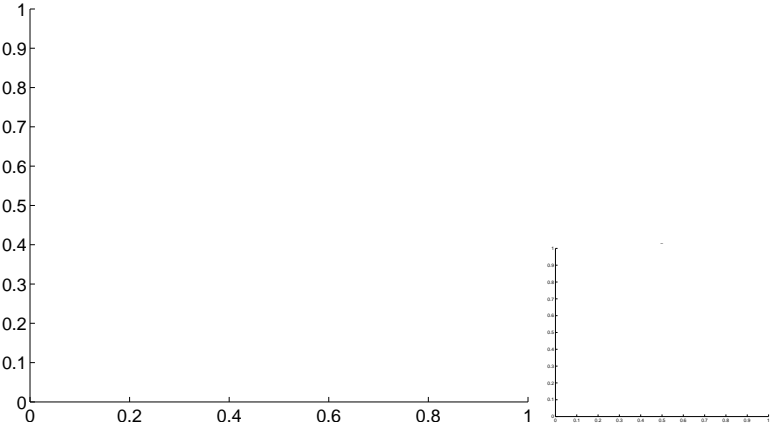
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

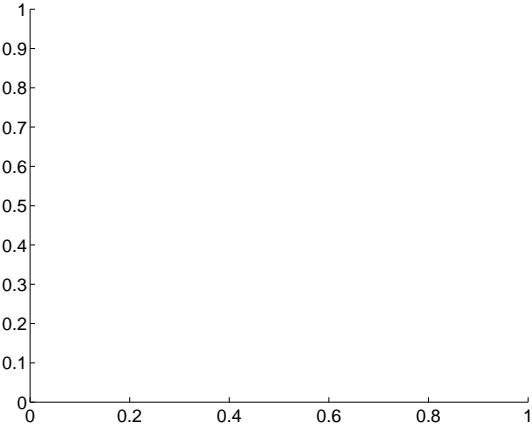
Q1 no difference image



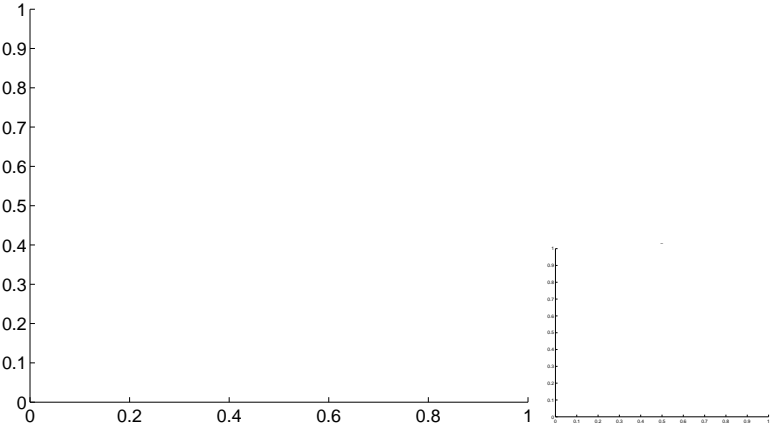
Q1 no OOT image



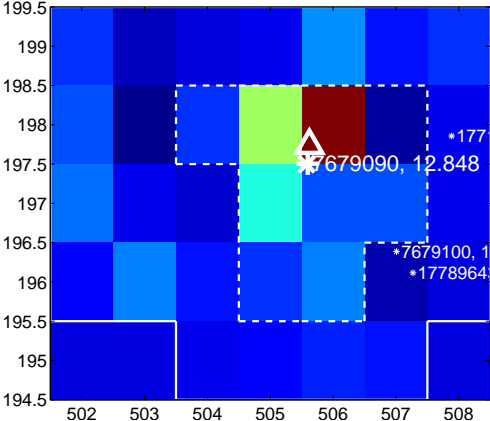
Q2 no difference image



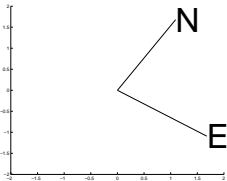
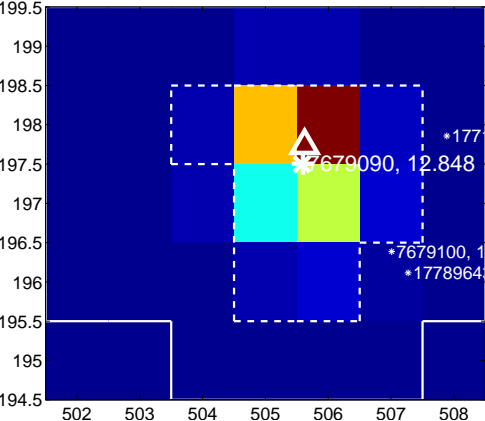
Q2 no OOT image



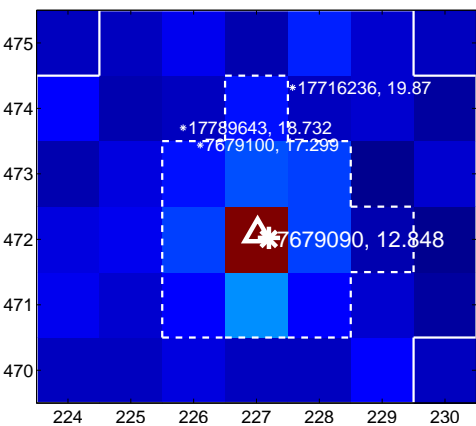
Q3 difference image



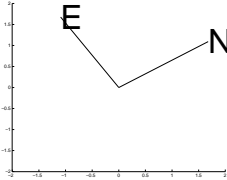
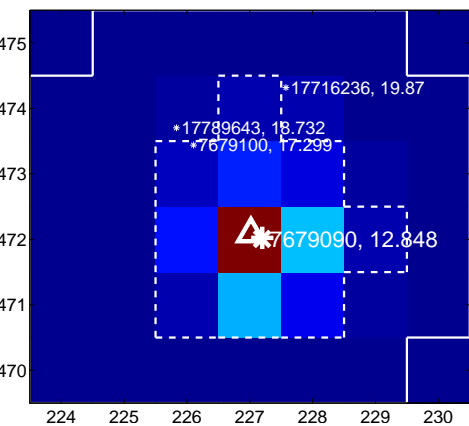
Q3 OOT image



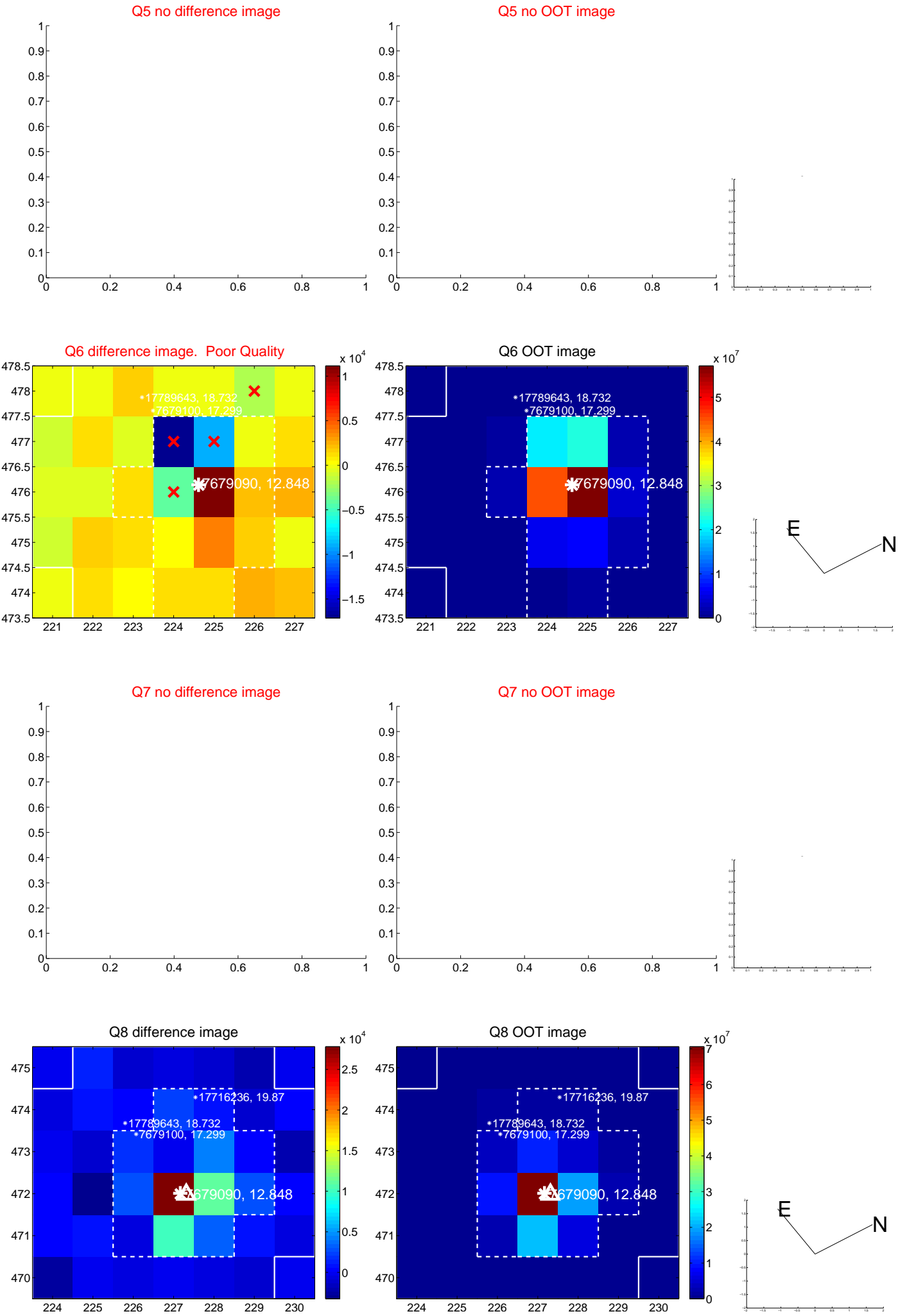
Q4 difference image



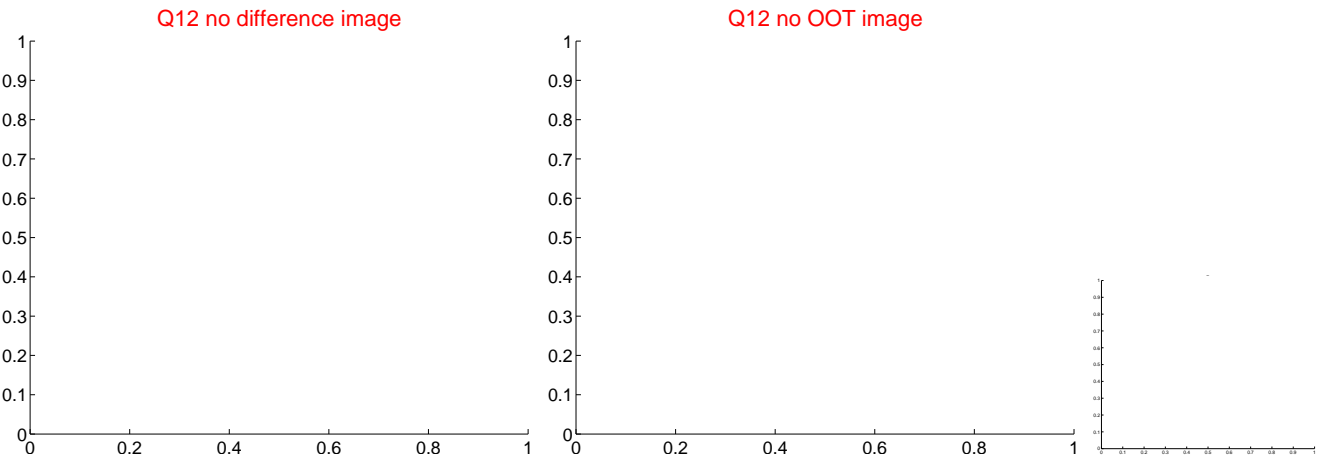
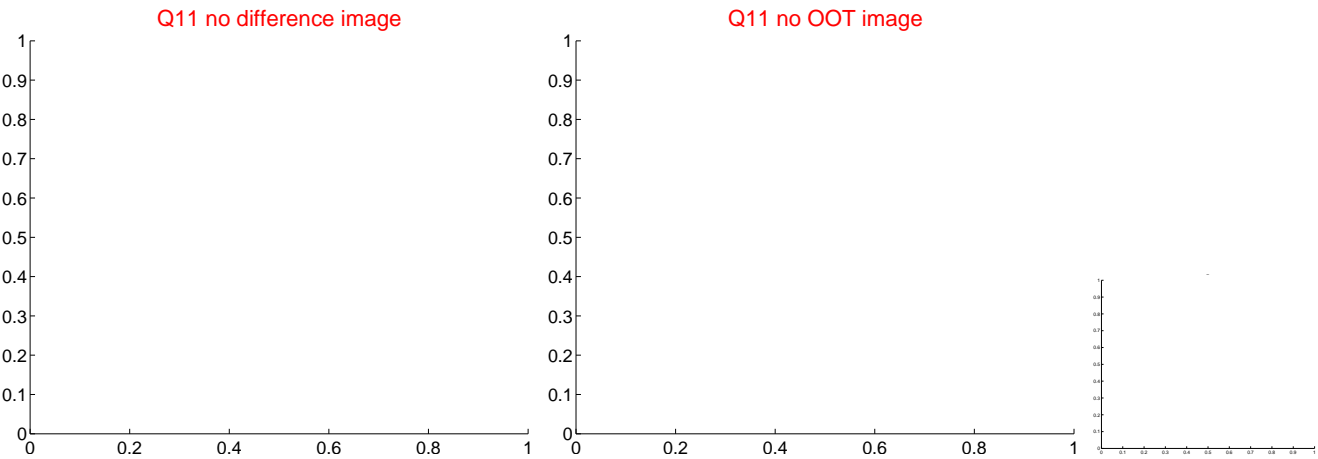
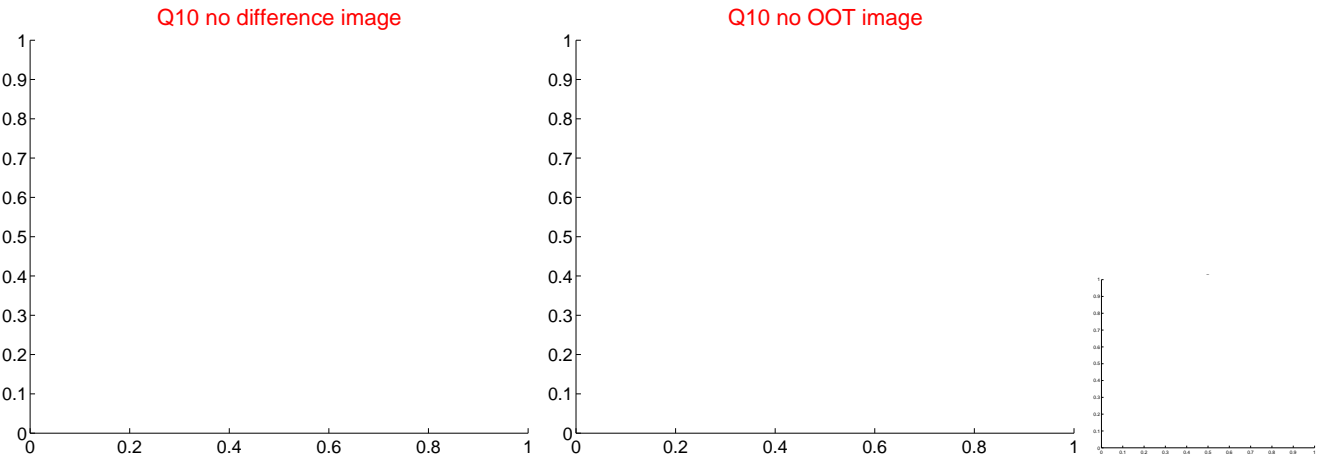
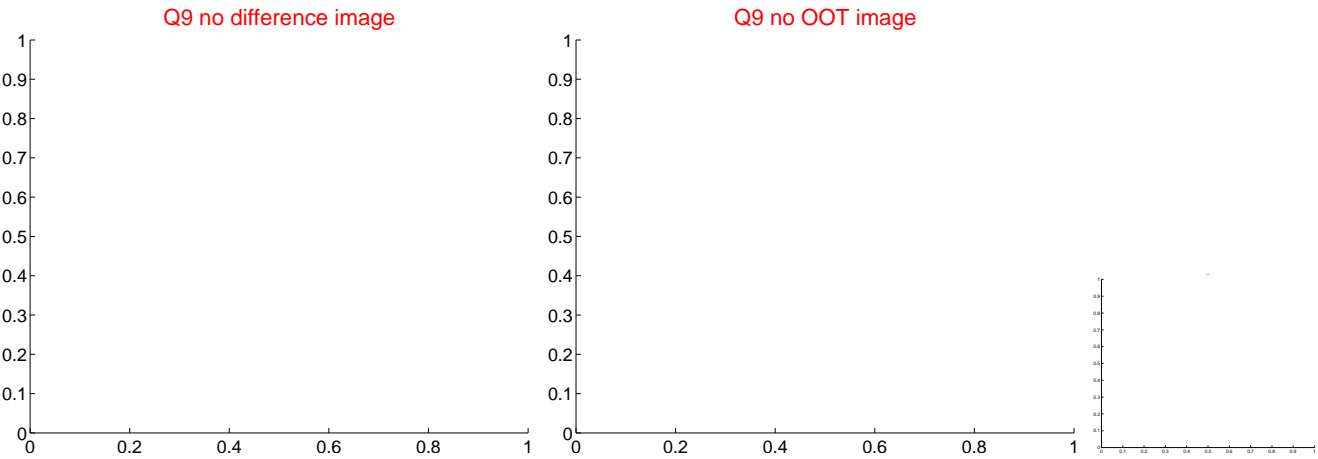
Q4 OOT image



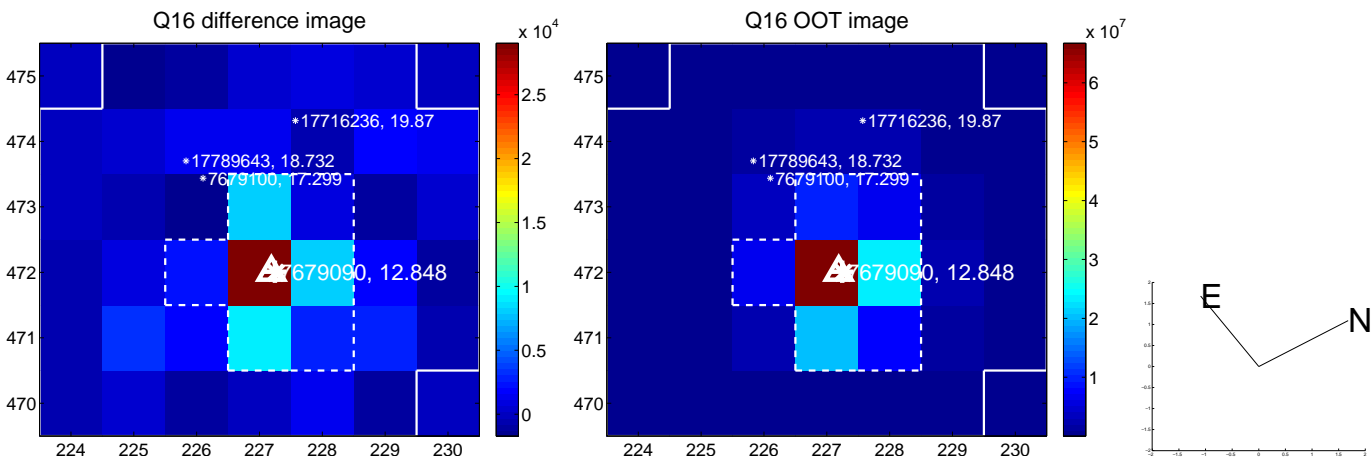
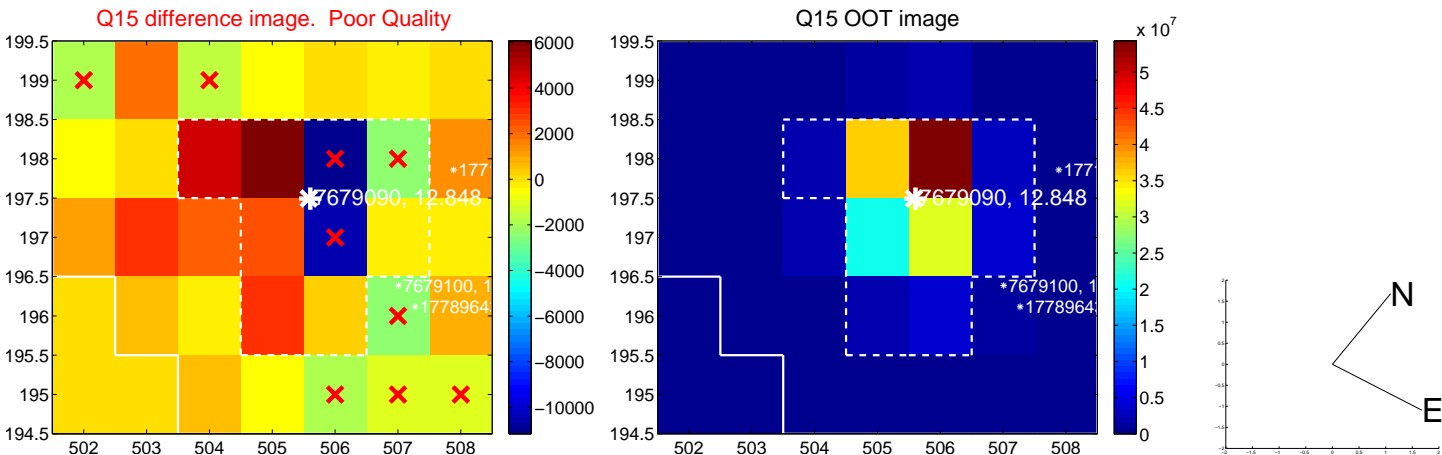
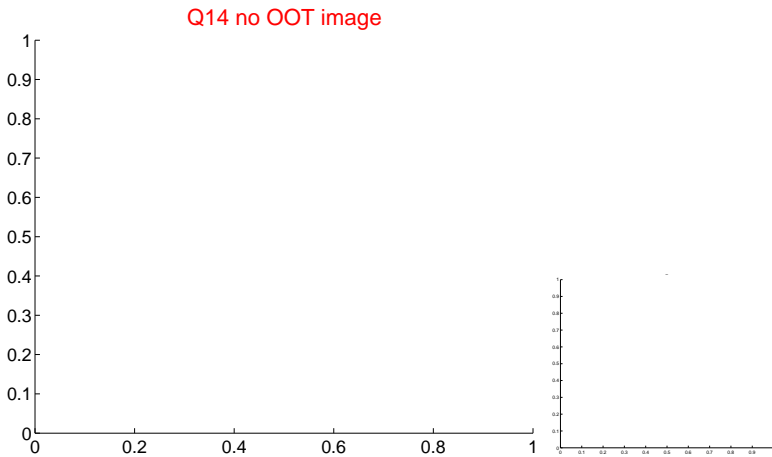
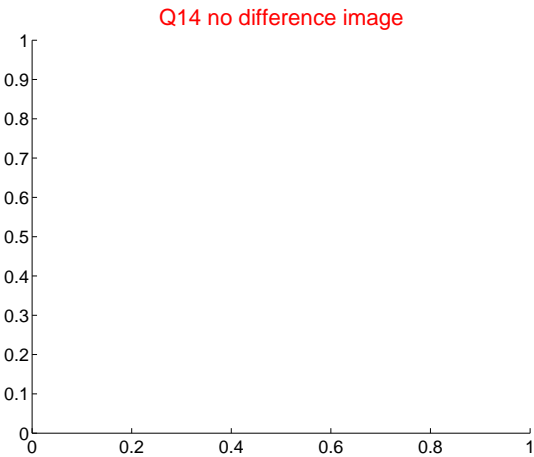
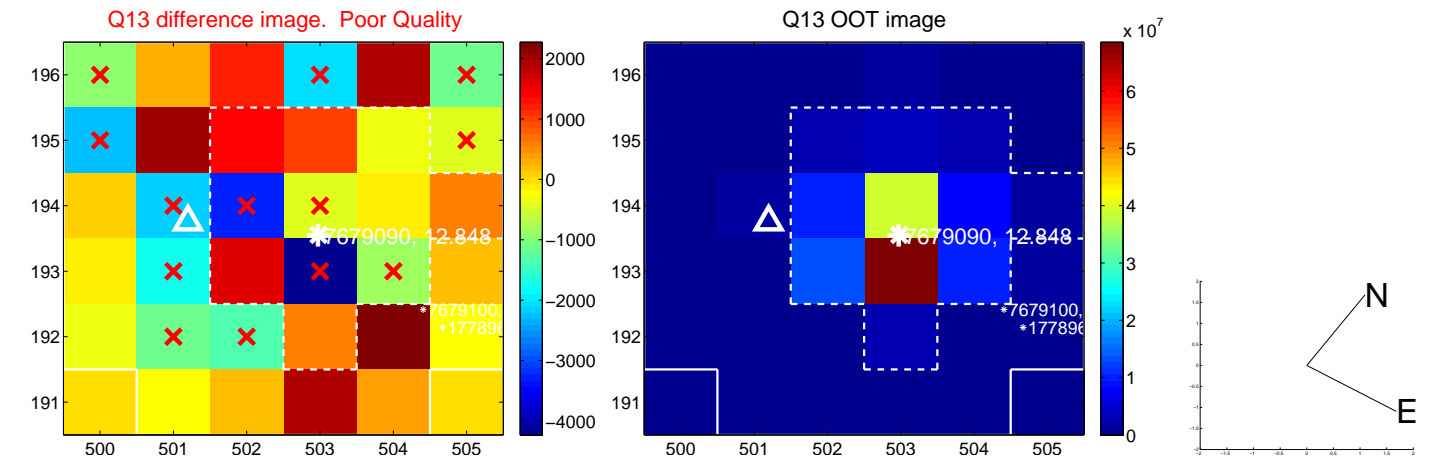
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



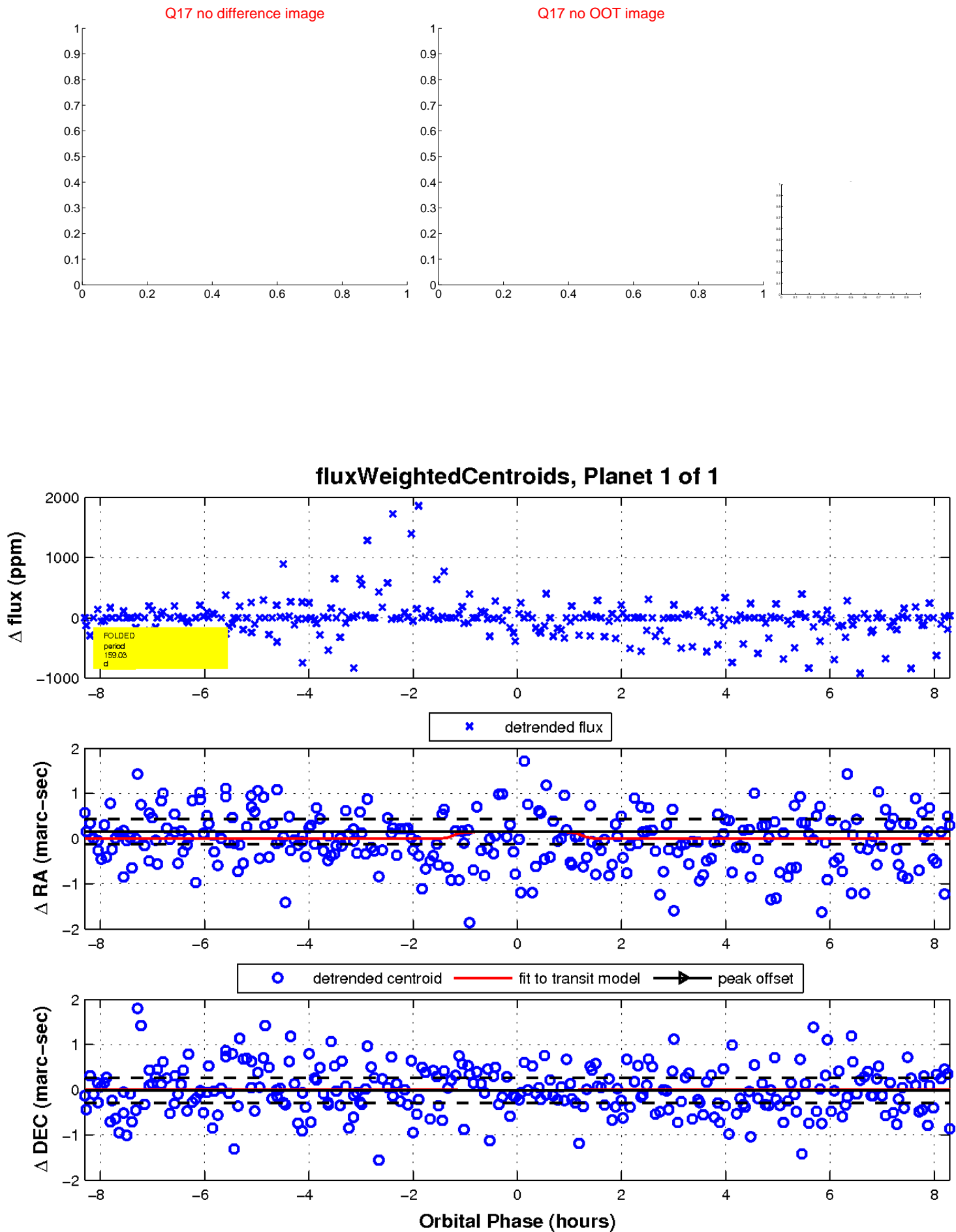
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

