

KIC 005475158

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})
005475158-01	OBS	No	1.266580	132.230849	60.5	10.471	7.2	7.5	0.97	5957	0.76	1921.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005475158-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST

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

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

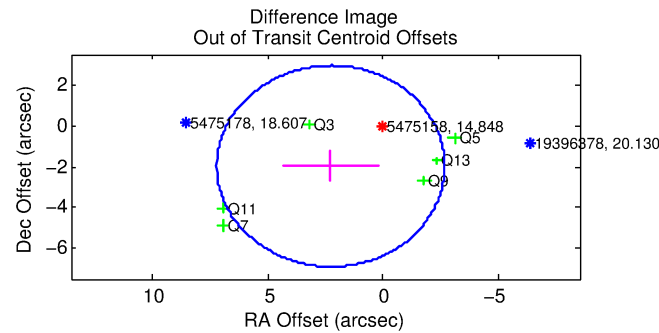
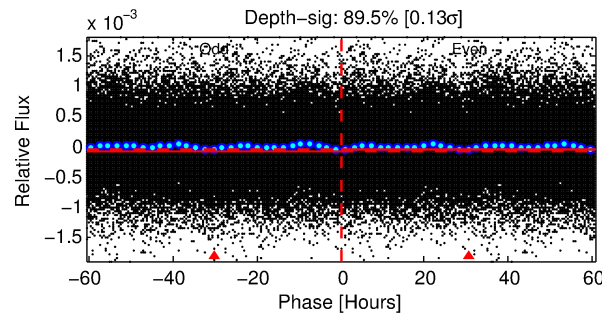
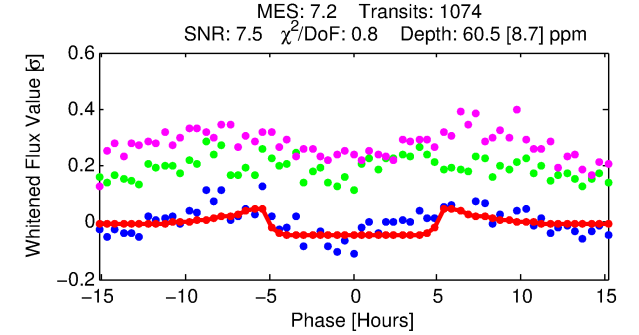
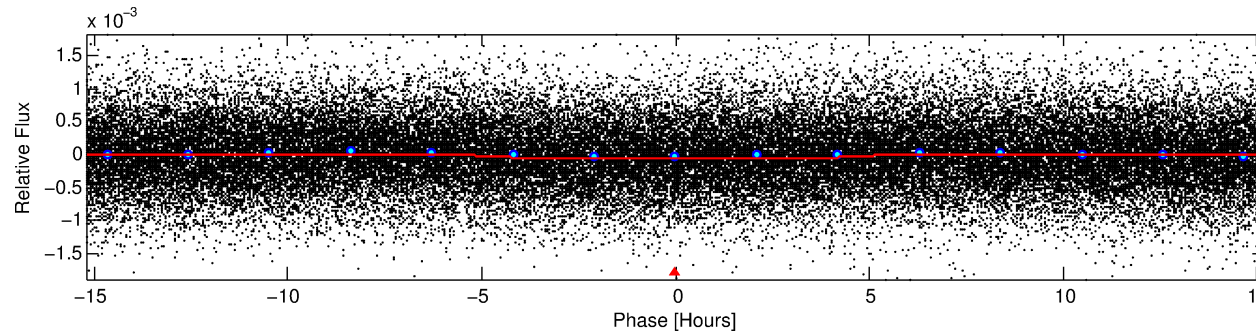
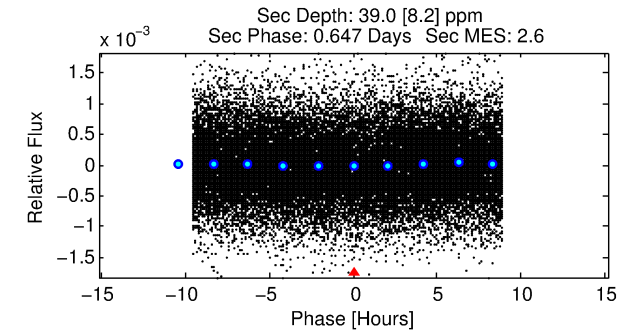
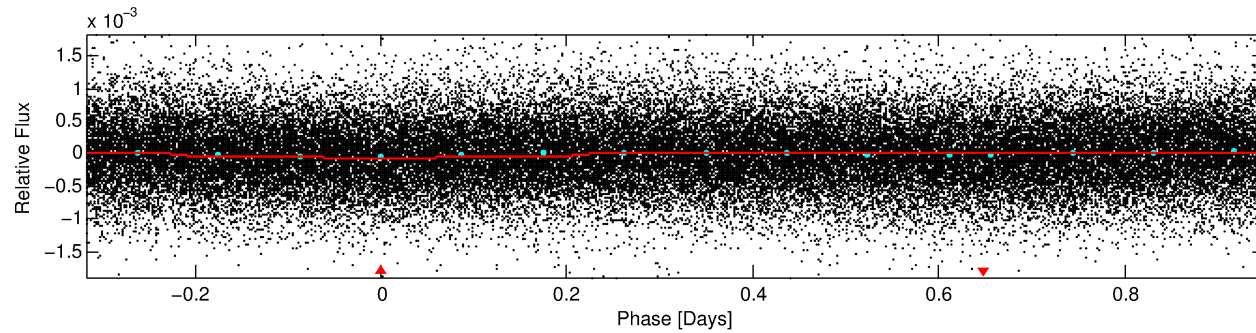
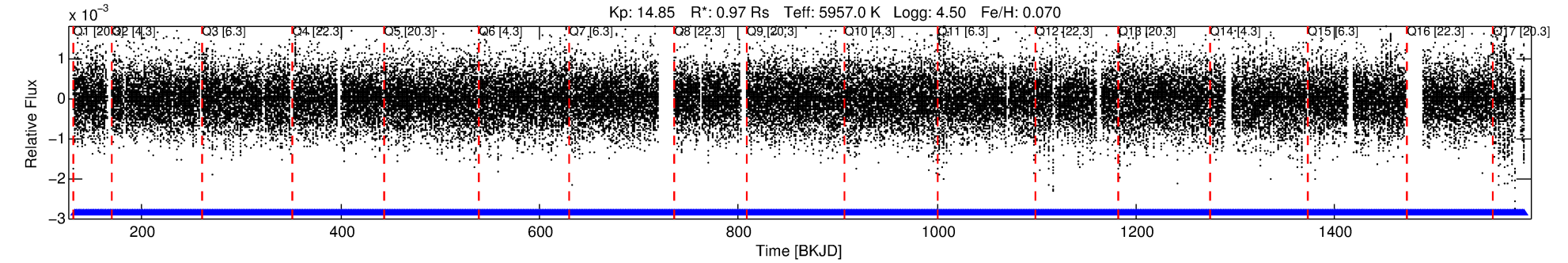
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005475158-01

No Significant Match Found

DV One-Page Summary

KIC: 5475158 Candidate: 1 of 1 Period: 1.267 d



DV Fit Results:

Period = 1.26658 [0.00002] d
Epoch = 132.2308 [0.0058] BKJD
Rp/R* = 0.0071 [0.0060]
a/R* = 1.13 [0.94]
b = 0.27 [13.17]
Seff = 1921.50 [690.79]
Teff = 1688 [152] K
Rp = 0.76 [0.66] Re
a = 0.0235 [0.0053] AU
Ag = 20.81 [35.71] [0.55σ]
Teffp = 5575 [2353] K [1.65σ]

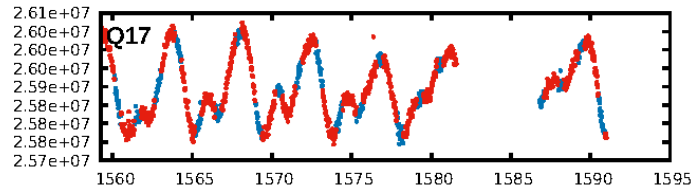
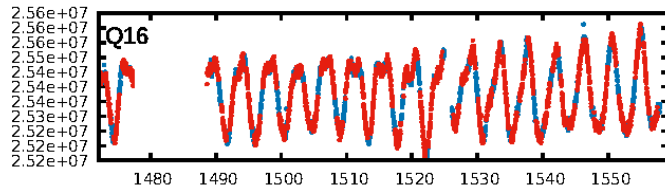
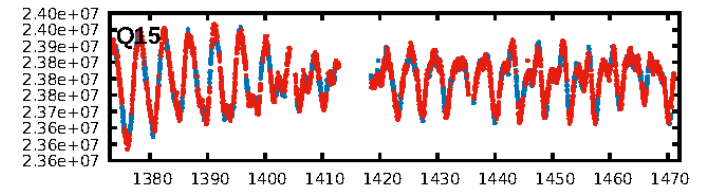
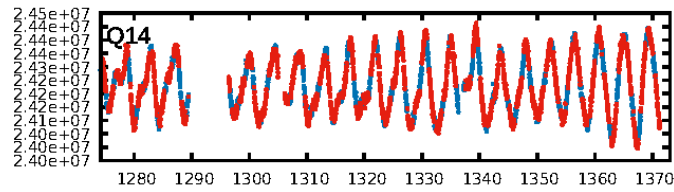
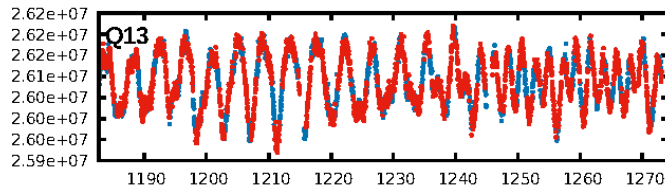
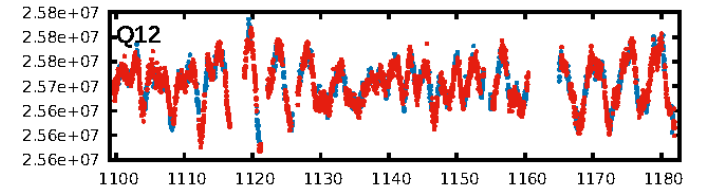
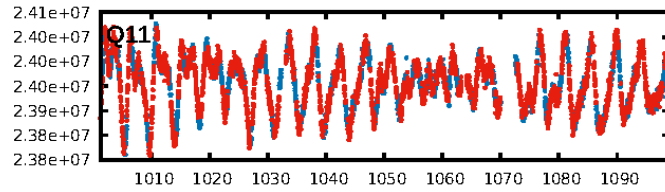
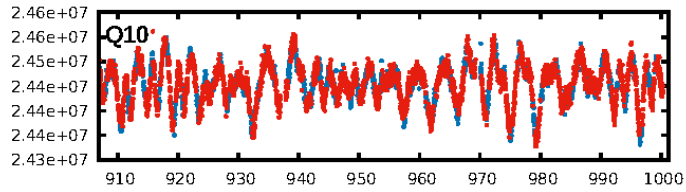
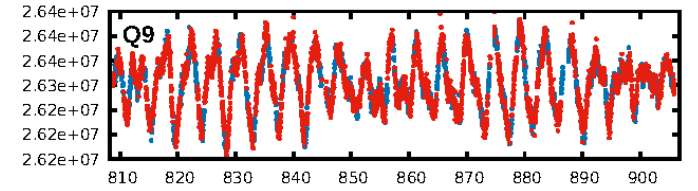
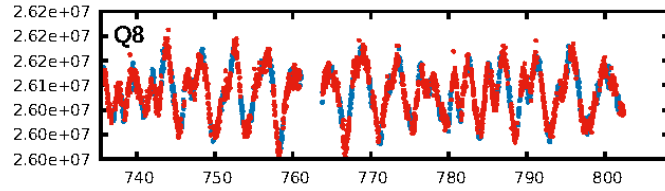
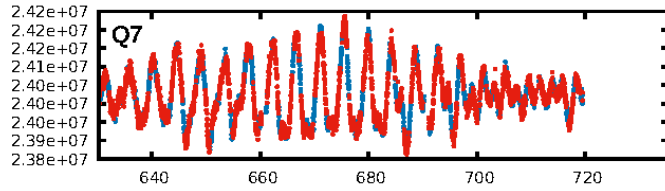
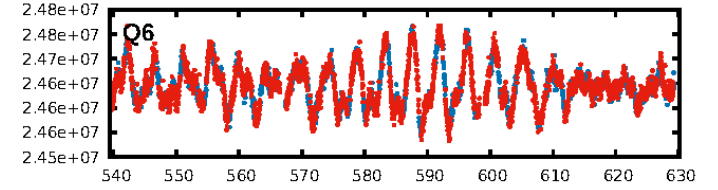
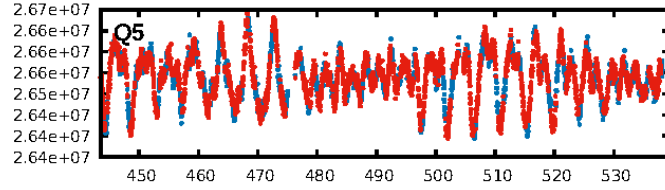
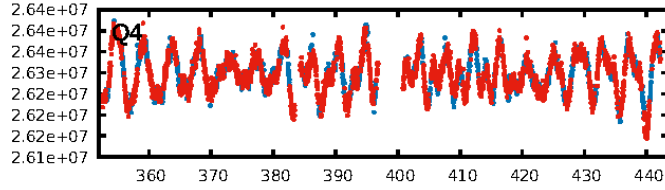
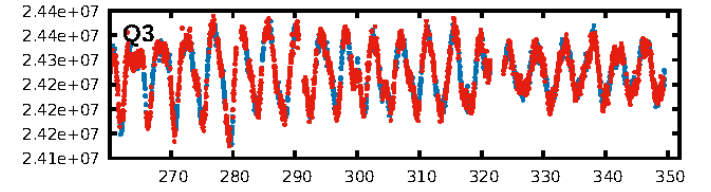
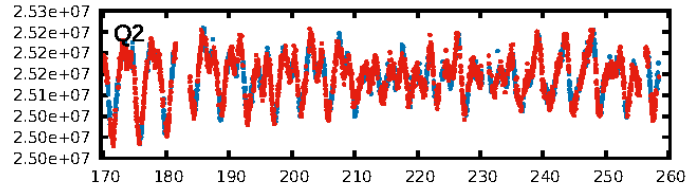
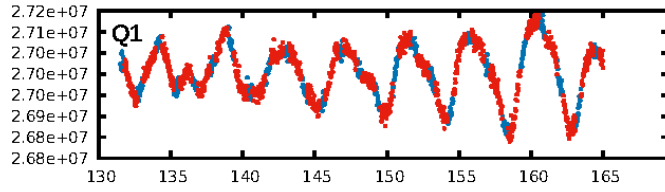
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1026/1026]
GhostDiagnostic-chr: 0.1979
Centroid-sig: 0.0%
Centroid-so: 7.036 arcsec [7.36σ]
OotOffset-rm: 3.007 arcsec [1.83σ]
KicOffset-rm: 3.108 arcsec [1.96σ]
OotOffset-st: 0/3/0/3 [6]
KicOffset-st: 0/3/0/3 [6]
DiffImageQuality-fgm: 0.00 [0/6]
DiffImageOverlap-fno: 1.00 [17/17]

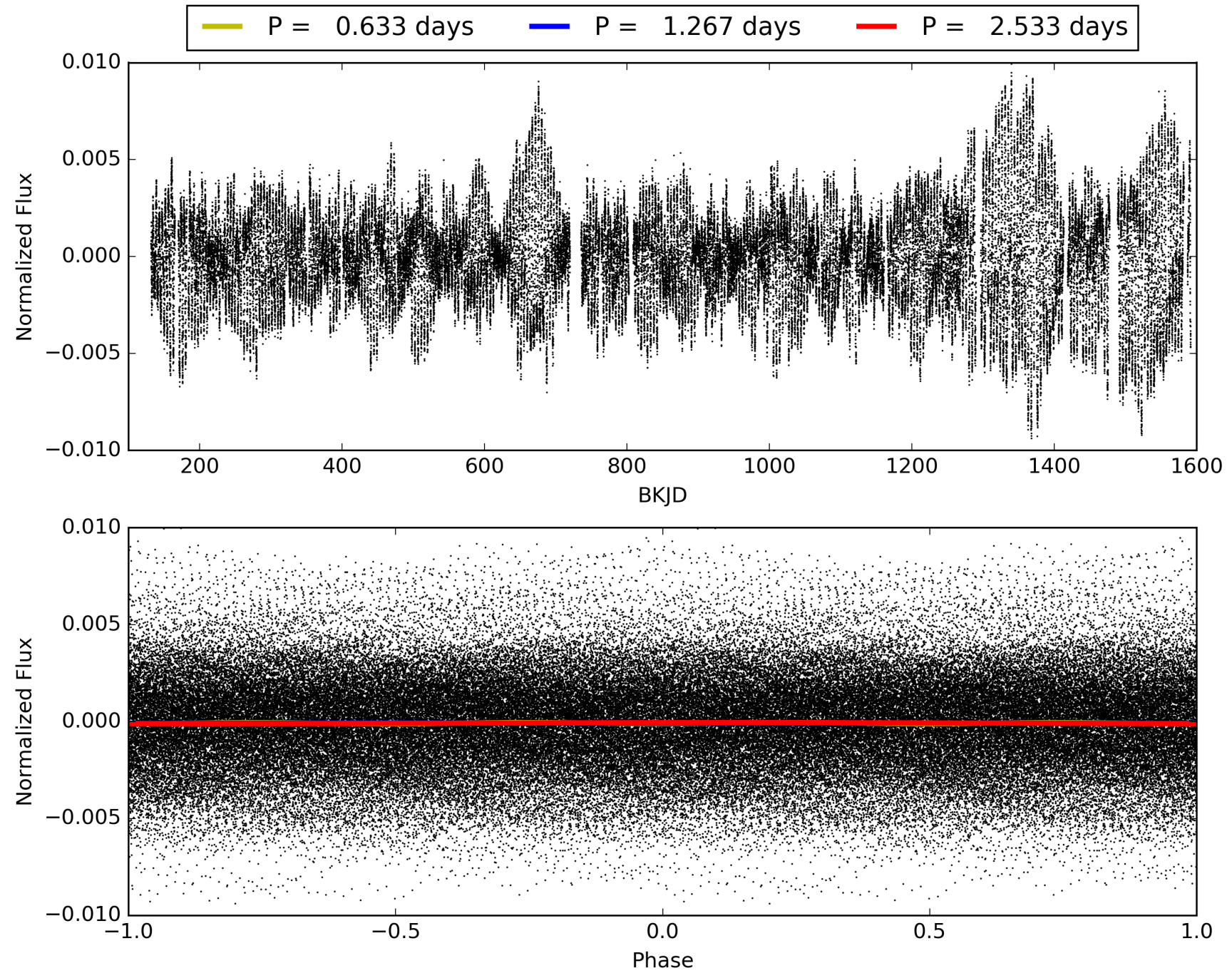
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 08:35:46 Z

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

TCE 005475158-01, PDC Light Curves

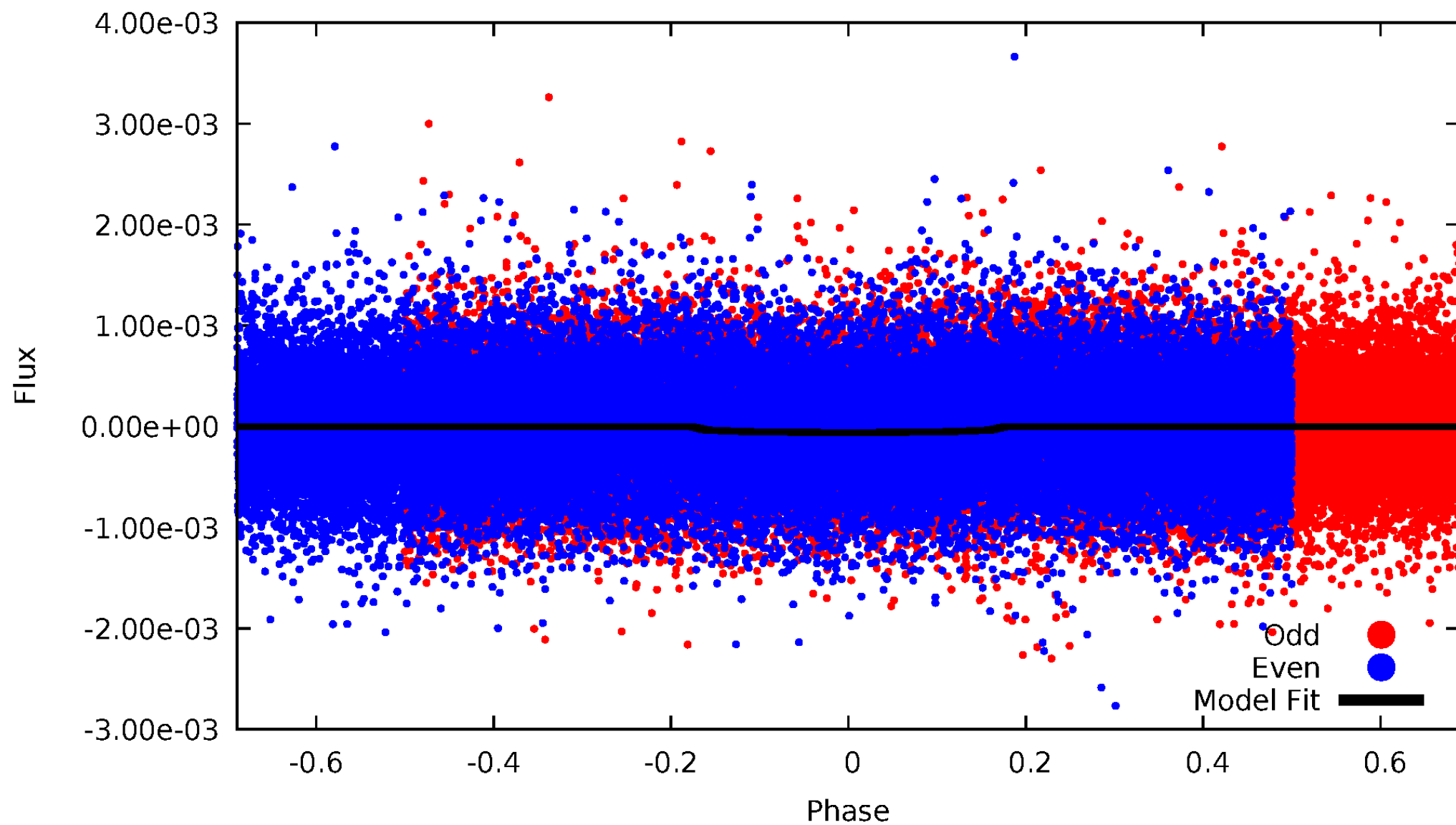


TCE 005475158-01



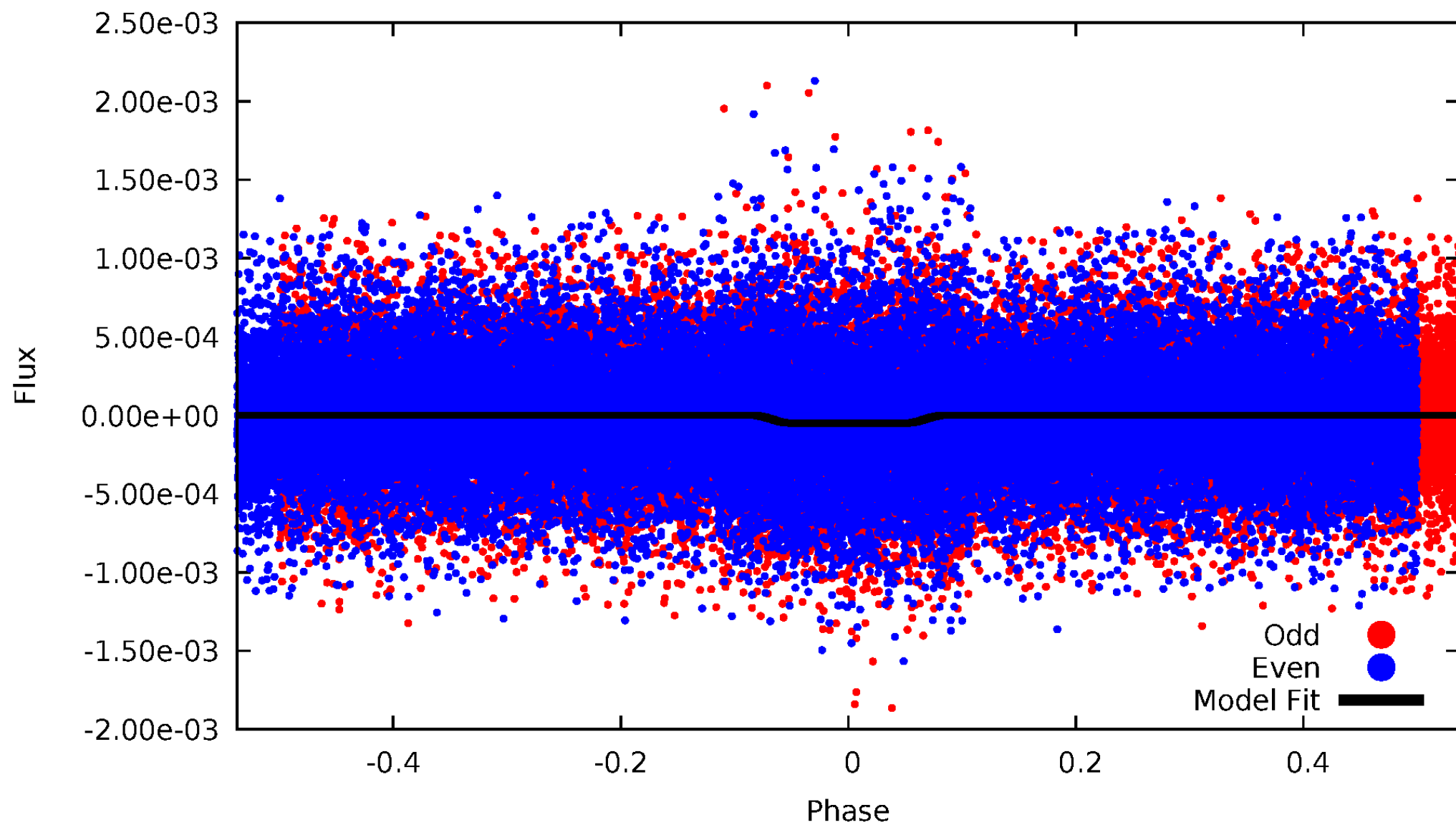
DV Odd/Even

TCE 005475158-01

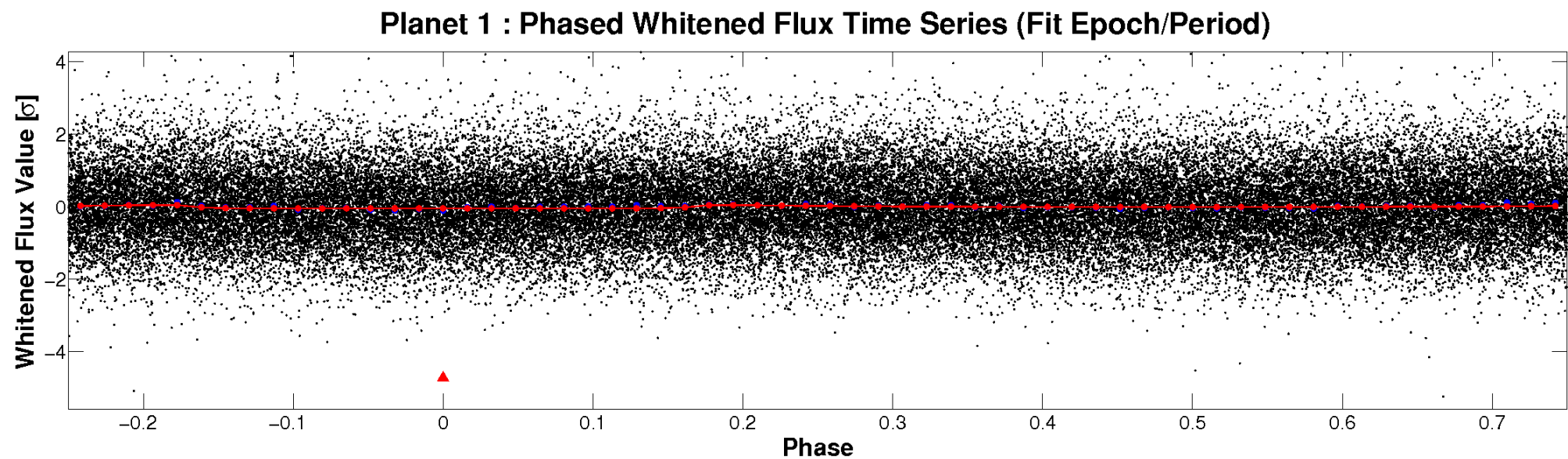
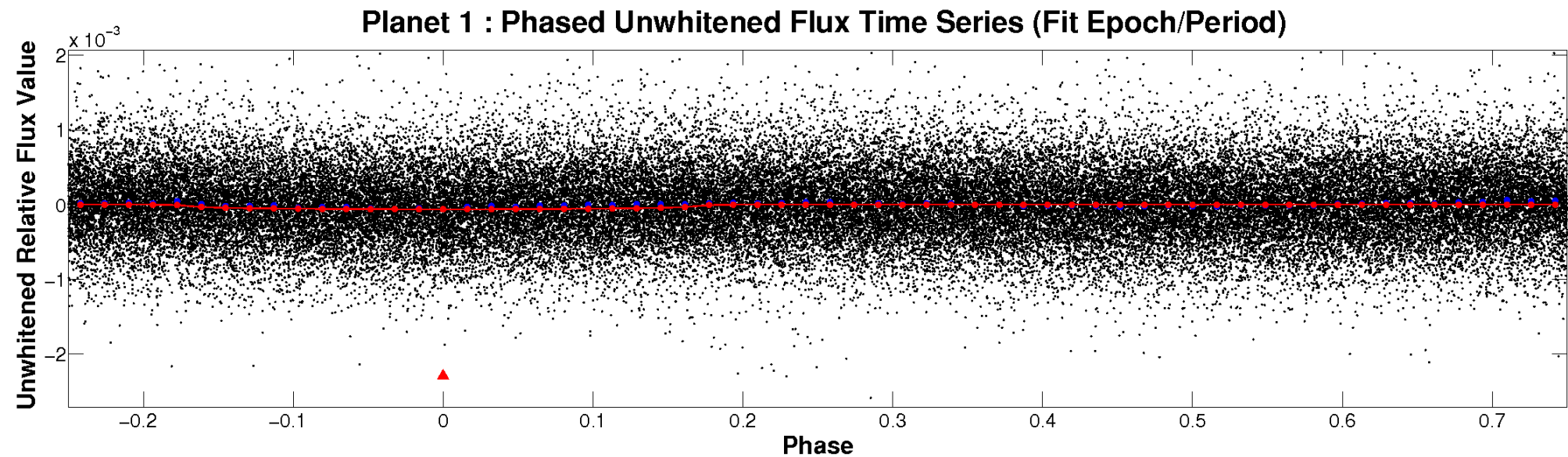


ALT Odd/Even

TCE 005475158-01

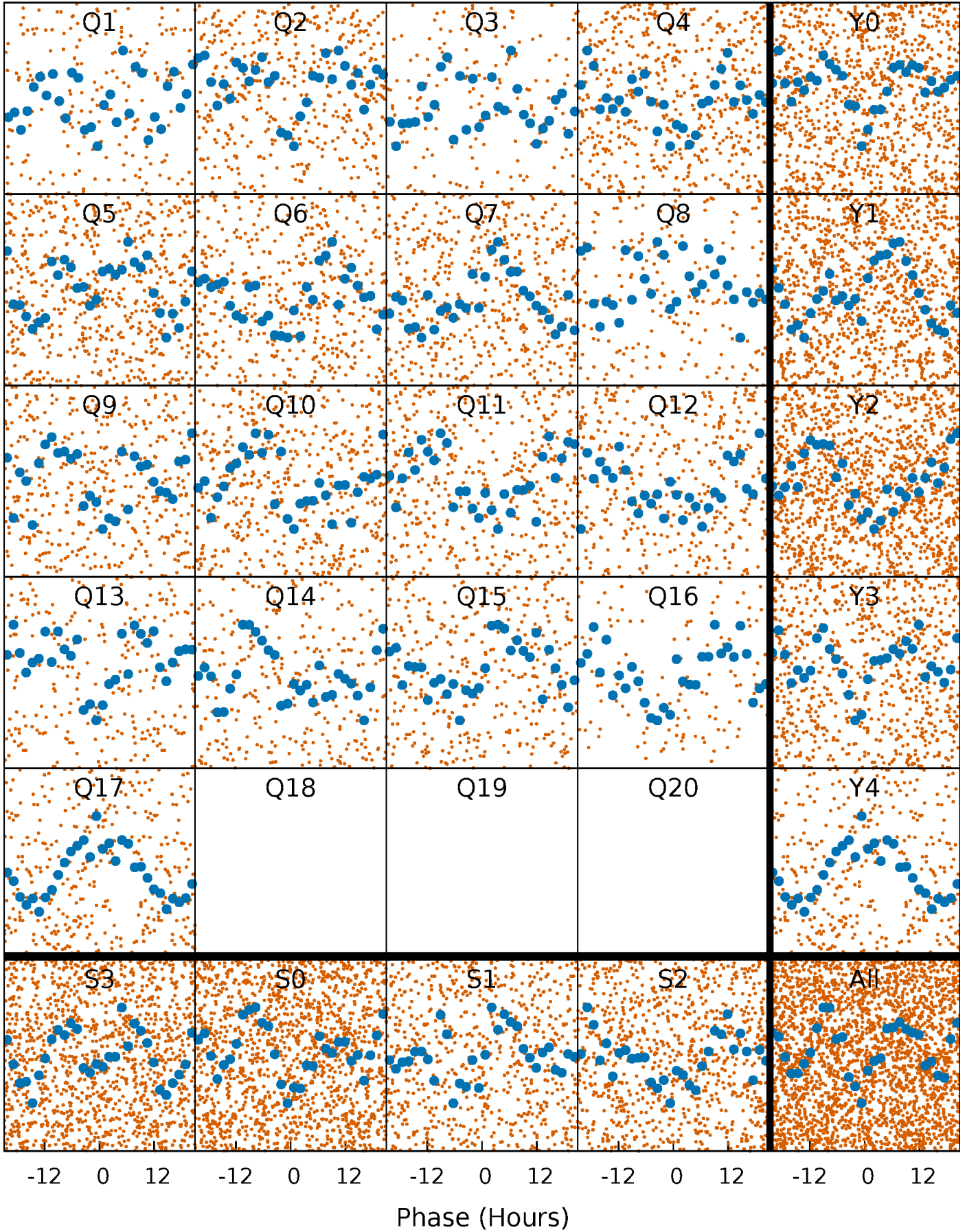


Non-Whitened Vs. Whitened Light Curve



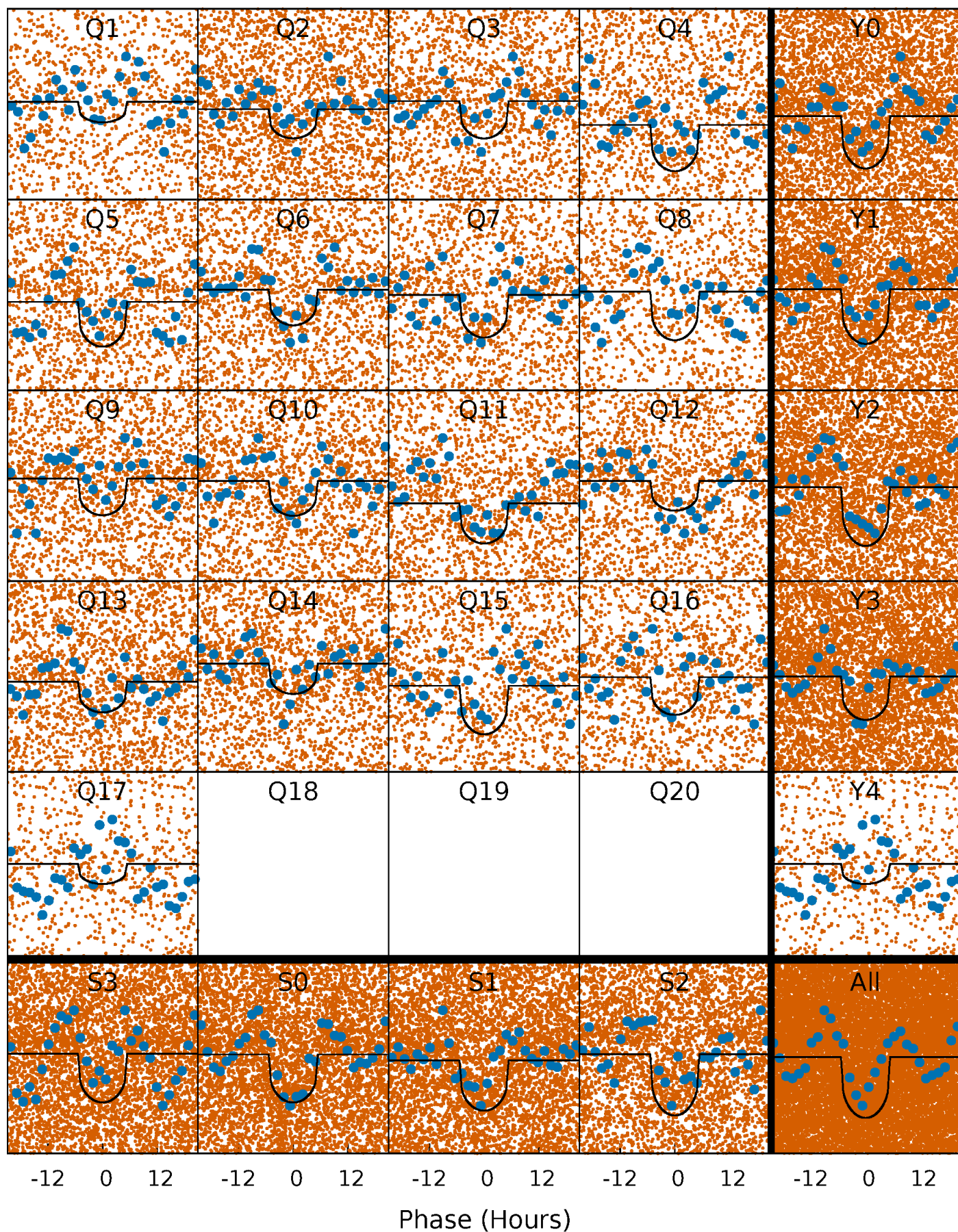
PDC Quarter-Phased Transit Curves

TCE 005475158-01 P= 1.266580 Days $T_0=132.230849$ (BKJD)



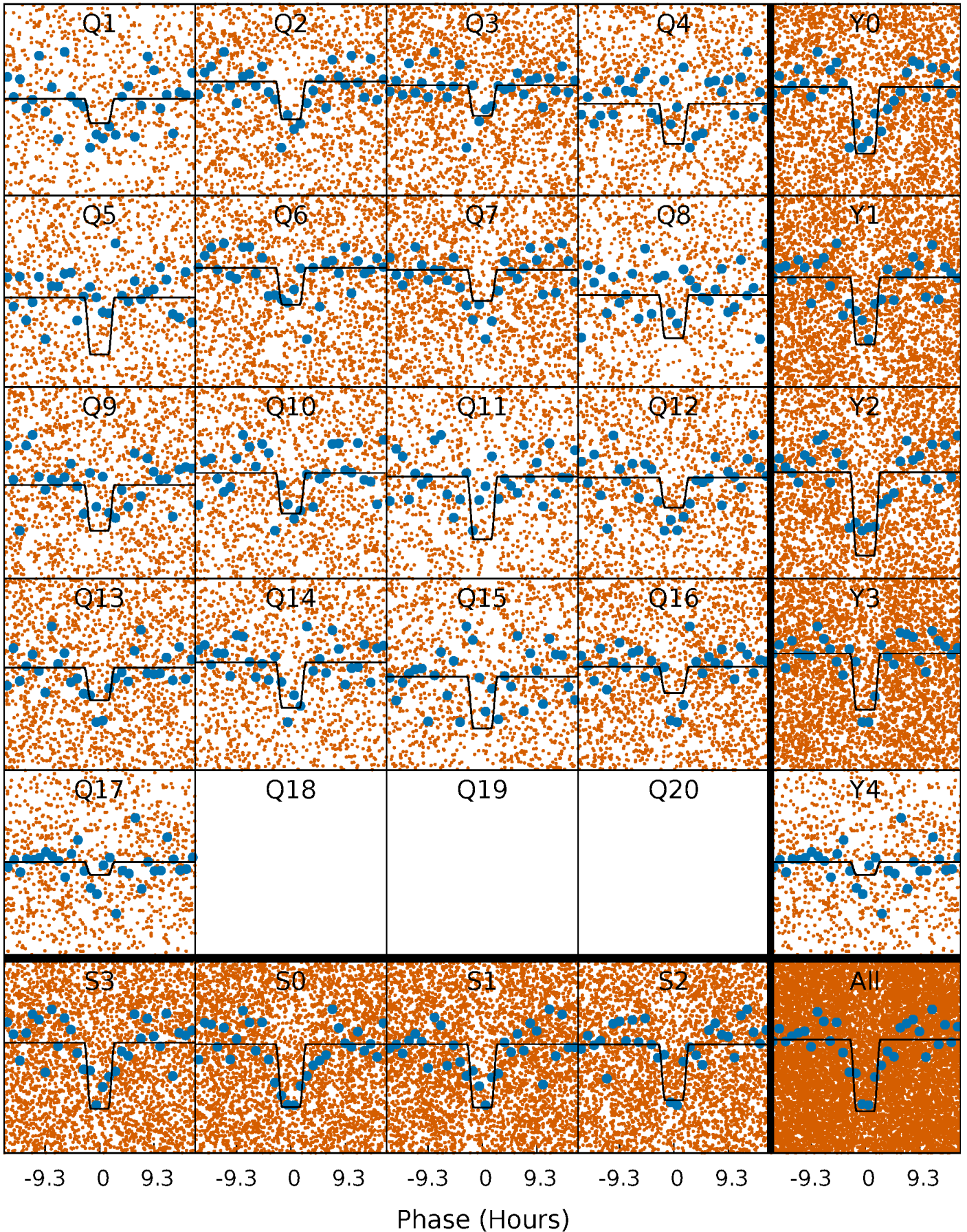
DV Quarter-Phased Transit Curves

TCE 005475158-01 P= 1.266580 Days $T_0=132.230849$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

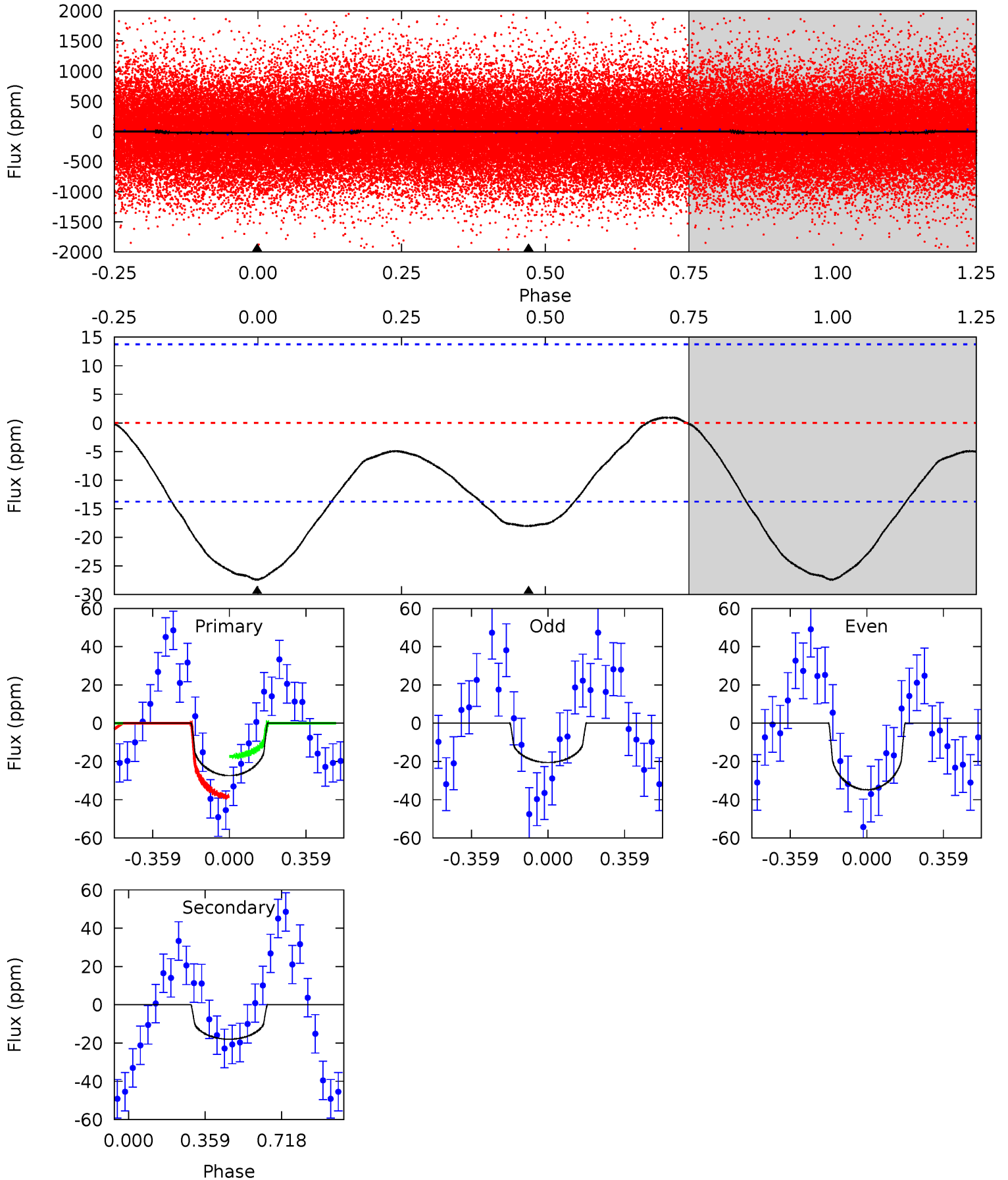
TCE 005475158-01 P= 1.266515 Days $T_0=132.231745$ (BKJD)



DV Model-Shift Uniqueness Test

005475158-01, P = 1.266580 Days, E = 130.964269 Days

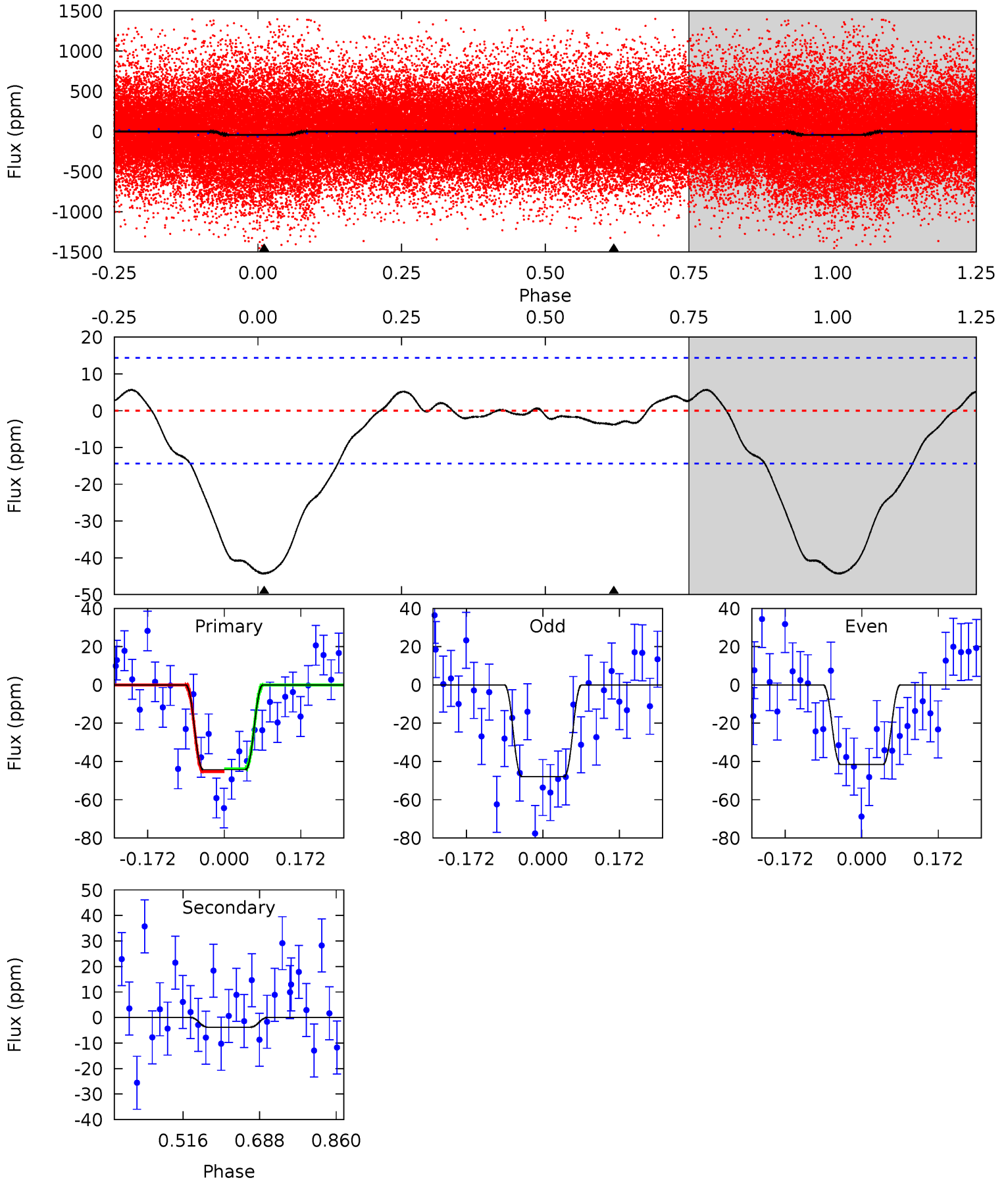
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.55	5.62	0	0	4.29	0.92	0.72	8.55	8.55	5.62	5.62	2.21	0.76	0.03	3.34



Alt Model-Shift Uniqueness Test

005475158-01, P = 1.266515 Days, E = 130.965230 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	1.18	0	0	4.45	1.37	0.78	13.7	13.7	1.18	1.18	0.97	0.97	0.11	0.23



Stellar Parameters For KIC 005475158

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5957^{+177}_{-195}	$4.498^{+0.044}_{-0.187}$	$0.070^{+0.250}_{-0.300}$	$0.971^{+0.251}_{-0.107}$	$1.083^{+0.116}_{-0.142}$	$1.665^{+0.403}_{-0.802}$
	+3%/-3%	+1%/-4%	+357%/-429%	+26%/-11%	+11%/-13%	+24%/-48%
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 005475158-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-18 ± 3	$0.89^{+0.66}_{-0.53}$	2411^{+164}_{-118}	4459^{+2358}_{-852}	$6.612^{+36.210}_{-4.445}$
Alt.	-4 ± 3	$0.90^{+0.61}_{-0.55}$	2415^{+146}_{-118}	3217^{+1361}_{-5806}	$1.234^{+6.759}_{-1.107}$

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

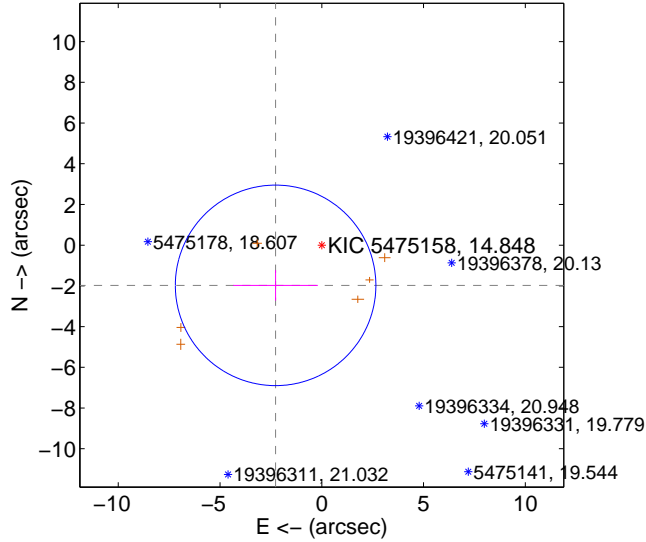
Supplemental centroid analysis for 005475158-01. Kepler magnitude: 14.85. Transit SNR 7.46

There are 0 quarters with good PRF difference image offsets

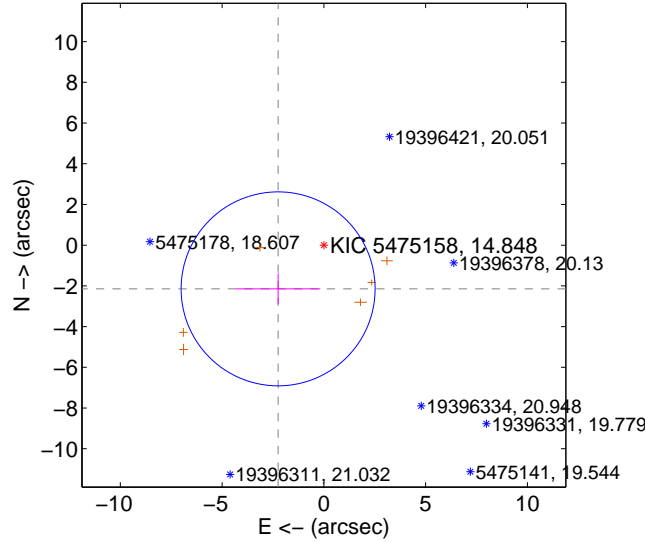
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.007 ± 1.642	1.83	2.268 ± 2.077	-1.975 ± 0.748
PRF-fit source offset from KIC position	3.108 ± 1.588	1.96	2.248 ± 2.074	-2.146 ± 0.755
photometric centroid source offset	7.04 ± 0.96	7.36	4.74 ± 0.99	-5.20 ± 0.92

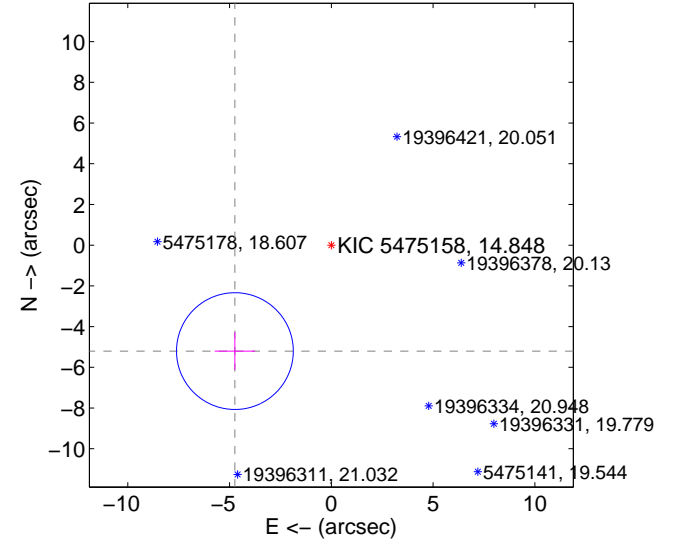
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

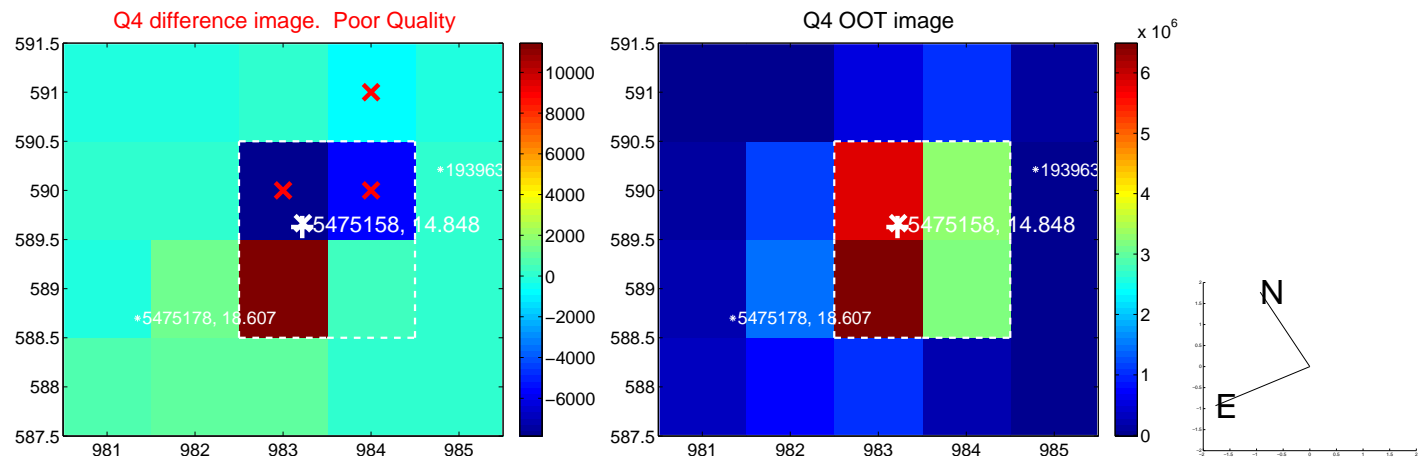
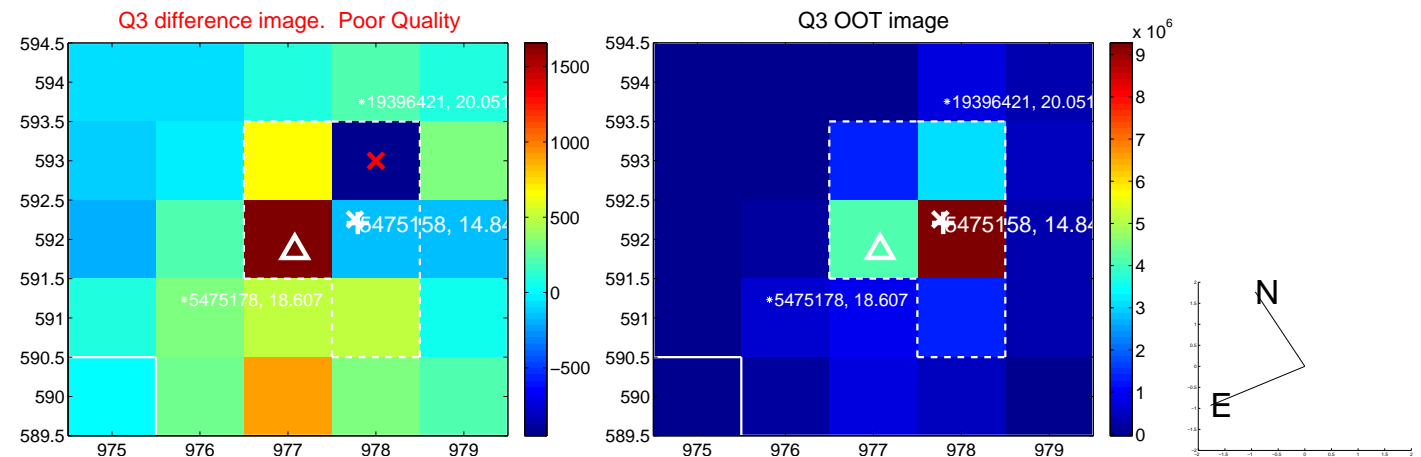
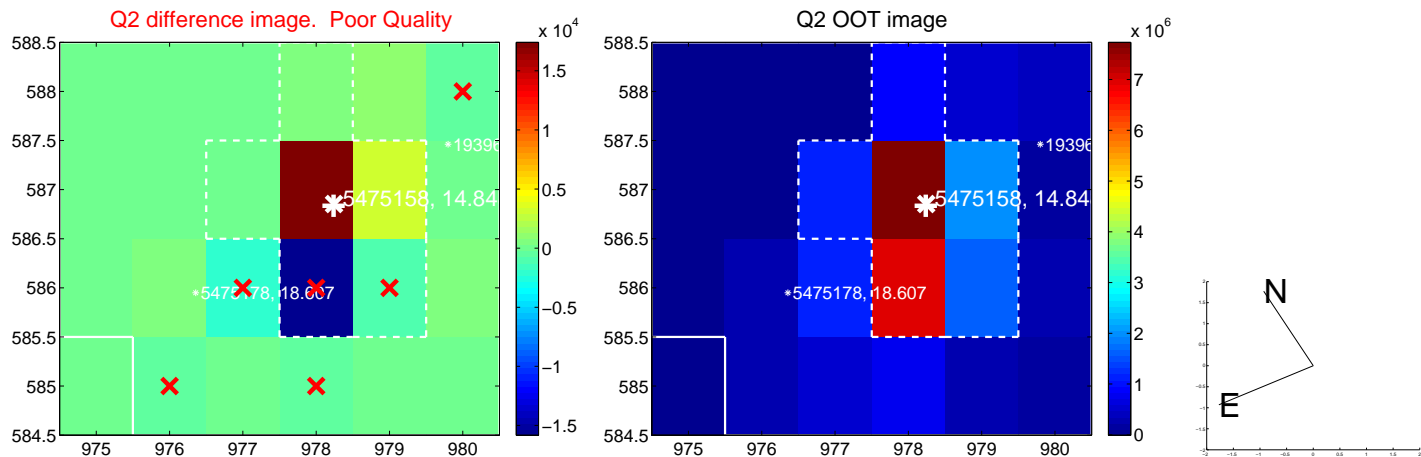
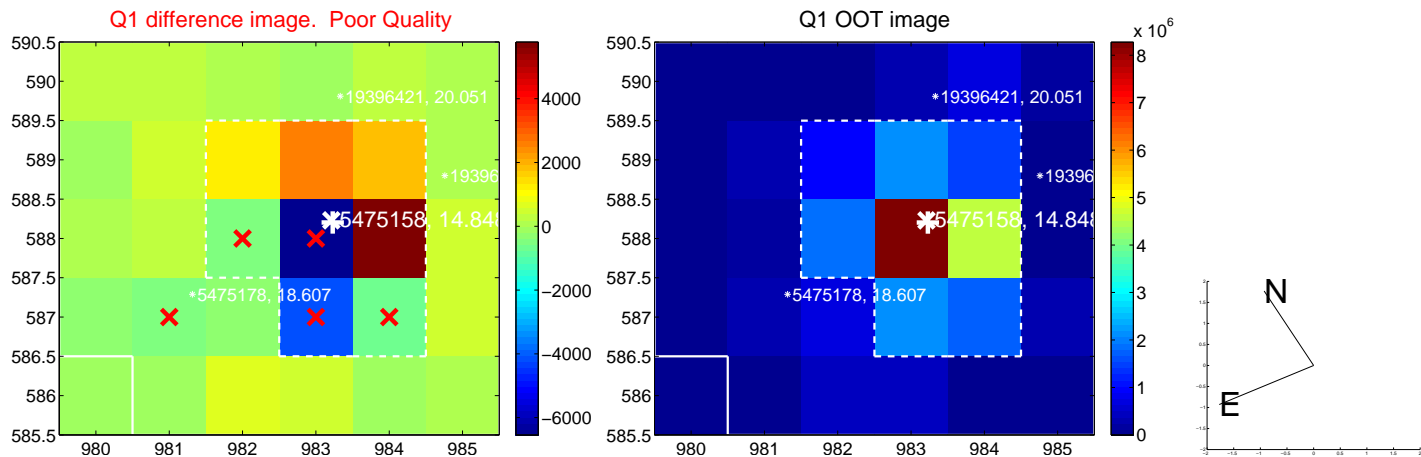


offset from photometric centroids

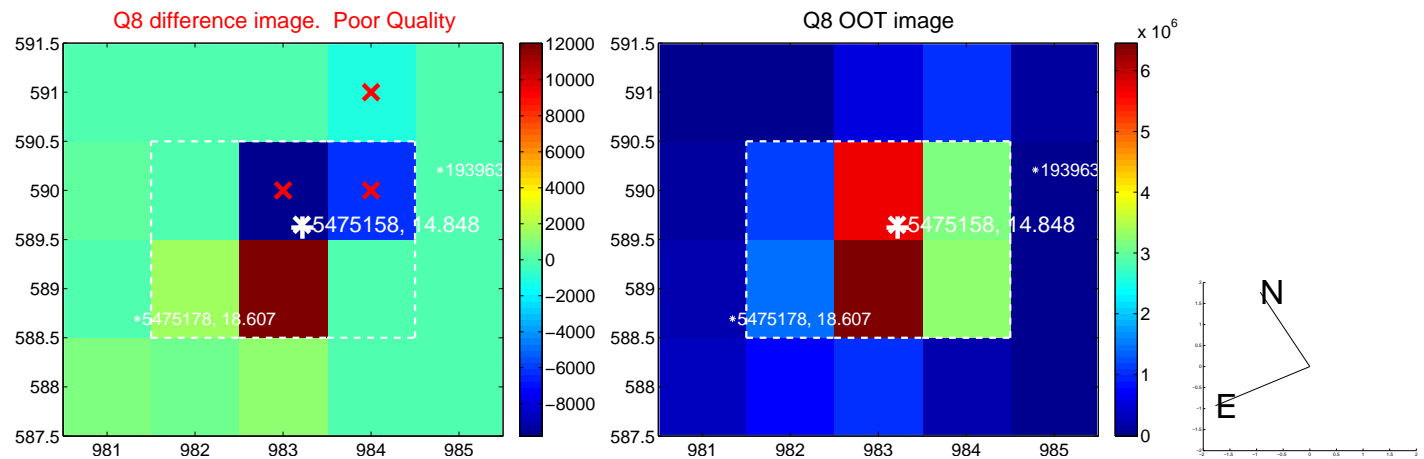
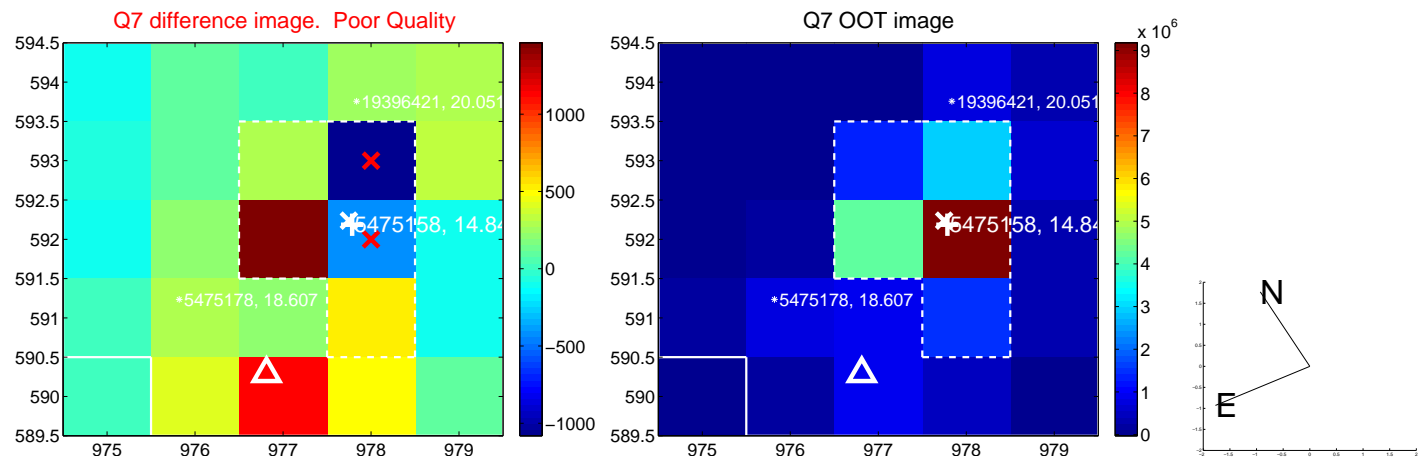
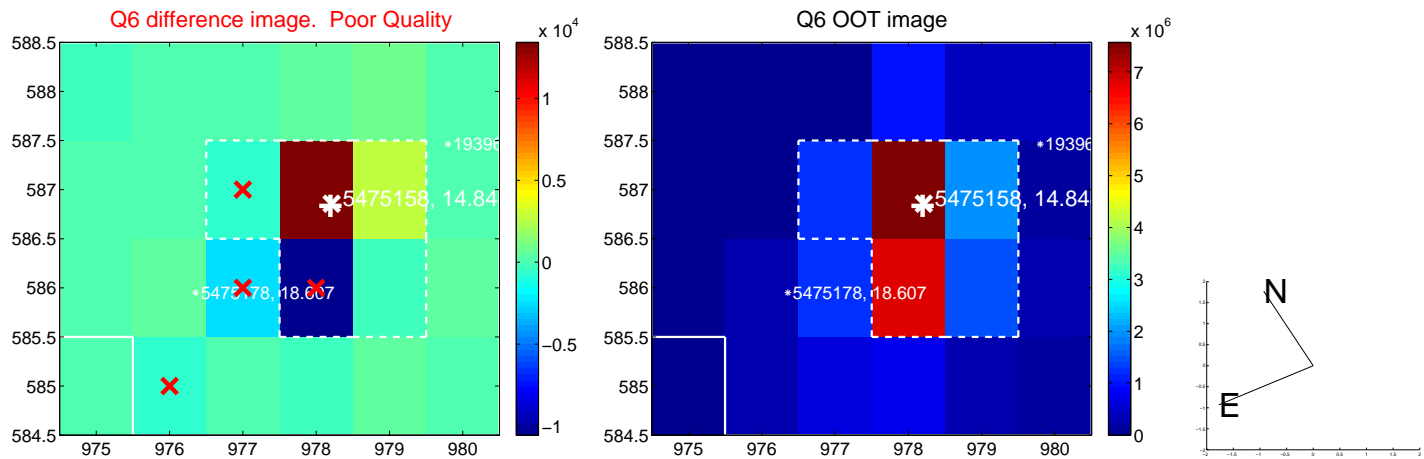
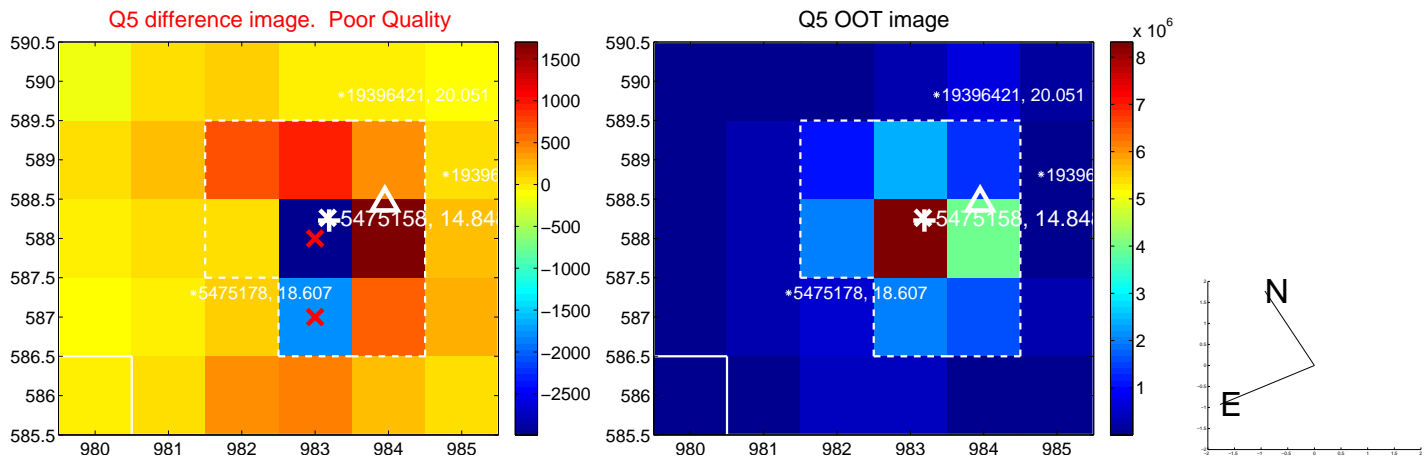


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

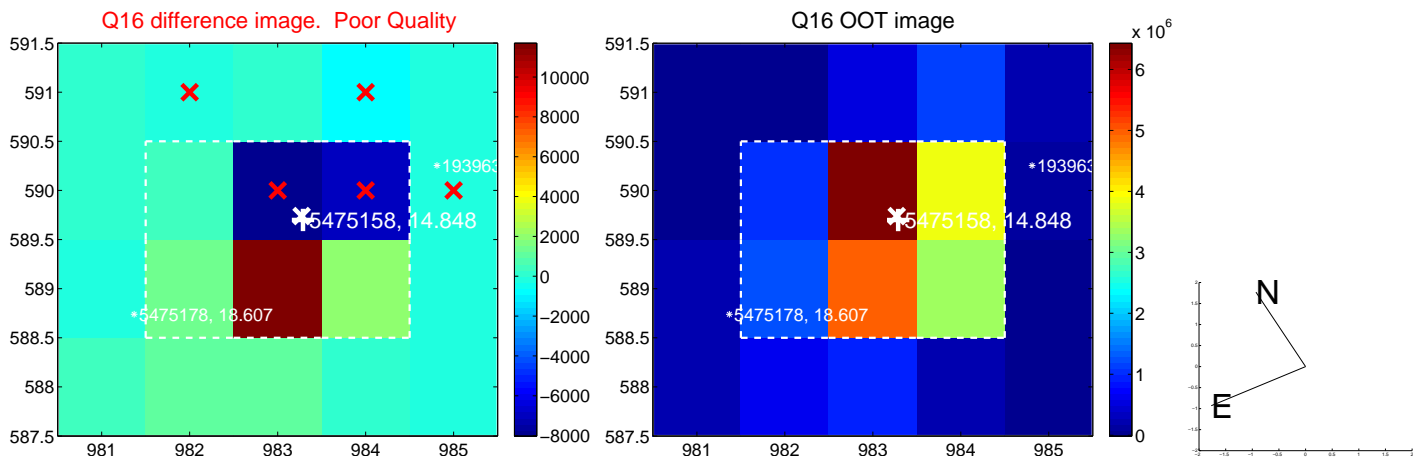
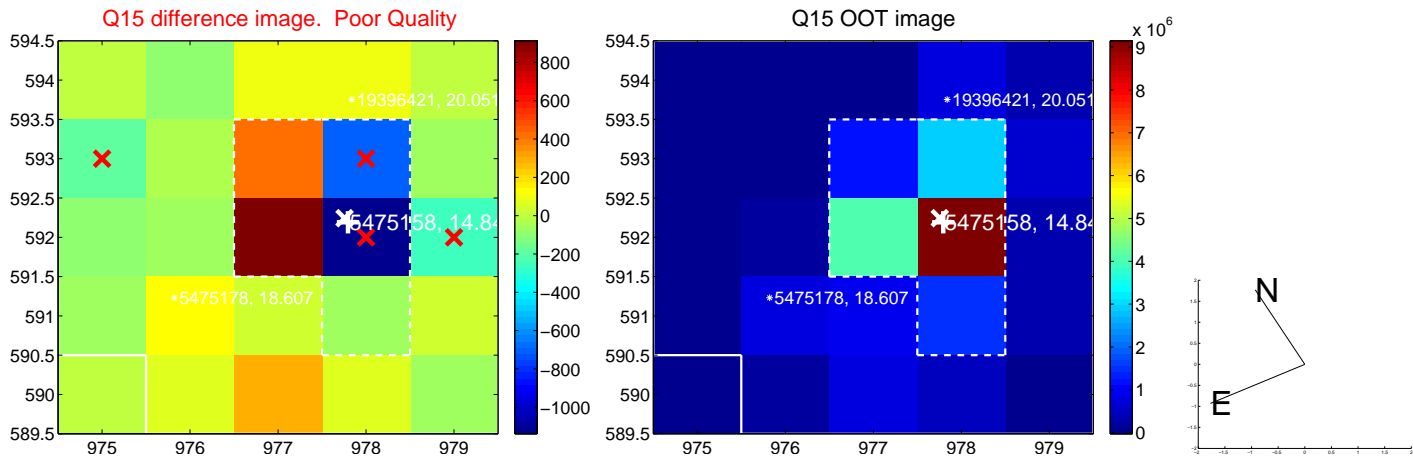
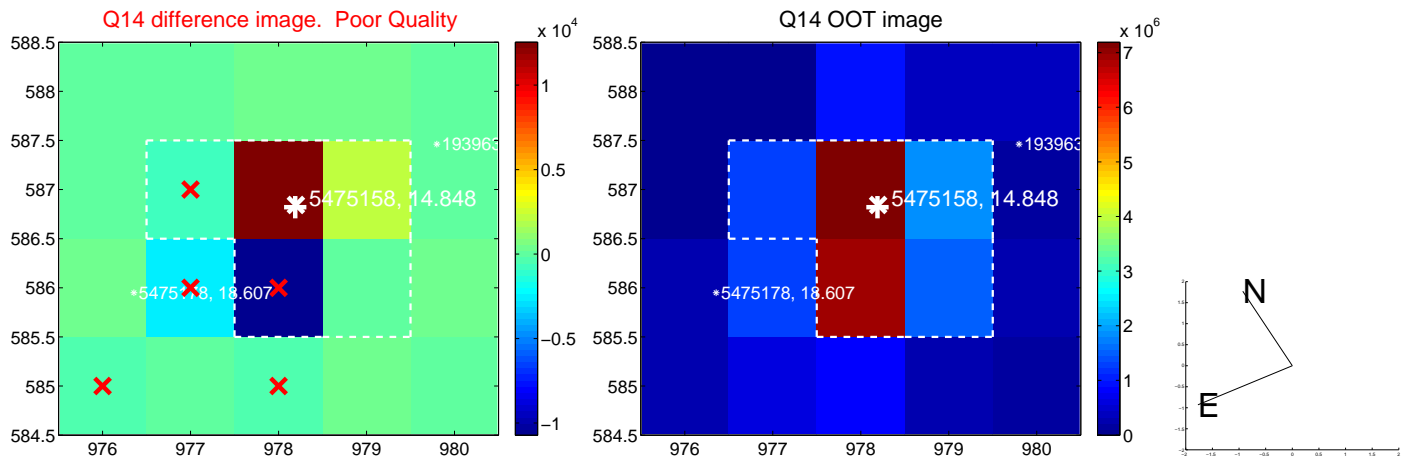
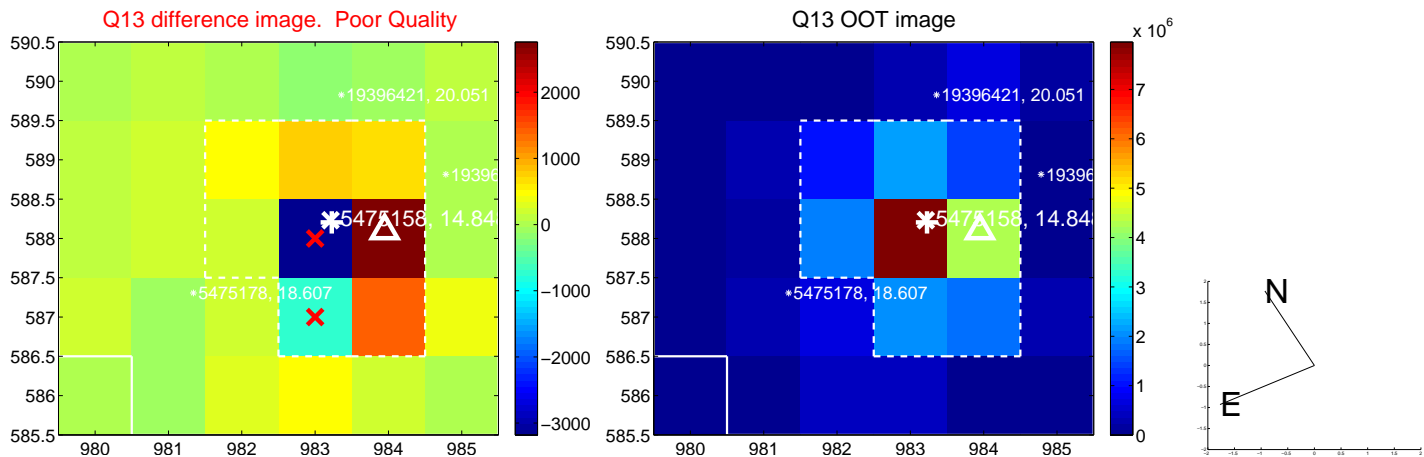
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



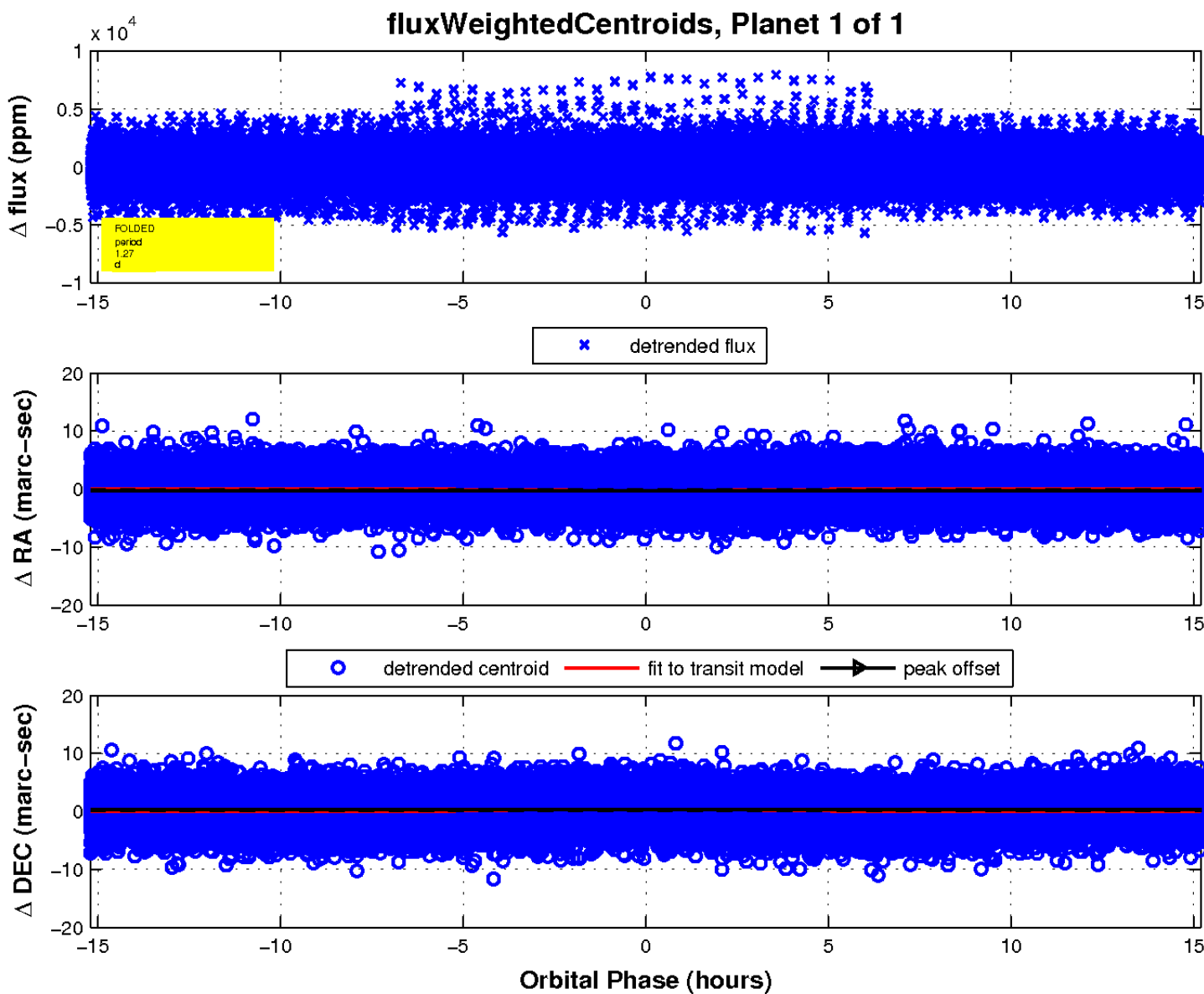
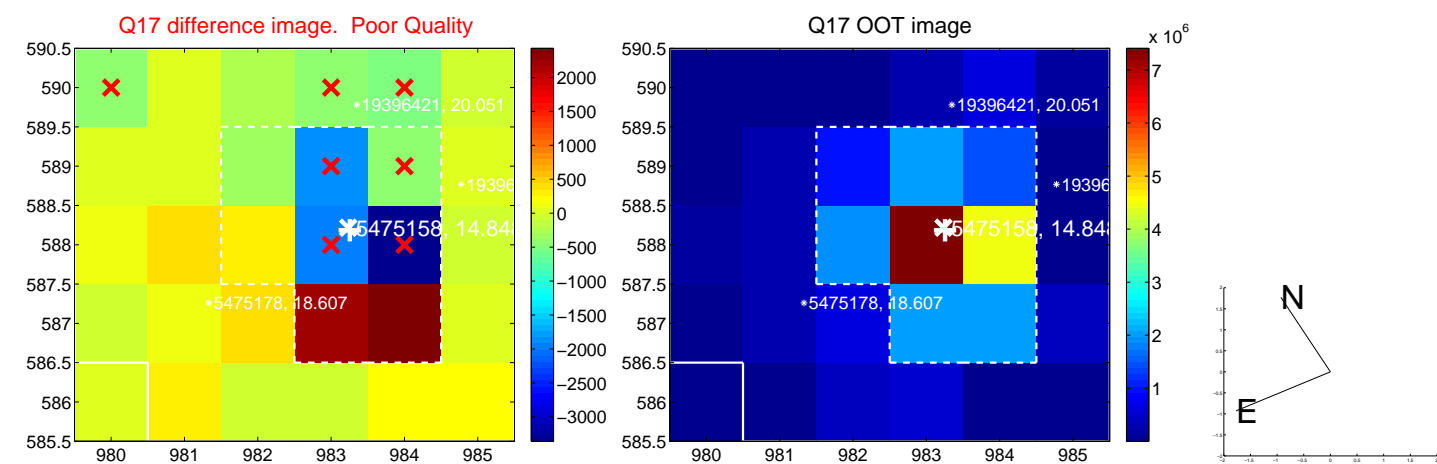
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

