

KIC 007427780

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})
007427780-01	OBS	No	1.235438	132.847941	2.9	12.865	7.4	2.7	1.68	7201	0.33	10156.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007427780-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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

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

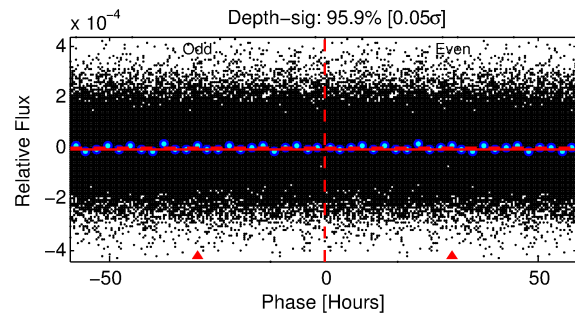
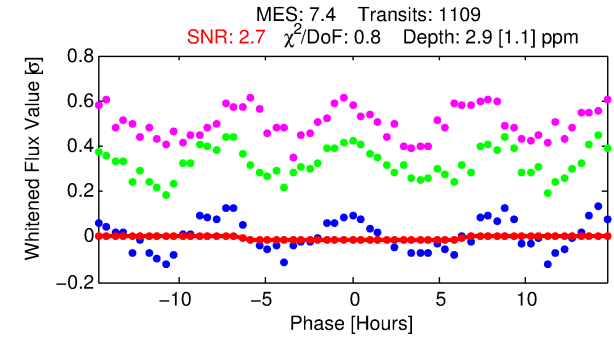
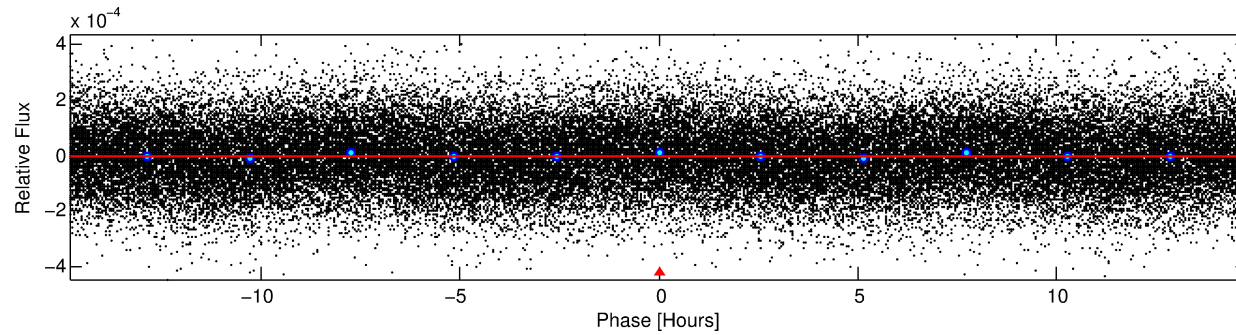
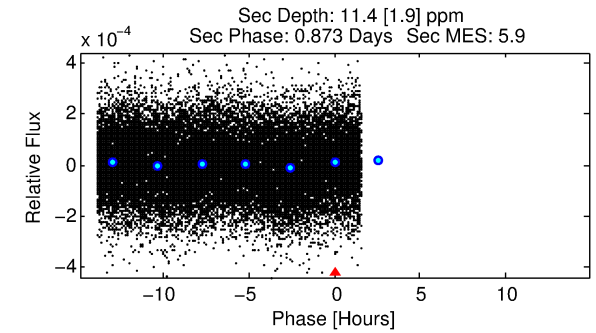
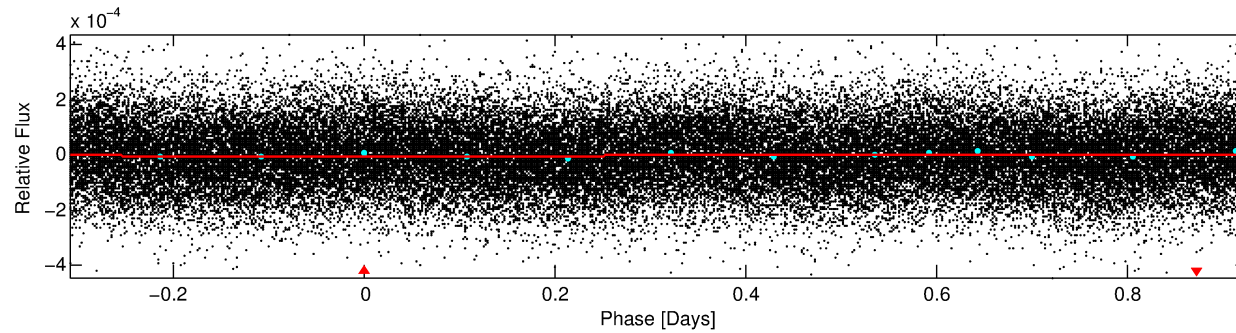
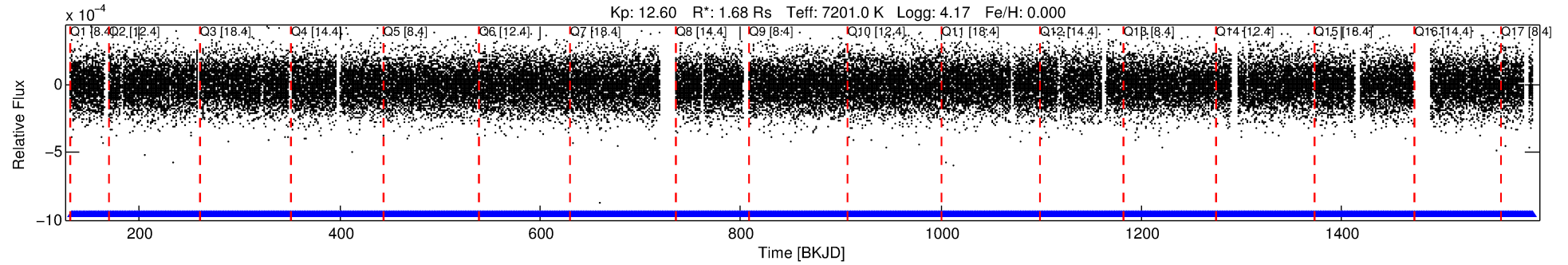
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007427780-01

No Significant Match Found

DV One-Page Summary

KIC: 7427780 Candidate: 1 of 1 Period: 1.235 d



DV Fit Results:

Period = 1.23544 [0.00009] d
Epoch = 132.8479 [0.0309] BKJD
Rp/R* = 0.0018 [0.0027]
a/R* = 1.01 [0.12]
b = 0.90 [2.23]
Seff = 10156.36 [4201.02]
Teq = 2560 [265] K
Rp = 0.33 [0.51] Re
a = 0.0259 [0.0069] AU
Ag = 38.03 [115.71] [0.32σ]
Teffp = 9828 [7429] K [0.98σ]

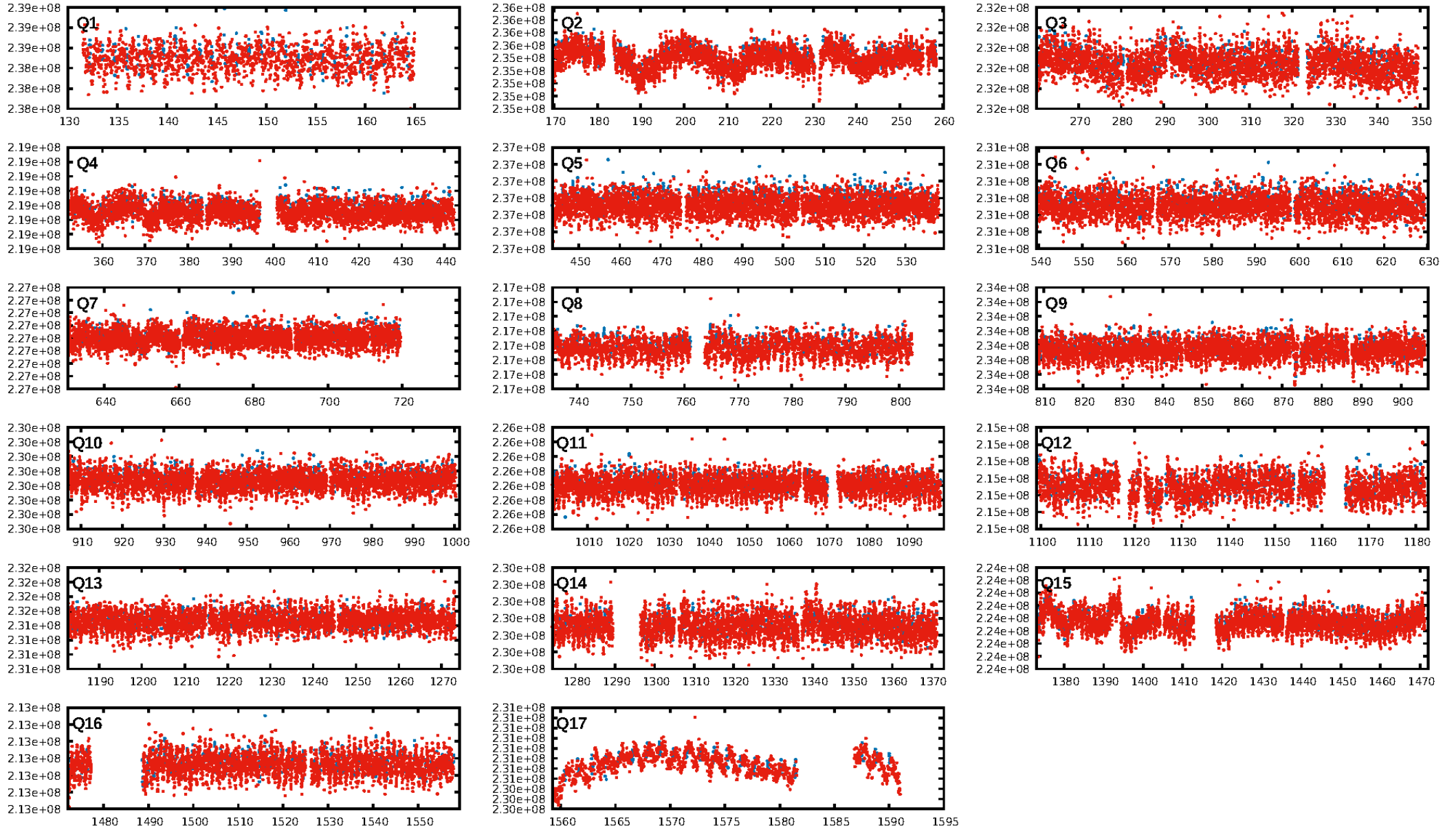
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1059/1059]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
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]

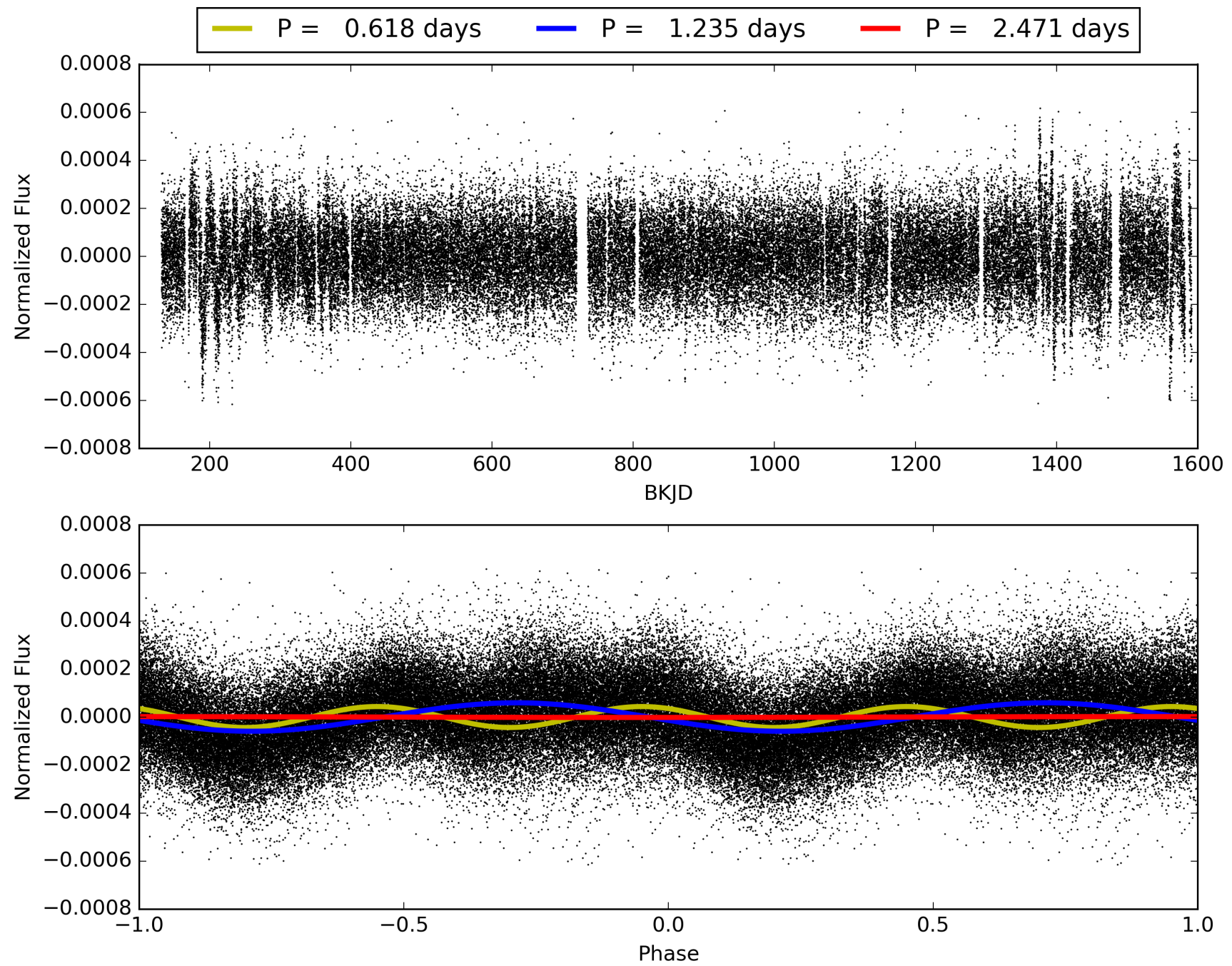
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:13:26 Z

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

TCE 007427780-01, PDC Light Curves

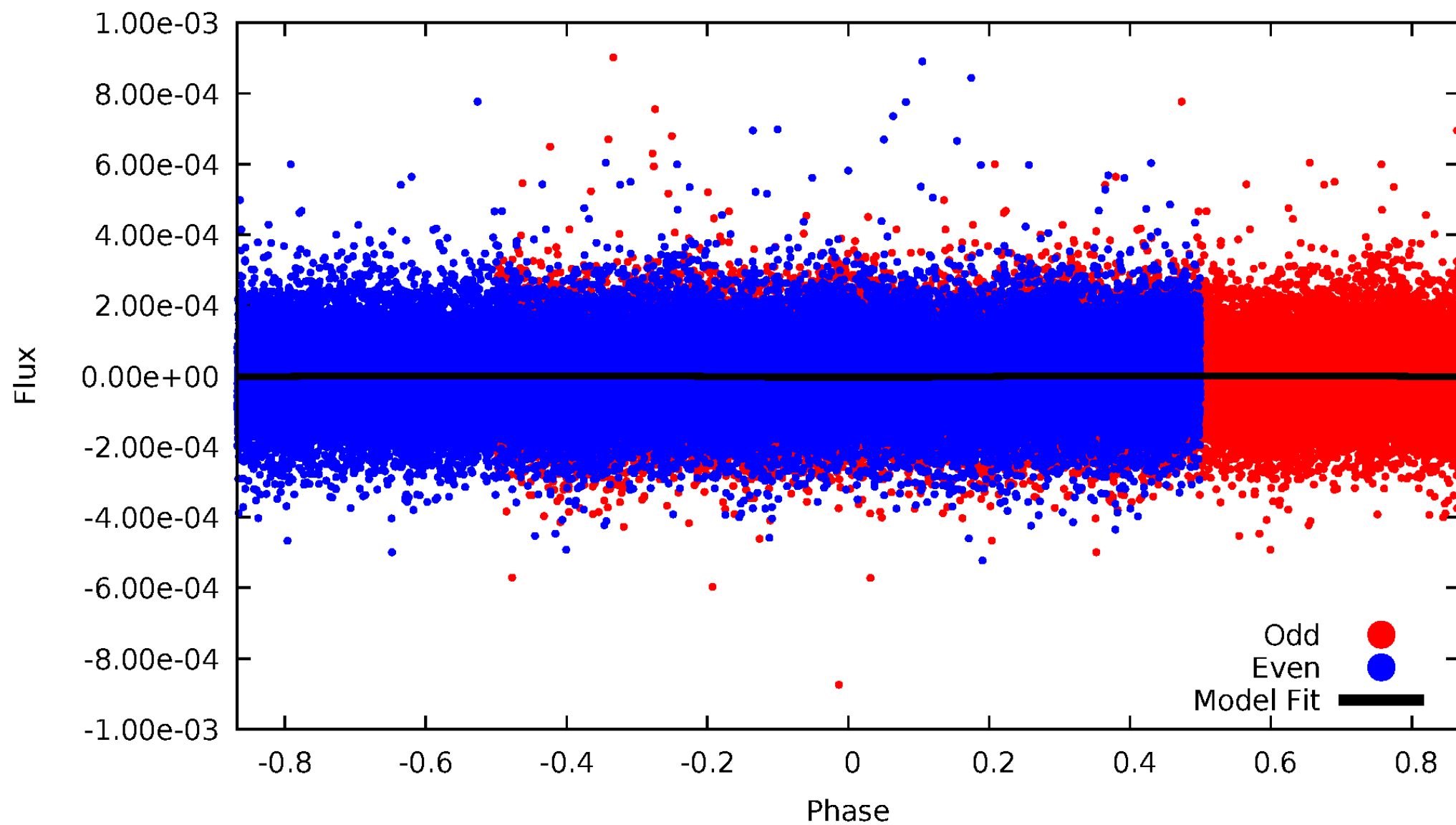


TCE 007427780-01



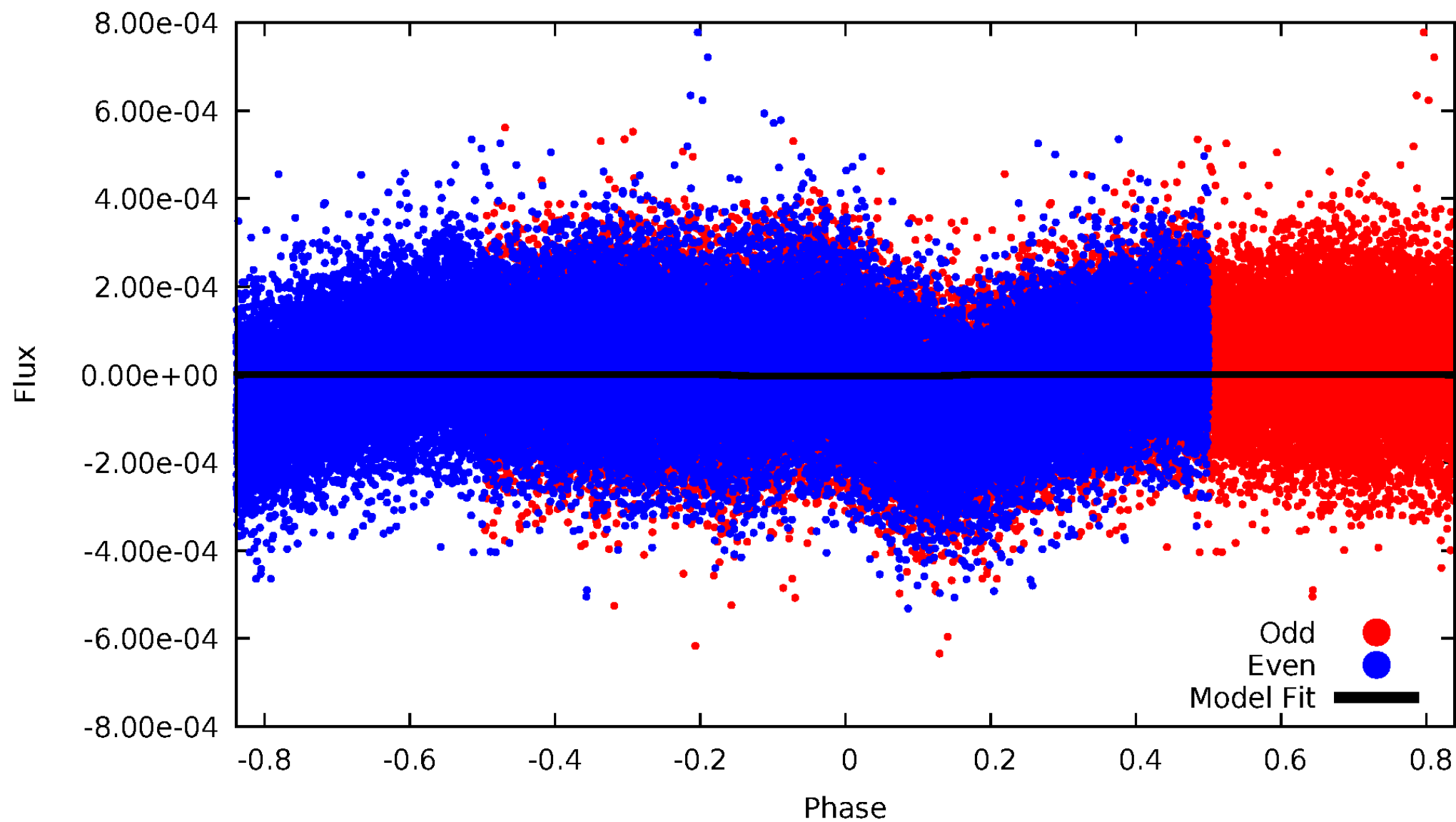
DV Odd/Even

TCE 007427780-01

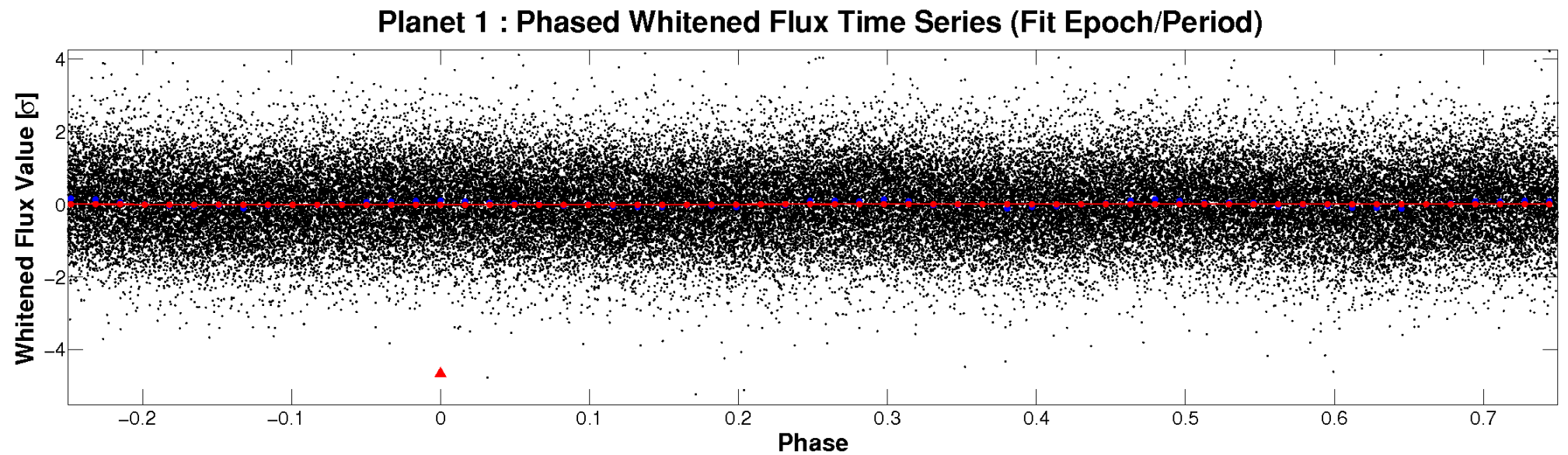
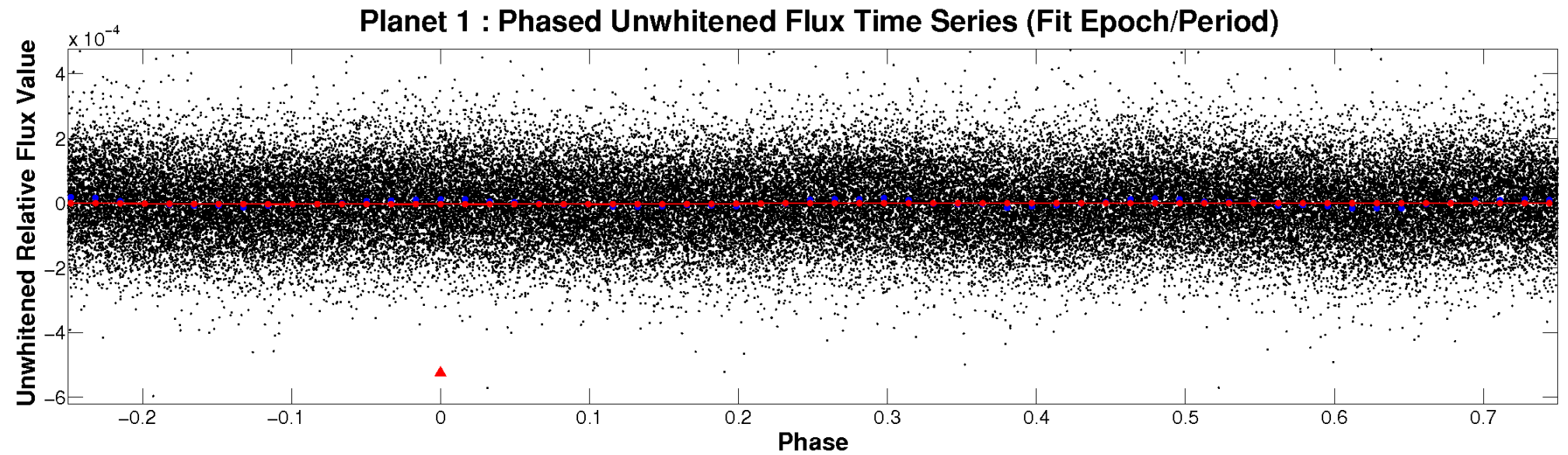


ALT Odd/Even

TCE 007427780-01

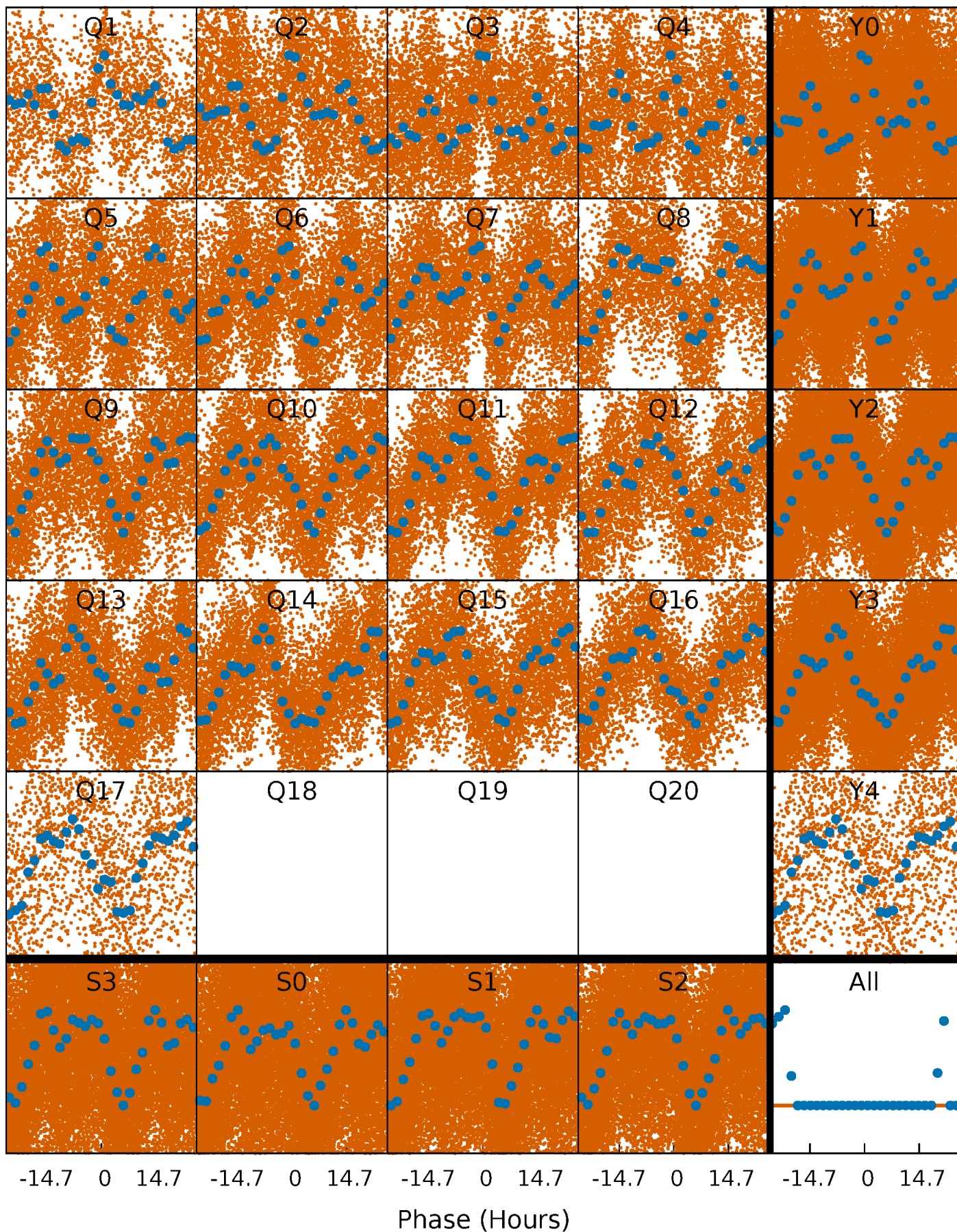


Non-Whitened Vs. Whitened Light Curve



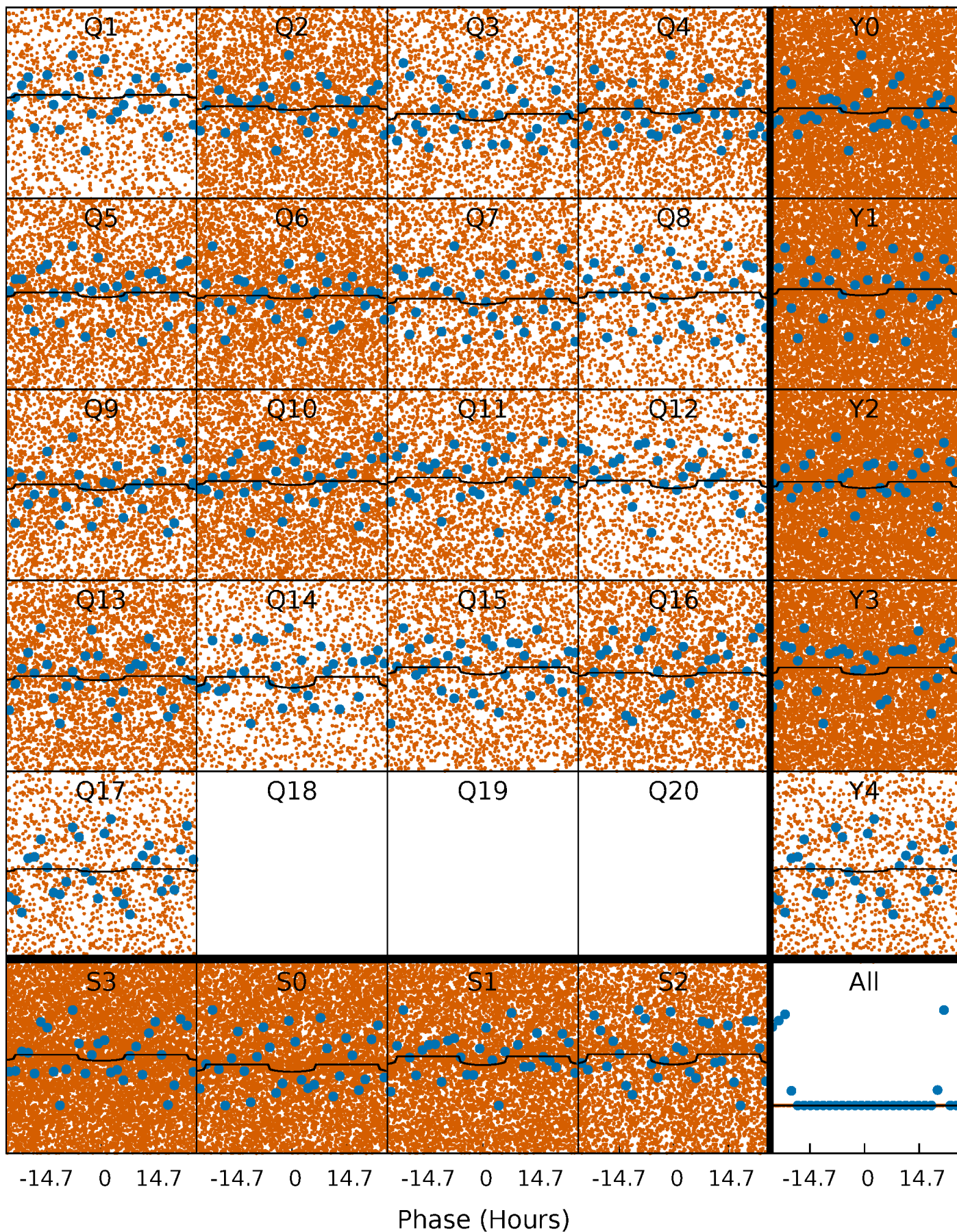
PDC Quarter-Phased Transit Curves

TCE 007427780-01 P= 1.235438 Days $T_0=132.847941$ (BKJD)



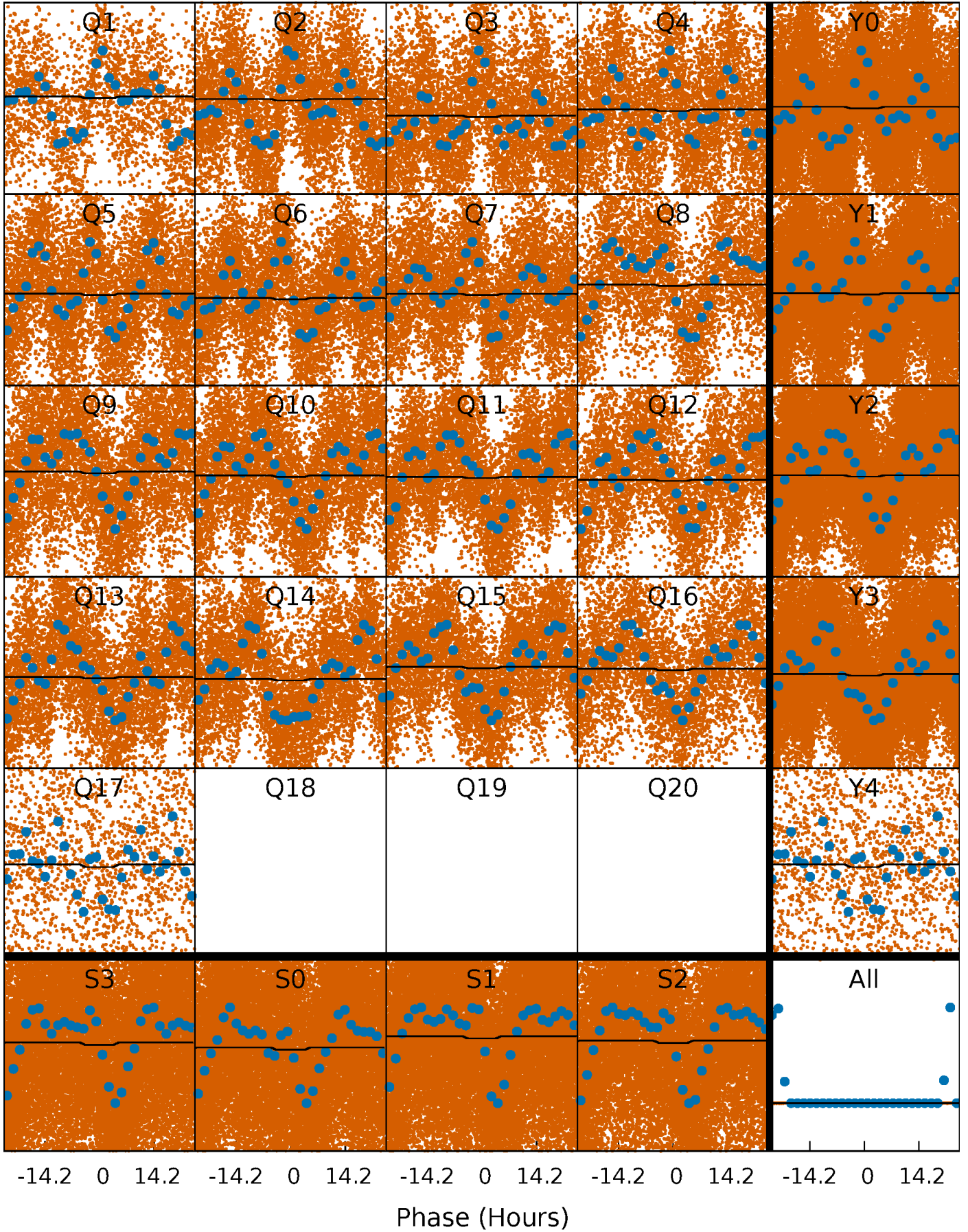
DV Quarter-Phased Transit Curves

TCE 007427780-01 P= 1.235438 Days $T_0=132.847941$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

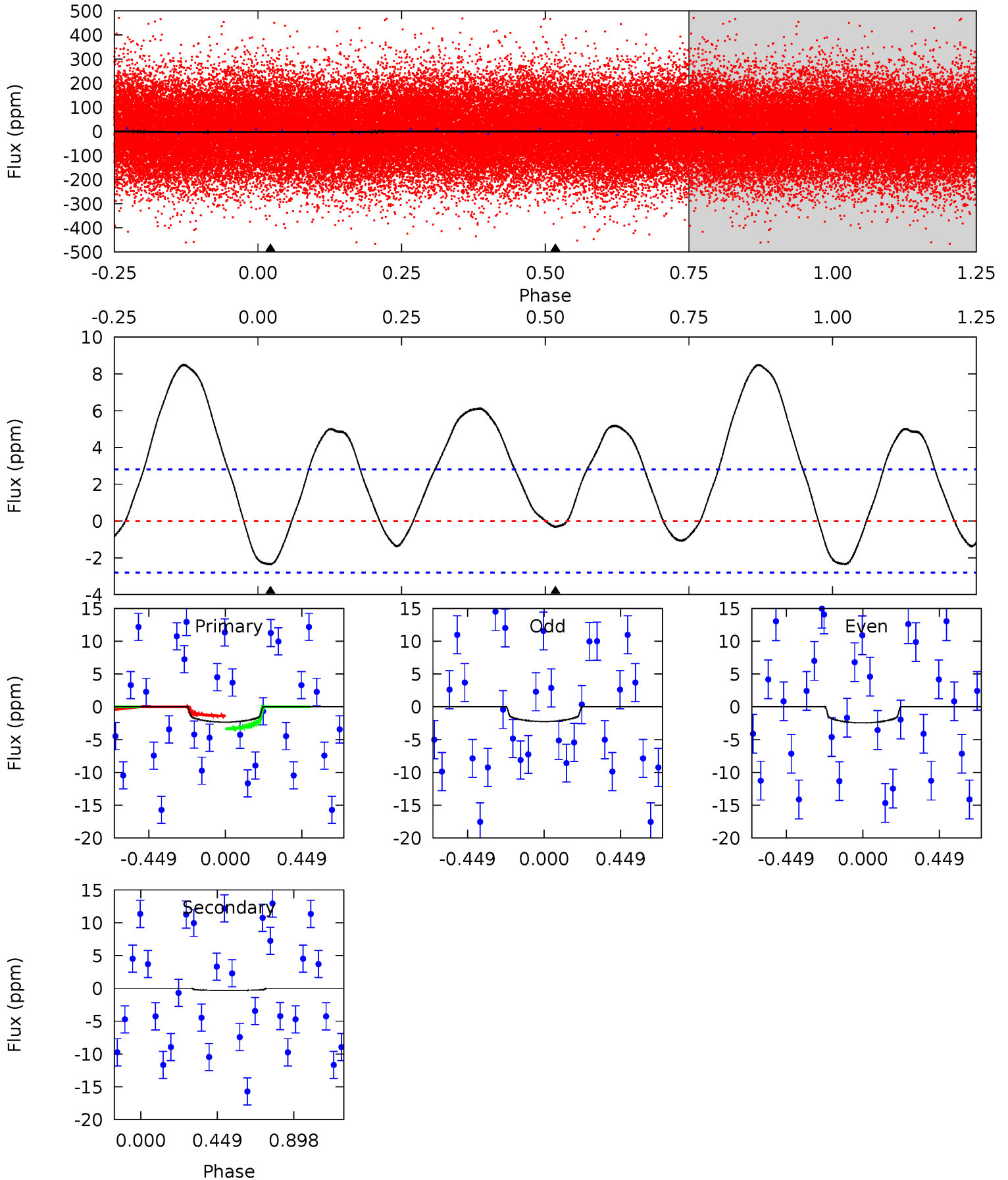
TCE 007427780-01 P= 1.235561 Days $T_0=132.844550$ (BKJD)



DV Model-Shift Uniqueness Test

007427780-01, P = 1.235438 Days, E = 130.377065 Days

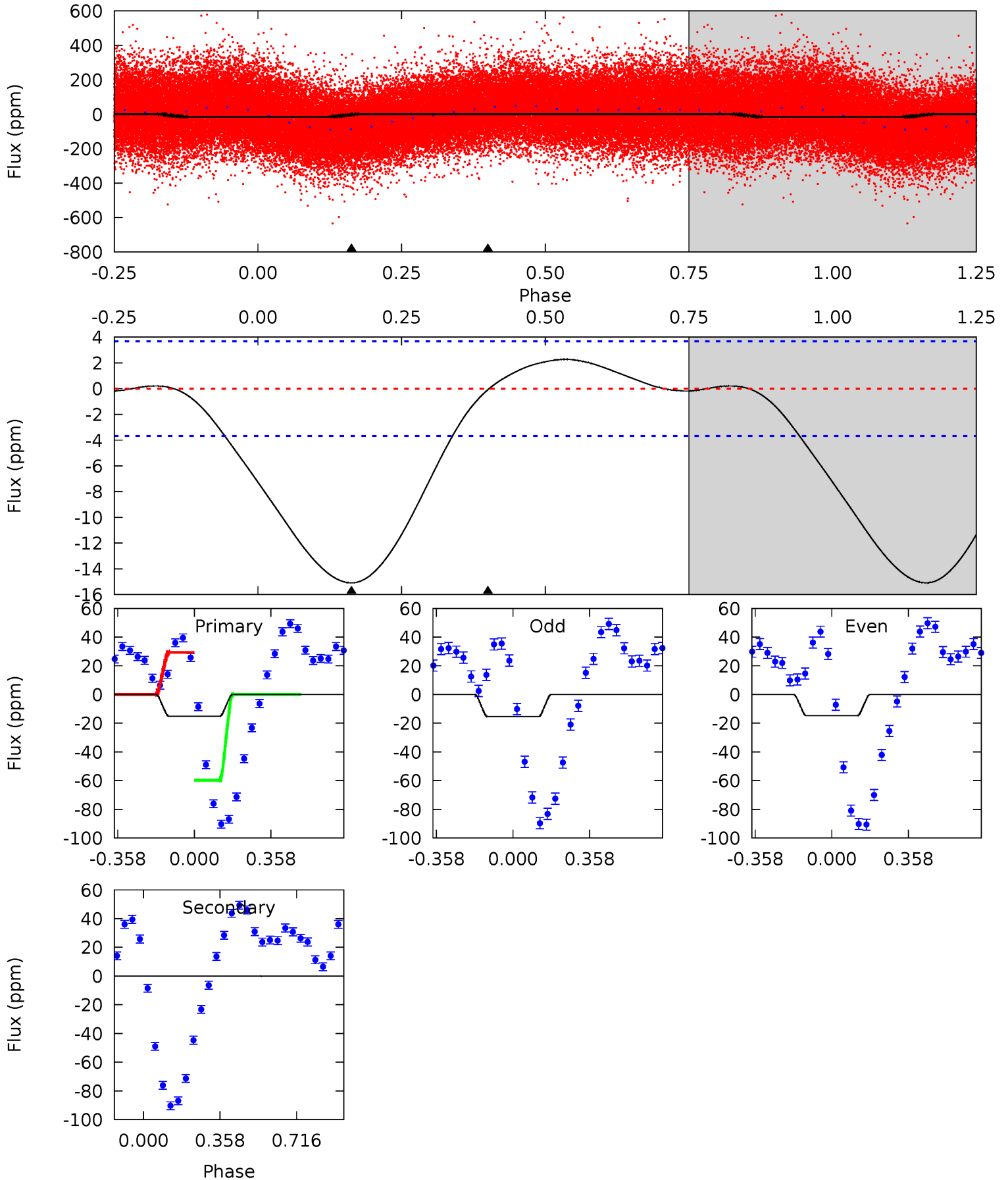
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.53	0.48	0	0	4.24	0.76	1.50	3.53	3.53	0.48	0.48	0.16	0.86	0.78	1.52



Alt Model-Shift Uniqueness Test

007427780-01, P = 1.235561 Days, E = 130.373428 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.6	0.10	0	0	4.29	0.92	0.18	17.6	17.6	0.10	0.10	0.37	1.31	0.13	19.2



Stellar Parameters For KIC 007427780

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7201^{+175}_{-300}	$4.167^{+0.109}_{-0.202}$	$0.000^{+0.200}_{-0.350}$	$1.679^{+0.547}_{-0.294}$	$1.511^{+0.211}_{-0.233}$	$0.449^{+0.262}_{-0.221}$
	+2%/-4%	+3%/-5%	+inf%/-inf%	+33%/-18%	+14%/-15%	+58%/-49%
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 007427780-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-0±1	$0.52^{+0.45}_{-0.34}$	3619^{+280}_{-235}	-2432^{+7761}_{-1613}	$0.276^{+3.159}_{-0.740}$
Alt.	-0±1	$0.53^{+0.45}_{-0.36}$	3601^{+275}_{-220}	-3340^{+8213}_{-1310}	$0.055^{+2.683}_{-1.442}$

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

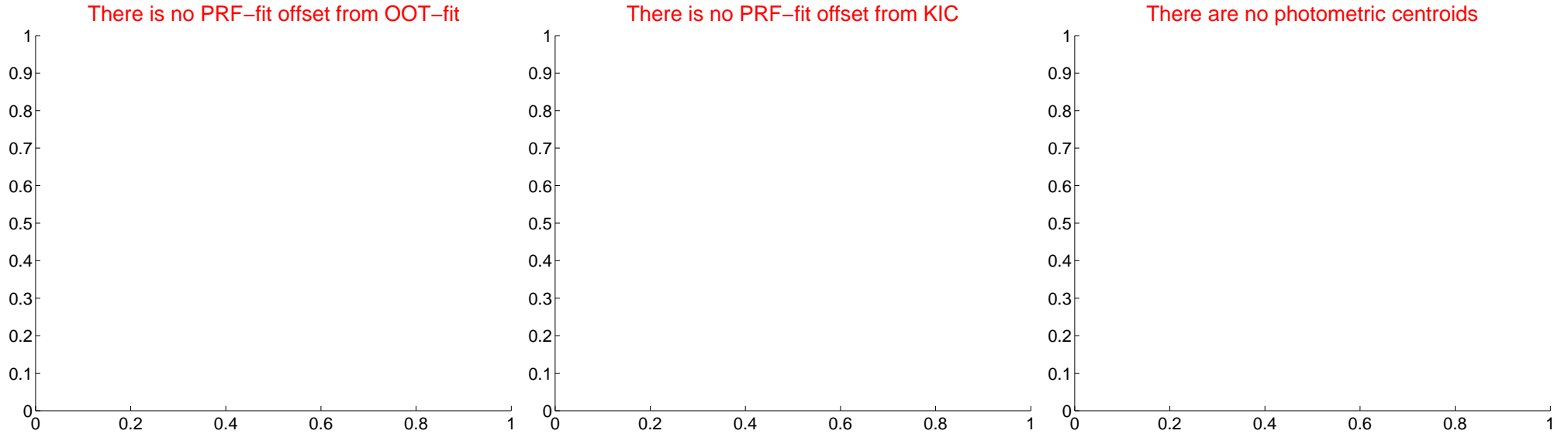
DV Centroid Data

Supplemental centroid analysis for 007427780-01. Kepler magnitude: 12.60. Transit SNR 2.71

There are 0 quarters with good PRF difference image offsets

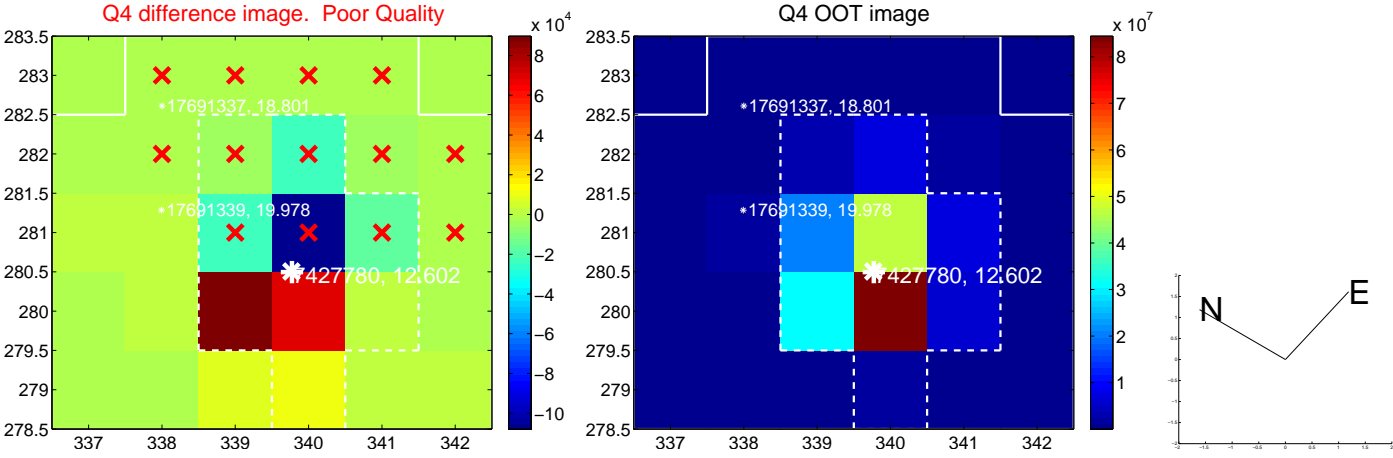
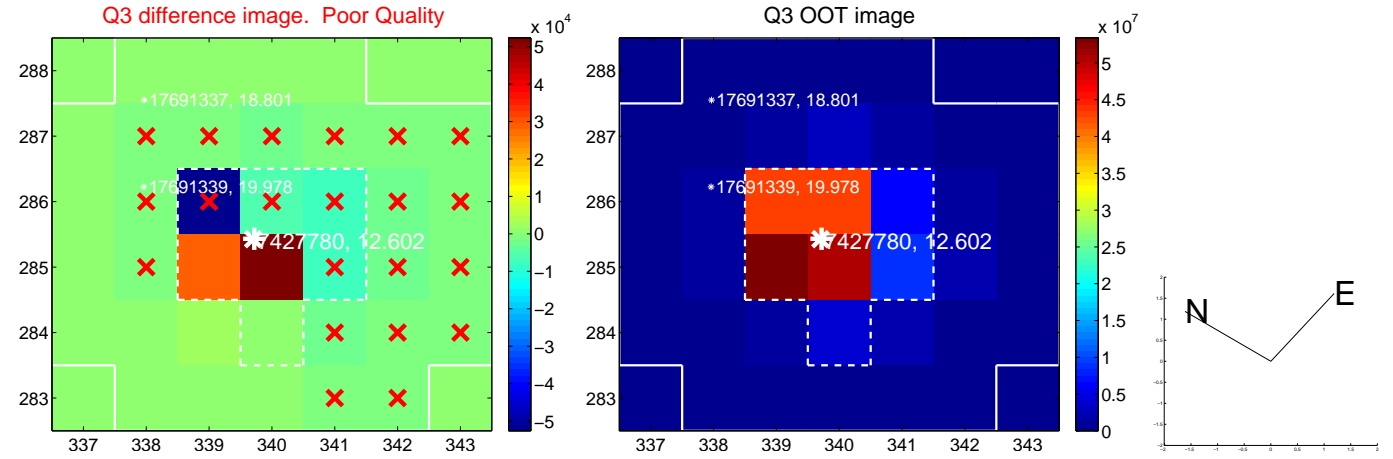
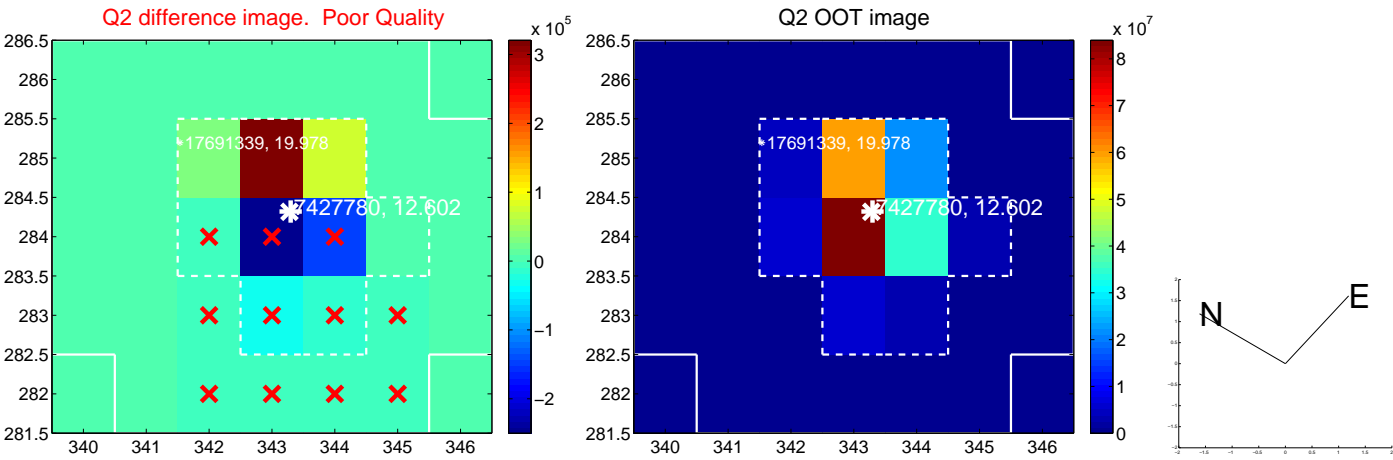
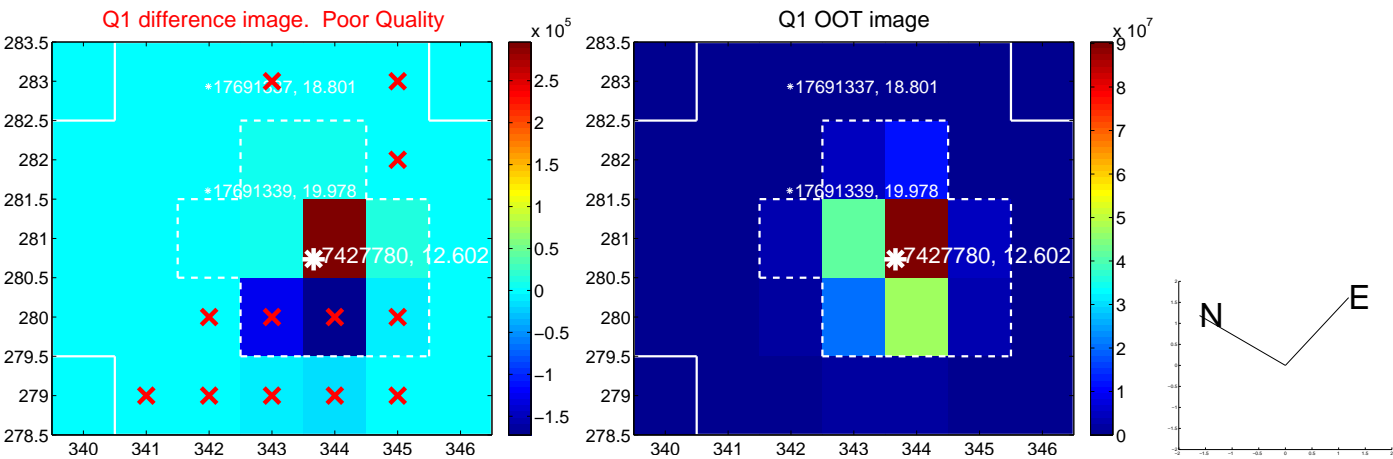
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	—	—	—	—

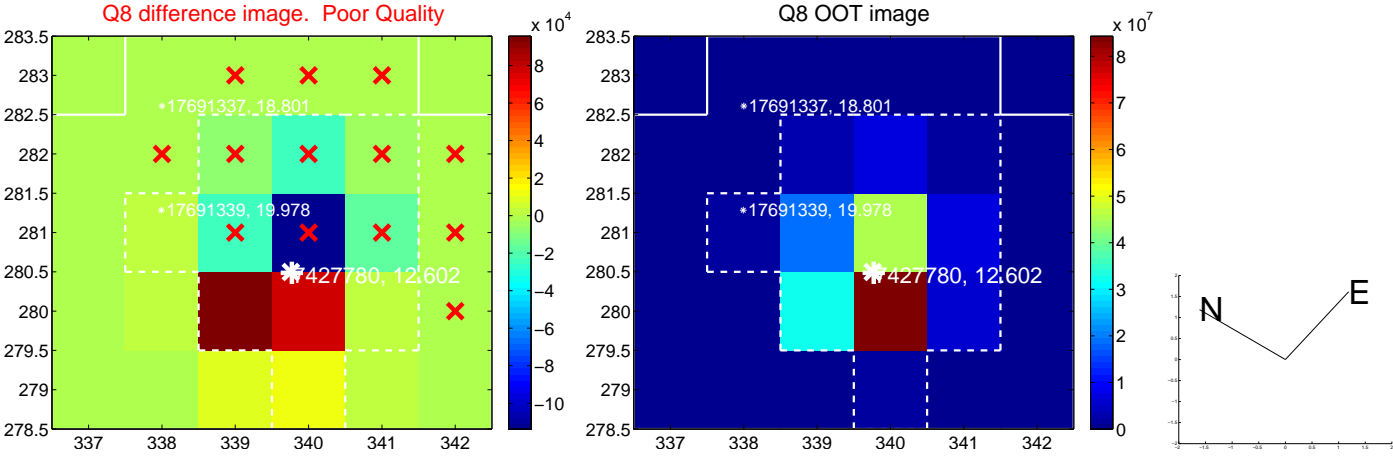
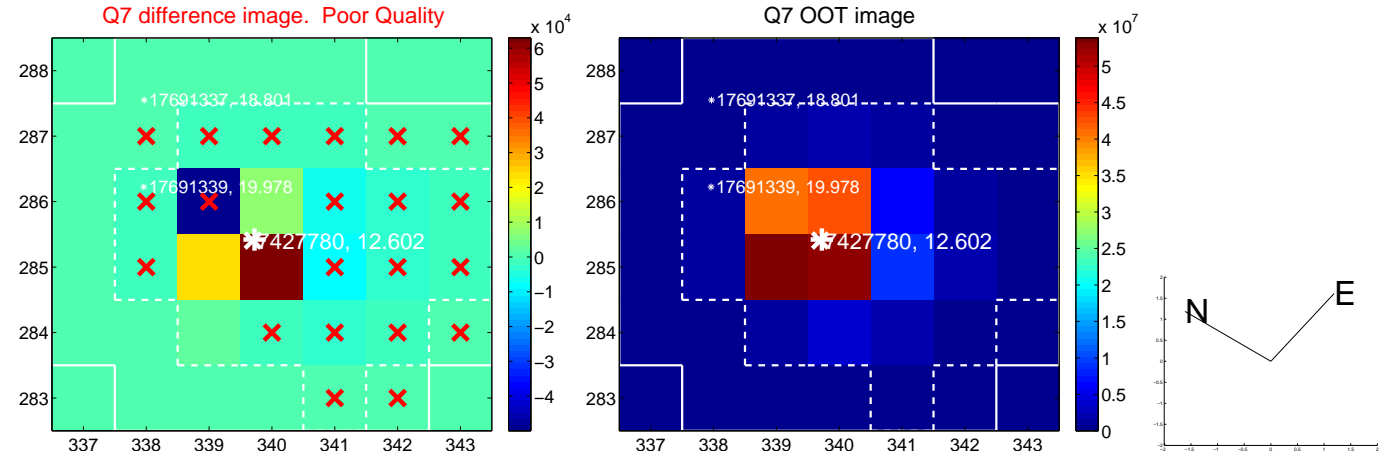
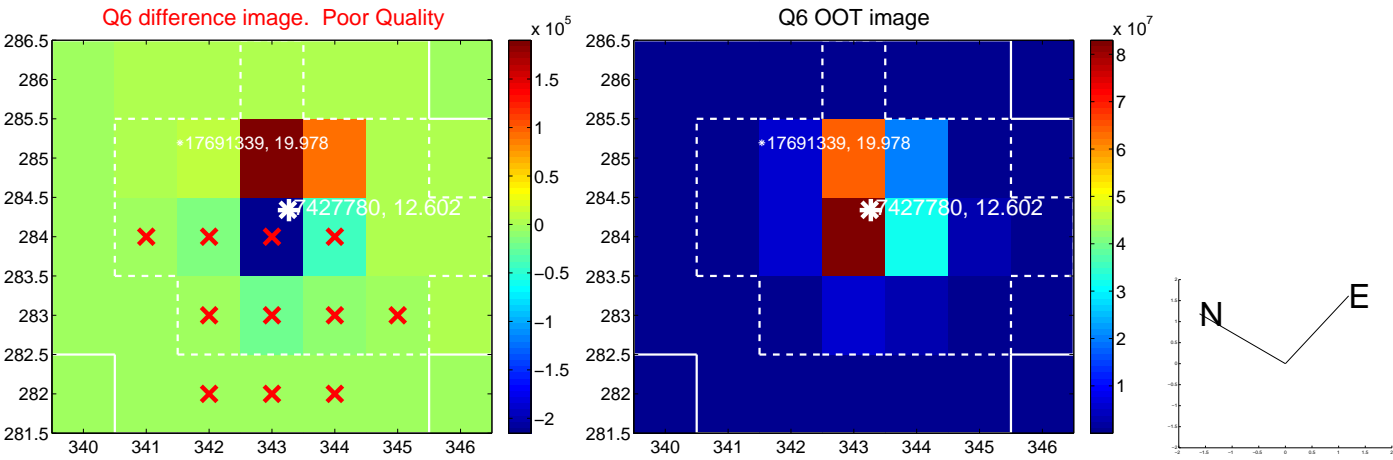
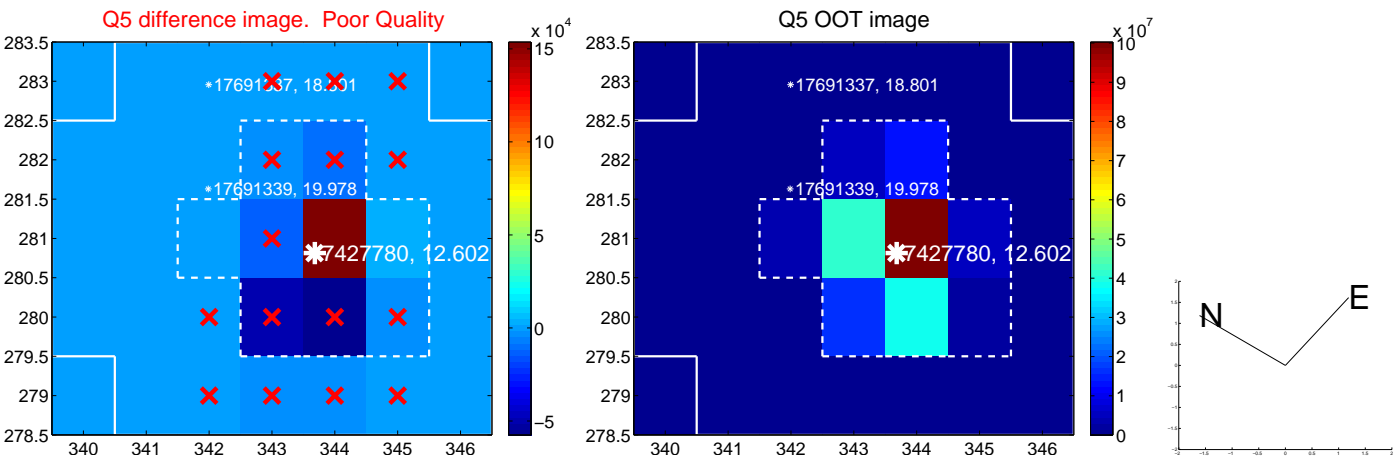


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

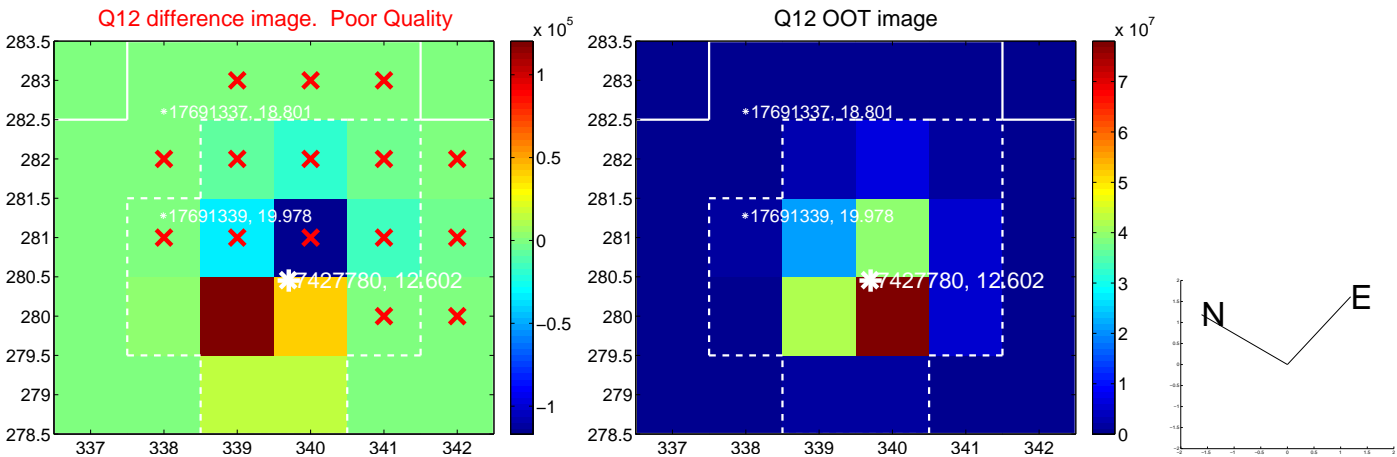
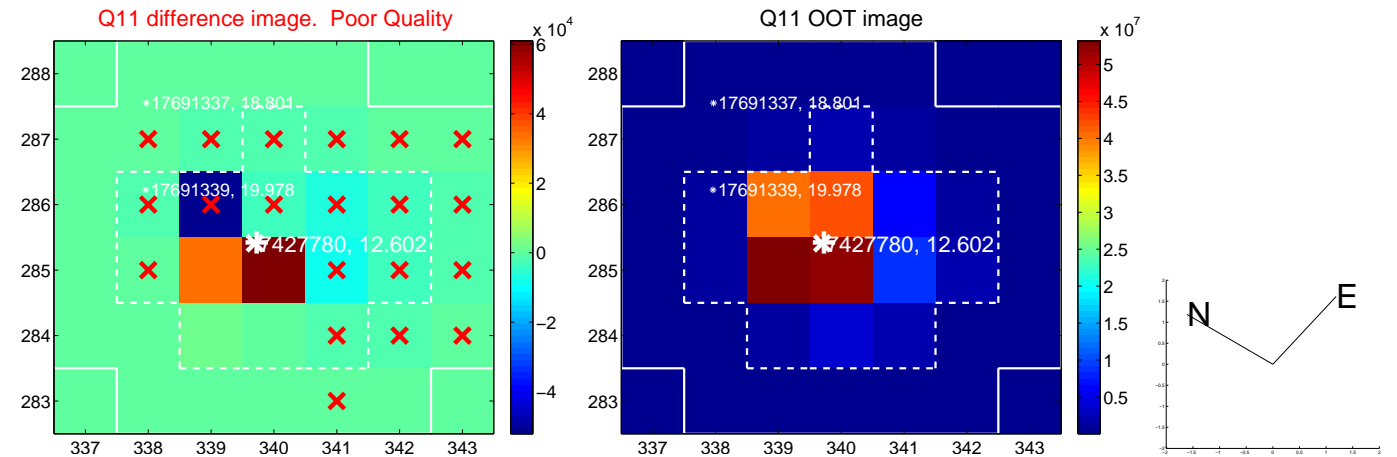
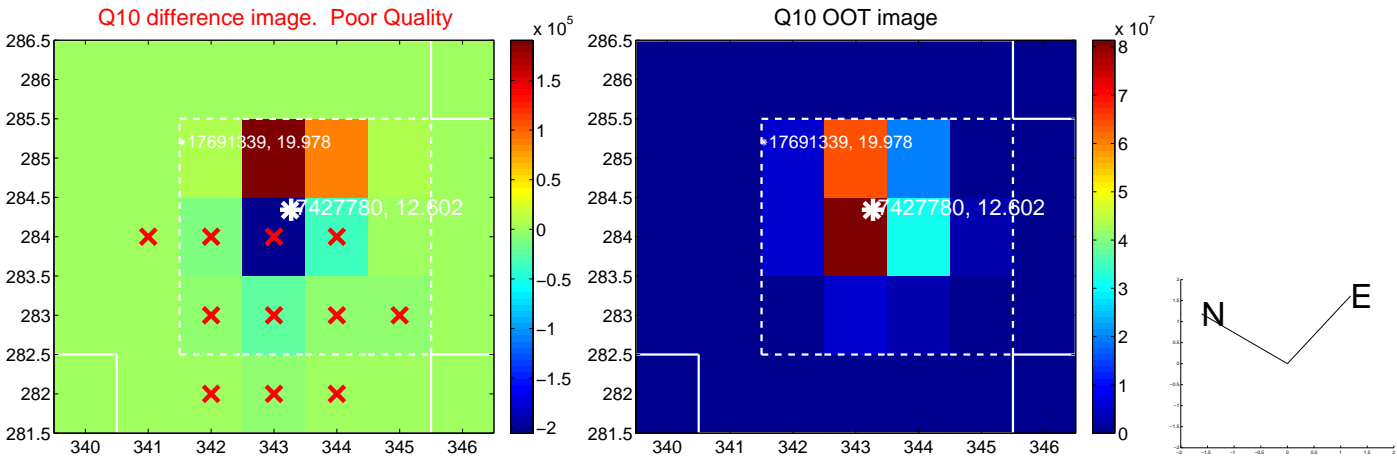
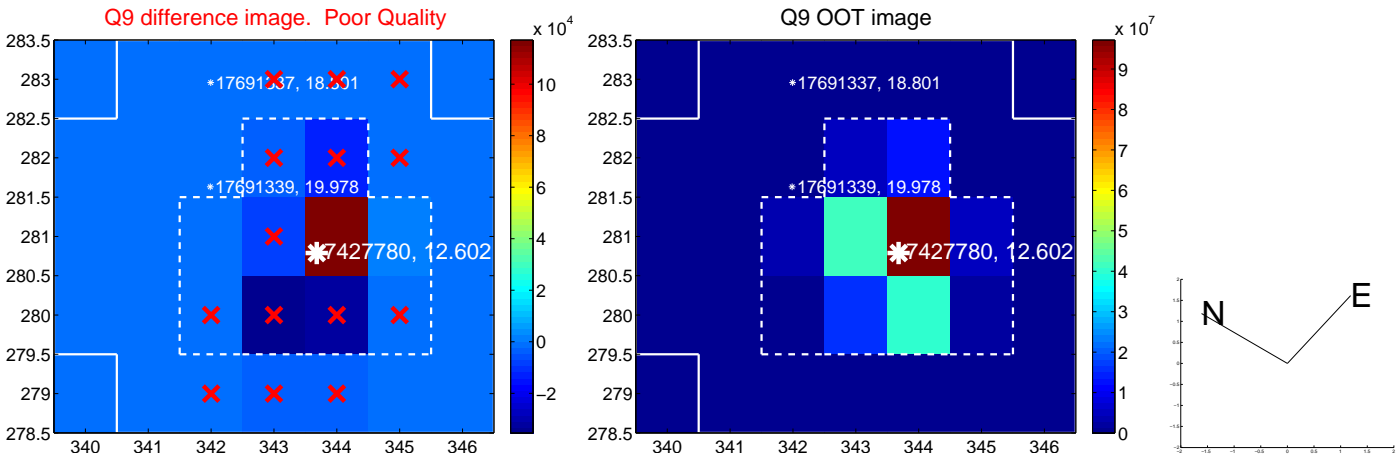
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



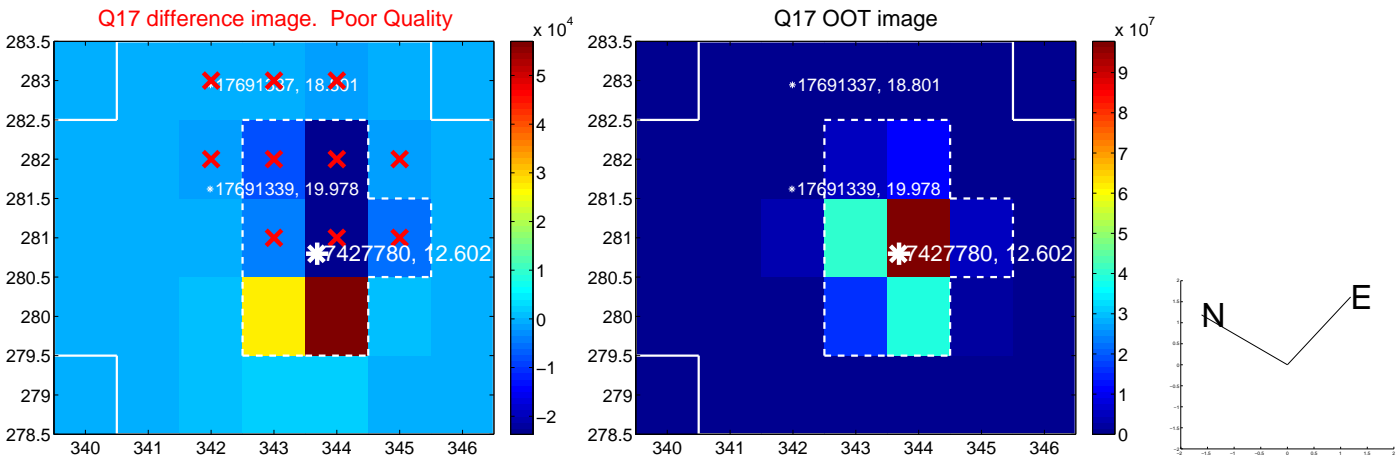
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



folded centroid time series figure for this object.

UKIRT Image

Declination

