

KIC 008443132

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})
008443132-01	OBS	No	0.720996	132.213372	4.0	6.478	8.8	1.2	2.73	7045	0.58	48253.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008443132-01	OBS	FP	0.00	1	0	0	0	LPP_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.

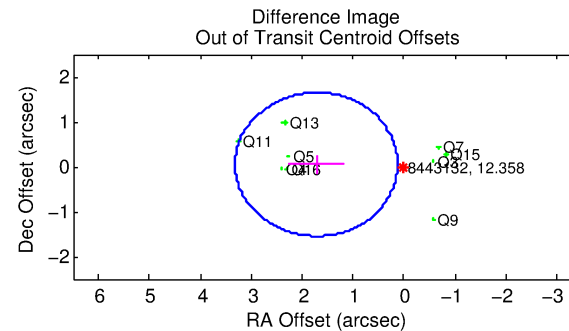
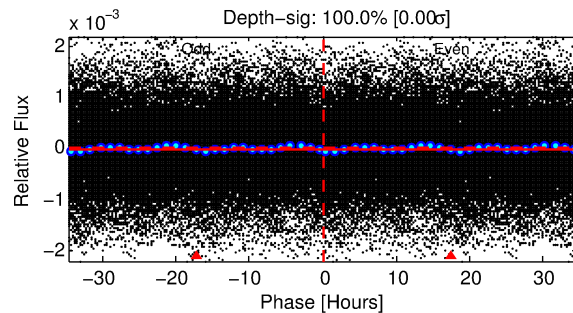
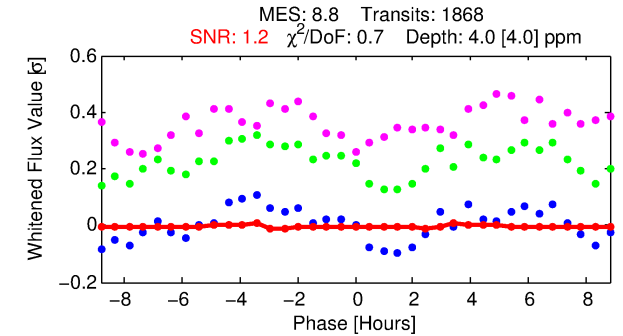
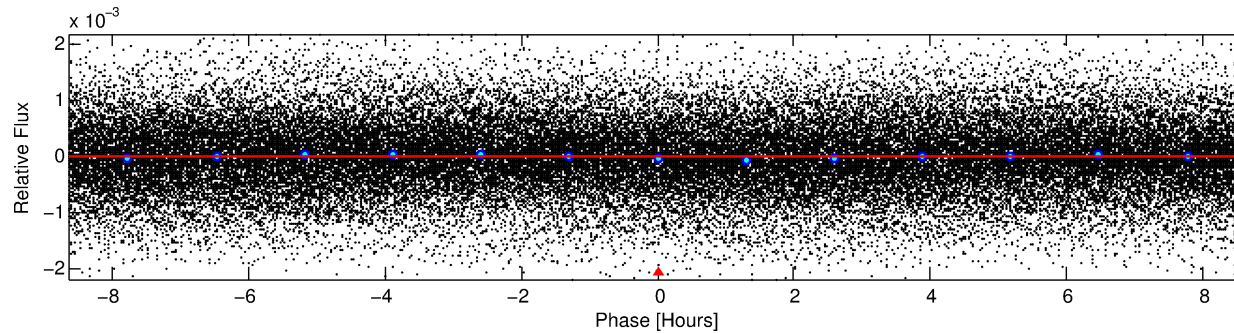
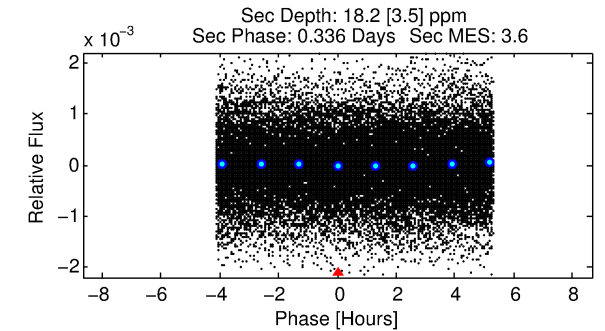
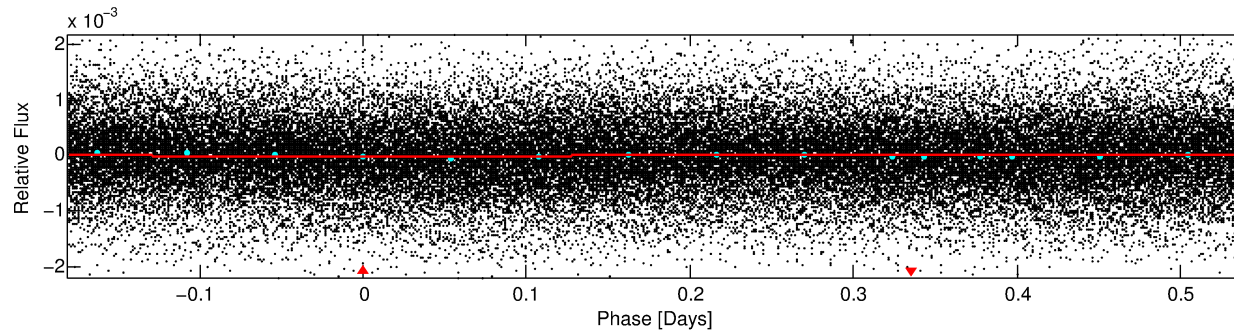
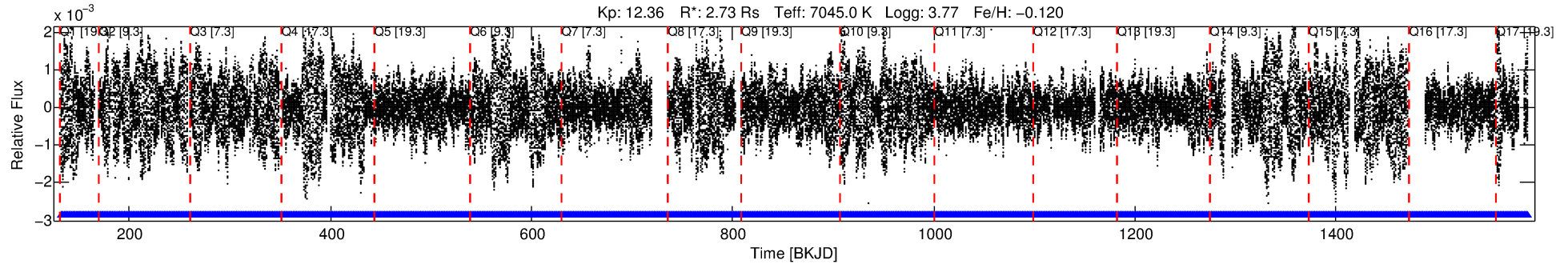
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008443132-01

No Significant Match Found

DV One-Page Summary

KIC: 8443132 Candidate: 1 of 1 Period: 0.721 d



DV Fit Results:

Period = 0.72100 [0.00008] d
Epoch = 132.2134 [0.0140] BKJD
Rp/R* = 0.0020 [0.0036]
a/R* = 1.05 [0.99]
b = 0.70 [8.22]
Seff = 48253.09 [23531.77]
Teq = 3779 [461] K
Rp = 0.58 [1.10] Re
a = 0.0184 [0.0055] AU
Ag = 9.98 [37.35] [0.24σ]
Teffp = 10384 [9651] K [0.68σ]

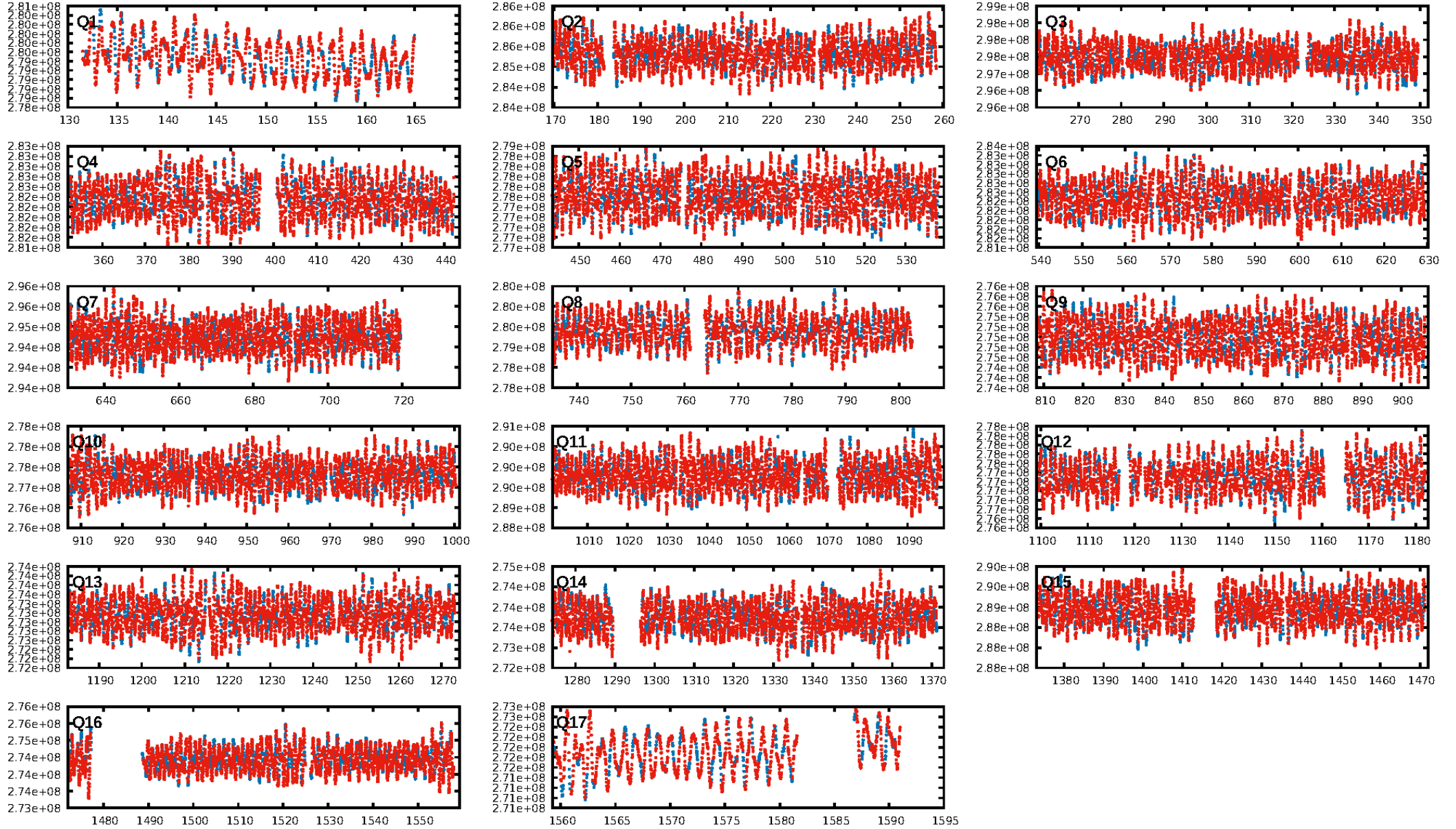
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1784/1784]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.721 arcsec [3.23σ]
KicOffset-rm: 1.680 arcsec [3.11σ]
OotOffset-st: 0/4/2/3 [9]
KicOffset-st: 0/4/2/3 [9]
DiffImageQuality-fgm: 0.44 [4/9]
DiffImageOverlap-fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:25:23 Z

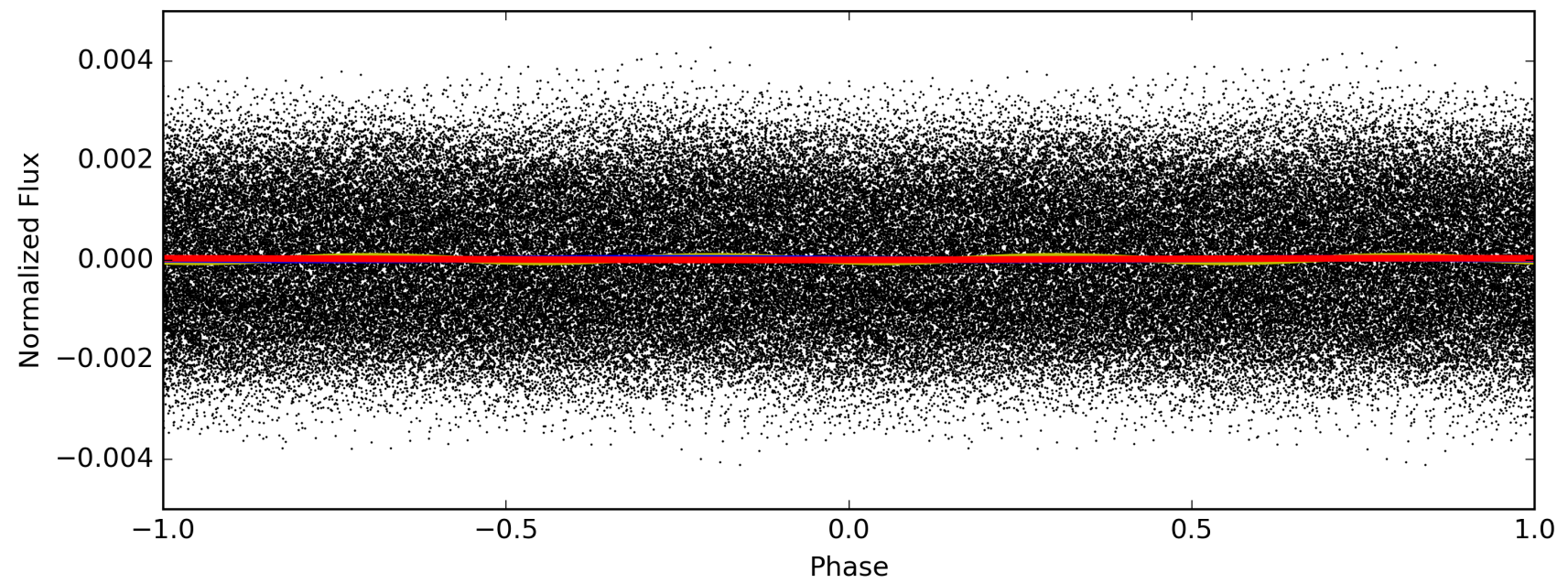
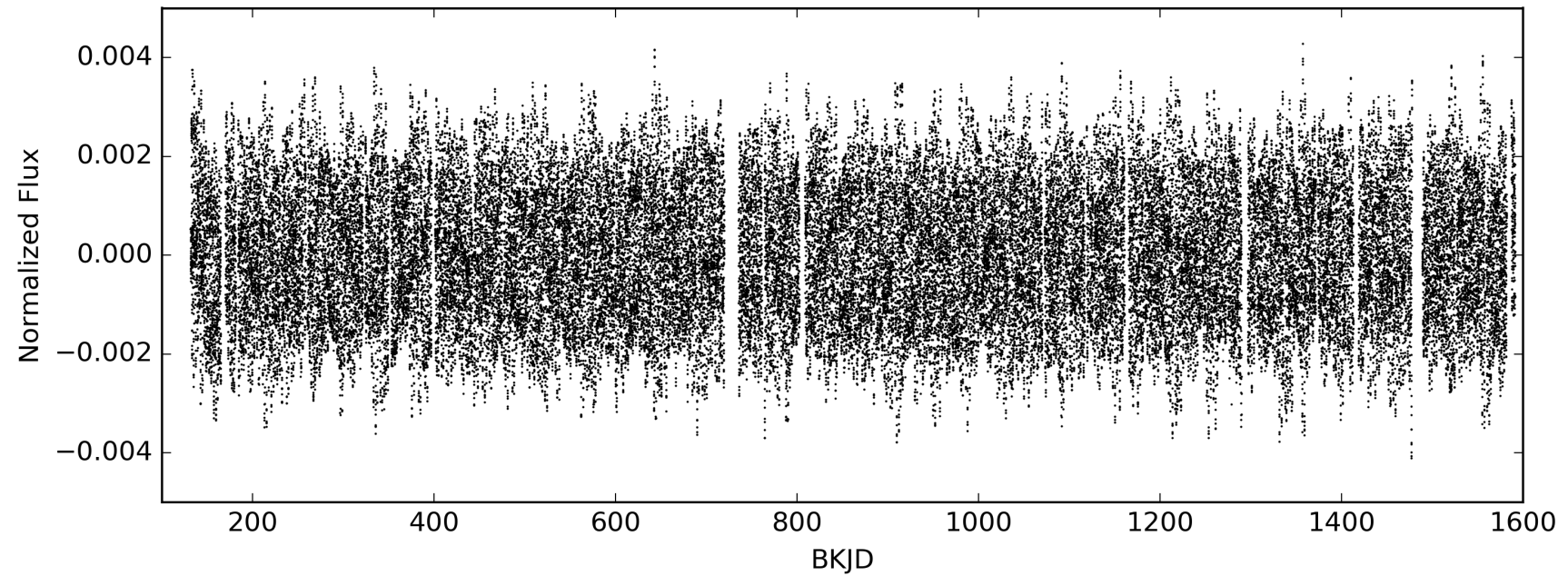
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008443132-01, PDC Light Curves



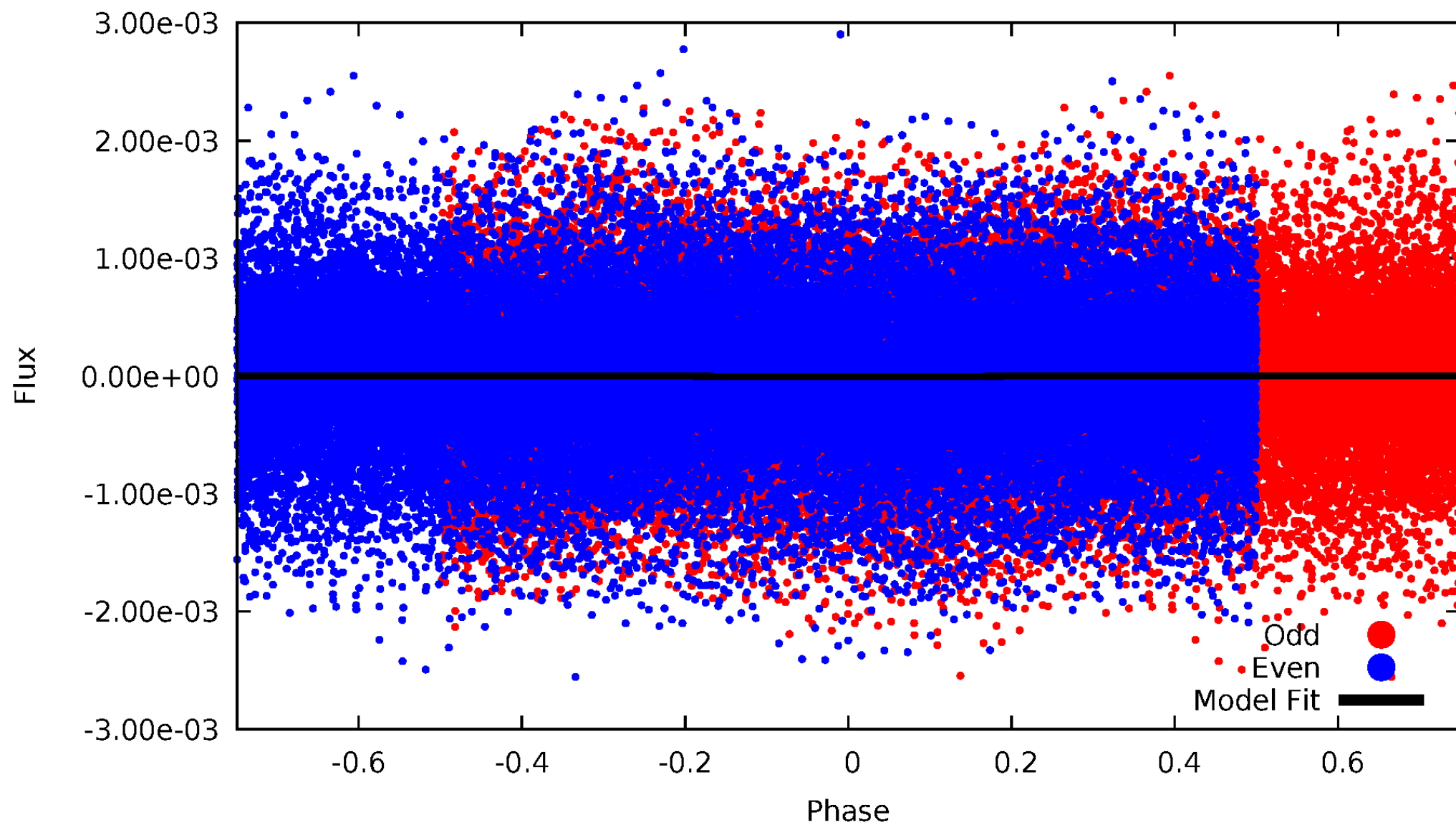
TCE 008443132-01

— P = 0.360 days — P = 0.721 days — P = 1.442 days



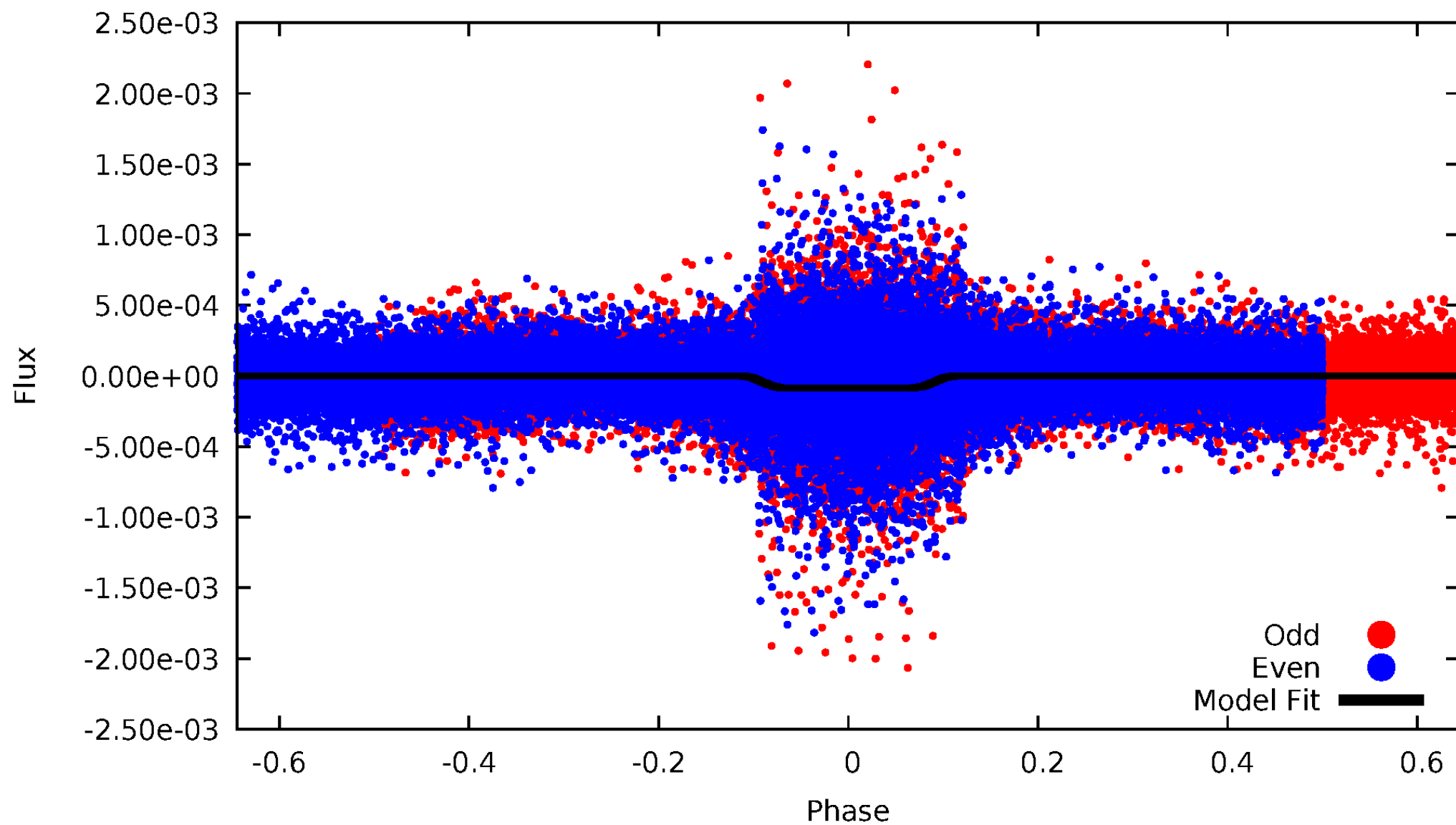
DV Odd/Even

TCE 008443132-01

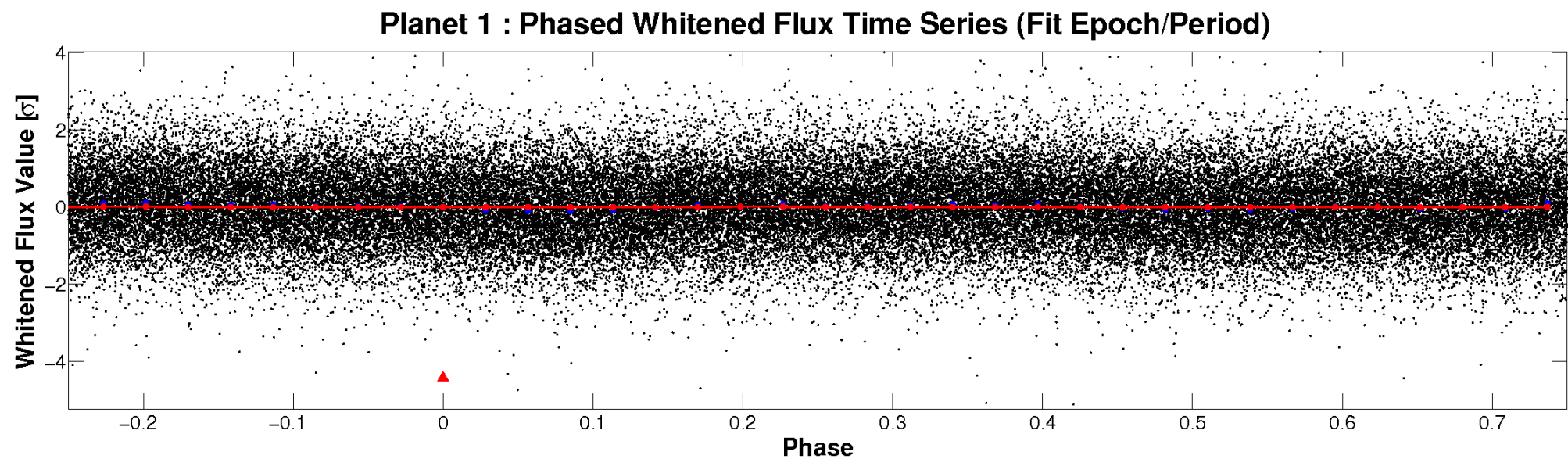
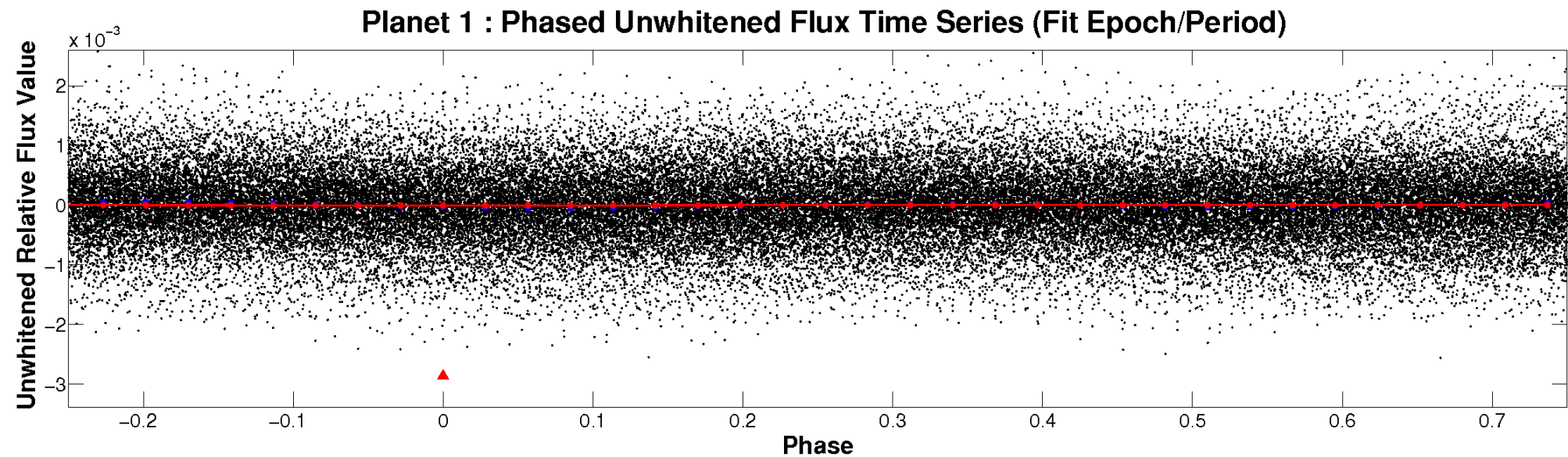


ALT Odd/Even

TCE 008443132-01

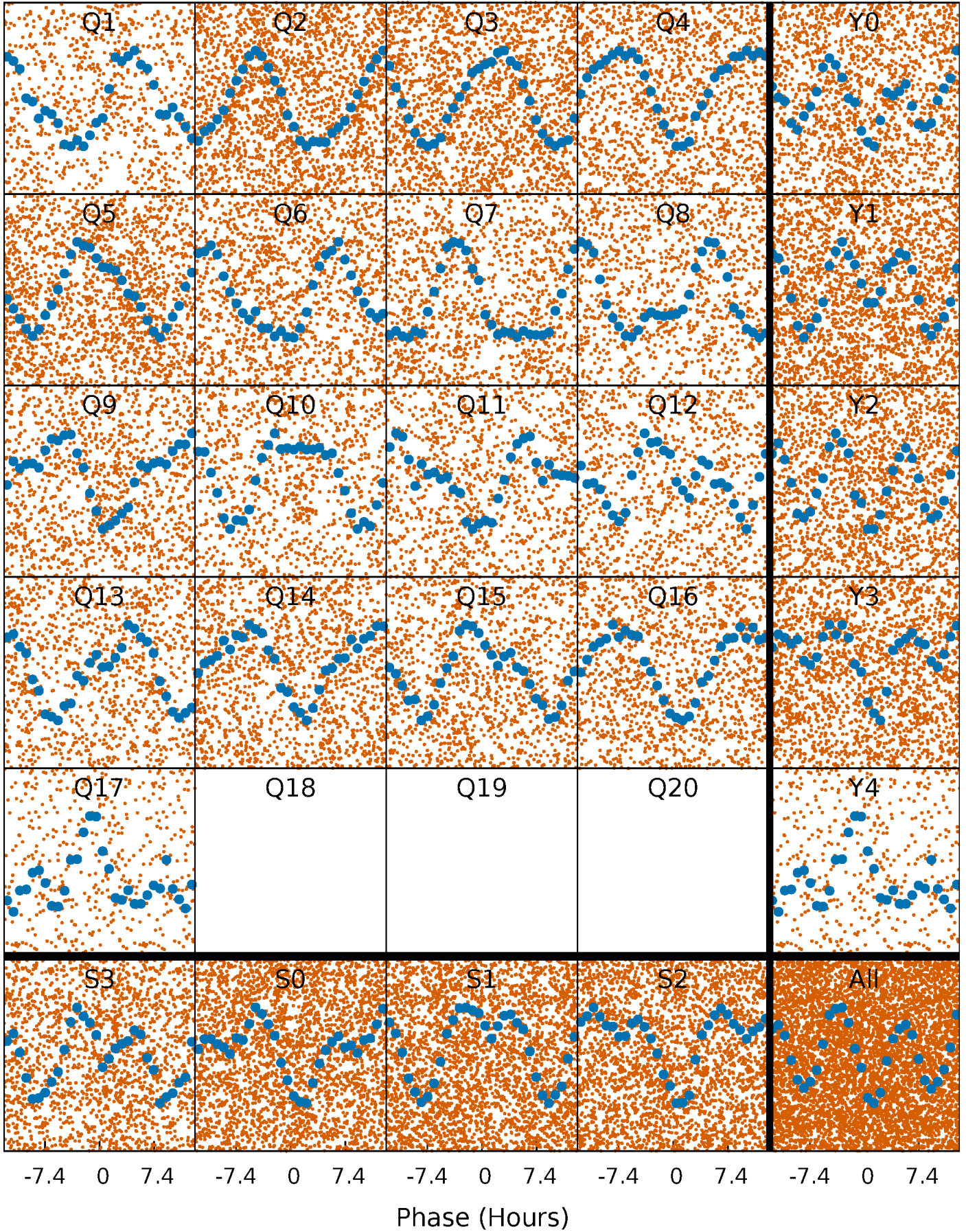


Non-Whitened Vs. Whitened Light Curve



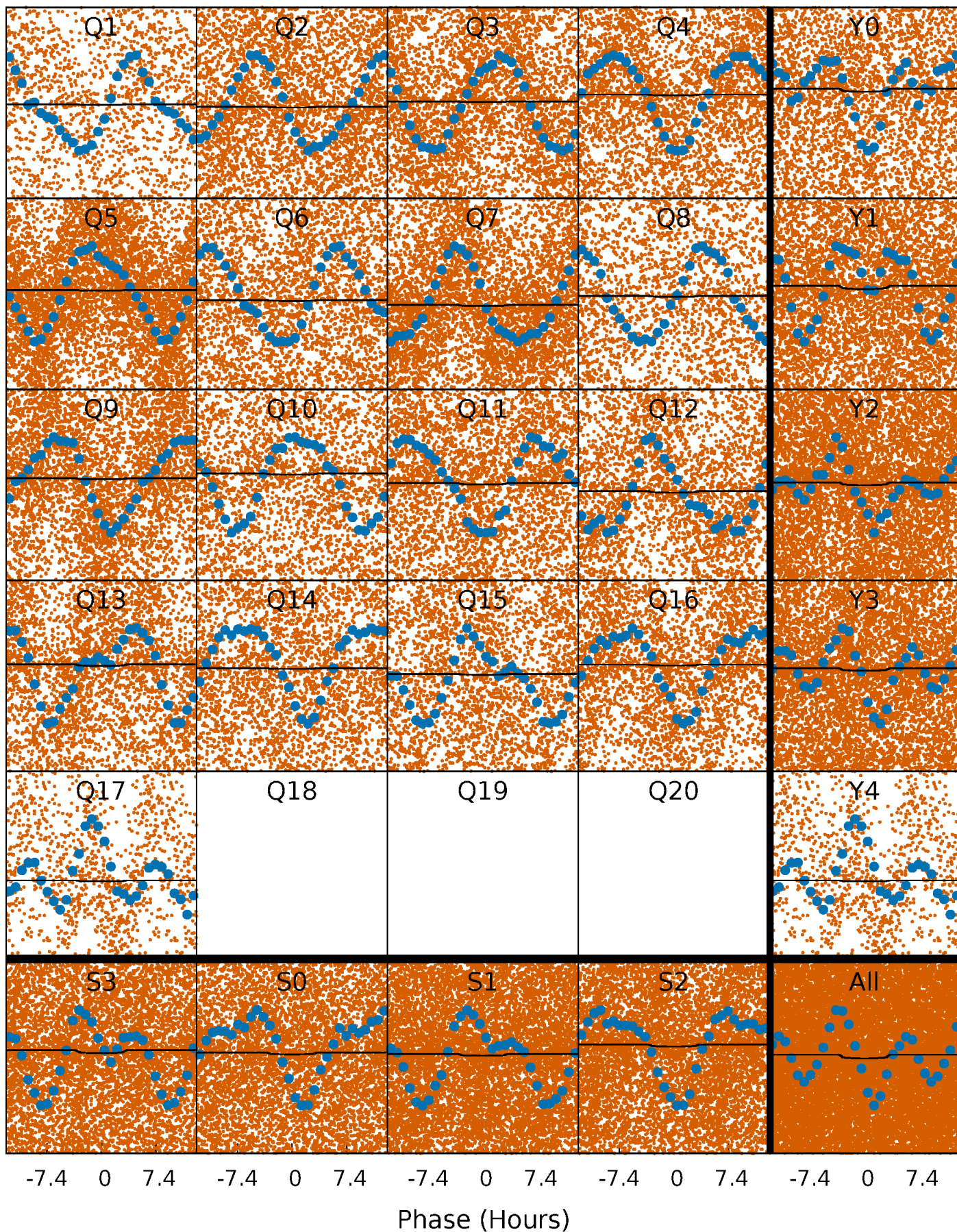
PDC Quarter-Phased Transit Curves

TCE 008443132-01 P= 0.720996 Days $T_0=132.213372$ (BKJD)



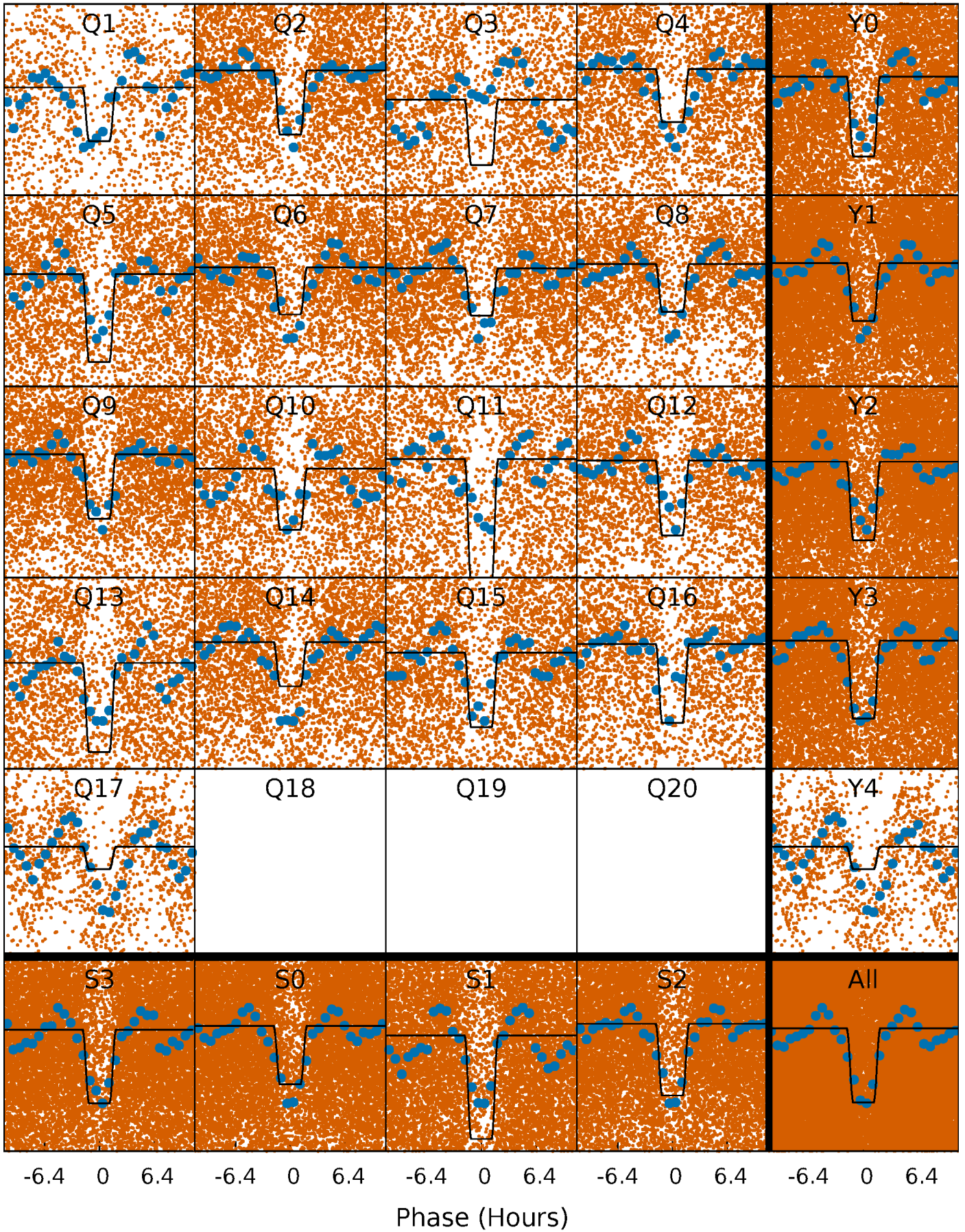
DV Quarter-Phased Transit Curves

TCE 008443132-01 P= 0.720996 Days $T_0=132.213372$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

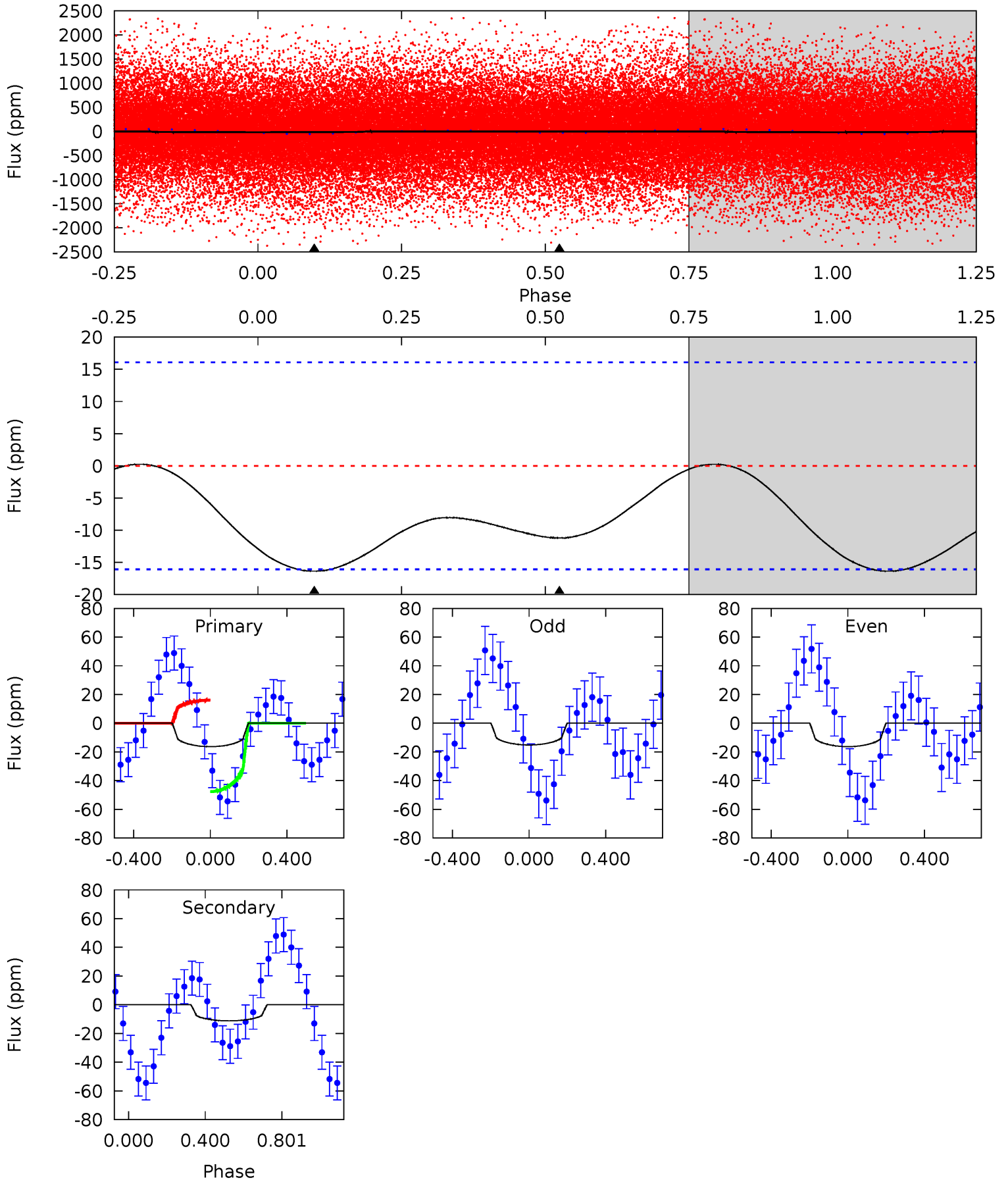
TCE 008443132-01 P= 0.721040 Days $T_0=132.217408$ (BKJD)



DV Model-Shift Uniqueness Test

008443132-01, P = 0.720996 Days, E = 131.492376 Days

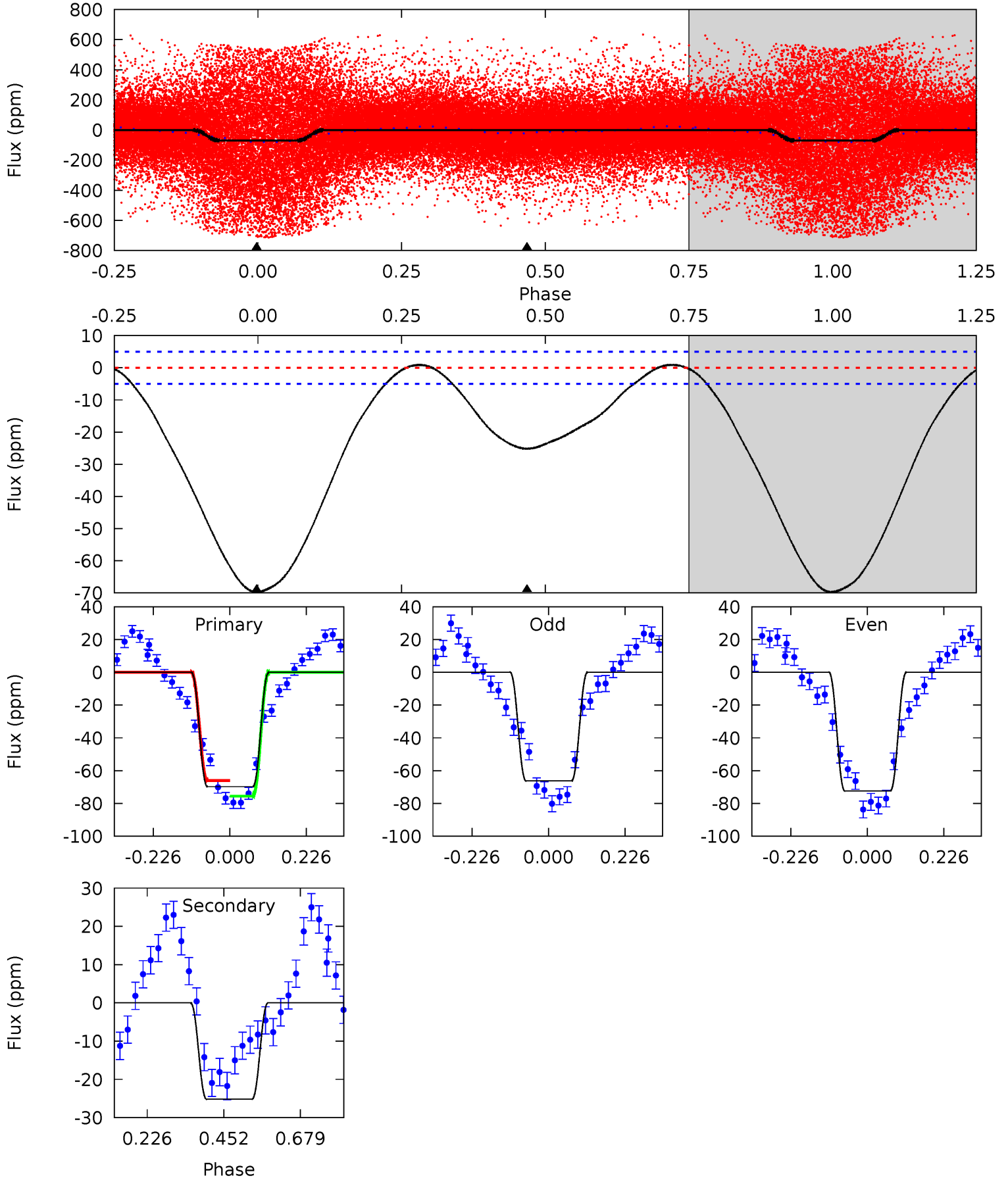
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.34	2.97	0	0	4.26	0.84	0.14	4.34	4.34	2.97	2.97	0.15	1.64	0.02	4.09



Alt Model-Shift Uniqueness Test

008443132-01, P = 0.721040 Days, E = 131.496368 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
61.3	22.1	0	0	4.39	1.21	1.44	61.3	61.3	22.1	22.1	2.67	0.95	0.01	4.27



Stellar Parameters For KIC 008443132

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7045^{+187}_{-250}	$3.773^{+0.270}_{-0.090}$	$-0.120^{+0.250}_{-0.300}$	$2.726^{+0.472}_{-0.876}$	$1.607^{+0.224}_{-0.249}$	$0.112^{+0.197}_{-0.032}$
	+3%/-4%	+7%/-2%	+208%/-250%	+17%/-32%	+14%/-15%	+177%/-28%
Source	PHO1	FLK73	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 008443132-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-11 ± 4	$0.98^{+0.83}_{-0.68}$	5165^{+322}_{-429}	6524^{+10283}_{-2289}	$2.118^{+22.002}_{-1.571}$
Alt.	-25 ± 1	$2.62^{+1.27}_{-1.09}$	5187^{+315}_{-388}	4599^{+1621}_{-1673}	$0.690^{+1.270}_{-0.364}$

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

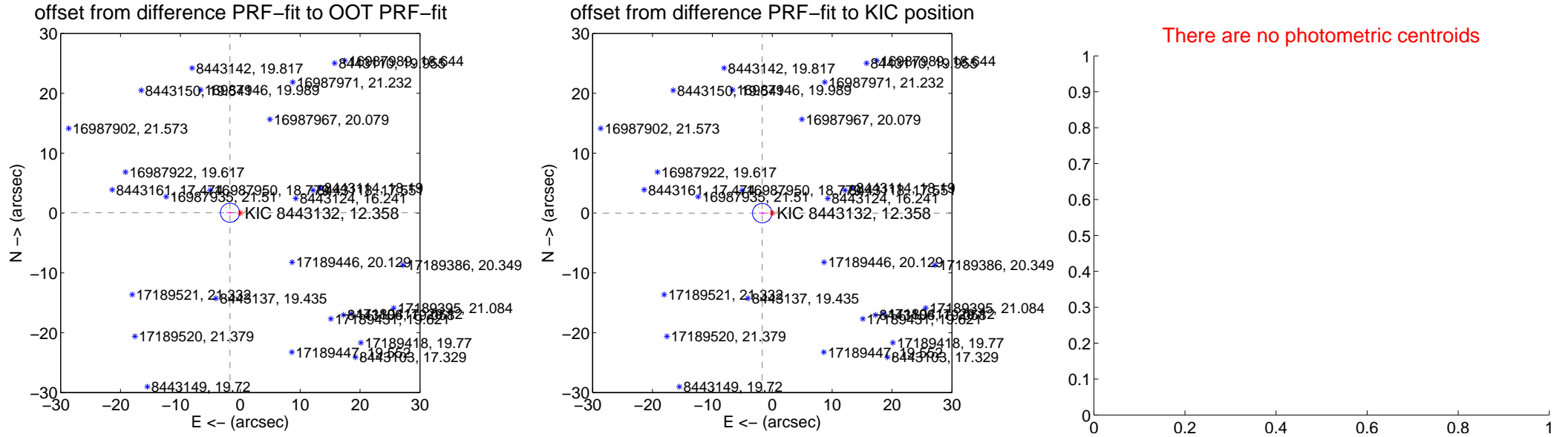
DV Centroid Data

Supplemental centroid analysis for 008443132-01. Kepler magnitude: 12.36. Transit SNR 1.20

There are 4 quarters with good PRF difference image offsets

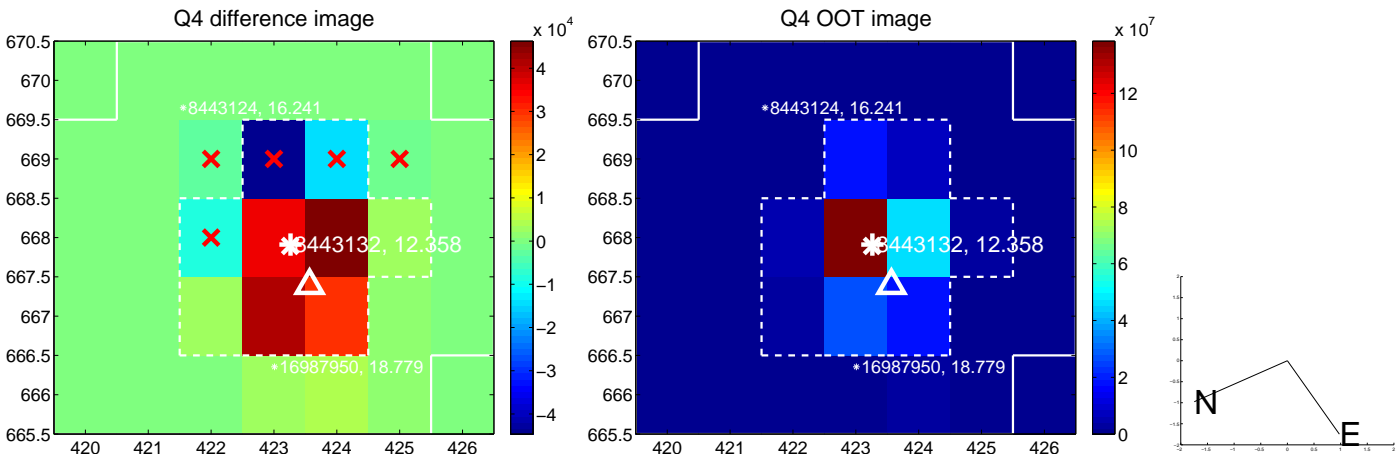
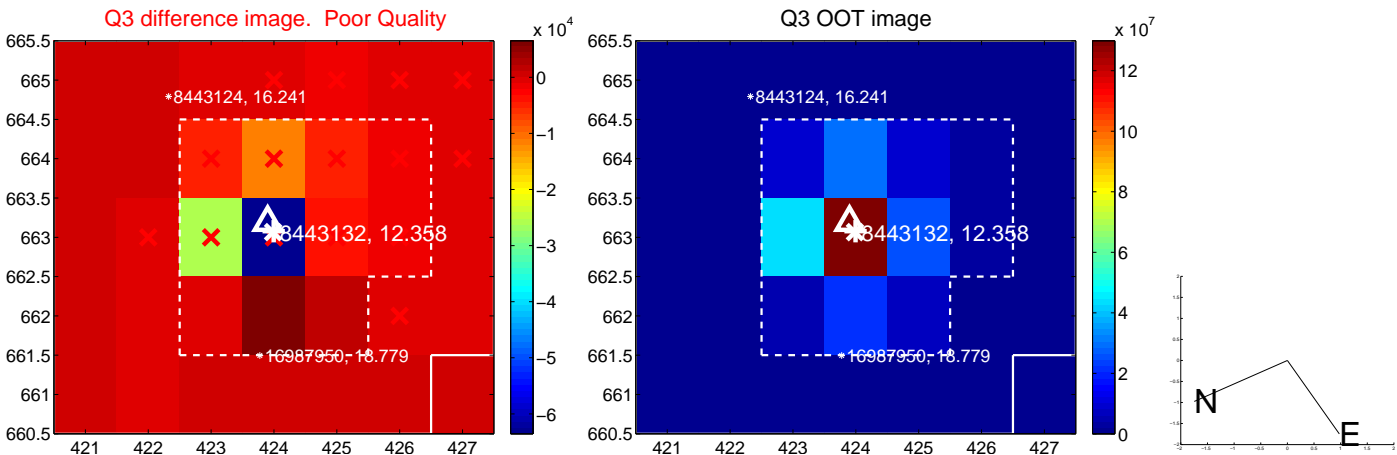
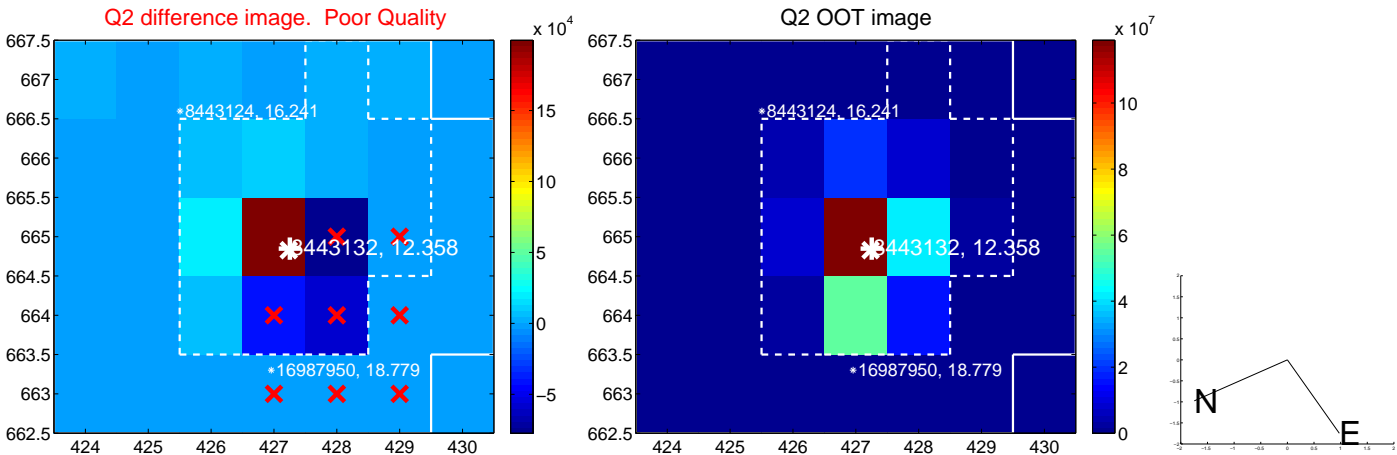
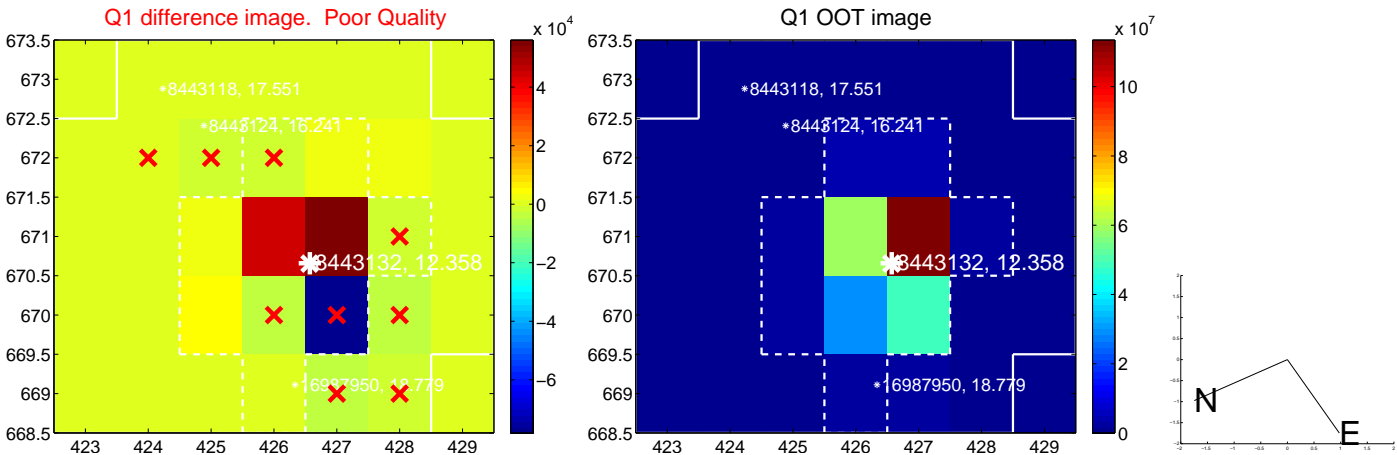
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.721 \pm 0.532	3.23	1.720 \pm 0.531	0.050 \pm 0.192
PRF-fit source offset from KIC position	1.680 \pm 0.539	3.11	1.680 \pm 0.540	-0.018 \pm 0.216
photometric centroid source offset	—	—	—	—

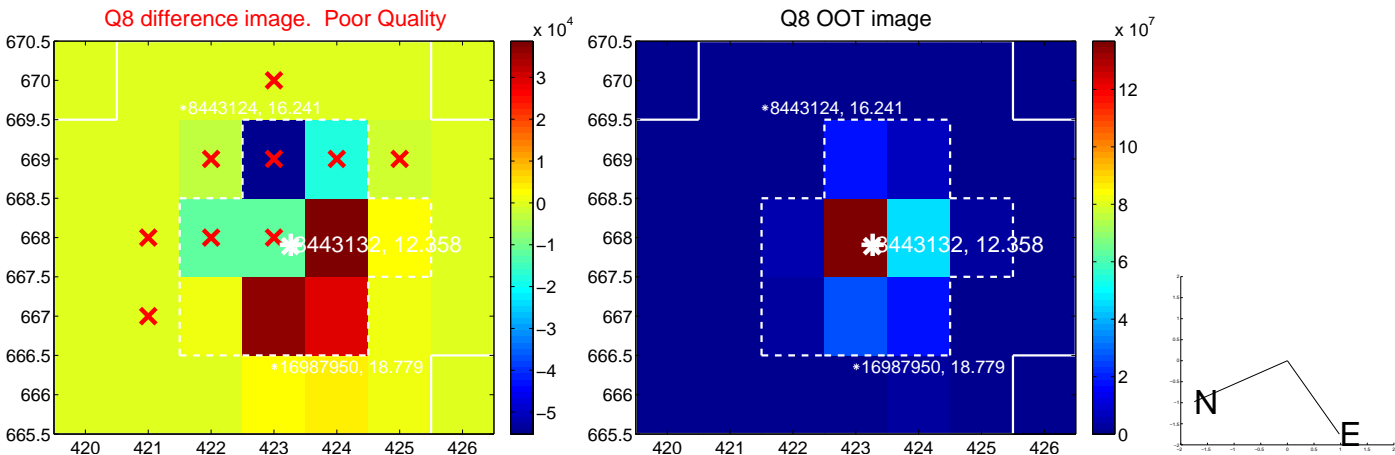
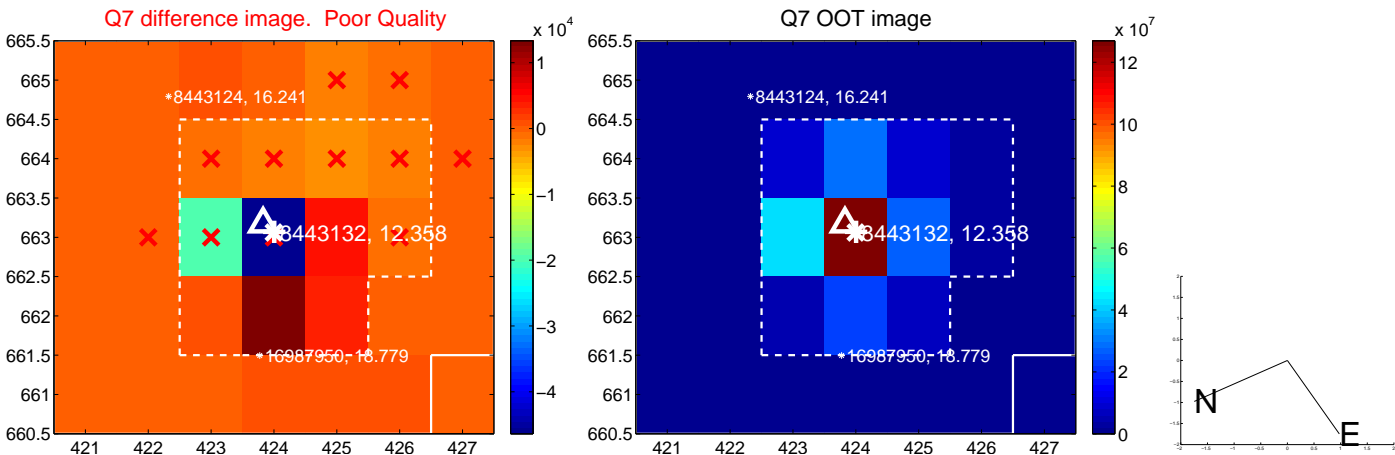
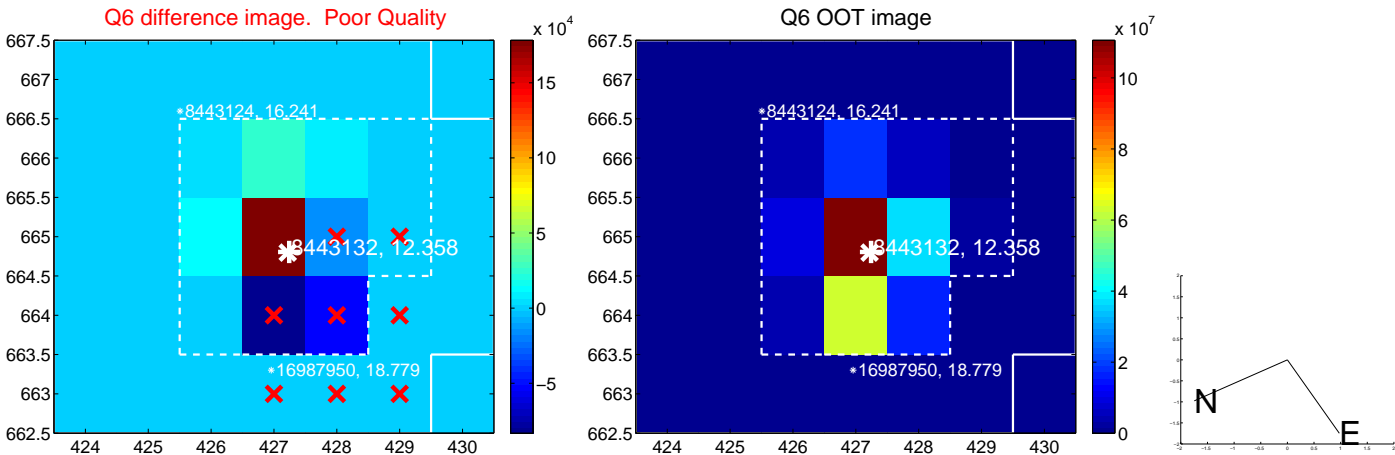
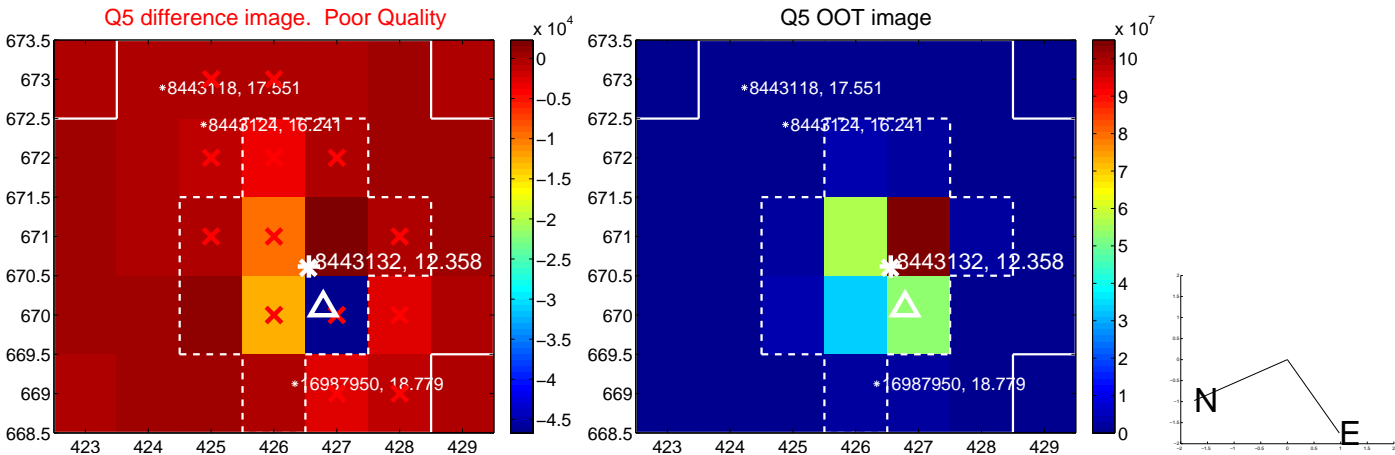


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

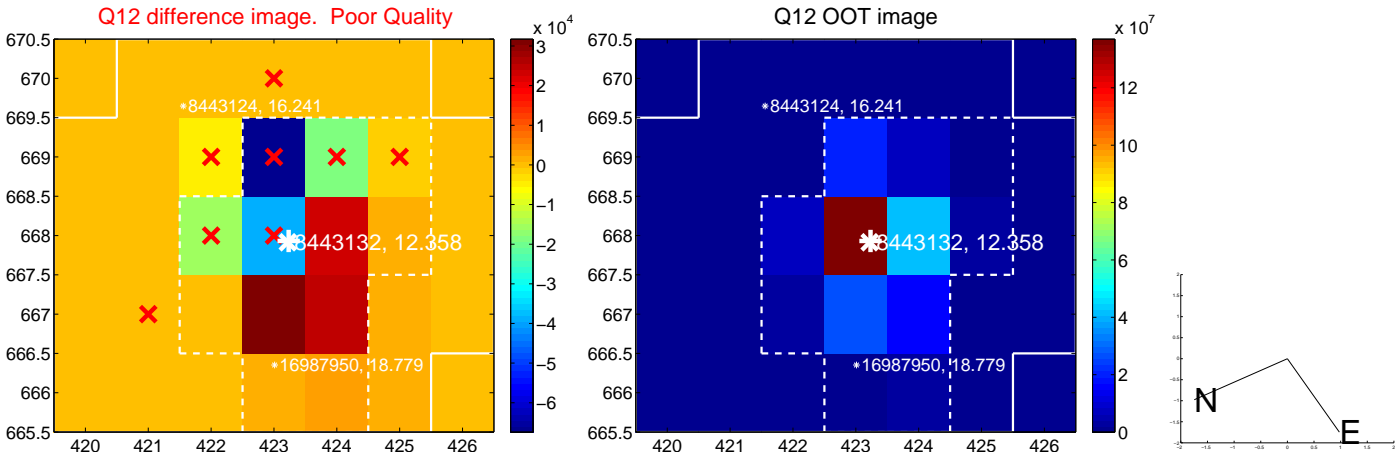
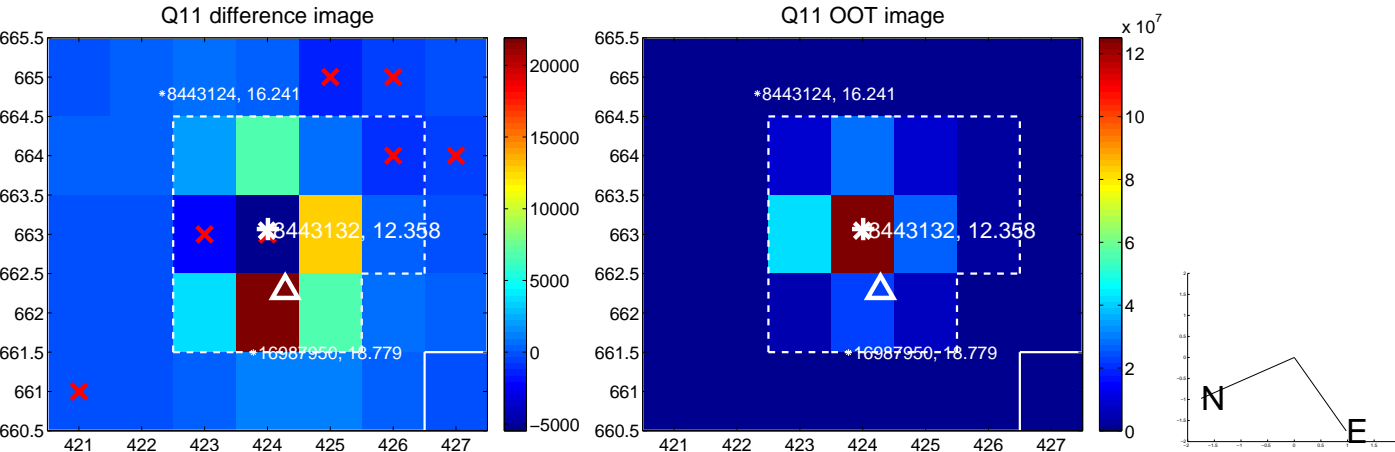
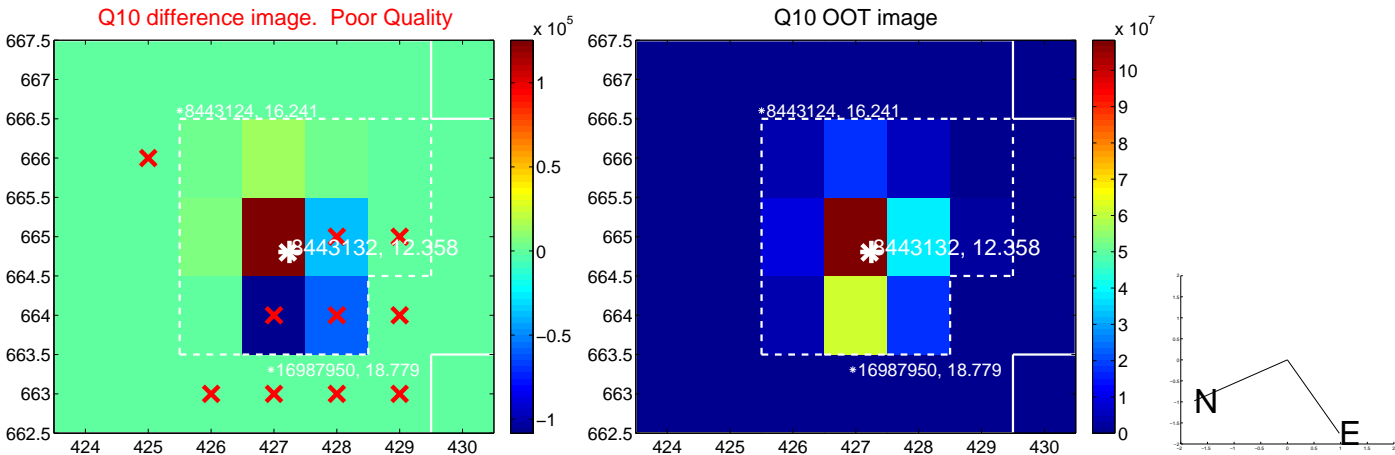
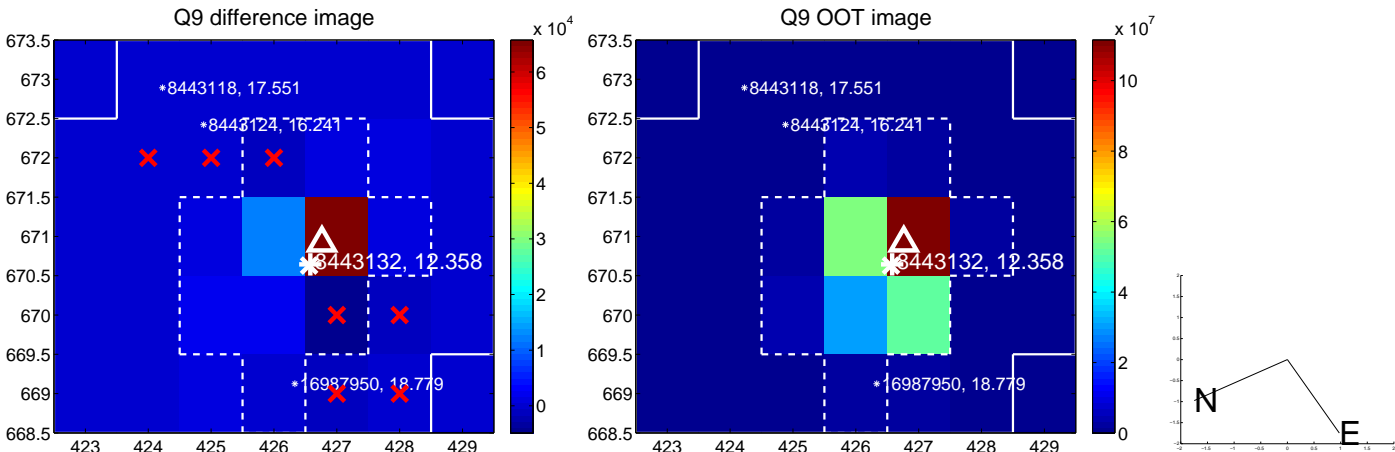
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



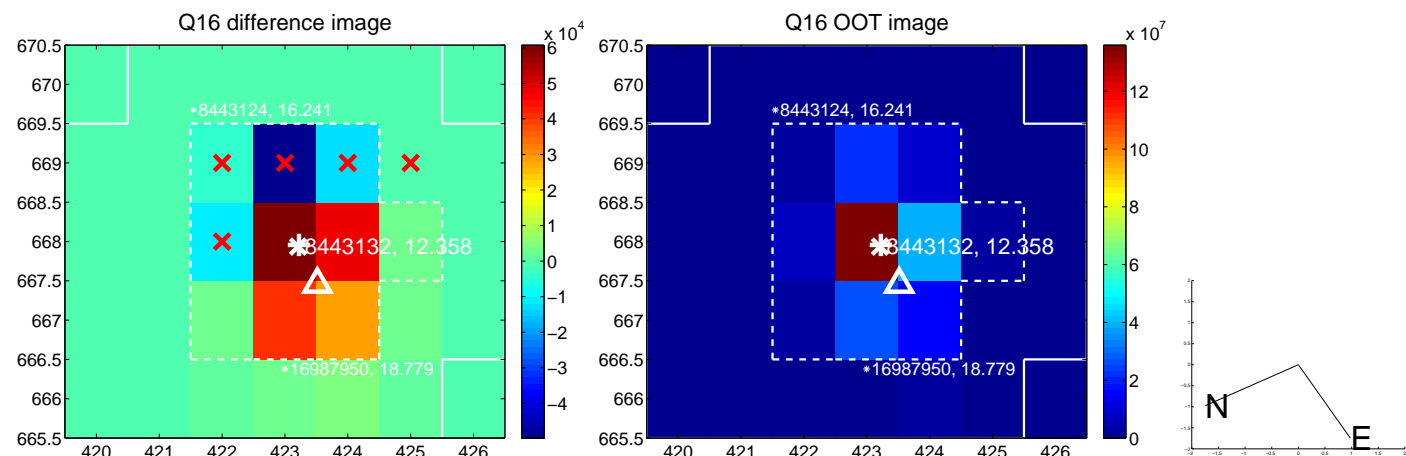
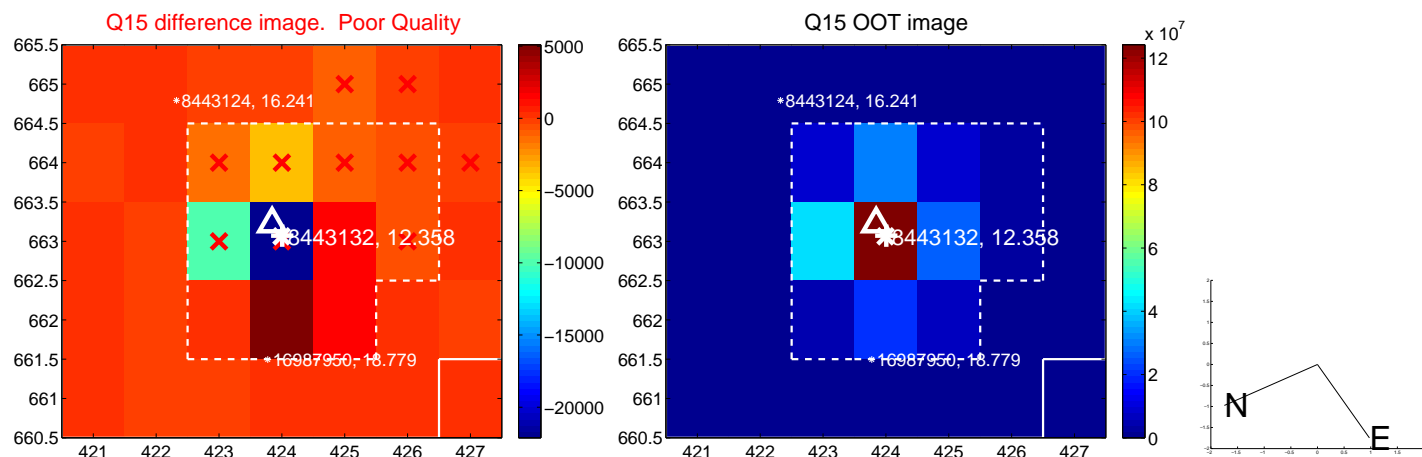
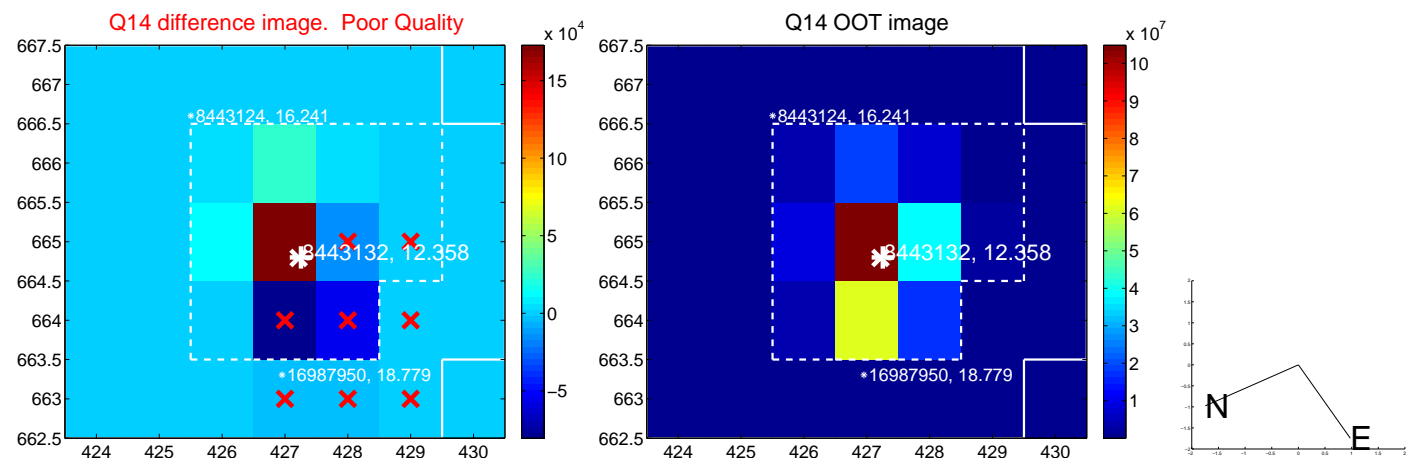
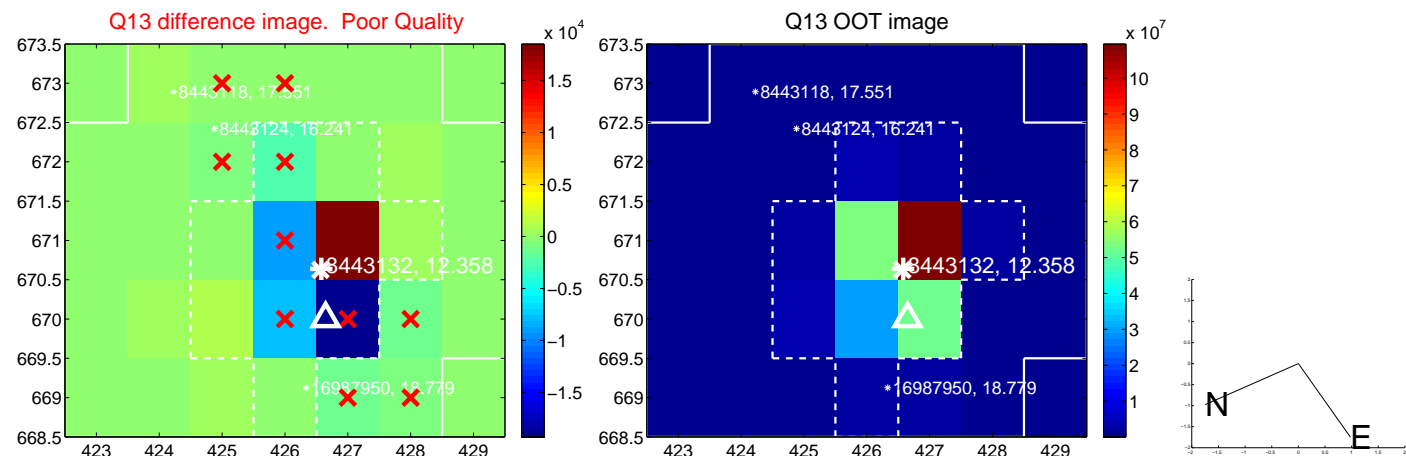
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



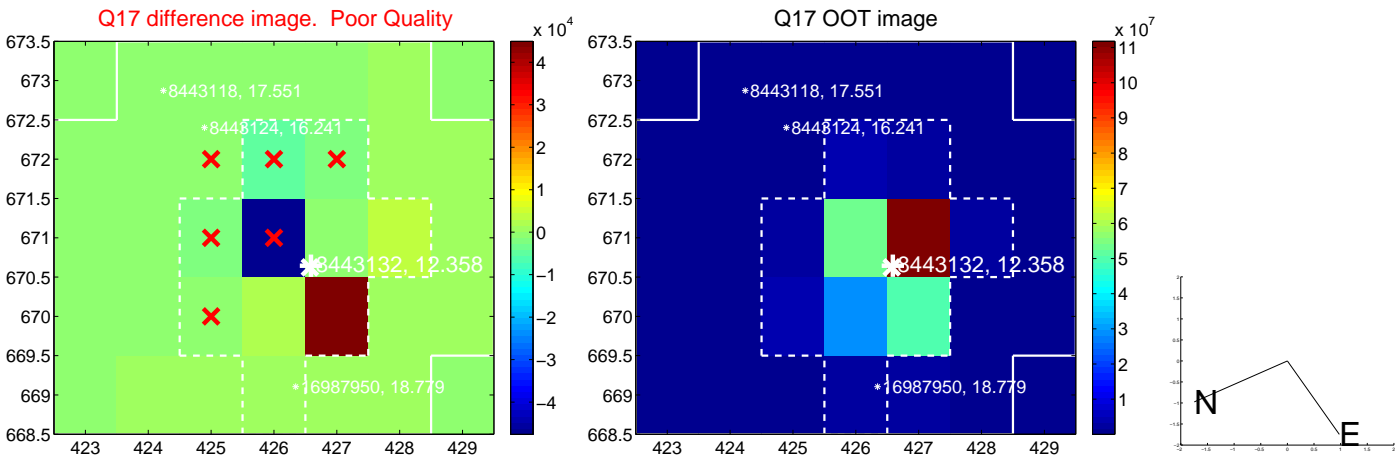
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folded centroid time series figure for this object.

UKIRT Image

Declination

