

KIC 011571409

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})
011571409-01	OBS	No	1.061514	132.152246	0.1	3.875	8.0	0.0	2.44	7319	0.11	27837.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011571409-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

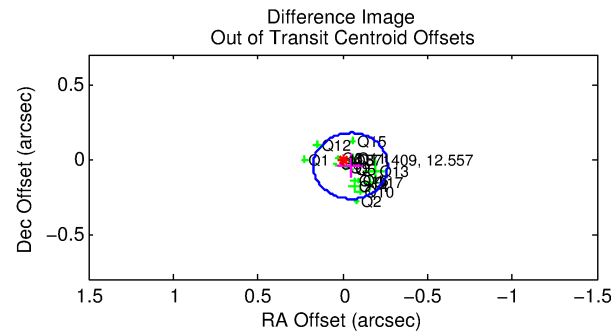
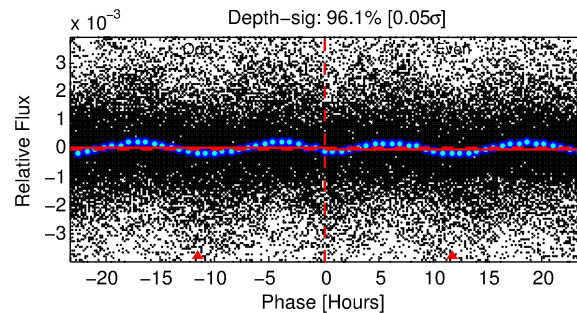
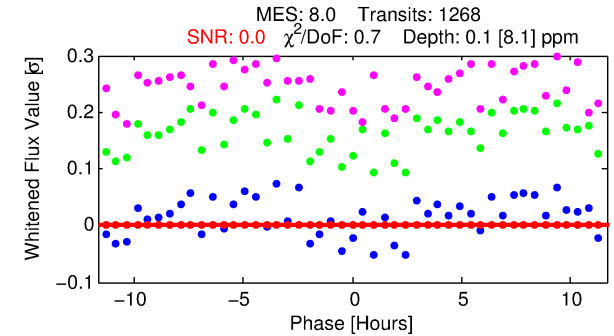
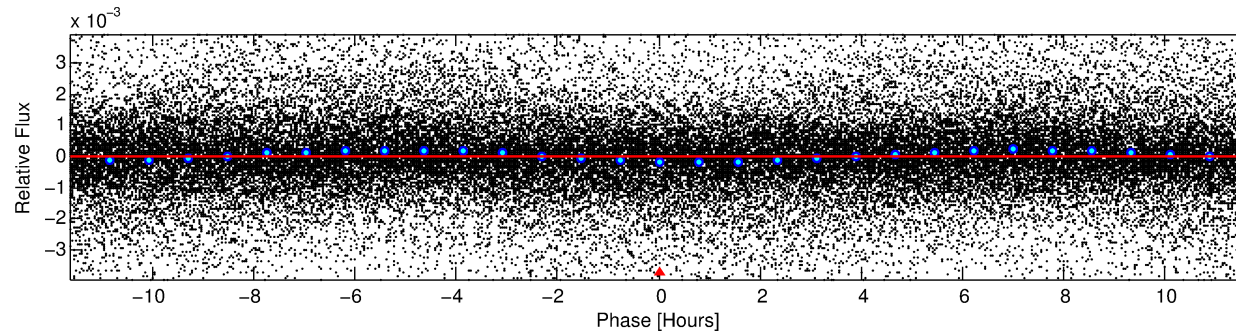
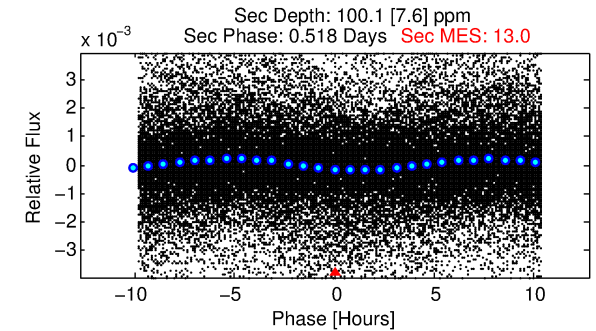
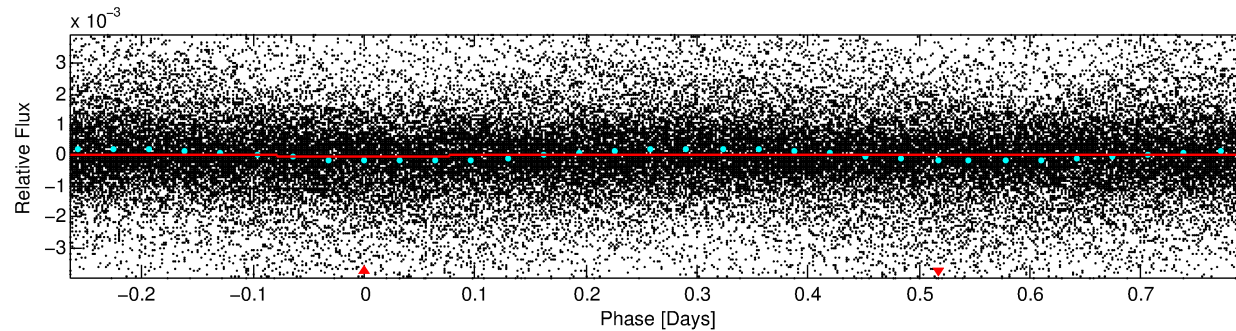
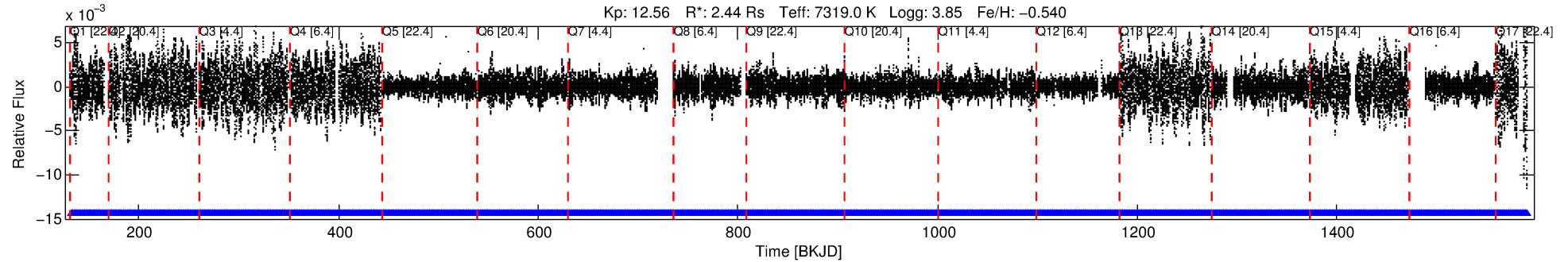
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011571409-01

No Significant Match Found

DV One-Page Summary

KIC: 11571409 Candidate: 1 of 1 Period: 1.062 d



DV Fit Results:

Period = 1.06151 [0.00484] d
Epoch = 132.1522 [0.5860] BKJD
Rp/R* = 0.0004 [0.0146]
a/R* = 1.06 [6.50]
b = 0.99 [1.82]
Seff = 27837.55 [20187.78]
Teq = 3294 [597] K
Rp = 0.11 [3.89] Re
a = 0.0235 [0.0103] AU
Ag = 2402.45 [166362.18] [0.01σ]
Teffp = 35652 [617209] K [0.05σ]

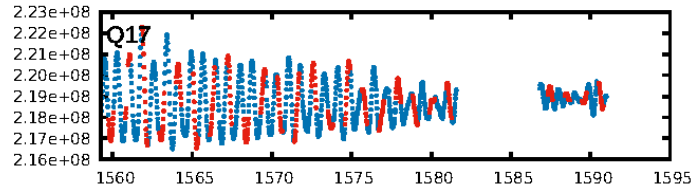
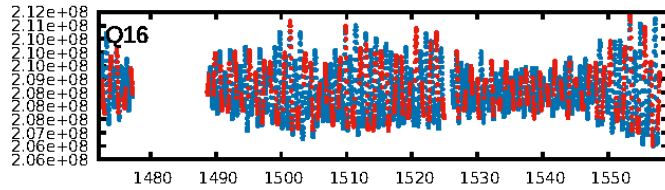
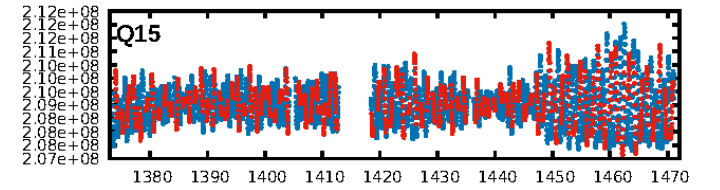
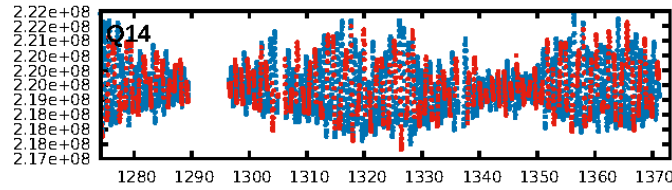
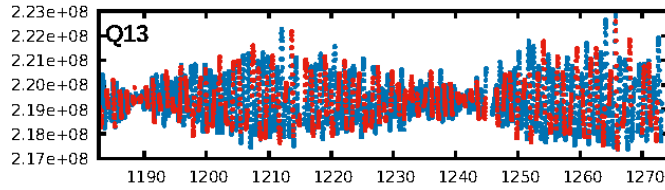
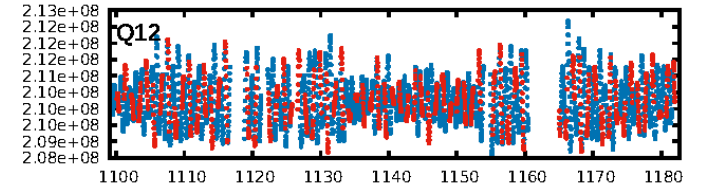
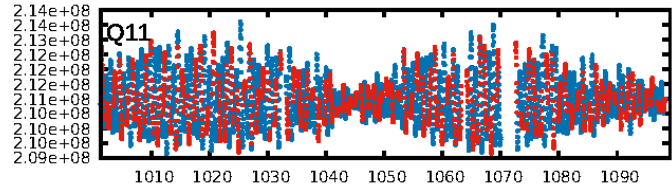
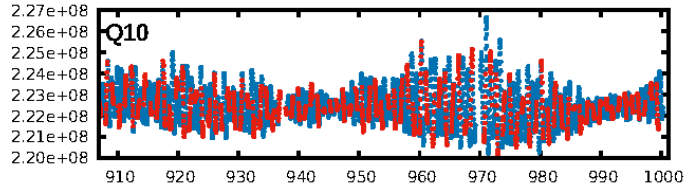
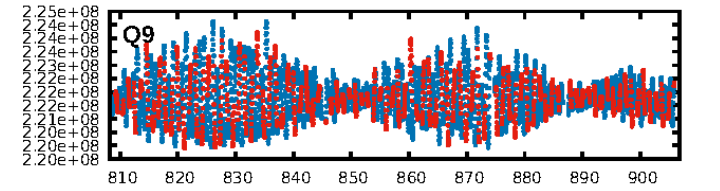
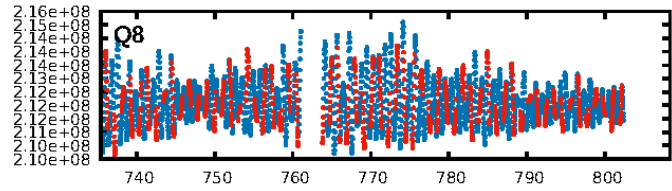
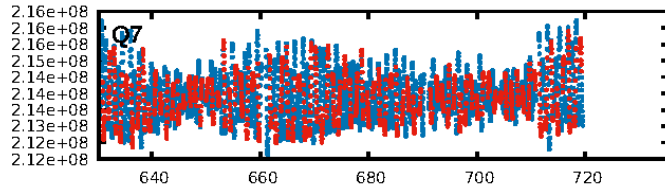
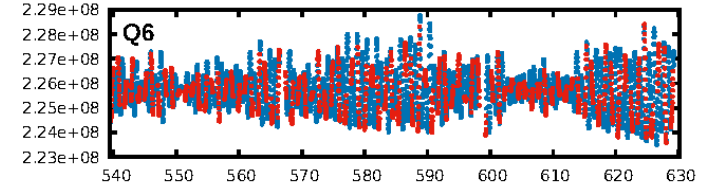
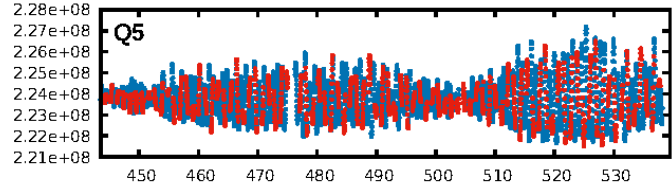
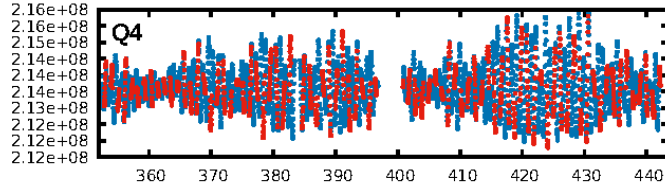
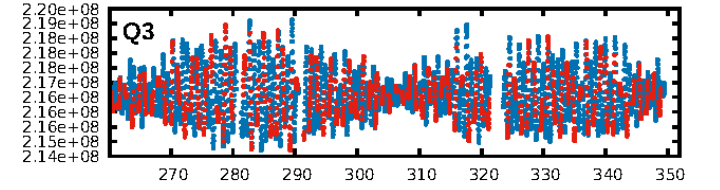
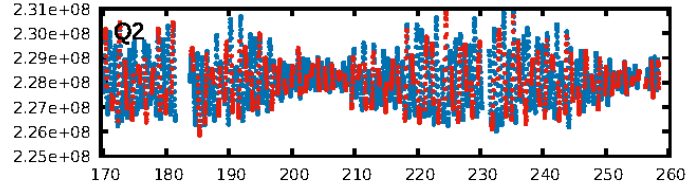
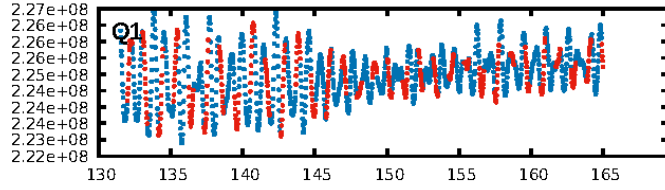
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.05e-16
RollingBand-fgt: 1.00 [1211/1211]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.064 arcsec [0.87σ]
KicOffset-rm: 0.065 arcsec [0.90σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.71 [12/17]
DiffImageOverlap-fno: 1.00 [17/17]

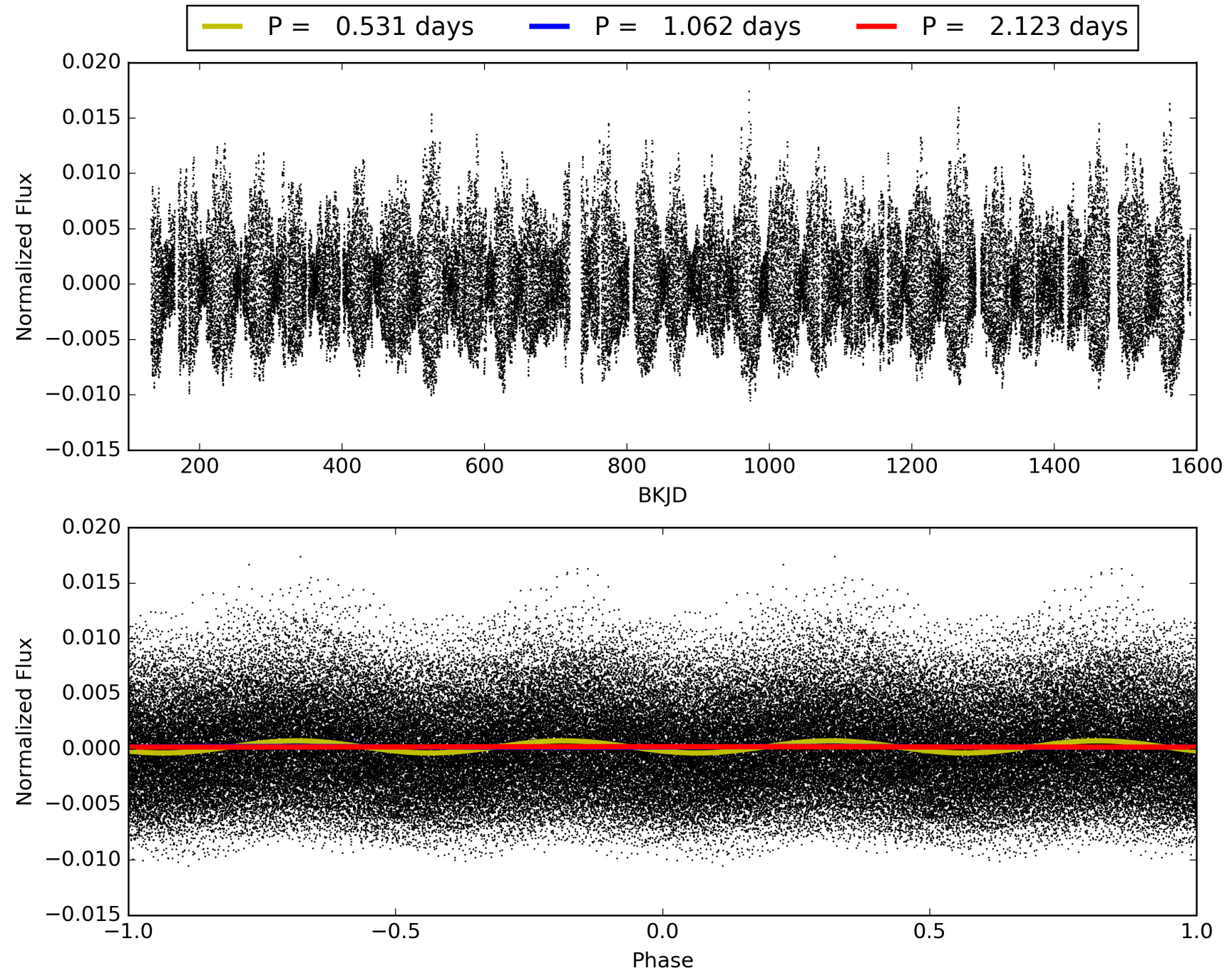
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:45:03 Z

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

TCE 011571409-01, PDC Light Curves

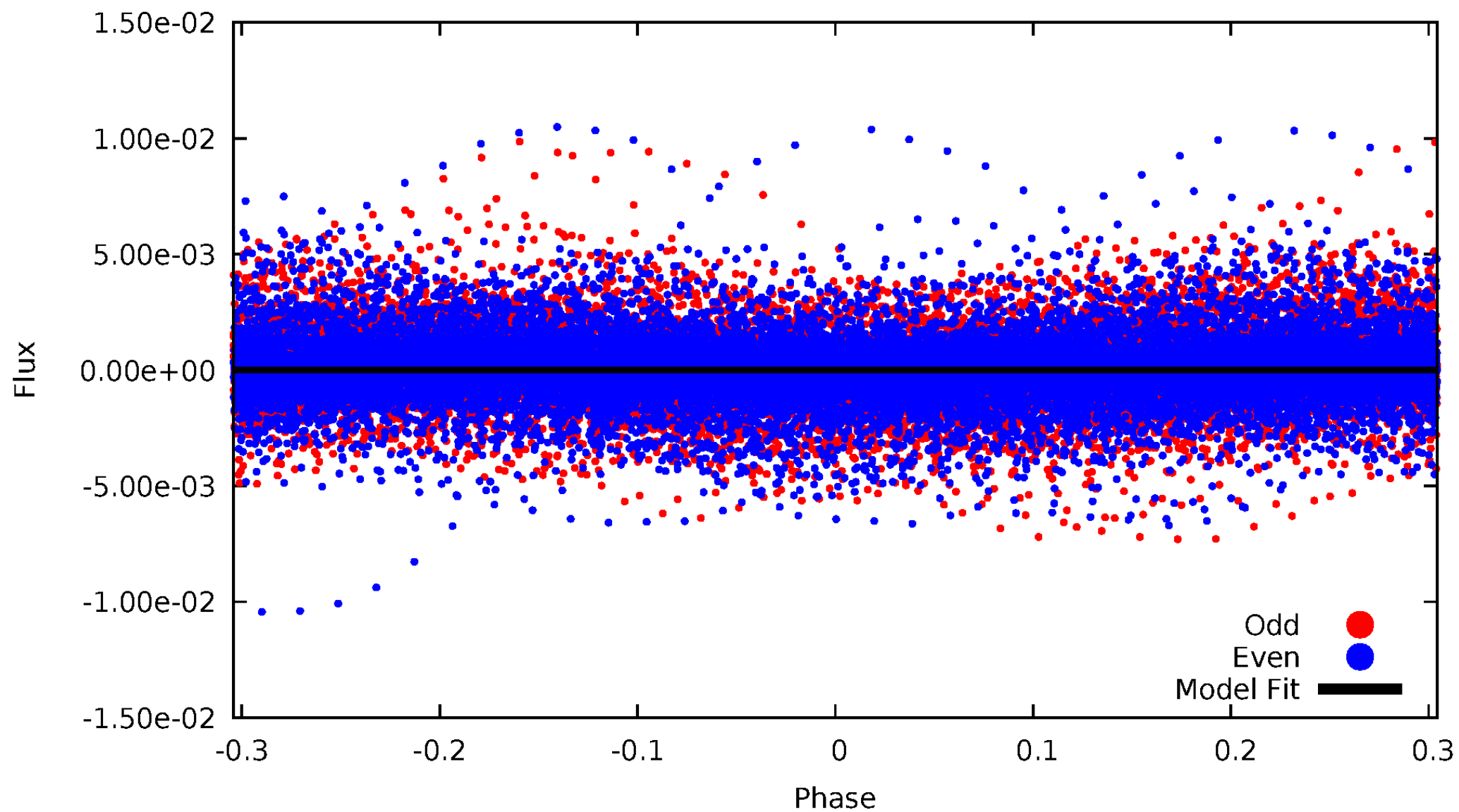


TCE 011571409-01



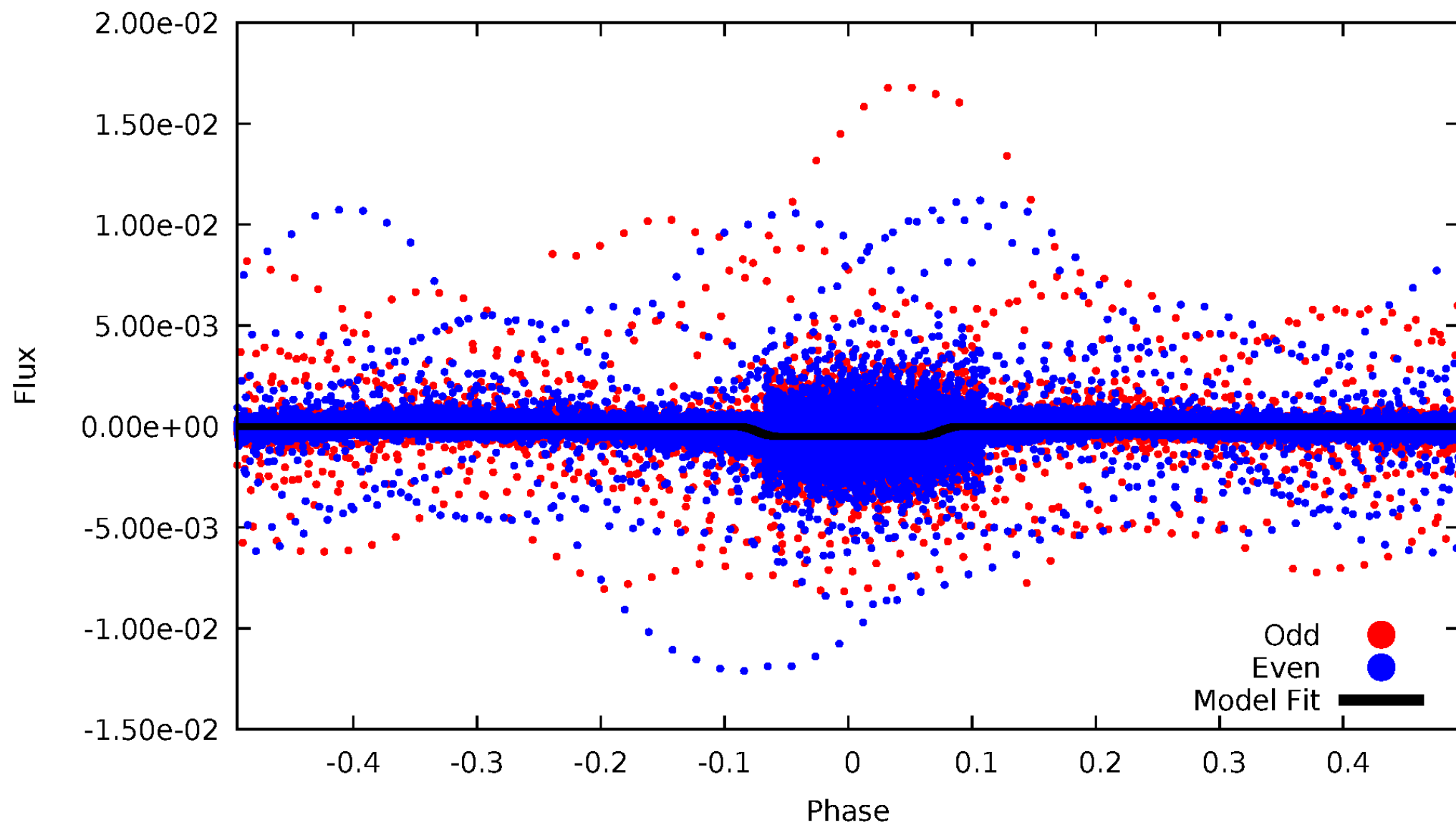
DV Odd/Even

TCE 011571409-01



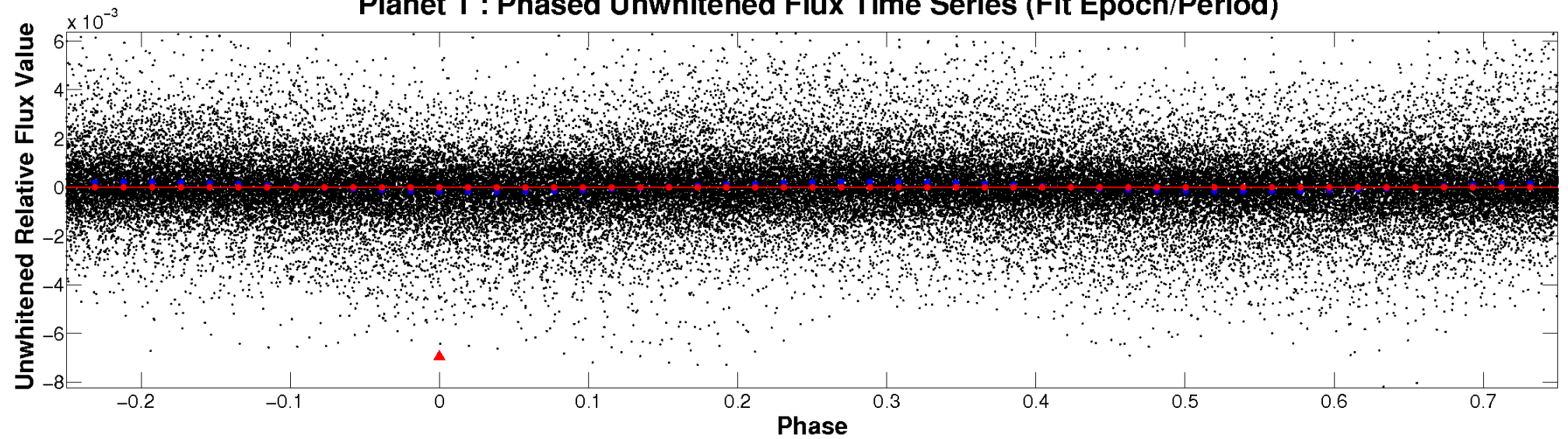
ALT Odd/Even

TCE 011571409-01

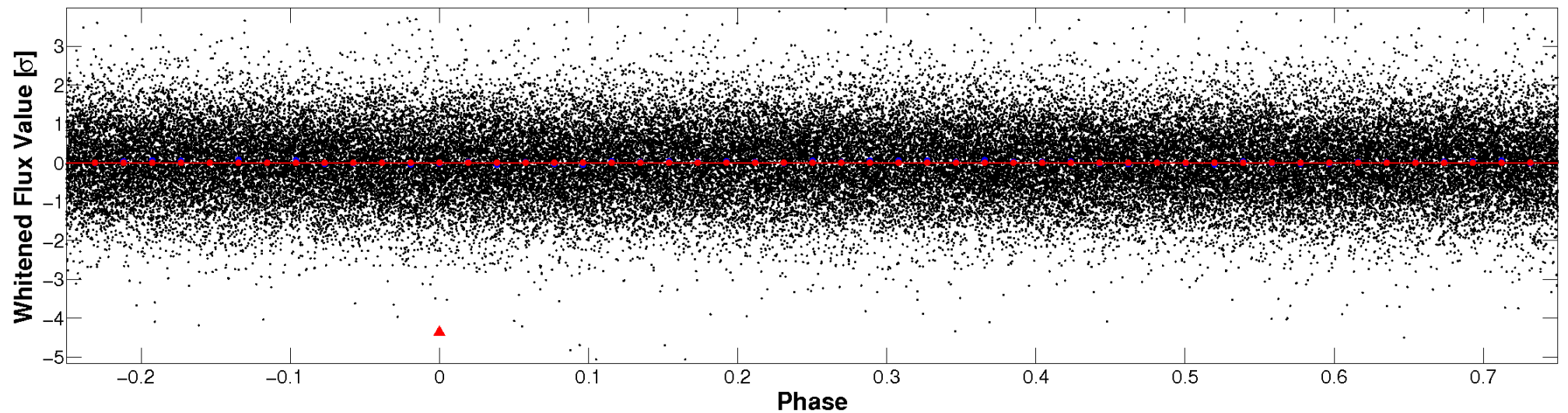


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

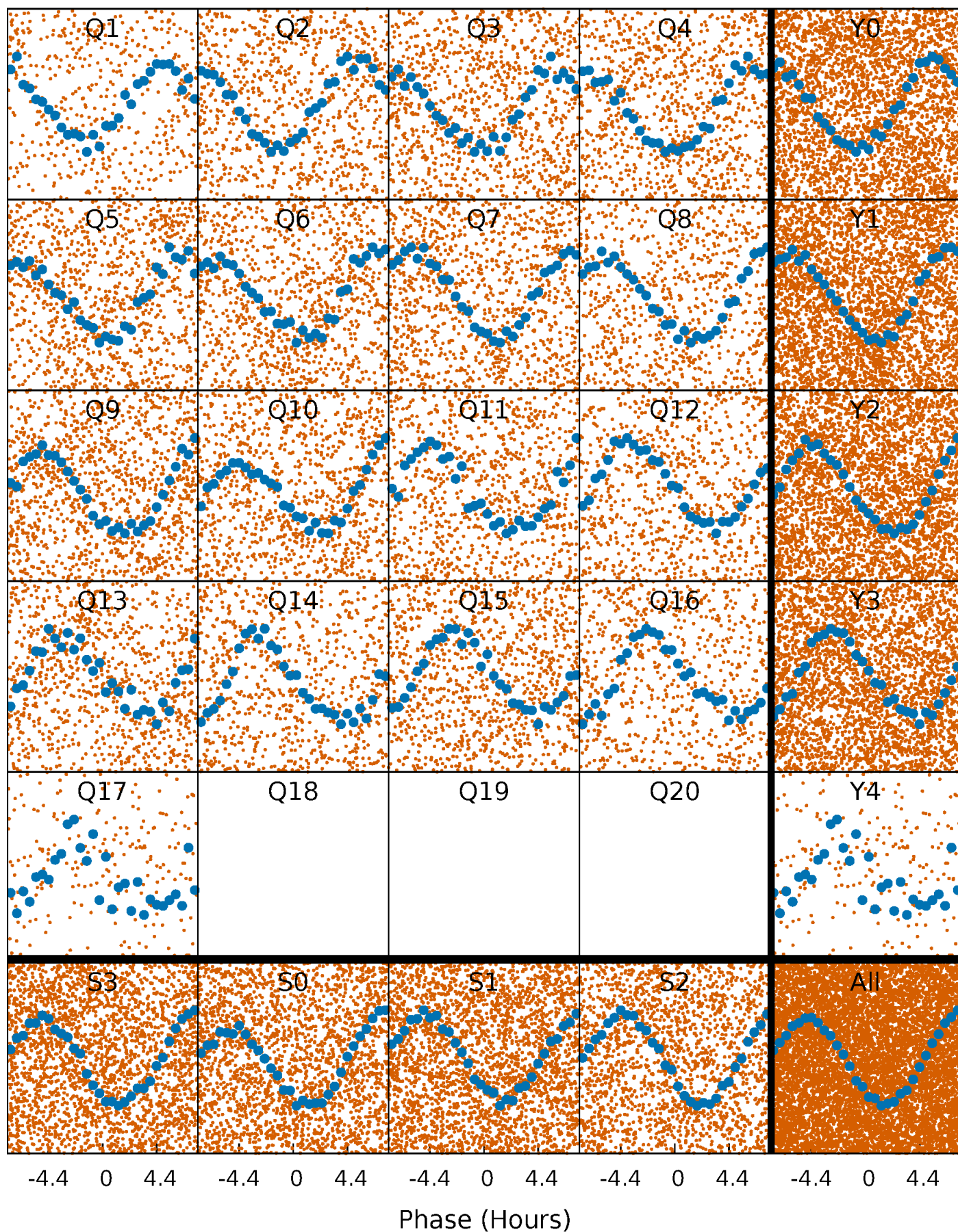


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



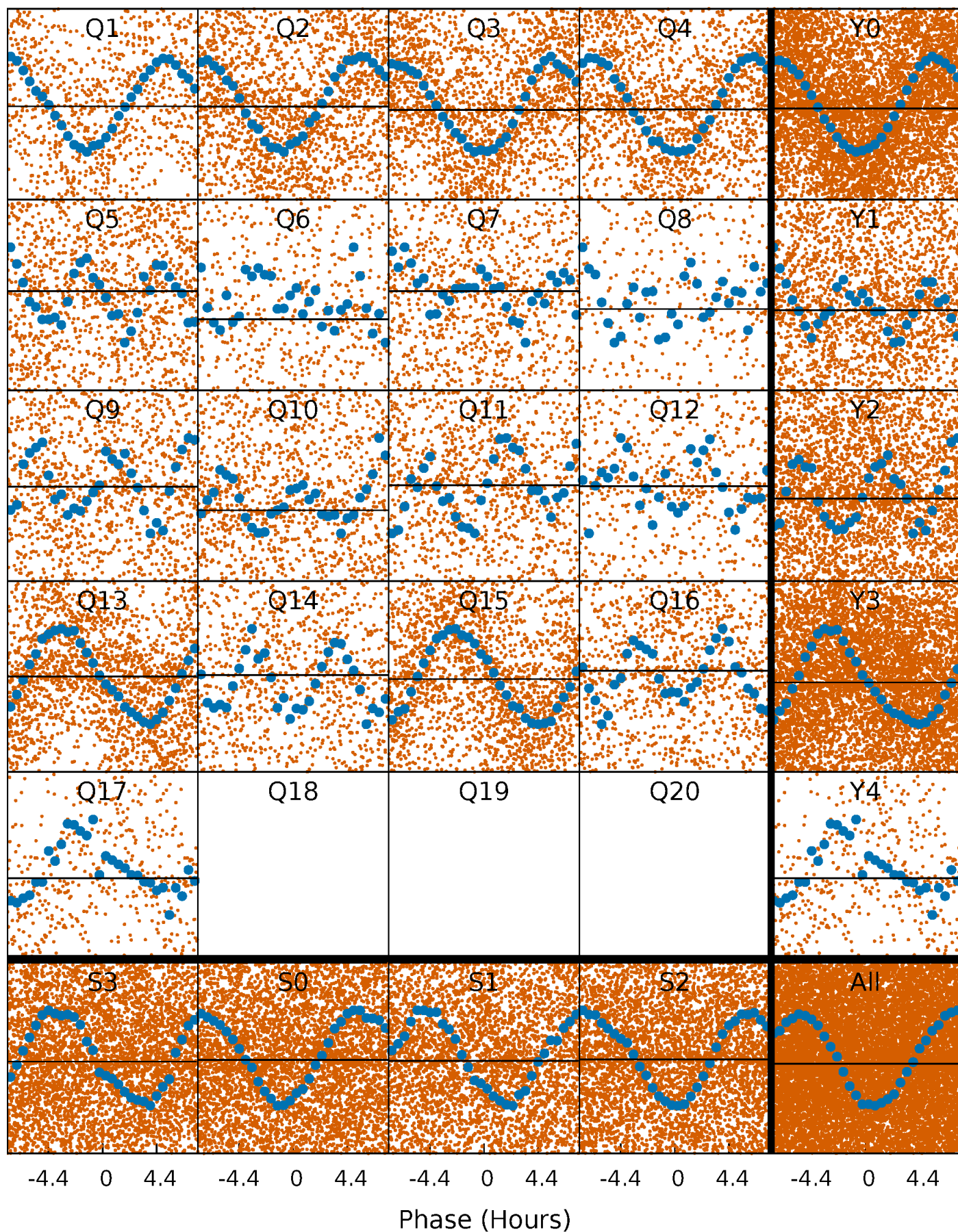
PDC Quarter-Phased Transit Curves

TCE 011571409-01 P= 1.061514 Days $T_0=132.152246$ (BKJD)



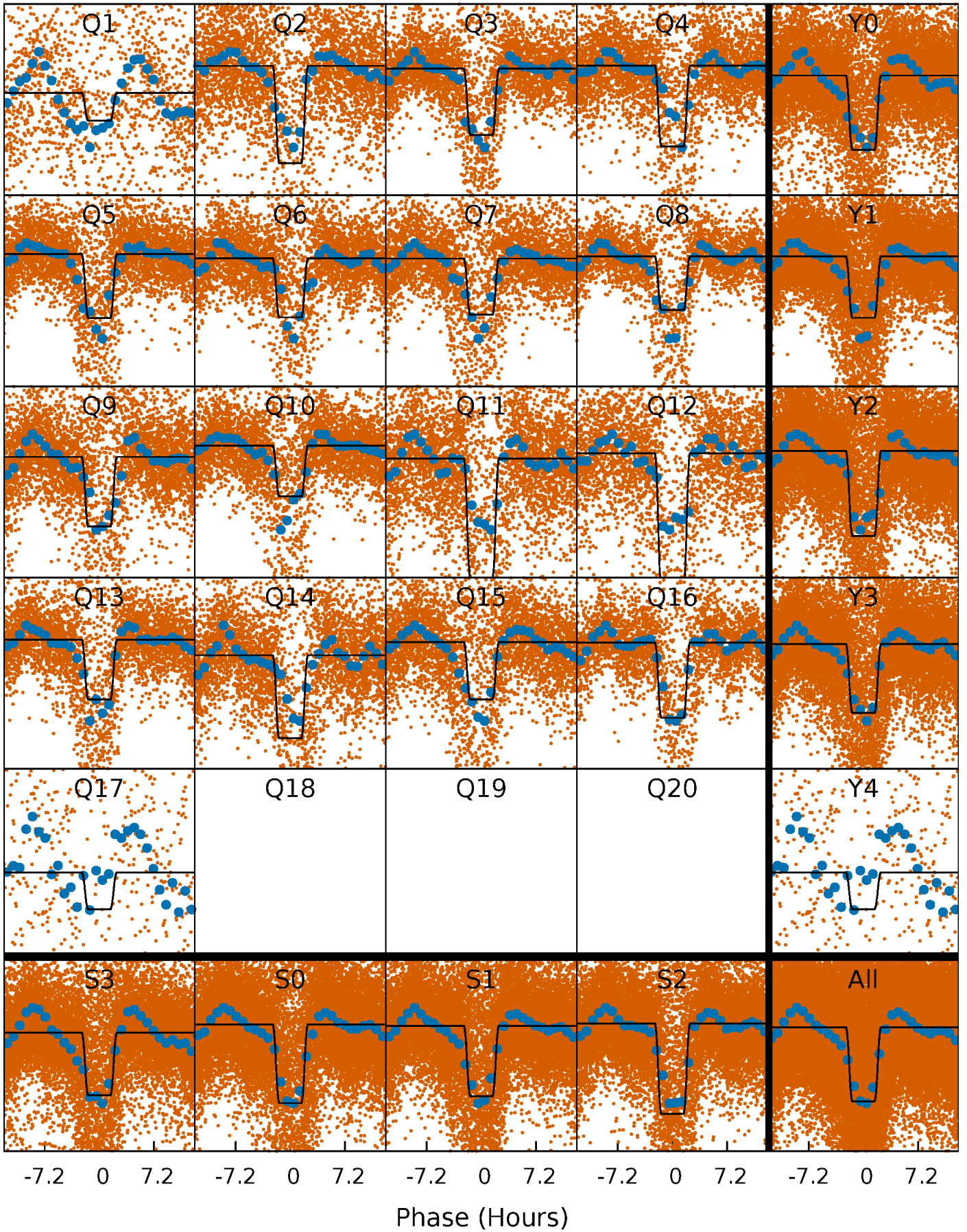
DV Quarter-Phased Transit Curves

TCE 011571409-01 P= 1.061514 Days $T_0=132.152246$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

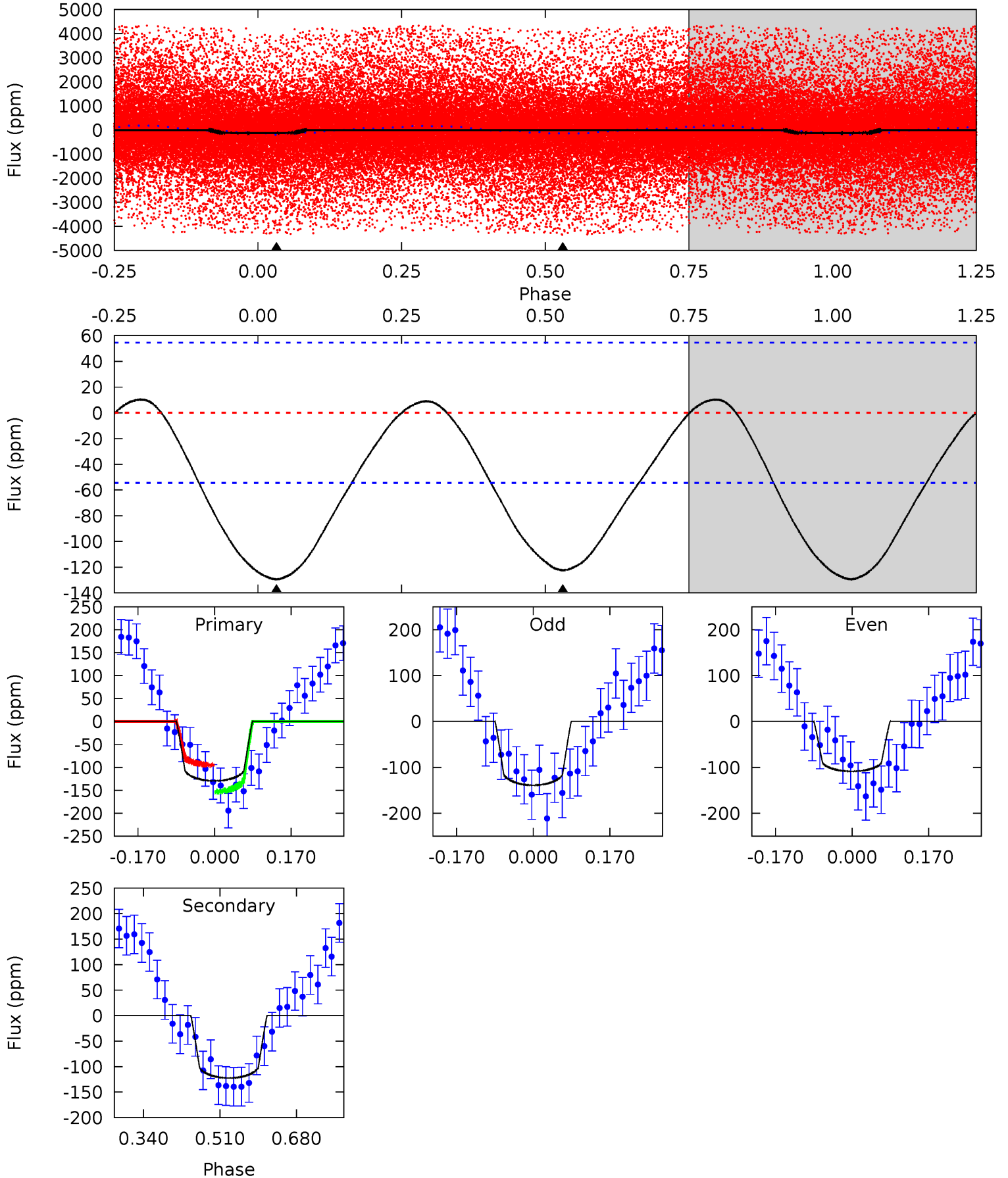
TCE 011571409-01 P= 1.061703 Days $T_0=132.164423$ (BKJD)



DV Model-Shift Uniqueness Test

011571409-01, P = 1.061514 Days, E = 131.090732 Days

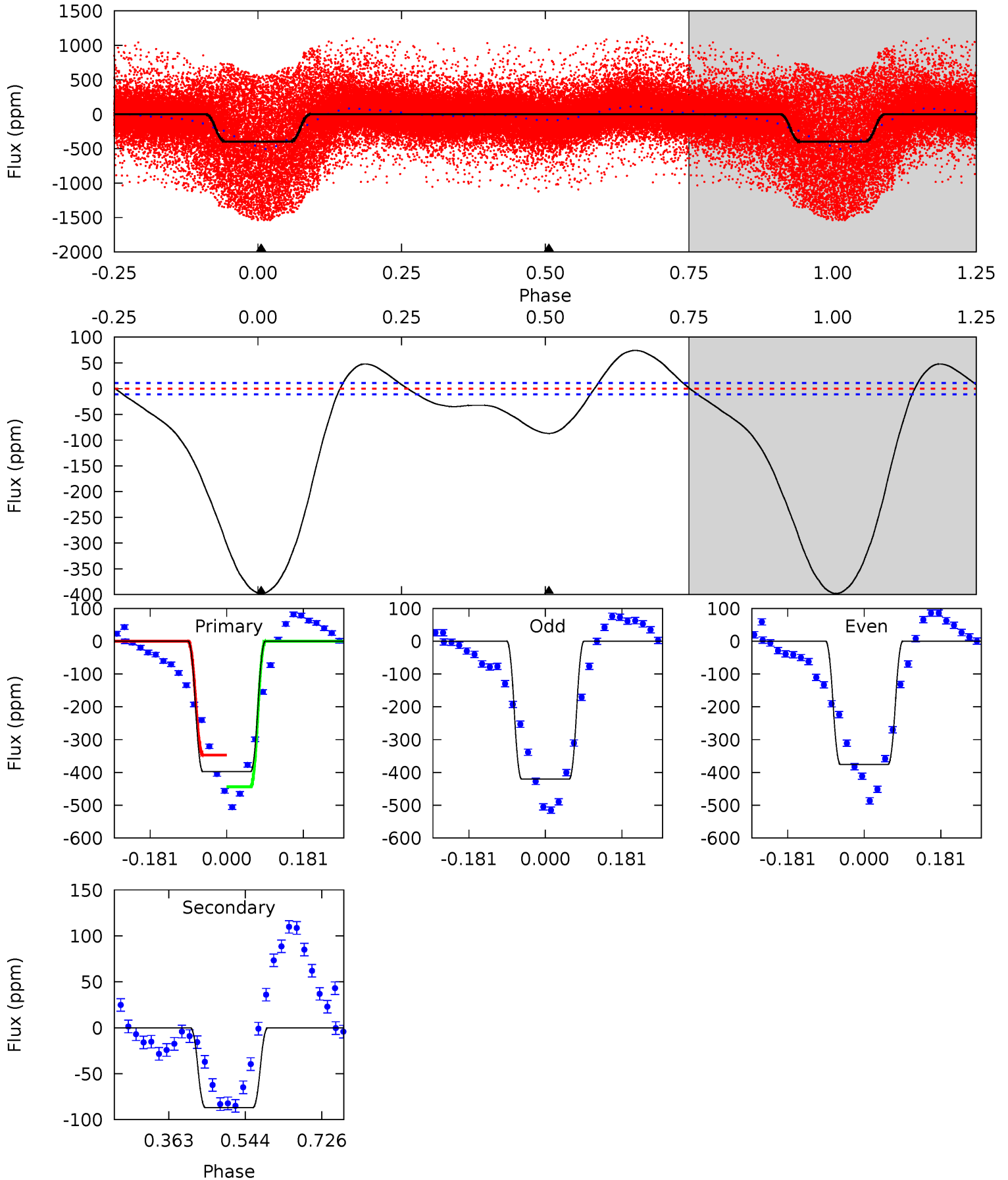
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	9.99	0	0	4.45	1.37	0.88	10.6	10.6	9.99	9.99	1.25	4.26	0.07	2.39



Alt Model-Shift Uniqueness Test

011571409-01, P = 1.061703 Days, E = 131.102720 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
161.0	35.2	0	0	4.44	1.34	12.6	161.0	161.0	35.2	35.2	8.95	1.01	0.16	19.6



Stellar Parameters For KIC 011571409

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7319^{+233}_{-311}	$3.847^{+0.416}_{-0.104}$	$-0.540^{+0.300}_{-0.300}$	$2.442^{+0.469}_{-1.094}$	$1.531^{+0.202}_{-0.404}$	$0.148^{+0.593}_{-0.050}$
	+3%/-4%	+11%/-3%	+56%/-56%	+19%/-45%	+13%/-26%	+400%/-34%
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 011571409-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-122 ± 12	$2.50^{+2.93}_{-1.71}$	4430^{+367}_{-496}	7310^{+11769}_{-2427}	$5.808^{+58.559}_{-4.545}$
Alt.	-87 ± 2	$5.50^{+3.91}_{-2.99}$	4478^{+333}_{-524}	4321^{+2546}_{-6741}	$0.866^{+3.301}_{-0.576}$

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

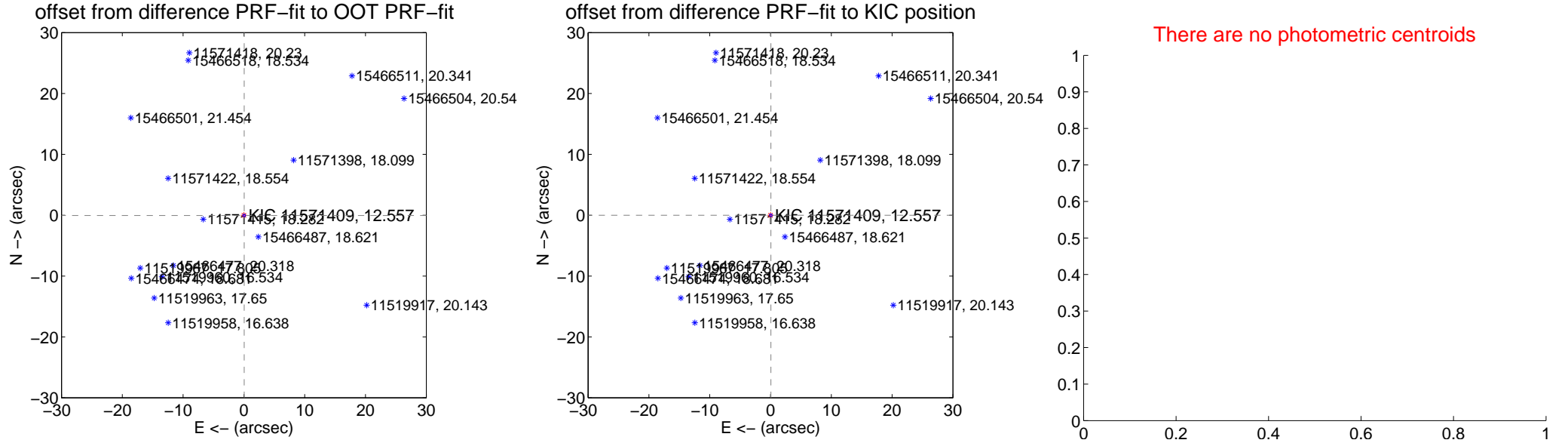
DV Centroid Data

Supplemental centroid analysis for 011571409-01. Kepler magnitude: 12.56. Transit SNR 0.02

There are 12 quarters with good PRF difference image offsets

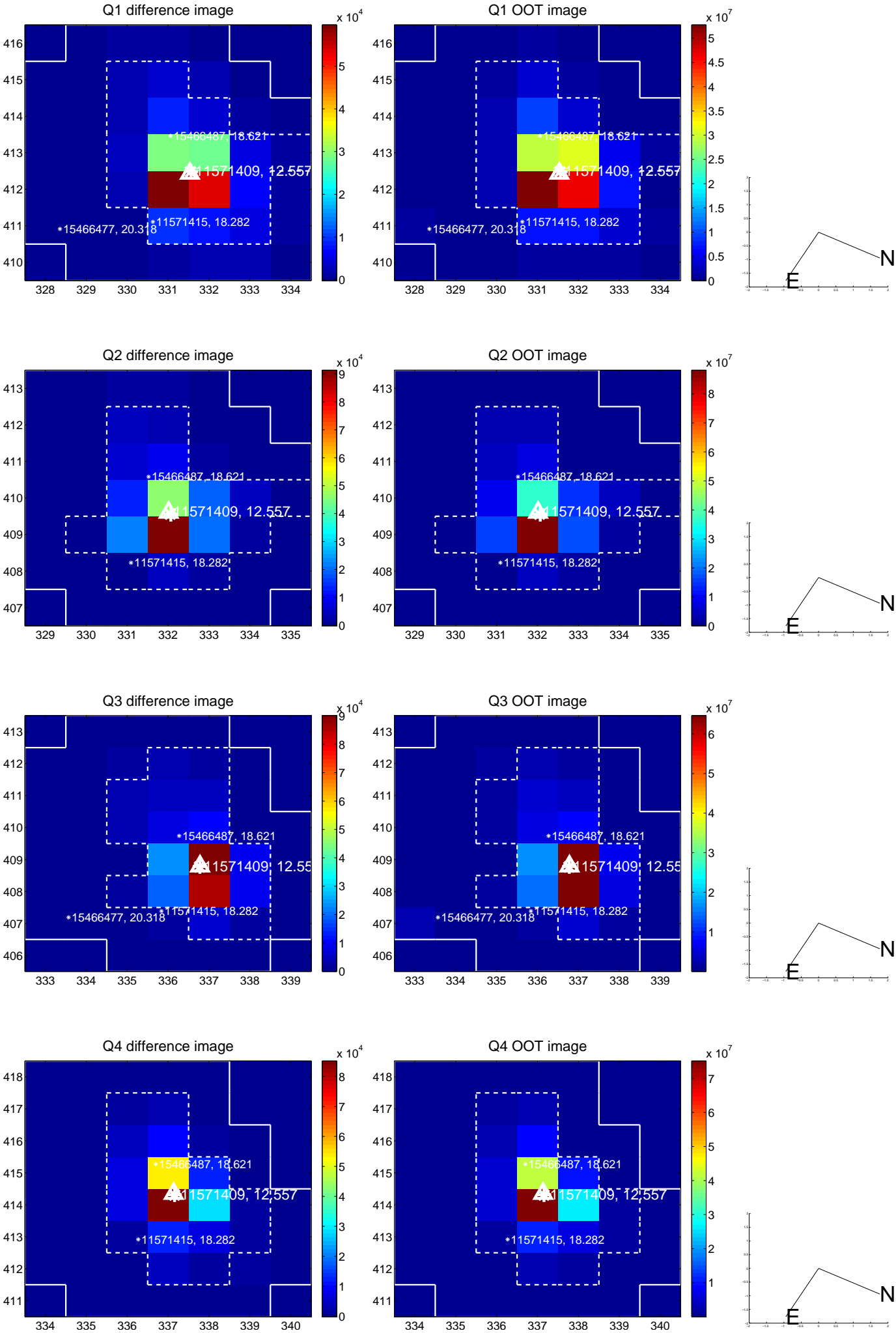
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.064 ± 0.073	0.87	-0.046 ± 0.071	-0.045 ± 0.072
PRF-fit source offset from KIC position	0.065 ± 0.072	0.90	-0.064 ± 0.072	-0.011 ± 0.071
photometric centroid source offset	—	—	—	—

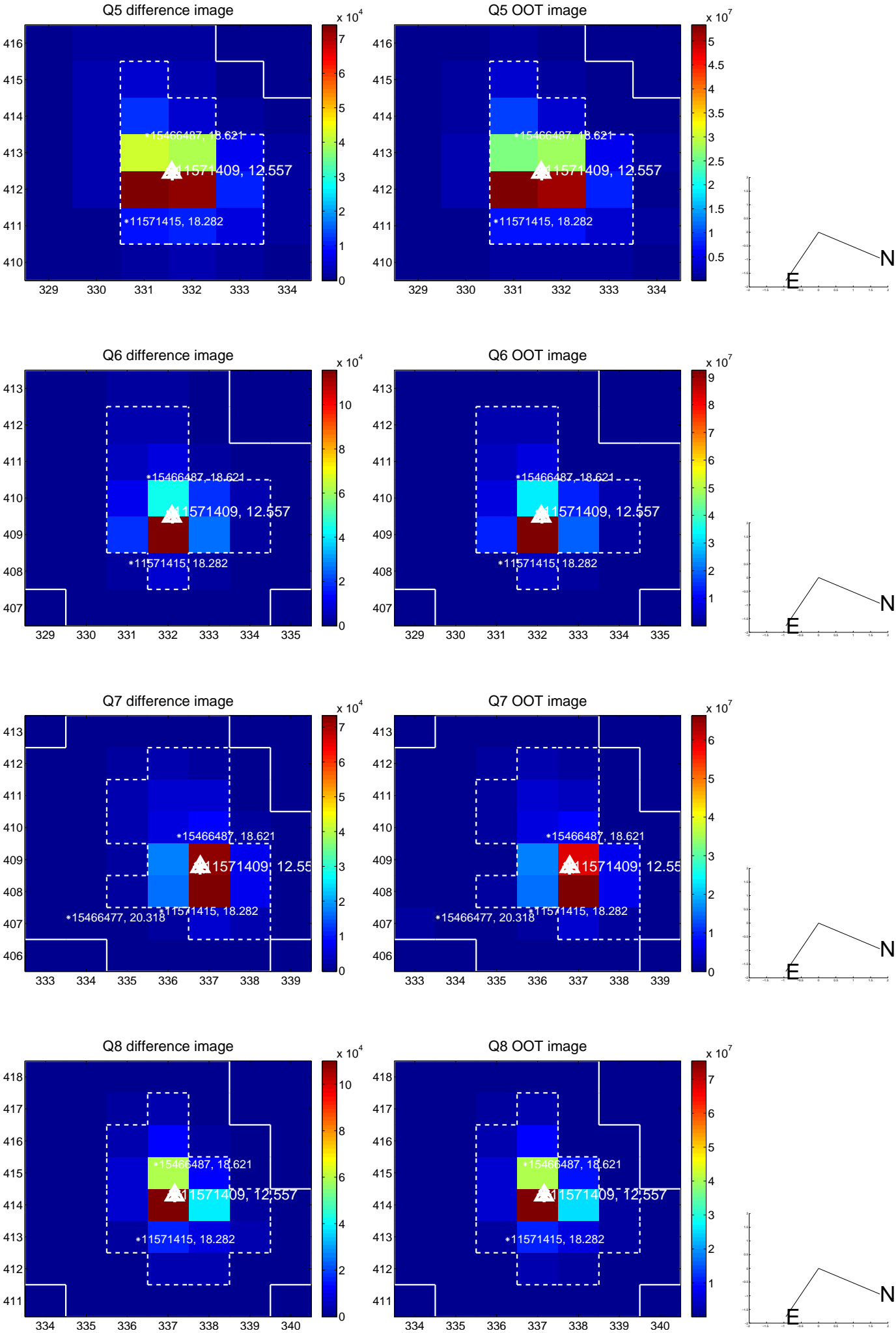


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

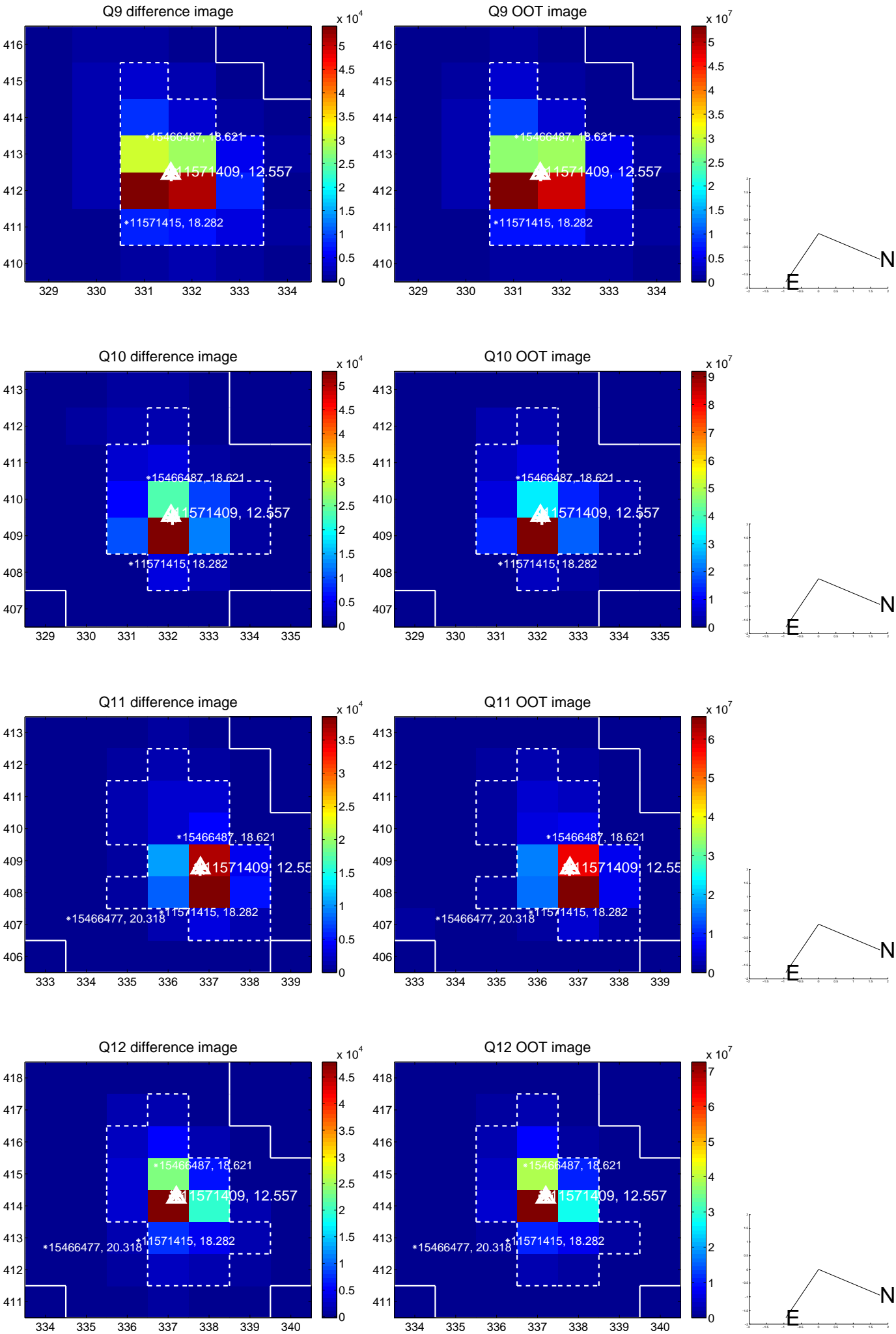
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



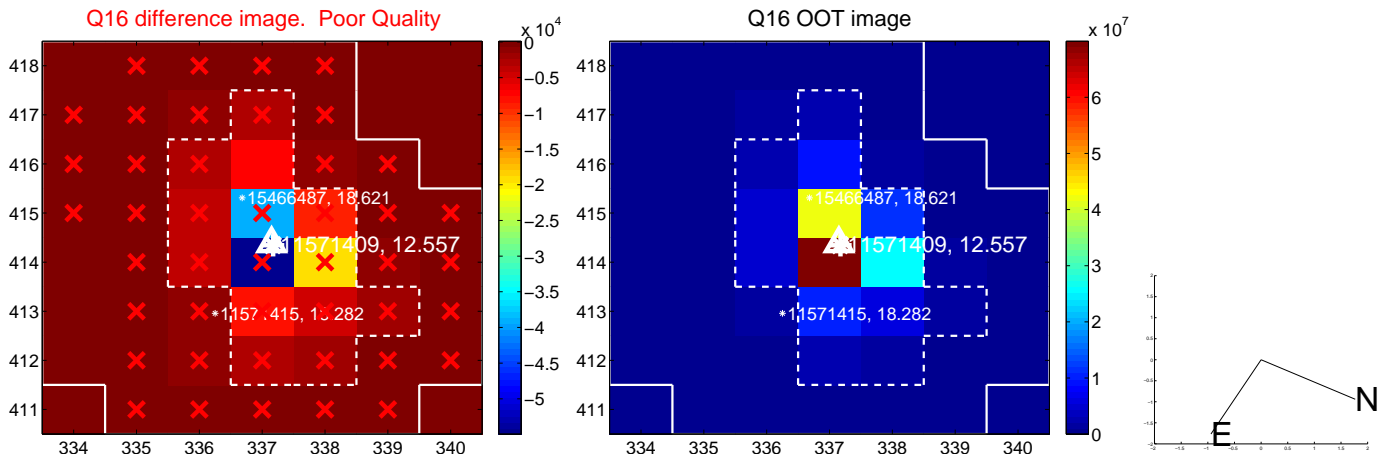
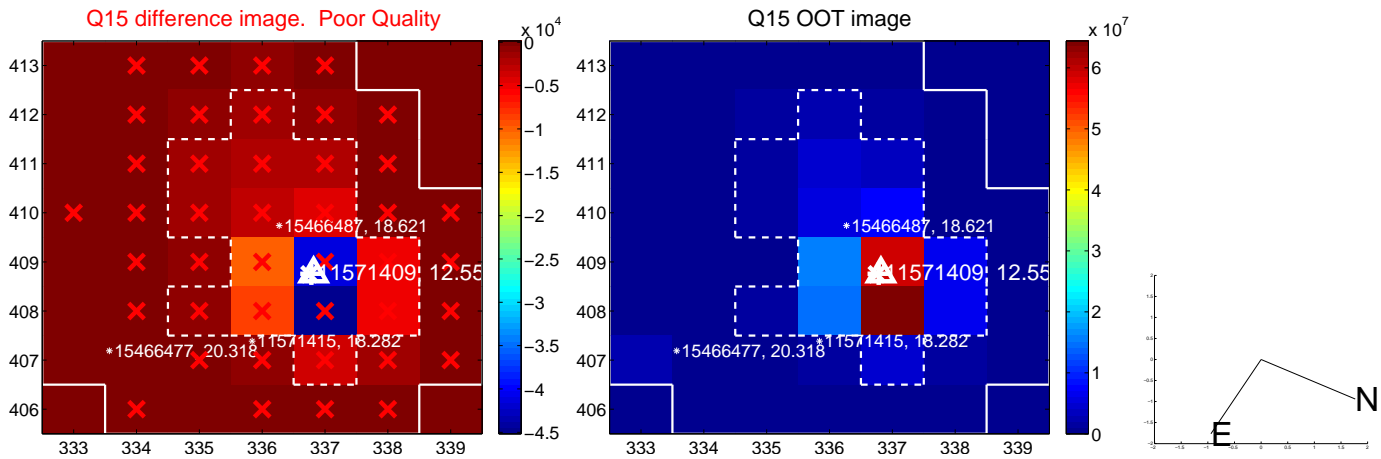
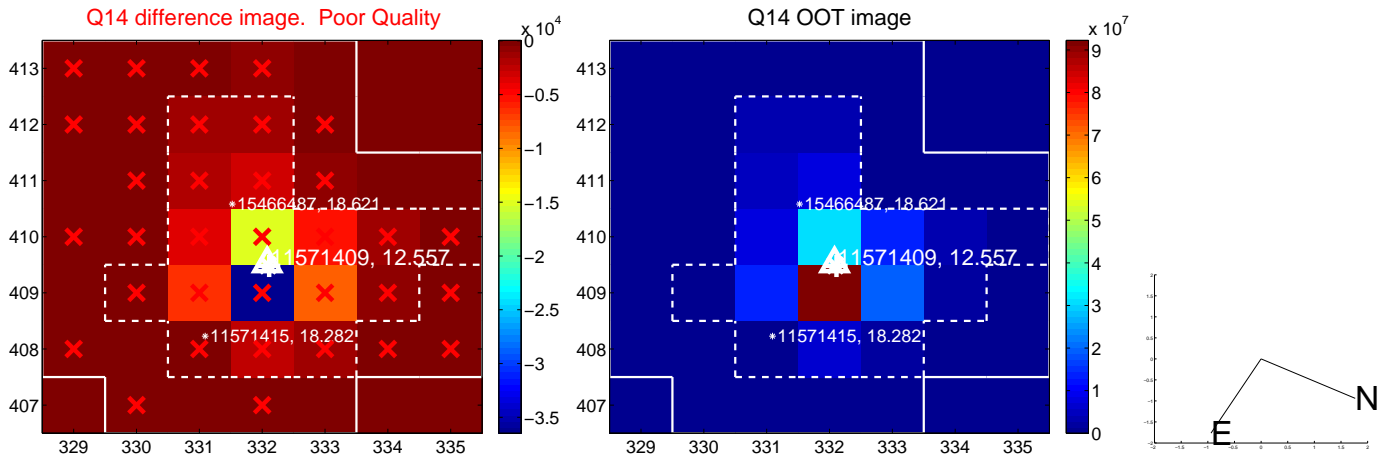
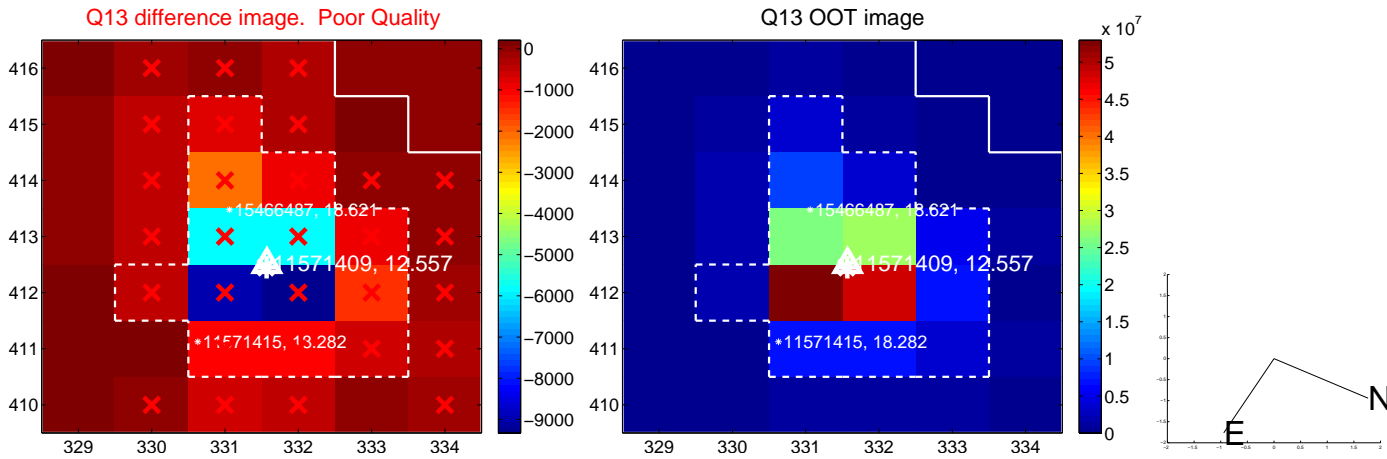
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



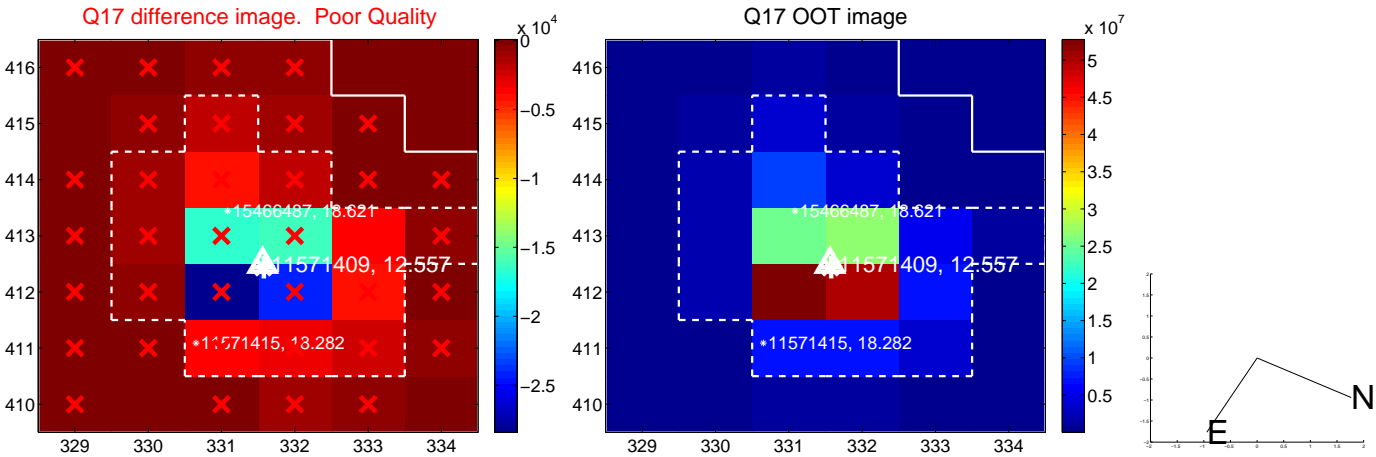
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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

