

KIC 006451160

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})
006451160-01	OBS	No	0.527216	131.795434	2.6	4.541	10.1	0.7	1.98	7279	0.33	47047.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006451160-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

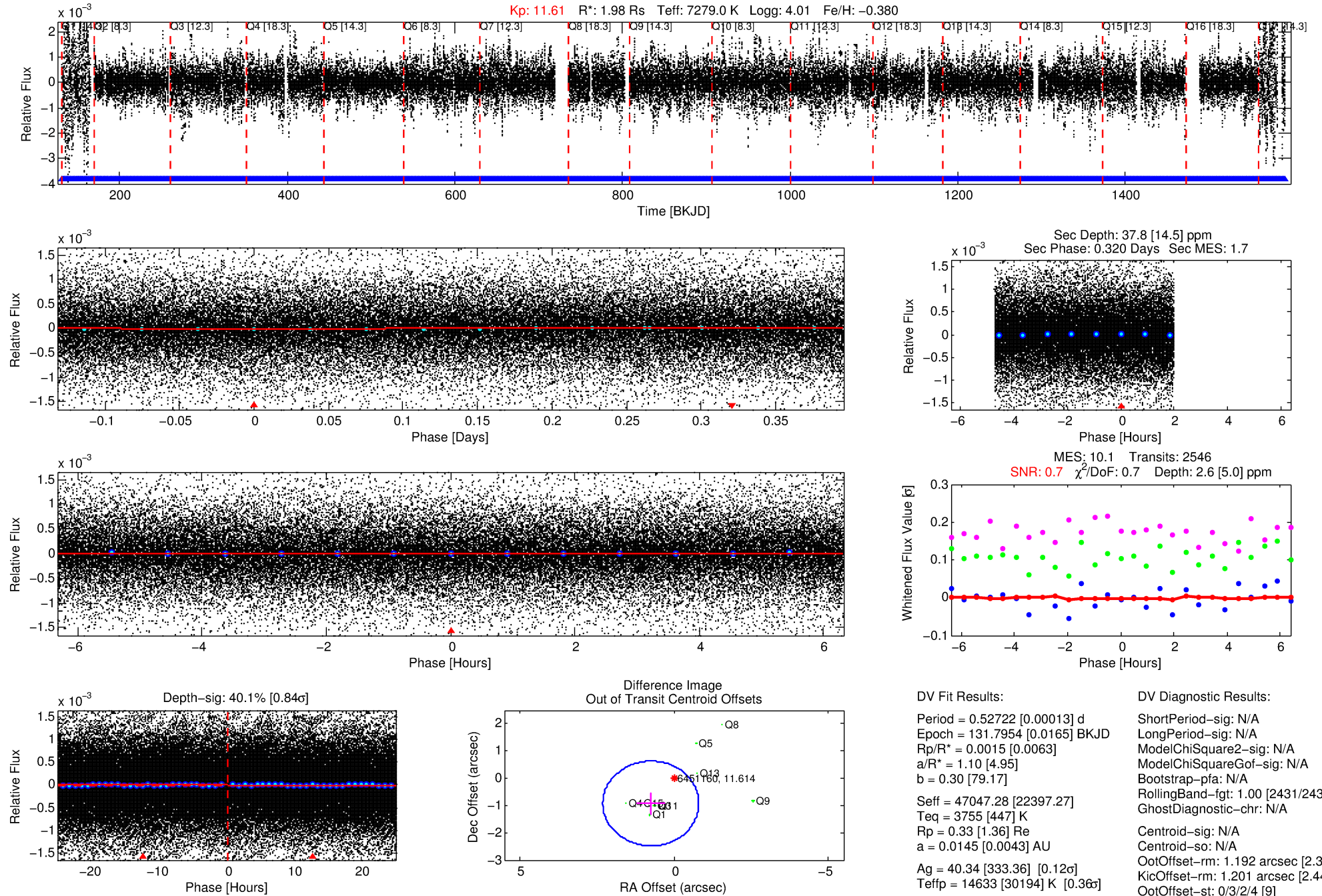
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006451160-01

No Significant Match Found

DV One-Page Summary

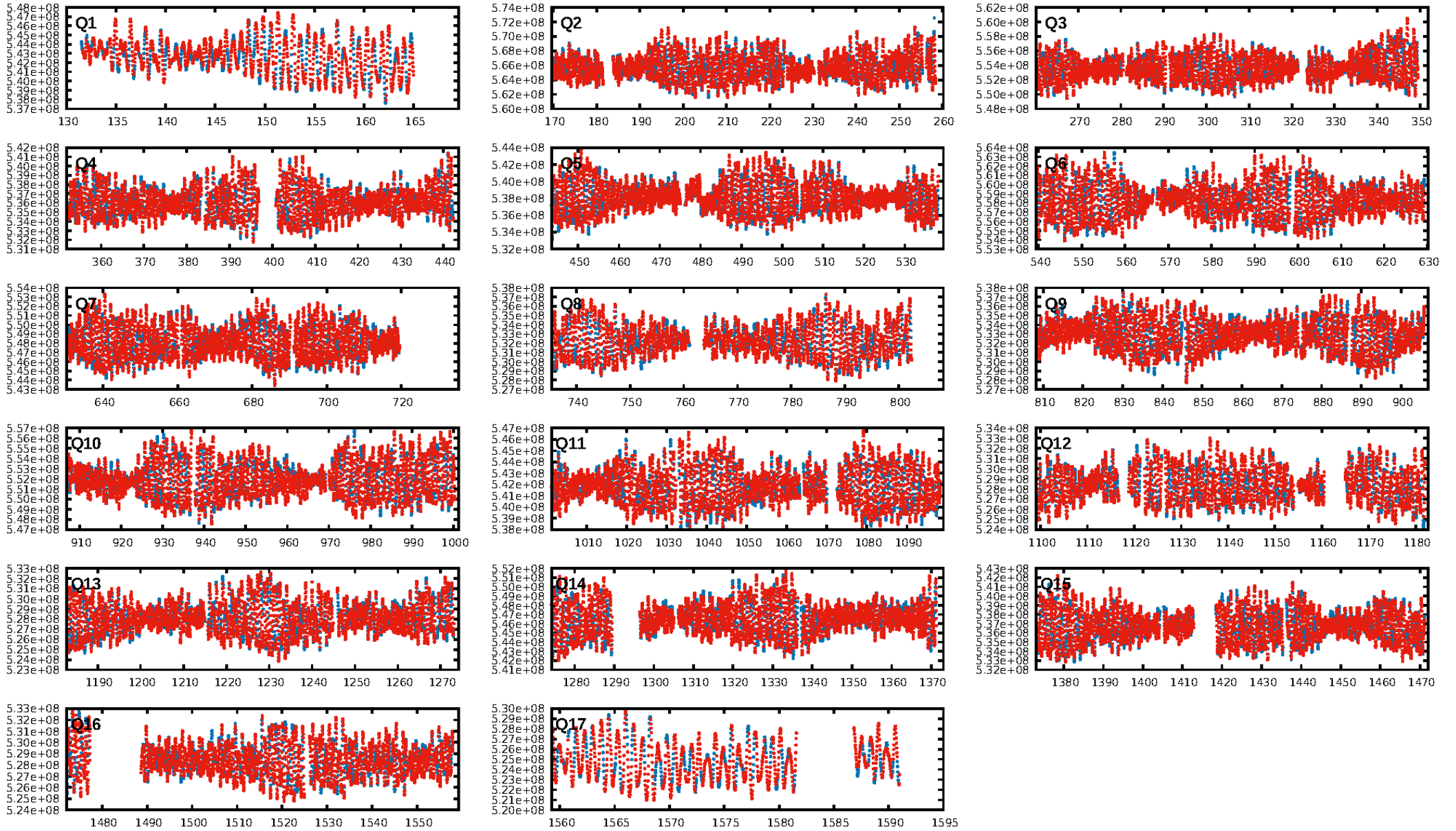
KIC: 6451160 Candidate: 1 of 1 Period: 0.527 d



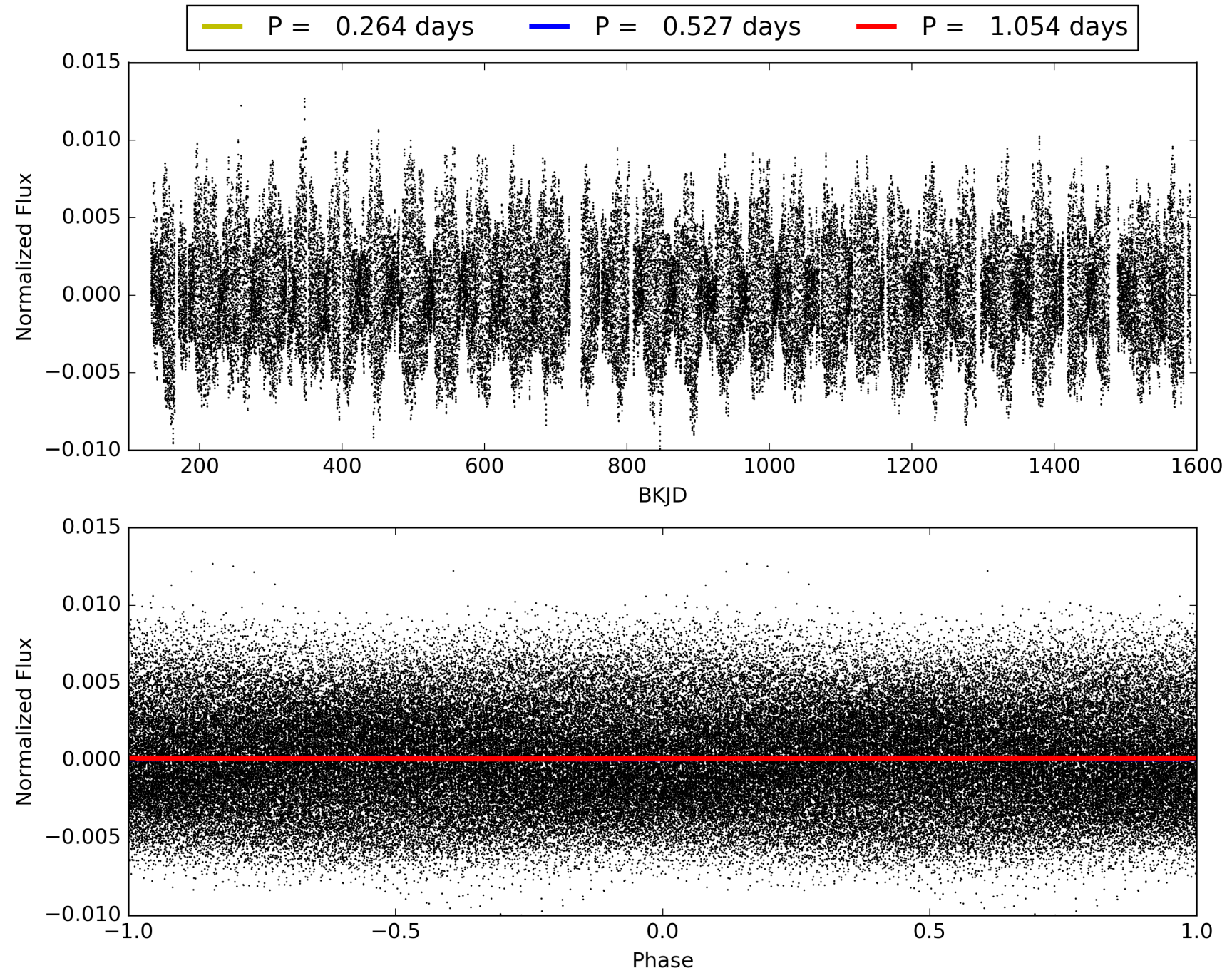
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 23:07:56 Z

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

TCE 006451160-01, PDC Light Curves

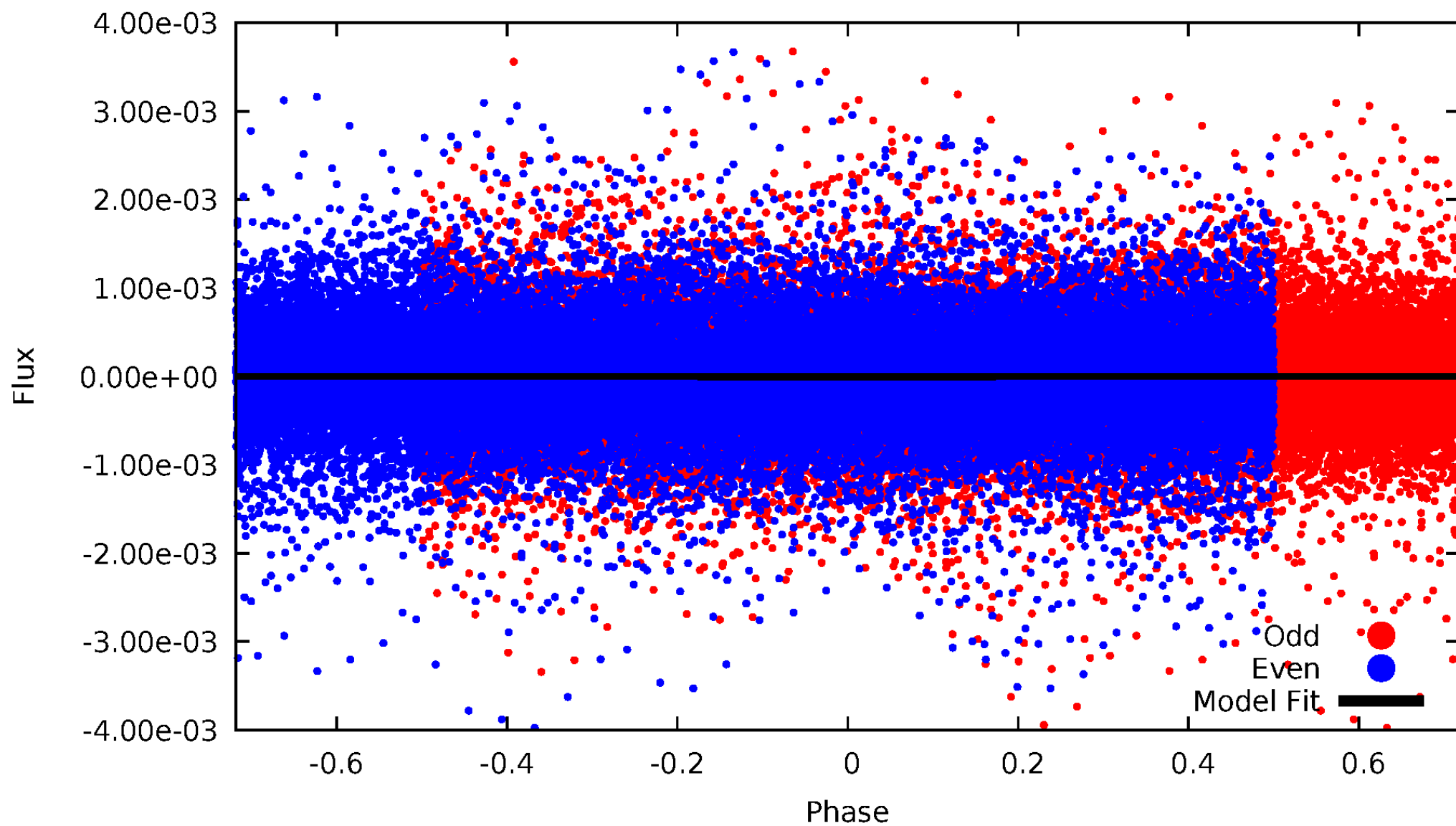


TCE 006451160-01



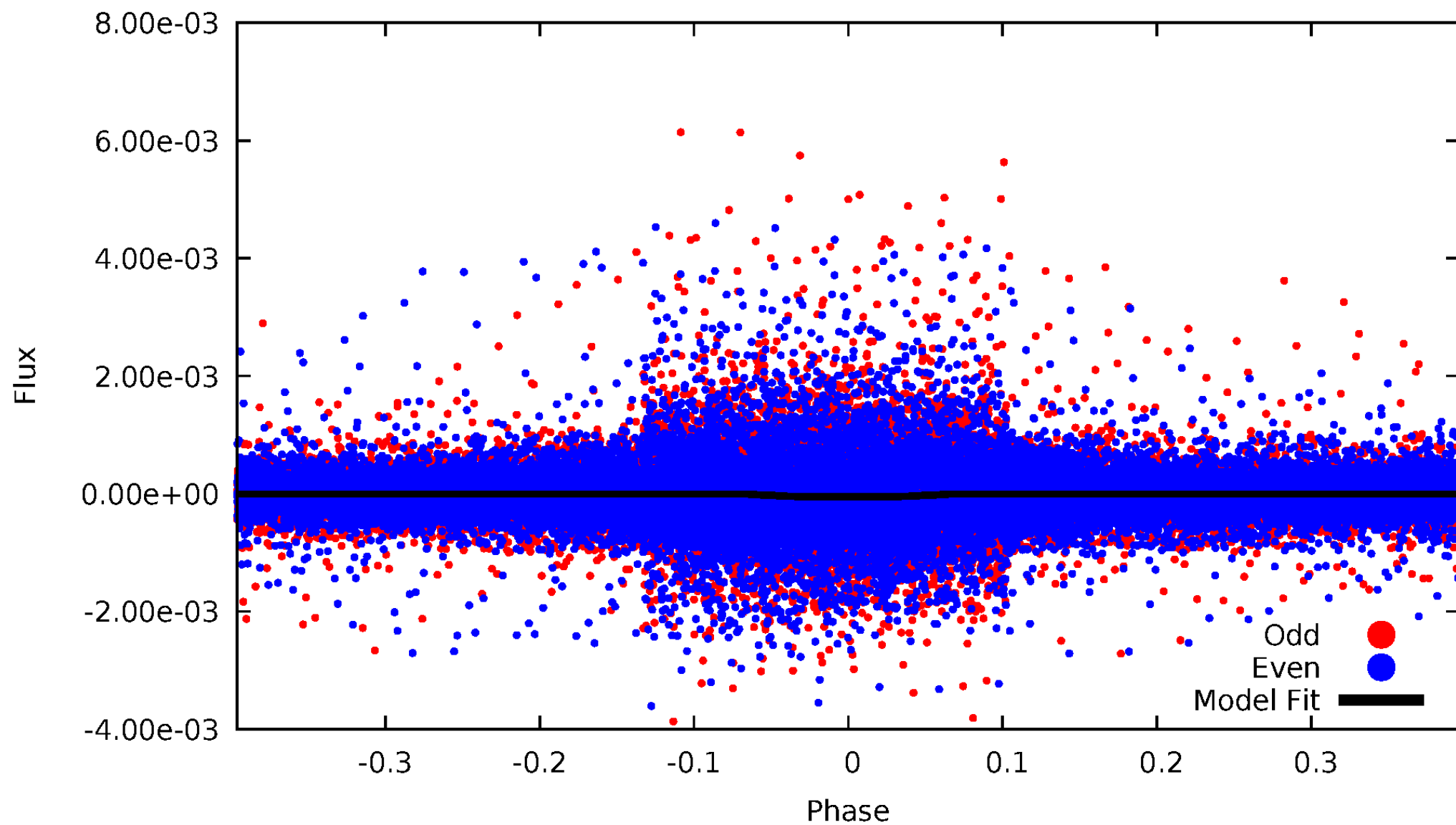
DV Odd/Even

TCE 006451160-01



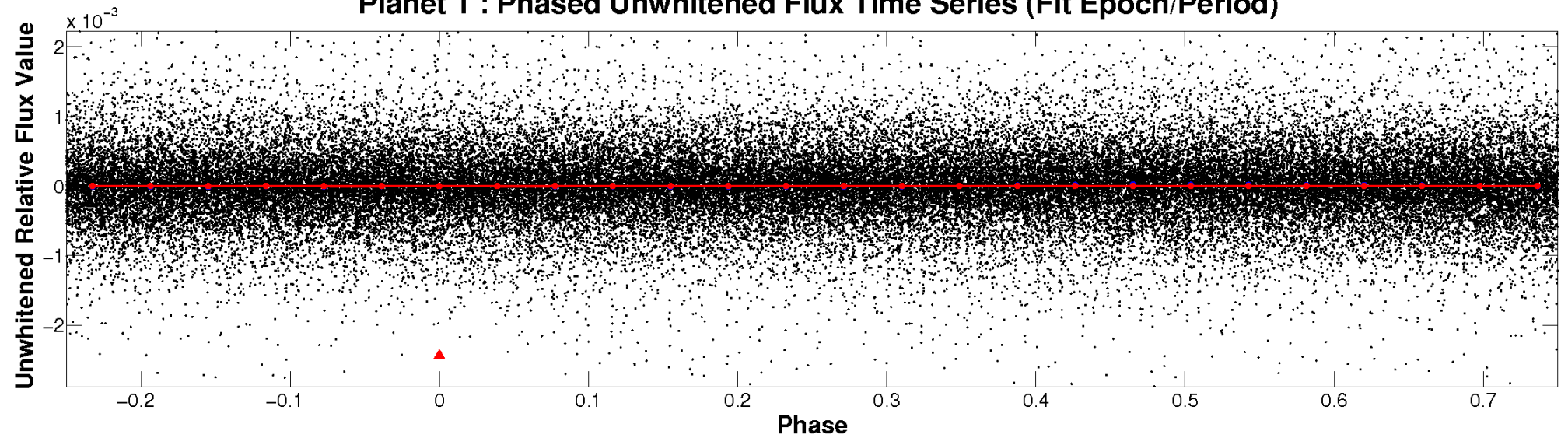
ALT Odd/Even

TCE 006451160-01

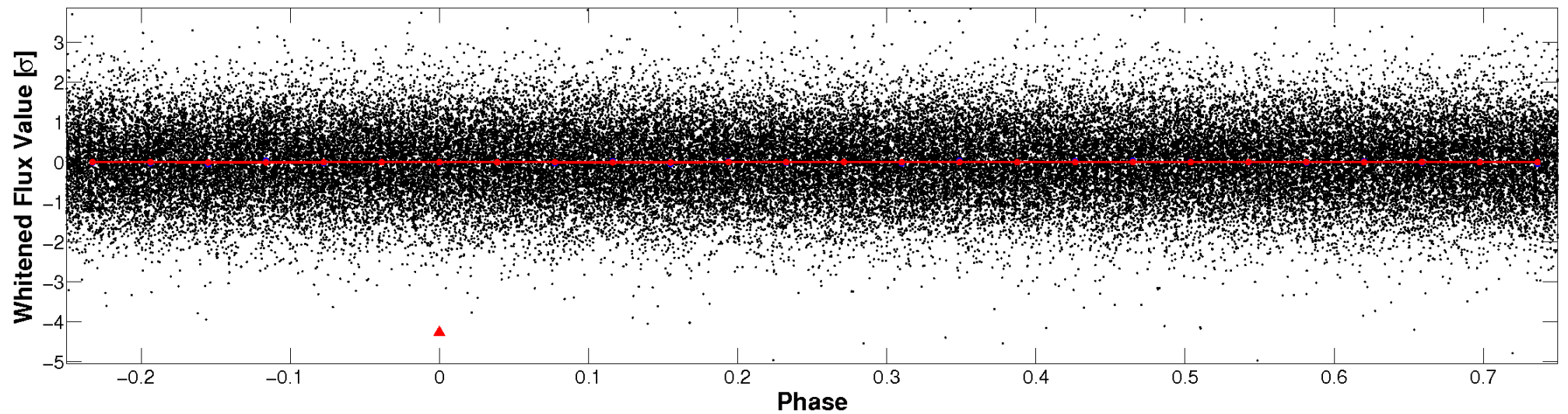


Non-Whitened Vs. Whitened Light Curve

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

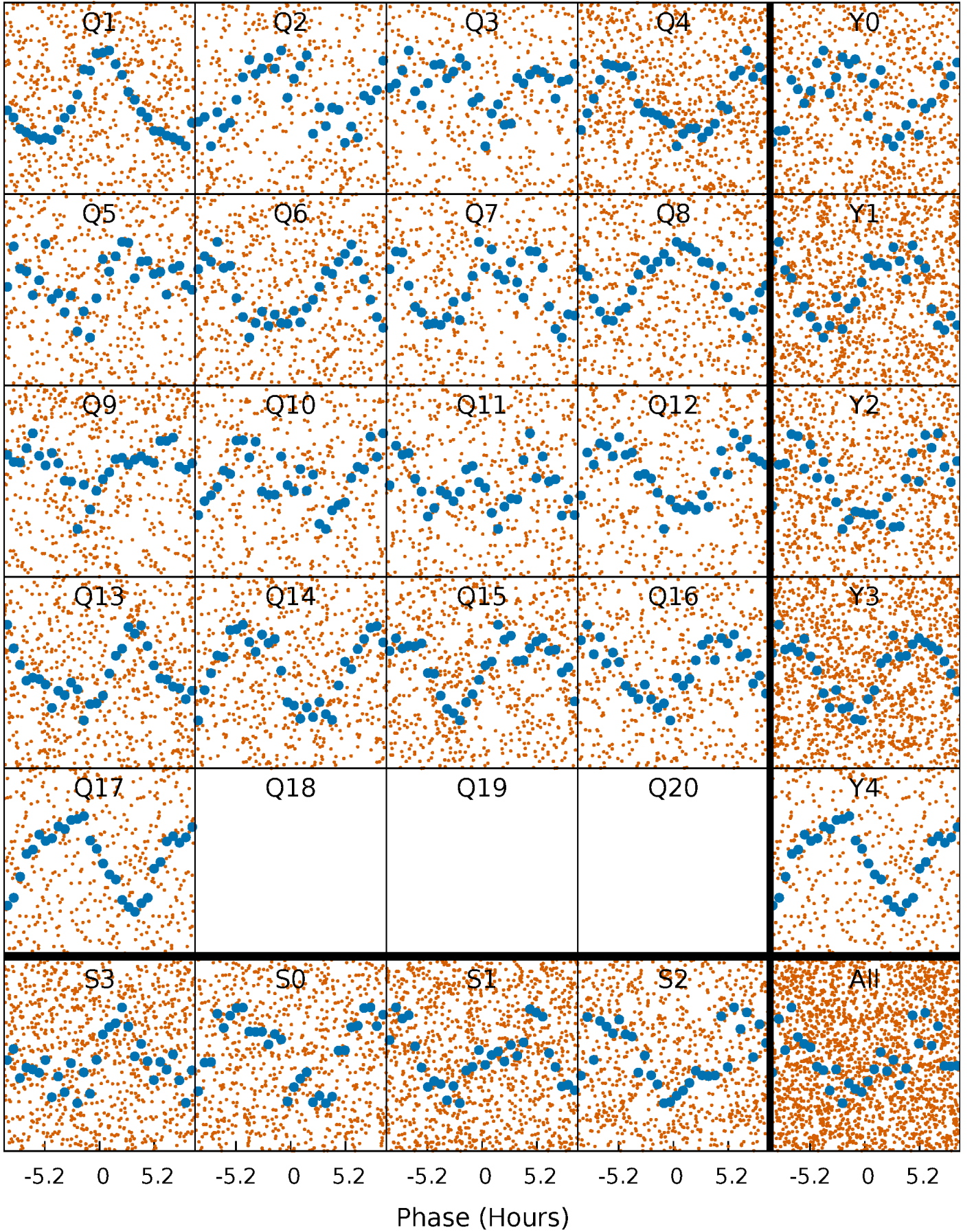


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



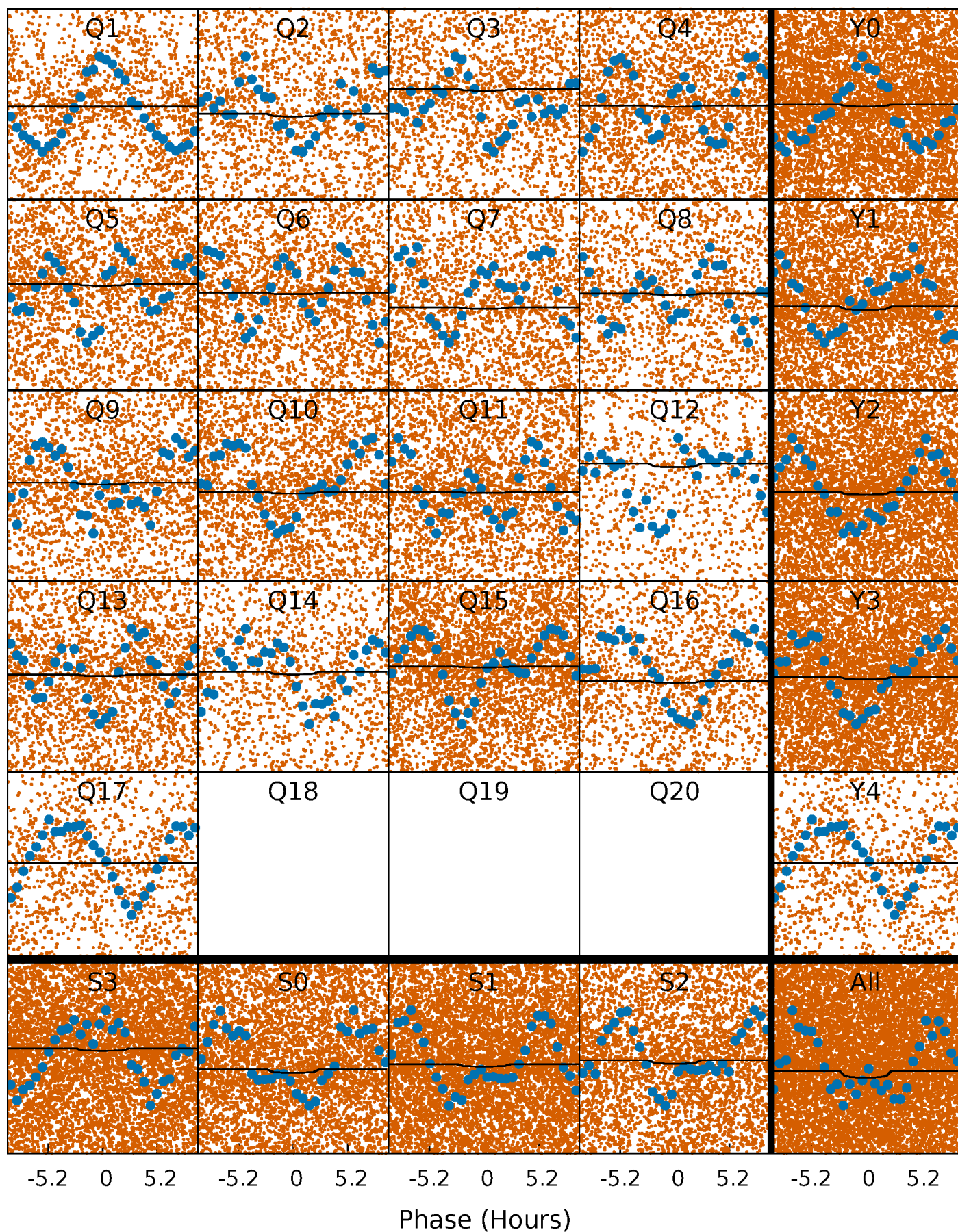
PDC Quarter-Phased Transit Curves

TCE 006451160-01 P= 0.527216 Days $T_0=131.795434$ (BKJD)



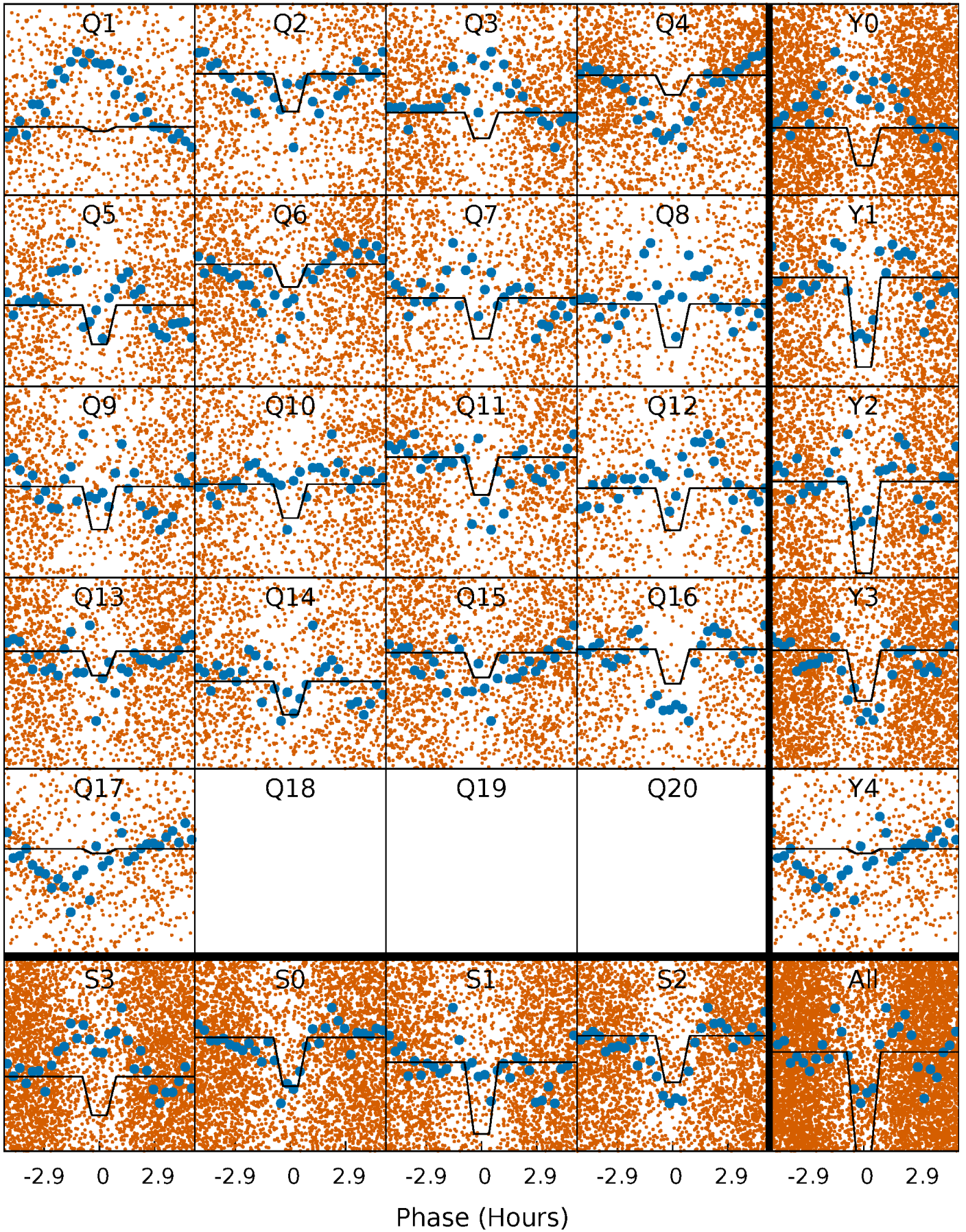
DV Quarter-Phased Transit Curves

TCE 006451160-01 P= 0.527216 Days $T_0=131.795434$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

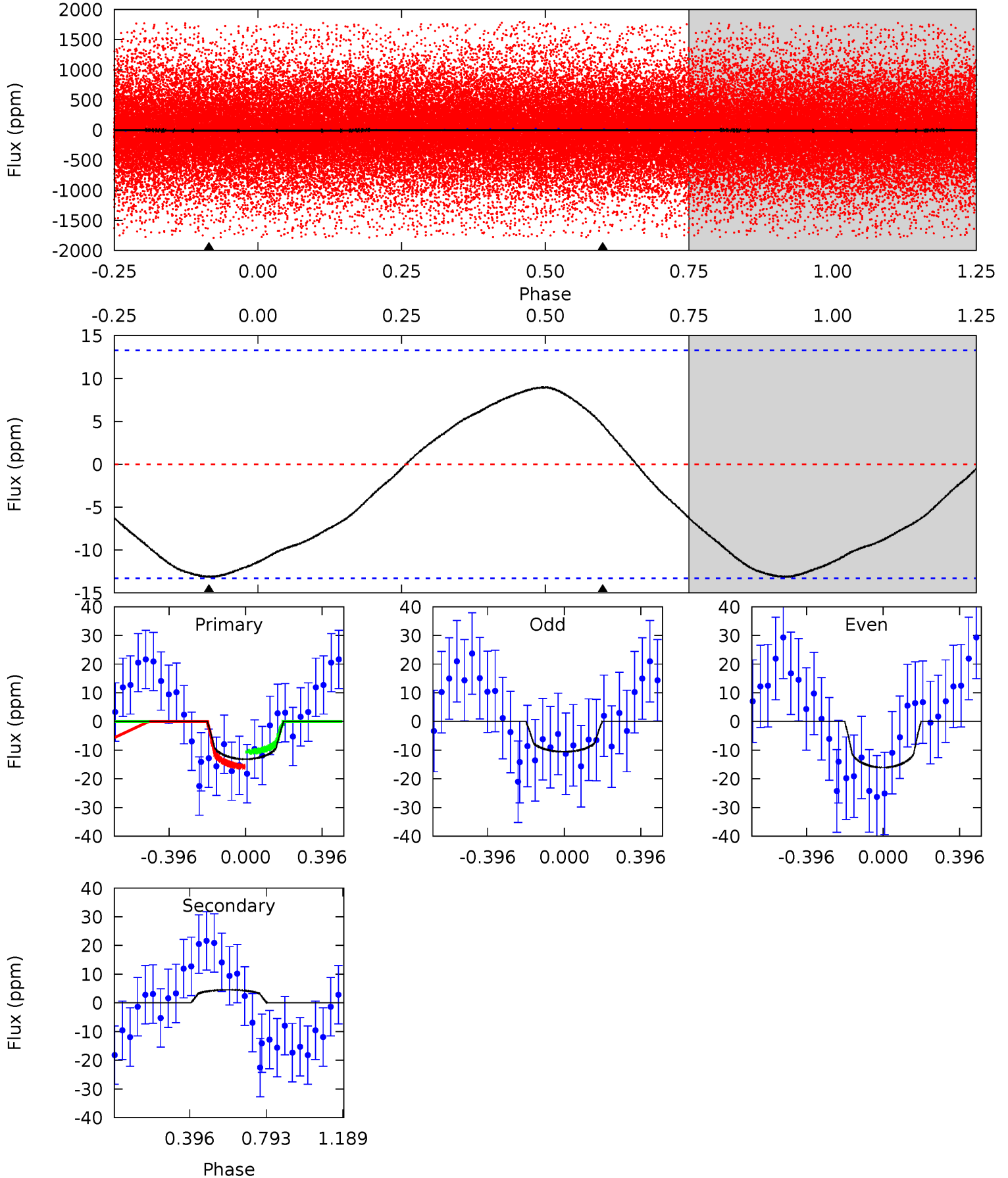
TCE 006451160-01 P= 0.528446 Days $T_0=131.806253$ (BKJD)



DV Model-Shift Uniqueness Test

006451160-01, P = 0.527216 Days, E = 131.268218 Days

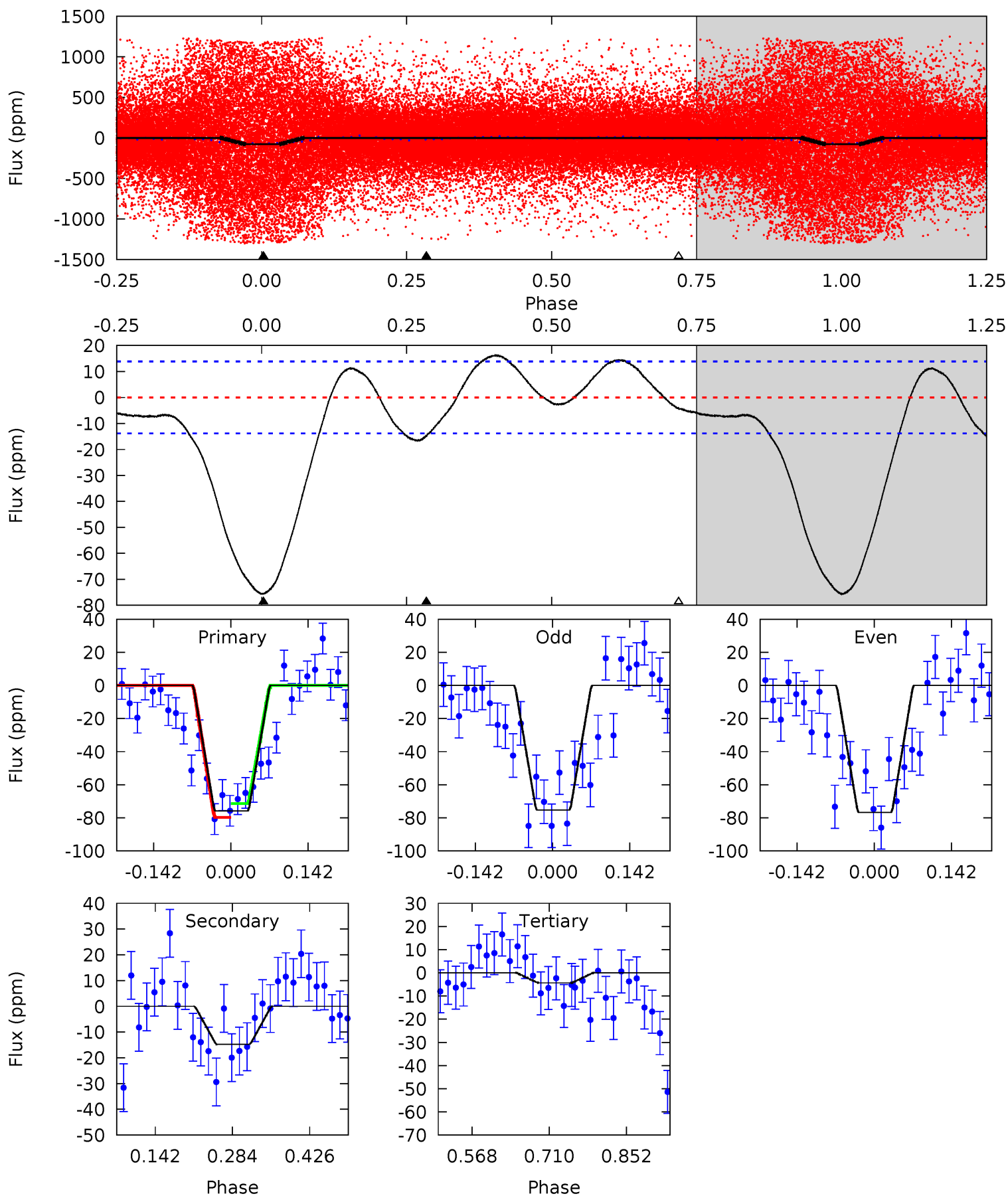
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.23	-1.46	0	0	4.27	0.85	0.58	4.23	4.23	-1.46	-1.46	0.89	0.32	0.41	0.82



Alt Model-Shift Uniqueness Test

006451160-01, P = 0.528446 Days, E = 131.277807 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.6	4.80	1.41	0	4.49	1.47	2.41	23.2	24.6	3.39	4.80	0.24	0.33	0.18	0



Stellar Parameters For KIC 006451160

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7279^{+228}_{-304}	$4.007^{+0.252}_{-0.147}$	$-0.380^{+0.250}_{-0.300}$	$1.977^{+0.537}_{-0.657}$	$1.448^{+0.216}_{-0.265}$	$0.264^{+0.430}_{-0.115}$
	+3%/-4%	+6%/-4%	+66%/-79%	+27%/-33%	+15%/-18%	+163%/-44%
Source	KIC0	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 006451160-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	5 ± 3	$1.04^{+1.04}_{-0.74}$	5183^{+394}_{-426}	-5294^{+737}_{-3801}	$-0.434^{+0.373}_{-4.772}$
Alt.	-15 ± 3	$1.70^{+1.29}_{-1.00}$	5193^{+413}_{-437}	4282^{+3299}_{-8009}	$0.573^{+2.830}_{-0.392}$

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 $A_{obs} \gg 1.0$

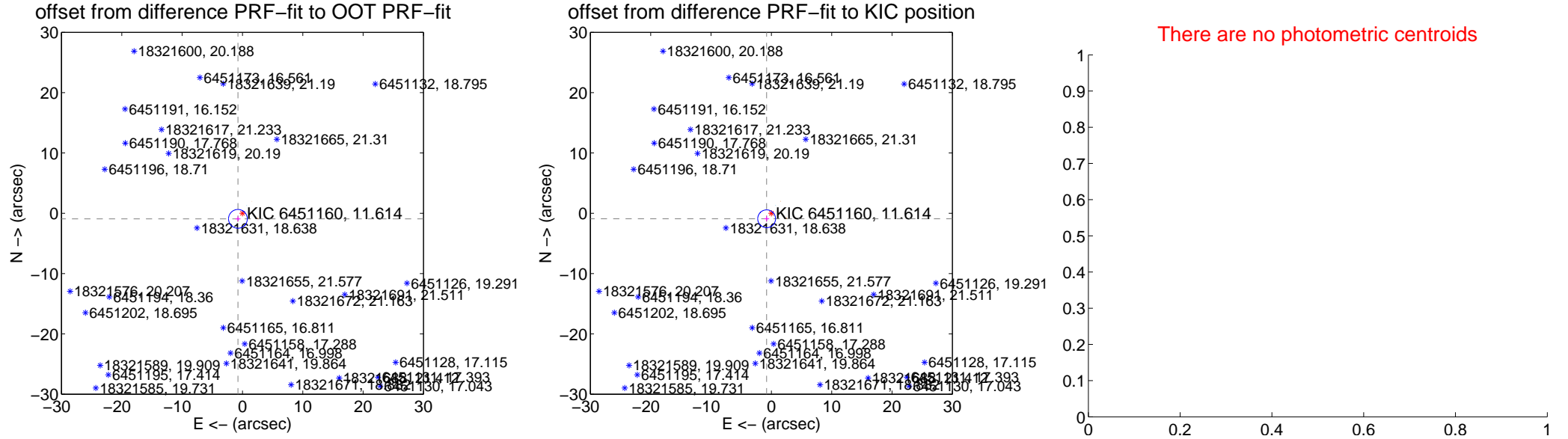
DV Centroid Data

Supplemental centroid analysis for 006451160-01. **Kepler magnitude: 11.61.** Transit SNR 0.70

There are 6 quarters with good PRF difference image offsets

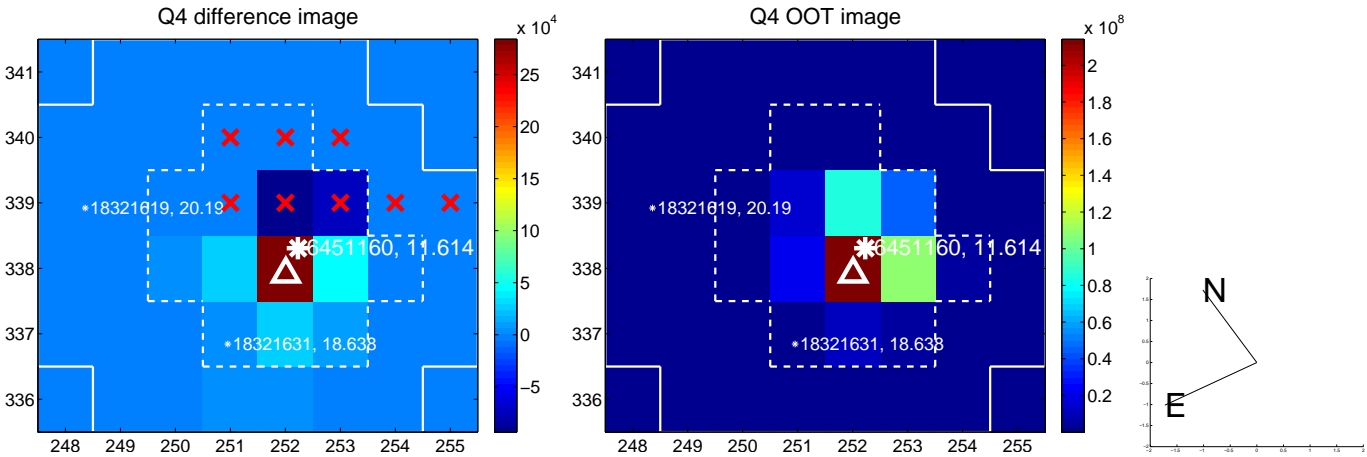
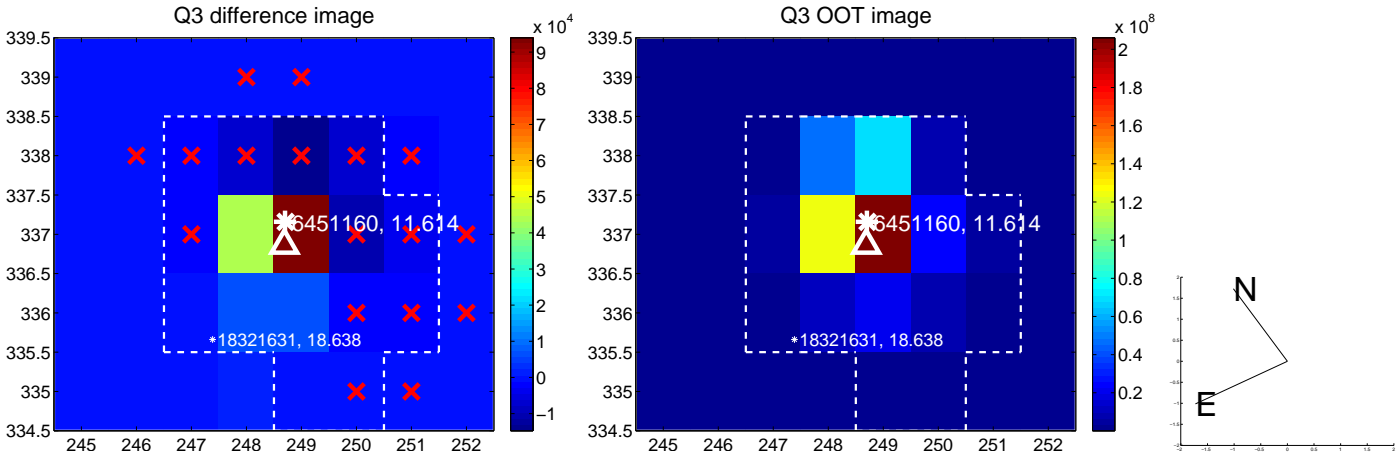
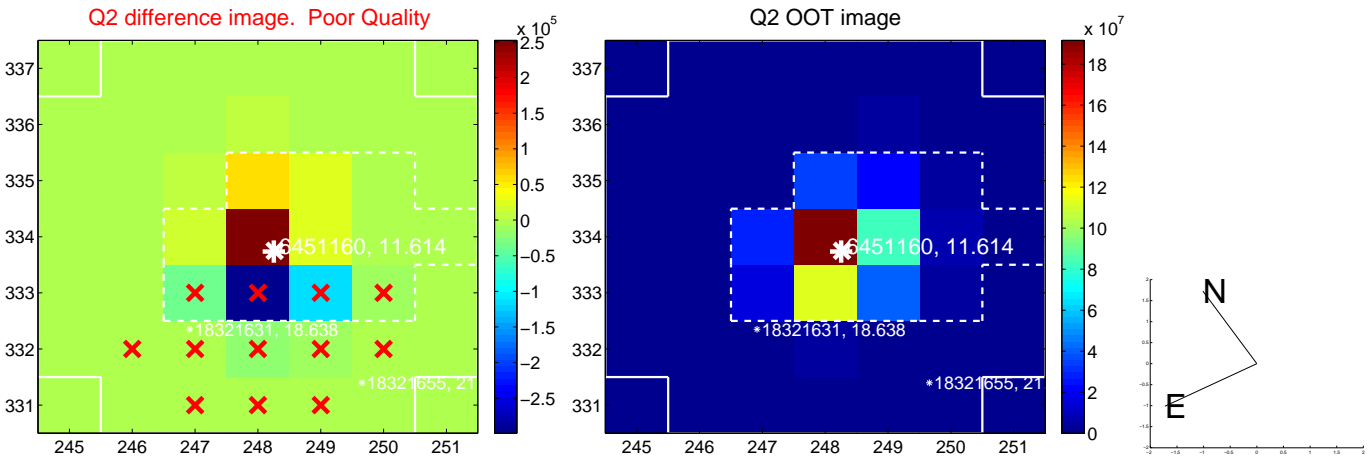
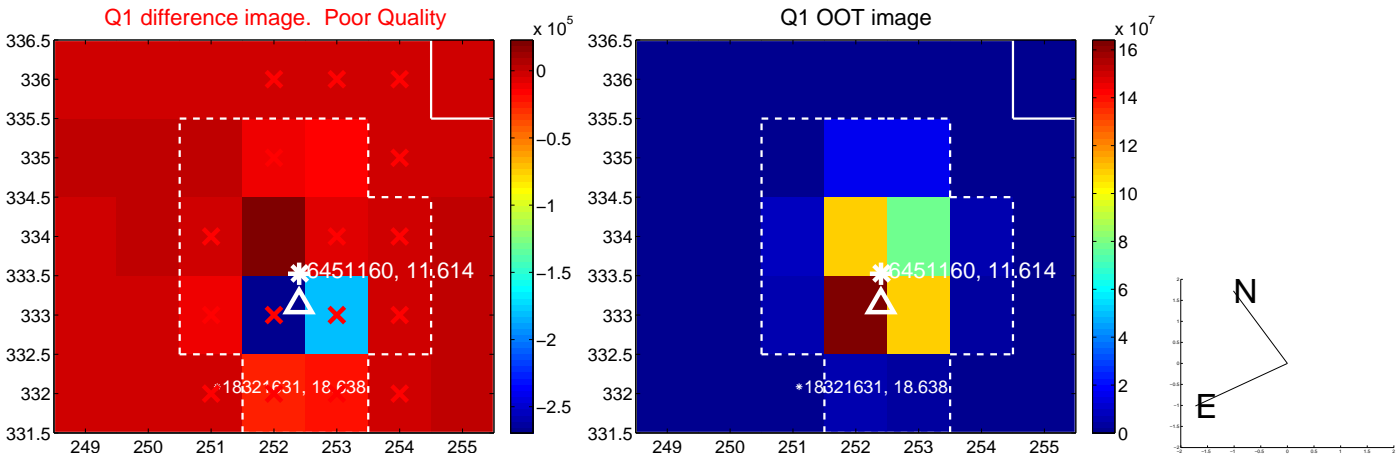
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.192 ± 0.519	2.30	0.752 ± 0.429	-0.925 ± 0.399
PRF-fit source offset from KIC position	1.201 ± 0.492	2.44	0.783 ± 0.421	-0.910 ± 0.414
photometric centroid source offset	—	—	—	—

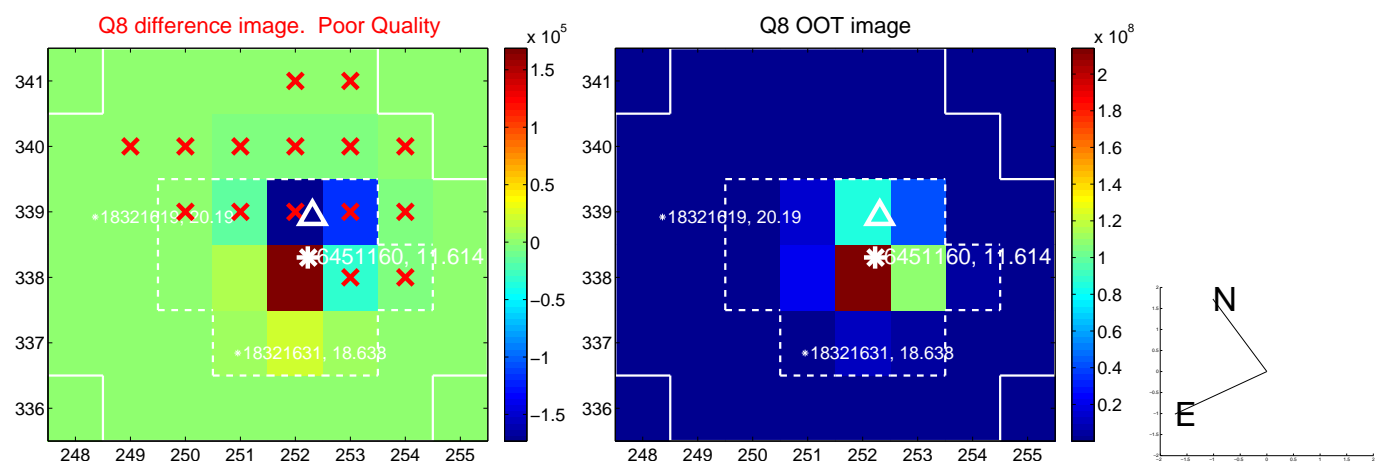
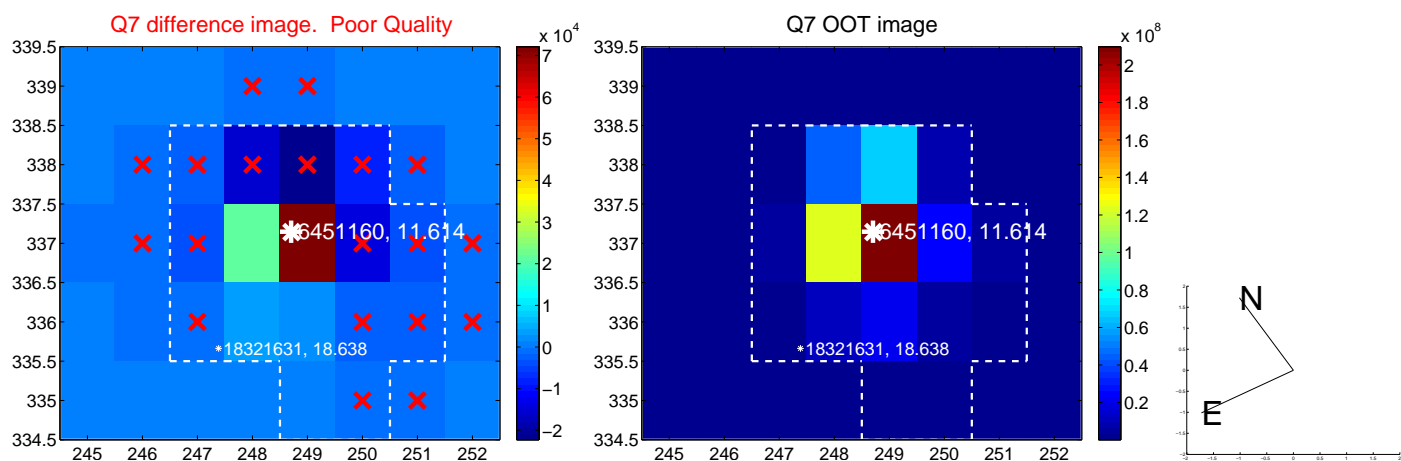
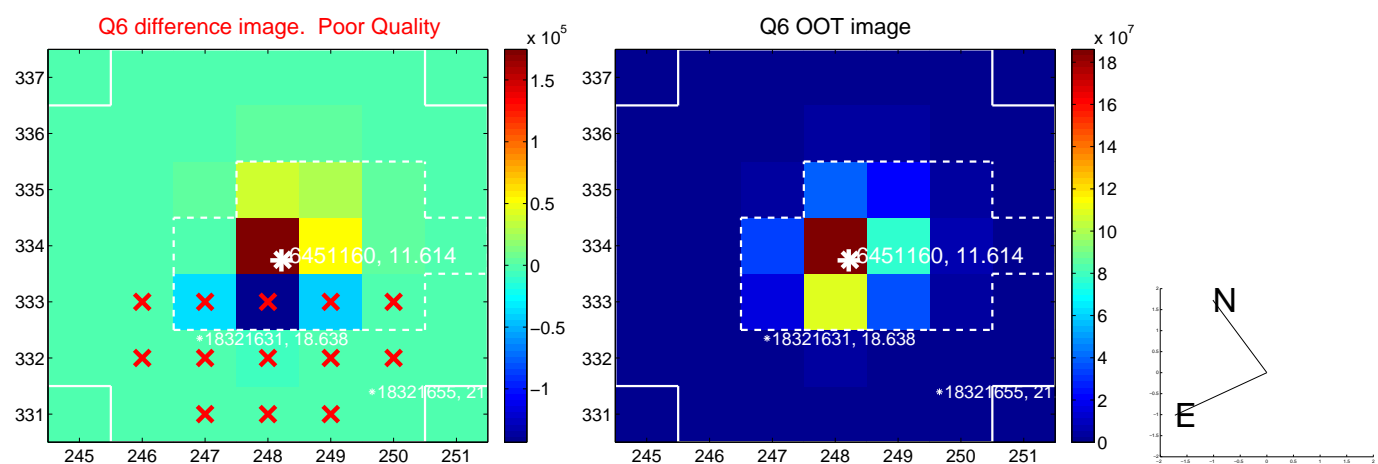
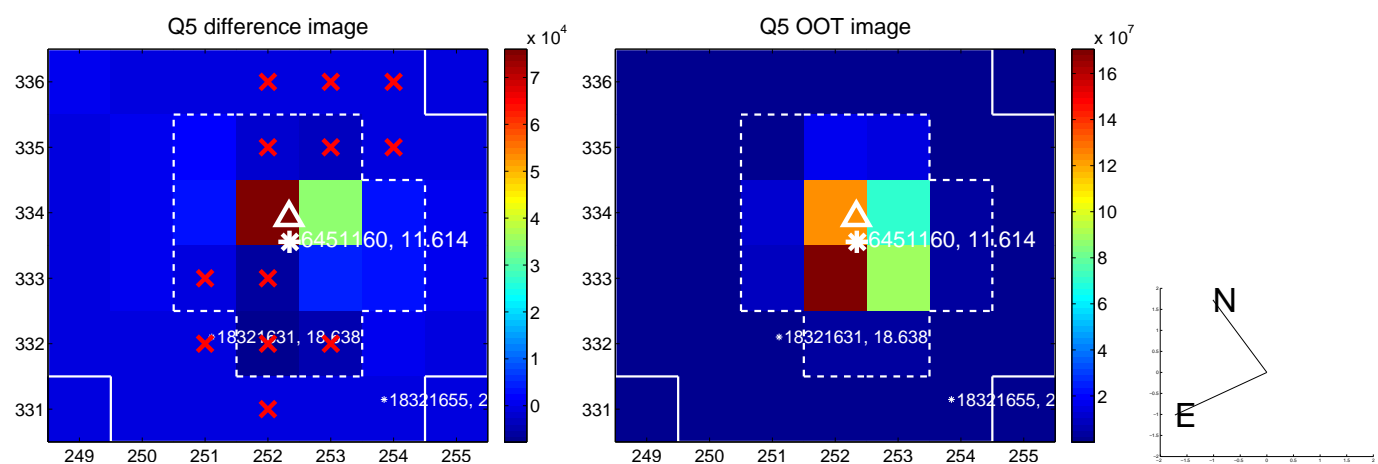


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

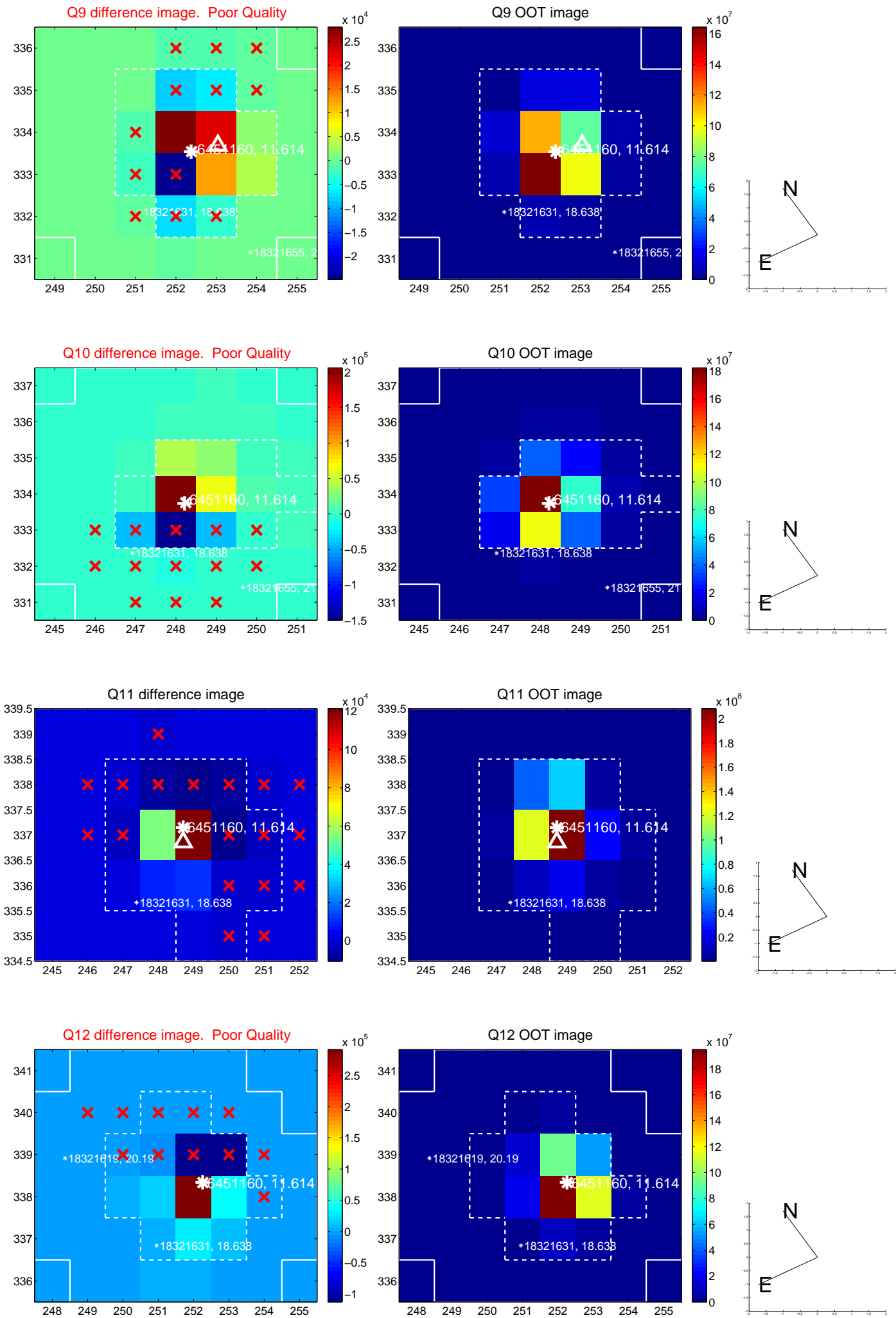
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



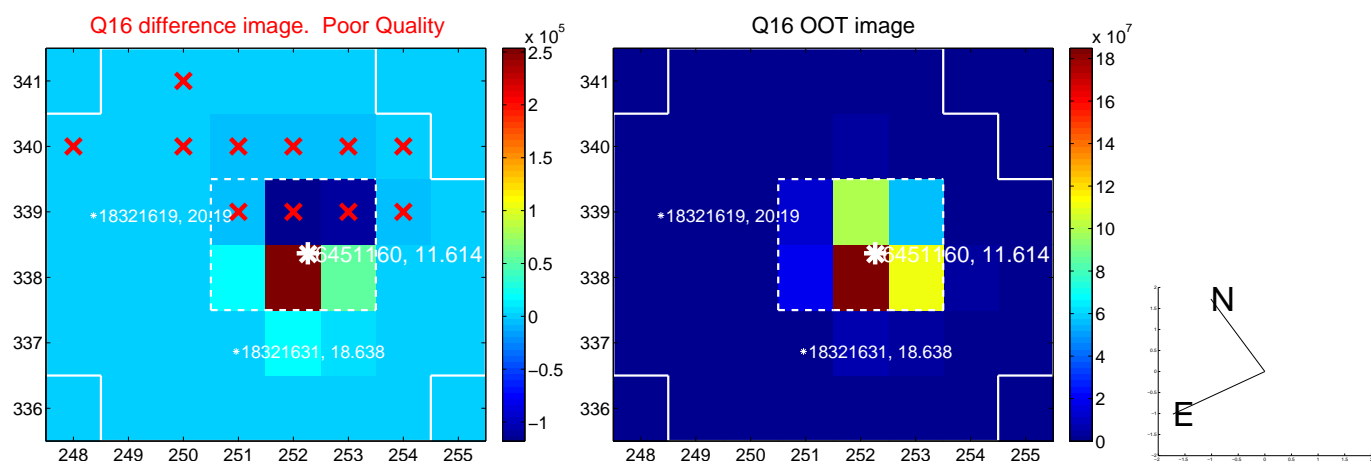
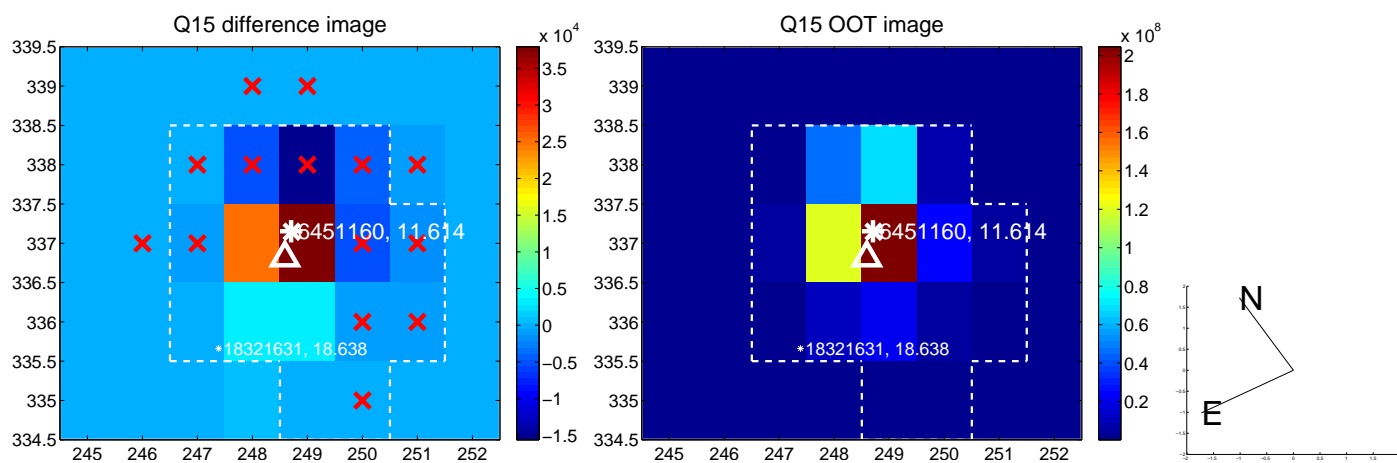
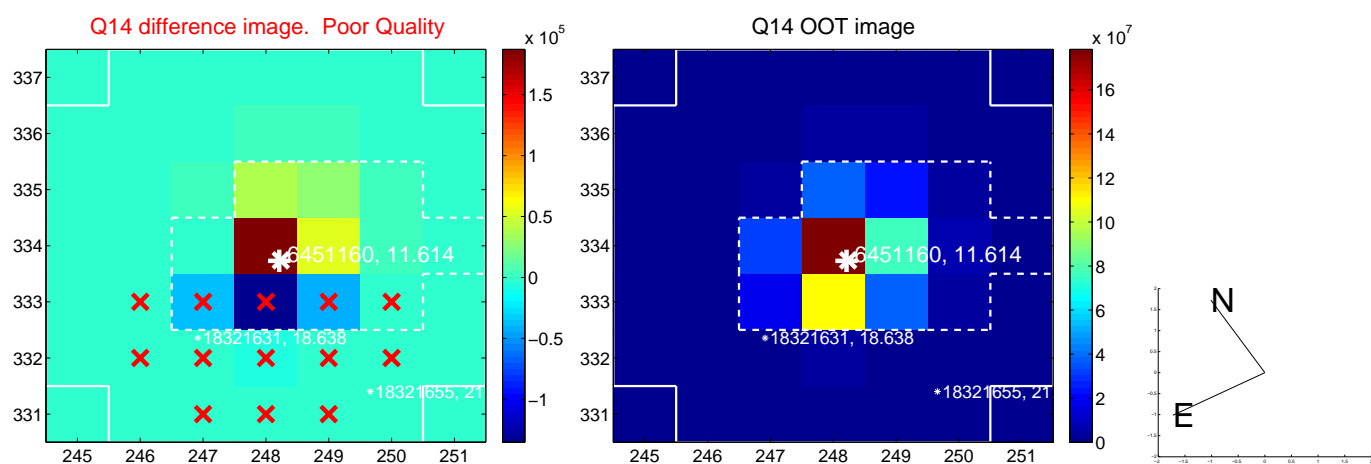
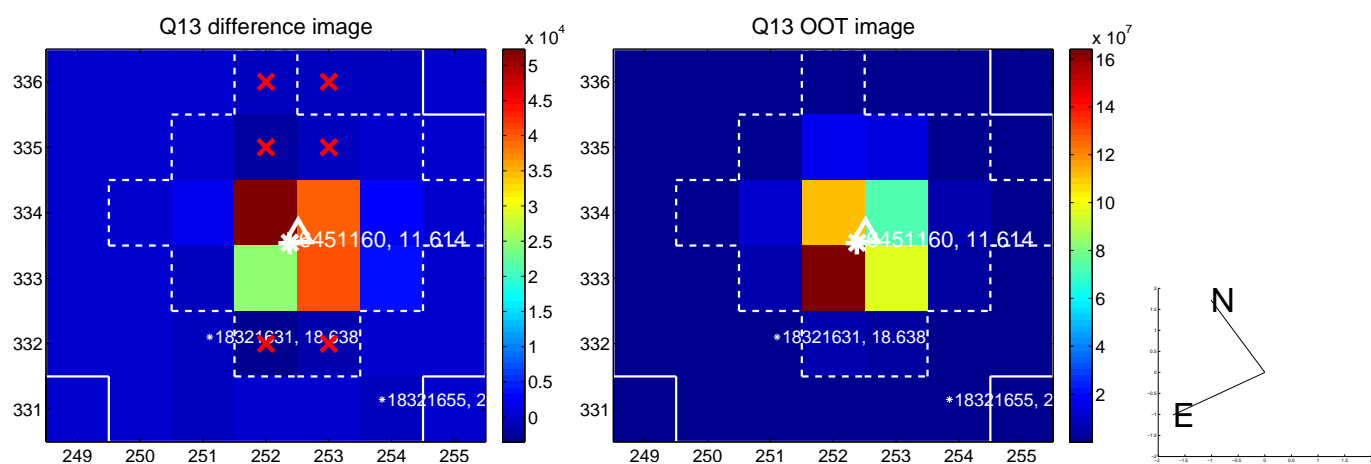
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



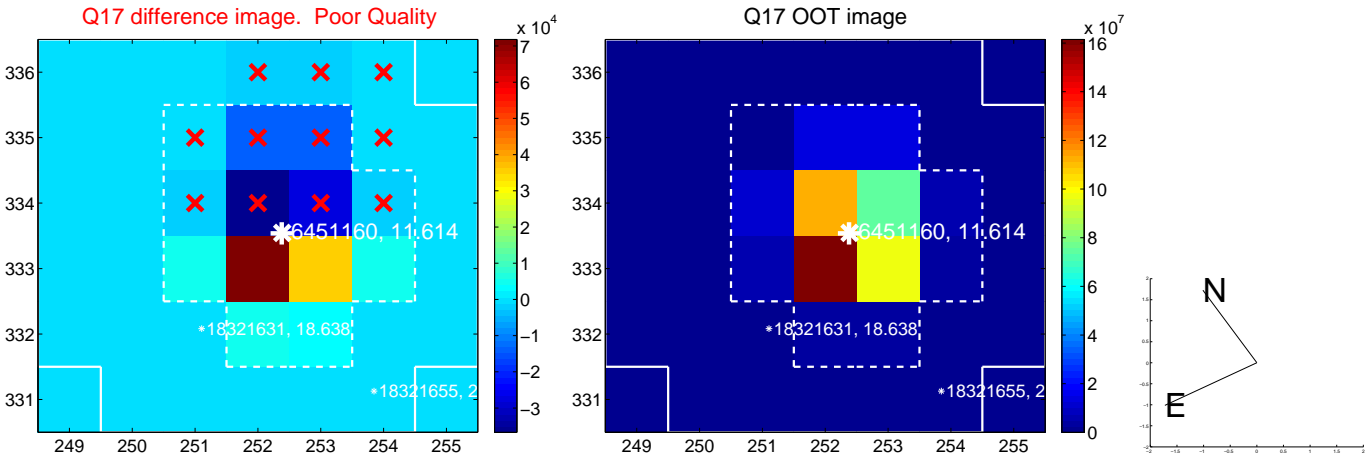
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folded centroid time series figure for this object.

UKIRT Image

Declination

