

KIC 005820381

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})
005820381-01	OBS	No	1.290663	131.706045	0.0	10.433	8.4	0.0	3.68	6418	0.01	27810.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005820381-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

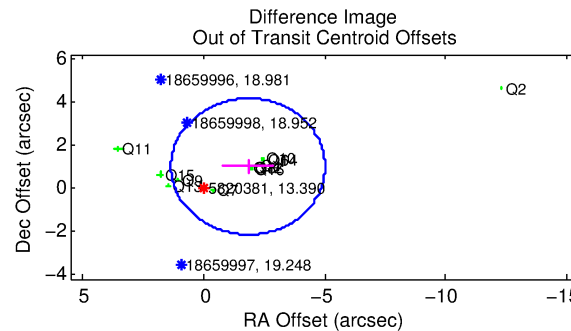
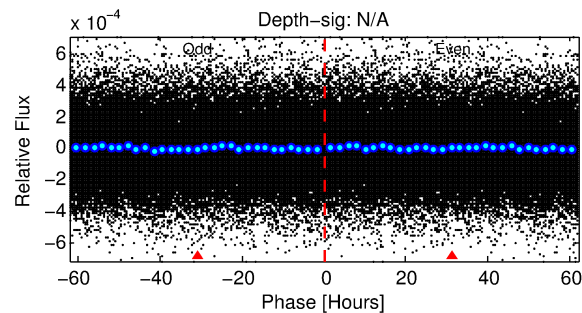
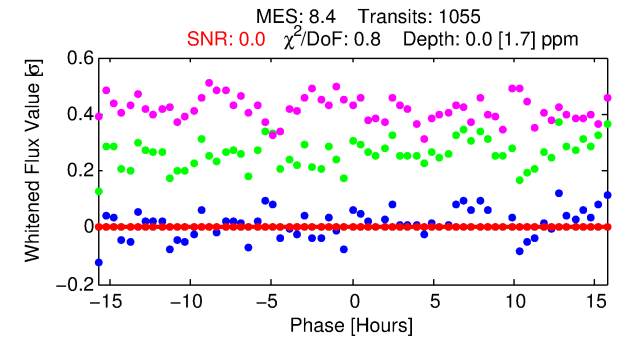
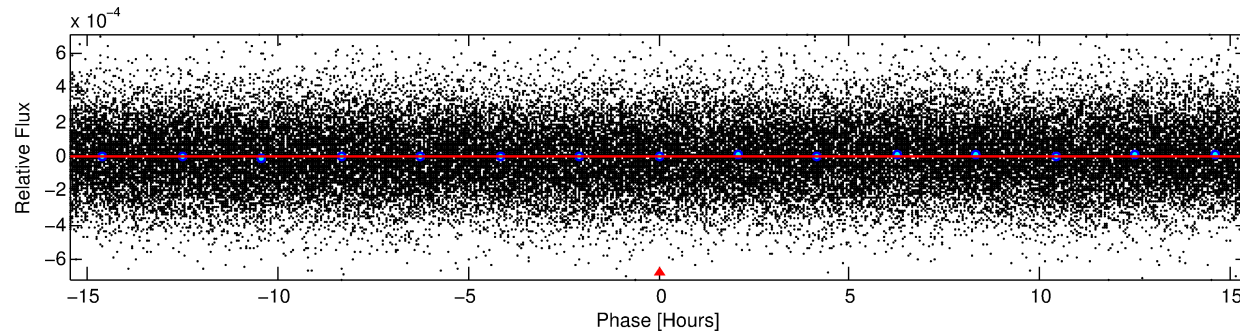
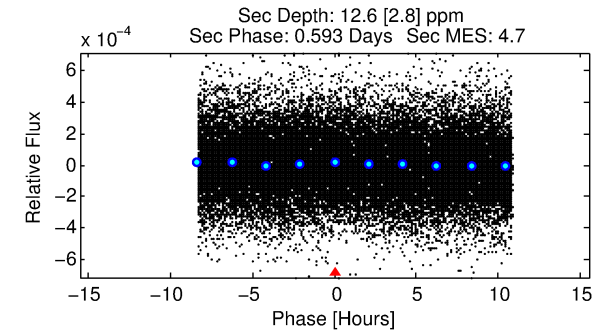
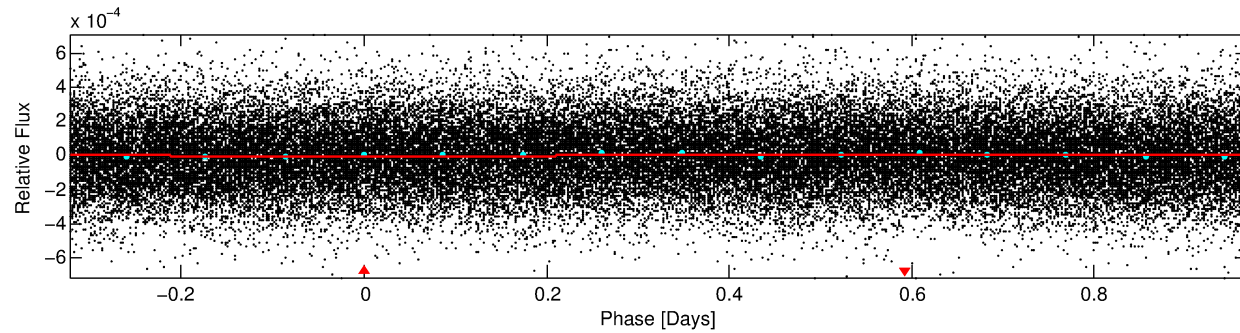
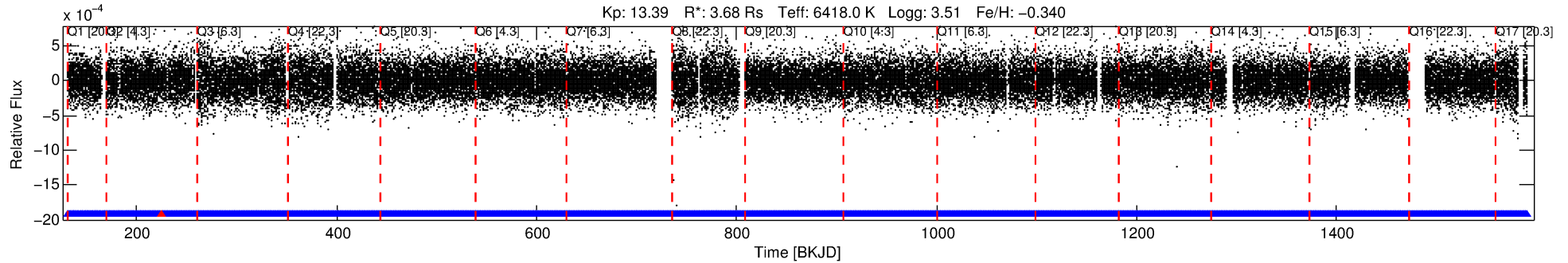
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005820381-01

No Significant Match Found

DV One-Page Summary

KIC: 5820381 Candidate: 1 of 1 Period: 1.291 d



DV Fit Results:

Period = 1.29066 [1.09472] d
Epoch = 131.7060 [355.9551] BKJD
Rp/R* = 0.0000 [0.0427]
a/R* = 1.07 [116.46]
b = 0.72 [905.74]
Seff = 27810.61 [35903.66]
Teq = 3293 [1063] K
Rp = 0.01 [17.18] Re
a = 0.0272 [0.0185] AU
Ag = 84137.45 [370486442.42] [0.00σ]
Teffp = 86709 [95458473] K [0.00σ]

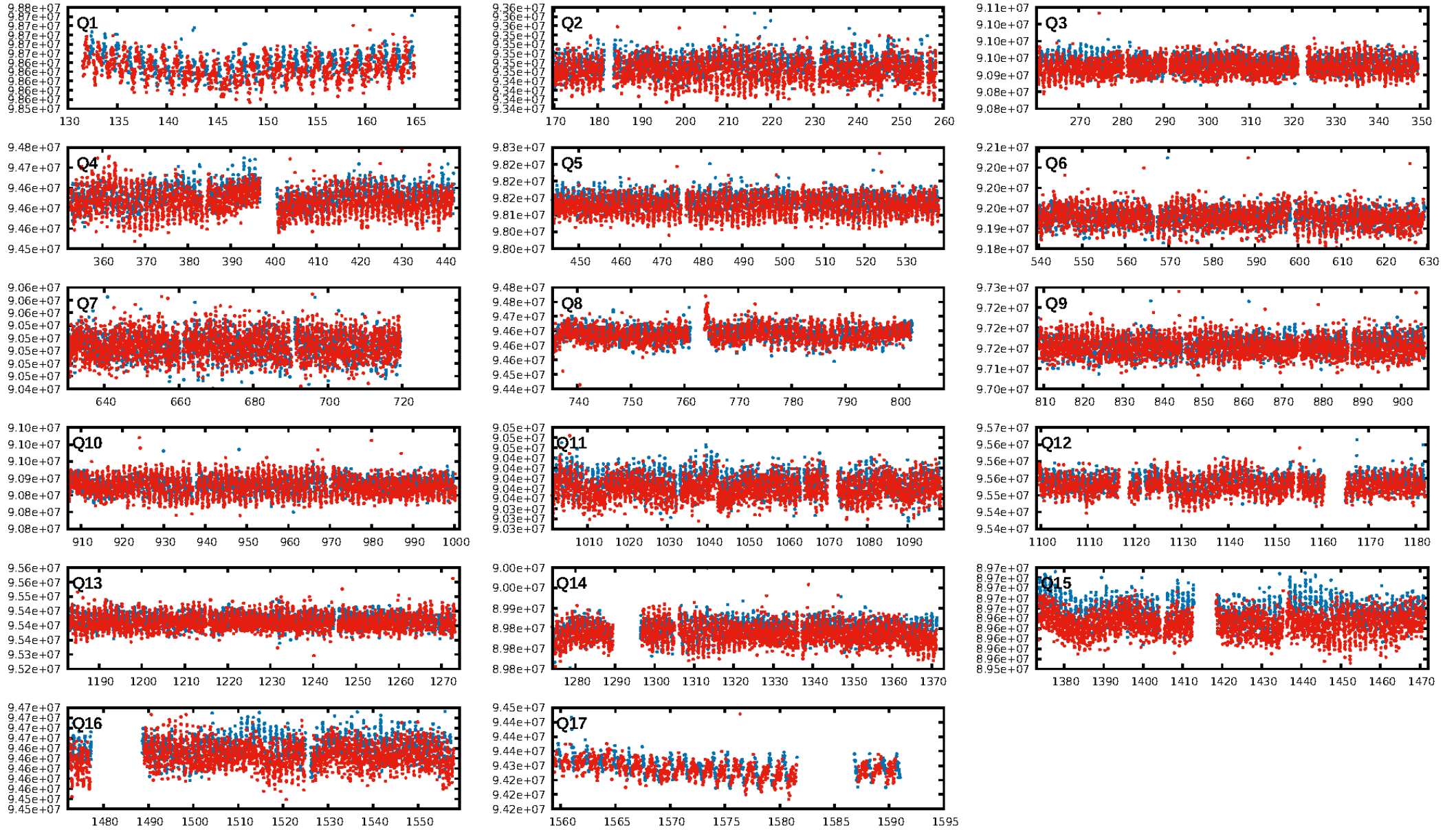
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1007/1008]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
QotOffset-rm: 2.093 arcsec [1.97σ]
KicOffset-rm: 2.236 arcsec [2.36σ]
QotOffset-st: 4/3/4/2 [13]
KicOffset-st: 4/3/4/2 [13]
DiffImageQuality-fgm: 0.08 [1/13]
DiffImageOverlap-fno: 1.00 [17/17]

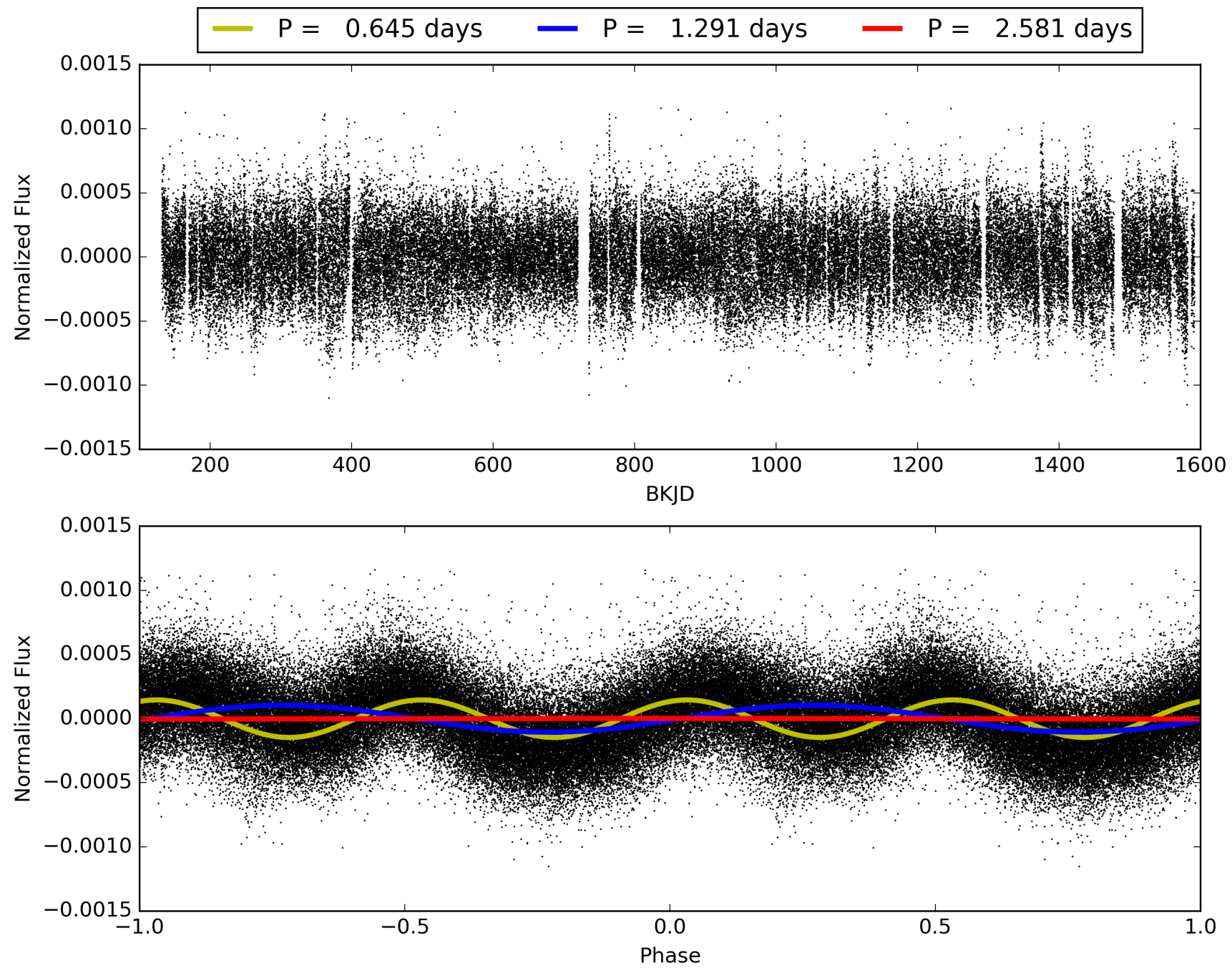
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:48:17 Z

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

TCE 005820381-01, PDC Light Curves

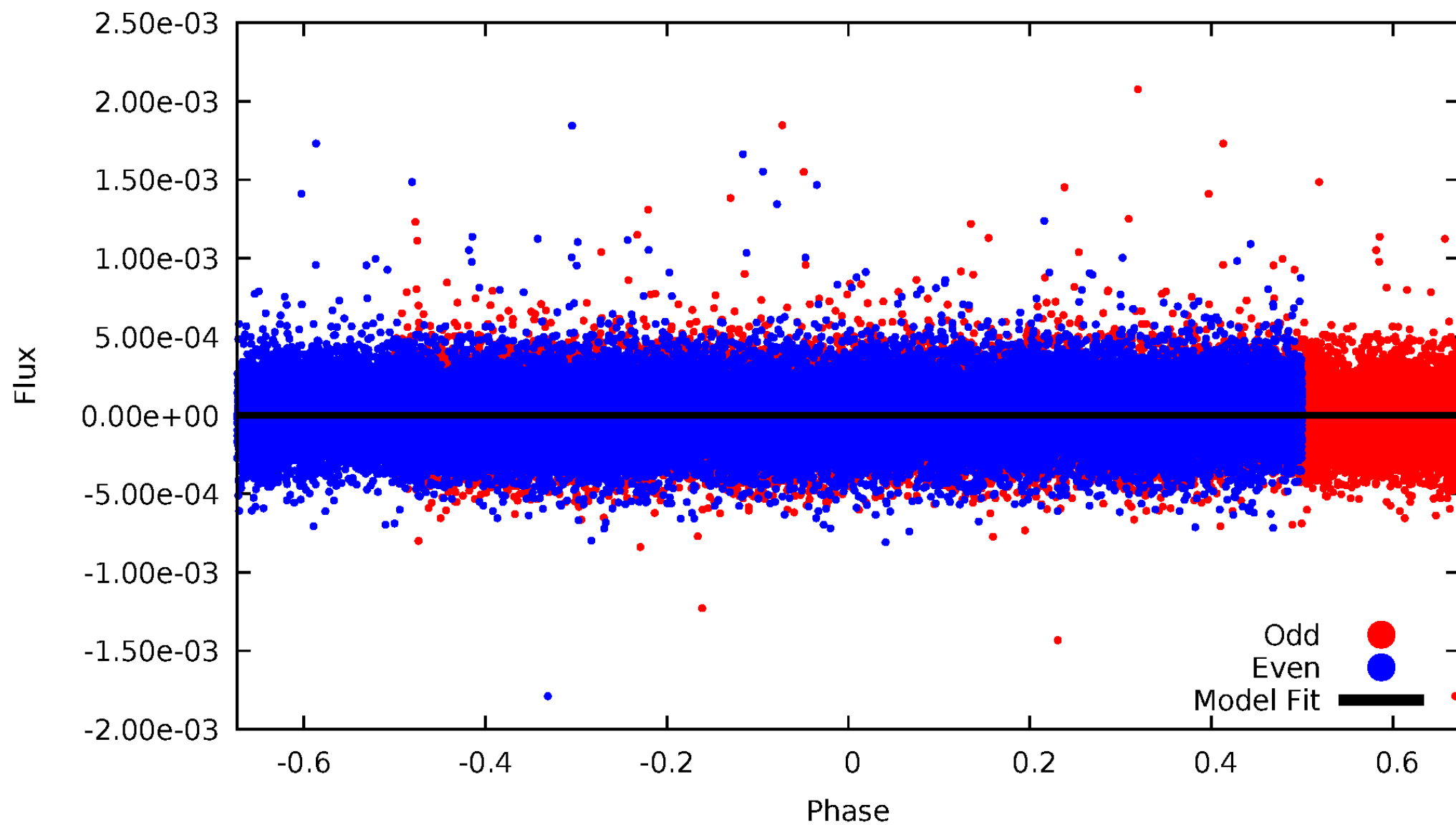


TCE 005820381-01



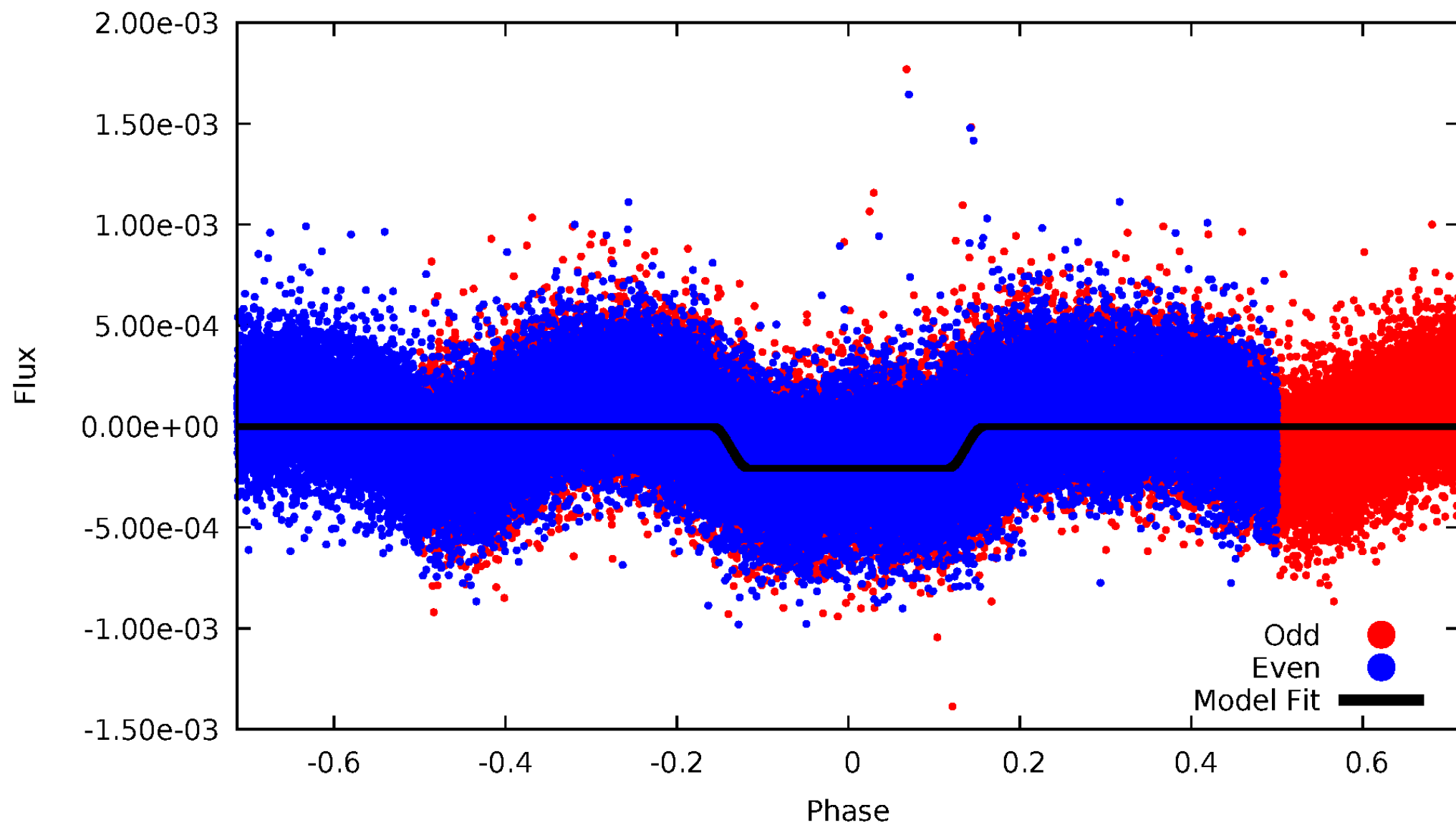
DV Odd/Even

TCE 005820381-01



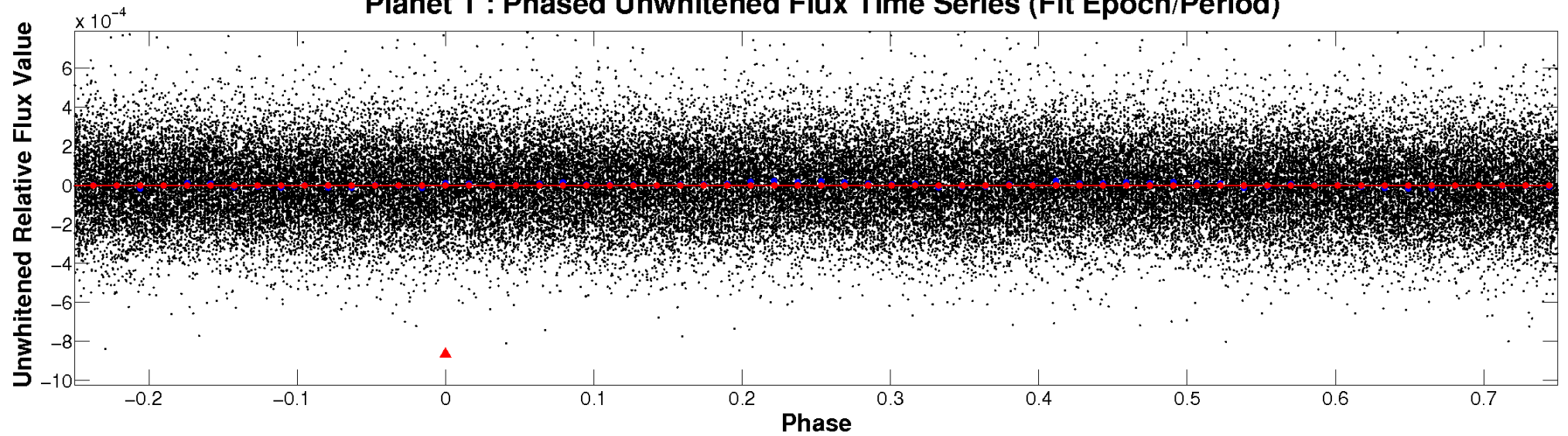
ALT Odd/Even

TCE 005820381-01

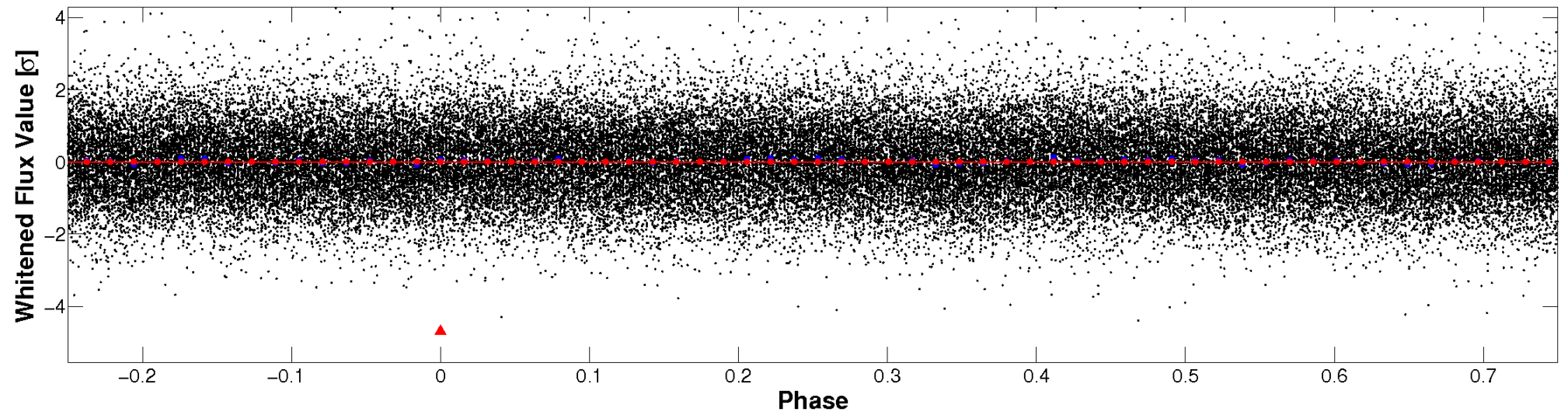


Non-Whitened Vs. Whitened Light Curve

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

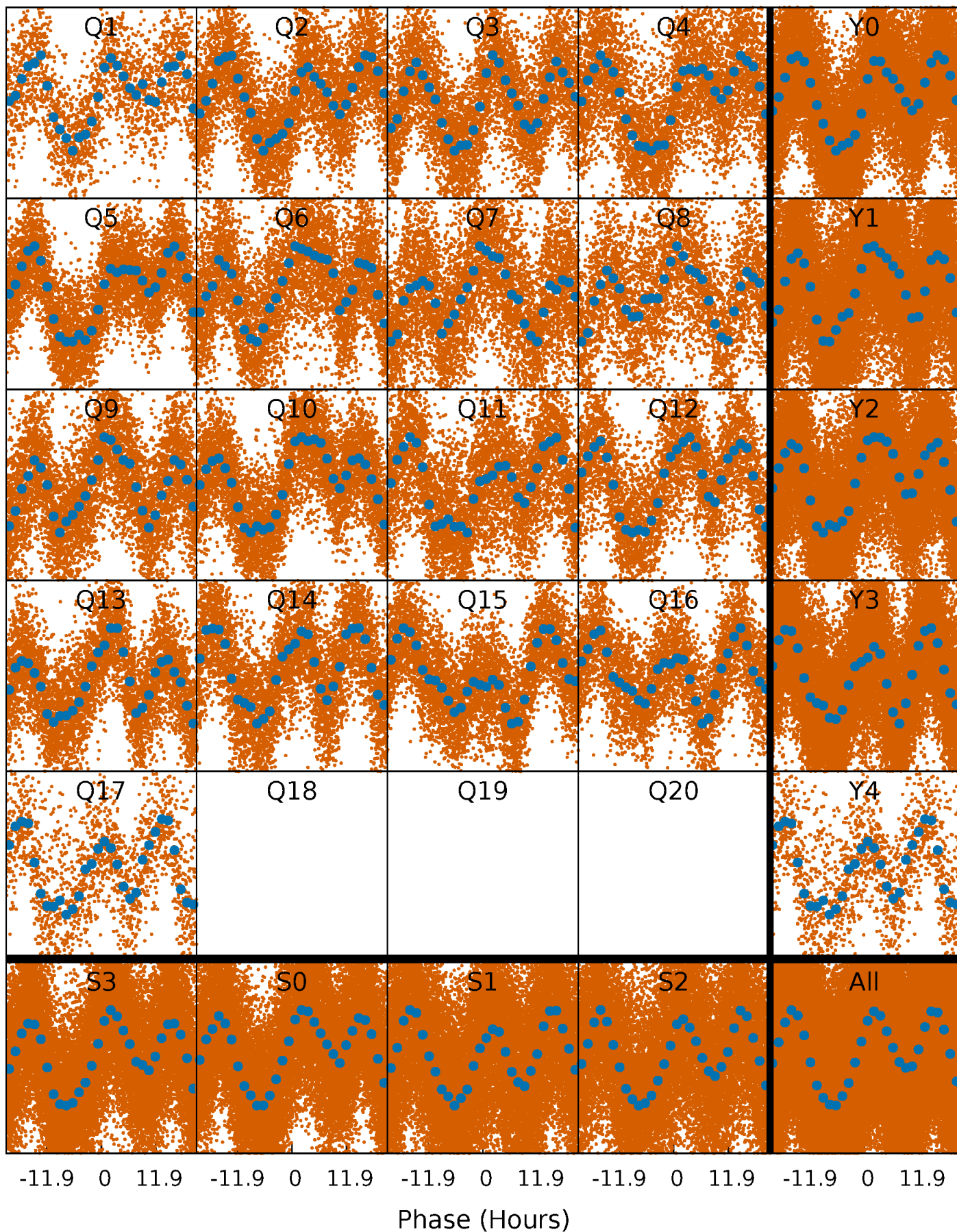


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



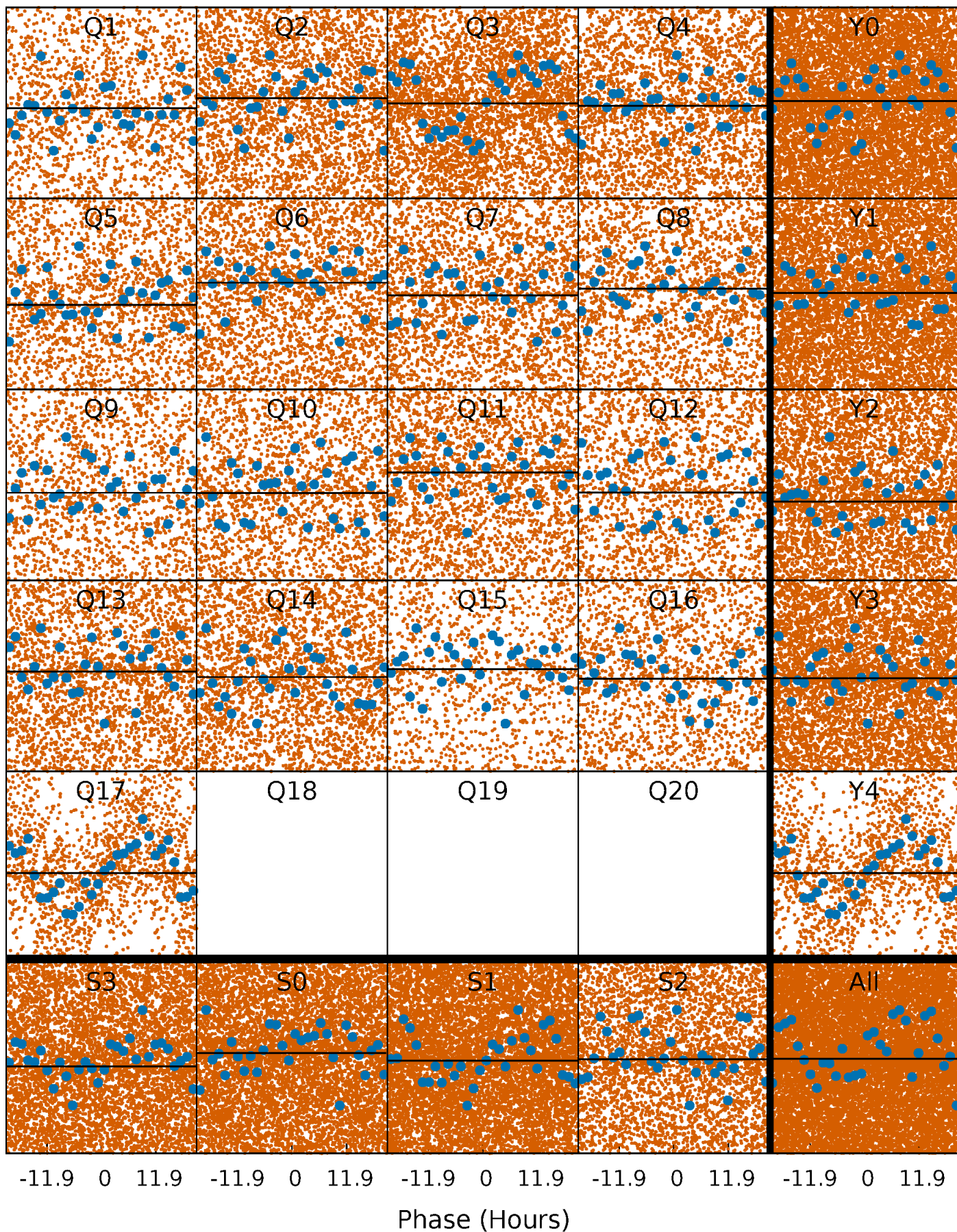
PDC Quarter-Phased Transit Curves

TCE 005820381-01 P= 1.290663 Days $T_0=131.706045$ (BKJD)



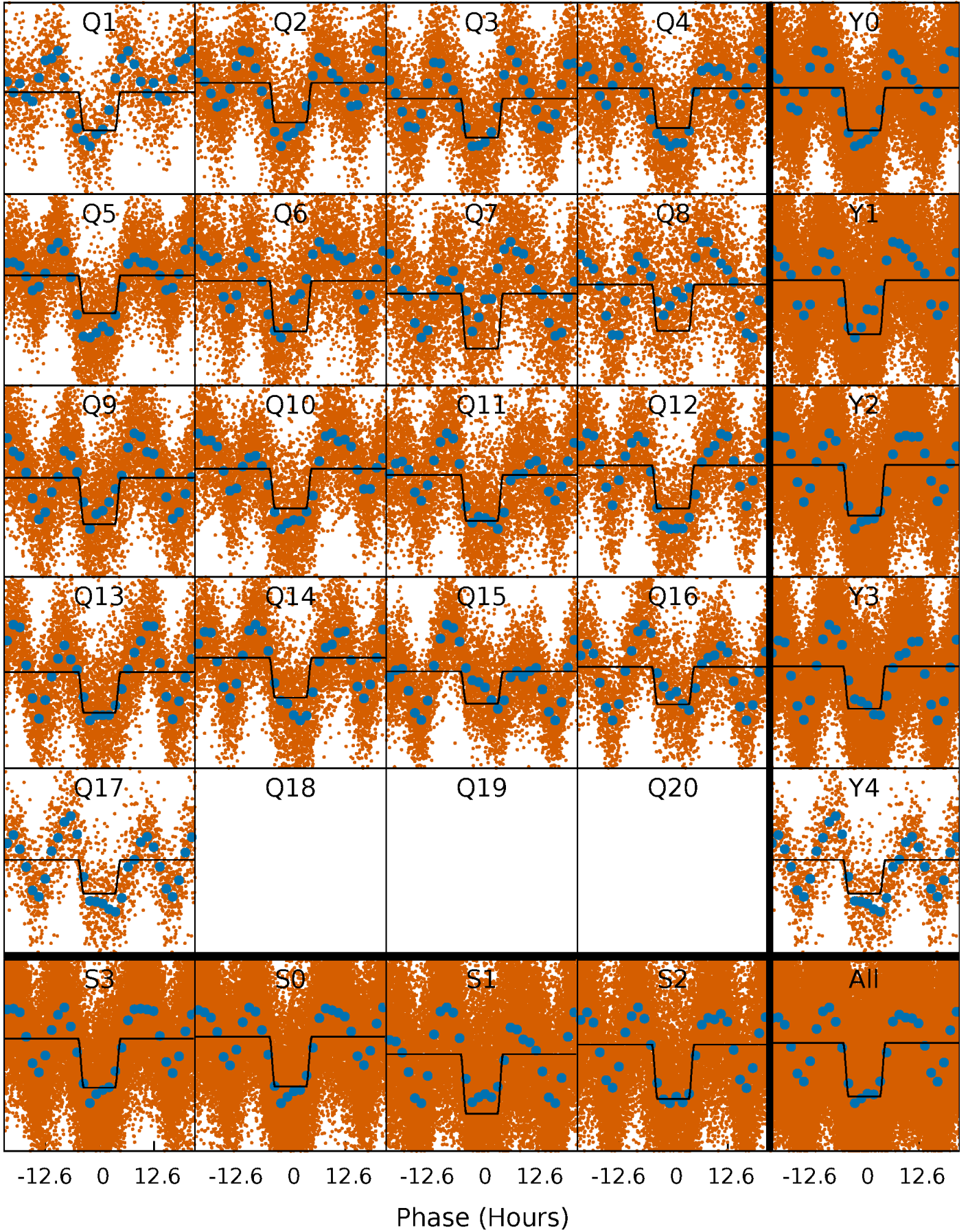
DV Quarter-Phased Transit Curves

TCE 005820381-01 P= 1.290663 Days $T_0=131.706045$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

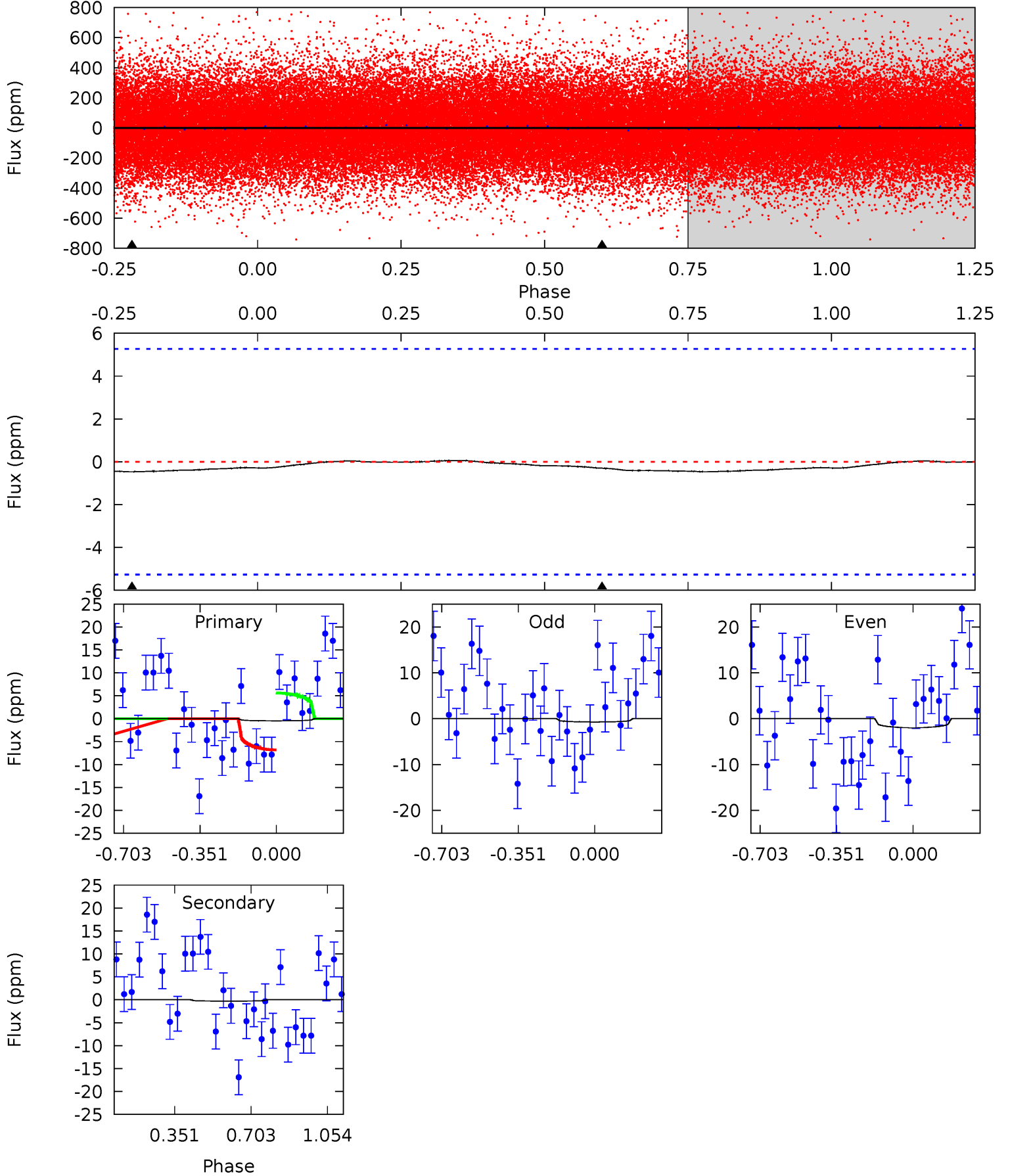
TCE 005820381-01 P= 1.290417 Days $T_0=131.551977$ (BKJD)



DV Model-Shift Uniqueness Test

005820381-01, P = 1.290663 Days, E = 130.415382 Days

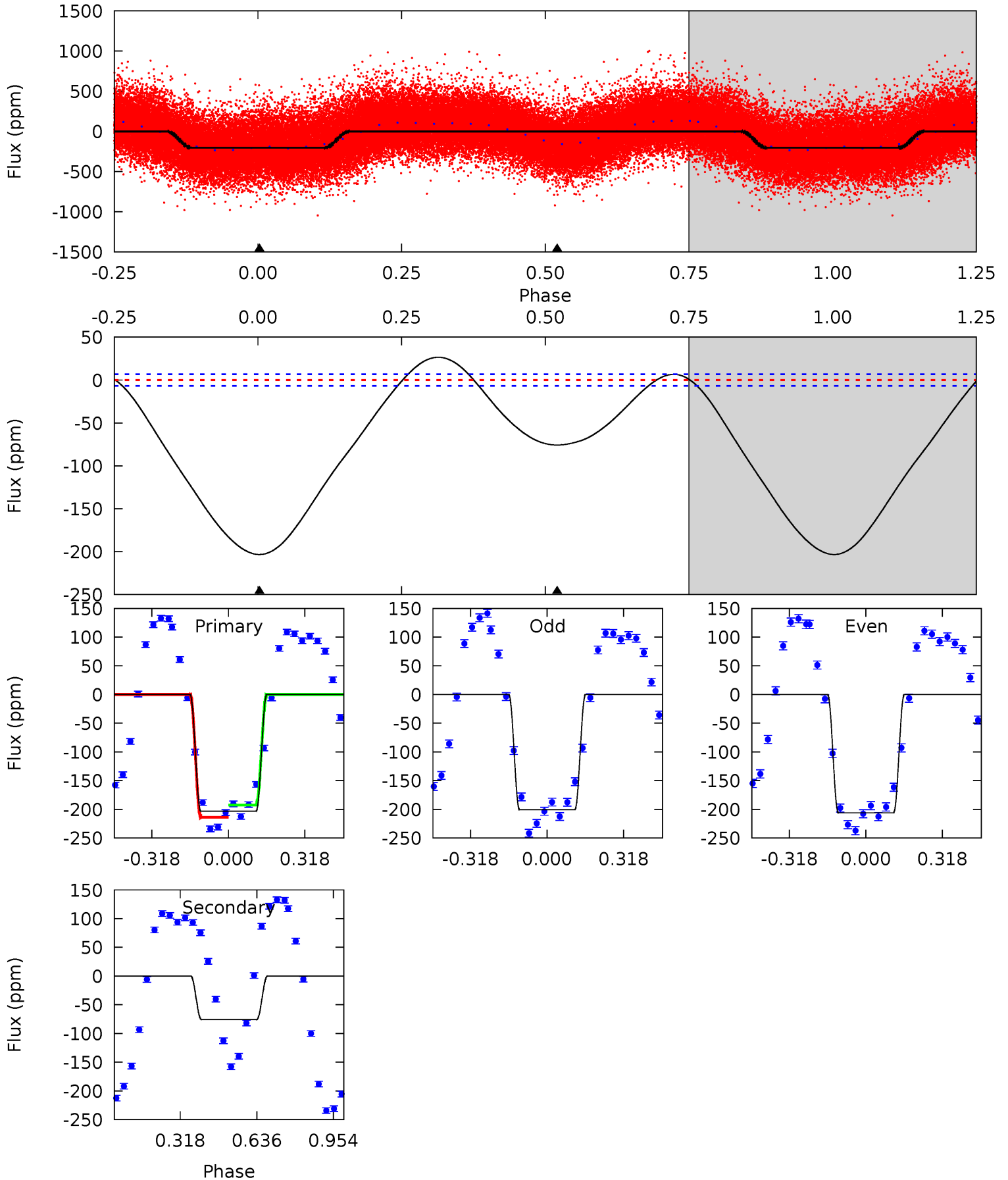
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.38	0.24	0	0	4.29	0.93	0.02	0.38	0.38	0.24	0.24	0.52	0.07	0.11	0.50



Alt Model-Shift Uniqueness Test

005820381-01, P = 1.290417 Days, E = 130.261560 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
129.8	48.4	0	0	4.32	1.00	8.03	129.8	129.8	48.4	48.4	1.69	1.00	0.12	6.96



Stellar Parameters For KIC 005820381

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6418^{+205}_{-251}	$3.514^{+0.352}_{-0.117}$	$-0.340^{+0.350}_{-0.300}$	$3.683^{+0.527}_{-1.475}$	$1.615^{+0.192}_{-0.415}$	$0.046^{+0.132}_{-0.017}$
	+3%/-4%	+10%/-3%	+103%/-88%	+14%/-40%	+12%/-26%	+289%/-37%
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 005820381-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-0 ± 1	$10.91^{+12.15}_{-7.83}$	4306^{+1470}_{-789}	-3858^{+524}_{-1013}	$0.000^{+0.014}_{-0.005}$
Alt.	-76 ± 2	$12.31^{+12.81}_{-8.49}$	4326^{+1645}_{-832}	-3053^{+8530}_{-1509}	$0.200^{+2.163}_{-0.166}$

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 $A_{obs} \gg 1.0$

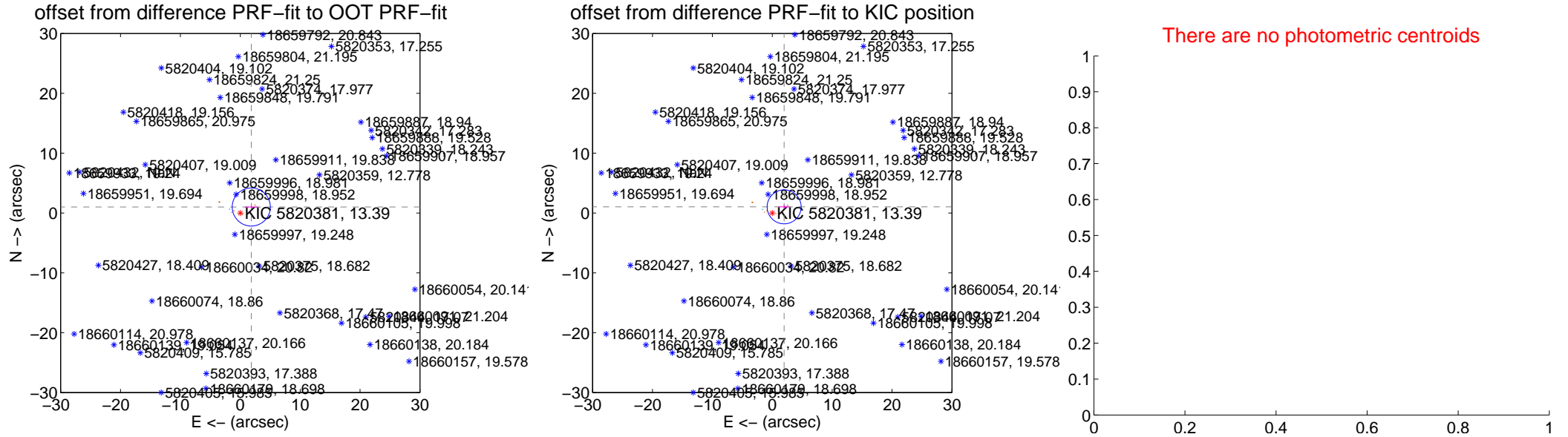
DV Centroid Data

Supplemental centroid analysis for 005820381-01. Kepler magnitude: 13.39. Transit SNR 0.00

There are 1 quarters with good PRF difference image offsets

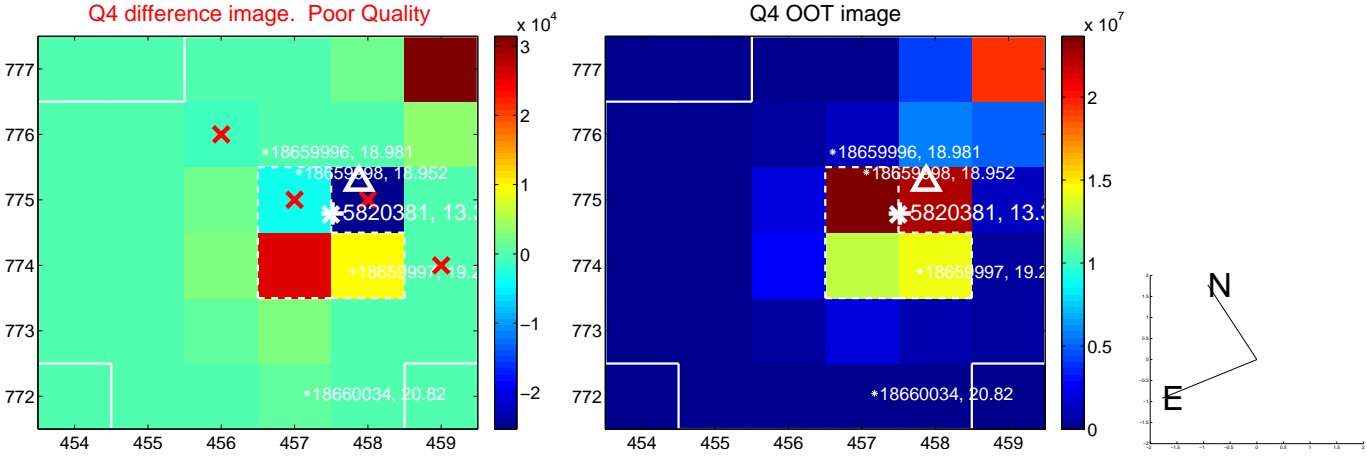
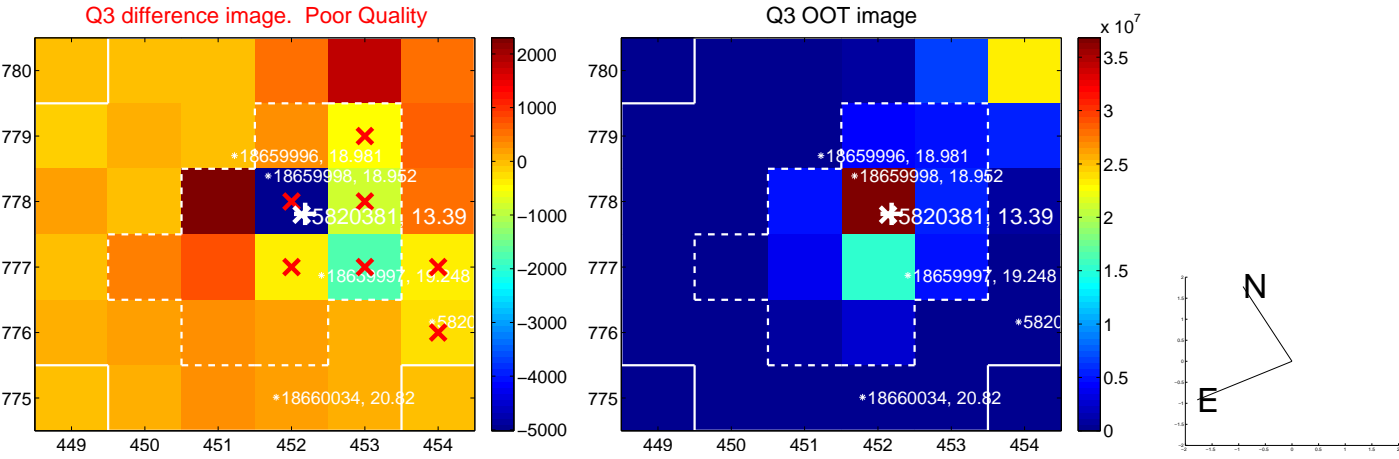
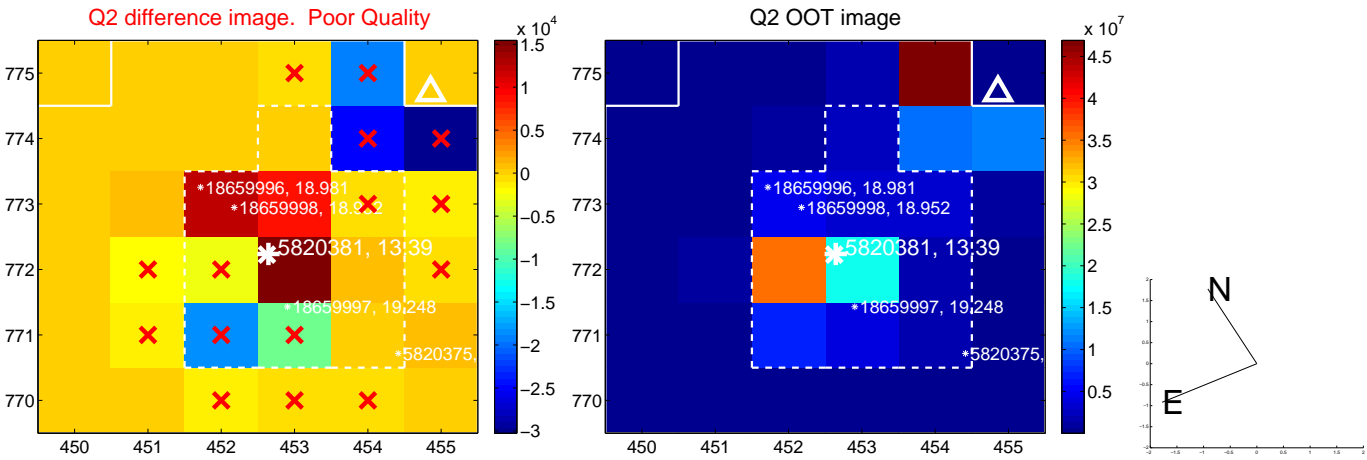
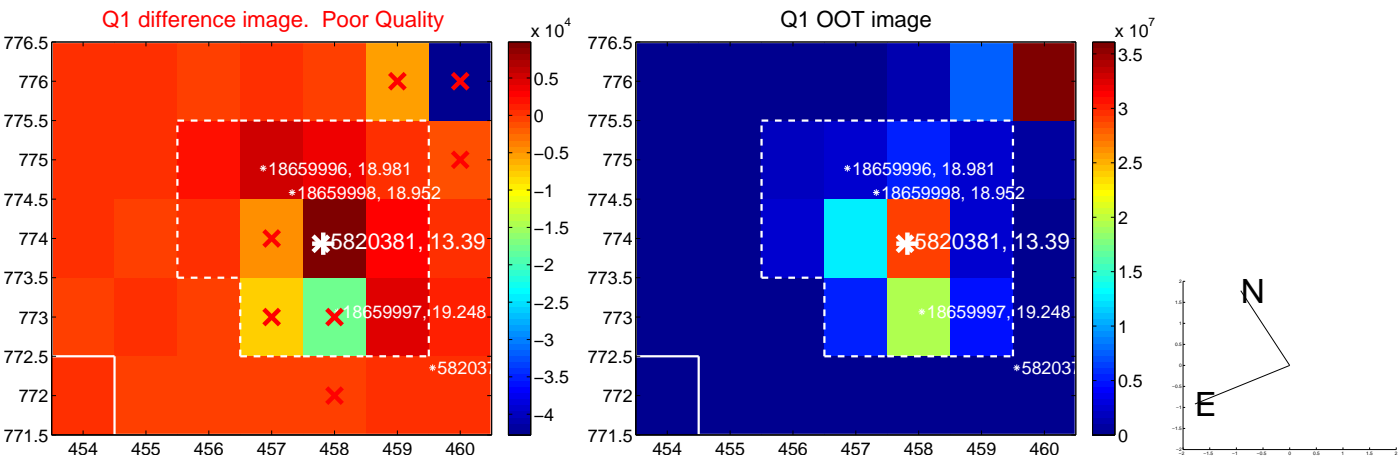
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.093 ± 1.060	1.97	-1.836 ± 1.063	1.005 ± 0.323
PRF-fit source offset from KIC position	2.236 ± 0.946	2.36	-1.984 ± 0.950	1.031 ± 0.294
photometric centroid source offset	—	—	—	—

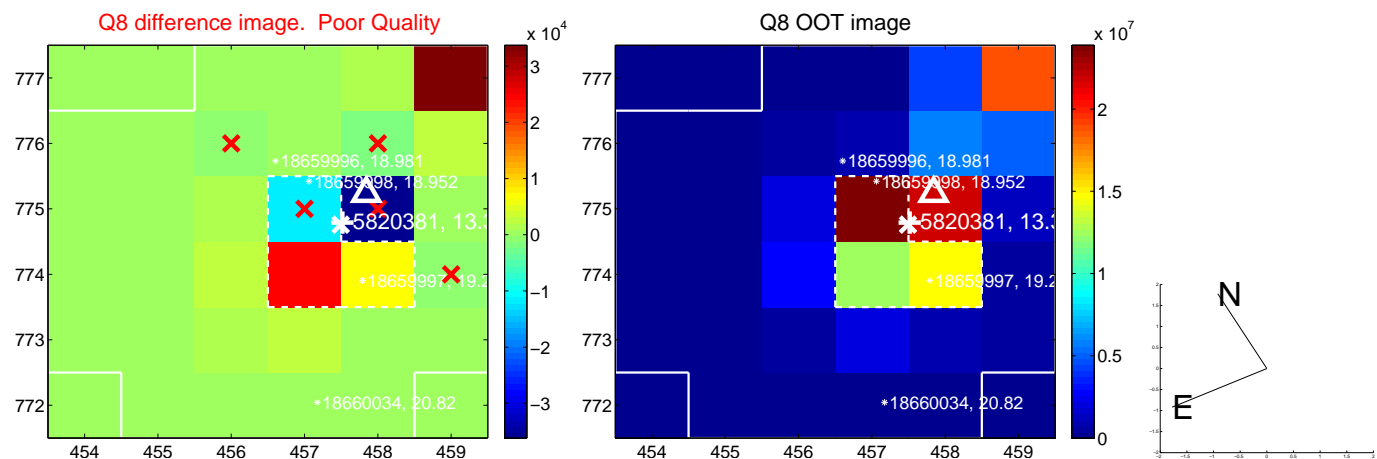
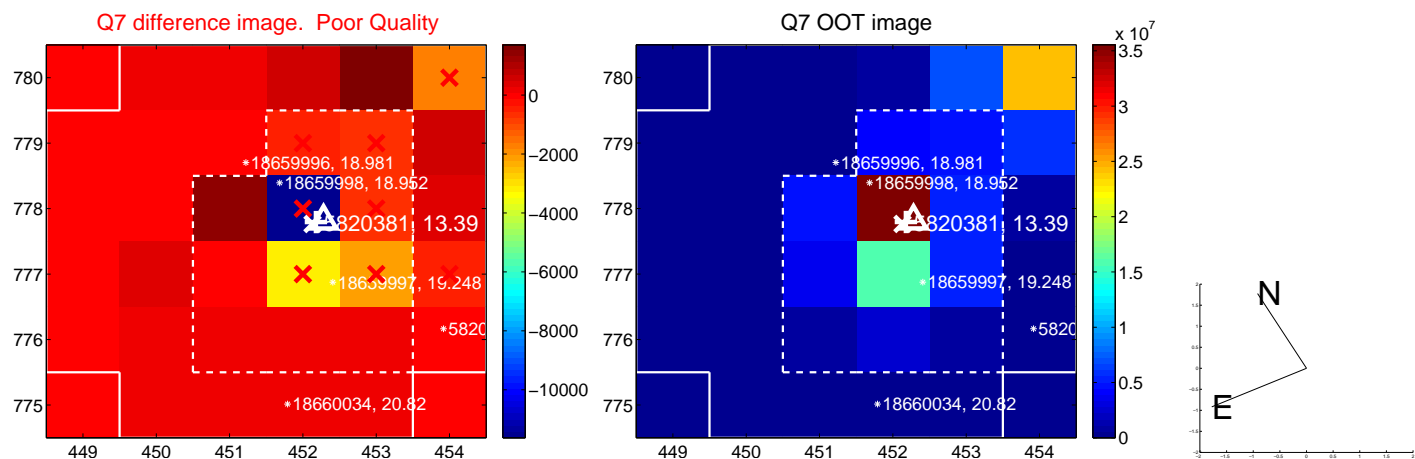
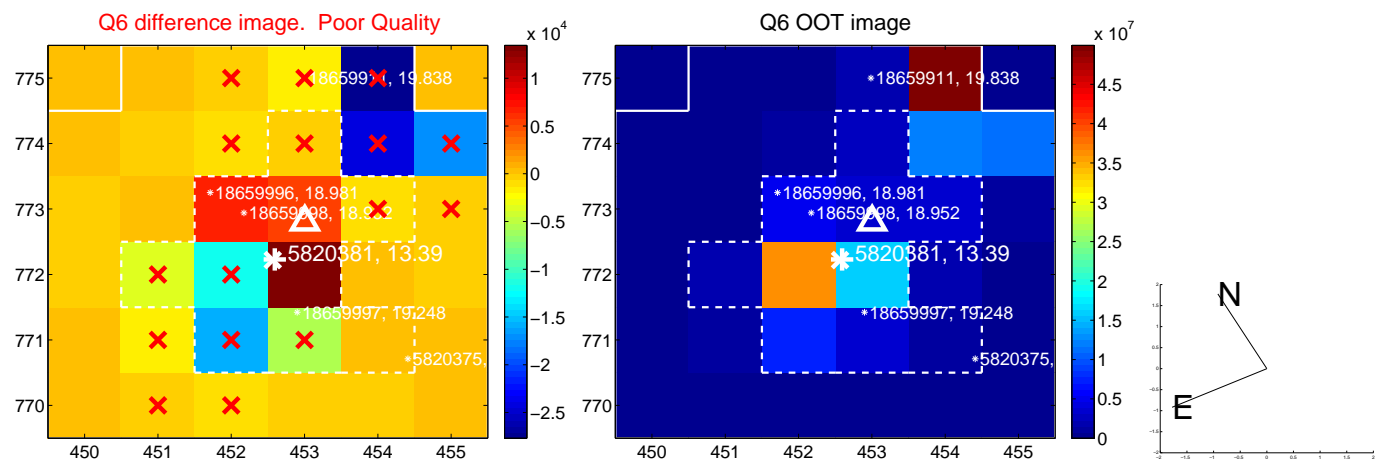
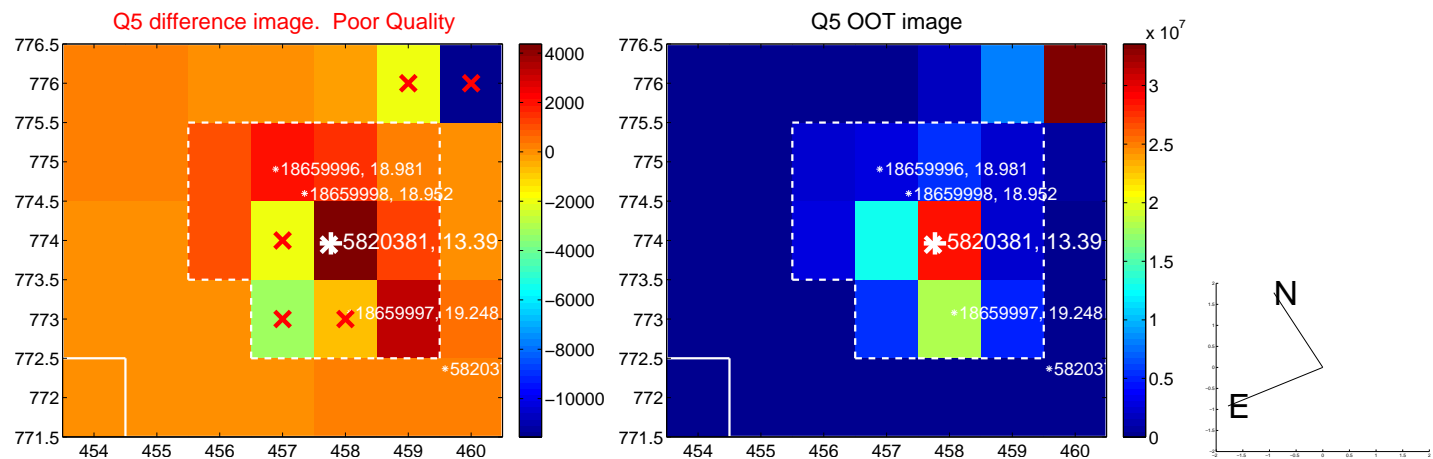


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

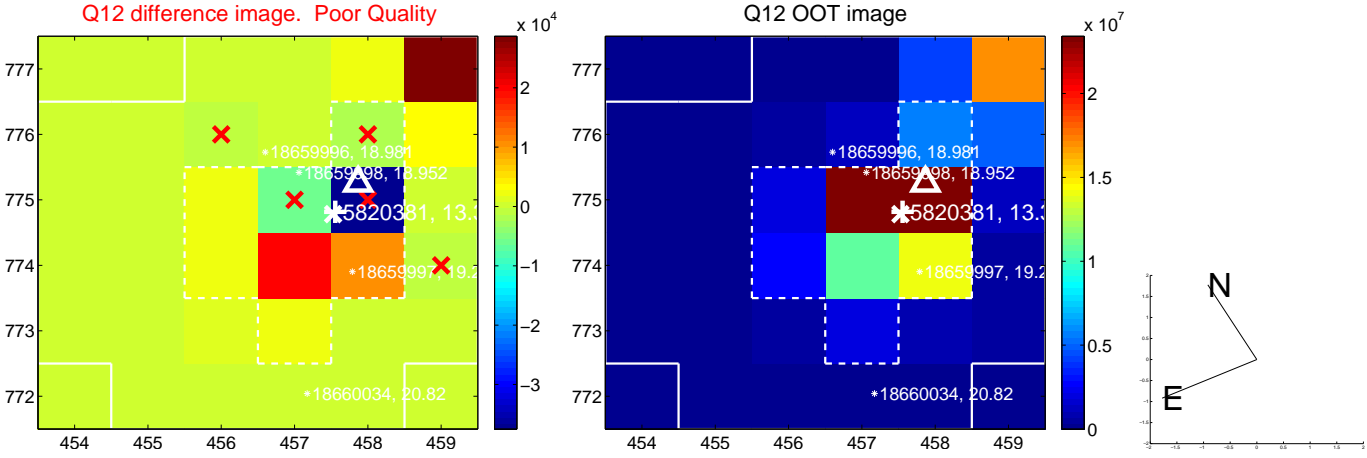
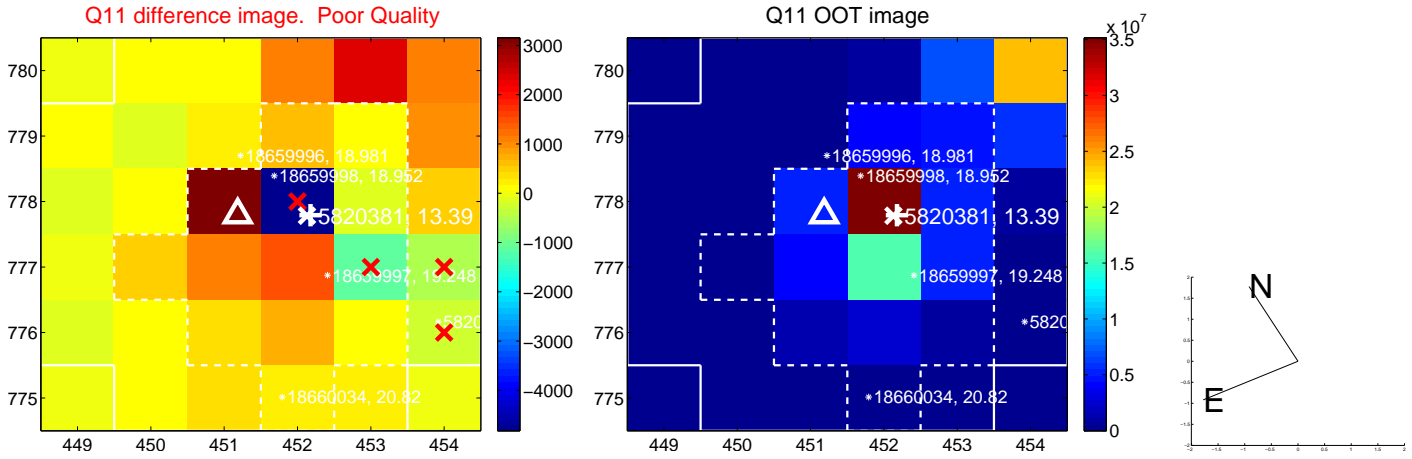
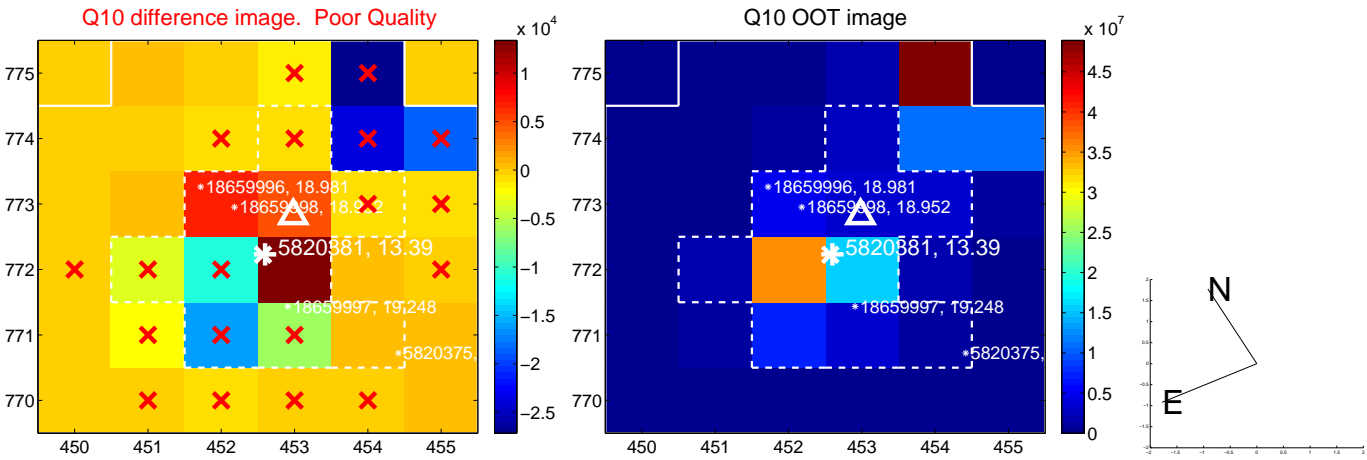
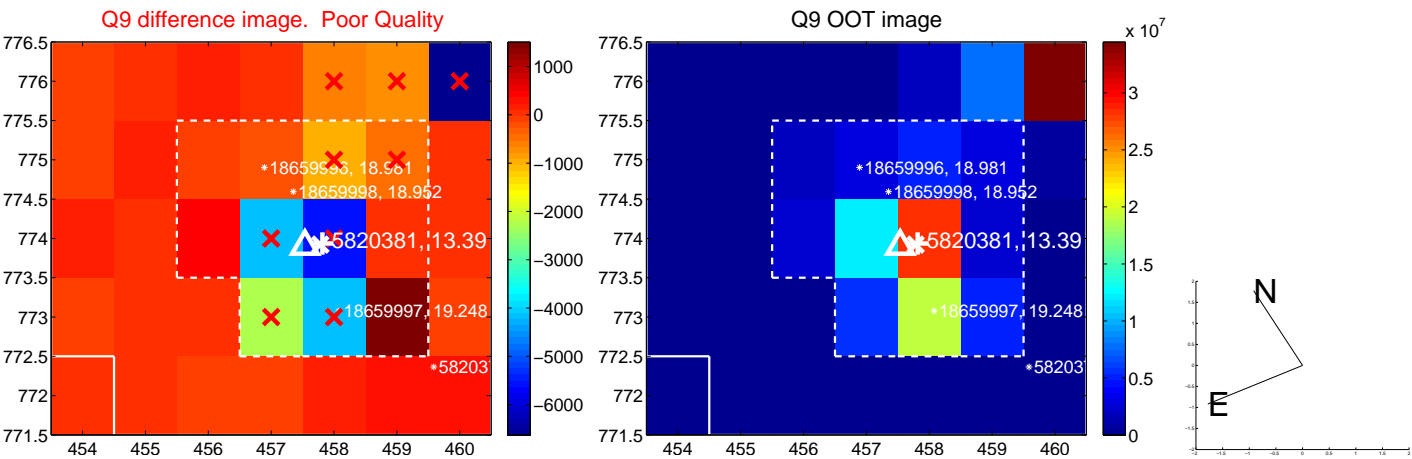
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



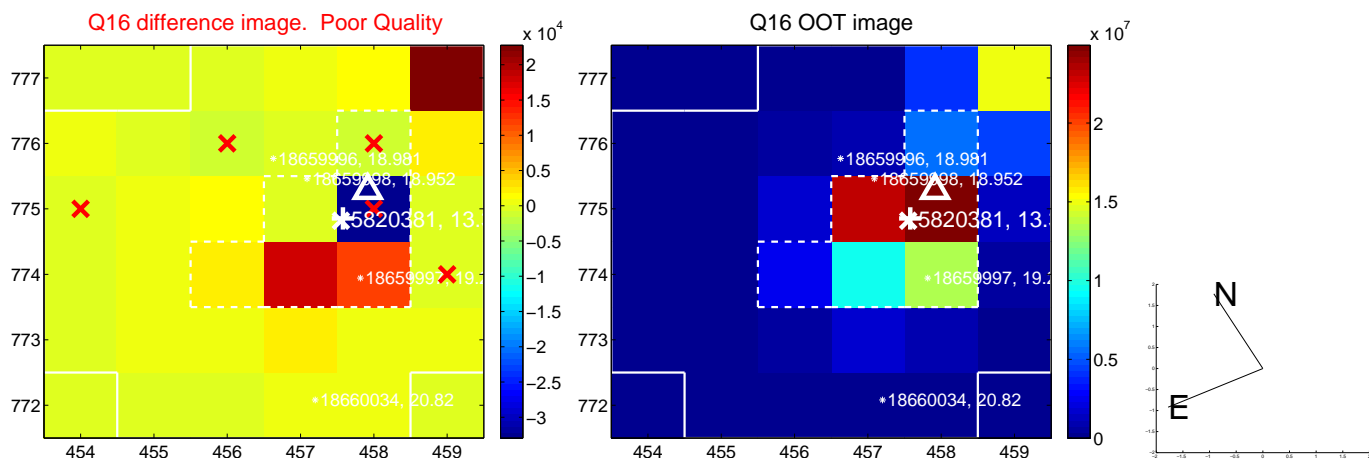
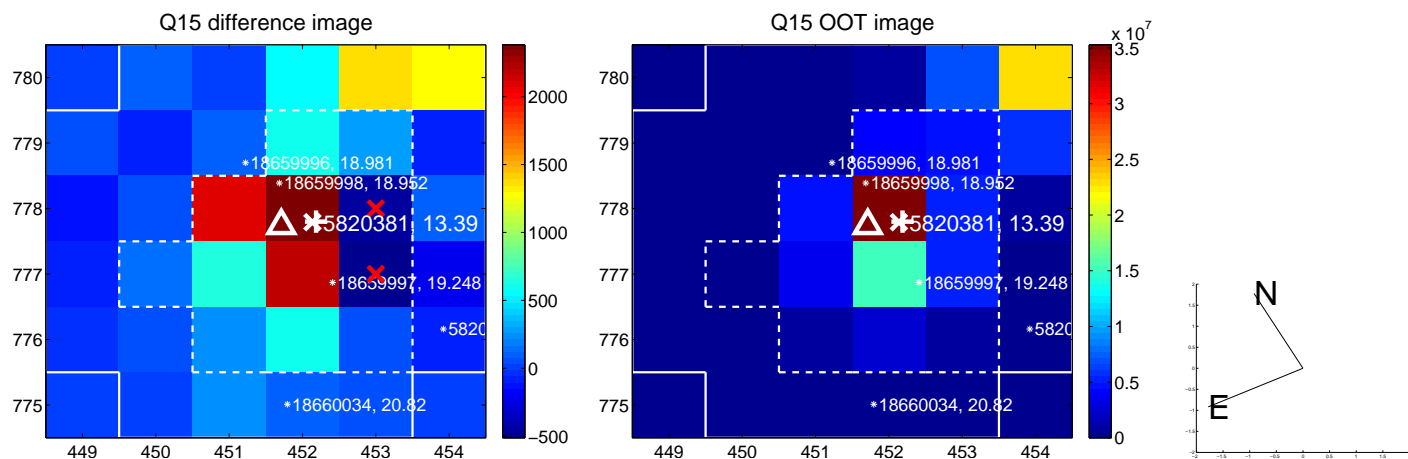
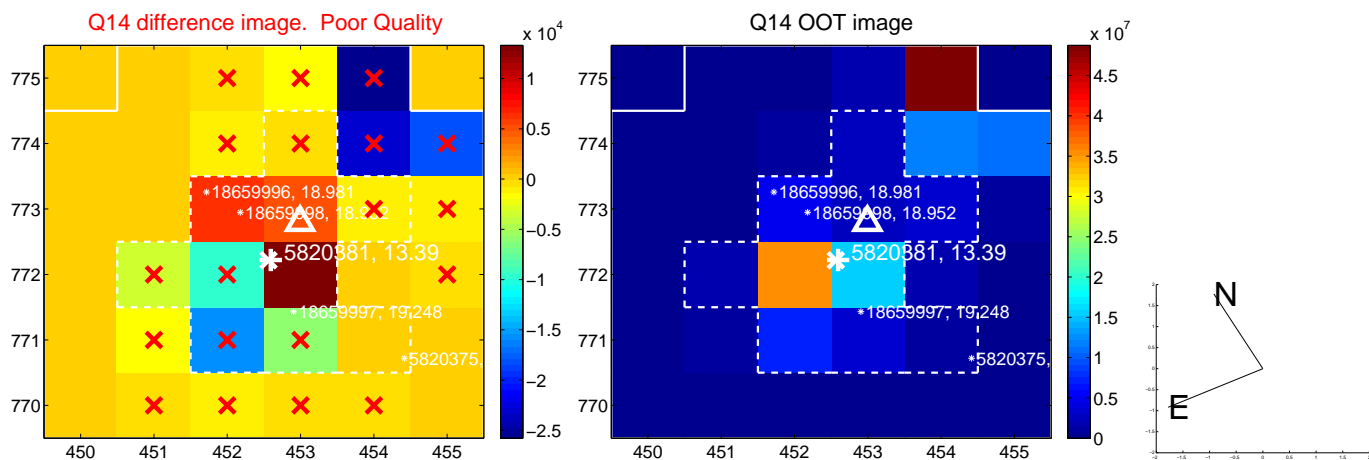
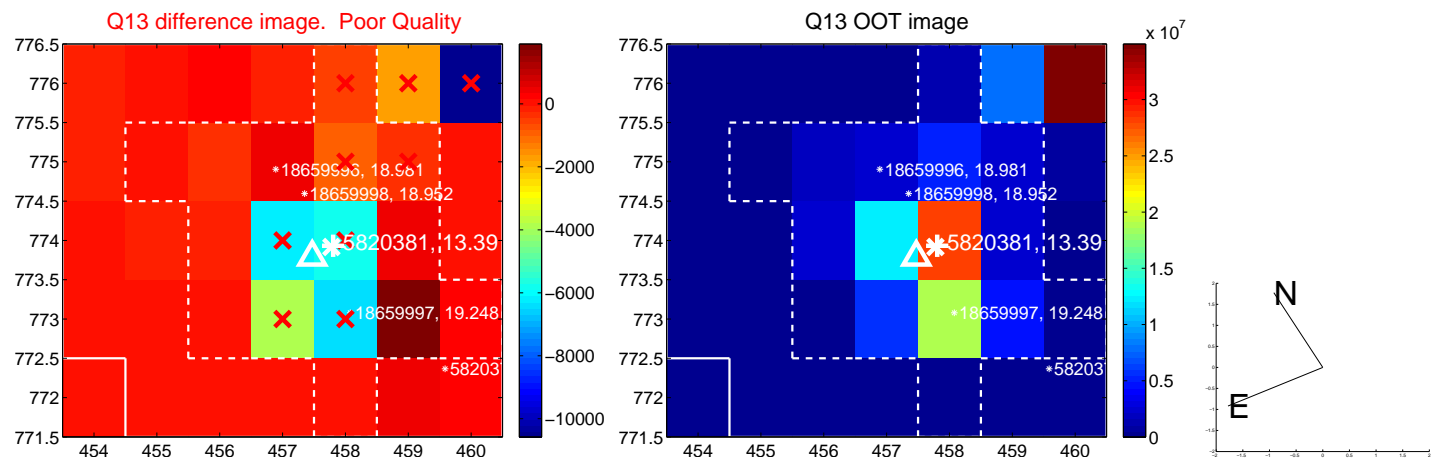
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



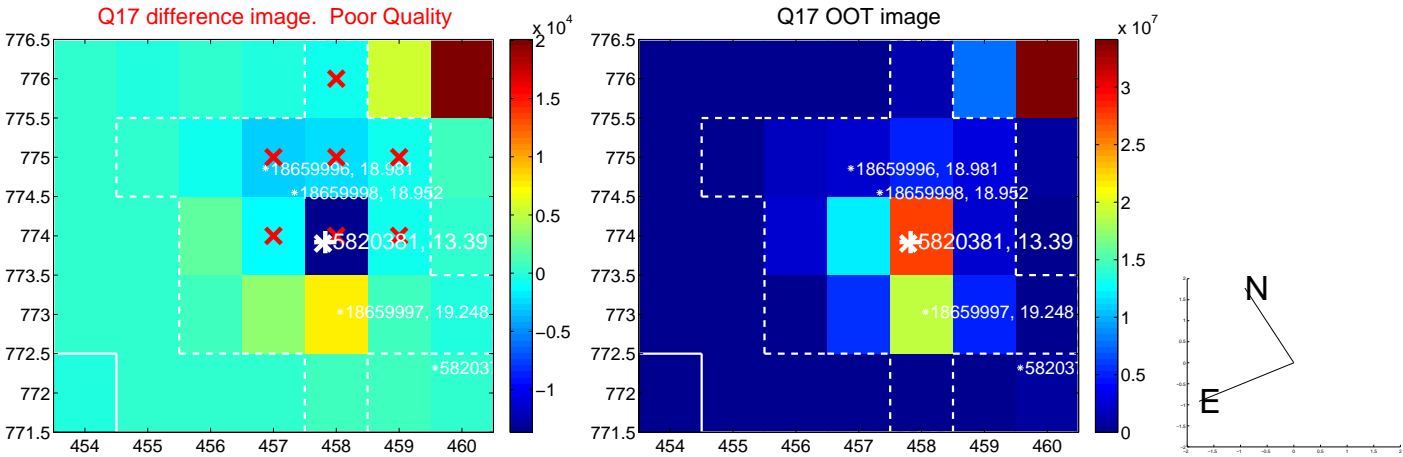
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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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

