

KIC 007281357

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})
007281357-01	OBS	No	0.567130	131.851705	0.0	0.723	10.4	0.0	0.74	5443	0.02	2751.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007281357-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—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.

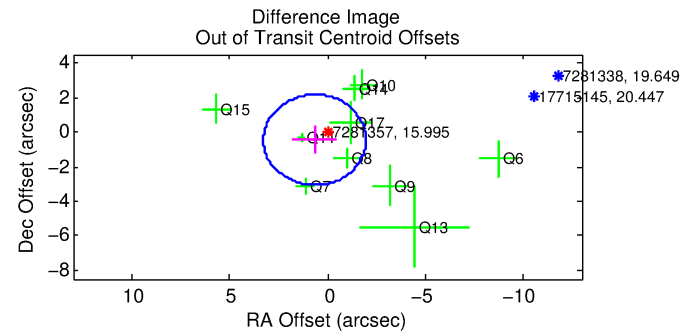
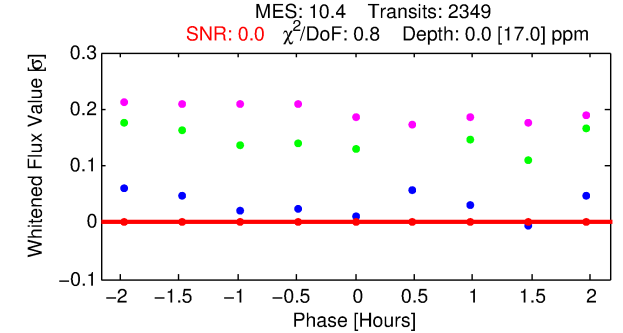
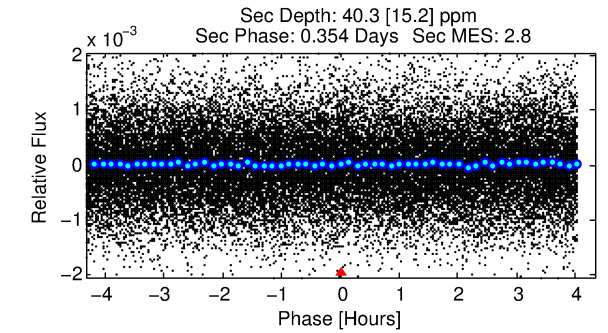
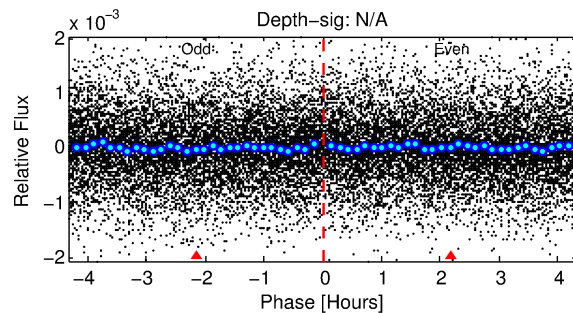
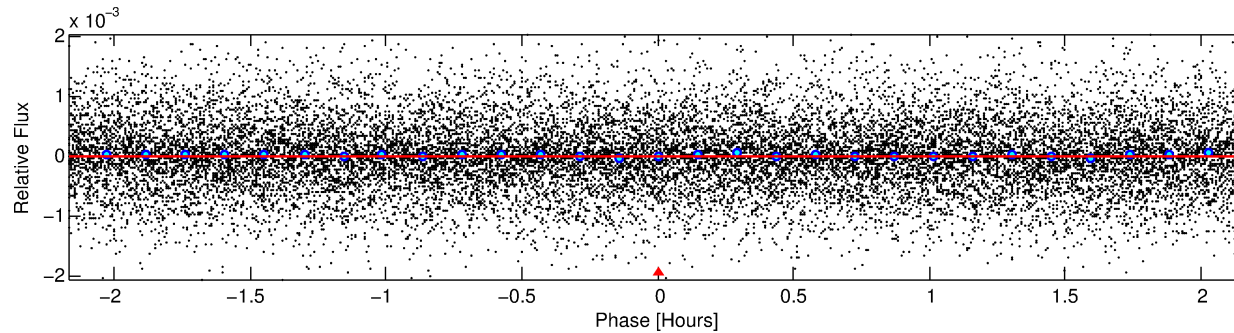
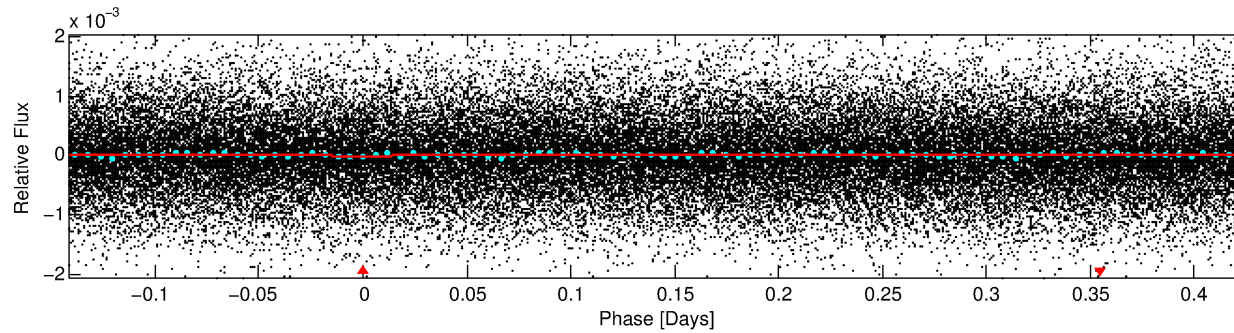
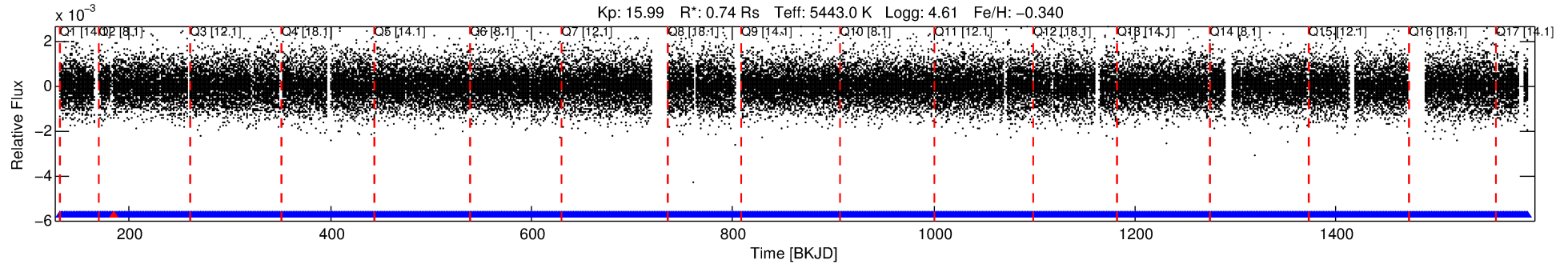
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007281357-01

No Significant Match Found

DV One-Page Summary

KIC: 7281357 Candidate: 1 of 1 Period: 0.567 d



DV Fit Results:

Period = 0.56713 [0.03341] d
Epoch = 131.8517 [5.0077] BKJD
Rp/R* = 0.0002 [0.0579]
a/R* = 1.71 [250.24]
b = 0.97 [14.05]
Seff = 2751.74 [670.34]
Teq = 1847 [112] K
Rp = 0.02 [4.69] Re
a = 0.0125 [0.0018] AU
Ag = 9220.53 [4447481.43] [0.00σ]
Teffp = 27981 [3374434] K [0.01σ]

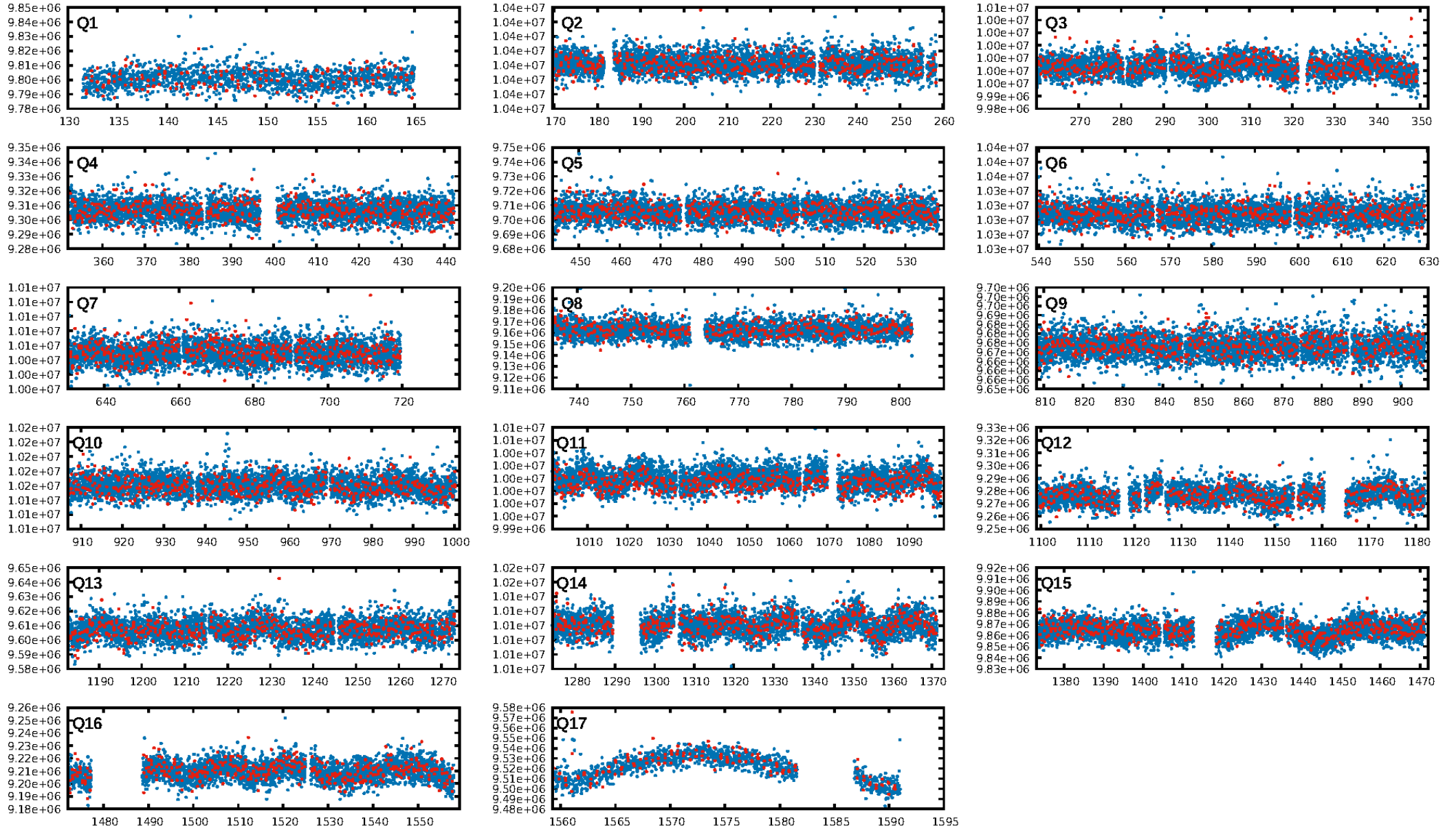
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.03e-27
RollingBand-fgt: 1.00 [2242/2243]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.798 arcsec [0.91σ]
KicOffset-rm: 0.773 arcsec [0.97σ]
OotOffset-st: 3/3/1/3 [10]
KicOffset-st: 3/3/1/3 [10]
DiffImageQuality-fgm: 0.00 [0/10]
DiffImageOverlap-fno: 1.00 [17/17]

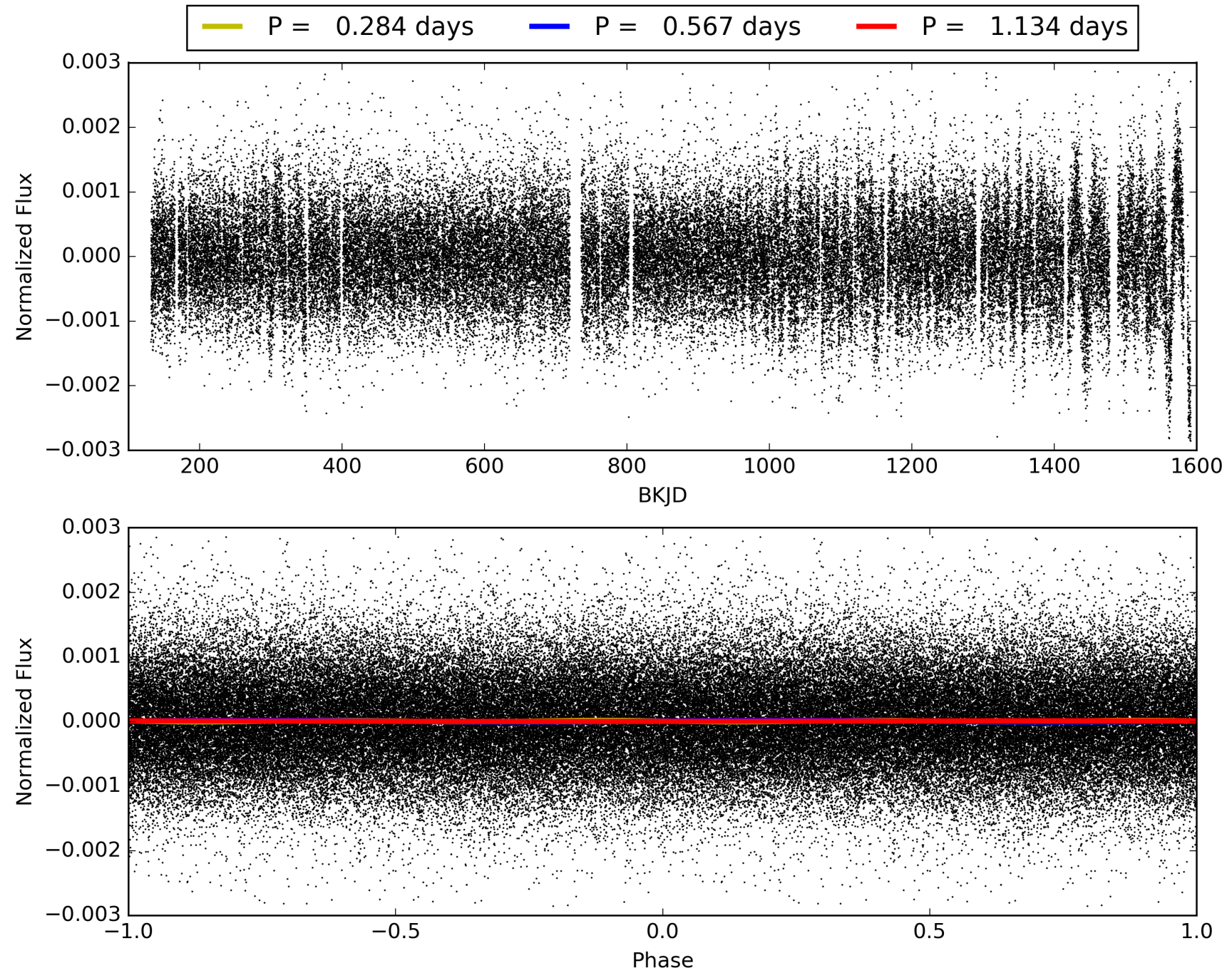
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:38:25 Z

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

TCE 007281357-01, PDC Light Curves

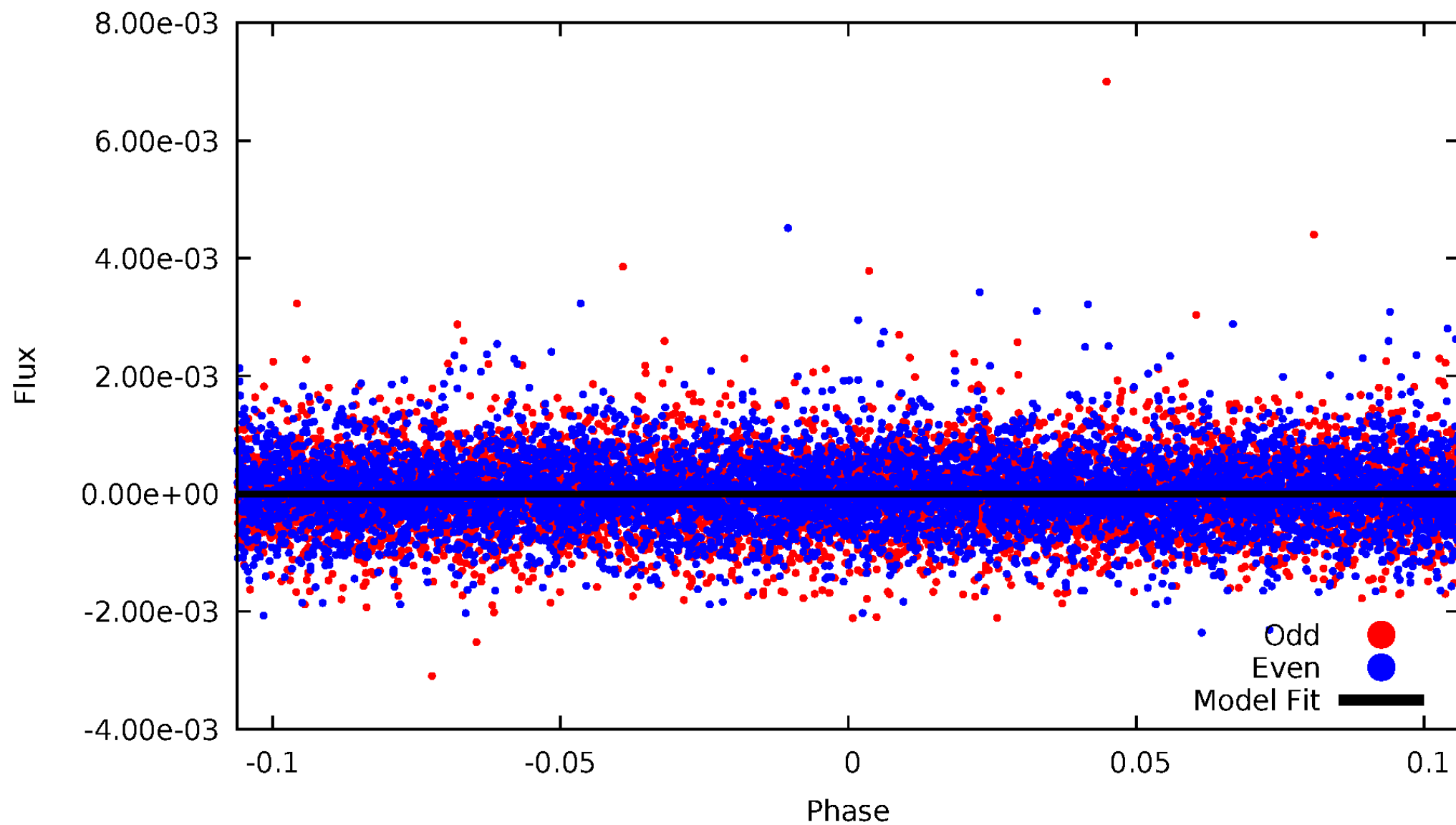


TCE 007281357-01



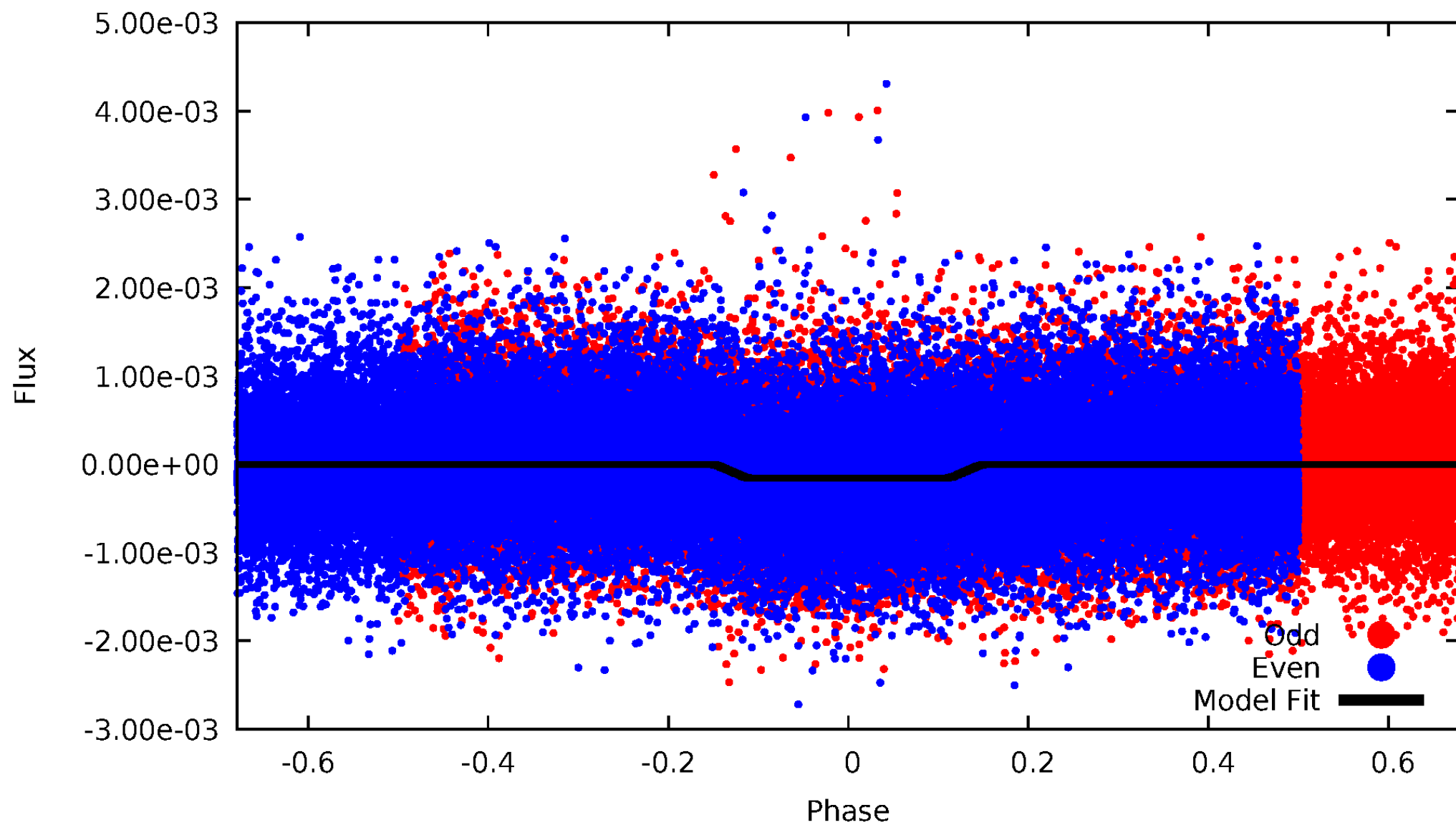
DV Odd/Even

TCE 007281357-01



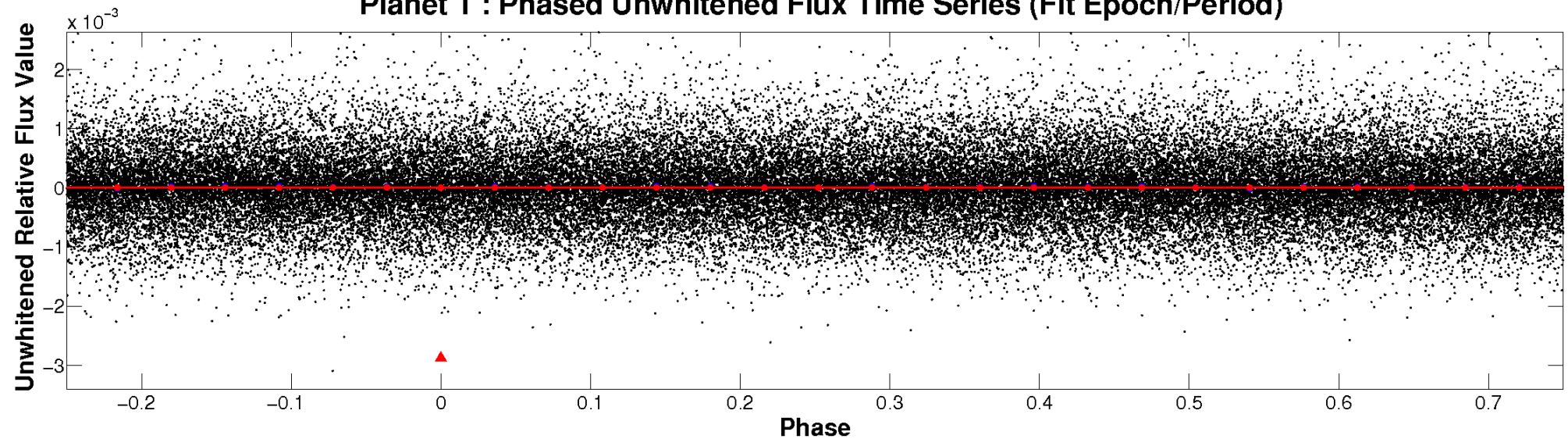
ALT Odd/Even

TCE 007281357-01

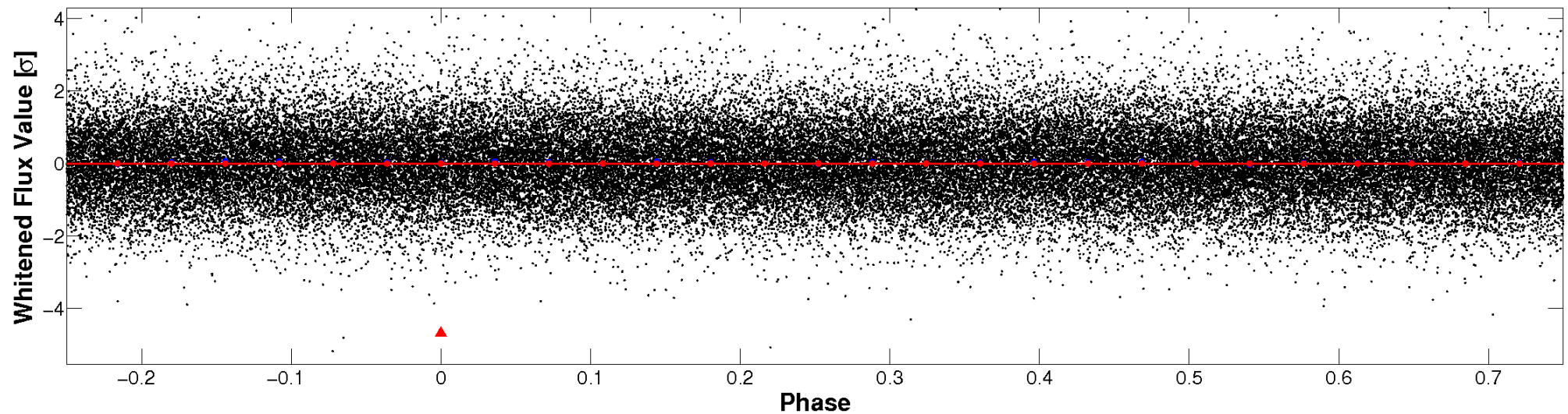


Non-Whitened Vs. Whitened Light Curve

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

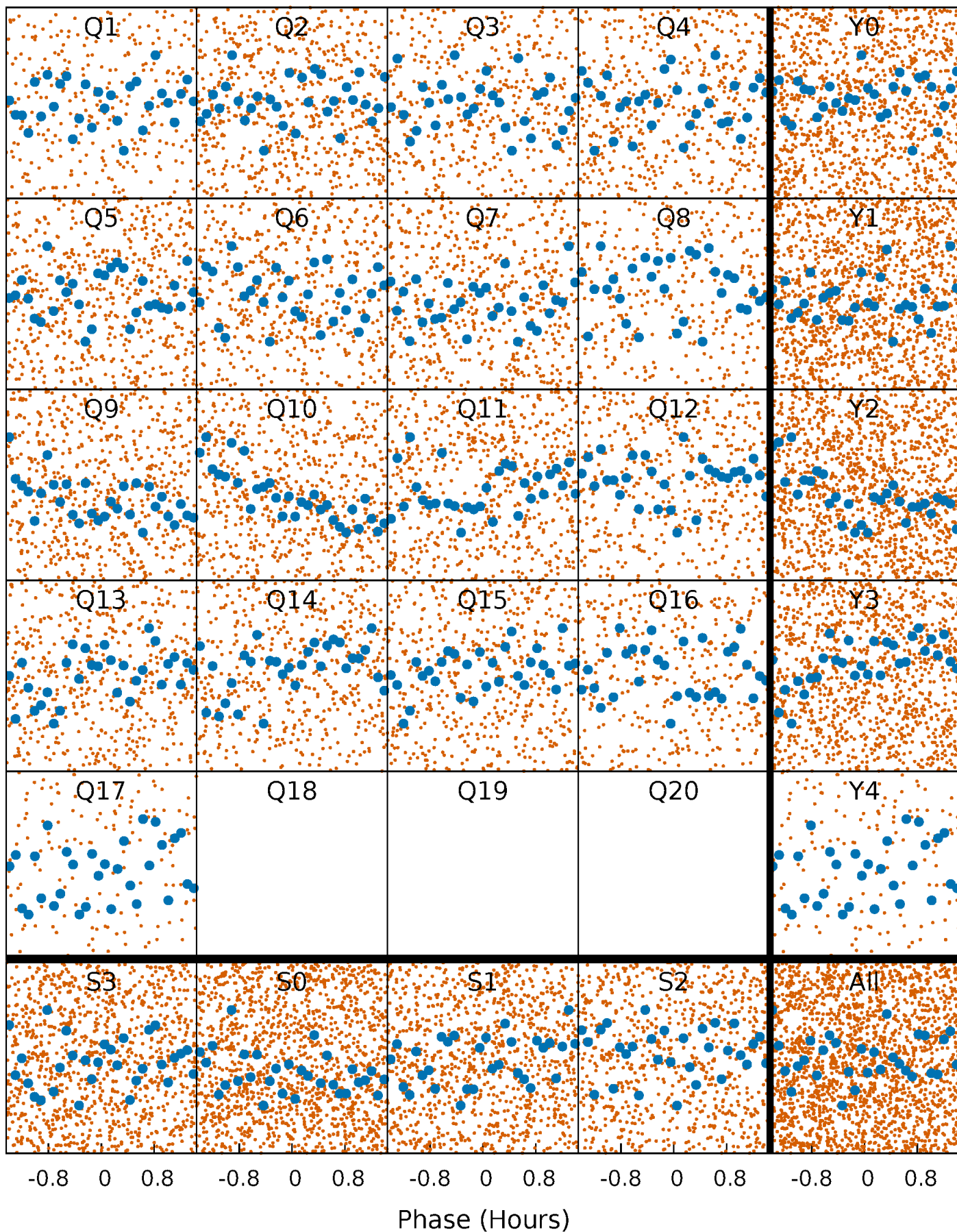


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



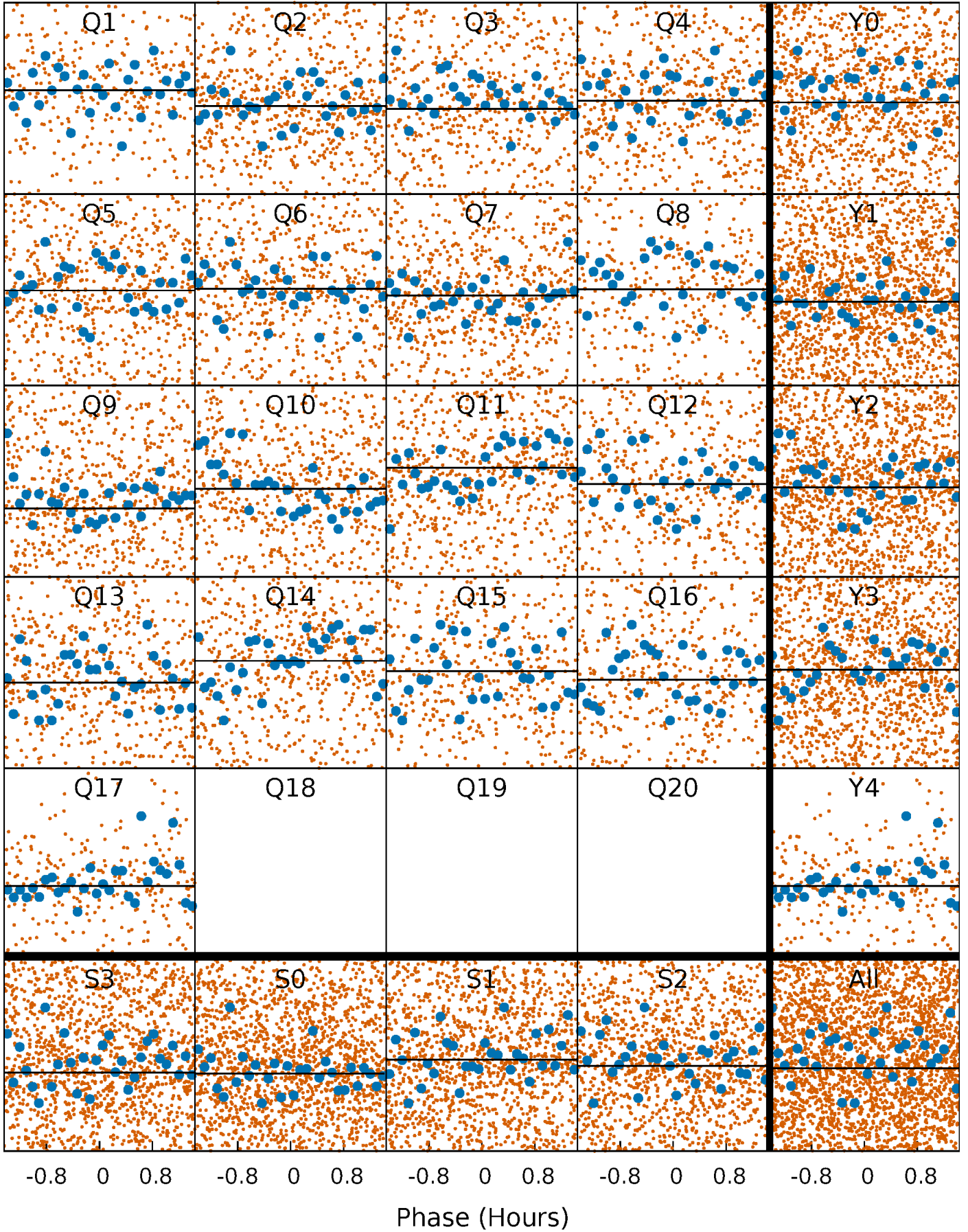
PDC Quarter-Phased Transit Curves

TCE 007281357-01 P= 0.567130 Days $T_0=131.851705$ (BKJD)



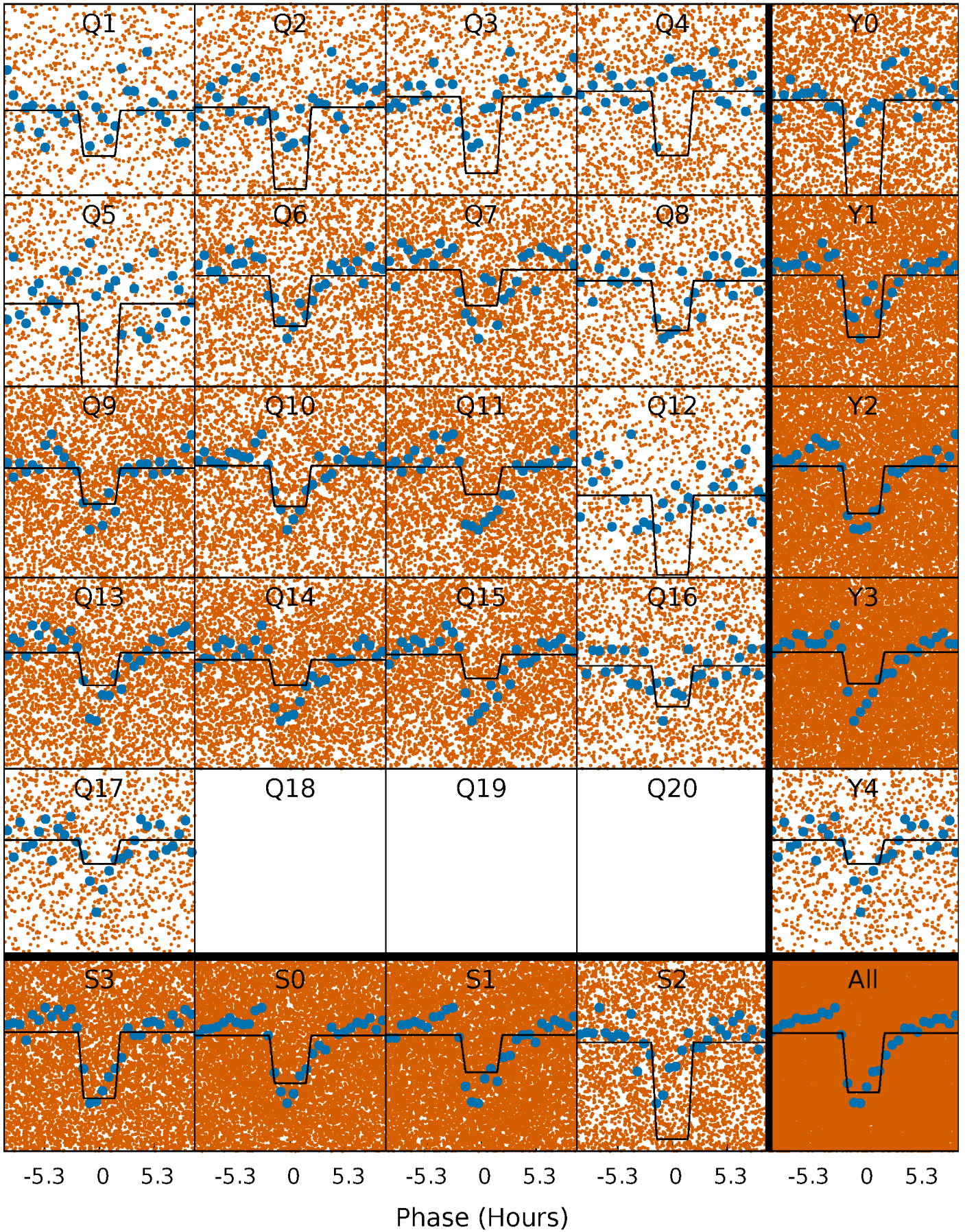
DV Quarter-Phased Transit Curves

TCE 007281357-01 P= 0.567130 Days $T_0=131.851705$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

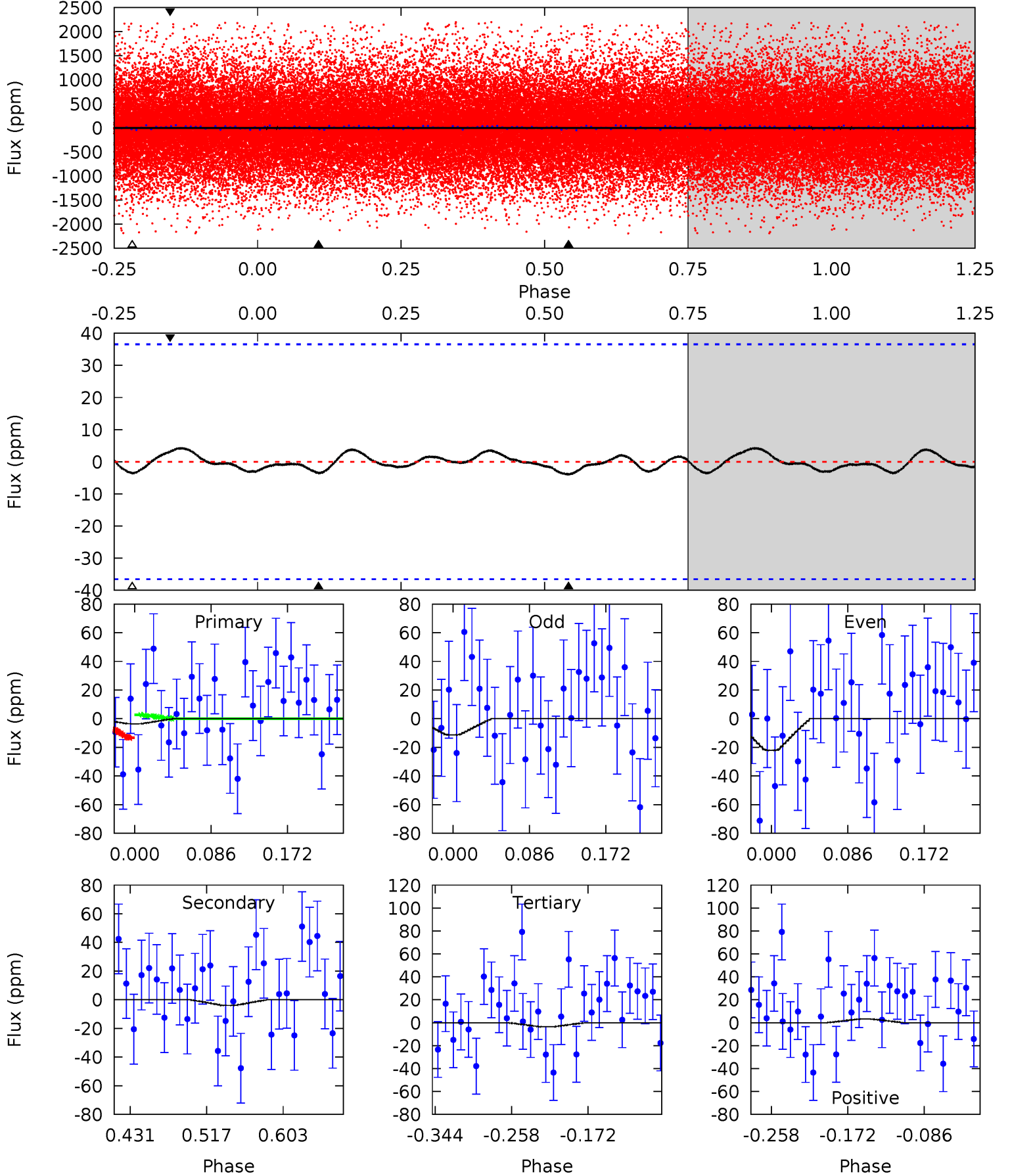
TCE 007281357-01 P= 0.566788 Days $T_0=131.845218$ (BKJD)



DV Model-Shift Uniqueness Test

007281357-01, P = 0.567130 Days, E = 131.284575 Days

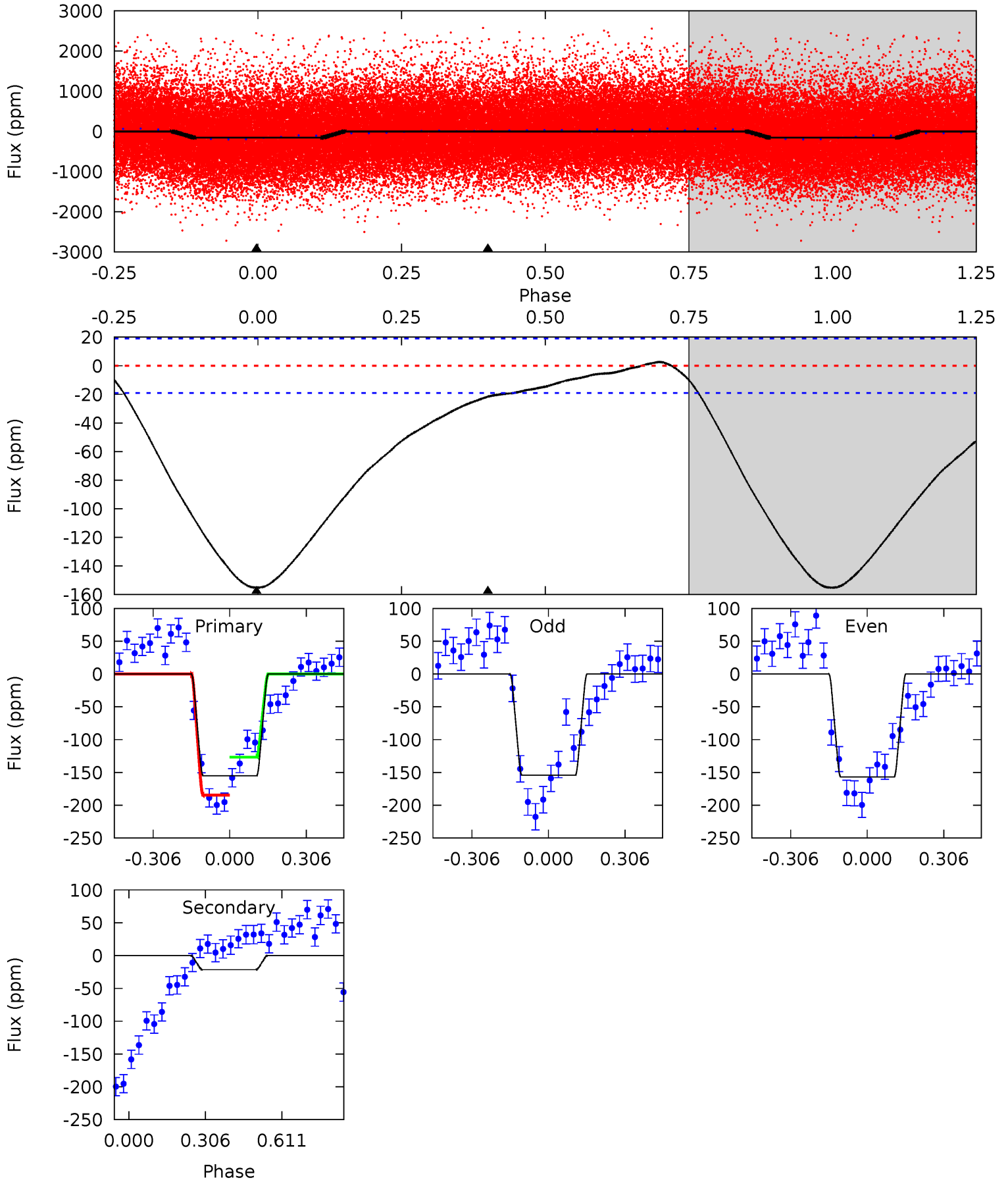
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.45	0.50	0.45	0.40	4.60	1.72	0.24	0.00	0.06	0.05	0.10	0.68	-10.1	0.52	0.68



Alt Model-Shift Uniqueness Test

007281357-01, P = 0.566788 Days, E = 131.278430 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.2	4.91	0	0	4.32	1.02	0.71	35.2	35.2	4.91	4.91	0.31	1.02	0.02	6.56



Stellar Parameters For KIC 007281357

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5443^{+162}_{-162}	$4.610^{+0.035}_{-0.105}$	$-0.340^{+0.300}_{-0.300}$	$0.742^{+0.127}_{-0.063}$	$0.831^{+0.078}_{-0.096}$	$2.860^{+0.510}_{-0.908}$
	+3%/-3%	+1%/-2%	+88%/-88%	+17%/-8%	+9%/-12%	+18%/-32%
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 007281357-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-4 ± 8	$3.33^{+3.42}_{-2.36}$	2611^{+123}_{-117}	-2817^{+755}_{-132}	$0.015^{+0.266}_{-0.043}$
Alt.	-22 ± 4	$3.48^{+4.11}_{-2.43}$	2624^{+129}_{-106}	-2593^{+6239}_{-238}	$0.153^{+1.571}_{-0.121}$

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 $A_{obs} \gg 1.0$

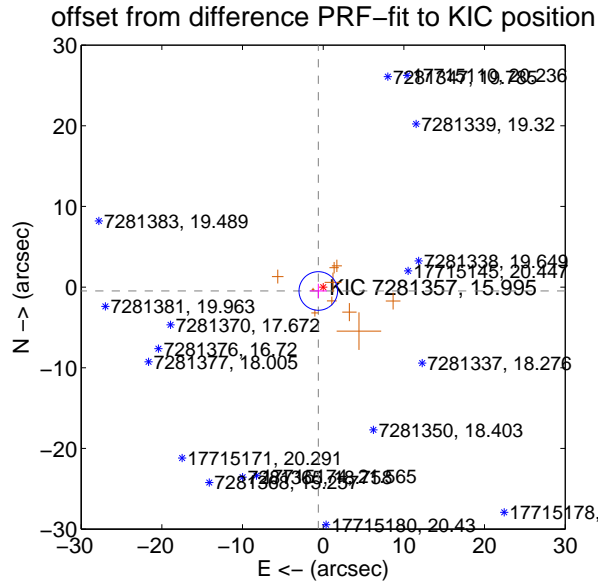
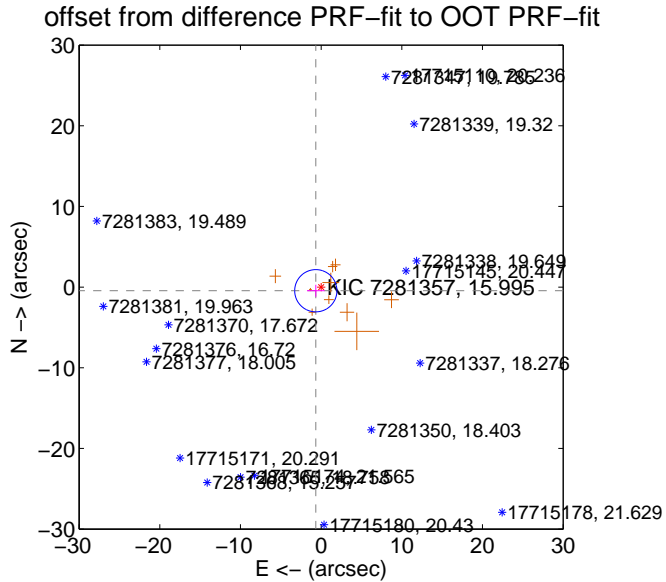
DV Centroid Data

Supplemental centroid analysis for 007281357-01. Kepler magnitude: 15.99. Transit SNR 0.00

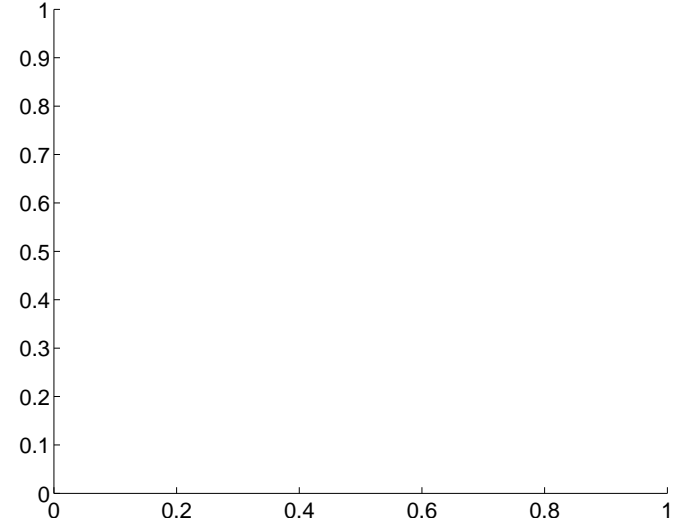
There are 0 quarters with good PRF difference image offsets

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	0.798 ± 0.873	0.91	0.659 ± 1.093	-0.451 ± 0.743
PRF-fit source offset from KIC position	0.773 ± 0.798	0.97	0.605 ± 1.051	-0.481 ± 0.897
photometric centroid source offset	—	—	—	—

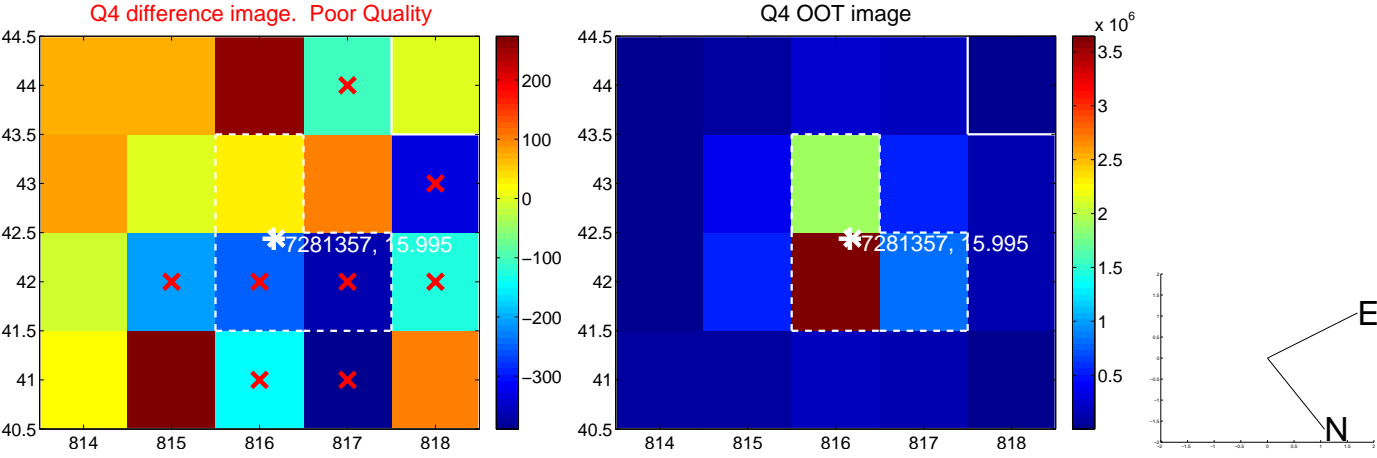
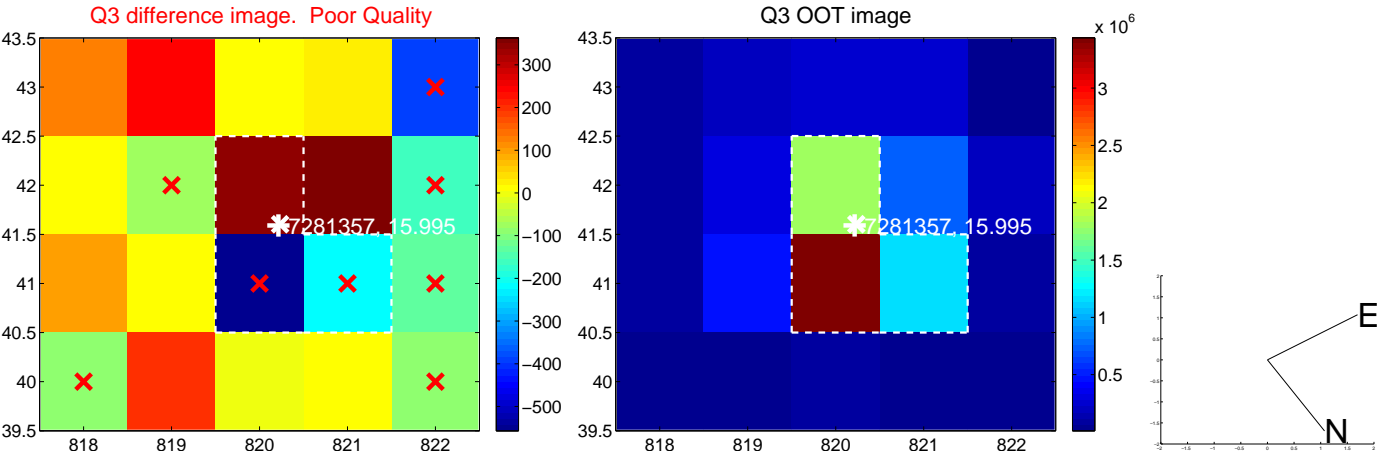
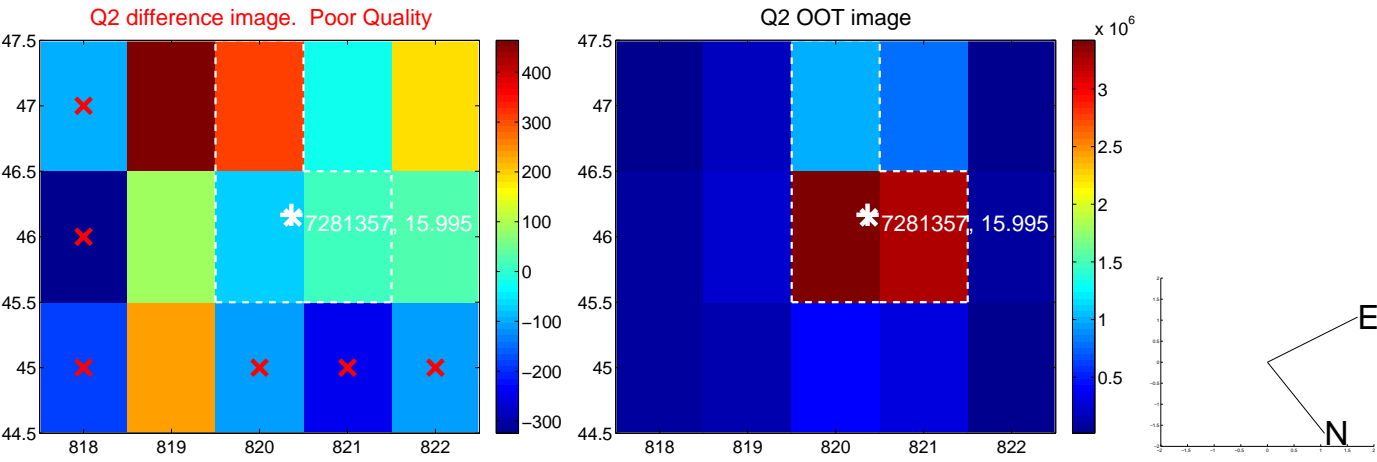
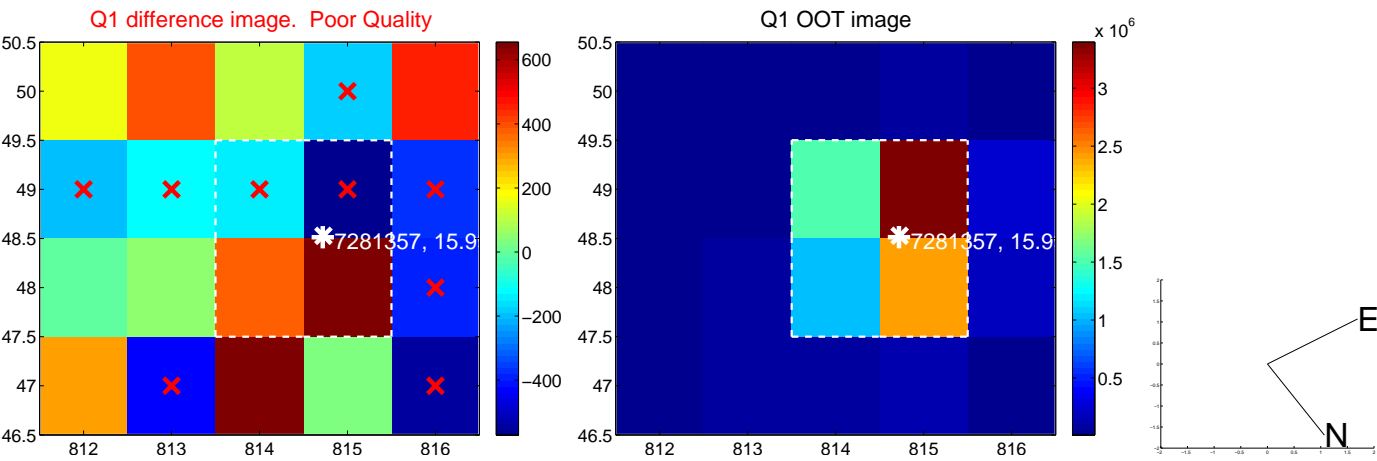


There are no photometric centroids

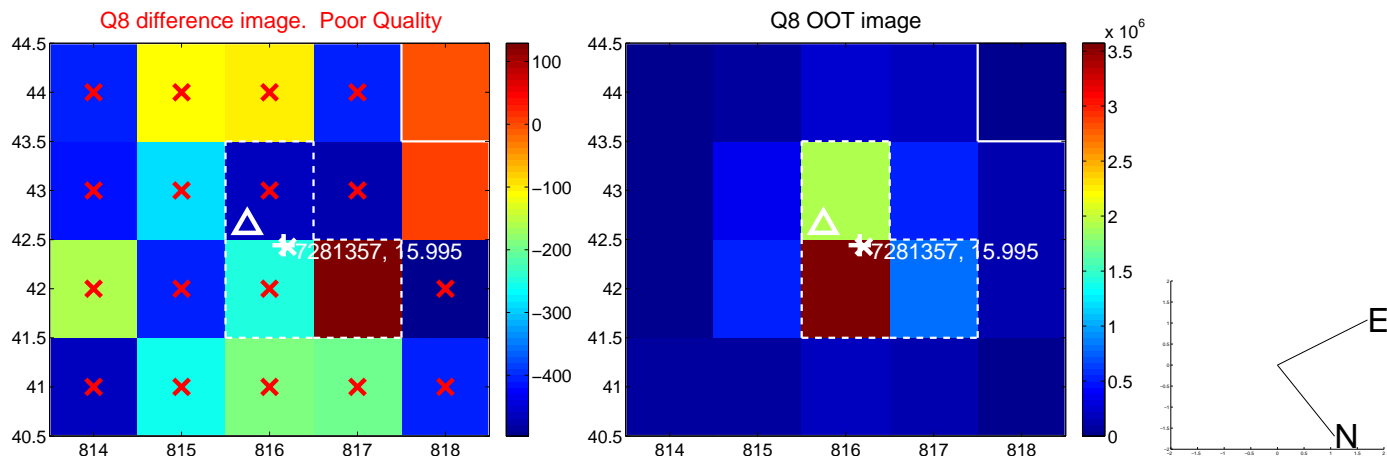
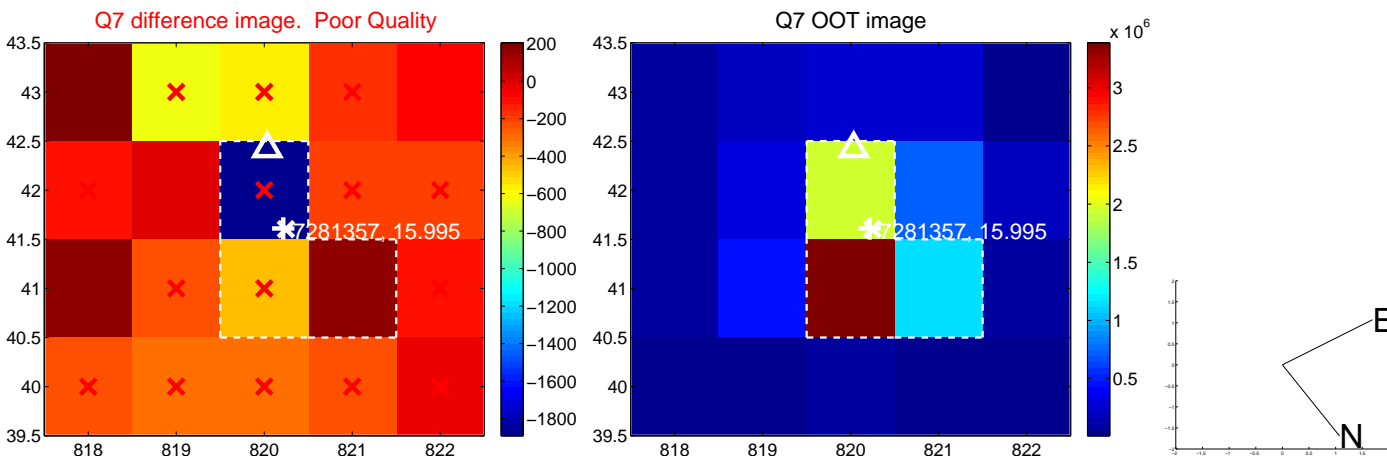
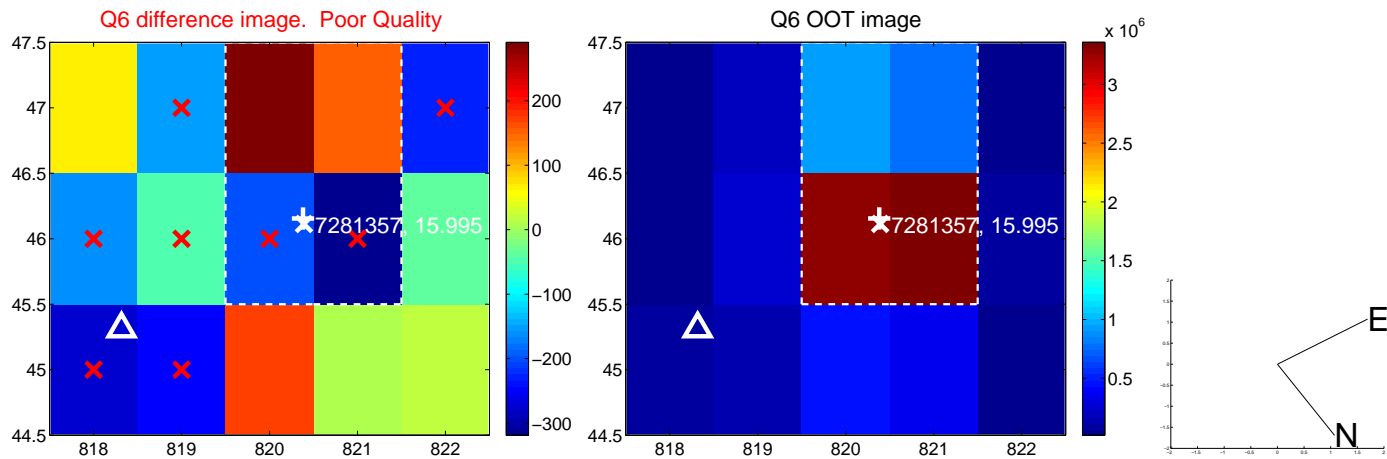
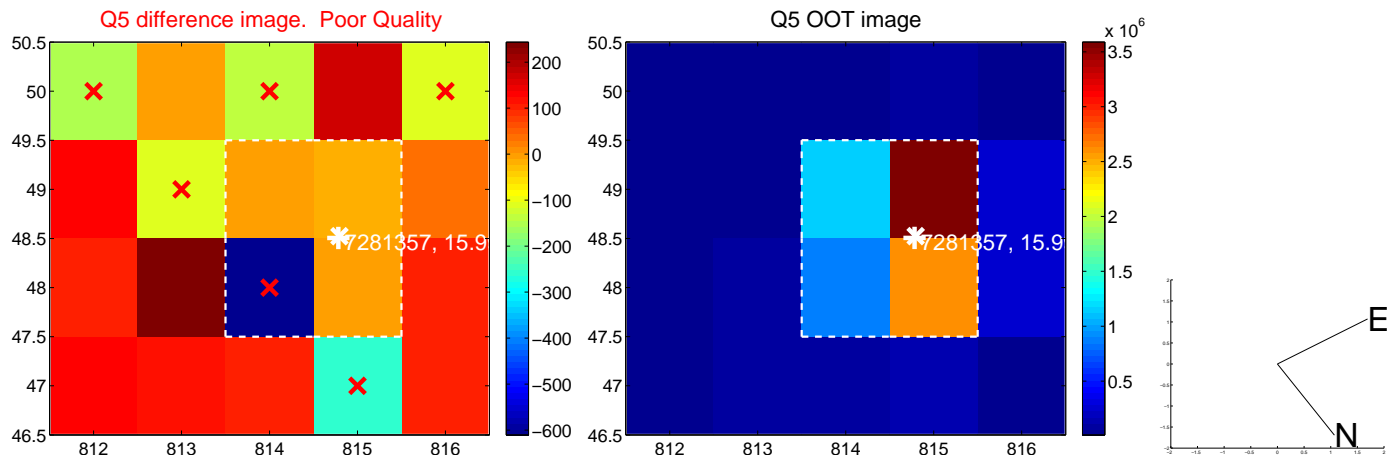


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

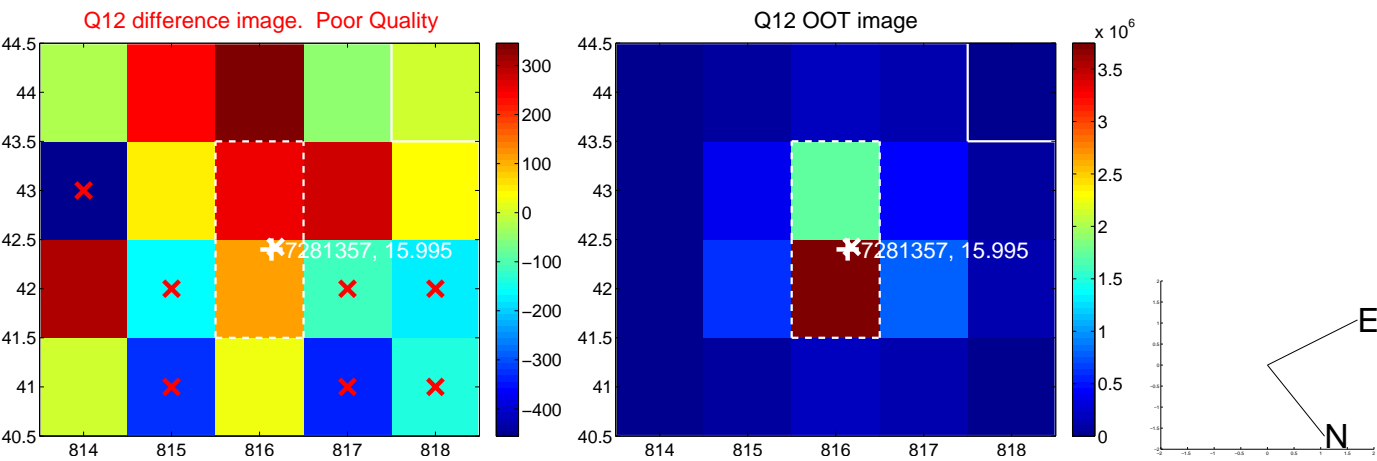
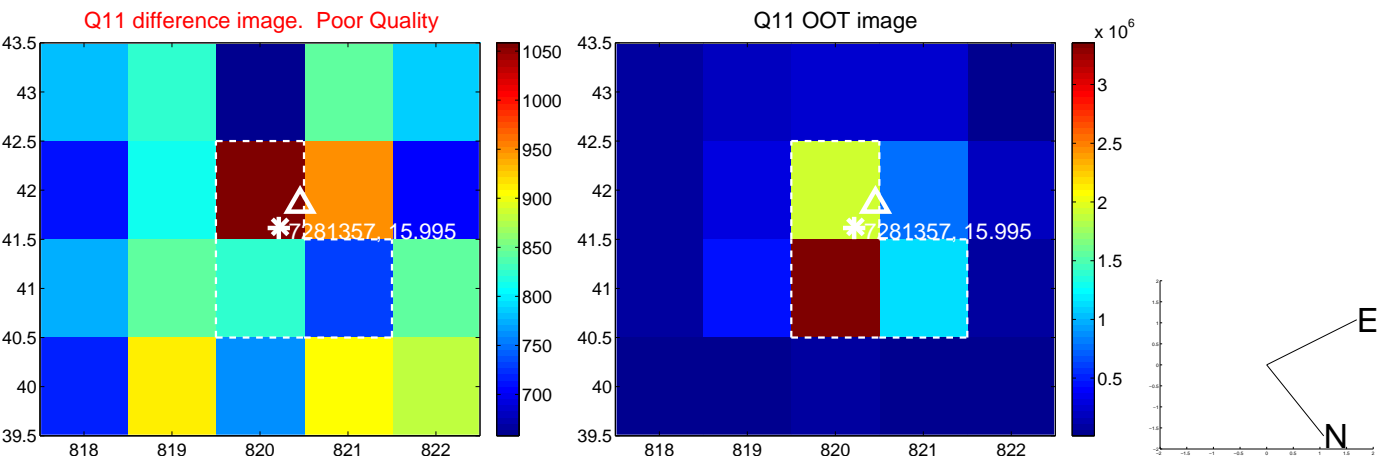
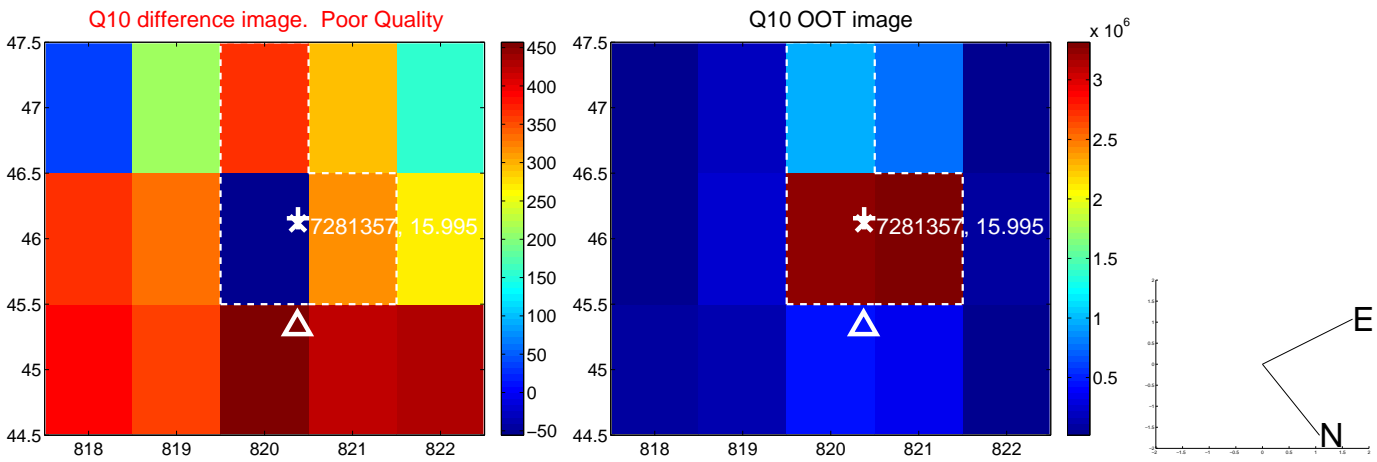
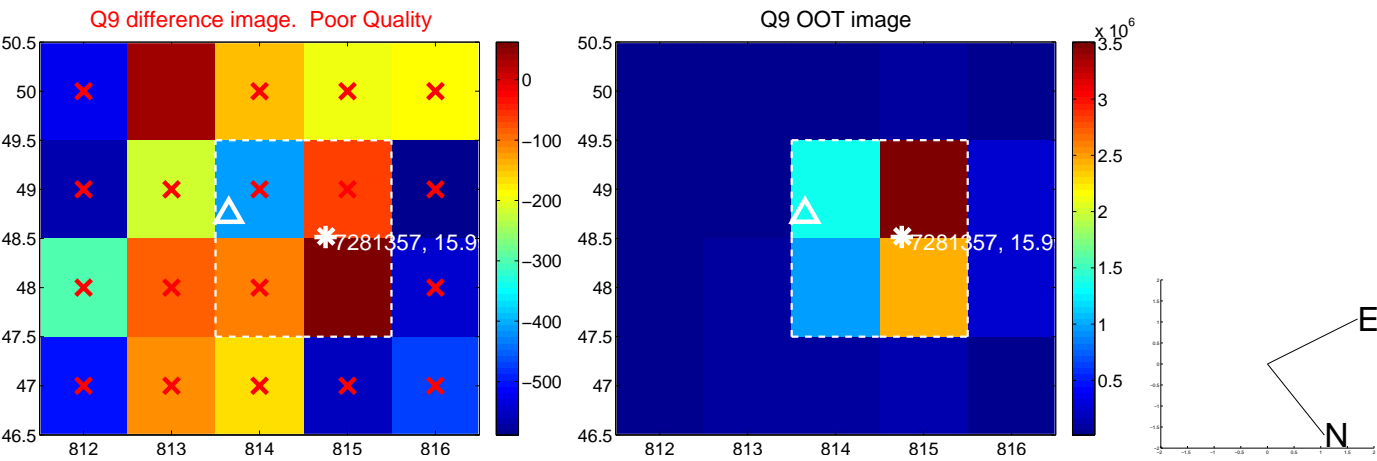
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



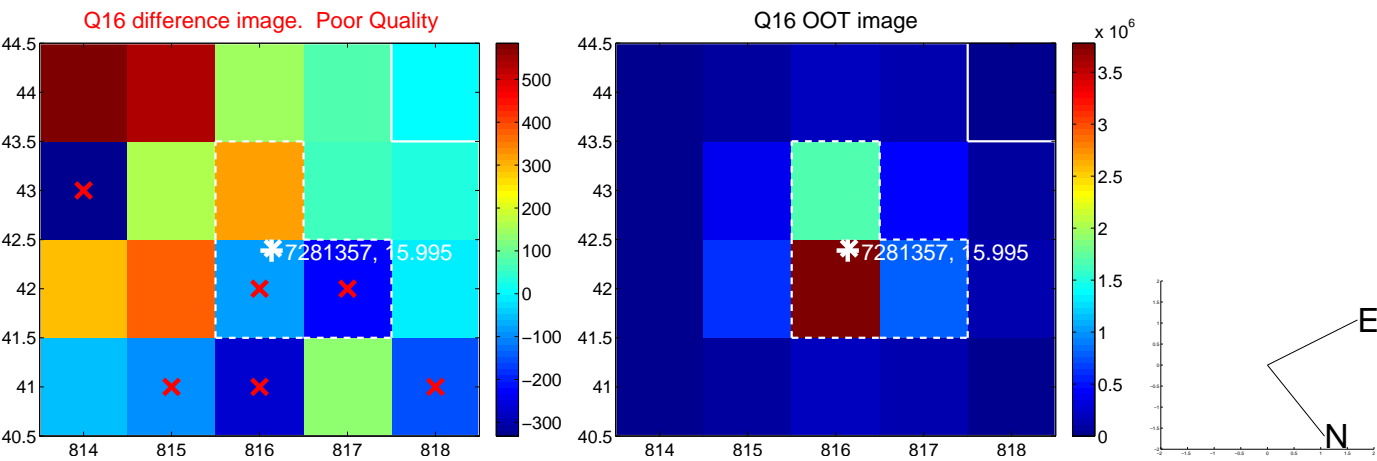
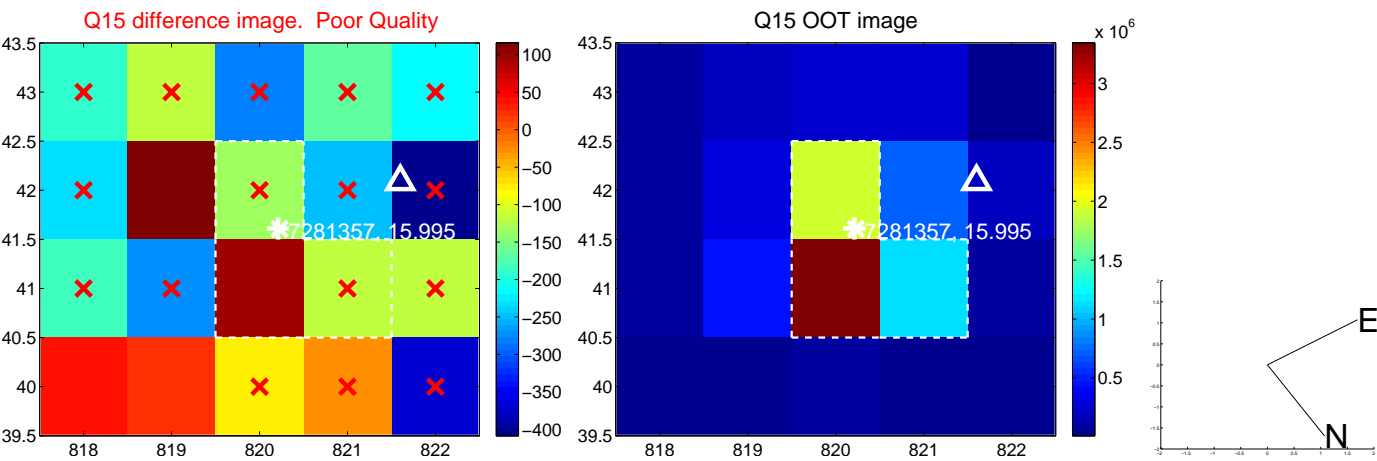
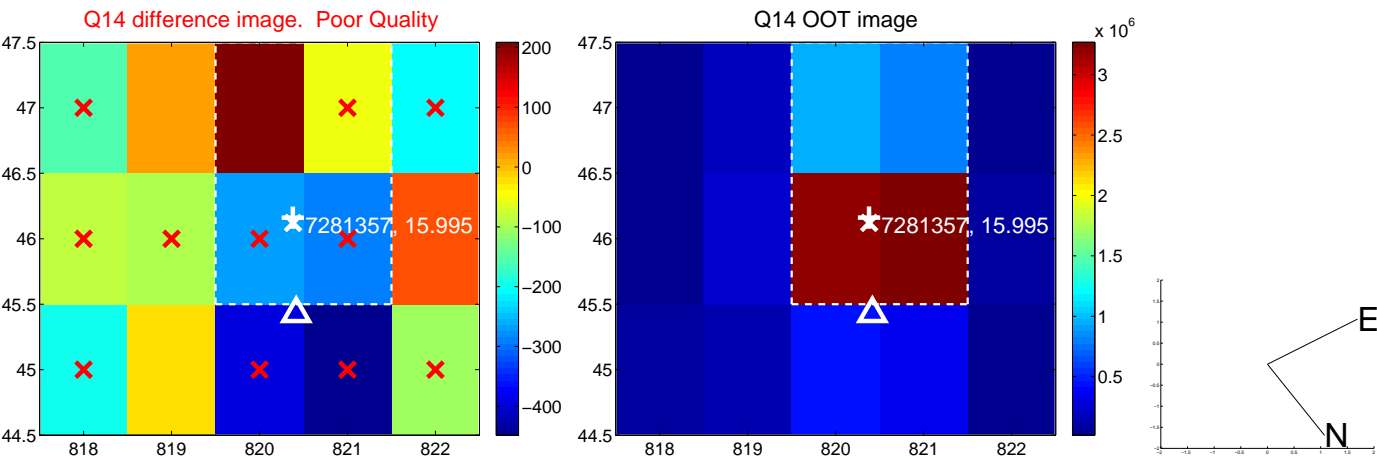
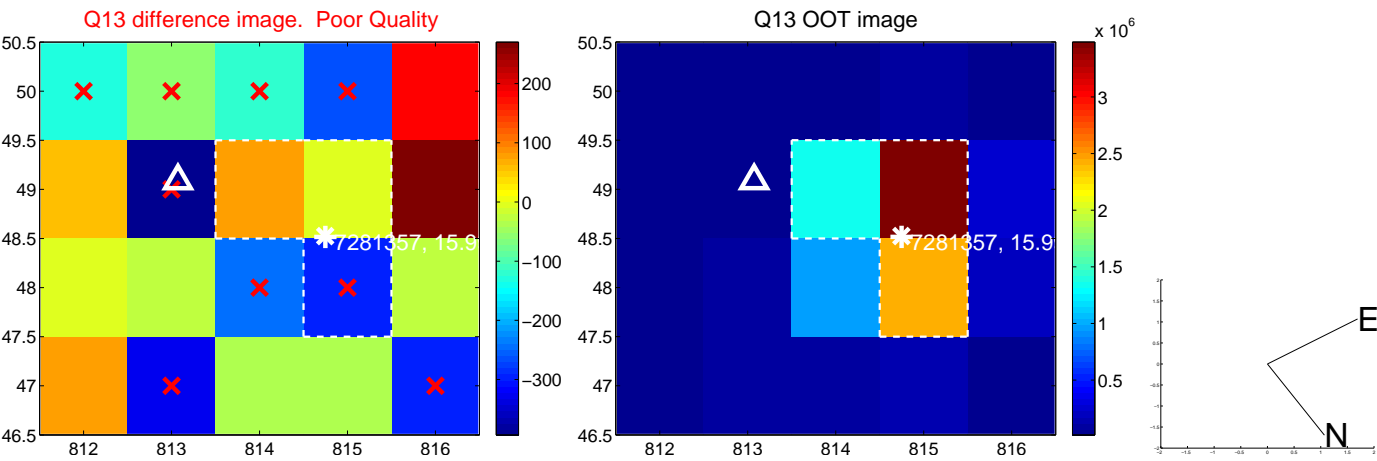
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



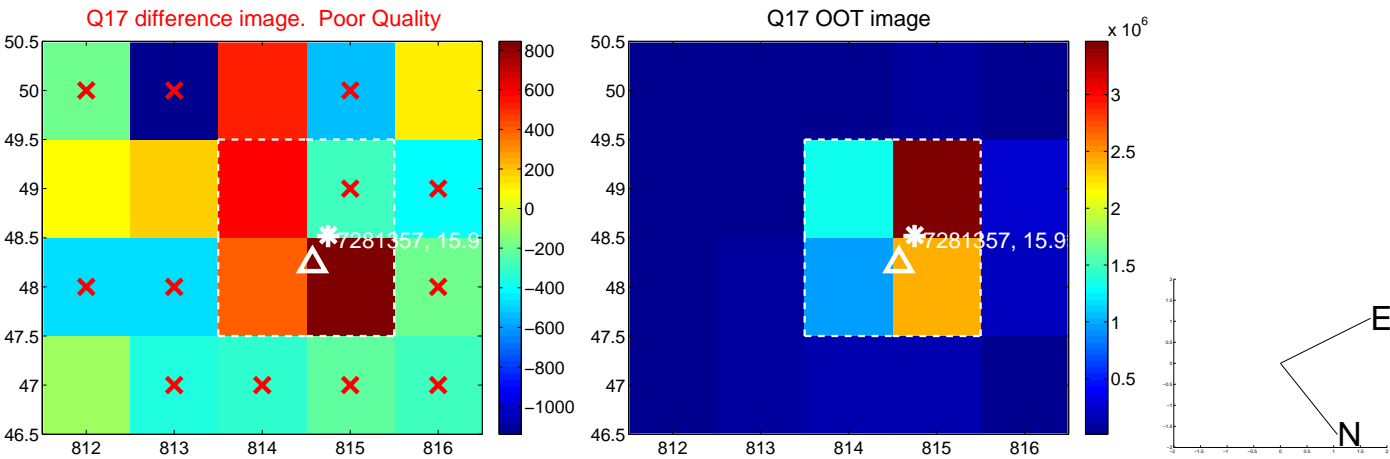
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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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

