

KIC 007287328

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})
007287328-01	OBS	No	1.579031	131.547883	29.0	16.096	11.9	21.9	1.80	7259	0.98	8495.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007287328-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_MEAS

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

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

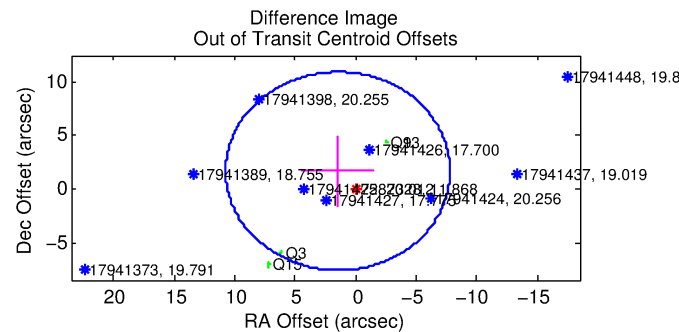
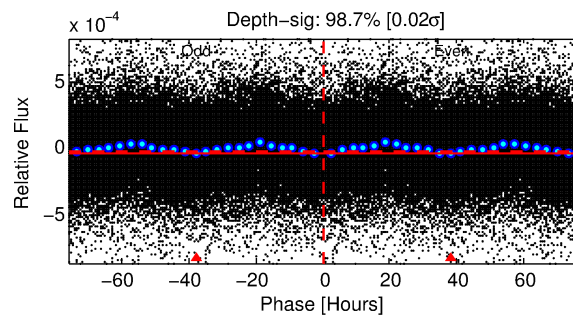
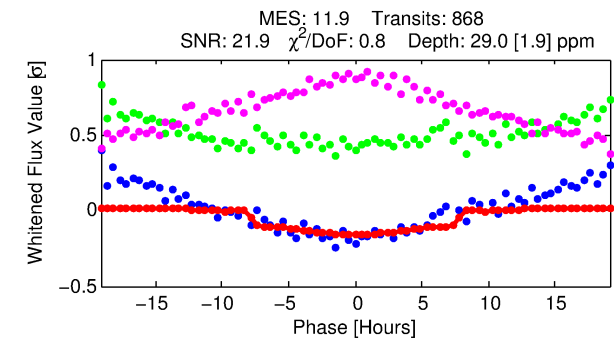
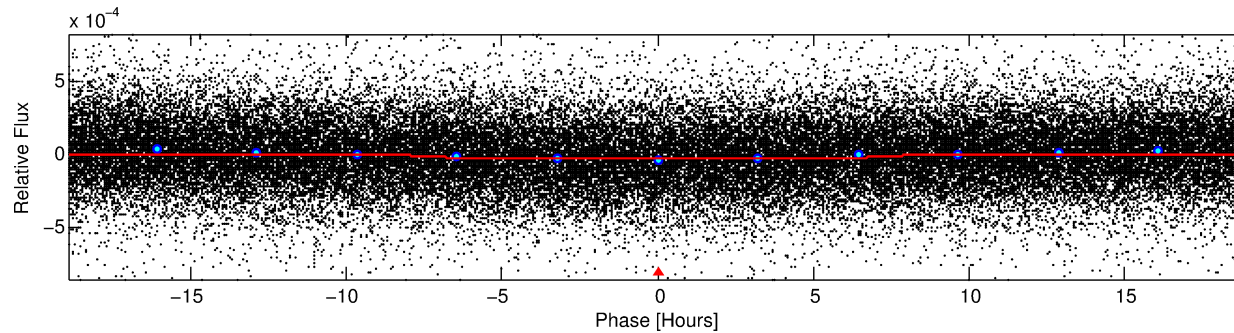
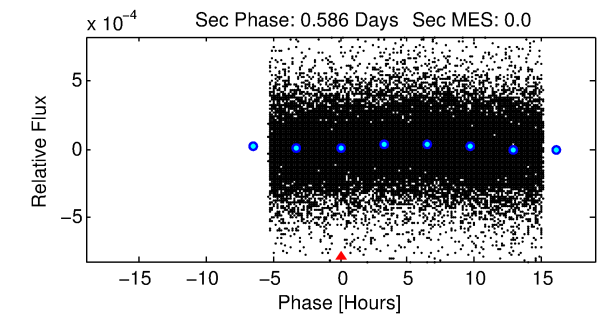
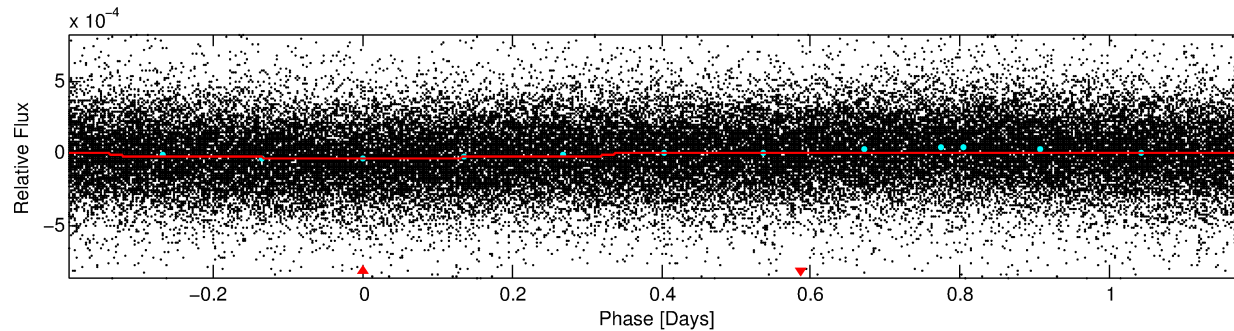
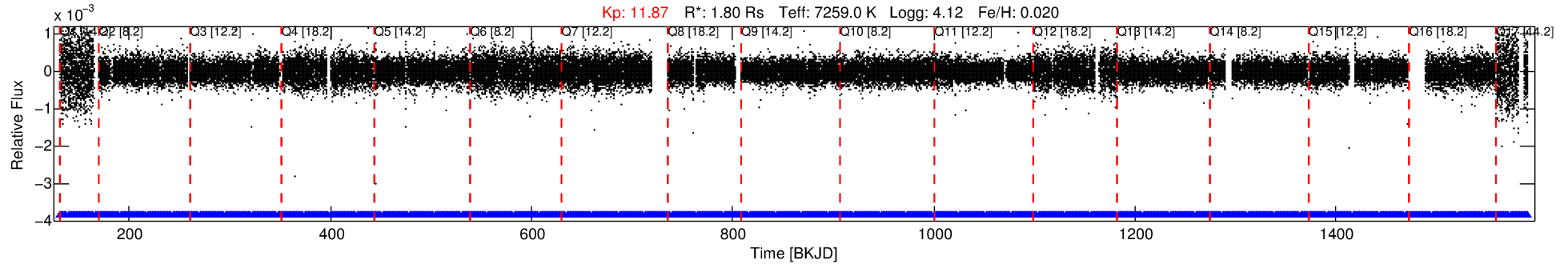
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007287328-01

No Significant Match Found

DV One-Page Summary

KIC: 7287328 Candidate: 1 of 1 Period: 1.579 d



DV Fit Results:

Period = 1.57903 [0.00002] d
Epoch = 131.5479 [0.0061] BKJD
Rp/R* = 0.0050 [0.0027]
a/R* = 1.03 [0.21]
b = 0.08 [42.15]
Seff = 8495.94 [3340.26]
Teq = 2448 [241] K
Rp = 0.98 [0.60] Re
a = 0.0309 [0.0077] AU
Ag = N/A
Teffp = N/A

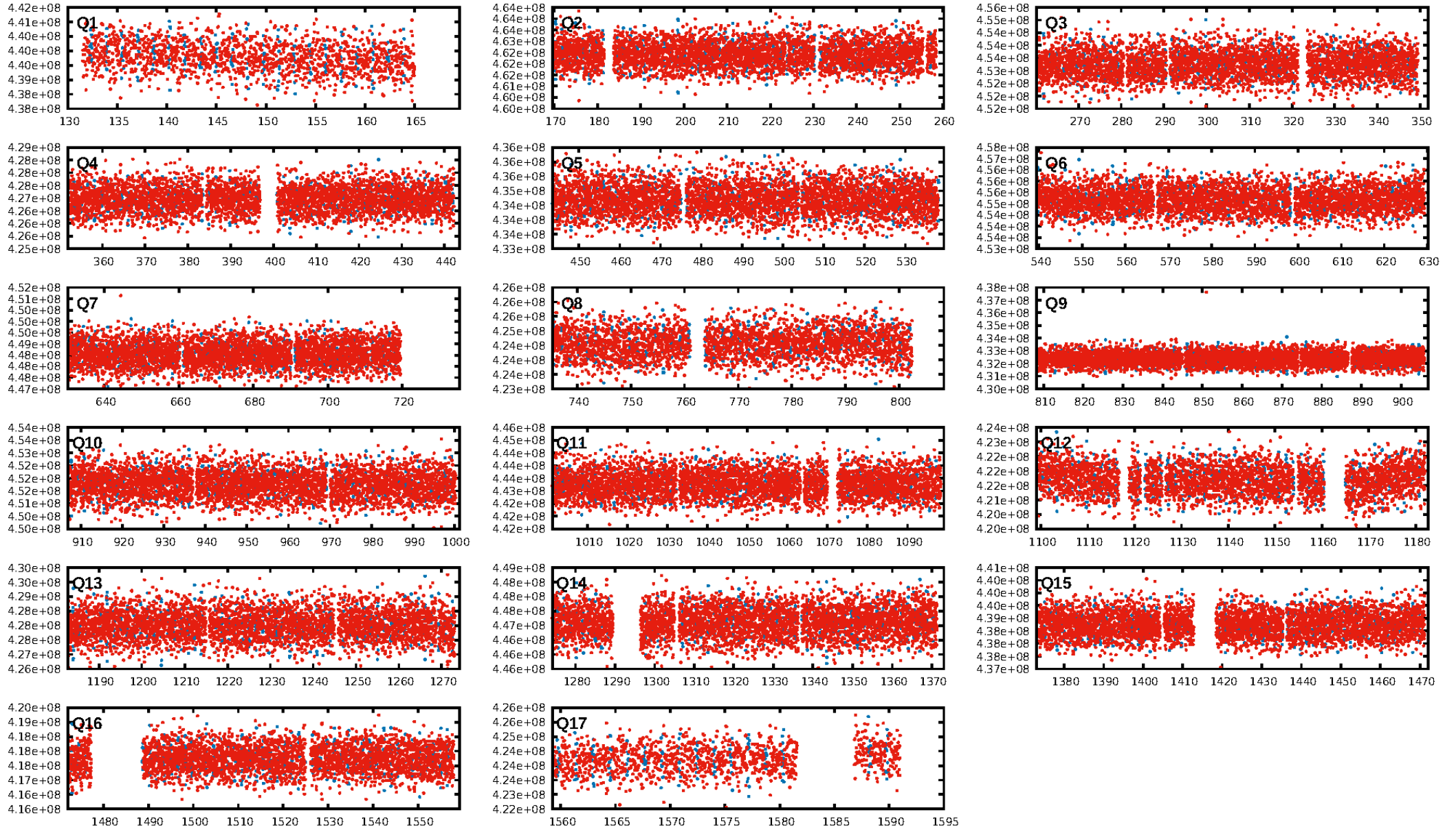
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [828/828]
GhostDiagnostic-chr: 4.03
Centroid-sig: 6.8%
Centroid-so: 0.327 arcsec [1.43σ]
OotOffset-rm: 2.242 arcsec [0.73σ]
KicOffset-rm: 2.213 arcsec [0.71σ]
OotOffset-st: 0/2/0/2 [4]
KicOffset-st: 0/2/0/2 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 1.00 [17/17]

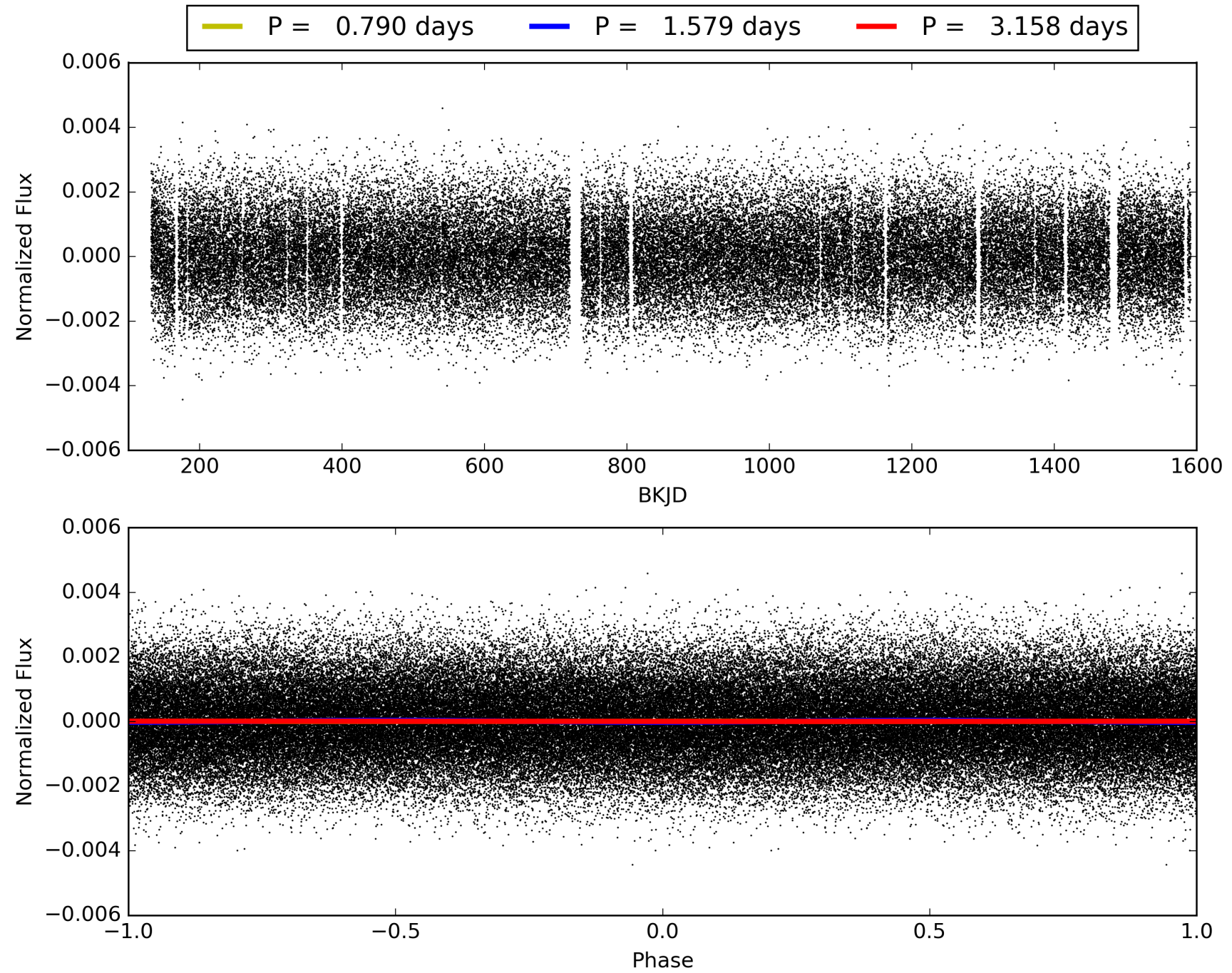
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:31:09 Z

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

TCE 007287328-01, PDC Light Curves

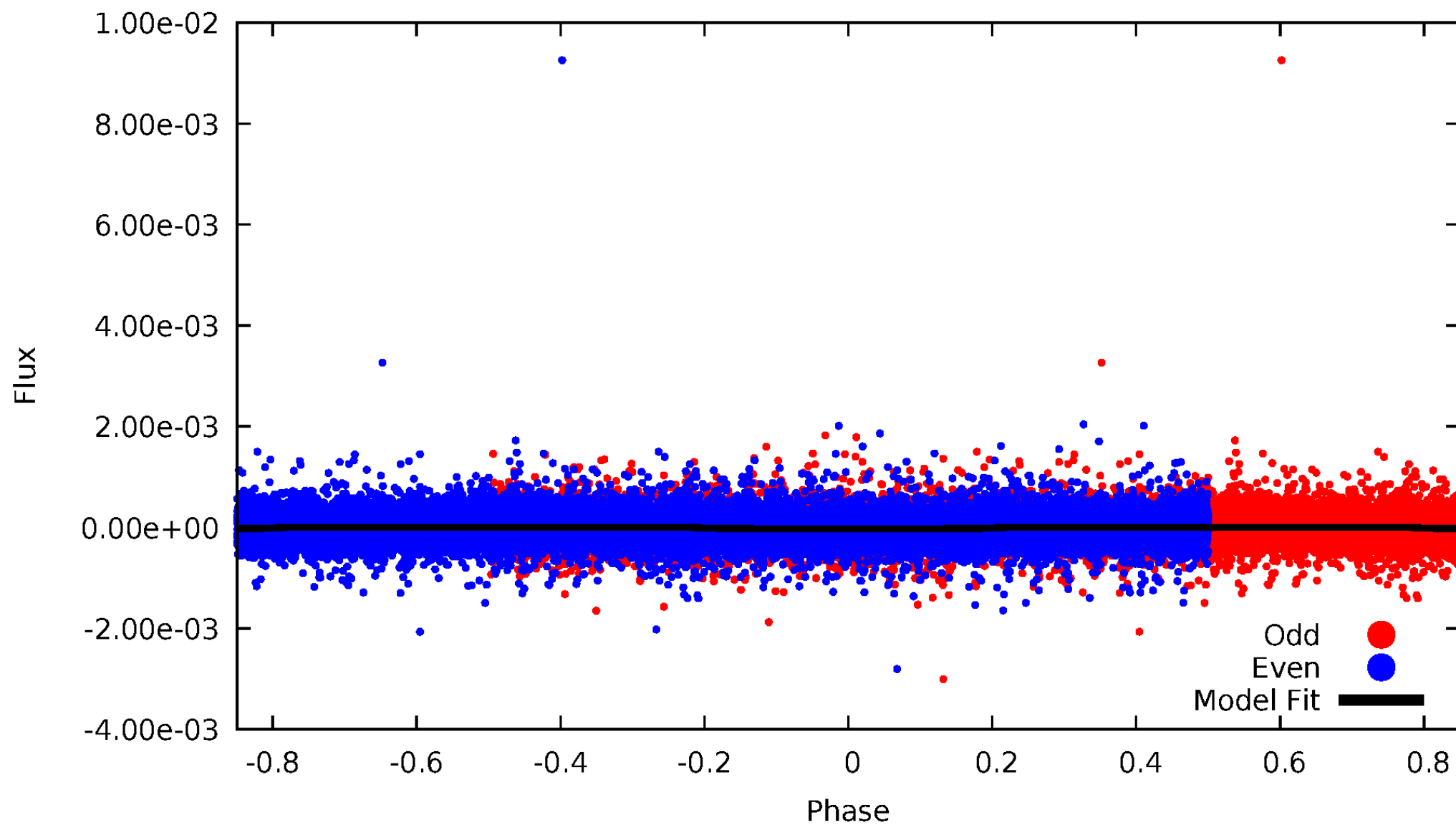


TCE 007287328-01



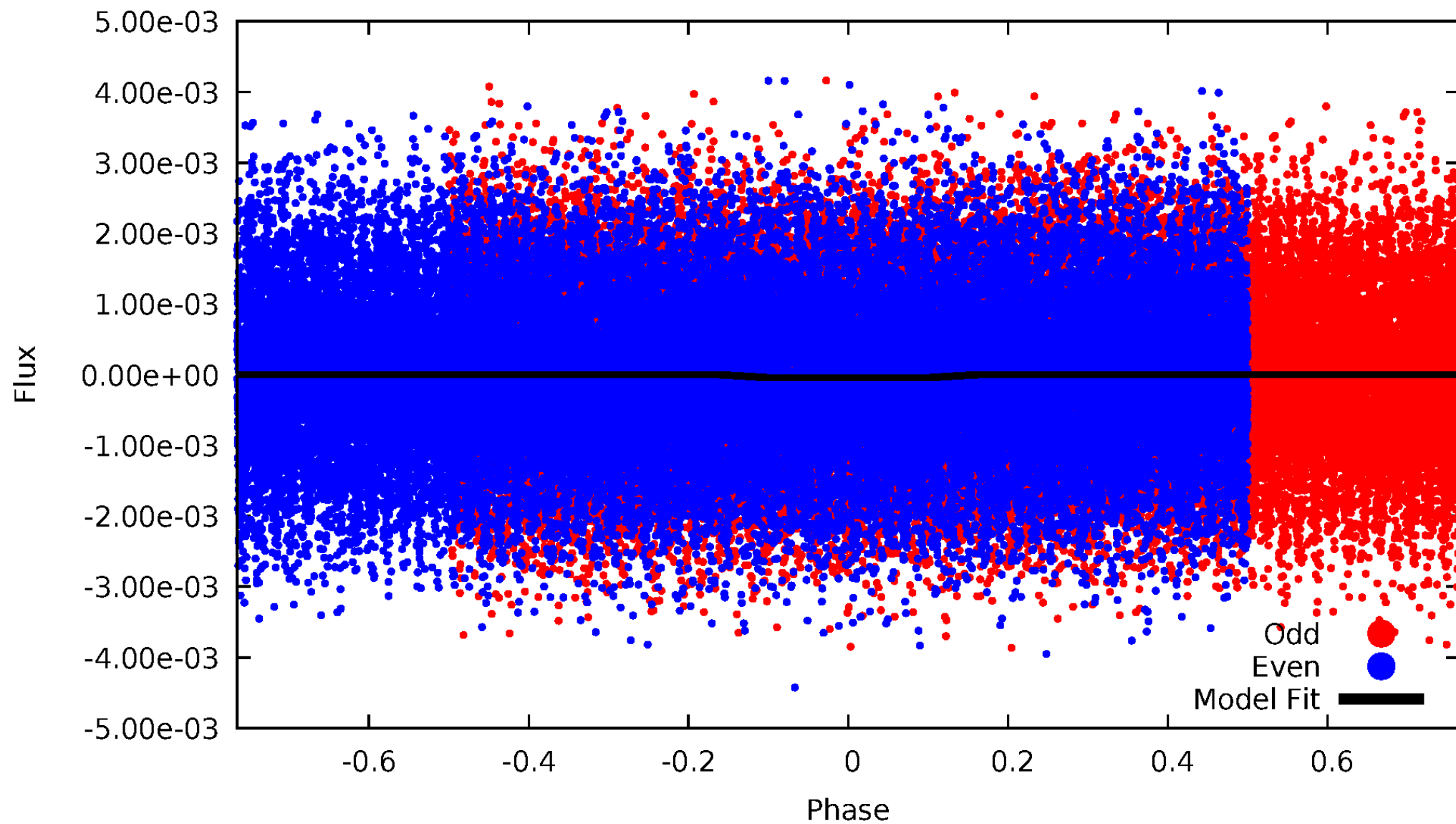
DV Odd/Even

TCE 007287328-01



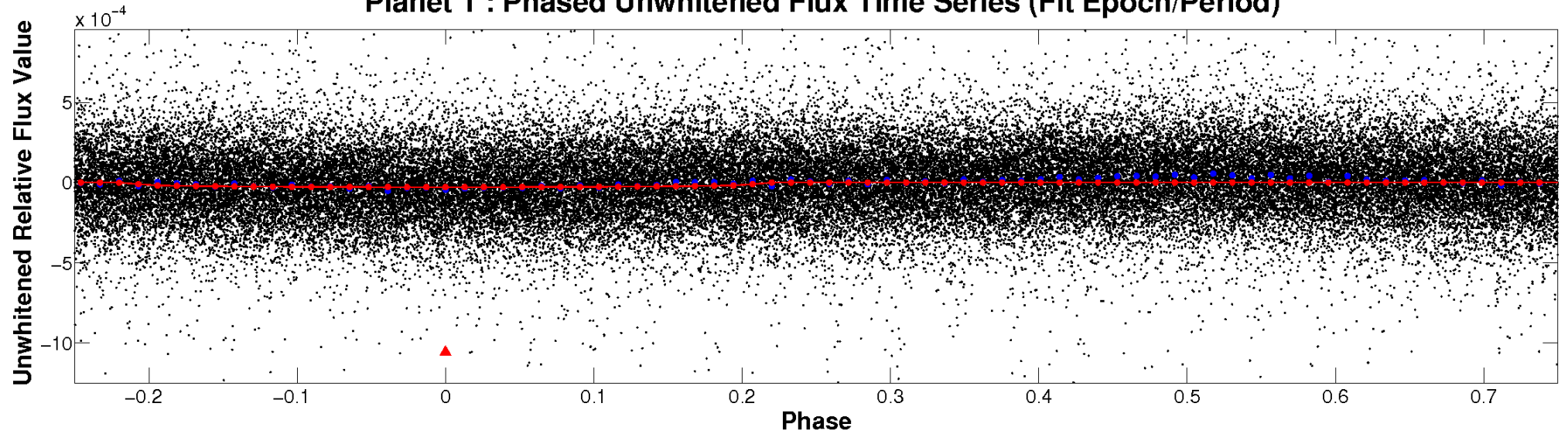
ALT Odd/Even

TCE 007287328-01

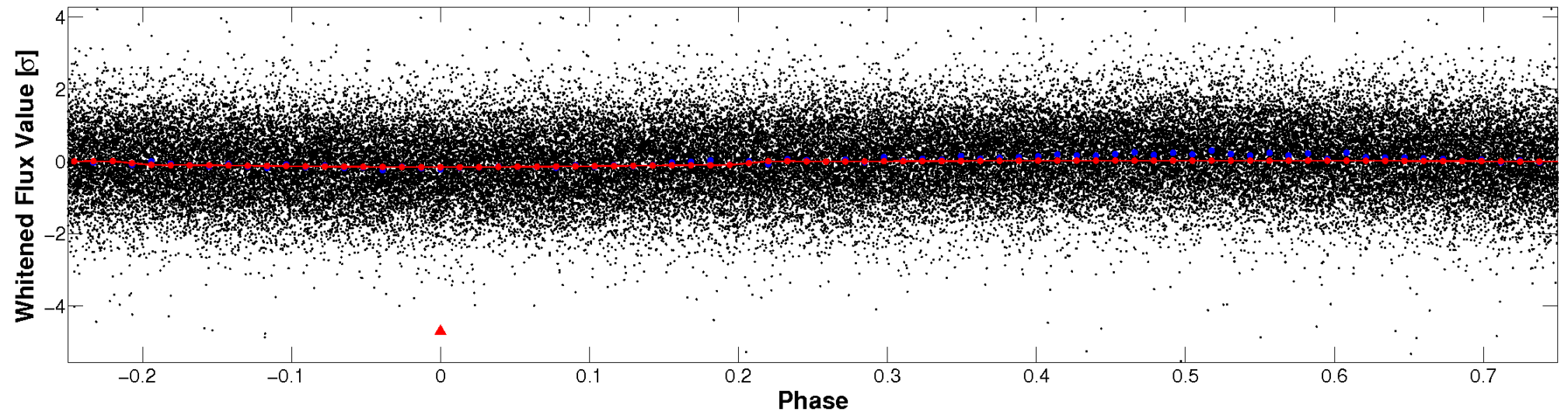


Non-Whitened Vs. Whitened Light Curve

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

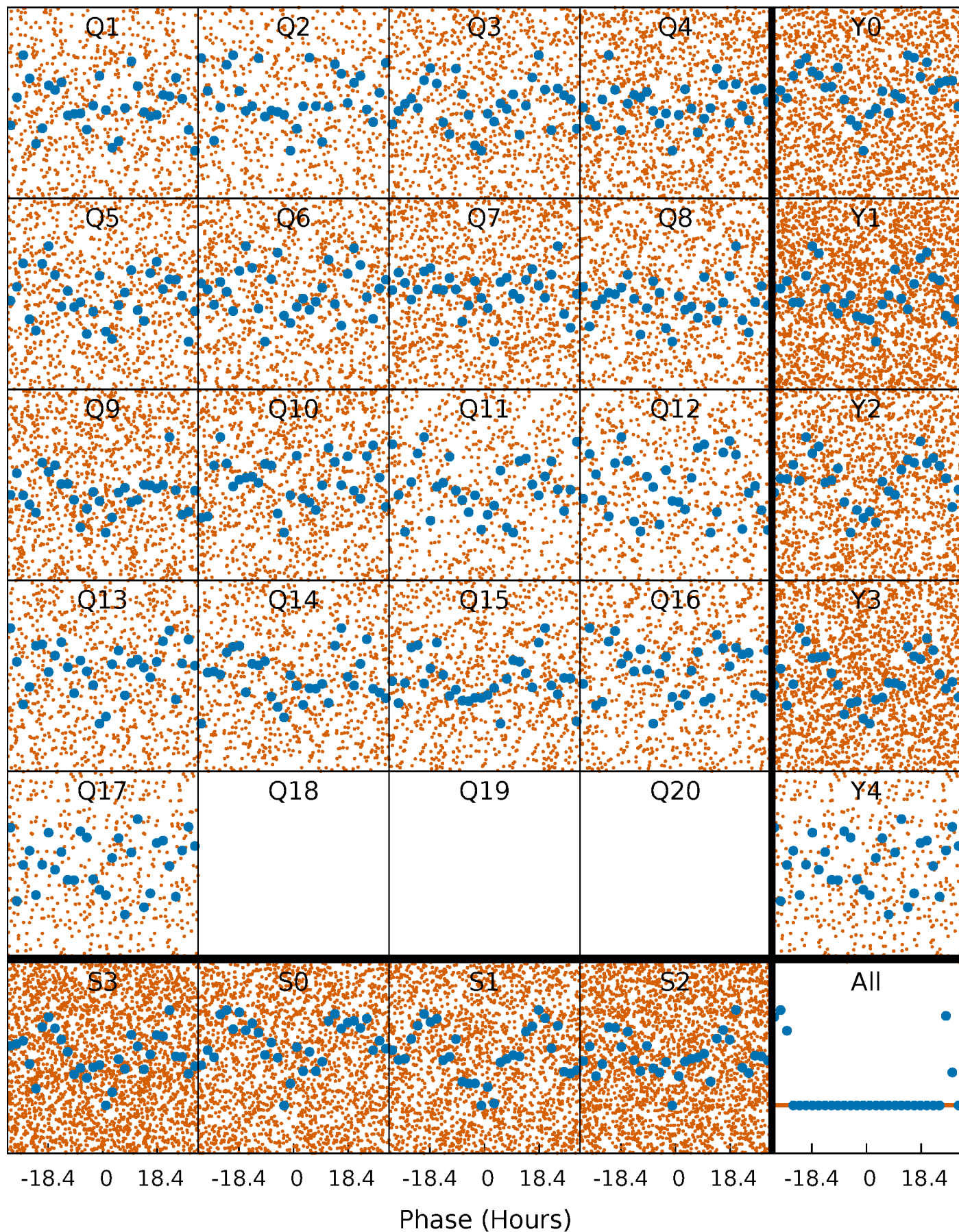


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



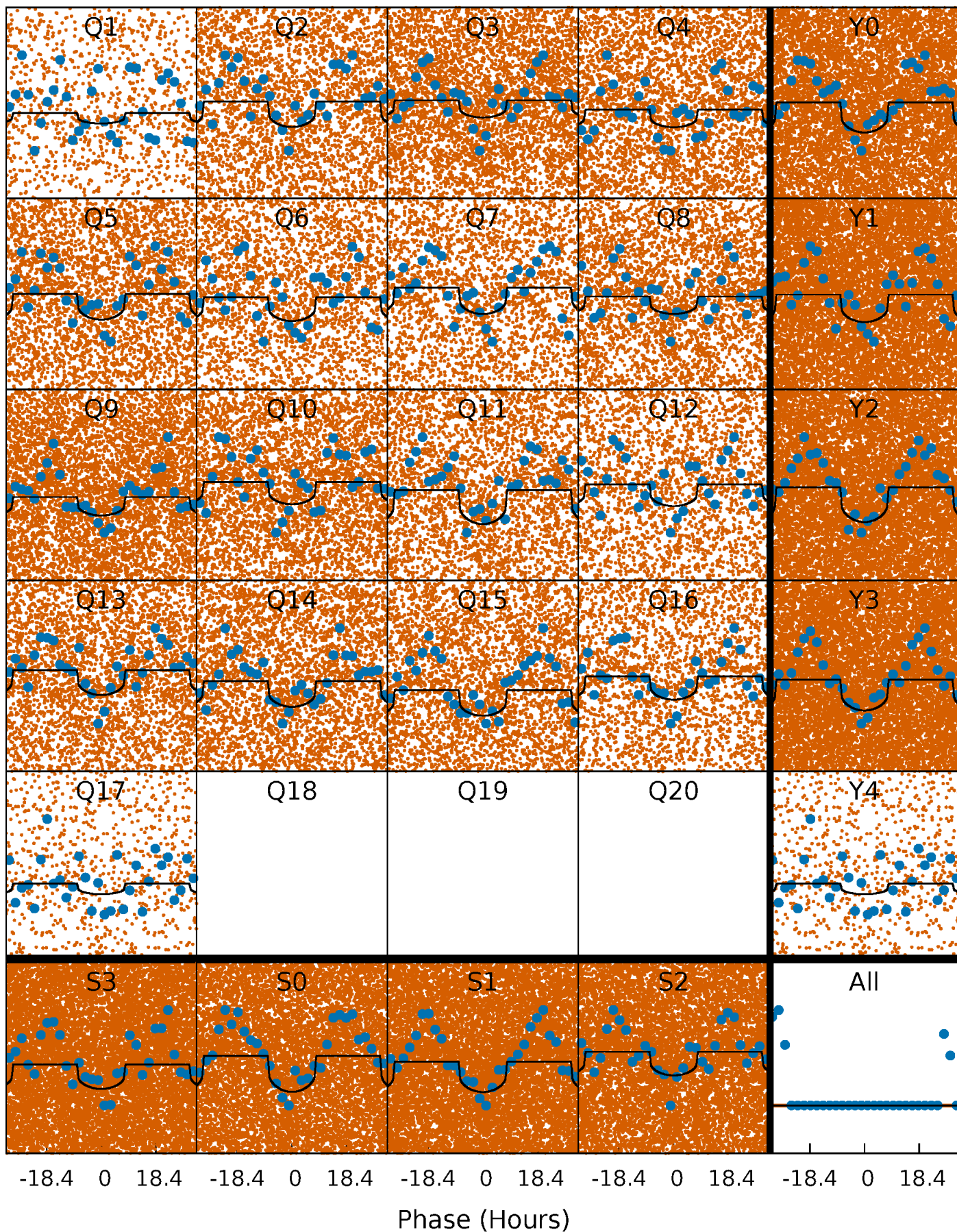
PDC Quarter-Phased Transit Curves

TCE 007287328-01 P= 1.579031 Days $T_0=131.547883$ (BKJD)



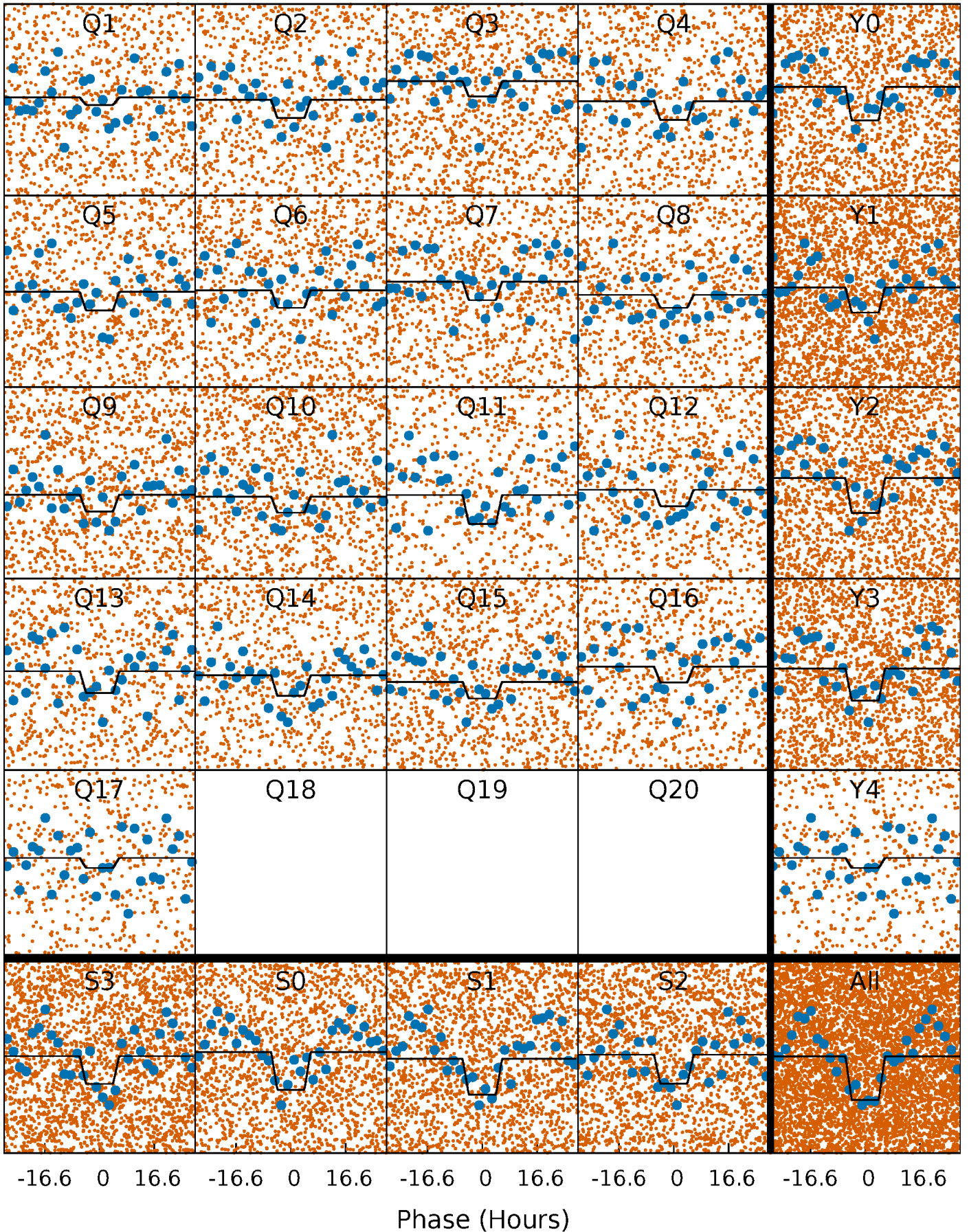
DV Quarter-Phased Transit Curves

TCE 007287328-01 P= 1.579031 Days $T_0=131.547883$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

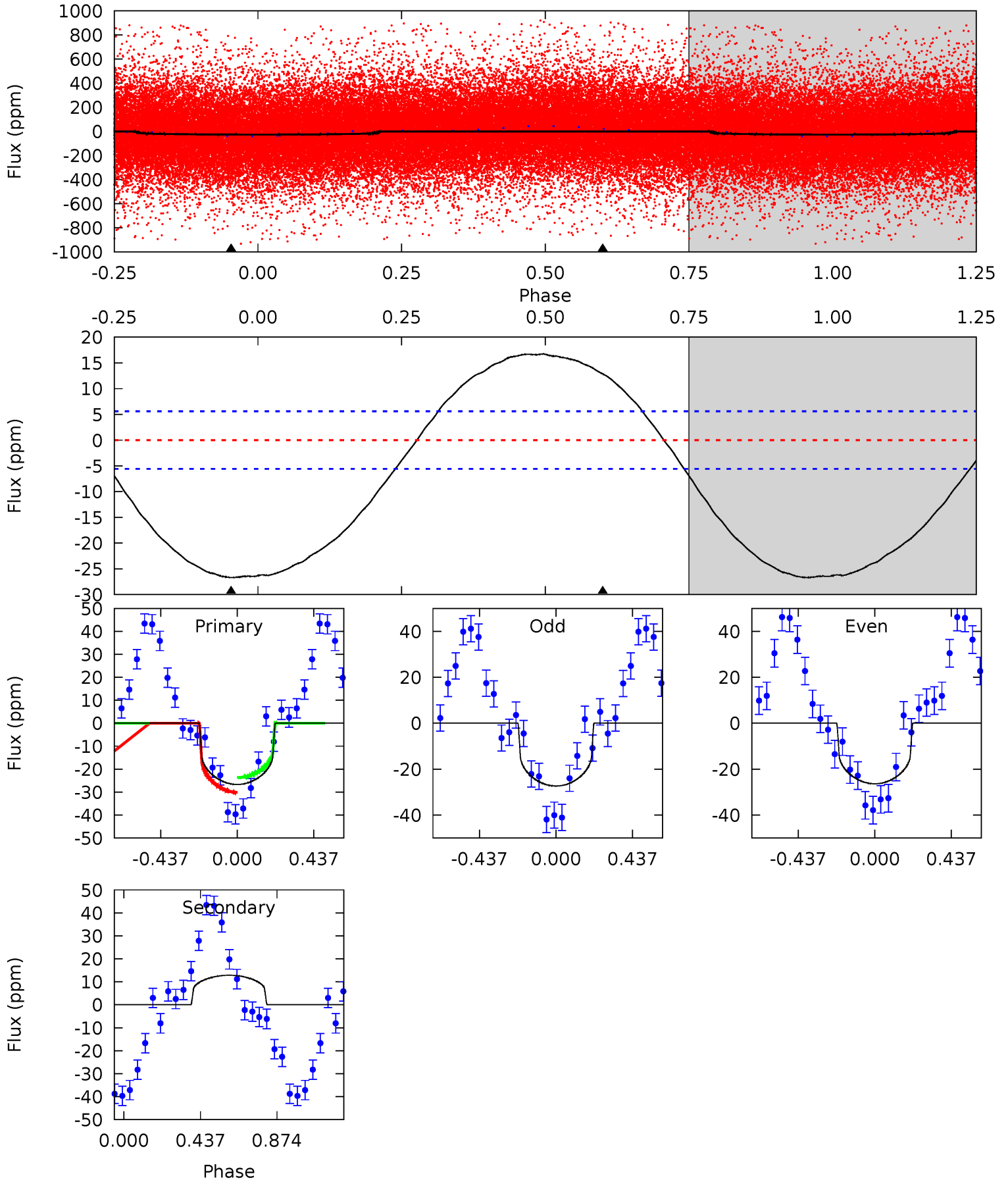
TCE 007287328-01 P= 1.578957 Days $T_0=131.565469$ (BKJD)



DV Model-Shift Uniqueness Test

007287328-01, P = 1.579031 Days, E = 129.968852 Days

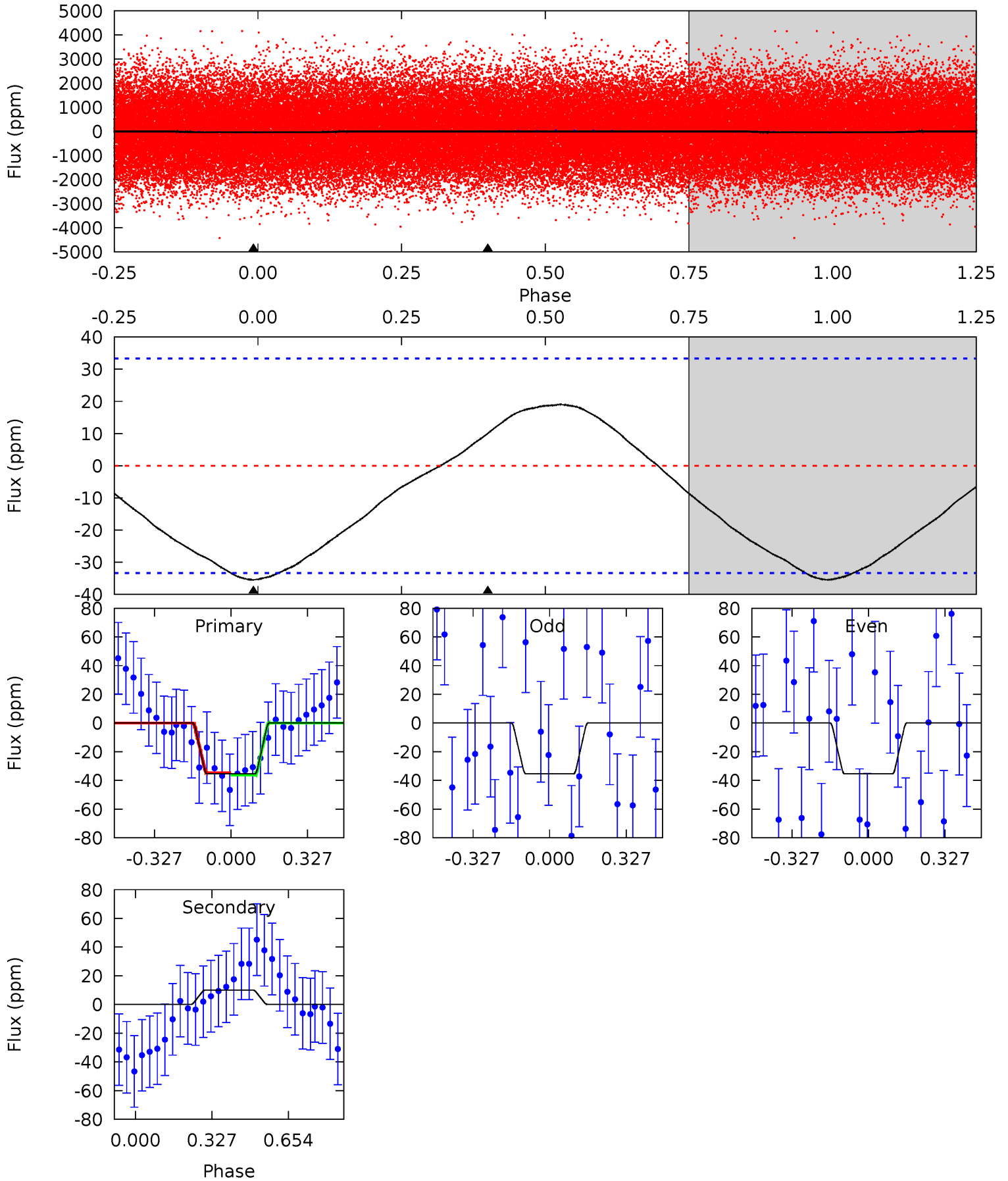
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.3	-9.76	0	0	4.25	0.78	3.31	20.3	20.3	-9.76	-9.76	0.37	0.89	0.39	2.46



Alt Model-Shift Uniqueness Test

007287328-01, P = 1.578957 Days, E = 129.986512 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.58	-1.30	0	0	4.31	0.98	0.58	4.58	4.58	-1.30	-1.30	0.01	1.02	0.35	0.10



Stellar Parameters For KIC 007287328

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7259^{+201}_{-302}	$4.122^{+0.128}_{-0.192}$	$0.020^{+0.200}_{-0.350}$	$1.803^{+0.541}_{-0.361}$	$1.569^{+0.221}_{-0.243}$	$0.377^{+0.277}_{-0.197}$
	+3%/-4%	+3%/-5%	+1000%/-1750%	+30%/-20%	+14%/-15%	+73%/-52%
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 007287328-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	13 ± 1	$1.02^{+0.56}_{-0.48}$	3434^{+271}_{-219}	-6103^{+1022}_{-2671}	$-6.563^{+3.979}_{-17.392}$
Alt.	10 ± 8	$1.25^{+0.58}_{-0.49}$	3436^{+272}_{-218}	-5144^{+1187}_{-1619}	$-2.874^{+2.420}_{-6.846}$

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

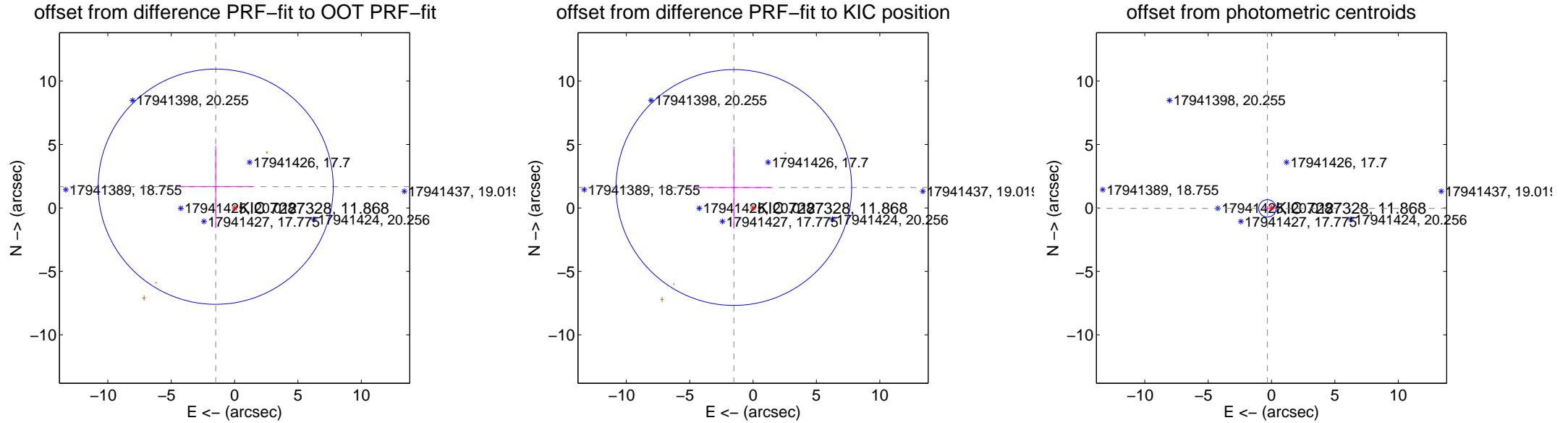
DV Centroid Data

Supplemental centroid analysis for 007287328-01. **Kepler magnitude: 11.87.** Transit SNR 21.91

There are 0 quarters with good PRF difference image offsets

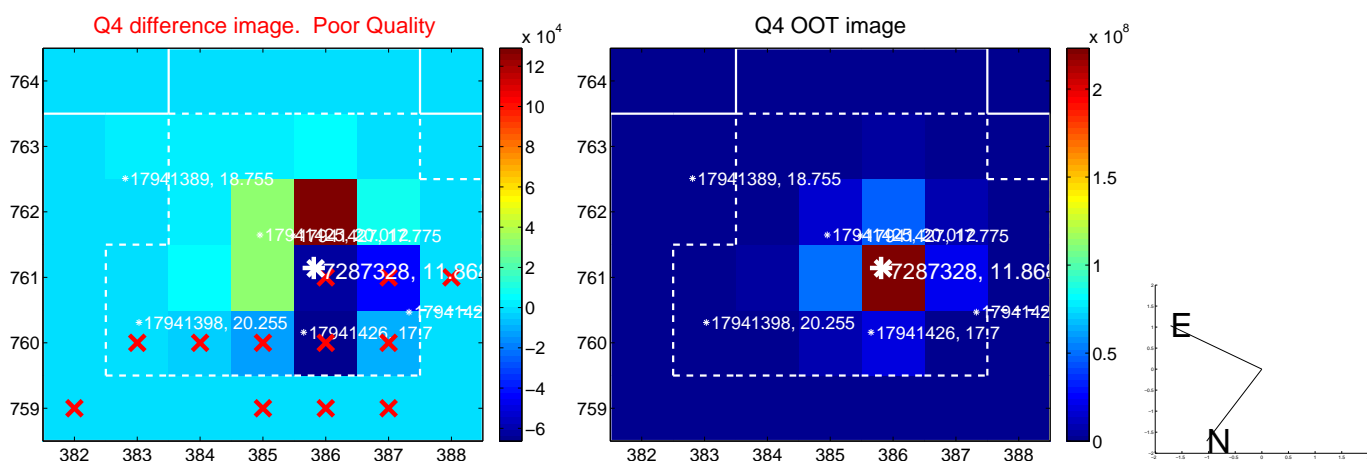
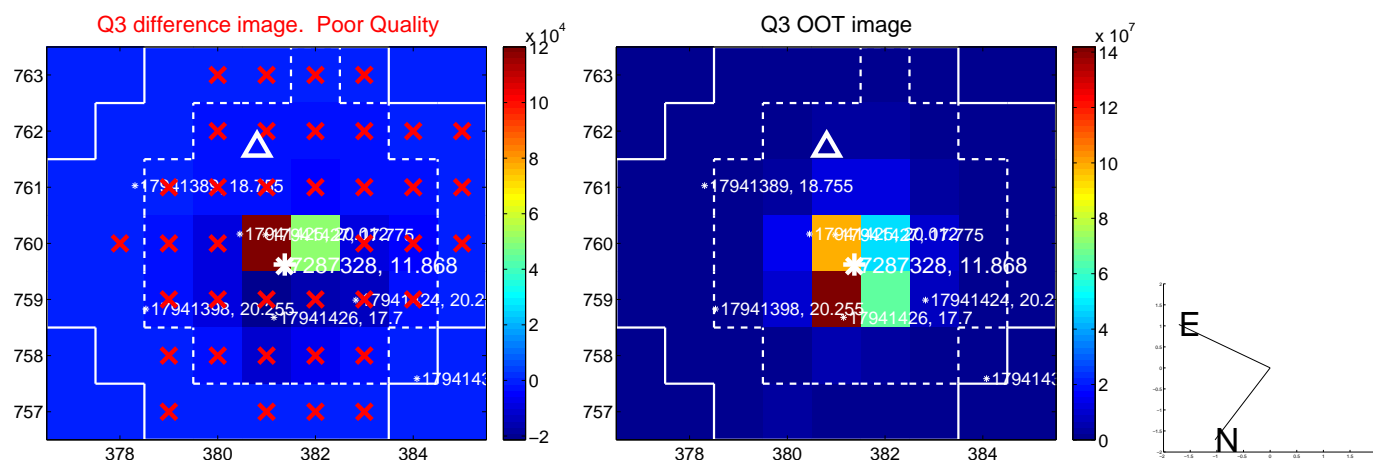
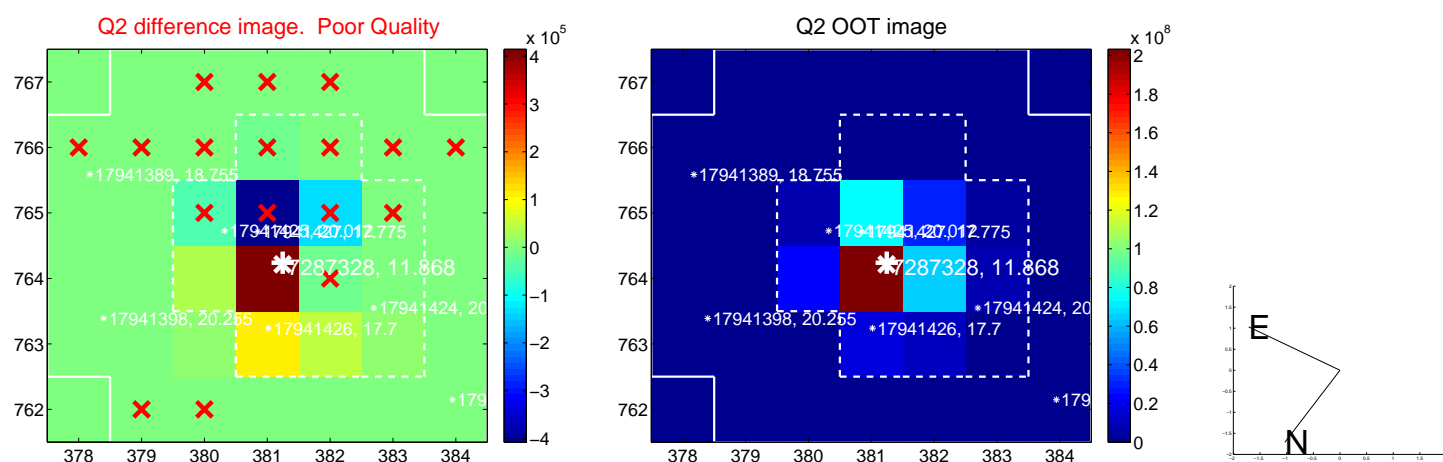
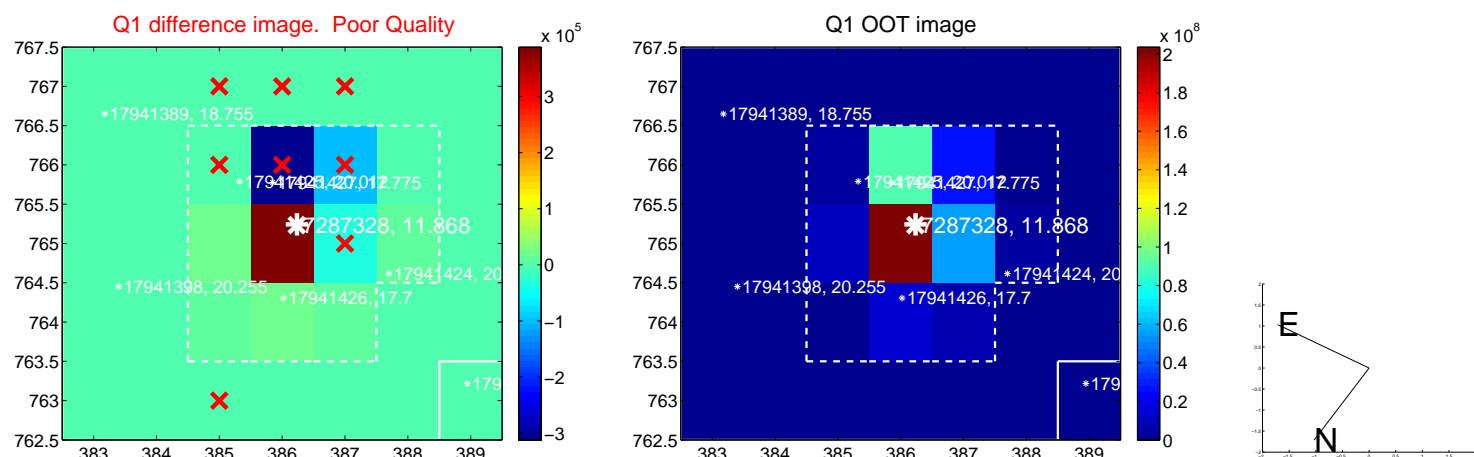
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.242 ± 3.090	0.73	1.490 ± 2.916	1.676 ± 3.221
PRF-fit source offset from KIC position	2.213 ± 3.098	0.71	1.516 ± 2.931	1.612 ± 3.238
photometric centroid source offset	0.33 ± 0.23	1.43	0.33 ± 0.23	-0.03 ± 0.21

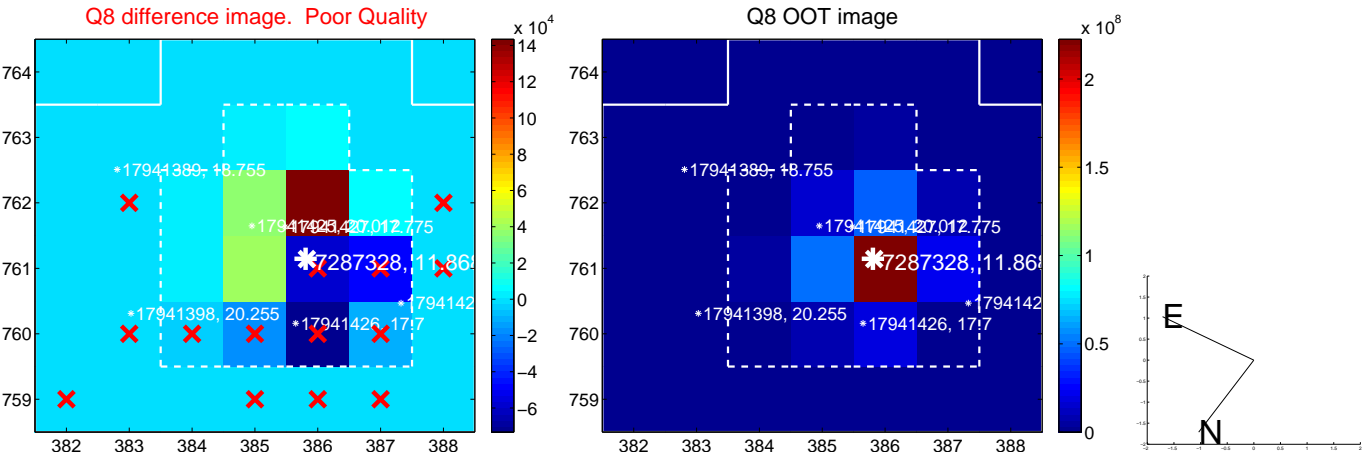
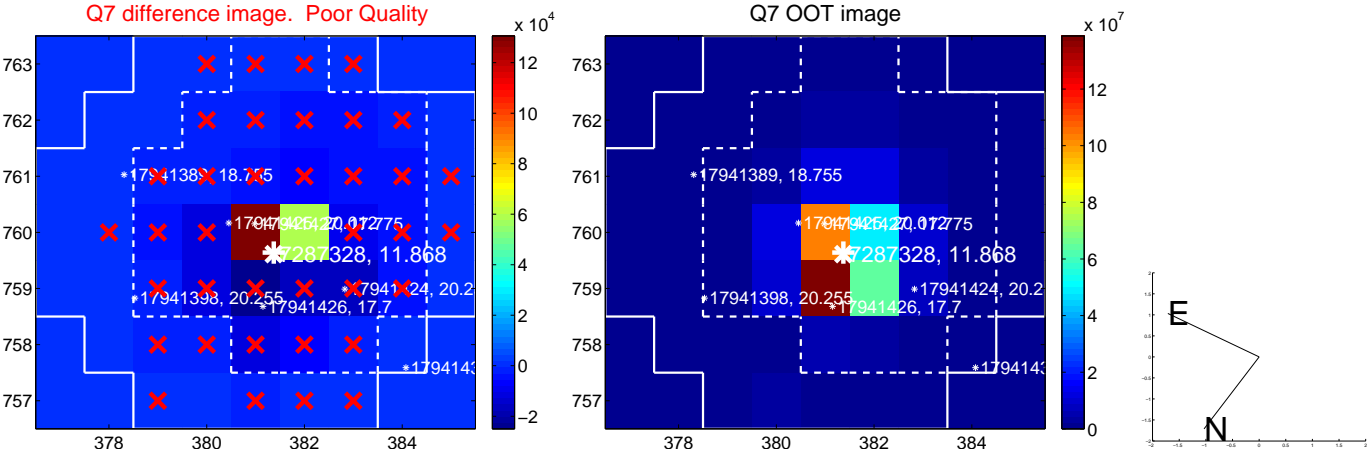
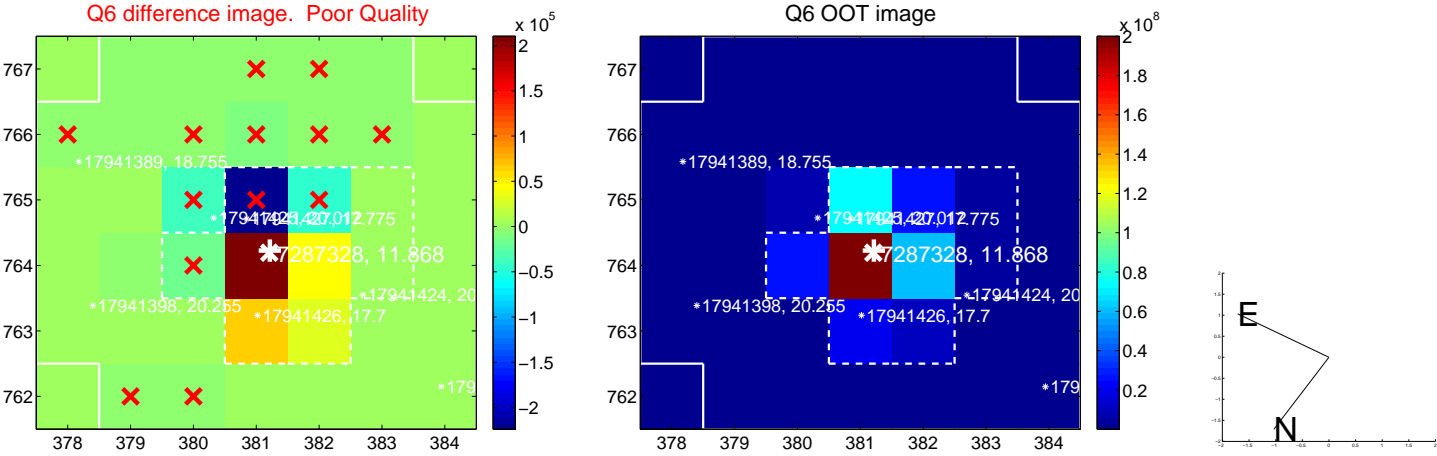
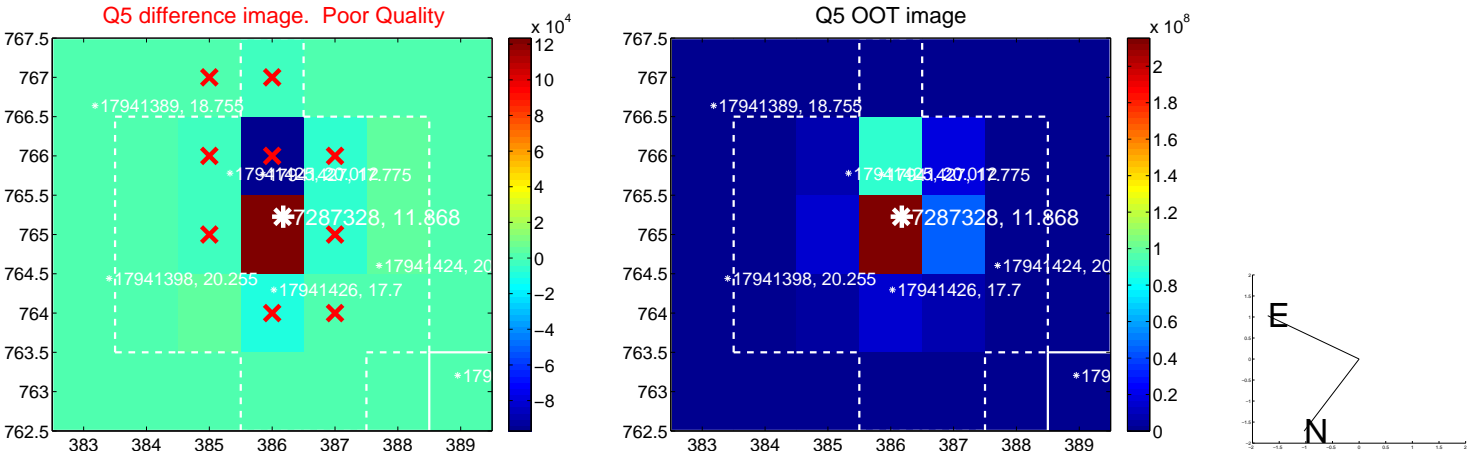


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

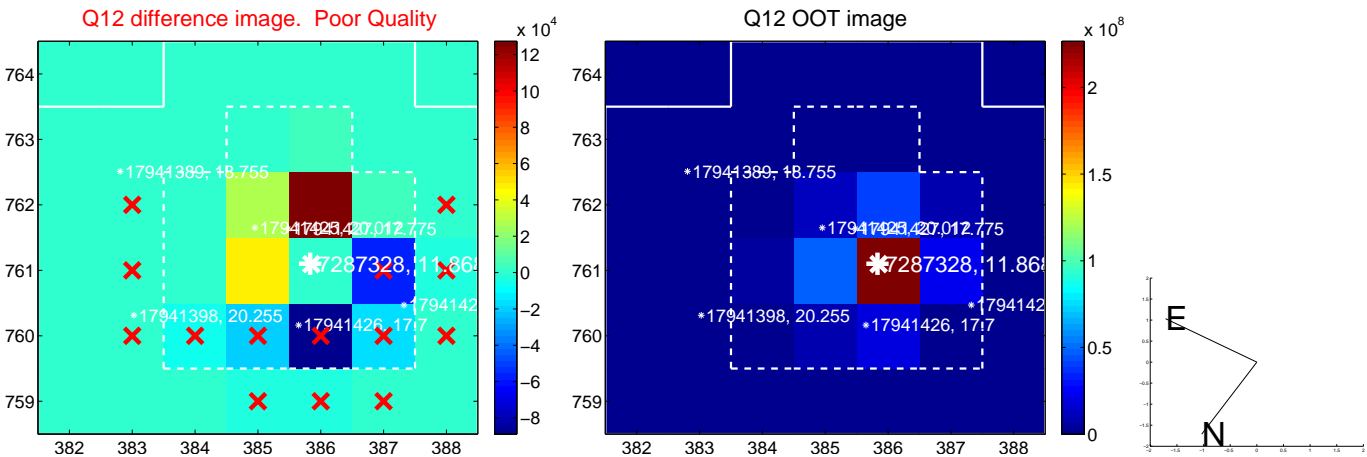
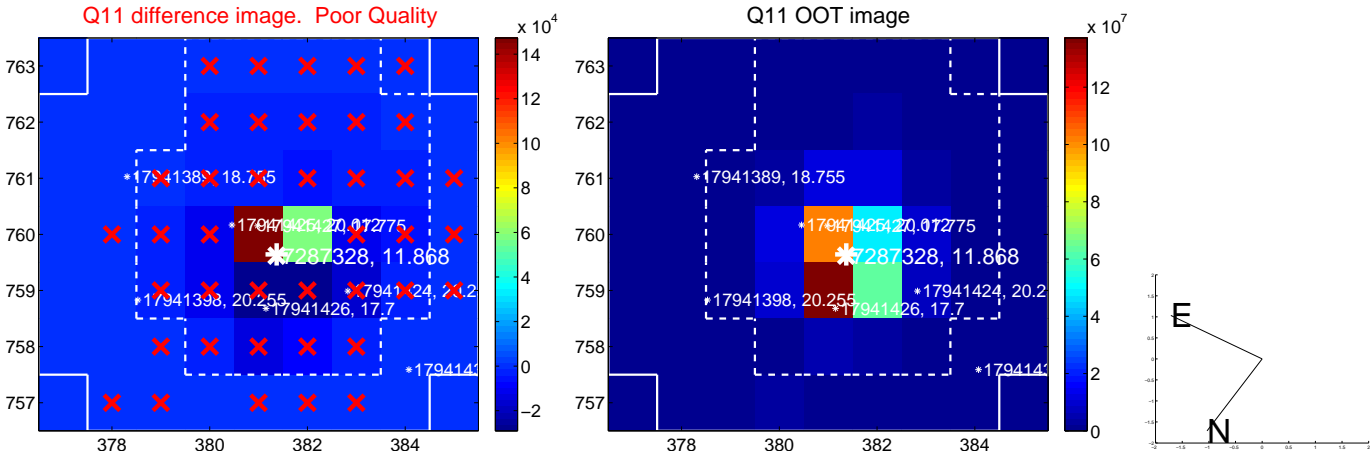
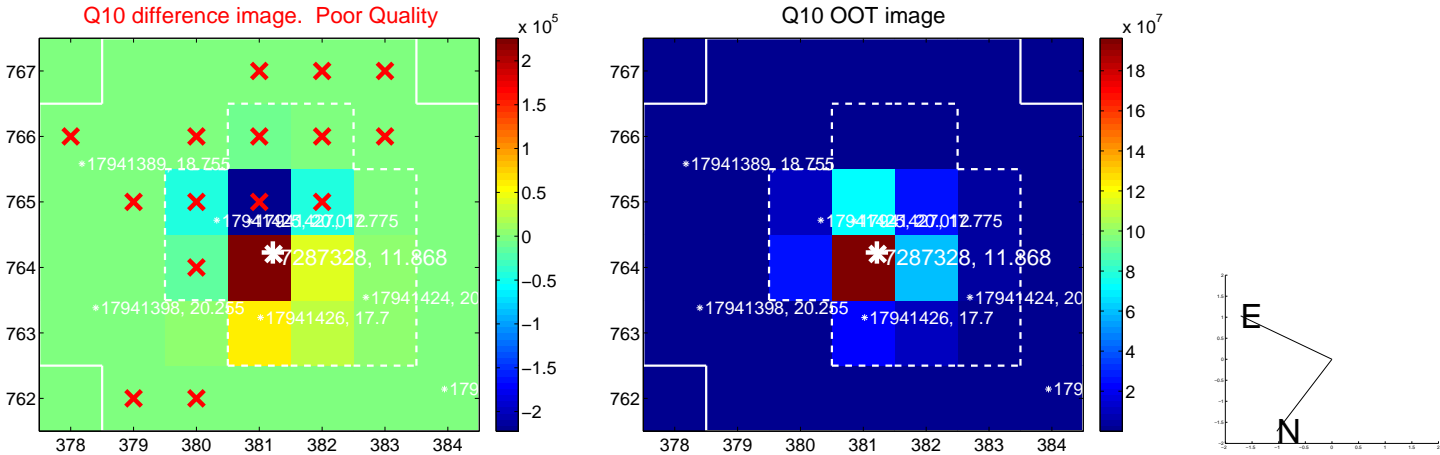
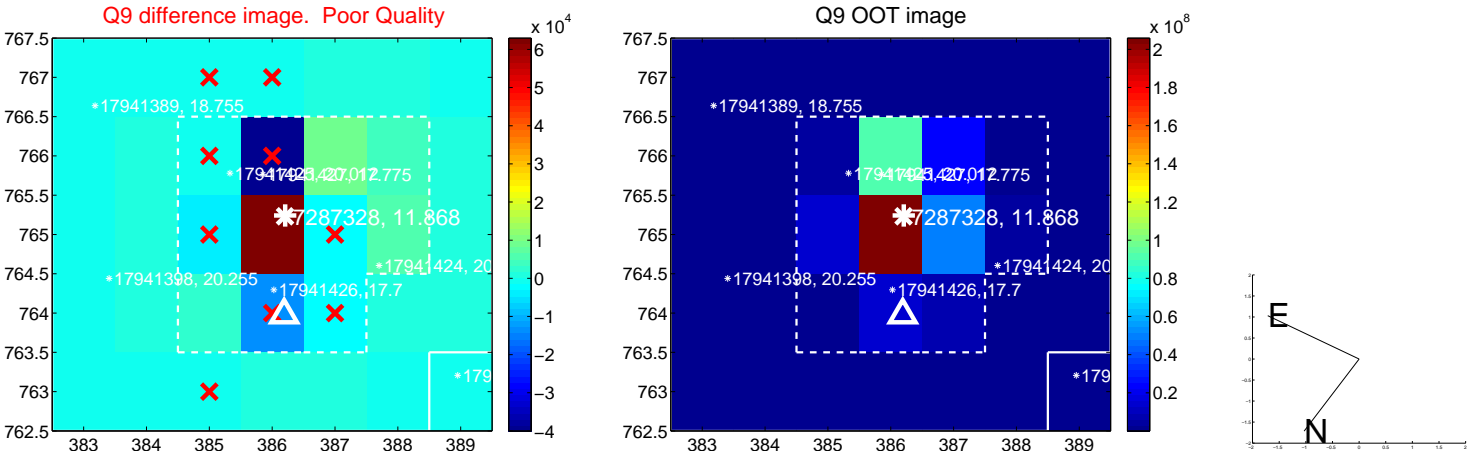
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



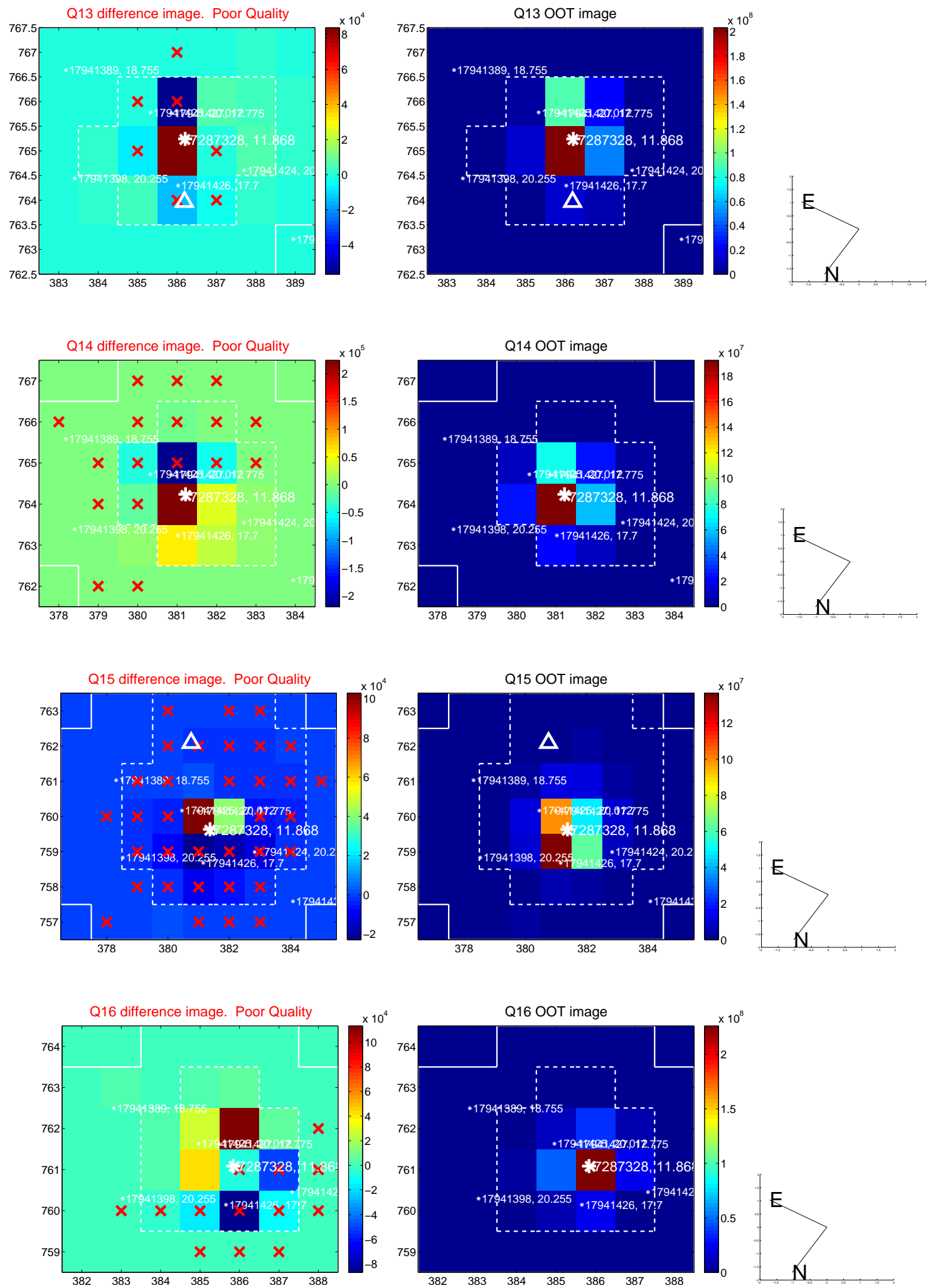
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



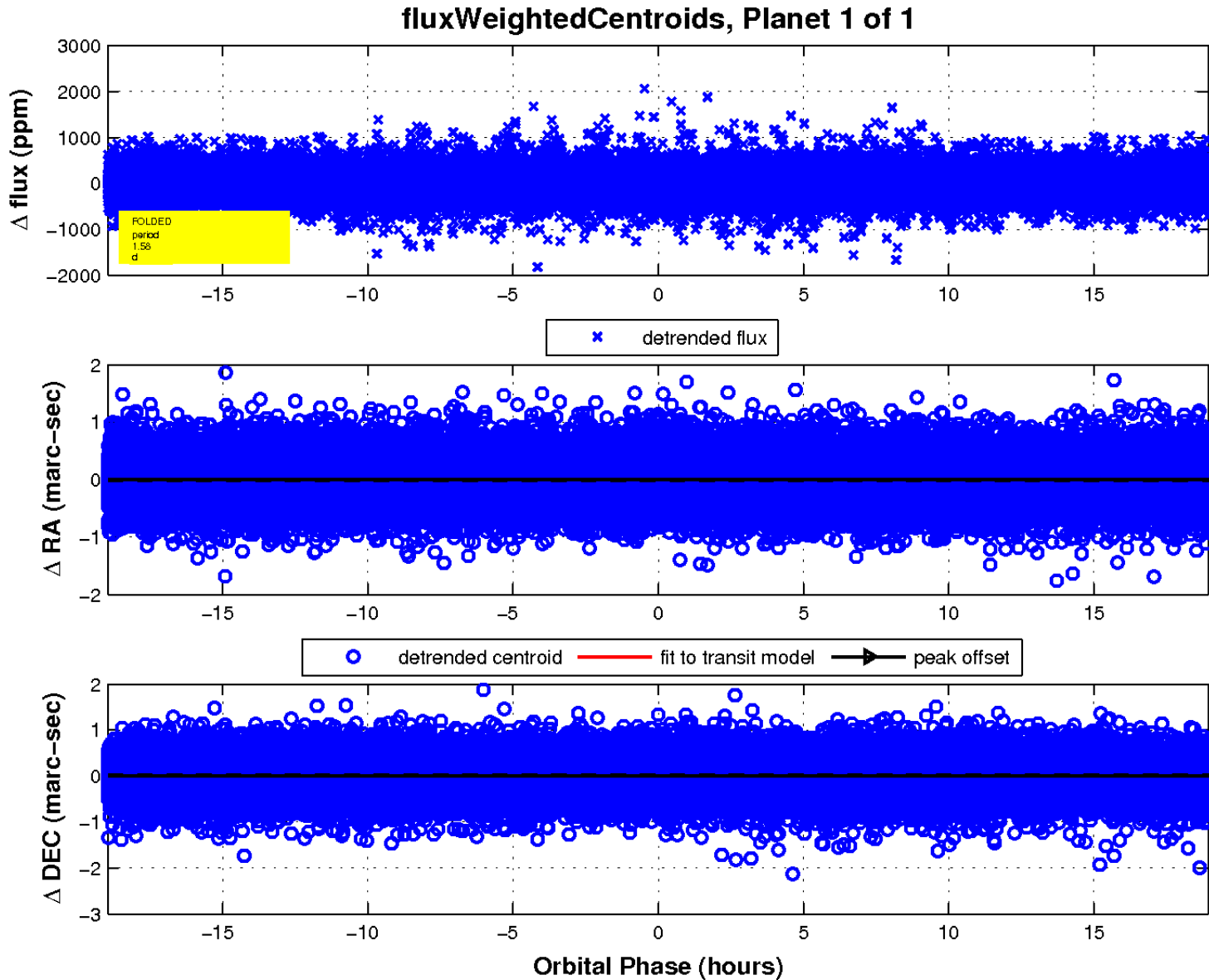
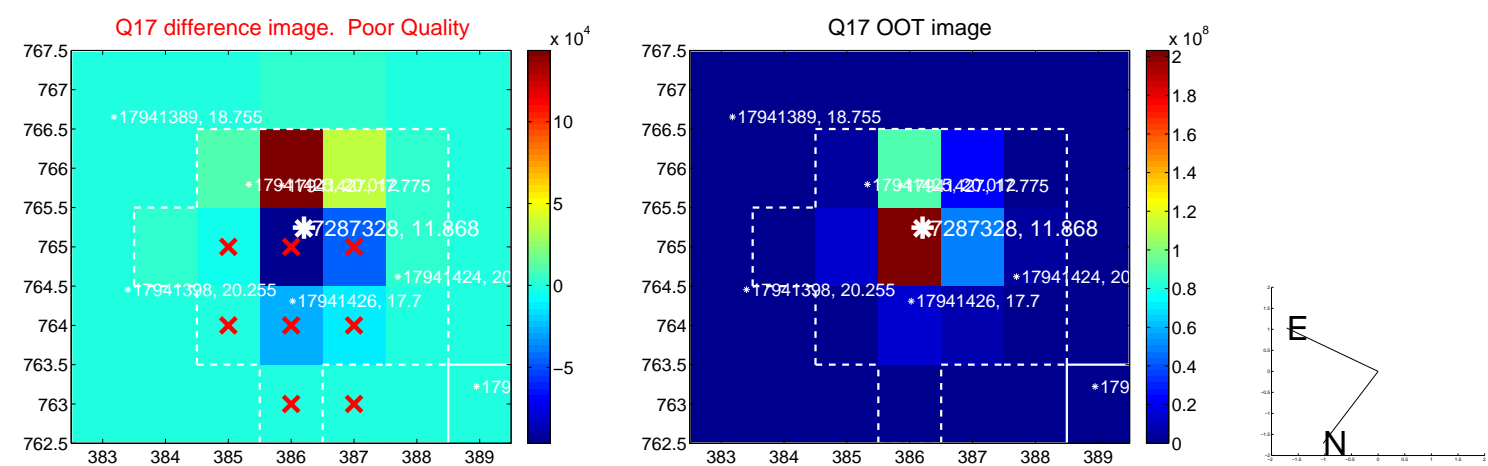
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

